TOWARDS IMPROVED INCLUSIVE APPROACHES TO EDUCATIONAL TECHNOLOGY SUPPORT: A CASE OF STAFF WITH DISABILITIES AT A HIGHER EDUCATION INSTITUTION

DONNA LEWIS
LWSDON002

A dissertation presented in partial fulfilment of the requirements for the degree of

MASTER OF EDUCATIONAL TECHNOLOGY

in the School of Education

Faculty of Humanities

UNIVERSITY OF CAPE TOWN

Supervisor:

Shanali Govender

JANUARY 2025

DECLARATION

1. I know that plagiarism is wrong. Plagiarism is to use another's work and pretend that it is one's own.
2. I have used the APA 7th convention for citation and referencing. Each contribution to, and quotation in, this dissertation from the work(s) of other people has been attributed and has been cited and referenced. Any section taken from an internet source has been referenced to that source.
3. This dissertation is my own work and is in my own words (except where I have attributed it to others).
4. I have not paid a third party to complete my work on my behalf. I have not used any artificial intelligence (AI) programme to complete this dissertation or part thereof (e.g., Chat GPT).
5. I have not allowed and will not allow anyone to copy my work with the intention of passing it off as his or her own work.
6. I acknowledge that copying someone else's assignment or essay, or part of it, is wrong, and declare that this is my own work.

NAME: DONNA LEWIS

SIGNATURE: Signed by candidate .....

STUDENT NUMBER: LWSDON002

ACKNOWLEDGEMENTS

I would like to specially thank:

My family:

My parents, thank you for always encouraging me to further my studies and push through, for the words of encouragement and prayers and the prayers of your friends throughout this journey. To my sister, Cindy Palm, who always offered academic guidance, formally editing this research and yet was always a sister reminding me to persist and not overthink things. Thank you big sis! To my husband who made the late night coffees, took on extra responsibilities to lighten my load and kept me motivated and feeling loved as overwhelming as this journey was at times.

My workplace:

To the staff members of the Department of Health Professions Education (DHPE) at Stellenbosch University. Thank you for the study leave, the weekly writing sessions, the advice and deep interest in my progress. To my DEI team, thank you for, everything!!

My participants:

These phenomenal individuals trusted me and were vulnerable in sharing their personal journeys as difficult as it was to speak out about in moments. Thank you for allowing me to share your stories and in so doing reach this point in my educational journey.

To UCT:

My fellow MEd friends and the Research Accountability chat group for the support, reminders and weekly meetings to check-in on progress.

To my ex-colleague and dear friend, Precious Kubheka, who supported me every step of the way through this research journey. Thank you for your prayers, listening to my podcast voice notes, and checking in on me every day, literally every day.

And finally,

To my supervisor, Shanali Govender, for her kindness and gentle approach to supervising that was so deeply appreciated with all the life events I had going on in conjunction with this research journey.

TABLE OF CONTENTS

LIST OF TABLES

LIST OF FIGURES

LIST OF ABBREVIATIONS

ABBREVIATION	DEFINITION
CILT	Centre for Innovation in Learning and Teaching
CHED	Centre for Higher Education Development
COVID-19	Coronavirus Disease 2019
DHET	Department of Higher Education and Training
HEDSA	Higher Education Disability Services Association
HEI	Higher Education Institution
LMS	Learning Management System
OER	Open Educational Resources
OIC	Office for Inclusivity and Change
PWD	Persons With Disabilities
SALS	South African Sign Language
SWD	Staff With Disabilities
TVET	Technical and Vocational Education and Training
UCT	University of Cape Town
UDL	Universal Design for Learning

ABSTRACT

Inclusive practices in higher education have become a key focus for educators, policymakers, and institutions as they strive to create environments that support diverse needs. However, Staff with Disabilities often face challenges when accessing and utilising the educational technology and support systems available to them. This study examined the lived experiences of Staff with Disabilities at a South African higher education institution, focusing on how they engage with the institution's educational technologies and educational technology support services. The study aimed to explore the experiences of Staff with Disabilities in order to propose practical recommendations and, in so doing, promote improved inclusive, adaptive, and equitable support practices towards addressing the unique needs of Staff with Disabilities. The study is underpinned by the Universal Design for Learning and Nancy Fraser's conceptualised social justice as fundamental frameworks for advancing inclusivity and inclusive practices in higher education. Following a qualitative approach, data was collected from five participants with physical and/or neurodivergent disabilities through interviews, to understand the effectiveness of the support provided. The thematic analysis revealed gaps in support, including inconsistent training and unclear guidance on the access and effective use of educational technologies. The participants highlighted the need for greater awareness of disability within higher education institutions. Moreover, the study suggests that there is a need for change in higher education policies and practices to foster an environment that is more inclusive and equitable for Staff with Disabilities.

Keywords: disability, inclusion, higher education, educational technology, access, higher education staff.

CHAPTER ONE: INTRODUCTION AND BACKGROUND

1.1 Introduction

The University of Cape Town (UCT) has established various measures aimed at promoting inclusivity and supporting both staff and students with disabilities. Central to this is UCT's Vision 2030, which emphasises transformation through inclusive practices in employment equity, disability inclusion, and curriculum development (University of Cape Town, 2023). Vision 2030 outlines a proposed forward-thinking strategy towards the improvement of transformative practices such as increasing the representation of Persons with Disabilities by employing more staff with disabilities:

> UCT's focus on institutional culture change addresses six broad areas: student access, support and success, staff access, support and success, place and space – with a focus on artworks, symbols, names of buildings, our identity and UCT's work, in both academic and social spheres, how we respond as an institution to discrimination, harassment, and violence, engaging with the community and developing community partnerships, curriculum support, including the development of inclusive classrooms. (University of Cape Town, 2023, para. 1).

In addition, it promotes support for these staff through the provision of resources such as assistive technologies and the implementation of disability awareness training. This vision proposes a deeper commitment to addressing systemic barriers, which are of particular importance in higher education institutions (HEI), in line with a global drive to increase diverse contributions and equitable participation. While UCT's Vision 2030 emphasises improved inclusive approaches, May and Bridger (2010) highlighted that attempts at the practical implementation of inclusive policy has revealed gaps between the policy intentions and real-world experiences at the majority of institutions, including institutions in the global north.

1.2 Inclusive Policies

From a global perspective, the United Nations convention on the rights of Persons with Disabilities foregrounds the right to inclusive education for all, at all levels of the education system. With this, principles of non-discrimination and equal opportunities are emphasised (United Nations, 2002). This international framework encourages and sets the tone for the worldwide adoption of inclusive practices towards equitable access for all Persons with Disabilities. From a national perspective, South Africa has demonstrated a commitment to the aforementioned global standards through policies that speak to transformation and inclusive education principles. The White Paper on the rights of Persons with Disabilities prescribes a strategic framework in this regard, including rights for Persons with Disabilities in the educational context (Department of Social Development, 2016).

In the White Paper, the importance of ensuring equitable access to resources, support, and services is emphasised. This includes addressing systematic discrimination and barriers in attitudes that often exclude Persons with Disabilities. The White Paper encourages the need for collaboration across sectors in relation to the designing of accessible environments that empowers Persons with Disabilities to fully participate in society, including in HEI environments (Department of Social Development, 2016). The Department of Higher Education and Training (DHET; 2018) developed frameworks aimed at accommodating students with disabilities and promotes the principles of equity and inclusivity in tertiary education and training institutions. These policies are aimed at addressing systematic barriers to ensure Persons with Disabilities receive the necessary support to fully participate in higher education.

Higher education institutions are guided by policies that advocate for the inclusion of students and Persons with Disabilities. The Higher Education Disability Services Association (HEDSA) of South Africa plays a critical role in the representation of disability services across HEI to ensure inclusion, equal access, and quality of life for Persons with Disabilities in the education sphere (HEDSA, 2024). In addition, the DHET has developed a Strategic Policy on Disability for post-school education and training that defines the responsibilities of HEI in fostering environments that are accessible and provide meaningful support for Persons with Disabilities (Department of Higher Education and Training, 2018).

These international, national, higher education, and institutional policies aim to foster a global call for transformation, equity, inclusion, and social justice specifically in higher education. These policies emphasise the inclusion of Persons with Disabilities in HEI to ensure they receive the necessary support in educational technology. The Employment Equity Policy at UCT outlines reasonable accommodations for employment by Persons with Disabilities (Office for Inclusivity and Change, 2021a). Types of accommodations assured for Staff with Disabilities include flexible working conditions, adjustments to workspaces, and access to funding for assistive technologies.

The institution’s Disability Policy highlights the importance of forming and fostering an inclusive environment for all. This also includes the commitment to providing training for staff to introduce disability sensitisation aimed at promoting awareness and reducing barriers for Persons with Disabilities. This ensures alignment between policy and the institution's strategic goals by promoting an environment of inclusivity, facilitated through the institutions Office for Inclusivity and Change (OIC).

The policy further outlines the availability of funding and resources for all Staff with Disabilities as necessary to equitably facilitate workplace adjustments. This does not take into account the varied and costly needs of Staff with Disabilities specific to their roles. There is also no mention of any specific criteria that includes or excludes Staff with Disabilities from these affordances. Patel and Brown (2017) cautioned against generalised approaches to supporting Staff with Disabilities and the possibility of generalisations resulting in the inconsistent distribution of resources and insufficient accommodations. They warned that stereotyping puts institutions at risk of not achieving the goal of cultivating equitable support. Planning to address disparities does not only rely on funding but also requires clear processes and accountability.

The OIC plays an important role in supporting the institution's commitment to transformation and focuses on advocating for disability, promoting cultural change, and addressing issues of sexual and gender-based violence. The services offered, such as sign language interpretation and accessible transportation, are invaluable for students with disabilities and are equally as necessary for Staff with Disabilities, yet less importance has been placed on the needs of staff. This raises critical concerns and questions regarding how the OICs offerings extend to Staff with Disabilities regarding workspace accommodations and professional development opportunities. It also questions whether the needs of staff are advocated for in general workspace practices. Bridging the gap between policy and practice is necessary for any institution as it is not by proposal that change is made but by action. By strengthening inclusivity through active initiatives, UCT is more likely to improve current cultures and create a more diverse academic community.

As stated on their webpage, “the vision of the OIC is to build, develop and foster an environment where everyone feels included and change is respected, encouraged, and celebrated” (Office for Inclusivity and Change, 2023). It expands on this and includes that inclusivity is created through a flexible and adaptable approach that focuses on disability services and institutional cultural change including policy and research. The vision and mission of the OIC speaks to a strong theoretical foundation; however, it is unclear as to how this vision will translate into specific, measurable outcomes for Staff with Disabilities. There is also no specific mention regarding the consideration of any individual needs and challenges. The OIC’s listed services include assistance with visible disabilities and accommodating deaf, blind, and physically impaired students. These services include, but are not limited to, audio and voice over services, note takers, lab assistants, access to assistive furniture, accessible transportation, and exam and test writing support.

It is clear that these services are directed to the needs of students with disabilities yet make no reference to Staff with Disabilities and what they may request, given their differentiated needs.

This oversight highlights a critical gap in the institution's inclusivity framework. Just as students with disabilities experience unique challenges within the institutional space, Staff with Disabilities may face different and often additional barriers, such as maintaining workplace standards towards promotions or accolades, accessing professional development, or receiving necessary accommodations in specific and differentiated job environments. Addressing these gaps is essential for creating a genuinely inclusive workplace. The role of the OIC is specifically mentioned in UCT's Vision 2030 "to provide institutional responses to transformation, sexual, and gender-based violence, disability and cultural change" (University of Cape Town, 2023, para. 1).

The UCT Disability Policy states that it has established a detailed framework to support Persons with Disabilities in both academic and professional contexts. The policy covers extensive aspects of disabilities including definitions, legal frameworks, communication, disability disclosure, teaching and learning, equity support, and training and development (Office for Inclusivity and Change, 2021b). The policy specifically mentions inclusive recruitment practices and the offering of adapted career development opportunities for Staff with Disabilities. In addition, the policy states that Staff with Disabilities must adhere to the same terms and conditions as any other employee. Included in this is tailored support such as flexible work options and career development opportunities. While the policy commitments appear promising, there is little guidance regarding the implementation of these initiatives and who holds the responsibility thereof. There is also no specific instruction of how this flexibility will be monitored or whether it will be evaluated for improvements and the frequency thereof. The concern is that a lack of governance may result in certain accommodations being underutilised or ineffectively and unevenly distributed.

The policy wording lends to the assumption that funding will be provided to all for support for necessary workplace adjustments. This appears to promote that all students and Staff with Disabilities can thrive both academically and professionally if they make use of these offerings. While these policies underline UCT's proposed commitment to fostering an inclusive and supportive environment for all, the absence of detail in the operational requirements raises concerns regarding their practical application. Addressing the gap in operational requirements is an important step towards ensuring that the institutional commitment actively results in meaningful change.

A study by Saltes (2022) explored the teaching experiences of Staff with Disabilities and highlighted the need for further research aimed at bridging gaps between policy and operations to contribute to the understanding of the lived experiences and real needs of Staff with Disabilities. This highlights the importance of exploring beyond proposed and written commitments to inclusivity by shedding light on the lived realities of Staff with Disabilities in an attempt to facilitate the identification of barriers that may not be immediately apparent in policy documentation.

Although UCTs Disability Policy promotes to the inclusion of disability-related topics in research and teaching programmes, it remains unclear as to the individuals or roles responsible for ensuring the policy is effectively and equitably implemented for the best experience by Staff with Disabilities. The section on training and development briefly states that training be provided in an accessible and appropriate manner wherever possible. The concern, however, is that there is no detail or adoption guidelines with the responsibilities or actions to be taken and by whom. This lack of detail creates a challenge for the operational requirements necessary for effective implementation and therefore increases the potential for inconsistent interpretation and application of policy commitments.

The structures at UCT speak to a dedication towards fostering an inclusive educational environment through the integration of educational technologies. Fundamental to this commitment is the Centre for Higher Education Development (CHED) and its sub-unit, the Centre for Innovation in Learning and Teaching (CILT). Ultimately, CHED plays a key role in enriching teaching, learning, and assessment by promoting transformation, equity, inclusion, and social justice. This enrichment is established through the various departments and units that focus on research in higher education, professional and academic development, curriculum design, and digitally enabled education. As a faculty, CHED has led UCT's transition to online and hybrid modes of teaching, learning, and assessment through the guiding of educational practices to be responsive to the diversity of needs of the UCT community (University of Cape Town, 2024a).

As a structure within CHED, CILT is a necessary support in the professional development of academic staff regarding educational technology. Their offerings include digital media production and guidance in the use of learning technologies and online learning design. The staff development team within CILT guides research-led professional teaching at the institution. Their focus includes the development of resources and knowledge amongst staff (Centre for Innovation in Learning and Teaching, 2022). These resources boast to have been designed towards addressing needs in teaching, learning, and assessment thereby supporting staff in meeting the demands of their roles.

This support structure equips staff with the knowledge, skills, and resources necessary to effectively integrate technology into their teaching practices and, in so doing, enhances the learning experience for all students (University of Cape Town, 2024a). These support structures, CHED and CILT, strive to create educational technology support that is inclusive and responsive to the capacity development needs of all staff, including Staff with Disabilities. In alignment with institutional policies and structures, the support offered strengthens UCT's commitment to fostering supportive and equitable educational environments.

1.3 Defining Disability

Researchers of disability have defined disability in varying and even opposing ways. Accounting for this, Patel and Brown (2017) noted that "the definition of disability has significant individual, societal, economic, and political and policy implications, it is difficult to construct an all-encompassing, unifying definition" (p. 247). Similarly, Makwembere (2022) noted the complexities in the term disability that are constantly evolving. Disability can be used as "an umbrella term for impairments, activity limitations, and participation restrictions" according to Brandsma and Van Brakel (2003, p. 367), focusing on ideas of impairment, limitation, and restriction. The United Nations General Assembly (2002) offered an explicitly socially-oriented definition, defining disability as arising "from the interaction between persons with impairments and attitudinal and environmental barriers that hinder their full and effective participation in society on an equal basis with others" (p. 2). This understanding draws attention to the dynamic nature of disability, that it is not only shaped by the individual as they find themselves but also by societal structures and attitudes.

This formed the basis of the definition proposed by the South African Government in the White Paper on the rights of Persons with Disabilities:

> Disability is imposed by society when a person with a physical, psychosocial, intellectual, neurological and/or sensory impairment is denied access to full participation in all aspects of life, and when society fails to uphold the rights and specific needs of individuals with impairments (Department of Social Development, 2016, p. 4).

This definition continues to sketch three kinds of barriers to participation, that is "social (including high cost, lack of disability awareness, and communication difficulties), psychological (such as fear for personal safety), and structural (including infrastructure, operations and information)" (Department of Social Development, 2016, p. 4).

The UCT Disability Policy defines disability according to the United Nations definition that "disability encompasses persons who have long-term physical, mental, intellectual or sensory impairments which in interaction with various barriers may hinder their full and effective participation in society on an equal basis with others" (United Nations, 2002). The policy further defines disability inclusion as "a dual approach that addresses a person's needs related to the impairment and removes environmental barriers to participation, which includes attitudinal barriers" (Office for Inclusivity and Change, 2021b). It is important to note that this definition not only highlights the medical or physical aspects of disability but also draws attention to the systemic nature of exclusion. In speaking to disability inclusion and the experiences of Staff with Disabilities in capacity development and support for educational technology use, as well as in the context of UCT, the definition provided by UCT will be the guiding definition throughout this dissertation.

1.4 Increasing Online and Blended Learning Adoption

As a researcher, it is important to note the motivation behind the drive to conduct this research. My connection to this study is twofold. My personal connection to this study relates to my own lived experiences of navigating life as someone who is hard of hearing. In my professional capacity, I started this research journey as I became aware of the alternative needs of Staff with Disabilities that were not being met as part of the learning technologies support team at UCT that provides technical support to staff in relation to institutional educational technologies. I later transitioned to a role as learning designer, supporting staff in a personal and interactive way which also challenged my approach to support for Staff with Disabilities. As an employee at UCT in a service role, my experiences in supporting staff led to this study. Working with staff from various backgrounds and different technical abilities exposed me to the challenges they experience, particularly in navigating the shift to the use of online platforms.

The COVID-19 pandemic saw HEI shift teaching and learning activities to online spaces. As a result, the educational technology support provided was also forced to shift to online modes. After the initial onset of the COVID-19 outbreak, a state of emergency was established, halting all non-essential work and movement in South Africa (van Schalkwyk, 2021). At this time, all staff and students were engaged in online teaching and learning. This extreme transition exposed the lack of preparation and consideration, particularly for Persons with Disabilities who often face additional barriers in accessing educational technology and online institutional environments. This lack of planning for sustainable actions in policy implementation naturally calls into question the effectiveness of institutional commitments.

The lack of clear guidelines relating to responsibilities, timelines, and evaluation processes risked the inconsistent implementation of accommodations across various support departments. May and Bridger (2010) emphasised that successfully implementing disability policy requires detailed and sustained systems for monitoring and feedback to ensure continuous calibration with institutional goals and equitable outcomes for Staff with Disabilities.

The mode of teaching and learning at UCT, as with other institutions, shifted between emergency remote teaching, physically distanced learning, and a blended learning approach as the national regulations fluctuated (University of Cape Town, 2022). As the demand for educational technology and Learning Management Support (LMS) increased, so did the demand for faster-paced output and the provision of prompt support. As a result of the rapid shift in demand for online support offerings, the attention of support departments within HEI were left with less time to consider the extent of the needs for online educational technology support for Persons with Disabilities. In my capacity in an educational technology support services role, the focus in team meetings shifted to performance management by statistics. While this approach aimed to improve efficiency, it failed to consider the independent needs of Persons with Disabilities who naturally require a more tailored approach to educational technology support. Staff were encouraged to have rapidly processed as many queries as possible as a measure of efficiency and to quantify the support provided.

A 2020 survey conducted at UCT on the experiences of students within the online learning environment during the COVID-19 pandemic saw students ranking the accommodation for special learning needs as one of the lowest. This spotlights a serious failure in addressing the diverse needs of students within emergency remote teaching settings. With this being the experiences of students with inclusive support needs, and given that students' needs are the primary focus, the experiences of Staff with Disabilities were naturally overlooked.

Many disabilities require adjusted forms of approaches to many aspects of life, often not considered by those not directly exposed to the disability itself. A lack of awareness in institutional spaces is likely to result in systematic barriers, forming cultures where specific approaches are assumed to accommodate all. As the push for quantifying performance increased, the less the support staff in this role focused on the quality of outputs or the possible refinement of processes to suit individual needs. In transitioning to educational support focusing on one-on-one interactions with staff and group training, as a researcher my attention was drawn to the need for possible adaptations in the support approach.

After supporting Staff with Disabilities, I noticed that the time required to offer the same level of support was significantly different, which was also noted by my line manager who queried the support I was offering and the length of time it took - reminding me to resolve support requests more rapidly. This experience was significant in shaping my understanding of the institutional standards and the balance between productivity and inclusivity.

This revealed a gap in leadership's appreciation for equitable support practices. This incident drew my attention to the urgent need for institutional change, in both processes and in the attitudes toward disability and inclusivity. This concern is echoed in broader research by Olsen et al. (2020), who exposed the disconnect between institutional policies and the lived experiences of Staff with Disabilities, reiterating the need for planned action towards fostering inclusivity. Even as policy outlines equitable application, Staff with Disabilities are likely to encounter challenges that are unforeseen or unanticipated by those living without a disability. These encounters are sure to exclude Staff with Disabilities from full participation in institutional workplaces. These experiences extend to the likelihood of having difficulty accessing digital tools or having inconsistent approaches to accommodations provided.

Focusing on the lives of Staff with Disabilities and in considering improved practical approaches in relation to the support of education technology tools with the migration to a new LMS at UCT, this study explores the experiences of Staff with Disabilities. The experiences of Staff with Disabilities and their use of educational technologies in their employment roles were sought towards a greater understanding of these experiences and with an aim to shed light on the realities of life as a Staff with Disabilities within the unique context of HEI. By employing a narrative approach, this research shares the lived experiences of Staff with Disabilities. Through these shared experiences recommendations will be provided towards fostering a more inclusive approach to training and support practices for HEI.

1.5 Problem Statement

Inclusivity is championed by UCT, as emphasised in its Vision 2030 and its policies on disability. The experiences by Staff with Disabilities, however, expose gaps between the institution’s commitment and its support actions. While institutional policies outline the accommodations afforded to Persons with Disabilities, the implementation thereof lacks clear guidance, consistency in implementation, and accountability. With this, Staff with Disabilities face additional and unseen challenges in navigating educational technologies which is compounded by insufficient and often non-inclusive training, limited awareness by other staff, and a fragmented technical support system.

The gap between policy intention and practical approaches to support Staff with Disabilities exposes a critical need for amended approaches to educational technology that are inclusive, and the improvement of training related to the capacity development and support for educational technology use by Staff with Disabilities.

1.6 Research Questions

The aim of this study was to explore the lived experiences of Staff with Disabilities in the use of educational technologies, and the support provided thereto, within the context of a HEI. Towards providing practical recommendations that promote improved inclusive, adaptive, and equitable support practices that address the unique needs of Staff with Disabilities, the research questions sought to explore the experiences of Staff with Disabilities and their interactions with educational technologies. Framed by the research questions, this study investigated how Staff with Disabilities navigate, engage with, and utilise educational technologies in their professional practices. These questions also hoped to produce findings that reveal the challenges faced by Staff with Disabilities as well as their accomplishments. In addition, the research questions were designed to examine the methods, strategies, and resources Staff with Disabilities use or are provided with to learn and adapt to educational technologies, as well as how these tools are integrated into their roles. The research questions below are included to examine existing support mechanisms and their efficiency and evaluate whether current support practices are equitable and tailored to the needs of Staff with Disabilities. These questions also seek to identify areas for improvement, uncover barriers to inclusivity, and based on these insights provide evidence-based recommendations to enhance the inclusivity, accessibility, and equity of educational technology support systems for all staff, including Staff with Disabilities.

1.6.1 Aims and Objectives

1.6.1 Research Aim

The aim of this study was to explore the extent to which the lived experiences of Staff with Disabilities promotes social justice in the use of educational technologies and its support within the context of a HEI. This aim is towards providing practical recommendations supported by existing conceptual frameworks to promote improved inclusive, adaptive, and equitable support practices that address the unique needs of Staff with Disabilities.

1.6.2 Research Objectives

The research objectives for the present study were to:

- Explore the experiences of Staff with Disabilities with educational technologies within their professional roles
- Investigate how Staff with Disabilities have acquired the knowledge and skills they need to effectively use educational technologies in their professional roles.
- Identify the types and effectiveness of support provided to Staff with Disabilities on accessing and using educational technologies and related tools.
- Identify challenges within the existing support systems provided to SWD for the use of educational technologies in their professional roles.
- Recommend strategies that could enhance the inclusivity and effectiveness of educational technology support for Staff with Disabilities in higher education institutions.

1.7 Research Questions

1.7.1 Main Research Question

The primary research question is: to what extent does educational technology induction, training, and support practices promote social justice for SWD?

1.7.2 Sub-Questions

In addition, the present study sought to answer:

- What are the lived experiences of Staff with Disabilities in using educational technologies in their roles?
- How do Staff with Disabilities acquired the knowledge and skills needed to use educational technologies in their practices?
- What type of institutional support, if any, was provided to address the unique needs of Staff with Disabilities in accessing and using educational technologies?
- What challenges exist in the current educational technology support systems for Staff with Disabilities?
- What strategies could be implemented enhance the inclusivity and effectiveness of educational technology support for Staff with Disabilities?

1.8 Conclusion

As the institution completes the process of migration to a new LMS platform in 2025, including the implementation of additional educational technology tools, it is important to consider that new educational technology is likely to require different approaches to the support provided for the LMS and these new educational technology tools. Failing to adapt to the needs of staff as technology advances places the institution at risk of preserving practices that promote exclusion and prolong the isolation of Staff with Disabilities. Through a narrative reflection on the recent experiences of Staff with Disabilities with educational technology support, this present study aimed to shed light on the intricacies of what contributes to exclusion. Through sharing the realities of experiences beyond what many would never otherwise be exposed to, this study seeks to bridge the gap between institutional intentions and the lived realities of Staff with Disabilities, advocating for practical solutions. It is hoped that these experiences will promote a deeper sense of understanding and drive a more sincere call for an adjusted approach to educational technology support that fosters individual progression and improvement.

1.9 Plan of Development

The present chapter introduced the background and rationale of the study and outlined the research problem as well as the primary and secondary research questions guiding this study. Following, Chapter Two covers a review of the literature related to this research topic. It outlines previously researched concepts and identifies the existing research gaps and limitations while taking into consideration the research phenomenon in question. This chapter also unpacks the theoretical framework that will be used to guide the process of this research study.

Chapter Three provides a detailed description of the research process and procedures. This chapter also includes the research methodology, research design, and a description of the sampling method and the participants of the study. In addition, Chapter Three outlines the data collection process and addresses issues of credibility, trustworthiness, and specific ethical considerations. Chapter Four details the research findings and presents the results of the data following a thematic data analysis while providing an interpretation thereof in line with the selected research design and purpose. The findings incorporate the theoretical and literature review. Finally, Chapter Five presents a summary of the research results and concludes the research study. This chapter also includes a discussion of the limitations of the study and suggests recommendations for future research.

CHAPTER TWO: LITERATURE REVIEW AND THEORETICAL FRAMEWORK

2.1 Introduction

The integration of educational technology in HEIs has become a key succession point in teaching, learning, and assessment practices in recent years. Within higher education in South Africa, the use of digital tools is widely recognised as an essential component for the enhancement of inclusive practices and pedagogical innovation. The experience of Staff with Disabilities in navigating these tools is a unique challenge that is shaped by the educational technology institutional support. Educational technology support also includes consideration for support design, inclusive practices, and the individual's level of access to the technology itself. For educators in basic education, Shelton and Lansley (2022) affirmed the importance of providing inclusive, responsive support for educational technology adoption and use by Staff with Disabilities. The present chapter presents a critical examination of existing research conducted on Staff with Disabilities and their experiences in HEI settings. The chapter further explores the interplay between ableism, inclusive practices and cultures, and types of support experienced by Staff with Disabilities in HEIs.

The recent increase in prioritising inclusivity in HEIs has produced studies on aspects of student experiences and supportive environments with a focus on disabilities. While students form the primary focus of many current publications, the experiences of Staff with Disabilities remain significantly less attended to in practice (Gierdowski, 2020) or represented in the literature (Lindsay & Fuentes, 2022). This is particularly true for Staff with Disabilities and their experiences with access to, and support with, educational technology for career progression. Watermeyer (2019) emphasised the gap in South African research not only in the field of disabilities but specifically on the expereinces of staff with disabilities.

The present literature review provides an overview of key concepts, theories, and frameworks to inform this study. It examines research on the experiences with the use of educational technology, educational technology support, and inclusive practices by Staff with Disabilities in HEI settings. Systematic barriers and inclusive practices relating to the South African higher education context will also be examined. The definitions of disability will be explored, along with understanding ableism, othering, and its impact on academic settings. The chapter concludes by identifying gaps in existing literature and proposes conceptual foundations towards fostering inclusivity in educational technology support for Staff with Disabilities in relation to their training and professional development.

2.2 Defining Disability and Concepts of Ableism and Othering in Higher Education

2.2.1 Models of Disability: Medical, Social, and Cultural Perspectives

The understanding of disability has evolved over time from the medical model, which positions disability as a deficit of the individual that requires intervention (Mulderink, 2016), to the social model, that shifts the focus from the individual to the social barriers and systematic exclusion (Jeffress, 2018). A more recent definition of disability emphases the understanding and normalising of disability as a cultural identity (Brown, 2002). Disability is often used as an overarching term for impairments, activity limitations, and participation restrictions (Brandsma & Van Brakel, 2003). While Brandsma and Van Brakel (2003) considered the specification regarding the grading of disabilities according to World Health Organisation, research into educational frameworks of disability have provided distinct differences in the definitions according to the medical, social, and cultural models of disability.

The medical model defines disability by focusing on the individual's lack of function and views disability as a deficit and a lack of ability (Almeda San Jose, 2022). The historical definitions of disability, referring to the medical and religious definitions, highlight deficits and illness that associate disability with being a problem (Haegele & Hodge, 2016). Mulderink (2016) argued that the medical model defines disability as a problem that requires fixing and does not encourage the acceptance of the disability. This model of disability has been largely criticised although not fully dismissed in recent research. Mulderink (2016) continued that the medical model is one that shames disabilities by emphasising ableism as a benchmark that Persons with Disabilities may never measure up to. This is likely to result in Persons with Disabilities being viewed as individuals who need help, charity, or fixing (Haegele & Hodge, 2016). While Jeffress (2018) noted that the medical model and its related initiatives may hold certain benefits, it has not improved the perception of Persons with Disabilities. While the medical model is an older model, it focuses more on a medical critique of the physical impediment. Included in this is the focus on the medical intervention that is required to improve the quality of life of Persons with Disabilities.

The social model considers the environment as a deficit and the lack of affordances in the environment and in social spaces to accommodate all individuals. Oliver (1990) initiated this shift in thinking by proposing that disability be defined as a social construct instead of an intrinsic characteristic, arguing that the primary disabling factor is not the individual’s impairment, but the societal structures and environments that fail to accommodate diverse abilities. In the present context, the social model shifts the understanding from individuals to HEIs, challenging institutions to transform their environments to be more accessible and inclusive for all persons, including Persons with Disabilities.

Corroborating Oliver (1990) 's ideas, Dolmage (2017) emphasised that the social model "posits that disability is purely social, an oppression stacked onto people on top of their impairments, which are real" (p. 61). Saltes (2022) explained that the social model proposes a view that disability not only occupies space in the physical body as proposed by the medical model, but is also a result of social practices that are oppressive and exclusive. Jeffress (2018) emphasised the social model to pinpoint disabling factors in society and the built environments and not in the individual person. Jeffress (2018) continued to explain that, through the social model, negative attitudes towards Persons with Disabilities as well as systemic barriers and stigmas are what is disabling and oppressive to individuals, not the physical impairments themselves. This model has also faced criticism as a denialist lens that ignores the lived experience of impairment (Saltes, 2022). Saltes' (2022) position is that both models are true, and that the physical presence of the impairment as well as the social reactions and interactions with Persons with Disabilities are influential factors that impact on the lived experiences of Persons with Disabilities.

Related to the social model is the cultural model of disability that refers to understanding disability as a different culture. The cultural model shifts perspective from the social model and suggests society should learn about and accept disability as one does different cultures in society. The everyday practices and background of the culture should be common knowledge to allow this awareness to create a society that is as accommodating of disability diversity as it is with the cultural diversities of specific regions.

The cultural model of disability has received increased recognition in more recent research outputs. This model maintains that disability be seen as a civilised and positive aspect of identity and not a deficit (Mulderink, 2016). Brown (2002) promoted cultural disability under two main arguments. The first argument is to ensure others are aware of the norms and experiences associated with the cultural background, such as the pain or discomfort associated with impairments. By creating awareness of other cultures, the cultural model of disability seeks to create exposure. Brown's (2002) second argument is that the idea that Persons with Disabilities need to conform to ableist norms is dismissive of cultural differences, and that other individuals should accept the culture that Persons with Disabilities are attached to their assistive devices or differences (Brown, 2002). Retief and Letšosa (2018) explained that the medical and social models of disability maintains a single focus, whereas the cultural model of disability focuses on a range of cultural factors. Mulderink (2016) provided practical examples of this in a study that examined students' reactions to Staff with Disabilities.

The term “culture shock” (p. 20) was used to describe the initial reaction of students; however, the outcome was still reported as positive as the disability was normalised, and students' interactions were that of respect and understanding towards Staff with Disabilities (Mulderink, 2016). In utilising these models and frameworks when researching Persons with Disabilities, some caution is necessary. Jeffress (2018) highlighted the need for attention on the lack of specific definitions, and of the potential consequences of overgeneralising through assumptions. Through the examination of the medical, social, and cultural models, it is apparent that an understanding of disability requires the addressing of societal, cultural, and institutional barriers as well as a deeper understanding of individual experiences.

2.2.2 Ableism in Academia and Institutional Contexts

Ableism is the preference for normalities associated with able-bodied individuals. Regardless of the aforementioned theoretical developments, ableism remains widespread in higher education and academic spaces where “universities have historically been designed for able-bodied academic staff” (Olsen et al., 2020, p. 265). Dolmage (2017) introduced the term “academic ableism” to describe how HEIs commonly favour able-bodied individuals, marginalising disabled individuals by automatically accepting historic normative standards that often exclude them. Inaccessible curricula and technologies, as an example, create barriers that Staff with Disabilities are forced to overcome to meet the same expectations in their roles as their able-bodied counterparts. Dolmage (2017) argued that there is “no way to ensure that those who inhabit the designed space have an active role in its reconstruction” (p. 129), which has resulted in structures, curricula, and technologies that unintentionally or deliberately exclude Staff with Disabilities.

This historic ableism is particularly burdensome for Staff with Disabilities who have no choice but to navigate academic environments that have been designed without consideration for their unique needs in order to perform to the minimum standards in their roles. Brewster et al. (2017) further explored how ableism is revealed in career progression, highlighting how Staff with Disabilities often face additional obstacles due to many institutional expectations that naturally favour able-bodied experiences and norms. This was further corroborated by Mik-Meyer (2016), who similarly reported on the construction of ableism based on able-bodied norms. This process, as explained by Brewster et al. (2017), frequently requires “personal sacrifices” from Staff with Disabilities, who often feel it necessary to conform to able-bodied standards to fit institutional expectations.

The understanding of exclusion of Persons with Disabilities can also be linked to the concept of othering. Othering, as explained by Canales (2000), is a form of distinguishing or identifying those different from ourselves and is often referred to in relationships where there is a power dynamic, where one holds a sense of authority and another inferiority. Within HEIs, this can manifest in exclusionary practices as a result of institutional policies, inherited approaches to teaching, learning, and assessment, and social interactive norms, further alienating Staff with Disabilities. Mik-Meyer (2016) explained that othering is generally as a result of visible impairments that often draw attention to Persons with Disabilities, differing from the attention most able-bodied individuals receive. Another perspective by Phirangee and Malec (2017) described that othering occurs when a group whose views and ideas are different than the dominant idea are set apart and less valued. The authors further highlighted that othering can exist in both online as well as in-person spaces (Phirangee & Malec, 2017).

Ableism and othering are deeply interconnected. Ableism prioritises able-bodied norms, while othering aggravates this exclusion through the marginalisation of Staff with Disabilities in being viewed as different, which separates them even further in institutional spaces (Canales, 2000; Mik-Meyer, 2016). The extensive nature of ableism and othering in HEIs emphasises the need for systematic change to dismantle the norms of exclusion by fostering inclusivity.

2.3 Experiences of Staff with Disabilities in Educational Technology Use

2.3.1 Training and Support for Educational Technology

The use of educational technology, and the related training for the use thereof, has become essential for staff in HEIs in recent years. This training is critical for Staff with Disabilities who also require the support of specific tools, technologies, or software to fully engage with online resources or to communicate effectively online. Seale (2017) highlighted that HEIs were failing to provide adequate training on designing resources for inclusivity and emphasised that the use of technology alone did not equate to the use of universal design. Seale (2017) further suggested that institutions in their entirety could learn from the technology strategies adopted by Persons with Disabilities. This was corroborated by Phirangee and Malec (2017) when reporting that online spaces were often said to be inclusive yet could be equally exclusionary if not constructed towards inclusion. The lack of tailored support positions Staff with Disabilities at a significant disadvantage, as there is generally an expectation for staff to adapt to learn to use technology on their own with limited institutional guidance on best practices, streamlining processes, and the full potential uses of the technology.

Almeda San Jose (2022) demonstrated the link between inconsistent support from institutions for Staff with Disabilities and the imbalance in their access to, and use of, technology. These imbalances can intensify the common feelings of isolation experienced by Staff with Disabilities when attempting to access the online resources necessary for full participation in their workspaces. Oswal and Palmer (2024) investigated web accessibility and accessibility experts within universities and highlighted that those who provided training on the use of technology and navigating online spaces were often self-taught, exposing a gap in the alignment of policies regarding inclusivity and disability inclusion and the misalignment and lack of uniformity of services provided by individual facilitators, which is more likely to result in inconsistencies in approaches to inclusivity and support regarding considerations for Staff with Disabilities.

Raphael and Mtebe (2016) considered the support provided to HEI staff regarding blended learning and educational technology support in the global south. They highlighted the importance of support services and their impact on blended learning environments yet underscored the importance of the quality of the service delivery. While strong instructor support is vital to effective blended learning and can benefit Staff with Disabilities, it does require that instructors are trained on the correct approaches to meet the needs of all staff and keep training information current (Raphael & Mtebe, 2016). Canales (2000) reported that, in the case of teaching practice and attempting to cultivate inclusion, those in other minority groups were more likely to consider inclusivity and form these practices, which can be seen as beneficial and a positive reference in the South African context.

Burgstahler et al. (2005) promoted that accessible resources form the basics of training and online support services, and that in the case of online learning environments this should also be common practice. This approach aligns with the universal design for learning (UDL) principles and advocates for the design of technology systems with accessibility as a core component. Through the integration of UDL principles into training programmes, institutions have an opportunity to reduce barriers to access by meeting the needs of Staff with Disabilities and ensuring equal access to the educational technologies necessary for success in their roles. In addition, the provision of ongoing technical support and resources is also required. Continuous meetings and other online communications centered around accessibility were reported to positively guide staff towards inclusive support (Burgstahler et al., 2005).

As mentioned above, the South African context adds complexities to these experiences. With many HEIs battling resource constraints, their ability to provide accessible technology and effective training is limited. With little research on the experiences of Staff with Disabilities, it is fitting to consider the work of Watermeyer (2019), who identified noticeable inequalities in access to educational technology within South Africa, making it even more unequal for Staff with Disabilities who require additional technology adaptations towards effective technological use. The scarcity of resources experienced by many HEIs within South Africa underscores Fraser's (2006) call for redistribution as a vital element of participatory parity. Fraser (2006) contended that the allocation of resources in an equitable manner remains essential for ensuring that all staff have equal opportunities to interact with, and benefit from, educational technology. Through the adoption of UDL-aligned training methods and incorporating Fraser's (2006) principles of redistribution and recognition, HEIs in South Africa are more likely to create an inclusive environment that supports Staff with Disabilities with their professional and technological needs.

The support provided for Staff with Disabilities by HEIs, and the fostering of inclusive environments, is a key determining factor for full professional participation. Providing effective support goes beyond policy and documentation and includes the actions taken from these recommendations. Action should be in the form of correctly collated resources that are accessible and support services that are considerate of inclusion and diversity, responsive to alternative needs, flexible in its approach, and understanding of how to be adaptive towards remaining equitable and inclusive. As the experiences of Staff with Disabilities were explored in the present study, it is towards the notion that to provide effective support institutions should consider the inputs of Staff with Disabilities in designing to accommodate real needs.

Saltes (2022) reported on Staff with Disabilities and the bridge between policy and action and noted the value in inputs by those who the inclusive initiatives aim to include to ensure its effectiveness. Included in this is the recommendation of also seeking input from Staff with Disabilities in policy development, ensuring that it is void of any derogatory or demeaning language. Institutional support is essential not only for enabling basic access to resources and infrastructure but also for fostering a sense of belonging, inclusion, and professional advancement. A noteworthy observation is that services offered by HEIs are more often designed to focus on the individual over the disabling barrier, arguing that the culture of the institution often makes the acknowledgement of disability and requests for accommodation difficult (Saltes, 2022).

Brewster et al. (2017) mentioned the culture of academic spaces in addressing the need for change. Olsen et al. (2020) examined the experiences of Staff with Disabilities being unable to access support that could significantly impact their success, often leaving them feeling marginalised. With reference to barriers, the experiences of Staff with Disabilities were an apparent lack of recognition, resulting in feelings of alienation. The lack of consideration of the specific needs of Staff with Disabilities has contributed to institution's systemic exclusion, blocking Staff with Disabilities from full engagement in academic and professional life. Olsen et al. (2020) noted that Staff with Disabilities often consider themselves as a financial burden to their institution. Including Staff with Disabilities in HEI spaces often requires funding towards the adjustment of current norms. This expenditure necessitates justification in exchange; for example, to show improved productivity or output as a result of the investment. This often results in disappointment as, due to other barriers, many still cannot fully showcase their knowledge and abilities which prevents other staff from realising the true value of Staff with Disabilities or the social injustices they face Olsen et al. (2020). While these challenges have been observed globally, Staff with Disabilities within the context of South African HEIs experience unique complexities as a result of limited resources and funding.

Watermeyer (2019) further highlighted that, despite the formal commitments made to inclusive practices, many HEIs within Southern African often lack the required access, funding, or innovative adaptability to design the necessary resources for significant change. The result of this is a superficial policy that remains abstract rather than an attainable plan towards meaningful improvements. This variance between policy and practice reflects the need for Fraser's (2006) principles of redistribution and recognition to guide institutional change. Where policy focuses on redistribution, it is recommended that further guidance be given towards approaches that prioritise the just allocation of resources. This could begin to redress resource limitations in South African HEIs and thereby increase the support for inclusivity practices and their implementation.

Designing for institutional support for Staff with Disabilities should extend further than policy intention and guidelines. True commitment to inclusivity requires the cultivation of spaces where there is equal distribution of resources that are available in ways that are accessible to all. This commitment should be towards purposeful recognition and proactive inclusion to achieve meaningful capacity development and support for educational technology use by Staff with Disabilities.

2.3.2 Barriers to Accessibility and Lived Experiences

Budhathoki (2024) investigated the lived experiences of Staff with Disabilities in Nepal; while Almeda San Jose (2022) reported on the lived experiences of Staff with Disabilities in the global south, drawing attention to the gap in hearing the voices of Staff with Disabilities and the potential to use their findings towards advocating for a deeper consideration of Persons with Disabilities. These lived experiences of Staff with Disabilities in HEIs are directly related to policy and guidelines. Saltes (2022) examined the link between policy and Staff with Disabilities and reiterated the need to understand the experiences of Staff with Disabilities, suggesting that strategies to remove barriers for Staff with Disabilities in HEI would only be effective if Staff with Disabilities were included in the development and implementation of such policies.

Brewster et al. (2017) exposed another obstacle faced by Staff with Disabilities in HEIs - that of career progression. This research reiterated the views by Olsen et al. (2020), who emphasised the need for organisational culture change within academic spaces. They encouraged the monitoring of career progression of Staff with Disabilities towards ensuring equal opportunities and noted no Staff with Disabilities in leadership roles. As an ideal, including Staff with Disabilities in leadership will allow for true advocacy of Persons with Disabilities in education and the elimination of assumptions made by leadership who, more often, are non-disabled. Mulderink (2016) presented findings that pointed to the benefits of using a visible disability to create a better cultural understanding of disabilities within HEIs, advocating for Staff with Disabilities to be included in leadership. Martin (2017) corroborated the need to develop leaders from Staff with Disabilities in HEIs and cautioned against assuming the needs of Staff with Disabilities over direct engagement.

Within South Africa, inequalities remain in the lived experiences as the legacies of apartheid persist within the education system, compounding the call for inclusivity. These historical inequalities contribute to constraints in HEIs resources which often results in Staff with Disabilities feeling overlooked or considered less urgent in relation to institutional priorities. Watermeyer (2019) advocated for disability inclusion with reference to power dynamics, stating that it lies in the hands of policymakers actively choosing to prioritise inclusive practices. He continued by drawing attention to the intersectionality between ableism and colonial legacies in South African HEIs, noting that limited resources often constrain the meaningful implementation of accessibility initiatives. Having explored the systematic and institutional barriers faced by Staff with Disabilities, the following section will examine the practical strategies applied in addressing these challenges in the shift towards inclusive HEI environments.

2.3.3 Beyond Policy - Towards Practical Changes

When intentionally striving to create inclusive environments in HEIs, practical application is emphasised. Effective and meaningful inclusion requires strategies of implementation beyond accessible design to include a commitment to understanding and addressing the unique needs of Persons with Disabilities. Effective inclusion requires not only accessible design but also a commitment to understanding and addressing the unique needs of Persons with Disabilities, enabling them to thrive professionally. Anderson and Boyle (2019) highlighted that disability inclusion demands an institutional commitment to adaptive practices, emphasising that education as a whole has a global responsibility towards addressing social injustices. May and Bridger (2010) built on this perspective with the observation of policy and practical changes toward the improvement of systems and the culture of institutions. They further encouraged continuous professional development initiatives amongst HEI staff to proactively promote the identification of potential barriers and positive change.

These perspectives encourage new approaches and emphasise that inclusive practices in HEIs should not only be reactive in their accommodations but steer towards proactive strategies to address potential barriers, encouraging staff to take individual responsibility for their role in adhering to policies (May & Bridger, 2010). This was echoed by Merchant et al. (2020) who studied the experiences of Staff with Disabilities in HEIs in the United Kingdom and noted that transformation only emanated from changes in practices over changes in policy alone. Olsen et al. (2020) highlighted that it is through the use of power within HEIs that Staff with Disabilities are excluded, and discriminatory norms are created. These experiences of exclusion are often overlooked or devalued. They concluded that there should be no room for ambivalence, and that research and support speak either for or against academic disability inclusion (Olsen et al., 2020).

2.4 Models for Capacity Development and Support for Educational Technology Use by Staff with Disabilities

The theoretical framework shaping this study has drawn on models to explore possible intersections between disability and inclusivity in educational practices and social justice. The participatory parity framework by Nancy Fraser (2006) examines equity and the economic, political, and cultural dimensions thereof. These dimensions provide a critical lens into the systematic barriers that exist and how they can be dismantled to increase participation by marginalised groups within HEIs. Linking with this is the formation of the understanding of disability through the medical, social, and cultural models. This helps to shape the understanding of the differentiated lived experiences of Staff with Disabilities and the cultural or societal ideologies that have shaped these experiences.

In addition to Fraser's (2006) framework, is the integration of the guiding principles of UDL with the proposed future approaches and practical design suggestions to improve capacity development and support for educational technology use by Staff with Disabilities.

2.4.1 Fraser's Participatory Parity Framework

Nancy Fraser's (2006) participatory parity framework guides the understanding of three main variables that impact the distribution of power and resources in society. The redistribution of power and resources results in shifts in society that can restore imbalances and improve current societal injustices. The three dimensions that collectively form this framework are economic participation, cultural participation, and political participation (Fraser, 2006). Economic participation is referred to as the redistribution aspect of the framework. Mayisela et al. (2022) provided contextual examples of economic participation as being affirmative change where actions influence interventions. Examples of economic remediative reformative approaches include the provision of affordable tutor support or free Open Educational Resources (OER; Mayisela et al., 2022).

To understand the cultural dimension of this framework, it is important to note that Fraser (2006) used the term misrecognition in relation to cultural injustices. Injustices can be seen in discriminatory practices that privilege certain groups and stigmatise others (Mayisela et al., 2022). The example provided specifically refers to individuals who are deaf possibly receiving interpretation through sign language over having to make use of assistive technologies in educational settings. Fraser's (2006) cultural participation further states that a truly transformative approach is through acknowledging and valuing the perspectives of all societal groups, including normalising a disability-friendly culture.

The idea of misrecognition in Fraser's (2006) social justice framework provides an important lens for understanding the above-mentioned definitions. Misrecognition in HEIs occurs when institutions disregard different needs and do not fully acknowledge and/or accommodate diverse identities. This disregard, whether conscious or unconscious, results in systemic exclusion and marginalisation. Fraser's (2006) concept of participatory parity conveys the idea that for a society to be fair or unprejudiced, all persons, regardless of their abilities or viewpoints, should have an equal chance to partake in life on unbiased terms. This is towards fostering conditions where everyone can be included and respected as equals in differentiated spaces. Fraser (2006) posited that misrecognition is a form of injustice that undermines participatory parity by disallowing individuals the recognition needed to fully engage in society.

In HEIs, misrecognition manifests when the unique needs of Staff with Disabilities are neglected through the reinforcement of historical able-bodied norms, thereby excluding Persons with Disabilities from full participation. Within South Africa, apartheid legacies have exacerbated the challenge of misrecognition as resource constraints and inequalities within systems delays the active implementation of inclusive policies (Watermeyer, 2019). Addressing the barriers in HEIs and adopting transformative approaches to education will align with Fraser's (2006) principles of recognition and redistribution.

Political participation refers to misrepresentations or inequalities in society. This includes the inclusion and exclusion of individuals or groups, and that political decisions tend to exclude individuals from fair participation in society. Vincent (2020) expanded on power dynamics and domination with reference to inclusion in education and Fraser's (2006) participatory parity framework, emphasising the absence of the formal representation of marginalised groups in policy-making spaces. This political dimension falls under the concept of reframing, in particular reference to national policies and institutional governance. Here, leadership makes decisions that impact society from a point of inception, where marginalised groups who are also affected by these decisions are underrepresented, if represented at all. A powerful example of this was made by Mayisela et al. (2022) with reference to copyright laws and the legal restrictions that prevent access to OER.

Within the framework, Fraser (2020) maintained that equality is not about ensuring all citizens have equal access to the dimensions of participation in society, and rather that the diversity and life experiences of each individual be acknowledged and respected. The framework is considered to be significant in its contribution to the practices of transformation in HEIs (Bozalek & Zembylas, 2021). Included in this is learning the perspectives and contributions of historically marginalised groups, including Persons with Disabilities, to work towards developing a society where participation is fair and equal. Fraser (2020) hypothesised that economic disadvantages and cultural ridicule are interconnected and any attempt to correct these would bring about political complications. With this, Fraser (2020) also emphasised the recognition and redistribution of justice and in supportively visualising cultural recognition and equality in society (Vincent, 2020). Moving towards cultural change revalues the cultures and identities of marginalised groups (Fraser, 2020).

Adams (2020) investigated staffs' accommodation of students with disabilities, including the value in staff acknowledging the importance of removing barriers that prevent students from performing at the same level and quality as their peers.

While the value in removing obstacles is clear, staff were unaware of the specific obstacles faced and the most effective methods to eradicate them (Adams, 2020). Arguably, the same is true for staff without disabilities attempting to remove barriers for Staff with Disabilities. This led to the present research questions stemming from the desire to understand the experiences of Staff with Disabilities and the gaps in support currently provided. This understanding will be used towards suggesting the additional or adaptive practices necessary to move beyond superficial accommodation, to the adaptation or redesign of current practices to consider general inclusive approaches for all staff, regardless of their ability.

The recognition of Staff with Disabilities as valuable and inherent members of the academic ecosystem is key in promoting authentic inclusion. Fraser (2006) argued that, to achieve participatory parity, institutions are required to recognise diversity of experiences and identities and endorse the contributions made by Staff with Disabilities. When addressing misrecognition, institutions must demonstrate a commitment to cultivating an environment where Staff with Disabilities feel empowered and valued to motivate engagement in academic spaces. This type of approach aligns with the drive for inclusive practices within HEIs, prescribing that equity demands both tangible support and intangible recognition.

Communication needs incorporates Fraser's (2006) participatory parity framework in that it aligns with two principles. First, it highlights the need for both the recognition of the needs of Persons with Disabilities in HEIs and the need for the redistribution of resources within institutions to ensure they are inclusive by design. Fraser (2006) maintained that to be inclusive requires the provision of equitable access to resources as well as the recognition of multiple realities. It is insufficient to only ensure that those who are different are fully present; rather, they should also be to fully participate in all institutional spaces (Fraser, 2006). In the South African context, HEIs have the power to dismantle existing structural barriers that prevent Staff with Disabilities from fully participating in academic and professional environments. Watermeyer (2019) reported on the challenges of implementing inclusive practices in HEIs in South Africa, drawing attention to the realities in that while formal documentation has been implemented on the commitment to inclusion, the practical applications required to apply these policies have been blocked by funding limitations and strict administrative processes.

2.4.2 Universal Design for Learning (UDL)

The UDL principles are a set of guidelines used to assist those in design spaces in planning with an inclusive approach. Whether designing a physical or online space, a building, or an approach to teaching and learning, these principles can be used to calibrate thinking towards inclusivity and designing for all (Jeffress, 2018). Jeffress (2018) continued that UDL principles should be used as a proactive measure to remove barriers to participation in education spaces. Burgstahler et al. (2005) built on this in that designing with these principles eliminates a need for further adaptation or specific redesign, opening access for full participation within HEIs. In an educational context, the aim of UDL in curriculum design is to ensure accessibility for all learners (Dianastiti et al., 2022). In addition, UDL has also been explained as a framework designed to enable students to manage their own learning (Karisa, 2023). Universal Design for Learning is based on three set principles, providing for multiple means of engagement, representation, action, and expression (Iniesto et al., 2022). Guidelines and checkpoints have been included in the UDL principles that inform inclusive design:

> The framework proposed by UDL is intended to produce educational content following the principles of UDL rather than being evaluated once those resources are provided and has been proved as an appropriate framework to categorise and address barriers to learning for online environments (Iniesto et al., 2022, p. 211).

The framework comprises three design principles consisting of nine guidelines that further include 31 checkpoints. Within HEIs, these principles are used to define the overall goal while the checkpoints provide suggestions for universal design within the learning environment (Iniesto et al., 2022). This emphasises the need for frameworks such as UDL, that guides in improving the design of environments towards considerations for more accessible environments as a basic principle. With Fraser's (2006) participatory parity framework, recommending changes from an organisational and a representational perspective will aid in addressing institutional inequalities. Together, these frameworks provide a comprehensive approach to addressing the challenges of ableism and othering in HEIs, promoting a vision of academia that is more inclusive and equitable for disabled staff. The framework of UDL offers guidelines that promote inclusivity through the design of adaptable educational resources and institutional structures.

CAST (2024) developed the UDL guidelines and advocates that through designing spaces that expect diversity, institutions can proactively minimise barriers. The UDL principles promote the designing of flexible and adaptable approaches to teaching, learning, and assessment as well as in institutional support initiatives. The adoption of these principles adds value and meaning in the action towards addressing the needs of Staff with Disabilities who may require adapted forms of support.

Burgstahler et al. (2005) reinforced the value of the UDL approach, describing it as a means of creating spaces that can be utilised by all, without necessitating adaption. The meaningful incorporation of UDL principles within HEIs is likely to reduce the need for specialised accommodations by cultivating inclusive conditions in all areas and at all levels.

Holmström and Schönström (2018) discussed the importance of multilingual and multimodal approaches in HEIs, particularly for deaf lecturers. They advocated for intentional considerations towards diversity in relation to institutionally inclusive design to meaningfully support individuals with unique communication needs. The multilingual aspect of the application of UDL can be expanded from thinking of accessibility in a physical sense, to terms of language and communication differences and their potential modifications. To add, Dolmage (2017) explained that multimodality for Staff with Disabilities in educational technology training can include the presenting of learning materials in multiple formats e.g., text, audio, and video, to accommodate for diverse needs. These multimodal options support equitable access and foster inclusion allowing Staff with Disabilities to easily access educational technology resources. Through the implementation of UDL principles into the planning and execution of staff training and support in educational technology, HEIs show intention and effort in addressing potential barriers. These proactive measures foster a culture of inclusivity for all staff, including Staff with Disabilities. To meaningfully address the challenges of exclusion and inequitable design in HEIs, studies are required to be guided by established frameworks and principles. The theoretical framework by Fraser (2006) and the guiding principles of UDL propose practical steps aimed at fostering inclusive environments beyond policy and into actionable strategies.

2.4.3 Interconnecting Fraser's Framework and Universal Design for Learning Principles for Inclusive Practices

Through accessibility and flexibility in approaches, the consideration of Fraser's (2006) framework and the UDL principles allows for an analysis and deeper consideration of the active improvement of support structures for Staff with Disabilities in HEIs. The misrecognition from within institutions is an active rejection of Staff with Disabilities and the necessary resources and support they need to succeed; this relates to Fraser's (2006) principle of participatory parity. This notion of misrecognition highlights the consequences of institutional oversights. By failing to acknowledge and accommodate the distinctive needs of Staff with Disabilities, HEIs perpetuate exclusion and continue to cultivate inaccessibility.

The UDL principles support flexible, inclusive training approaches that accommodate a broad spectrum of abilities. These guidelines emphasise that designing for variability from the outset enhances accessibility for all users (CAST, 2024). This proactive approach aligns with Fraser's (2006) concept of maldistribution, which critiques the uneven distribution of resources that limits marginalised individuals' opportunities for participation. The recognition of Staff with Disabilities as valuable and inherent members of the academic ecosystem is key in promoting authentic inclusion. Fraser (2006) argued that, to achieve participatory parity, institutions must recognise diversity of experiences and identities and endorse the contributions made by Staff with Disabilities. When misrecognition is addressed, institutions show a commitment towards the cultivation of inclusive institutional environments. These environments allow Staff with Disabilities to feel empowered and valued and motivates them to engage fully in academic spaces. This approach to improving institutional cultures aligns with the drive for inclusive practices within HEIs that prescribe that equity demands both tangible support and intangible recognition (Fraser, 2006).

In addition, the UDL principles promote the understanding that accessibility is not only limited to physical environments but inclusive of intangible spaces such as institutional policies and practices. These UDL principles align with Fraser's (2006) framework in that it promotes the building of cultures that are designed to anticipate and support a wide spectrum of diverse needs over providing reactive accommodations. This strengthens the call for support for Staff with Disabilities through the integration of both Fraser's (2006) framework to identify gaps in the recognition of the needs of Staff with Disabilities, the representation of Staff with Disabilities in meaningful conversations, policies, and guidelines of an institution, and in the methods of redistribution required to better provide resources to support the training and capacity development needs of Staff with Disabilities. From this, the principles of UDL can guide the practical design or redesign of all the documentation and spaces necessary to foster inclusivity in HEIs.

Policies should speak to methods for redistribution and show meaningful attempts to alleviate the strain on the current limited resources. The UDL principles reinforce this approach in that it advocates for anticipatory design, where accessibility is planned for and integrated into digital spaces while discouraging later additions as afterthoughts. Merchant et al. (2020) noted the demands of academic excellence and the additional strain for Staff with Disabilities who face their own unique challenges which also include further limitations in accessing resources and the lack of access to the necessary technology. The limitations in access obstruct their abilities to fully participate in ways that demonstrate their research potential.

There are guidelines and checkpoints included in the UDL principles that inform inclusive design that focuses on alleviating learning barriers for online environments (Iniesto et al., 2022). Merging the proactive approach of UDL with Fraser's (2006) principles of redistribution and recognition can strengthen the framework for the adjustments required by support structures within HEIs. This is towards empowering institutions to build safe and inclusive settings for Staff with Disabilities. To achieve this within a South African context requires long-term dedication and the will to foreground inclusivity in both policy and practice.

The gap between policy and practice calls attention to the absence of true commitment by institutions to these redistribution and recognition principles. Policies should speak to redistribution methods in an attempt to lessen the strain on the already limited resources, while recognition entails acknowledgment of the social and cultural barriers that exist for Staff with Disabilities. Combining the principles promoted by these two frameworks can potentially lead to more meaningful and long-lasting inclusion efforts within HEIs in South Africa. Through the adoption of the corresponding strengths of these frameworks, HEIs have the power to progress beyond intended inclusion and towards the cultivation of academic environments where Staff with Disabilities feel valued and can thrive.

2.5 Accessibility and Inclusive Design in Educational Technology and Online Content

At present, HEIs rely on the use of online spaces and educational technology tools and systems to support evolving educational needs and practices. Given this, it is apparent that accessible online content has become a priority. Providing digital resources in itself has the potential to cultivate a more inclusive institution and workspace. For this to be inclusive, however, requires an adherence to specific digital design principles and meaningful support for all users, including Staff with Disabilities.

As discussed previously, applying Fraser's (2006) principles of recognition and redistribution to the context of online education highlights the importance of equitable access to inclusive design for Staff with Disabilities, striving for full engagement and participation in online spaces. Together, the principles of recognition and redistribution spotlight accessibility, an intrinsic factor in online content and course design, thereby ensuring Staff with Disabilities can engage fully and independently with the content. This validates the importance of the inclusive design of online spaces.

This sentiment was encouraged by Burgstahler et al. (2005), and fitting in the South African context, in reporting that considerations regarding access to courses should already be mapped out during the curriculum design phase in order to be less expensive than redesigning inaccessible courses or developing accommodation strategies (Burgstahler et al., 2005).

The UDL principles promote proactive design and encourage the anticipation of diverse needs to eliminate reactive accommodations (CAST, 2024). These principles are relevant within the context of HEIs. Designing all online education related resources and support initiatives with an inclusive mindset eliminates the need for backtracking and redoing and ensures policy adherence in action from the outset. Phirangee and Malec (2017) reminded that an inclusive culture is also possible in online spaces. While, Burgstahler et al. (2005) argued for anticipated and forward-thinking design as well as the redesign of digital education spaces that considers the provision of continuing resources and support. The principles of UDL support this argument in the promotion of adaptable design while anticipating the needs of the diverse users who access the digital space. The proactive design process aligns with Fraser's (2006) principles of redistribution and recognition.

In considering educational technology and the adoption of inclusive design principles within the South African context, delays have been due to gaps in institutional policy, poor institutional inclusive culture, and limited resources (Khan, 2020). Watermeyer (2019) discussed that limited institutional resources prevent institutions in South Africa from investing in long-term initiatives towards accessibility design and adaptive technologies. When institutions fail to design towards inclusivity and ensuring accessibility in the use of educational technology, it risks stifling the professional development of Staff with Disabilities. The essentials required by Staff with Disabilities to thrive in HEIs differ from the needs of the general academic population, yet, as requests for stationery and basic furniture are easily approved, so too should requests for differentiated support as vital resources. Burgstahler et al. (2005) provided several examples of these necessary resources that include assistive technologies for Persons with Disabilities such as screen readers and orthopaedic chairs.

2.6 Summary

To summarise, accessible educational technology and online content and resources is a crucial element in fostering an inclusive academic ecosystem within HEIs. The principles of UDL and Fraser's (2006) framework, including the emphasis on recognition and redistribution, provides all-inclusive frameworks towards understanding and addressing the barriers to accessibility in online spaces.

Specifically for South African HEIs, this holds the potential to greatly improve online access for Staff with Disabilities through the implementation of the UDL principles that recognise the differentiated needs of Staff with Disabilities and the need for equitable resource distribution towards actual inclusion beyond policy. It is only by expanding practices that institutions ultimately show a commitment to an actively inclusive and supportive staff culture.

This literature review determined that although HEIs have made amicable improvements towards inclusivity, considerable barriers remain for Staff with Disabilities. In addition to being an underrepresented group in the literature, Staff with Disabilities still face challenges related to institutional ableism, deficient support systems, and inaccessibility to educational technology. This limits Staff with Disabilities from full participation and highlights the need for improvement. Universal Design for Learning and Fraser's (2006) participatory parity framework proposes beneficial guidelines for cultivating inclusivity and emphasises the need for foresighted design, the redistribution of resources, and the recognition of diverse identities. Addressing these barriers, specifically within the South African context, requires a dedicated commitment by institutions to inclusive design, providing fitting support services, and the inclusion of priorities of Staff with Disabilities in policies and guidelines. Anderson and Boyle (2019) advocated for inclusive research and encouraged academic staff to call for real change. Saltes (2022) findings also reported that employer attitudes had a significant influence on whether the work environment implemented the required accommodations.

This review has explored UDL and Fraser's (2006) principles as fundamental frameworks for advancing inclusivity and inclusive practices within HEIs, stressing the need for versatility, equitable resource access, and institutional and cultural change towards achieving an inclusive academic workplace. The literature explored the current researched experiences of Staff with Disabilities in relation to capacity development and support for educational technology use by Staff with Disabilities. The relationships and overlaps between UDL, Fraser's (2006) framework, and the broader concepts of accessibility and inclusion within HEIs as it relates to the present study have been summarised in Figure 1 below.

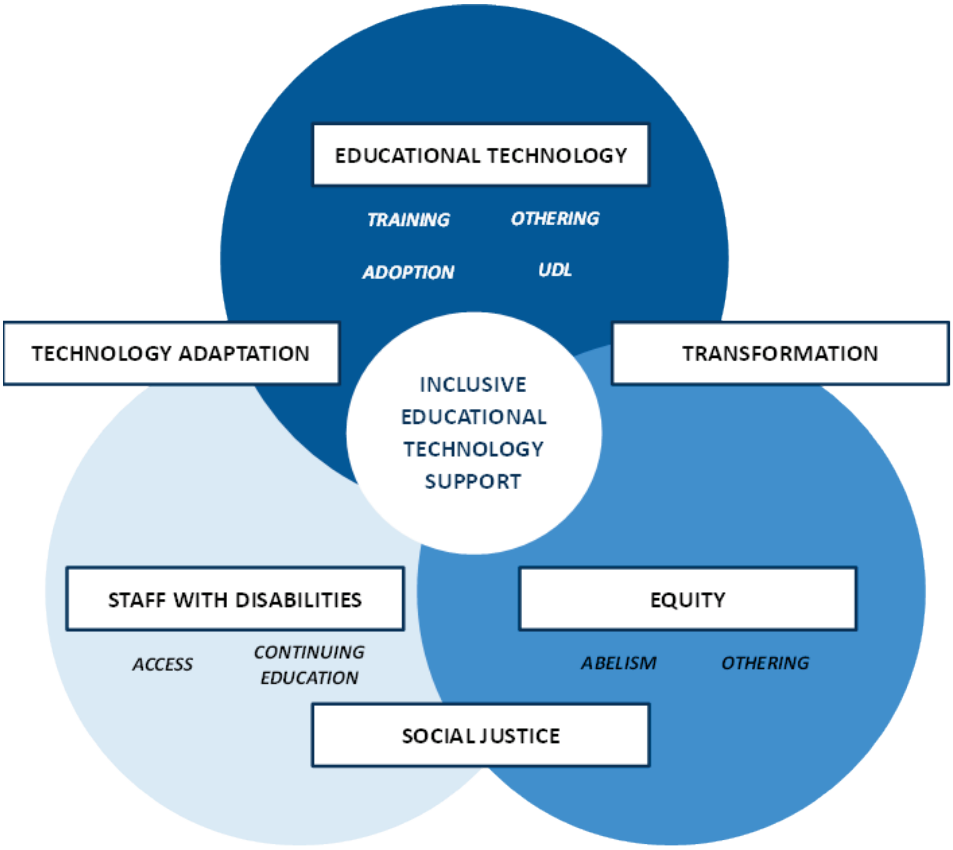

Figure 1. A Summary of the Interconnections of Key Concepts in this Study.

Alternative Text for Figure 1: This image is in the form of a Venn diagram titled Inclusive Educational Technology Support as the centre point where three larger circles are connected and overlap with this title. It shows intersection of three key themes: Educational Technology, Staff with Disabilities, and Social Justice. The image consists of overlapping circles of the same size to represent relationships between and shared focus and elements of these areas. A circle in the middle has the main title: Inclusive Educational Technology Support, linked to this are three larger circles with elements within them. The first larger circle is dark blue with the label Educational Technology: The elements within this title are Training, Support, Adoption, and UDL. The linking word to the second circle is Technology Adoption. The second larger circle is light blue with the label Staff with Disabilities: The elements within this title are Access and Continuing Education. The link between this circle and the third circle is Social Justice. The third larger circle is bright blue with the label Equity: The element within this title is, Ableism and Othering, and this links back around to the first circle, the word linking the third and first circle is Transformation. This is a visual representation designed to show how the three areas are interrelated and related to the central aim of promoting the redesign of inclusive educational technology support systems to be more inclusive. It promotes that the focus be on the interconnectedness of training, equity, access, and social justice in addressing the needs of staff with disabilities and their differentiated needs in educational technology support.

2.7 Conclusion

The present review drew attention to existing literature to understand the experiences of Staff with Disabilities in relation to educational technology and educational technology support. It exposed systemic ableism and insufficient assistance and support despite awareness and advancements in educational approaches and technology as a stand-alone. Nancy Fraser's (2006) participatory parity framework and the UDL principles provided lenses through which HEIs can address the challenges of educational technology support with an emphasis on planning for equity and inclusion.

Despite the significant progress made to date in the development of inclusive practices in HEIs in South Africa, significant gaps remain in understanding the realities of the experiences of Staff with Disabilities in their professional context.

There is little research investigating the experiences and quality of institutional support in relation to staff training and development on educational technology, educational technology support, and inclusivity. As the present study sought to address gaps in inclusivity, it also sought to advise on the design of practical strategies that are intentionally aimed at cultivating a more inclusive HEI environment. These strategies have a specific focus on educational technology support, professional development, and training for Staff with Disabilities.

CHAPTER THREE: RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

The following chapter frames the methodology employed to explore the lived experiences of Staff with Disabilities regarding educational technology and educational technology support within a HEI. The framing was to support the approach used, which was to provide a platform to share the realities of Staff with Disabilities in a narrative form. Cohen et al. (2017) referred to this under the nature of enquiry and the study of social behaviour, explaining the nature of streams of consciousness in reference to lived experiences and emphasised that "one can only impute meaning to them retrospectively, by the process of turning back on oneself and looking at what has been going on" (Cohen et al., 2017, p. 24), defining this as reflexivity. Related to reflexivity, to understand the behaviour of others requires a typification and the notion of an "ideal type" to better understand what people do. In this study, the "ideal type" would be that of persons without disabilities and the focus on observing Staff with Disabilities and their lived experiences as a result of the assumptions that they too fit into the typification of this ideal. The adoption of a narrative approach to qualitative research was towards informing those unfamiliar with the everyday realities of Staff with Disabilities and sharing in their human and inescapable experiences. The study therefore utilised a semi-structured interviews to collect data while allowing for flexibility and an openness in communication during the interview process. The chapter also addresses how the quality of this study was maintained as well as the key ethical considerations. Details are provided on the measures taken to protect the rights, confidentiality, and well-being of participants throughout this study. The framework and principles set a clear base for the findings and analysis to be built on in later chapters.

3.2 Research Approach

This study sought to answer questions about the experiences of Staff with Disabilities in relation to educational technology use and support provided by UCT; therefore, an interpretivist approach was applied. "Interpretivism uses qualitative research methods that focus on individuals' beliefs, motivations, and reasoning over quantitative data to gain understanding of social interactions" Nickerson (2022, para. 2). Understanding an interpretivist approach is key to explaining the data that was extracted. Interpretivism argues that truth and knowledge are subjective, as well as culturally and historically situated, based on individuals experiences and their understanding of them (Ryan, 2018). The approach is concerned with the experiences, meaning, and feelings expressed by participants (Junjie & Yingxin, 2022).

This approach also fit the present research as it supports the focus on understanding Staff with Disabilities and their personal and social experiences of their interactions with educational technologies, as the interpretivist approach is focused on its concern for the participant (Cohen & Crabtree, 2008; Cohen et al., 2017).

3.2.1 Researcher Positionality in Interpretivist Research

The interpretivist approach empowered the research to uncover the realities of Staff with Disabilities, navigate their roles, and understand the manner in which they have adapted to educational technologies and the support provided to them within the specific context of UCT through emphasising individual voices (Cohen et al., 2017). The interpretivist approach supported a deeper appreciation of the unique challenges and successes encountered by Staff with Disabilities to compile authentic and meaningful insights towards the promotion of more inclusive practices. Cohen et al. (2017) promoted that the interpretivist approach focuses on action, supporting the motivation of this study to not only understand experiences but use the findings as a call to action and change.

Researchers cannot be completely separate from their own values and beliefs, and this inevitably informs data collection, interpretation, and analysis (Ryan, 2018). In previously providing educational technology support to Staff with Disabilities, these interactions resulted in questioning the current and possible improvement of practices. Therefore, the interpretivist methodology guided the design of this study to focus on the depth of experiences of Staff with Disabilities. This approach encourages the attachment of meaning to experiences, where this meaning is shaped by one's cultural, social, and historical contexts. The researcher's personal and professional experience provided a unique lens through which to approach this research. The methodology ultimately guided a multi-layered understanding of how educational technologies are perceived, navigated, and integrated by Staff with Disabilities.

My positionality as a hard-of-hearing researcher working in institutional educational technology support potentially influenced this study in many ways. My personal experience with hearing loss provided a perspective that encouraged empathy and allowed for a greater comprehension of some of the difficulties that the participants faced. It is often small and seemingly insignificant aspects of disabilities that are easily overlooked yet can have a significant impact on the individual. The awareness was that this positionality could also bring biases, including imposing personal experiences on others or inadvertently giving more weight to stories that aligned with my viewpoint.

In my professional capacity, I commenced this research as a Learning Technologies Consultant within CILT. This position focused on email and telephonic communication with staff and students in support with technical queries related to the institutional LMS and related educational technologies. This support included communicating using screenshots and the creation of resource guides. I interacted with Staff with Disabilities as they communicated their need for adjusted support, that developed into meaningful relationships with several of the study participants. These interactions allowed me to question my own approaches to support as they communicated previous instances of exclusion when seeking educational technology support and allowed me to adjust my own approach to support. Later, I transitioned to a role within CILT as an Online Learning Designer. This role focused on one-on-one consultations and workshops which resulted in developing a personal relationship with staff with alternative support needs including Staff with Disabilities. This allowed me to advocate for the needs of Staff with Disabilities as they shared their challenges, and I was tasked to provide useful and meaningful support.

A point of concern was the potential for the researcher to be positioned as an authority figure by the participants. Participants' responses may have been impacted by this dynamic, particularly if they believed the research to be conducted on behalf of the institution. The researcher, therefore, engaged transparently with all participants. By acknowledging these potential influences, the researcher aimed to presented participant experiences authentically and holistically.

3.3 Research Design

The research design is the plan or blueprint used to conduct the research. The aim of a research design is to align the pursuit of a research goal with the practical considerations and limitations of the study (Klopper, 2008). “There is no single blueprint for planning research. Research design is governed by the notion of ‘fitness for purpose.’ The purposes of the research determine the methodology and design of the research” (Cohen et al., 2017, p. 73).

3.3.1 Site Selection

As an academic university, UCT was selected as the research site for this study. Notably, UCT is the oldest HEI in South Africa and the top-rated university in Africa (University of Cape Town, 2024b). As a staff member in an educational technology support role at the institution at the time of data collection, the researcher had direct access to the support environment, making it an ideal and practical choice.

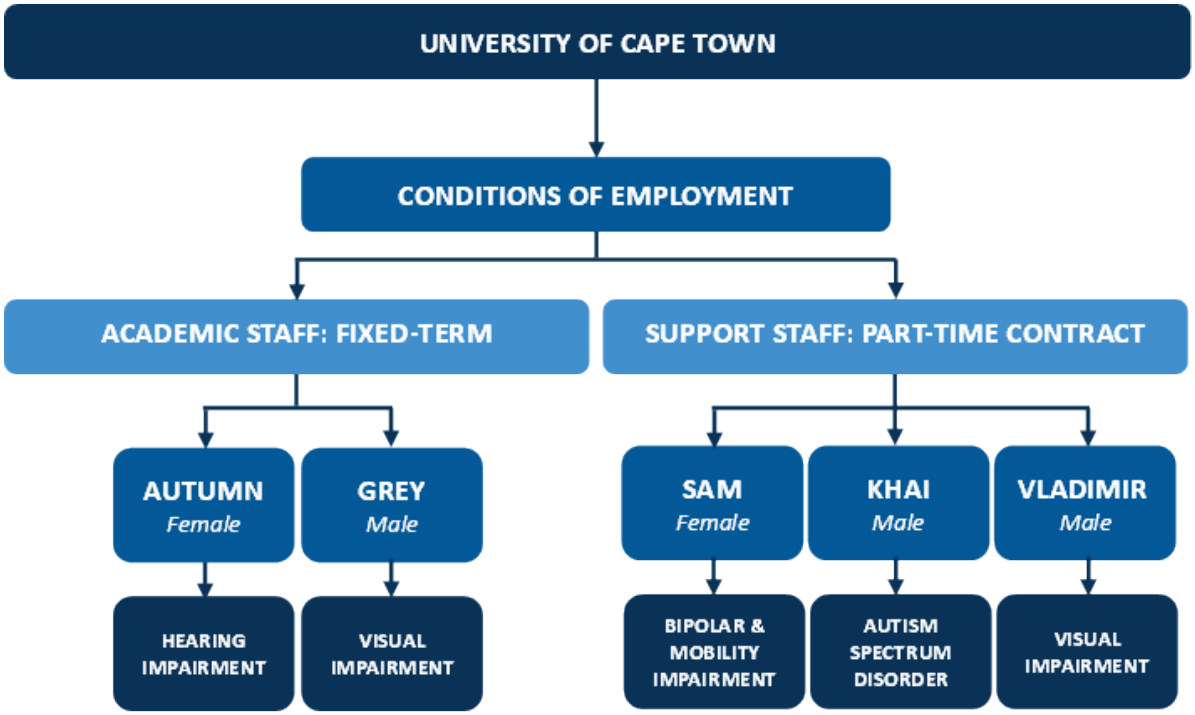

Figure 2. A Summary of the Relationships between Employment Conditions, Participant Demographics, and their Specific Impairments.

Alternative Text for Figure 2: This diagram visually communicates the relationships between employment conditions, participant demographics, and their specific impairments. The connections are indicated by navy blue arrows to link the participants to their conditions and specific employment categories. Each participant (Autumn, Grey, Sam, Khai, Vladimir) is shown in a blue rounded rectangle, and their conditions are in navy blue rounded rectangles. The image provided is in the form of a flow diagram. The diagram is read from top down. Arrows show connection between employment status information, the pseudonyms of participants, and their associated impairment.

Image detail: "UCT" connects downwards with an arrow to "Conditions of Employment." Main Categories: Two branches extend from "Conditions of Employment:" "Academic Staff Fixed-term Contract" and "Support Staff Part-Time Contract," both represented by light blue rounded rectangles. Participants and the associated impairment/s: Under "Academic Staff Fixed-term contract:" Autumn is linked to the label "Hearing Impairment," with the gender Female. Grey is linked to the label "Visual Impairment" with the label Male. Under "Support Staff Part-Time Contract:" Sam is linked is linked to the labels "Bipolar Disorder" and "Mobility Impairment," with the gender Female. Kha: is linked to the label "Autism Spectrum Disorder" with the gender Male. Vladimir is linked to the label "Visual Impairment" with the gender Male.

3.3.2 Participant Selection

Purposive sampling was used to select participants as it enables the purposeful recruitment of individuals who fit the inclusion criteria. Participants were UCT Staff with Disabilities who had recently made use of the educational technology support offered by the university and accessed associated support services. This approach was well-suited to guarantee that the study questions were directly addressed by the participants' experiences. The selection criteria included staff with visual impairments, auditory impairments, physical impairments, and neurodivergent individuals.

Purposive sampling requires thoughtful consideration and relies on clear and effective communication towards the identification of participants who meet the study's inclusion criteria.

The initial call for participants relied on institutional networks amongst employees as an attempt to remove potential barriers to recruitment and contributed to the successful recruitment of participants; however, this was inefficient in validating the study. As a result, a snowball sampling method was adopted for further recruitment by leveraging referrals to build trust among potential participants from this vulnerable population. This sampling method proved successful in ensuring sufficient participants.

Purposive sampling was used as Staff with Disabilities were required to validate this study. Purposive sampling is also referred to as subjective or judgmental sampling (Sharma, 2017). Another understanding is the deliberate choosing of participants based on the qualities the participants possess (Etikan et al., 2016). This ensures the best possible selection of participants to reach the most accurate answer to the research questions (Rai & Thapa, 2015).

Snowball sampling is whereby participants are identified, and these participants find others who are comfortable and willing to be interviewed (Sharma, 2017). This sampling technique is often employed to recruit “hidden populations” who are difficult to access. It is often challenging to gain the trust of participants in a study of this nature where participants are from a vulnerable group (Hall, 2013). The community of Persons with Disabilities allowed for those participating in the study to refer others, assisting in building trust, as recruiting participants proved challenging.

All potential participants were informed of the details of the study and agreed to receive additional information regarding the study before any direct communication took place. Following this, a formal email request was sent to potential participants.

3.3.2.1 Acknowledgement of Vulnerability

Staff with disabilities are considered a vulnerable research population as a result of the systematic barriers that exist in HEIs including marginalisation, inequitable access to resources, and underrepresentation in decision-making spaces. Participants may have felt vulnerable within their working context and this study had the potential to position participants as objects rather than participants in the study. It is possible that participants feared feelings of being coerced, influenced, or manipulated in the study or fear of confidentiality being compromised. These factors had the potential to create uncertainty in their participation, with the incorrect approach possibly resulting in Staff with Disabilities feeling as if they were a token, further marginalised, or that their participation would not result in any change.

Therefore, the researcher listened to the concerns of the participants and provided clarity on the research process. Further, the researcher was cognisant that the descriptive nature of the findings could expose the identities of participants and result in negative consequences as a result of their participation.

3.3.2.2 Addressing Additional Labour and Research Fatigue

Participants may have experienced additional labour, depending on the nature of their specific disability or the demands of their work, and may have considered participation to be time-consuming. The possible complexity in communication may have been a time-consuming aspect for Staff with Disabilities to accommodate in their schedules. Participants may have also experienced research fatigue, as they may have previously been the focus of studies that explored barriers without benefiting from actionable or meaningful change. To address this, participants were informed of the intention to present the research findings to advocate for more inclusive practices in educational technology support within HEIs. As a result, the participants were hopeful that the sharing of their experiences and vulnerability would result in awareness towards gradual improvements.

3.3.2.3 Building Trust

To build trust, participants were informed of the voluntary nature of the study and that they were free to seek clarity regarding the study at any point during their participation. Confidentiality and protecting the identities of participants was emphasised to participants, and they were consulted regarding their concerns or any other potential identifiers, given that the reporting of disability alone could compromise their anonymity.

3.3.3 Data Collection

Studies conducted using an interpretivist approach frequently use interviews as a data collection method whether through individual interviews or focus groups (Nickerson, 2022). Semi-structured interviews provided the flexibility to adapt questions in response to participants narratives and allowed for an in-depth exploration of the participants experiences.

3.3.3.1 Method of Interview

Ruslin et al. (2022) defined an interview “as an interaction between two people on a particular occasion and an interchange of views between two persons conversing about a theme or a topic of mutual interest” (p. 22).

Ruslin et al. (2022) argued that others are understood through these conversations, to learn about their hopes, life experiences, and feelings, and in so doing comprehend the worlds in which they live. This connects with Junjie and Yingxin (2022)'s understanding of interpretivism that it is more concerned with the experiences and feelings of individuals. It also aligns with the interpretivist approach, by emphasising the co-construction of meaning through dialogue and understanding subjective realities.

Online or face-to-face semi-structured interviews allowed participants to select their preferred method of communication. The use of online interviews in this study accommodated participants preferences and communication needs as all participants preferred the online interview option. This adaptability was aimed at ensuring a more inclusive approach as it allowed for participants to select a safe space to conduct the interview and ensured they had the necessary support of trusted individuals. Given the sensitivity of this study, semi-structured interviews were well-suited for this type of research.

Increasing the number of participants aided in enhancing the validity of this study. This increased diversity in age, race, gender, work experience, job title, and affiliated department within the institution. The technique of interviewing needed to be adaptive in order to accommodate the needs of each participant. Following a scrutiny of the participants' diverse communication requirements, the interview procedure was adapted as necessary for improved accessibility. This involved providing participants with choices for various approaches of interacting while simultaneously ensuring they felt suitably accommodated. From the researcher's perspective, adapting to the individual needs of participants included being mindful of flexibility during the interview process, as well as during pre- and post-interview communication.

In selecting to participate via online interviews, participants noted their preference for engagement while in the comfort of their homes and expressed feelings of security in engaging in online environments. This option also offered a level of privacy that eliminated biases in observing any visible disabilities, focusing on the information and communication being presented and encouraging a more objective approach to the narratives presented in the findings. The online interview also removed the challenges of navigating to a physical space. However, while online interviews are safe and convenient for participants, they present challenges in qualitative research as it may prevent the researcher from interpreting nonverbal cues such as body language and facial expressions, which are vital components in qualitative research. The researcher was therefore mindful and attentive to verbal communication, tone, and context where necessary.

In considering participants with hearing impairments, the researcher sough clarity from a deaf participant regarding the best approach to conduct their interview. The method that allowed the participant the most freedom of expression in this situation was through South African Sign Language (SASL).

3.3.3.2 Mode of Interviews

After the initial interview, the researcher reflected that due to the sensitive nature of the topic, they had been overly cautious in their use of words, and this seemingly hindered the establishment of a safe environment. Reflective practices play an important role in prioritising participant comfort and adjusting the delivery of questions to sensitivities and reactions during the interview process. This allowed for conversation and probing during the subsequent interviews, increasingly following a semi-structured interview approach.

The deaf participant, when offered the option of a formal SASL interpreter, opted for a one-on-one interview. The researcher had previously completed intermediate-level SASL training that allowed for basic communication with others. As the researcher's ability to understand SASL was more proficient than their ability to sign, they were confident with the engagement. The challenge, however, was when required to record answers during the interview itself, the researcher needed to pause the conversation and break the flow. This was quickly corrected by video recording the interview. The researcher also recorded notes and reflections immediately following the interview so as not to forget important points.

All participants shared their personal experiences with ease, portraying politeness, transparency, and a desire to share their stories in detail. The openness and honesty in the manner in which the participants recalled their life experiences provided insightful information and shaped the character of each narrative allowing the humanisation of individuals over the formalisation of subjects of research. The success of this research can be attributed to the participant-centred methodology, emphasising the value in creating secure and contemplative environments for participants towards capturing the substance of each participants' experiences. Appendix D provides further detail regarding the interview schedule.

3.3.4 Designing Research for Staff with Disabilities

Conducting research with Staff with Disabilities requires a thoughtful and intentional approach. Inquiry into the potential challenges in this research required the consideration of unintended obstacles and issues that may not have been apparent from the onset but that could emerge during the research process. Given this understanding, the researcher completed an online short course, Equity Meets Design, to guide and shape the intentions with participants in viewing this research as a design process. The free online short course, presented by Dr Christine Ortiz Guzman (2017), explored and emphasised equity and the importance of incorporating equity-focused processes and values into a design journey. The key principles of design thinking guides this approach to equity by design through the promotion of a transformative shift in thinking and practices and centering the experiences of marginalised communities, questioning harmful ideas, ceding power, making the invisible visible, and embracing a language that speaks to the future (Ortiz Guzman, 2017). Utilising these steps as a guide to the equity design process fostered a thoughtful and inclusive research design processes that empowered the present study to focus on foregrounding the voices of marginalised individuals. The course highlighted the need to be proactive and engage with communities of disability during the research design phase to ensure that the methods, tools, and environments were inclusive and adaptable. It is important to remain flexible, responsive, and anticipate that, even with the utmost planning and care, unforeseen barriers may still arise.

3.3.5 Informed Consent Forms and Staff with Disabilities

The consent form was initially designed without readability design for use with a screen reader. A screen reader is a type of software used by persons with visual impairments to access text on screen. This correction was made before participants with visual disabilities received the consent form and the anticipation prevented the potential to exclude participants. The original form incorporated tick boxes that were arranged within a table for participants to indicate responses (yes or no). In the redesigned form, the words yes and no were preceded by the phrases "I agree" followed by the word "Yes," and "I do not agree" followed by the word "No," and were presented one below the other. The final adjustments were made to the concluding section in adding the phrases "thank you" and "end of document" to indicate the end of the document. This was aimed at preventing unintended navigation beyond the intended endpoint, as the original form did not conclude at the end of a page. These modifications ensured that all participants could independently engage with the consent process as far as possible, reinforcing the study's commitment to inclusivity and accessibility. Appendix B and Appendix C present the original and redesigned consent forms.

3.4 Data Analysis and Representation

Data analysis is a process of transformation. Through analytic processes, researchers can turn data, which is often voluminous, into "a clear, understandable, insightful, trustworthy, and even original analysis" (Liamputtong, 2009, p. 365). After the interview data was collected, transcriptions were automatically generated and required review and correction to ensure accuracy. The reviewed transcriptions were sent to participants to be proofread, checked, and formally approved, also referred to as member checking (Ruslin et al., 2022). As qualitative data can be quite voluminous, it is essential to reduce the data into more manageable and significant components for analysis.

3.4.1 Names

Pseudonyms were used to ensure confidentiality while maintaining the integrity of the narratives. Participants were given the opportunity to choose a preferred pseudonym, and two participants did so. This research acknowledges that systemic biases are more likely to silence the voices of Persons with Disabilities; therefore, the use of pseudonyms aimed to counteract the silencing by centering the authentic lived experiences.

3.4.2 Narrative

The narratives presented below are a continuation of the themes of isolation and exclusion presented in the literature, extending the understanding of the emotional and physical exclusion experienced by Staff with Disabilities. Themes were identified and weaved into narrative stories, unveiling the complexities of the lived experiences of Staff with Disabilities and exposing the difficulties they faced. These stories aim to highlight the crucial need for inclusivity and serves as a call to action aimed at a more equitable, considerate, and supportive institution. The process of coding is key in organising data and analysing it effectively. Once participants approved the transcriptions, all the data was transferred into a single document for thorough scrutiny. From here, patterns and grouping themes were identified and links of ideas to the aforementioned frameworks were made (see Table 1 below). The coding of data allows for conclusions to be drawn and for the presentation of data findings in a logical way (Saldaña, 2021).

This study utilised a narrative analysis to examine and present the data. According to Cohen et al. (2017), a narrative analysis allows researchers to tell the stories of participants' experiences, which can later be applied to a transformative design.

The narrative approach ensures that the participants' stories are not just analysed, but that "their experiences are re-told in a manner that captivates and makes sense to the reader" (Liamputtong, 2009, p. 135). It was important to rewrite the experiences shared by participants to follow a chronological order to connect the themes and ideas. Liamputtong (2009) emphasised the importance of sequencing as crucial in narrative analysis. The theoretical framework served as a guide to reviewing the categories and help identify key concepts (Cohen et al., 2017). While there is no one-size-fits-all approach to analysing and presenting the data, each research project should naturally develop its own design, evolving through an "iterative and emergent" process (Cohen et al., 2017).

Table 1. Alignment of Research Questions, Intended Style of Questioning, and Frameworks.

RESEARCH QUESTION	TYPE OF DATA	FRAMEWORK
What experiences have staff with disabilities had with the use of educational technologies in their practice?	• Narrative • Explanations or interpretations of experiences	• Fraser: Economic, cultural, and political injustices • Ameliorative or transformative responses to injustices
How have staff with disabilities learned to use educational technologies in their practice?	• Narrative • Explanations or interpretations of experiences • Artefacts - for example… "here's the pdf I used"	Universal Design for Learning: • Multiple means of engagement • Multiple means of representation • Multiple means of action and expression
What additional support related to learning to use educational technologies, if any, was provided to accommodate staff with disabilities?	• Narrative • Explanations or interpretations of experiences • Artefacts - for example… "here's the guide I used/here's the email correspondence of the support provided"	• Fraser: Economic, cultural, and political injustices • Ameliorative or transformative responses to injustices
What gaps currently exist in educational technologies support for staff with disabilities?	• Narrative • Explanations or interpretations of experiences	• Fraser: Economic, cultural, and political injustices • Ameliorative or transformative responses to injustices
How could current support practices for educational technologies be adapted or supplemented to foster a sense of inclusivity for staff with disabilities?	• Narrative • Explanations or interpretations of experiences • Artefacts - for example… "here's an example of a time that support has fostered inclusivity for me"	Universal Design for Learning: • Multiple means of engagement • Multiple means of representation • Multiple means of action and expression

3.5 Quality

Ensuring quality in qualitative research is of great importance, particularly when exploring complex experiences such as those of Staff with Disabilities in HEIs. The traditional concepts that capture the depth and variation in qualitative research are commonly that of validity and reliability. Other key criteria that inform quality in qualitative research include credibility, transferability, dependability, and conformability (Lincoln & Guba, 1982).

Credibility refers ensuring truth in data that relates to accuracy in the findings. Strategies, such as those prescribed by Shenton (2004), were implemented to ensure credibility in this study. These include ensuring sufficient engagement with participants as well as member checking (Ruslin et al., 2022). The researcher's relationship with three of the participants was well established, allowing a deeper understanding and ensuring accuracy in the manner in which the findings were presented. In the context of researching Staff with Disabilities, the deeper engagement and connection with the participants and the experiences of differentiated disabilities as data sources enhanced the authenticity of the findings.

Transferability refers to the extent to which findings can be applied to other contexts. When research provides rich data with detailed descriptions, it allows the reader to determine how this detail applies to their own contexts (Shenton, 2004). Through providing thorough details of the experiences of Staff with Disabilities, this study offers insights that may resonate with other institutions, specifically HEIs that aim to improve overall awareness and sensitivity regarding inclusivity and the needs of marginalised groups represented within their institutions.

Dependability refers to the consistency of the research process and findings over time and across conditions (Shenton, 2004). In this study, dependability was achieved by maintaining detailed audits of the documentation and adaptations necessary for accessibility relating to the study at all stages of the research process. Modifications/adaptations to the interview process meant participants were able to determine how the interviews were conducted, at a time that suited them, and in a setting that they were comfortable with. As stated above, the format of the consent form was amended to ensure accessibility for all participants. Participants were also able to review the interview questions following their interview to reflect and provide further detail if required. Participant validation was conducted by ensuring participants checked and confirmed the accuracy of the transcripts before data processing commenced (Cohen & Crabtree, 2008).

By prioritising dependability, this research is able to demonstrate consistent outcomes that are well-founded and reflective of the unique experiences of Staff with Disabilities to provide value to the field of inclusive educational technology support.

The thematic approach used to analyse the data and report on the patterns identified ensured the trustworthiness of this analysis. The detailed audit mentioned above further ensured meaningful and deep reflection, as corroborated by Nowell et al. (2017). Confirmability relates to the researcher remaining objective when presenting the data as findings. This research process ensured a deep and critical reflection of personal influences in the research process. In a study of this nature, reflectivity supports in acknowledging and mitigating against potential bias.

Resonance and relevance are also vital to ensuring the quality of a study (Tracy, 2010). Resonance refers to the extent to which the findings are able to meaningfully reflect the lived experiences of participants. This was achieved by focusing on rich and detailed descriptions and quotations where possible to ensure the authenticity of the voices of Staff with Disabilities were represented. Towards presenting findings that are relatable and impactful, the findings were presented in an attempt to capture the complexity of the challenges and successes of Staff with Disabilities.

Relevance gauges how useful and applicable a study is in relation to its context (Tracy, 2010). This study addresses critical issues of barriers to access and the adequacy of current support practices and resources, providing data that is aimed at contributing to the academic field as well as to institutional policies and practices. In aligning with the broader call for equity and social justice, this study endeavoured to offer practical, evidence-based recommendations towards fostering and designing more meaningful and inclusive educational technology support systems.

3.6 Ethical Considerations

This study has been conducted as per the UCT Code of Ethics, the UCT Guidelines for Risk-Based Ethical Review of Research (Human Participants), and the School of Education Research Ethics Guide. As stated by Klopper (2008), the "protection of participants' rights includes the right to self-determination, the right to privacy, the right to autonomy and confidentiality, the right to fair treatment, and the right to protection from discomfort and harm" (p. 71).

Conducting research at UCT required layers of ethical approval. Ethical approval to conduct the interviews was obtained from the School of Education Ethics Review Committee at UCT (Ref: ENDREC20230507; see Appendix E). Further approval was obtained from the Human Resources Department as study participants included UCT employees. In preparation for the interview conversations, informal conversations were also held with the OIC.

Their role was instrumental in ensuring that the research respected institutional policies and safeguarded the rights and well-being of Staff with Disabilities. Working closely with these stakeholders contributed to conducting this research ethically, and in a way that promoted the support of the larger goals of inclusivity and accessibility within the institution. The ethical considerations addressed for this study included informed consent, anonymity and confidentiality, and harm.

3.6.1 Informed Consent

All participants were informed and reminded of their right to voluntarily choose to participate in this study and their right to withdraw at any time without prejudice. This reminder is towards respecting the rights of the participant to choose to participate without feeling influenced. Ketefian (2015) wrote on respect for others when conducting qualitative research and emphasised the ethical responsibility of researchers in providing accurate, truthful information in a way that is understood by the participants and to respect potential participants by allowing them the freedom to make informed decisions to participate, without direct or indirect coercion. Each participant was required to complete and sign an informed consent form that provided detailed information regarding the study, including its aims, how the information the participant provided was to be used to inform the study, and measures that were taken to ensure anonymity.

3.6.2 Anonymity and Confidentiality

Confidentiality in research "refers to all information that is kept hidden from everyone except the primary research team" (Kamanzi & Romania, 2019, p. 745). To ensure this principle was upheld, neither the researcher nor the research supervisor would reveal, under any circumstances, who had participated in the study or allow for anyone to link ideas or comments to specific participants. Kamanzi and Romania (2019) continued to explain that critical to ensuring confidentiality is the principle of privacy for study participants. Confidentiality ensures that participants are not at risk of harm or stigmatisation and establishes trust between participants and the researcher (Kamanzi & Romania, 2019).

The ethical considerations in relation to the interview spaces were also scrutinised. From this scrutiny, checks were implemented to safeguard the confidentiality of participants wherever possible, protecting their identities within virtual spaces. All interviews were recorded and automatic transcriptions, using Otter.ai, were derived from the recordings. The use of the online transcription tool Otter.ai established accurate transcripts and saved time, which was specifically useful when engaging with participants with diverse communication styles. The automatically generated and manually reviewed transcripts were then shared with participants for review and approval to ensure their perspectives were accurately represented.

The collected data was stored in such a way that only those involved in the writing process (i.e., researcher and supervisor) had access to the information. To ensure anonymity, pseudonyms were used to differentiate participants, and all possible participant identifiers were removed (Hall, 2013). As certain disabilities could easily identify participants, care was taken to provide context for this study yet strip the data of any detail that could result in participants being identified.

3.6.3 Harm

While qualitative research methods cause no physical harm, emotional or psychological harm may be triggered. Triggers can include feelings of shame, grief, embarrassment, or the recollection of painful memories. It is the responsibility of the researcher to continually assess possible risks during the research process. Aspects that cause harm also include bringing about feelings of intrusion, feelings of distress, or potential breaching of confidentiality or privacy. The researcher took the utmost care to protect the participants' rights and emotional well-being. This included ensuring confidentiality and privacy was maintained and a willingness to pause or discontinue any process where this was not being appropriately adhered to.

Participants were offered multiple ways to engage in the data collection process (e.g., written, verbal, or recoded formats) and the researcher specifically informed participants of their intention to being open to learning and practicing different methods to minimise discomfort, ensuring they felt comfortable to engage. To approach the research respectfully, all communication including the interviews were prepared in a caring and respectful manner. Prior to commencing data collection, the researcher also reviewed all UCT-related resources on this topic. In reporting the results, all personal details or details that could possibly identify the participants were excluded.

Strict confidentiality was maintained including ensuring limited access to UCT accessible resources and storage drives where research data was stored. These measures were all towards respecting the agency and dignity of all participants.

3.7 Limitations of the Study

Given the nature and sensitivity of studies on Persons with Disabilities, there were various limitations to this research. Potential limitations included:

- As a small-scale single-site study, the scope of participants was limited. To overcome this, every attempt was made to include as much of a variation in disability as possible to gain an understanding of the overall experiences of Staff with Disabilities.
- This study only represented experiences from a single institution and these findings may not represent the experiences at other institutions. Therefore, the findings of the study may not be generalisable to other institutions or settings.
- As this study was aimed towards the experiences of Staff with Disabilities, the pool of Staff with Disabilities cannot be confirmed and, as such, it is unclear as to the percentage of staff that have been represented here.
- Due to confidentiality and the methods required to request participation in this study, it is unclear as to the possible other types of disabilities that some Staff with Disabilities may live with at the institution and, as such, this study may not have accurately represent all types of disabilities experienced by Staff with Disabilities at the institution.
- As the time in which to conduct this small-scale study was limited, it may not have explored the full range of perspectives and experiences related to this topic as a larger-scale study.

These limitations draw attention to serious gaps and calls for further research into the intersectionality of Staff with Disabilities and other factors that influence their experiences, including race, gender, and socioeconomic status, particularly in the South African context. This aligns with Fraser's (2006) call for representation to ensure all voices are included in the shaping of institutional inclusive practices.

3.8 Conclusion

The methodologies presented in this chapter reflect the commitment to this study and detail all efforts made to adhere to ethical and valid research practices in principles of respect, confidentiality, and to ensure that engagements were inclusive. From this, conducting research on Staff with Disabilities does require additional consideration, care, and an adaptation to common approaches to research. The aim of this study was to provide a trustworthy and authentic representation of the lived experiences of Staff with Disabilities at a HEI.

To achieve this aim, this study made use of methodologies that were participant centered. Each step stressed the importance of, and efforts made to adhere to, strict ethical practices towards sharing the voices of Staff with Disabilities, a marginalised group within HEIs.

CHAPTER FOUR: FINDINGS AND DISCUSSION

4.1 Introduction

The present chapter is categorised around the key themes that emerged from the stories of the lived experiences of Staff with Disabilities. These themes consider the emotional burden and structural gaps in accessibility. Each theme sheds light on distinct aspects of the challenges Staff with Disabilities have had to navigate. Ultimately, findings have drawn attention to possibilities for change as each participant shared innovative solutions and powerful calls to action. These calls remind us that true inclusion towards meaningful change begins by listening to and acting on the experiences of the staff who are directly affected (Fraser, 2006). The aim of this chapter is not only to examine these findings but to go beyond theoretical discussions towards unveiling the practical implications of inclusivity. It is to go beyond simply identifying struggles by driving the understanding of the human impact of these struggles and advocate for working solutions that truly benefit the Staff with Disabilities.

Staff with Disabilities are underrepresented and often overlooked in HEIs, and the experiences of these participants represent this underrepresented group at UCT. Through their lived experiences, it is clear that action steps are necessary as a way forward. For action steps to be taken, a recognition of current educational technology support deficits are required at an institutional level. Table 2 below provides a demographic overview of each participant.

Table 2. Participant Information.

NAME	GENDER	ROLE WITHIN THE INSTITUTION	DISABILITY	CONDITIONS OF EMPLOYMENT
AUTUMN	Female	Academic Staff	Hearing Impairment	Fixed-term Contract
GREY	Male	Academic staff	Visual Impairment	Fixed-term Contract
KHAI	Male	Support Staff	Autism Spectrum Disorder	Part-time Contract
SAM	Female	Support Staff	Bipolar Disorder Mobility Impairment	Part-time Contract
VLADIMIR	Male	Support Staff	Visual Impairment	Part-time Contract

4.2 Thematic Findings

The thematic findings group similarities in experiences in relation to educational technology use and support. The themes derived are in relation to the dynamics of social justice and inclusion, highlighting the shared experiences of Staff with Disabilities albeit that the disabilities they live with are different. The data extracted has been represented in logical structures as with the above table, yet in scrutiny it was clear that their technical data was only a part of the representation of the experiences. The narratives and voices relay experiences from a deeper perspective.

4.2.1 Isolation and Self-Reliance: Participatory Parity

The experiences of Staff with Disabilities acquiring the knowledge and skills necessary to navigate educational technologies at UCT revealed experiences woven in isolation, exclusion, and an overall lack of awareness. The lived experiences shared by the participants revealed persisting barriers ever present in HEIs, even as inclusive initiatives and plans had been built. For many individuals, learning to navigate the use of institutional educational technologies was difficult, frustrating, and without immediate support was an isolating experience. These sentiments are exacerbated for Staff with Disabilities as they often need to adapt to online spaces differently. The theme of isolation was identified in the literature review, with Almeda San Jose (2022) noting the feelings of isolation experienced by Staff with Disabilities when engaging with work-related online spaces.

Sam described her journey of learning to use educational technology for her work as isolating and explained that she often relied on Google searches and trial-and-error when learning. Sam recalled that “by the time the help desk support gets back to me, I’ve usually figured it out already.” This reflection highlighted a frustration with institutional online support systems. Grey echoed this sentiment when recounting the significant time spent reviewing support guides and Googling solutions while using a screen reader. Grey explained that, on more than one occasion, even after disclosing his disability and explaining that he made use of a screen reader, his reality was overlooked and the support provided was frustrating, leaving him to find his own solution. The social model of disability (Oliver, 1990) frames these isolating experiences as the result of a lack of inclusive institutional intentions.

A gap in individualised support deepened feelings of exclusion for Autumn. The theme of exclusion was noted by Dolmage (2017) in relation to ableism as well as in Fraser’s (2006) social justice model.

Autumn's responses in her interview were a combination SASL and audible words; although she cannot hear she often uses her voice to pronounce words to ensure those not as familiar with SASL can understand. Autumn's gestures showed deep frustration, her hand gestures got bigger and sharper, and the use of voice increased as she described her encounters with the institutional helpdesks. Autumn explained that the generic responses provided by the helpdesks often failed to address her unique needs. She questioned whether her responses were ever truly read and felt as though she was being assisted by a chatbot. Khai shared similar sentiments and doubted whether the institution ever understood the challenges faced by Staff with Disabilities, noting that "it's like we are on our own," and "as if our struggles are invisible."

Vladimir spoke of attending in-person educational technology training and how it did not benefit him, that all he heard was "as you can see you're going to take this and click there and click there, and then you put that there;" then noted, "in my head I am saying, what what what?... for me and for those who look like me, we have no idea, what on earth is happening here." Vladimir acknowledged his need for additional learning time and that much of that learning often took place alone. He also admitted to self-isolation so as not to be a burden to others:

> I often felt that it might occur that I'm too much so I want to limit the too muchness we have this thing that disabilities studies that we want to act normal everything must look normal, even if you is not normal and make sure that we want to create this normalcy we want to fit in – Vladimir.

Each participant, in response to the experiences of learning to use educational technologies, shared stories of isolation. When asked about technology, all participants spoke of negative feelings and connotations towards the use of educational technology. For Persons with Disabilities, technology is utilised differently and requires a different understanding to use each tool. It is therefore not surprising that the approach to learning to use these educational technologies also demands a different approach to teaching its use. The experiences of the participants reflects the social model of disability by Oliver (1990), in stating that the primary disabling factor is not the individual's impairment, but the societal structures and environments that fail to accommodate diverse abilities. The disabling factors in the environment amount to isolating experiences for Staff with Disabilities.

The shared stories on learning to use educational technologies had each participant specifically mentioning being self-taught in one way or another. Autumn noted that "no one helped with the use of [educational technology]. no one asked me if I needed help, I had to figure it out alone."

While Vladimir agreed and explained that "[it] is that because we are different, and we do things differently. And most people don't know about our assistive devices. Now, we ended up being our own education." Sam confirmed that "I figure it out. I Google stuff… But yeah, I mostly just, I've just taught myself from guessing. Just let's push this button and hope nothing bad happens." Most of the participants recounted having to self-educate with the use of educational technologies, as the deficit in training and disability awareness from the staff responsible for providing this support was evident. This emphasised the reporting by Raphael and Mtebe (2016), who advocated for quality in the service received by staff in the global south.

4.2.2 Feeling Unseen and Unheard

Invisibility, from what the participants shared, was not only experienced at an institutional level. Vladimir shared that his words and actions were often as a result of his desire to "blend in and act normal," even though his disability made this nearly impossible. He further noted the internal struggle between needing assistance or wanting clarification and not wanting to draw any attention to himself. "Silence means that I don't disclose my insecurities, my challenges, therefore, I look more normal to the crew, I looked like I'm coping, or, like everything is okay."

Khai shared this sense of invisibility and noted that systems within HEIs rarely account for "hidden" disabilities that many staff experience. Designing with UDL principles ensures the accommodation of needs ensuring Staff with Disabilities are accommodated before being required to disclose their unique needs and provides for the needs of those with invisible disabilities upfront. In the literature reviewed, Saltes (2022), Olsen et al. (2020), Brewster et al. (2017), May and Bridger (2010), and Mulderink (2016) highlighted that without culture and a sense of awareness of the actual experiences of isolation and exclusion that Persons with Disabilities experience as a result of mainstream assumptions, Staff with Disabilities will remain on the outskirts of experiences as long as inclusion means making separate accommodations.

Sam provided a noteworthy example of this disconnect when sharing her experience of the numerous missed calls she saw on her phone after an appointment. These unscheduled missed calls were accompanied by follow-up emails informing her that attempts were made to call and that further efforts were paused until she responded. Sam explained that "no one asked if they could call me, if that was how I was comfortable communicating."

Sam continued by explaining that as someone with bipolar disorder and anxiety, unanticipated calls were an overwhelming experience, where answering a call was just not possible. She expressed frustration that “no one asked” and questioned the mechanisms in place at the institution to confirm preferred communication methods.

Interestingly, Autumn told a similar story, that often when she emailed a helpdesk requesting assistance, she received missed calls and an email informing her that attempts were made to call her. She explained:

> I am deaf, I cannot, cannot hear, I cannot answer the phone, I sent an email, the response was a call, I don’t understand, yet if I respond and question it, I delay the support I need, most of the time it is urgent, I struggle with technology, they get to be frustrated, but I don’t… Not many people know that I am deaf. I met a man from the [a different department] recently who was shocked, he had no idea I worked at the university – he didn’t know there was a deaf lecturer at UCT – Autumn.

Grey’s experience with his visual impairment requires specialised assistance yet shared that he often felt as though the assistance granted to him was an afterthought or a nuisance. Grey shared that “it’s not that they don’t care, it’s that they just don’t understand.” He continued by sharing that he did not view the ignorance of support staff malice in any way, but rather as a result of a bigger issue - ignorance perpetuated from systematic exclusion and institutional cultures.

Autumn shared of her experience with educational technology support videos sent it in response to a request for support:

> When I was trying to follow along on videos to learn [how to use the institutional LMS], those videos the subtitles were incorrect, or explanation does not move exactly with the image on the screen and this information is over my head, I want to ask but where do I even start. It is very confusing – Autumn.

The participants’ experiences reiterated the argument made by Olsen et al. (2020) that universities have historically been designed for able-bodied individuals. Autumn’s experiences of lipreading and incorrect video captions reflects Fraser’s (2006) concept of misrecognition. The systematic structure has failed to acknowledge Autumn and address her lived realities as an individual with a disability and Staff with Disabilities at the institution. Autumn’s story tells of the realities of being excluded because she was told HEIs were not for the deaf.

As society is said to have progressed and initiatives have been set up to provide support, as with any educational practice, have these initiatives been reviewed towards improvements or is their presence enough to consider the HEI inclusive to those looking in?

4.2.3 Gaps in Awareness and Related Emotional Labour

The narratives shared by participants revealed a general lack of awareness of the needs of Persons with Disabilities and more specifically the needs of Staff with Disabilities at the institution and the feelings of isolation that this caused. Autumn' use of SASL appeared to be draining as she explained that "it's exhausting, always having to advocate for myself." Vladimir reflected on his reliance towards assistive technology and shared that "people don't understand that time and extra steps I have to take just to keep up." He further explained that he often felt that engagements lacked meaning as they often did not address his needs and left him feeling excluded from broader conversations. This is similar to the reporting by Brown (2002) regarding the pain and discomfort associated with impairments.

For Khai, the gap in awareness seemed small yet significant as he explained "sometimes all that is needed is a small sign, or a ramp that isn't hidden and that does not literally feel like a makeshift temporary structure." Considering other Persons with Disabilities, he continued with "or software that works with screen readers, or even just someone asking like, what would help you succeed as a result of this support call." The absence of these seemingly small gestures left Khai feeling invisible. These subtleties of exclusion were present in all the participants' recounts of experiences and left all feeling invisible or seriously misunderstood. Othering, as explained by Canales (2000), highlights relationships and power dynamics where one party holds authority and the other, a subordinate, feels invisible. This dynamic was evident in Khai's experience as the lack of ramp infrastructure and software perpetuated a sense of exclusion. These types of othering resulted in Khai and other participants feeling invisible and misunderstood and underscores the impact of power imbalances in educational technology support. Being misunderstood as part of othering (Mik-Meyer, 2016), speaks to the experiences of Staff with Disabilities that those without disabilities would not anticipate and, as such, exclusion is the result.

When asked about additional support or possible accommodations made for Staff with Disabilities in the use of educational technology, no participant reported any additional support afforded to them. Grey responded by saying "that's a really good question. Did I need support? Absolutely. You know, was it available? No, not really, and for various reasons." Autumn noted that it was "difficult to answer because there is lack of additional support." For Khai, he responded with:

> We basically had to figure out how to use [educational technology] on our own… just basically, here's a link figure this out… It was basically experimental and a lot of like, you figure this out on your own type thing. And that was very frustrating. I know I struggled especially in the beginning... still online tools often aren't very disability friendly.

Some participants shared that they often felt as though they were not considered, or that even though they may have alternative needs, that these were deemed to not be as urgent as others and as a result felt as though they only caused more stress and effort. The use of the UDL principles were advocated for in the literature, specifically for its adoption to add value when addressing the needs of those who may require adapted forms of support (CAST, 2024). Khai noted that "the university only [shows support] for people who are considered as urgently in need, or people who they deem it's not going to be a burden on the system." Grey explained that "I went through quite a long struggle with the faculty through 2015 and 2016 because I asked to be provided with some personal assistance, for access problems like this, and it took the better part of two years." Vladimir noted:

> I often felt that it might occur that I'm too much so I want to limit the to muchness… we want to act normal, everything must look normal, even if you are not normal… we want to create this normalcy we want to fit in.

In the literature reviewed, Holmström and Schönström (2018) advocated for the use of UDL principles towards multilingual and multimodal approaches to foster a culture of inclusion. The main aspect this theme highlights Fraser's (2006) social justice framework. Fraser's (2006) idea of recognition, or misrecognition in this case, is tied to the notion of systemic exclusion. Whether conscious or unconscious, Staff with Disabilities are often disregarded and therefore not fully accommodated for. The shared experiences of Staff with Disabilities highlight the lack of accommodation in not being provided equal access to partake in all areas of the institution, and more specifically, in educational technology use.

4.3 Navigating Institutional Support: Challenges and Possibilities - Ameliorative vs. Transformative Interventions

The sharing of the support that participants received revealed gaps in how HEIs address the specific needs of Staff with Disabilities. These narratives highlight where staff were afforded considerations and where systematic barriers in the use of educational technologies and the related support persisted.

These experiences supports Burgstahler et al. (2005) when stating that initial training was often insufficient without continuous technical support and resources. It is equally as important to ensure follow-up and additional resources are made available in formats that are accessible to all.

4.3.1 Insufficient Access to Technological Support: Maldistribution of Resources

Vladimir shared that delays in support often resulted in feelings of frustration and missing deadlines:

> Sometimes I had to wait for someone else to support me and make a document screen-reader friendly and other times I had to email or ask [the departmental secretary] to print it in braille so that I could carry one with my work. And this already delayed me so I had to work fast and didn't get time to really give the work my all, I was worried about the deadline… you see, if I didn't have my work done on time I didn't want to give an excuse and to explain or for someone to say oh shame - Vladimir

Vladimir experienced a much lengthier process to complete work than others and often navigated these struggles in silence. The anticipation of needing to rely on external support relates to the aforementioned topic of emotional labour. Through the emotional labour experienced by having to rely on the support of others to be successful in his role, Vladimir's experiences reflect Fraser's (2006) principle of maldistribution of resources. This calls for the equitable allocation or redistribution of institutional resources and a shift in designing in anticipation of diverse needs (CAST, 2024).

From a learning design perspective at UCT, many responsible for the designing of training and guides fail to consider Staff with Disabilities unless they have attended relevant training. An in-depth perspective of generalised approaches in this role can be viewed in Appendix F. The redesign calls for an understanding of the difference between ameliorative vs transformative interventions (Vincent, 2020). There is not enough awareness and exposure to the realities of Persons with Disabilities within HEIs, particularly regarding educational technology support, and that Staff with Disabilities possibly require alternative support to succeed in their roles. From this, it is clear that the culture of inclusivity has not been effectively cultivated across the institution. If inclusivity was intrinsic at the institution, considerations for the experiences of those who learn technology differently would not be a subsequent consideration, and would be at the core of every stage of design calling for the adequate design and redistribution of material resources Fraser (2006).

4.3.2 Absence of Training: Misrecognition of Needs

Sam reflected on when she was told to make use of two different technologies to streamline processes and complete a specific part of a project. Thereafter, no additional support was provided, and the expectation was that she either knew or would figure out how to use these technologies on her own. Her challenge was that "no one showed me how to use it, I ended up Googling it and guessing" and while in theory it sounded useful, the self-taught approach had taken up as much time as it would have taken to complete the task without it.

Sam's experience draws attention to the absence of proactive training and individualised support resulting in a burdensome experience in navigating institutional support. Autumn's reflection questioned why she often had to rely on the support of others advocating on her behalf, noting that "I am deeply grateful for any support, but I feel bad having to ask those I know for help, asking the help desk should be enough." Relying on the good nature of others over institutional support highlights the unpredictability of educational technology support at present. Reflecting on Autumn's exclusion from staff meetings relates to a misrecognition of her needs and exclusion from decision making directly affecting her role. This experience gives voice to a call for improved institutional culture that promote inclusive practices making formal support systems more accessible and effective (Dolmage, 2017).

With reference to Fraser's (2006) misrecognition in relation to this is the expectation for a general approach to fit everyone's needs, without acknowledging the possibilities of alternative needs and how this would be accommodated. This experience calls for UDL principles to be applied in educational technology support settings as the need for multiple modes of resources is apparent in the context of capacity development and support for training towards, and use of, educational technology by Staff with Disabilities (CAST, 2024).

4.3.3 Political Dimension: Misrepresentation in Responsibilities

Grey questioned who held responsibility for ensuring inclusivity and shared that "in many cases, by the time the institution realises something doesn't work for us, it's too late." Grey's concern noted:

> Part of your problem, I guess, with a study like this is that disabled people are pretty sure on the ground. And that that is exactly part of the problem. is the number of disabled academic staff members at UCT, I mean, I could count them on one hand, the ones that we knew about us in a massive institution. And that is just, it's just, it's disgraceful. What more demonstration do you need? The institution that is that is failing to take the lead in addressing a national problem of disability exclusion. You don't need any more evidence than that at all.

Grey further mentioned the “emotional labour to constantly having to self-advocate, I mean, I shouldn’t have to explain my disability in order to receive basic support, albeit slightly adjusted in approach.” This relates to the absence of training for support staff in proactive approaches to support and emphasises the burden on Staff with Disabilities to repeatedly disclose their disability and justify their need for support.

Contextualising the experiences shared in relation to social justice foregrounds a pertinent question that is often not clarified between policy and implementation, whose responsibility is it? Reflecting on Autumn’s experience of being excluded from staff meetings in relation to misrepresentation, the question remains whether this is simply concerning the technology and related support or whether these experiences relate to a deeper systemic issue of ableism and othering that continues to exclude Staff with Disabilities (Canales, 2000; Dolmage, 2017; Fraser, 2006). The question remains as to where this responsibility falls. Watermeyer (2019) advocated for the inclusion for Persons with Disabilities in policy and decision-making processes and related this to South Africa’s colonial legacies. Expanding this thought links back to Fraser (2006) and the question of power dynamics and the call for a redistribution of power to correct the imbalance of exclusion.

4.4 Narratives of Experiences of Barriers to Participation

Presenting the thematic findings of the participants exposed a gap in the representation of the full understanding and experiences of Staff with Disabilities. What was apparent was the misrepresentation of the experiences in relation to the individual’s realities, emotions, and general life experiences which are naturally intertwined. In relation to the researchers role as a Learning Designer and institutional support at the time, a reflection was produced in relation to the offerings of educational technology support and have been presented in Appendix F. As a result of this reflection and to fully understand the findings, the narrative would be incomplete without delving deeper into the individual profiles of these Staff with Disabilities and the realities of their experiences.

4.4.1 Sam

Sam is contracted to the institution on two separate projects in two different roles. For the first contract, Sam’s duties are that of a research assistant. For the second contract, she has been employed as an editorial assistant and graphic designer on an OER textbook project. Both contracts afford Sam the flexibility to work remotely, which she prefers.

4.4.1.1 Mobility Constraints

Physical barriers to participation is the reason for Sam's preference to work remotely. Outside of work commitments, Sam's daily life is not straightforward as she lives with a physical disability and bipolar disorder. With her physical disability, Sam relies on the use of a waking frame to move around. The need for this makes navigating unfamiliar terrain particularly challenging and results in meticulous planning when visiting spaces not visited before, or those that have been renovated. As Sam explained:

> I need help… I can't do stairs, I can't do like uneven terrain. I have a carer that comes with me, I don't drive, but I get a lift and then it's like, where can I be given a lift to? And it's just like, you get burned a lot from my past experiences of people trying to help you, but they have no clue what actually it means when you say you can't do stairs, like, you can't do stairs you can't do bumps like in the road. I'm on seriously high alert because I'm having to navigate. You know this like environment that I'm not often in and then it's like the stress.

As mentioned above, Sam is forced to rely on a carer when travelling. The carer drives her to appointments and assists her with navigating physical spaces, checking roads in advance as uneven or steep ground is often inaccessible to Sam, even if it is for a short distance as this results in significant discomfort and fatigue.

Sam's experiences relates to Fraser's (2006) concept of misrecognition which highlights how institutions perpetuate injustices when failing to acknowledge and accommodate the diverse needs of marginalised groups. The lack of accommodations made for Sam in support of her navigating physical spaces on campus and her preference for remote work reflects a systematic failure to recognise her specific circumstances and enables participatory parity. The barriers faced by Sam when attempting to access physical campus spaces speaks to the social model of disability (Oliver, 1990), that shifts the focus from the individual impairment to the deficient societal structures and environments that fail to accommodate diverse abilities.

4.4.1.2 Bipolar Disorder

In addition to this, Sam lives with bipolar disorder making day-to-day life experiences more challenging. Bipolar symptoms often vary for individuals. Voelker (2024) explained:

> Bipolar disorder is characterised by mood swings ranging from depressive lows to manic highs. Individuals with bipolar I disorder have at least one episode of mania, defined as an elevated or irritable mood lasting at least one week that may require hospitalisation.

> Symptoms of mania include impulsivity, risk-taking behaviour, restlessness, grandiosity, racing thoughts, decreased need for sleep, increased productivity, and impaired judgment. Individuals with bipolar II disorder have hypomania (a milder form of mania) for at least four consecutive days along with a previous episode of depression. Approximately 70% of people with bipolar disorder also have an anxiety disorder.

Sam does her best to manage her daily and unpredictable extreme emotional fluctuations which range from depressive lows to periods of hyperactivity. The anxiety disorder that accompanies these emotions further exacerbates Sam, resulting in feelings of extreme guilt. Sam openly shared about her therapy appointments and feelings of regret after a manic episode in noting that "I have bipolar as well. So it's like, you can end up doing really regretful things that I wish you could undo somehow." Sam's experiences were often worsened by assumptions when working with or seeking support from the institution. Her experiences highlight systematic gaps in accessibility and inclusion and the inequalities in accommodations afforded to those in different positions within the institution. Sam's passion for what she does, despite hurtful encounters, underscores the importances of institutions redesigning systems with Persons with Disabilities to ensure feelings are validated and voices valued to improve the culture of the institution by promoting recognition (Fraser, 2006).

4.4.2 Vladimir

Vladimir's positivity and resilience lends to a gentle approach to advocating for inclusive practices in education. Employed on a part-time contract as an advisor, Vladimir has supported the department with designing online courses and was proud to share that he used his appointment to "promote and encourage inclusive and accessible teaching practices."

4.4.2.1 Visual Impairment

Beyond his professional identity, Vladimir navigates life as a completely blind man. Despite his daily challenges, Vladimir remains committed to supporting others who also live with similar differences and is actively involved in blindness and disability organisations and awareness campaigns. Navigating work life in an office space presented additional personal challenges. Vladimir relies on the OIC's institutional transportation services to ensure he commutes to work safely. The driver also assists him into the building, up the lift, and to his designated office space. To perform to standard in the workspace, this logistical support is crucial, yet the experiences Vladimir encountered exposed systematic deficits in accessibility and inclusion within the institution.

4.4.2.2 Advocacy in Inaccessible Systems

Vladimir's experience emphasises the importance of proactive design advocated by the UDL principles (CAST, 2024). The frustration Vladimir experienced in workshops that expected individuals to rely on visual instruction without providing alternatives points to the need for the adoption of UDL guidelines, recommending the provision of multiple means of representation to accommodate diverse needs.

Vladimir shared a striking perspective of inclusivity through an encounter when attending a workshop at a Technical and Vocational Education and Training (TVET) College:

> One lady giving a talk asked, who believes that TVET colleges are important? And we all raised our hands. She continued by saying that they play a critical role in our education system. And the next question was fantastic. Now, who amongst us here would like to see our kids go to a TVET [college]? And none of us raised our hands. She said yes. And why not? For me, this is exactly how people look at accessibility and inclusion, we all think is marvellous. But if we need to do it then it becomes a completely different story, is important but not important enough for us.

This perspective revealed the continuous struggle that many Persons with Disabilities face in attempting to overcome feelings of isolation as a result of poorly designed and therefore inaccessible spaces, be this physical or online.

Despite these challenges, Vladimir remains dedicated to advocating for accessibility as a reality, beyond the conversations and good intentions. He continues to strive for cultural improvement within HEIs, and to be recognised for his scholarly contributions and not for his blindness. Vladimir's experiences highlight the critical need for the institutional adoption of UDL principles to address systematic barriers through Fraser's principles of redistribution and recognition (CAST, 2024; Fraser, 2006).

4.4.3 Autumn

Autumn is a part-time lecturer on contract, with a passion for teaching that is evident in her lecture-room spaces. On first appearance, one would assume you could simply start a conversation with her.

4.4.3.1 Hearing Impairment

The reality is Autumn is a deaf woman. Her journey in the world of academia is that of resilience and determination. Over the years, Autumn has navigated institutional barriers and advocated for herself and others easily, albeit that her "voice" was not always heard.

4.4.3.2 Resilience in the Face of Exclusion

In overcoming feelings of exclusion, Autumn recalled being excluded from departmental meetings, whereby being excluded from information critical to her success within her role under the disguise that, as a part-time lecturer, attendance was not necessary:

> My passion is teaching, I am [in my 50s] now and I was excluded as a young deaf person when I was finding my place in a working world. I was told I can't study because of disability and that higher education was not for the deaf, yet here I am today, as a part time lecturer at a university. I am told in order to be considered a full-time lecturer I need qualifications which I do not have. Starting from first year studies will take all of my time and set me back as I a [am] currently the only breadwinner in my family.

This exclusion also extended to expectations with the use of the institutional LMS and standards relating to course content sharing. Autumn cautiously adapted to new information, often relying on her lipreading ability albeit that certain information is naturally misunderstood via this method. Autumn focused on designing study materials and preparing for classroom engagements where she passionately taught students the skill of learning a new language. Autumn designed her own material for teaching, learning, and assessments as one of the few individuals able to teach this language at the institution:

> I long to be recognised for the hard work I have put in over the years to create all my language manuals from scratch and on my own. Over the years my manuals have gone from being so thin to being thick books and still, people try to steal my work which is very demotivating. When preparing my manuals or videos I sit for hours, I work through the night and it has taken me years to build this up, only for others to want to take my work or expect me to just share with no compensation or acknowledgement.

Autumn's passion for education was evident. With this, however, was the expectation to set up and mark assignments according to policy, including invigilate assessments where she would not know whether students were talking. When Autumn highlighted this aspect, she was informed that no additional support would be afforded, forcing her to reach out to family and friends to ensure the integrity of her assessments.

The reality, outside of what is seen at surface level, was that Autumn was often frustrated. In being deaf, certain modes of communication were simply inaccessible, including the assumption that she would be able to engage via phone call and seeing numerous missed calls on her phone.

For Autumn, this exposed a need for structural change. Autumn believed that the solutions lie in redesigning systems and accepting that diversity calls for holistic change. Despite these challenges, she continued to advocate for a more inclusive institutional environment that empowers individuals to succeed, regardless of their abilities.

4.4.4 Khai

Khai's journey at UCT reflected his transition from student, to tutor, to teaching assistant and he now balanced dual roles as both student and staff. With these demands, Khai continued his commitment of advocating for disability awareness in the institution as he drew from his own lived experiences with autism and dyspraxia.

4.4.4.1 Autism Spectrum Disorder

Autism Spectrum Disorder is a neurological and developmental disorder that is:

> medically characterised by social interaction and communication differences (e.g., atypical eye contact, challenges maintaining neurotypical patterns of conversation), as well as restricted and repetitive behaviours, interests, or activities (Ezerins et al., 2023, p. 1107).

This reality had a significant impact on his interactions. Living with dyspraxia presented additional challenges for Khai as it resulted in "a delay or disorder in movement execution and planning; however, it is often associated with additional deficits in attention and perception" (Meachon, 2017, p. 47).

4.4.4.2 Navigating Neurodiversity in a Neurotypical Institution

Khai shared his experiences of sensory overload. These experiences included feeling overwhelmed in busy environments and resulted in Khai relying on noise-cancelling headphones to cope, often misunderstood by others. Khai explained that "people on the spectrum don't like a lot of like, you know, overload." This was particularly significant in advocating for inclusivity and fostering environments that promote consideration and understanding over natural assumptions. Khai's determination to promote inclusivity at UCT has grown from his lived experiences. These experiences had Khai determined to push for the transformation of institutional spaces into those that are accepting of neurodivergent individuals.

Despite the invisible nature of disabilities, Khai's dyspraxia was also present in visible forms, often not understood to be related to disabilities. Noting that "with my dyspraxia, my handwriting is slow and, you know, bad. It's just been frustrating that places don't have the proper ramps, for example it's sort of like makeshift, almost like it's very sketchy."

Khai's experiences provides an education on the physical symptoms of dyspraxia, a term often unknown to others. These experiences exposed opportunities for technology and educational technology to play a significant role in supporting Staff with Disabilities and to use this as an opportunity to protect these individuals from vulnerability within institutional spaces.

Khai's institutional struggles revealed biases and dismissive conduct that are often accompanied by non-visible disabilities. Khai coped by learning to navigate these spaces in ways that did not draw attention to his differences. Khai noted that autism is a spectrum and while his was considered high-functioning and that this allowed him to engage in mainstream spaces fairly well, his experiences were unique and others on the spectrum, while they may experience similar situations, would require varied considerations and support.

4.4.5 Grey

Grey's third contract at UCT was as a senior research officer. The responsibilities in this role were wide ranging, including financial reporting, conducting research interviews, generating research outputs, and mentoring PhD students.

4.4.5.1 Visual Impairment

In addition to this demanding academic role, Grey navigated life as a blind man. As an individual who continues to live through the realities of life as a Persons with Disabilities in South Africa, Grey has navigated by adapting and in so doing so has developed resilience.

4.4.5.2 Emotional Labour and Institutional Neglect

With this, Grey noted "I've got a visual impairment, I do things differently, this is a completely different situation. Because sometimes you'll tell people that and then just, they just don't get it. Yeah, sometimes they do. But sometimes they don't." Grey's contributions speak to broader themes including the tension between disclosing one's disability and still experiencing varying levels of empathy or ignorance. The experiences shared exposed the systematic barriers still faced by Staff with Disabilities and revealed the emotional strain of having no choice but to navigate professional institutional spaces that often failed to meet the basic needs of Staff with Disabilities.

Grey had made significant contributions to academia, particularly through his research, yet still revealed the ongoing systematic challenges for Persons with Disabilities in professional spaces.

The experiences Grey shared included learning to navigate inaccessible online resources and working with inadequate institutional support for Staff with Disabilities. His experiences strengthen the call for institutions to redesign approaches to offering educational technology support towards fostering true inclusivity. The emotional stress of continuously self-advocating aligns with the concept of emotional labour, emphasising the often-overlooked work of Staff with Disabilities to continuously disclose and explain their alternate needs when navigating environments designed for able-bodied individuals (Saltes, 2022). The sharing of his lived experiences is a glimpse into a wider range of virtual and educational technological struggles faced by Staff with Disabilities in HEIs. The experiences shared by Grey revealed themes including accessibility, inadequate technology-related support, and the emotional weight involved in advocating for one's own needs.

4.5 Conclusion

The experiences of Staff with Disabilities extends beyond the technical and systemic structures within HEIs to the acknowledgement of the human behind the experiences of exclusion. The next chapter will conclude this research study by acknowledging the limitations to the study and present recommendations for future research.

CHAPTER FIVE: CONCLUSION AND RECOMMENDATIONS

5.1 Introduction

This final chapter summarises the findings in relation to the research questions that formed the foundation of this study. This has provided a platform for Staff with Disabilities to share their lived experiences of institutional educational technology and educational technology support.

UCT's Vision 2030 and its disability and employment policies highlighted the institutions commitment to fostering equity and inclusivity for students and Staff with Disabilities (Office for Inclusivity and Change, 2021a, 2021b; University of Cape Town, 2023). These policies aim to address systematic barriers and promote transformation through the implementation of practical aspects such as assistive technologies and awareness training programmes. This study, however, revealed the gaps that remain between the intentions of the institution and the lived realities of Staff with Disabilities. As far as policies that promote inclusivity, shortfalls exist in their operations and results in Staff with Disabilities navigating environments where accommodations are inconsistently applied, and critical needs are often overlooked. The misalignment between policy and lived experiences echoes Fraser's (2006) concept of misrecognition as this systematic exclusion contributes to feelings of invisibility for marginalised groups, including Staff with Disabilities.

The total migration to the new UCT LMS platform in 2025 has provided a tangible opportunity for the re-evaluation and redesign of educational technology support practices. The findings presented in this study underscore the importance of addressing gaps in accessibility, awareness, and adjusted support for Staff with Disabilities. Reflecting on the narratives shared by the participants, this research has highlighted the need for practical solutions towards bridging policy and practice. These findings present a call for institutions to go further than compliance and develop cultures that embrace inclusivity and strive to actively acknowledge diversity, dismantle barriers, and foster equity within the workplace.

5.1.1 Breaking Down Barriers: A Vision for Inclusive Practices

Considering optimal support for Staff with Disabilities and ways to bridge inclusivity gaps, most efforts are meaningless without engaging with Staff with Disabilities or individuals with similar disabilities.

> I don't mind people getting things wrong. Most important thing is that is that people come with an open heart and an open mind and are ready to engage and to be real, to have a real conversation about issues of access, what it means and to be ready to listen, really ready to listen and to you know, create alliances in in trying to create a more accessible institution – Grey.

Beyond the aforementioned challenges, participants were asked to consider and share possible solutions and approaches that could dismantle barriers and support the institution in building a more inclusive culture in the realm of education technology and educational technology support. Grey's critique of the institutional inability to address systemic barriers directly relates to Fraser's (2006) emphasis on recognition and redistribution. From this, we can deduce that Staff with Disabilities long to be recognised as individuals with meaningful contributions to the institution over either not being recognised or being used as a token for disability inclusion to appear inclusive in the public eye. This relates to their need for the redistribution of resources to ensure inclusion as well as the redistribution of roles to allow Staff with Disabilities to contribute meaningfully in decision making. Eliminating these barriers will enable marginalised groups, such as Staff with Disabilities, to fully participate.

Vladimir expressed concern that departments worked in silos and suggested the institution find ways to develop frameworks of support across all departments in saying that "right now, it's like every department is doing its own thing." Speaking to cross-departmental improvements reflects Fraser (2006) principle of redistribution that advocates for the fair distribution of resources as a practical step to address systematic imbalances and support marginalised groups. Autumn shared that inclusivity is about "shifting mindsets" and a lot of her struggle was in encouraging others to think differently, to understand her true perspective and needs.

Those living without disabilities often lack the perspectives and understanding of the subtle adaptations that Persons with Disabilities have no choice but to consider and implement. This questions the concept of "experts or advisors" during policy-making processes on disability inclusion. The exclusion of those directly affected from decisions-making affirms unjust approaches to disability policy and practice. Sam shared that "any sign of inclusion is like, exciting, like, oh my gosh, I've like, my people have been thought of like, we're, we're not being forgotten." With this, Sam admitted wanting to be proud of the institution for taking steps towards inclusion in a way that is visible to Staff with Disabilities and Persons with Disabilities.

This observation reminds us that awareness and intentionality have the potential to transform isolation into connection, and exclusion into belonging.

> Sometimes the disability is not the result of our impairment. But sometimes the disability is the cause of the ignorance or lack of understanding. Because in most cases, disability would not be an issue if people can have a better understanding of what disability is, and how much of their work contributes to create this disabling spaces'…. but our disability could be a result of their lack of understanding, and sometimes ignorance or even sometimes lack of patience – Grey.

While funding allocation is imperative to improvement, greater attention should be directed towards addressing accommodation. With this, a critical first step is awareness, and seeking out the experiences of those who directly experience these challenges. The culmination of the experiences of Staff with Disabilities speaks to Fraser's third concept in her social justice framework, which is that of representation (Fraser, 2006). The experiences and needs of Staff with Disabilities have been silenced by the lack of awareness due to a serious underrepresentation of this minority group within the institution. Representation is necessary not only in calling for deeper consideration in educational technology support but in spaces where planning for educational technology support occurs. This too reiterates Saltes (2022) recommendation to include Persons with Disabilities in the evaluation of current practices and processes towards improvements.

With educational technology support, educational technology can contribute to improvements in accommodations in physical spaces by supporting the creation of detailed and descriptive digital campus maps, allowing for continuous and collaborative updates. Sam's call for detail in navigating campus is not unrealistic. Sam continued that certain online spaces could be designed with accessibility settings clearly available from the home page:

> Seeing that means that I feel much happier. And I feel like they actually care about someone like me. And so I feel safer already on that website, or on that, like programme or app or anything. Any sign of inclusion is like, exciting, like, oh my gosh, I've like, my people have been thought of like, we're, we're not being forgotten.

Several types of suggested support were shared by participants according to their needs:

> I don't mean the disability service. But in particular for every department at our institution, I wish there was a disability or inclusion consultant. Because if there's an assistant, I know that somebody is employed for that, now if it is my colleague, yes, yes, they are my colleague. But because we are not friends, I cannot ask them certain things – Vladimir.

Grey added that “I am not as knowledgeable in these areas, I am sure you know more, but I seriously think a lot can be explore about how AI can be better used for assistance for inclusion and accessibility at the institution.” While Khai suggested an option to choose a simplistic version of an online space, one that was just black and white, as he explained that for many individuals on the autism spectrum, “if a page looks too busy or too crazy, it's overwhelming.” This call for a simplified LMS interface ties to UDL’s emphasis on designing environments that anticipate the accommodation of diverse needs (CAST, 2024). Autumn expressed a desire for overall improved awareness across the institution, and that awareness initiatives should include “awareness with how to address those with disabilities in a more inclusive manner.”

Suggested improvements by participants calls for the implementation of guidelines that can be used across departments. Therefore, the UDL guidelines are fitting as they advocate for designing spaces, physical or online, that expect diversity through intentional design from the planning phase that denounces special accommodations as an addition or afterthought (CAST, 2024). This will support the institution in establishing proactive steps to reduce barriers. A serious concern with this is the question of who would be responsible for ensuring adequate implementation. Stemming from this also questions the types of audits or checks necessary to continuously maintain standards.

5.2 Review of the Research Questions

Reviewing the findings in relation to the research questions included the reflection of the intersecting elements of technology adoption, transformation, and social justice that overlapped significant elements related to inclusive educational technology support as presented in Figure 1 above.

5.2.1 Main Research Question

To what extent does educational technology induction, training, and support practices promote social justice for Staff with Disabilities?

This study found that Staff with Disabilities experience varying levels of difficulty and isolation when learning to use educational technology in their professional spaces. Significant gaps in the support offered for the use of educational technology were highlighted through the sharing of personal experiences. All participants unanimously shared that a majority of their learning was from Google and figuring it out alone. This highlights the interconnection of technology adoption and the findings that expose the reality that the adoption of educational technology in the institution fails to recognise the specific needs of Staff with Disabilities.

This lack of inclusive support practices force Staff with Disabilities to rely on self-directed learning, underscoring the call to align technology adoption with UDL principles. Participants shared suggested improvements to the current educational technology support practices at the institution. The call for the improved overall awareness of disabilities and education on inclusive and respectful ways to engage with and support Persons with Disabilities in institutional spaces was emphasised as critical.

Additionally, the findings validate the potential for transformation within institutional practices and embedding this from the outset. Transformation calls for the designing of proactive strategies including the co-designing of support systems with Staff with Disabilities as a shift away from reactive approaches. These proactive strategies speak to the empowerment of Staff with Disabilities, fosters a sense of belonging, and contributes to systematic equity.

5.2.2 Sub-Questions

What are the lived experiences of Staff with Disabilities in using educational technologies in their roles?

The lived experiences of Staff with Disabilities in using educational technology was reported to be challenging. Participants shared that their experiences were often a struggle, feeling misunderstood and alone when learning to use educational technology necessary to perform their professional tasks. The sense of isolation is a reflection of the systematic inequalities that form part of the broader issues of social justice. Participants experienced exclusion and othering that highlights the need for intentional institutional strategies to actively dismantle ableism and prioritise equality in capacity development and support for educational technology use by Staff with Disabilities.

How do Staff with Disabilities acquired the knowledge and skills needed to effectively use educational technologies in their professional practices?

Participants shared experiences of having to learn on their own as Staff with Disabilities. As a result of various barriers and misunderstandings, the type of training or support was often mismatched to their needs and resulted in them having to Google or learn through trial and error. The reliance on self-directed learning highlights significant gaps in the institution's technology adoption strategies. In addressing this, it is recommended that inclusive practices be rooted in UDL principles as these support the design of training systems that are proactive and accessible to all staff. Prioritising equity in technology adoption means institutions are more likely to meet the diverse needs of their staff.

What types of institutional support, if any, have been provided to address the unique needs of staff with disabilities in accessing and using educational technologies?

All participants shared that no additional support was offered or provided to them. Some participants shared that even after disclosing their disability to those in support roles, the lack of understanding of their disability resulted in no additional support accommodations. Furthermore, the experiences shared also exposed gaps in faculty support for Staff with Disabilities that even those who knew more about the individuals failed to provide accommodations. The gap in strategies that should allow for a more tailored approach to educational technology support revealed a gap in institutional transformation. Addressing these gaps means fostering a culture of inclusivity that incorporates proactive planning directly informed by Staff with Disabilities to eliminate the need for reactive measures.

What challenges exist in the current educational technology support systems for Staff with Disabilities?

The main gaps exposed were that of ill-equipped support staff to assist individuals with disabilities. It was evident that support staff lacked awareness of the potential need for alternative approaches to support and could benefit from awareness and an improved cross-departmental approach to support provision. These gaps revealed the systematic inequalities related to social justice. Addressing ablism and amending policies to address practical methods of inclusion will allow institutions to overcome current deficiencies and create a culture of equity and meaningful inclusion. The findings related to this research question requires the implementation of the framework of social justice to identify gaps in all aspects of capacity development and support for educational technology use by Staff with Disabilities.

What strategies could be implemented to enhance the inclusivity and effectiveness of educational technology support for Staff with Disabilities?

Strategies and adaptations are a necessary part of the improvement of the lived experiences of Staff with Disabilities in relation to educational technology support. Drawing from the UDL guidelines, the adoption of these guidelines is recommended to design improved approaches to educational technology support that is inclusive from the onset (CAST, 2024). Designing with UDL as a guide to improved educational technology support will eliminate the need for many specific accommodations and guide the approach to support to be generally inclusive.

The proactive adoption of the UDL principles is a transformative step towards institutional inclusivity. This ensures that the design of educational technology support systems are accessible to all staff. Through a focus on the intersection of technology adoption, transformation, and social justice, institutions will have the opportunity to form environments that are equitable and that empower Staff with Disabilities through systematic changes. Proactive strategies will demonstrate the prior consideration of inclusivity, eliminating the likelihood of exclusion. In addition, this research calls for the design of improved support by including Staff with Disabilities in the design process. Through the lived experiences shared, it is evident that many experiences are often unknown or greatly misunderstood. As a result of the shared experiences and to eradicate assumptions, it is strongly suggested that improved educational technology support practices be designed in collaboration with Staff with Disabilities.

Including Staff with Disabilities in the design and redesign processes aligns with the principles of social justice as it prioritises the voices and experiences of marginalised groups in decision-making. The participatory approach ensures support practices speak to inclusivity and empowerment.

The adoption of UDL principles will answer the call made by participants for the inclusive and proactive design of educational technology support to eliminate the need for reactive strategies. Adopting proactive strategies aligns with Fraser's (2006) framework that emphasises the need for recognition of alternative needs.

Other pertinent aspects from the study findings were that all participants were employed on part-time contract conditions of service with the institution. Participants were asked whether they felt there was a place for Staff with Disabilities as permanent staff members within the institution and the overwhelming reaction was one of defeat. Participants acknowledged that it would require significant changes at various levels within the institution for this to be possible.

Long-term plans are discussed, such as the Vision 2030, so too should detailed long-term plans be prioritised regarding disability inclusion. The intention to be inclusive is meaningless without actions or attempts towards improving institutional educational technology and the support necessary for the optimal use thereof.

5.3 Recommendations

The narrative approach to this research led to meaningful and rich data and supports the value derived from the writing of Almeda San Jose (2022) on lived experiences of Staff with Disabilities in the global south. Recommendations have been categorised as they relate to different possible research areas. Attention was drawn to the gap in hearing the voices of Staff with Disabilities and the potential to use these findings towards advocating for a deeper consideration of Persons with Disabilities, which is what this study hopes to have achieved.

Based on the findings and discussion, it is highly recommended that the institutional approach to disability be reestablished. Using Fraser's (2006) framework will ensure there is sufficient recognition of the current challenges and improvements required. Ensuring representation by including Staff with Disabilities in the planning and decision-making processes of disability inclusion initiatives towards the redistribution of resources will ensure all Staff with Disabilities are accommodated for success in their roles. The practical implementation of policy should be guided by the principles of UDL and ensure opportunities for Staff with Disabilities to engage, take action, and express themselves and that resources and tools are represented in ways that are accessible to all (CAST, 2024). The role of learning designers should extend beyond technical support and resource creation to the promotion of compassionate design in educational spaces and human-centered approaches.

This requires the practice of human-centered support through planning for inclusive learning design and support at every stage of the process, from planning to implementation and evaluation. To achieve this, Staff with Disabilities must be adequately represented, and multimodal resource should be created to meet their needs. This approach is towards creating spaces where all staff can thrive and meaningfully contribute to student throughput and success.

5.3.1 Recommendations for Future Study at the University of Cape Town

It is recommended that the experiences of larger pools of Staff with Disabilities, where possible, be sought. Given the timeframe and potential improvements still possible for reaching the institution's Vision 2030 goals, a longitudinal study could provide insights into how the experiences of support have evolved over time.

5.3.2 Recommendations for Future Study at Higher Education Institutions

Future studies should include a wider range of disabilities to build on these findings, as well as to compare experiences across institutions. Other factors that could provide an alternative lens for future studies is intersectionality, and exploring how demographic factors such race, gender, and socioeconomic backgrounds may influence the experiences Staff with Disabilities. Collaborative research amongst HEIs could allow for the establishment of shared knowledge bases and best practices for inclusivity and the advancement of Fraser's (2006) principle of redistribution through the sharing of resources and strategies, improving practices throughout HEIs in South Africa.

5.4 Final Words

The voices of Autumn, Grey, Khai, Sam, and Vladimir weave a powerful narrative that demands attention. Not only do their experiences draw attention to the deficits in current practices, they also highlight the emotional and social consequences of not addressing these structural weaknesses. This study advocates for a more inclusive and empathetic approach to educational technology support. This study has shed light on the lived experiences of Staff with Disabilities and advocates for institutional change and also contributes to the global discussion on inclusivity within higher education. The lessons extracted from the context of UCT can encourage other institutions to reinforce the value in adapting support practices and aligning them with educational technology support prospects. It is hoped that these experiences would lead to the improvement of future experiences and improve inclusive practices related to educational technology. It is further anticipated that the experiences shared in this study will be used towards striving to improve inclusivity within HEIs.

Through these efforts, and as a way forward, it is recommended that UCT and other institutions will be inspired to develop meaningful and effective measures that truly address inclusivity and transformation. Through the adoption of human-centered design and practices, this research advocates for a shift in institutional cultures, advocating for Staff with Disabilities to be better supported and for their inputs to be a golden thread in all plans and actions taken towards improvements or support aimed at inclusivity.

The lessons drawn from the lived experiences of Staff with Disabilities aim to inspire HEIs to view inclusivity differently, and shift from compliance and obligation to moral responsibility, fostering effective environments where all staff, including Staff with Disabilities, can thrive both personally and professionally.

REFERENCES

Adams, M. A. (2020). *Inclusion model impact on students with disabilities in academic settings* [Doctor of Education, Bethel University]. https://spark.bethel.edu/cgi/viewcontent.cgi?article=1007&context=etd

Almeda San Jose, Z. (2022). *A narrative analysis of the experiences of teachers with disabilities in the Philippines* [Master in Education Policies for Global Development, Universitat Autònoma de Barcelona]. https://ddd.uab.cat/pub/trerecpro/2022/269381/TFM_MaZarinaSanJoseAlmeda.pdf

Anderson, J., & Boyle, C. (2019). Looking in the mirror: reflecting on 25 years of inclusive education in Australia. *International Journal of Inclusive Education*, *23*(7-8), 796-810. https://doi.org/10.1080/13603116.2019.1622802

Bozalek, V., & Zembylas, M. (2021). *Higher education hauntologies: living with ghosts for a justice-to-come*. Routledge.

Brandsma, J. W., & Van Brakel, W. H. (2003). WHO disability grading: operational definitions. *Leprosy Review*, *74*(4), 366-373.

Brewster, S., Duncan, N., Emira, M., & Clifford, A. (2017). Personal sacrifice and corporate cultures: career progression for disabled staff in higher education. *Disability & Society*, *32*(7), 1027-1042. https://doi.org/10.1080/09687599.2017.1331837

Brown, S. (2002). What is disability culture? *Disability Studies Quarterly*, *22*(2), 34-50. https://doi.org/10.18061/dsq.v22i2.343

Budhathoki, M. K. (2024). Lived experiences of faculty with disabilities in higher education: a hermeneutic phenomenological method. *Journal of Tikapur Multiple Campus*, *7*(1-2), 22-38. https://doi.org/10.3126/jotmc.v7i1-2.63140

Burgstahler, S., Corrigan, B., & McCarter, J. (2005). Making distance learning courses accessible to students and instructors with disabilities: a case study. *The Internet and Higher Education*, *7*(3), 233-246. https://doi.org/10.1016/j.iheduc.2004.06.004

Canales, M. K. (2000). Othering: toward an understanding of difference. *Advances in Nursing Science*, *22*(4), 16-31. https://doi.org/10.1097/00012272-200006000-00003

CAST. (2024). Universal Design for Learning guidelines version 3.0. https://udlguidelines.cast.org/

Centre for Innovation in Learning and Teaching. (2022). *Remote teaching*. University of Cape Town. Retrieved November 6, 2022 from http://www.cilt.uct.ac.za/cilt/remote-teaching

Cohen, D. J., & Crabtree, B. F. (2008). Evaluative criteria for qualitative research in health care: controversies and recommendations. *The Annals of Family Medicine*, *6*(4), 331-339. https://doi.org/10.1370/afm.818

Cohen, L., Manion, L., & Morrison, K. (2017). *Research methods in education*. Routledge.

Department of Higher Education and Training. (2018). *Strategic policy framework on disability for the post-school education and training system*. https://www.dhet.gov.za/SiteAssets/Gazettes/Approved%20Strategic%20Disability%20Policy%20Framework%20Layout220518.pdf

Department of Social Development. (2016). *White Paper on the Rights of Persons with Disabilities*. https://www.gov.za/sites/default/files/gcis_document/201603/39792gon230.pdf

Dianastiti, F. E., Suwandi, S., & Setiawan, B. (2022). Is Universal Design for Learning (UDL) the best learning approach for students with disabilities. 1st International Conference of Humanities and Social Science, Surakarta, Central Java, Indonesia. https://doi.org/10.4108/eai.8-12-2021.2322570

Dolmage, J. T. (2017). *Academic ableism: disability and higher education*. University of Michigan Press. https://doi.org/10.3998/mpub.9708722

Etikan, I., Musa, S. A., & Alkassim, R. S. (2016). Comparison of convenience sampling and purposive sampling. *American Journal of Theoretical and Applied Statistics*, *5*(1), 1-4. https://doi.org/10.11648/j.ajtas.20160501.11

Ezerins, M. E., Simon, L. S., Vogus, T. J., Gabriel, A. S., Calderwood, C., & Rosen, C. C. (2023). Autism and employment: a review of the "new frontier" of diversity research. *Journal of Management*, *50*(3), 1102-1144. https://doi.org/10.1177/01492063231193362

Fraser, N. (2006). Reframing justice in a globalizing world. In J. Goodman & P. James (Eds.), *Nationalism and Global Solidarities* (pp. 178-196). Routledge.

Fraser, N. (2020). From redistribution to recognition? Dilemmas of justice in a 'postsocialist' age. In S. Seidman (Ed.), *The New Social Theory Reader* (pp. 188-196). Routledge.

Gierdowski, D. C. (2020). *Accessibility hazards on the road to college*. EDUCAUSE Review (Online). https://er.educause.edu/blogs/2020/11/accessibility-hazards-on-the-road-to-college#:~:text=Breakdowns%3A%20Issues%20with%20Instructors,to%20get%20their%20approved%20accommodations.

Haegele, J. A., & Hodge, S. (2016). Disability discourse: overview and critiques of the medical and social models. *Quest*, *68*(2), 193-206. https://doi.org/10.1080/00336297.2016.1143849

Hall, S. A. (2013). Including people with intellectual disabilities in qualitative research. *Journal of Ethnographic & Qualitative Research*, *7*(3), 128-142.

HEDSA. (2024). *Higher Education Disability Services Association*. Retrieved December 12, 2024 from https://www.hedsa.org.za/

Holmström, I., & Schönström, K. (2018). Deaf lecturers' translanguaging in a higher education setting. A multimodal multilingual perspective. *Applied Linguistics Review*, *9*(1), 90-111. https://doi.org/10.1515/applirev-2017-0078

Iniesto, F., Rodrigo, C., & Hillaire, G. (2022). A case study to explore a UDL evaluation framework based on MOOCs. *Applied Sciences*, *13*(1), 1-16. https://doi.org/10.3390/app13010476

Jeffress, M. (2018). *International perspectives on teaching with disability: overcoming obstacles and enriching lives* (1st ed.). Routledge.

Junjie, M., & Yingxin, M. (2022). The discussions of positivism and interpretivism. *Global Academic Journal of Humanities and Social Sciences*, *4*(1), 10-14. https://doi.org/10.36348/gajhss.2022.v04i01.002

Kamanzi, A., & Romania, M. (2019). Rethinking confidentiality in qualitative research in the era of big data. *American Behavioral Scientist*, *63*(6), 743-758. https://doi.org/10.1177/0002764219826222

Karisa, A. (2023). Universal design for learning: not another slogan on the street of inclusive education. *Disability & Society*, *38*(1), 194-200. https://doi.org/10.1080/09687599.2022.2125792

Ketefian, S. (2015). Ethical considerations in research. Focus on vulnerable groups. *Investigación y Educación en Enfermería*, *33*(1), 164-172. https://doi.org/10.17533/udea.iee.v33n1a19

Khan, F. (2020). Addressing economic constraints impeding the achievement of Fraser's notion of participatory parity in student learning: a study at a historically disadvantaged institution. In V. Bozalek, D. holscher, & M. Zembylas (Eds.), *Nancy Fraser and Participatory Parity* (pp. 111-127). Routledge.

Klopper, H. (2008). The qualitative research proposal. *Curationis*, *31*(4), 62-72. https://doi.org/10.4102/curationis.v31i4.1062

Liamputtong, P. (2009). Qualitative data analysis: conceptual and practical considerations. *Health Promotion Journal of Australia*, *20*(2), 133-139. https://doi.org/10.1071/he09133

Lincoln, Y. S., & Guba, E. G. (1982). *Establishing dependability and confirmability in naturalistic inquiry through an audit*. ERIC.

Lindsay, S., & Fuentes, K. (2022). It is time to address ableism in academia: a systematic review of the experiences and impact of ableism among faculty and staff. *Disabilities*, *2*(2), 178-203. https://doi.org/10.3390/disabilities2020014

Makwembere, S. (2022). Systematic review of study designs and methods of research on disability in South African higher education institutions amidst COVID-19 (2020-2021). *Journal of Culture & Values in Education*, *5*(1), 122-143. https://doi.org/10.46303/jcve.2022.10

Martin, N. (2017). *Encouraging disabled leaders in higher education: recognising hidden talents*. Leadership Foundation for Higher Education. https://openresearch.lsbu.ac.uk/download/f42d907f8b3ede580d56bd372faffc4d39e6c3e6c1f7201de41eff39c66ef761/707151/Encouraging-Disabled-Leaders-in-Higher-Education.pdf

May, H., & Bridger, K. (2010). *Developing and embedding inclusive policy and practice in higher education*. The Higher Education Academy. https://aau.org/wp-content/uploads/sites/9/2018/04/Developing-Embedding-Inclusive-Policy-Practice-Report-final.pdf

Mayisela, T., Govender, S., & Hodgkinson-Williams, C. (2022). *Open learning as a means of advancing social justice: cases in post-school education and training in south africa*. African Books Collective.

Meachon, E. (2017). An investigation of dyspraxia: what we know and why the research is so far behind. *St. Anne's Academic Review*, *7*, 47-52.

Merchant, W., Read, S., D'Evelyn, S., Miles, C., & Williams, V. (2020). The insider view: tackling disabling practices in higher education institutions. *Higher Education*, *80*(2), 273-287. https://doi.org/10.1007/s10734-019-00479-0

Mik-Meyer, N. (2016). Othering, ableism and disability: a discursive analysis of co-workers' construction of colleagues with visible impairments. *Human Relations*, *69*(6), 1341-1363. https://doi.org/10.1177/0018726715618454

Mulderink, C. E. (2016). *Living communication pedagogy: instructors with visible disabilities* [Master of Arts, Southern Illinois University Carbondale]. https://opensiuc.lib.siu.edu/cgi/viewcontent.cgi?referer=&httpsredir=1&article=2013&context=gs_rp

Nickerson, C. (2022). *Interpretivism paradigm and research philosophy*. Simply Psychology. https://www.simplypsychology.org/interpretivism-paradigm.html

Nowell, L. S., Norris, J. M., White, D. E., & Moules, N. J. (2017). Thematic analysis: striving to meet the trustworthiness criteria. *International Journal of Qualitative Methods*, *16*(1). https://doi.org/10.1177/1609406917733847

Office for Inclusivity and Change. (2021a). *Policy on employment equity*. University of Cape Town. https://www.uct.ac.za/sites/default/files/content_migration/includes/files/Policy_Employment_Equity_2020.pdf

Office for Inclusivity and Change. (2021b). *University of Cape Town Disability Policy*. University of Cape Town. https://www.uct.ac.za/sites/default/files/content_migration/uct_ac_za/39/files/DIS_Policy_Disability_December-2021.pdf

Office for Inclusivity and Change. (2023). *About us*. University of Cape Town,. Retrieved April 6, 2023 from http://www.oic.uct.ac.za/team-7

Oliver, M. (1990). The politics of disablement — new social movements. In M. Oliver (Ed.), *The Politics of Disablement* (pp. 112-131). Macmillan Education UK. https://doi.org/10.1007/978-1-349-20895-1_8

Olsen, J., Griffiths, M., Soorenian, A., & Porter, R. (2020). Reporting from the margins: disabled academics reflections on higher education. *Scandinavian Journal of Disability Research*, *22*(1), 265-274. https://doi.org/10.16993/sjdr.670

Ortiz Guzman, C. M. (2017). *EquityXdesign: leveraging identity development in the creation of an anti-racist equitable design thinking process* [Doctor of Education Leadership, Harvard University]. https://dash.lib.harvard.edu/bitstream/handle/1/33774659/ORTIZGUZMAN-CAPSTONE-2017.pdf?sequence=1&isAllowed=y

Oswal, S. K., & Palmer, Z. B. (2024). Compliance, commitment, and web accessibility: findings of an organizational study engaging accessibility experts at twenty US universities. *Proceedings of the 42nd ACM International Conference on Design of Communication*, 17-25. https://doi.org/10.1145/3641237.3691647

Patel, D. R., & Brown, K. A. (2017). An overview of the conceptual framework and definitions of disability. *International Journal of Child Health and Human Development*, *10*(3), 247-252.

Phirangee, K., & Malec, A. (2017). Othering in online learning: an examination of social presence, identity, and sense of community. *Distance Education*, *38*(2), 160-172. https://doi.org/10.1080/01587919.2017.1322457

Rai, N., & Thapa, B. (2015). A study on purposive sampling method in research. *Kathmandu School of Law*, *5*(1), 8-15.

Raphael, C., & Mtebe, J. (2016). Instructor support services: an inevitable critical success factor in blended learning in higher education in Tanzania. *International Journal of Education & Development using Information and Communication Technology*, *12*(2), 123-138.

Retief, M., & Letšosa, R. (2018). Models of disability: a brief overview. *HTS Teologiese Studies/Theological Studies*, *74*(1), 1-8. https://doi.org/10.4102/hts.v74i1.4738

Ruslin, R., Mashuri, S., Rasak, M. S. A., Alhabsyi, F., & Syam, H. (2022). Semi-structured Interview: a methodological reflection on the development of a qualitative research instrument in

educational studies. *IOSR Journal of Research & Method in Education (IOSR-JRME)*, *12*(1), 22-29. https://doi.org/10.9790/7388-1201052229

Ryan, G. (2018). Introduction to positivism, interpretivism and critical theory. *Nurse Researcher*, *25*(4), 41-49. https://doi.org/10.7748/nr.2018.e1466

Saldaña, J. (2021). *The coding manual for qualitative researchers*. Sage.

Saltes, N. (2022). 'It's all about student accessibility. No one ever talks about teacher accessibility': examining ableist expectations in academia. *International Journal of Inclusive Education*, *26*(7), 674-700. https://doi.org/10.1080/13603116.2020.1712483

Seale, J. (2017). From the voice of a 'socratic gadfly': a call for more academic activism in the researching of disability in postsecondary education. *European Journal of Special Needs Education*, *32*(1), 153-169. https://doi.org/10.1080/08856257.2016.1254967

Sharma, G. (2017). Pros and cons of different sampling techniques. *International Journal of Applied Research*, *3*(7), 749-752.

Shelton, C., & Lansley, M. (2022). Where is technology in the 'golden thread'of teacher professional development? *IFIP World Conference on Computers in Education*, 653-662.

Shenton, A. K. (2004). Strategies for ensuring trustworthiness in qualitative research projects. *Education for Information*, *22*(2), 63-75. https://doi.org/10.3233/EFI-2004-22201

Tracy, S. J. (2010). Qualitative quality: eight "big-tent" criteria for excellent qualitative research. *Qualitative Inquiry*, *16*(10), 837-851. https://doi.org/10.1177/1077800410383121

United Nations. (2002). *Convention on the rights of persons with disabilities and optional protocol*. https://www.un.org/disabilities/documents/convention/convoptprot-e.pdf

University of Cape Town. (2022). *Staff learning and development resource guide for academic and PASS staff*. https://hr.uct.ac.za/sites/default/files/media/documents/hr_uct_ac_za/386/staff-learning-and-development-resource-guide.pdf

University of Cape Town. (2023). *Vision 2030*. Retrieved December 12, 2024 from https://uct.ac.za/transformation/vision-2030

University of Cape Town. (2024a). *Centre for Higher Education Evelopment (CHED)*. Retrieved December 12, 2024 from https://ched.uct.ac.za/

University of Cape Town. (2024b). *Welcome to UCT*. Retrieved December 12 from https://uct.ac.za/welcome-uct

van Schalkwyk, F. (2021). Reflections on the public university sector and the COVID-19 pandemic in South Africa. *Studies in Higher Education*, *46*(1), 44-58. https://doi.org/10.1080/03075079.2020.1859682

Vincent, C. (2020). *Nancy Fraser, social justice and education*. Routledge.

Voelker, R. (2024). What Is Bipolar Disorder? *JAMA*, *331*(10), 894-894. https://doi.org/10.1001/jama.2023.24844

Watermeyer, B. (2019). “Can this white guy sing the blues?” Disability, race, and decolonisation in South African higher education. In B. Watermeyer, J. McKenzie, & L. Swartz (Eds.), *The Palgrave Handbook of Disability and Citizenship in the Global South* (pp. 67-83). Springer International Publishing. https://doi.org/10.1007/978-3-319-74675-3_6

APPENDICES

Appendix A: Information Letter

RESEARCH STUDY INFORMATION LEAFLET AND CONSENT FORM

DATE of project: 2023

TITLE OF THE RESEARCH PROJECT: Towards Improved Inclusive Approaches to Educational Technology Support: A Case of Staff With Disabilities at a Higher Education Institution.

PRINCIPLE INVESTIGATOR (Names/Student Number/email):

Donna Lewis

Student number: LWSDON002

Email address: donna.lewis@uct.ac.za

FACULTY AND DEPARTMENT:

Huminites, School of Education

SUPERVISORS NAMES AND EMAIL:

Shanali Govender

Shanali.Govender@uct.ac.za

Dear Colleague,

My name is Donna Lewis and I am an Online Learning Designer at the Centre for Innovation in Learning and Teaching (CILT). I am also a student registered with UCT, undertaking a Masters of Education under the supervision of Ms Shanali Govender. A component of the Masters of Education requires me to conduct a study

The main aim of this study is to prescribe a more inclusive approach to training and support practices through the exploration of the use of educational technologies by staff with disabilities in various employment roles at UCT. This study will make use of semi-structured interviews to allow staff with disabilities to share their individual experiences of navigating the world of educational technology in education.

This study has received ethical approval from the Research Ethics Committee of the Department of Education, University of Cape Town as well as the Human Resource Department, University of Cape Town. A copy of the ethical approval letter can be obtained from the principal researcher.

You have been invited to participate in this study as you have been identified as an individual who fits the criteria for this study and as the primary researcher I am eager to give a voice to your experience with the hopes of improving future experiences with the educational technology support you receive.

Thank you for considering your participation, I look forward to your response.
Donna Lewis

Appendix B: Original Participant Consent Form

I agree to participate in this study.	YES ☐ NO ☐
I understand why I am participating in this research.	YES ☐ NO ☐
My concerns and questions about the project have been addressed.	YES ☐ NO ☐
Confidentiality I acknowledge that the research project will de-identify me and my department/ course and redact ("delete") details to obscure my identity.	YES ☐ NO ☐
Identification I wish to be identified in the following way within research outputs: If you would like to choose your own pseudonym, please indicate below: _____ I agree to be directly quoted in the research in line with my preference above.	A preferred pseudonym ☐ The researchers' choice of pseudonym ☐ YES ☐ NO ☐
I agree for artefacts created by me during sessions to be used in line with my preference above.	YES ☐ NO ☐
Research publication I am aware that the research will be published in academic journals. Researchers will be able to publish from this data, individually or with others.	YES ☐ NO ☐
Possible Harm I have been informed that there is little or no risk related to this study.	Initial:
I understand that I am participating voluntarily and I may withdraw at any time without prejudice. (I understand I am free to leave the study at any time.)	Initial:
I have not been offered any reimbursement for participating in this study.	Initial:

Researcher:	**Participant**
Name: ……	Name:……
Signature:……	Signature:……
Date:……	Date:……

ETHICS INFORMATION

The proposal for this project and ethical clearance was sought from the School of Education in 2023. For concerns, please contact Shanali Govender (shanali.govender@uct.ac.za). Gatekeeping access was sought from Human Resources at UCT for access to current staff, and from the Office for Inclusivity and Change for access to potential participants.

Appendix C: Amended Participant Consent Form

1. I agree to participate in this study.
Yes I agree
No I do not agree

2. I understand why I am participating in this research.
Yes I agree
No I do not agree

3. My concerns and questions about the project have been addressed.
Yes I agree
No I do not agree

4. **Confidentiality:** I acknowledge that the research project will de-identify me and my department/ course and redact ("delete") details to obscure my identity.

Yes I agree
No I do not agree

5. **Identification:** I wish to be identified in the following way within research outputs. If you would like to choose your own pseudonym, please indicate below:
My preferred pseudonym is…

6. I agree to be directly quoted in the research in line with my preference above.
Yes I agree
No I do not agree

7. I agree for artefacts created by me during sessions to be used in line with my preference above.
Yes I agree
No I do not agree

8. **Research publication:** I am aware that the research will be published in academic journals. Researchers will be able to publish from this data, individually or with others.
Yes I agree
No I do not agree

9. **Possible Harm:** I have been informed that there is little or no risk related to this study.
Yes I agree
No I do not agree

10. I understand that I am participating voluntarily and I may withdraw at any time without prejudice. (I understand I am free to leave the study at any time.)
Yes I agree
No I do not agree

11. I have not been offered any reimbursement for participating in this study.
Yes I agree
No I do not agree

Participant details – please provide your details for consent below:

Name: Signature:
Date:

Researcher details:

Name: Signature:
Date:

ETHICS INFORMATION

The proposal for this project and ethical clearance was sought from the School of Education in 2023. For concerns, please contact Shanali Govender (shanali.govender@uct.ac.za). Gatekeeping access was sought from Human Resources at UCT for access to current staff, and from the Office for Inclusivity and Change for access to potential participants.

Thank you.
End of document.

Appendix D: Interview Schedule

TOPICS / FOCUS AREA	EXAMPLES OF QUESTIONS AND PROBES
CONTEXT	• What department do you work in at UCT? • What is your role? • Can you provide a brief explanation of the kind of work you typically do in this role?
EDUCATIONAL TECHNOLOGY EXPERIENCE	• Tell me about your experiences with using educational technology tools (this includes the institutional LMS) in your role/s at UCT? • How did you go about learning to use the educational technology tools, can you explain the process you went through to learn? • Can you tell about your experiences of when you were trying to do something or learn to do something new with educational technology and how that experience was for you? • Can you think of a time where you needed additional support when learning to use or using educational technology tools, was that support provided in the ways you needed it? Please explain? • Can you tell me about your experience of applying your training to a task for the first time, how would you explain that experience?
SUPPORT GAPS	• Tell me about your experience in using the educational technology support channels at UCT? • Reflecting on this experience/ these experiences or having not used these channels, do you feel there are gaps in the current educational technology support provided to staff with disabilities? • If yes, can you elaborate on these gaps, please?
SUPPORT IMPROVEMENTS	• Are there any gaps you have identified based on your specific disability that you feel educational technology support has the abilities to lessen or eliminate? If yes, can you elaborate on these gaps, please? • What do you wish people designing support for educational technology knew about your disability or disabilities in general? • What improvements, if any, would you suggest/recommend about your overall experience of educational technology support that you think would make you feel more included or considered or not defined by your disability?

Appendix E: Ethics Approval

SCHOOL OF EDUCATION

Dr. Joanne Hardman
Associate Professor: Educational Psychology
Deputy Director School of Education

University of Cape Town, Private Bag X3, Rondebosch, 7701
Physical address: Neville Alexander Building, 6 Lovers walk, Lower Campus
Tel: +27 (0) 21 650 3920 Fax: +27 (0) 21 650 3489
E-mail: Joanne.Hardman@uct.ac.za Internet: www.uct.ac.za/depts/educate

EDNREC20230507

Donna Lewis

25 May 2023

Re Ethical clearance

I am pleased to inform you that ethical clearance has been granted by the School of Education Ethics Review Committee of the Faculty of Humanities for your academic project: Towards Improved Inclusive Approaches to Educational Technology Support: A Case of Staff With Disabilities at a Higher Education Institution. We wish you all the best with your research.

Regards

ASSOCIATE PROFESSOR JOANNE HARDMAN

Appendix F: Learning Design Support Reflections

Digital Literacy practices for training and supporting staff on the use of educational technology.

Reflecting on the typical approach to educational technology support from a learning designer perspective, the approach to the various ways in which support is offered has a typical structure and flow that one becomes accustomed to when being trained in this role. There are typical actions taken by the learning designer offering the support and the staff members receiving the support. The below attempts to clearly outline the approach and typical actions/role of each party during this mode of support.

Demonstrations

Demonstrations are typically used for staff training, whether in-person or online training, to show staff how to do action tasks in online spaces, the most common space being the institutional LMS. Demonstrations allow staff to see where the trainer is pointing to while actioning the task that participants also need to action to learn those steps. With this the trainer is also explaining using more detail about the screen that is being displayed. During these demonstrations, the trainer usually has their screen displayed where all participants can see what screen they should be on, what they should be clicking on and what options to choose or where to input information. While pointing to areas of the screen, the trainer provides further detail in the form of explanations of the spaces and examples of how to make use of the space and providing pedagogical context of the use cases for that specific tool/s. Simultaneously, participants will follow along looking at the trainer's screen being displayed and applying what they are seeing and hearing on their own device/screen that they are using to ensure they are doing those same steps correctly and that the clicks are leading to the same outcome. At certain points during the demonstration the trainer can move too quickly leaving the participants 'left behind' and stuck one or two steps/screens behind. As a trainer there are often times where you forget how quickly you do execute steps based on how familiar the space is to you and this leads to participants following along feeling 'lost' being on a different screen to yours and not knowing how to continue navigating to reach the page you are on.

Screencast Recordings

Similar to demonstrations, screencasts are digital video recordings of computer screens with audio to guide the visuals. This can be seen as shortened versions of demonstrations. Where demonstrations provide detail on a number of tools/spaces of an educational technology tool/platform, screencast recordings generally focus on one tool/space and will then provide the staff member with multiple

videos based on specific needs. Screencast recordings offer a more formal explanation of the tool. Screencast recordings allow for video editing to enhance the guidance being provided by the trainer. Enhancements typically include pointers/spotlighting/tracing areas or words appearing on screen. These additions are used to draw attention to specific areas on the screen. Screencasts may include the addition of subtitles or allow for the provision of transcripts to accompany the screencasts in an attempt to make these videos more inclusive. Another benefit of screencast recordings is that it allows the individual engaging with it to pause the recording to action, eliminating the possibility of the person feeling 'lost'. During the screencast recording the trainer is navigating the platform/system/tool to perform certain actions while simultaneously talking through the navigation and completing certain tasks. In doing this, it allows the person viewing the recording to follow along and action the same steps on their device to ensure the correct and successful end result.

Guides

Guides in educational technology support are typically created in Word or PowerPoint slides and saved as PDFs to send to staff. For the most part, these guides are a mix of textual instructions that are specific and to the point accompanied by screengrabs/ screenshots of the application/platform/tool that the guide is instructing on. This allows for staff to follow a step-by-step instruction on the setup/use of the specific technology with visuals to ensure they navigate the space correctly. Guides often use enhancement options when being created such as bold words or highlighted words using alternative colours to that being used in the general text. The screengrabs/ screenshots used are often cropped to show specific areas and are edited to include highlighted areas or coloured boxes or circles to draw attention to buttons or places on the image. Guides are typically a more formal and planned approach to educational technology support. These guides are typically sent via email in response to an emailed request for support. The guides are also shared as a supplement to training sessions where demonstrations took place to provide quick reminders of steps to action. The guides are also often sent after a one-on-one consultation to allow staff to action steps beyond the consult they may feel unsure about.

Screengrabs/shots

Screengrabs/ screenshots are snapshots of screens as they are and in the form of an image. These images are commonly used in various experiences of educational technology support in recent years. In addition to the uses mentioned above in guides, screengrabs/screenshots are mainly used during email communication with staff. When emailing it is either to point to a specific area or button on a screen, to confirm action taken or it is something we request from staff to further understand an

issue/error they are experiencing. Screengrabs/screenshots are also often used to confirm information provided, instead of rewriting or copying and pasting information, a screengrab/ screenshot is used to share information e.g. to confirm access was granted to a platform, sharing general information received via email without having to forward that information separately, to confirm the look of a page someone is mean to be on including the information they are meant to be able to see on a specific screen.

Talk-throughs

Talk-throughs in educational technology support is usually as a result of a telephonic call to a help desk for assistance. Staff will reach out for support telephonically as this is likely to result in receiving assistance faster than that of sending an email to a designated help desk email address and waiting in a ticketed system for a response. Talk-throughs typically involve the help desk support consultant listening to the needs of the caller and then talking the caller through steps to resolve their issue/query. For this method to be most effective it would typically require both parties to be on the same screen so that what is communicated is easily understood with both parties seeing the same things. For the most part and with quick action tasks this method is effective. Confusion can set in when an unusual error occurs only on the side of the caller making troubleshooting difficult as there would be less of an understanding by the consultant unless they had experienced the same or a similar issue in the past. For this reason, in some support cases the approach to support then shifts by the scheduling of a time to remote access the caller's device to allow the consultant to see what it is the caller is seeing and offer the correct support towards a successful conclusion of the call.

Remote Access

Remote access is a more effective means of user support as it allows the support consultant to see the screen of the person who has requested support. Remote access can either occur through a video conferencing call or through specifically designed remote access applications. For remote access to be granted to the consultant it requires the individual with the query to already have or to download one of the aforementioned tools and for the consultant and the caller to share some sort of information to gain access to each other individually which usually involved the sharing of a link or code to access the tool and knowledge of how to do this. Once this is shared it allows the consultant to request access to the device and the caller would first need to see the request then select the option to allow for the consultant to gain remote access to their device. The consultant will then have access to the device and navigate and action as needed to resolve the query and reach a successful completion of the call.

In some cases, the consultant may, even with having remote access, still guide the caller through actioning themselves. This is towards upskilling the caller to know how to resolve this query themselves and avoid having to log a call for assistance for the same thing in future. This is typically done in tasks that are simple enough for the caller to action themselves. There are often times where the query is very technologically heavy in that it requires someone with a more in depth knowledge of technology and as such guiding the caller may result in more confusion, cause frustration or be very time consuming. In these cases the consultant will action what is necessary to solve the query and provide a quick explanation in layman's terms of what they have done and what the caller can/should do moving forward or what action they can take should the issue reoccur.

Office Visits

Office visits are as they seem to be, it is when a query is logged and the consultant goes to the working space of the person who is needing assistance, to physically access their device and resolve the query. This type of support requires both parties to agree on availability and for the consultant to know where to go to. Institutions often have complicated office and building setups with small or limited signage making finding offices in itself a challenge. In many recent cases it requires both parties to have access to instant communication with each other for the consultant to meet the staff member at the entrance to the building or floor or at a commonly known spot to walk them to their office space. Once there consultant usually sits in the chair of the staff member and works on their physical device to resolve the query, this also involves some form of conversation as the staff member who has logged the query might explain in more detail now that the consultant can see their screen or the consultant might action and ask the staff member questions towards successful resolution of the query. Often the actioning towards resolution can be time consuming and it is usually difficult to predict how long the assistance will take. In some cases where the actions are not as complicated, the consultant might show the staff member what they are doing or guide them with troubleshooting of same or similar issues in future. In other more technical and complicated cases, the consultant will chat about other things while taking action and resolve the query. In some cases it can be that a query cannot immediately be solved and may require the consultant to return at a later stage or plan for remote access once they have been able to gain further information on the issue or source certain software or hardware to resolve the issue.

Walk-in's

In most institutions the technology and educational technology support offices have a walk-in facility. This allows for staff and students with queries to talk into the office space of the consultants and either

be added to a ticketed/queuing system or receive assistance from a consultant immediately. This is often an option that yields the quickest results as it allows for almost immediate access (dependant on how many others are seeking support at that time) to technical support and for someone to physically gain access to the device to guide those reaching out for help to have their query resolved or to be guided through taking action themselves to solve the problem. This requires the walk-in office to be open and for clear signage to be visible to those seeking assistance as to what to do to receive help, e.g. fill in details on a tablet or wait in a specific queue etc. For this to be successful the operational times of the walk-in space needs to be available for those seeking assistance to do so at the appropriate times and for the staff member seeking assistance to have the necessary access to back-end systems to assist from their end as needed. It is also important for there to be clear communication between the individual seeking assistance and the consultant towards efficient and successful resolution.