

**INCLUSIVE TEACHING-EFFICACY AMONG EARLY CHILDHOOD TEACHERS  
IN ZAMBIA**

By

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**A Thesis Submitted to the University of Zambia in Fulfilment of the Requirement for  
the Award of the Degree of Doctor of Philosophy (PhD) in Educational Psychology**

**THE UNIVERSITY OF ZAMBIA**

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## DECLARATION


I, Derick Singogo, solemnly declare that this thesis is my work and that it has never been previously submitted for a Doctoral Degree or any other qualifications at the University of Zambia or any other University or Institution.


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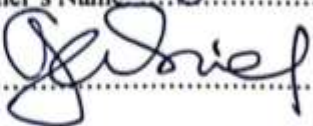
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**CERTIFICATE OF APPROVAL**


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## ABSTRACT

Teachers' inclusive teaching-efficacy is fundamental to the success of inclusive early childhood education (ECE), as it directly influences their ability to support learners with diverse abilities and learning styles. While research highlights the importance of teaching efficacy in inclusive education, limited attention has been given to understanding the levels of inclusive teaching efficacy among early childhood educators in Zambia. This study investigates the inclusive teaching-efficacy of teachers in Zambian early childhood centers and examines how their understanding of inclusive education influences their confidence and effectiveness in implementing the country's inclusive education policy.

Employing an exploratory sequential mixed-methods design, the study engaged 153 participants, including 150 inclusive ECE teachers from selected schools in Lusaka, Eastern, and Copperbelt provinces. In the qualitative phase, semi-structured interviews were conducted with 17 ECE teachers, two educational officers, and one ECE college coordinator, all purposively sampled. The subsequent quantitative phase involved a survey of 133 randomly selected ECE teachers to examine the effects of knowledge, motivation, and demographic factors (such as age and gender) on teachers' inclusive teaching-efficacy.

Qualitative data were analyzed using Interpretative Phenomenological Analysis (IPA), revealing key themes related to teachers' self-efficacy, including the influence of knowledge, training, exposure, and continuous professional development (CPD). The findings underscore the necessity of preparing teachers for policy implementation, particularly by enhancing their self-beliefs, which drive motivation and the effective enactment of inclusive education policies. Statistical analyses, including t-tests, demonstrated that teachers' understanding of inclusive education positively correlates with their self-efficacy. Additionally, a strong positive relationship was found between teachers' experience in inclusive classrooms and their motivation, which in turn reinforced both self-efficacy and knowledge.

The study highlights the critical need for continuous professional development to strengthen teachers' self-efficacy in inclusive ECE. Universal Design for Learning (UDL) is one such framework that provides flexible, evidence-based instructional strategies to accommodate diverse learning needs, offering a structured approach for improving teaching-efficacy in inclusive settings. By embedding UDL principles multiple means of representation, engagement, and expression into teacher training, educators can better support all learners and

enhance the implementation of inclusive education policies. Providing teachers with the necessary knowledge and skills through targeted training initiatives is essential for addressing the diverse needs of learners and fostering successful inclusive learning environments. The study recommends expanding CPD opportunities for inclusive ECE teachers and strengthening teacher training curricula to ensure educators are adequately equipped to support learners in inclusive settings.

## **DEDICATION**

I dedicate this thesis to my little girls Gracious Singogo and Tasheni Singogo.

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## TABLE OF CONTENTS

<b>COPYRIGHT</b> .....	<b>i</b>
<b>DECLARATION</b> .....	<b>ii</b>
<b>CERTIFICATE OF APPROVAL</b> .....	<b>iii</b>
<b>ABSTRACT</b> .....	<b>iv</b>
<b>DEDICATION</b> .....	<b>vi</b>
<b>ACKNOWLEDGEMENTS</b> .....	<b>vii</b>
<b>LIST OF TABLES</b> .....	<b>xv</b>
<b>LIST OF FIGURES</b> .....	<b>xvi</b>
<b>LIST OF APPENDICES</b> .....	<b>xvii</b>
<b>ACRONYMS AND ABBREVIATIONS</b> .....	<b>xviii</b>
<b>CHAPTER ONE: INTRODUCTION</b> .....	<b>1</b>
1.1 Overview .....	1
1.2 Background .....	1
1.2.1 Global Trends .....	1
1.2.2 Trends in Africa.....	2
1.2.3 Trends in Zambia.....	4
1.2.4 The Current Status of Early Childhood Education in Zambia.....	7
1.2.5 Status of Teacher Training for Early Childhood Education in Zambia.....	9
1.2.6 The Concept of Self-efficacy in teaching .....	11
1.3 Statement of the Problem .....	15
1.4 Purpose of the study .....	16
1.5 Research Objectives .....	16
1.6 Research Questions .....	17
1.7 Significance of the Study .....	17
1.8 Delimitation of the study.....	19

1.9	Limitations of the study.....	20
1.10	Conceptual Framework .....	21
1.11	Theoretical Framework .....	23
1.12	Operational Definition of key terms.....	25
1.13	Summary of Chapter One.....	26
	<b>CHAPTER TWO: LITERATURE REVIEW.....</b>	<b>27</b>
2.1	Overview .....	27
2.2	General Self-Efficacy.....	27
2.2.1	Origins of Efficacy through Agency .....	28
2.2.2	Sources of Self-Efficacy .....	29
2.2.3	Efficacy Activated Processes.....	30
2.2.4	High and Low Self-Efficacy in Individuals.....	31
2.2.5	Differences among Self-efficacy, Self-Concept, Self-Esteem and Locus of Control .....	33
2.3	Self-efficacy in Education.....	33
2.4	Overview on Inclusive education.....	36
2.4.1	Inclusive Teaching Efficacy .....	38
2.4.2	Teachers' Beliefs and teaching ECE .....	41
2.5	Importance of ECE Provision .....	44
2.5.1	Inclusive ECE Teacher Preparation.....	48
2.6	Understanding of Inclusive Education Among Early Childhood Teachers .....	51
2.7	Sources of Teaching-Efficacy in Inclusive Education .....	59
2.8	Teaching Efficacy among Early Childhood Education (ECE) Teachers .....	64
2.9	Factors Influencing Inclusive Teaching Efficacy.....	71
2.10	Summary of Chapter .....	85
	<b>CHAPTER THREE: METHODOLOGY .....</b>	<b>86</b>
3.1	Overview .....	86

3.2 Research Paradigm.....	86
3.2.1 Justification for choice of the Research paradigm.....	87
3.3 Research Design.....	87
3.4 Population of the study.....	90
3.5 Sample Size.....	91
3.6 Sampling Procedure .....	93
3.6.1 Non-probability Sampling .....	93
3.6.2 Probability Sampling Techniques.....	95
3.7 Data Collection Procedures.....	96
3.8 Data Collection Instruments.....	97
3.9 Trustworthiness and credibility of the findings.....	98
3.9.1 Credibility.....	99
3.9.2 Dependability.....	99
3.9.3 Confirmability .....	100
3.9.4 Transferability .....	100
3.10 Test of Reliability and Pilot Research Instrument .....	100
3.11 Validity of the Results.....	101
3.12 Data Analysis .....	102
3.13 Ethical Considerations.....	105
3.14 Summary of Chapter Three .....	109
<b>CHAPTER FOUR: PRESENTATION OF FINDINGS.....</b>	<b>110</b>
4.1 Overview .....	110
4.2 Background Characteristics of participants.....	110
4.3 Teachers' Knowledge of Inclusive Early Childhood Education.....	114
4.3.1 Teacher Knowledge.....	115
4.3.2 Knowledge about Teaching and learning procedures.....	116
4.3.3 Knowledge to communicate .....	117

4.3.4 Knowledge about Features of ECE Class.....	119
4.4 Sources of inclusive teaching efficacy (ITE) in early childhood schools among teachers .....	120
4.4.1 Learning environment.....	120
4.4.2 Personal Experience .....	121
4.4.3 The in-service training.....	122
4.4.3.1 Continuing Professional Development (CPDs).....	122
4.4.3.2 Experience gained through their length in service .....	124
4.4.4 The pre-service training.....	125
4.4.4.1 The curriculum adjustment.....	125
4.4.4.2 Monitoring tools .....	126
4.4.5 Personal love for children.....	126
4.5 Teachers’ Self-efficacy in the inclusive early childhood Education.....	129
4.6 Factors affecting inclusive teaching efficacy among early teachers in Zambia.....	130
4.6.1 The Number of learners with SEN .....	130
4.6.2. Unfamiliar with IE policy content .....	131
4.6.3 Stigma and discrimination .....	132
4.6.4. Caretaking.....	134
4.6.5 Positive Feedback.....	135
4.6.6. Attitude towards Inclusion.....	135
4.6.7 ‘Need for Motivation’ .....	137
4.6.8 External factors.....	137
4.7 Effect of ECE Teachers’ Understanding of Inclusive education on their efficacy .....	140
4.8 Effects of the Teachers’ Sources of inclusive teaching efficacy on their self-efficacy	143
4.9 Types of Disabilities.....	144
4.10 Other factors of teachers’ Inclusive Self-efficacy.....	145
4.11 Summary .....	145

<b>CHAPTER FIVE: DISCUSSION OF FINDINGS.....</b>	<b>148</b>
5.1 Overview .....	148
5.2 Knowledge of Inclusive ECE teachers.....	148
5.3 Sources of inclusive teaching efficacy (ITE) in early childhood centres among teachers .....	151
5.3.1 Learning environment.....	151
5.3.2 Personal Teacher’s Experience.....	152
5.3.3 The in-service training.....	153
5.3.4 The pre-service training.....	155
5.4 The level of teaching-efficacy among inclusive early childhood teachers in Zambia .	157
5.5 Factors Affecting inclusive teaching efficacy among early childhood teachers in Zambia .....	159
5.5.1 The Number of learners with SEN .....	159
5.5.2 Unfamiliarity with Inclusive Education Policy Content.....	160
5.5.3 Stigma and discrimination .....	161
5.5.4 Self-esteem and Personal factors .....	162
5.5.5 Need for Motivation .....	163
5.6 Summary .....	164
<b>CHAPTER SIX: CONCLUSIONS AND RECOMMENDATIONS.....</b>	<b>167</b>
6.1 Overview .....	167
6.2 Conclusions .....	167
6.3 Recommendations .....	168
6.4 Future research .....	169
<b>REFERENCES.....</b>	<b>171</b>
<b>APPENDICES .....</b>	<b>205</b>
Appendix A: SEMI-STRUCTURED INTERVIEW GUIDE FOR TEACHERS.....	205
Appendix B: CONSENT FORM.....	207
Appendix C: PARTICIPANT INFORMATION SHEET .....	208

Appendix D: QUESTIONNAIRE FOR TEACHERS .....	212
Appendix E: ETHICAL CLEARANCE LETTER.....	221
Appendix F: PERMISSION LETTER FROM MINISTRY OF EDUCATION .....	224

## LIST OF TABLES

Table 1: Determination of the Sample size in the quantitative phase of the study .....	93
Table 2: Reliability Statistics of the different tools constituting the questionnaire .....	101
Table 3: Demographic Information of the Inclusive ECE teachers in qualitative phase .....	111
Table 4: Demographic Information of the Respondents in Quantitative phase .....	113
Table 5: Source of Inclusive Teaching Efficacy .....	128
Table 6: Teachers' Levels of Teaching-efficacy .....	130
Table 7: Teachers' Levels of Understanding Inclusive ECE .....	141
Table 8: The effect of Teachers' Level of Understanding Inclusive ECE on their Self-efficacy Level .....	142
Table 9: Test for Effect of Teachers' Motivation to Teach ECE Class on their Self-efficacy Level .....	143
Table 10: Types of Disabilities Common in Sampled Inclusive Schools .....	144

## LIST OF FIGURES

Figure 1: The relationships between the independent and dependent variables of the ECE teachers' inclusive self-efficacy .....	23
Figure 2: Sources of inclusive teaching efficacy among early childhood teachers in Zambia: Thematic map of results.....	157

## **LIST OF APPENDICES**

Appendix A: SEMI-STRUCTURED INTERVIEW GUIDE FOR TEACHERS.....	205
Appendix B: CONSENT FORM .....	207
Appendix C: PARTICIPANT INFORMATION SHEET.....	208
Appendix D: QUESTIONNAIRE FOR TEACHERS .....	212
Appendix E: ETHICAL CLEARANCE LETTER .....	221
Appendix F: PERMISSION LETTER FROM MINISTRY OF EDUCATION.....	224

## ACRONYMS AND ABBREVIATIONS

ITE	Inclusive Teaching-Efficacy
MOE	Ministry of Education
ECE	Early Childhood Education
UNZA	University of Zambia
LSEN	Learners with Special Education Needs
MESVTEE	Ministry of Education, Science Vocational Training and Early Education
MoGE	Ministry of General Education
SPSS	Statistical Package for Social Sciences
UNESCO	United Nations Educational, Scientific and Cultural Organization
UN	United Nations
DRGS	Directorate of Research and Graduate Studies
EFA	Education for All
GRZ	Government of Republic of Zambia
SEN	Special Education Needs
ZPA	Zambia Pre-school Association (ZPA)
TR	Teacher
PEO	Provincial Education Officer
DEBS	District Education Board Secretary

ECCD	Early Childhood Care and Development
CPD	Continuing Professional Development
CSENs	Children with Special Education Needs
DRCC	District Resource Centre Coordinators
IPA	Interpretive Phenomenological Analysis
DALICE	David Livingstone College of Education
NGOs	Non-Governmental Organisations

# CHAPTER ONE: INTRODUCTION

## 1.1 Overview

This chapter presents the background of the study, reviewing global, African, and Zambian trends in inclusive and early childhood education. It also explores the concept of self-efficacy in relation to teachers handling learners in inclusive early childhood schools. Furthermore, the chapter presents the statement of the problem, purpose of the study, study objectives, research questions, and significance of the study. It concludes by discussing the delimitation and limitations of the study, the theoretical and conceptual frameworks, operational definitions of terms, and a summary of the chapter.

## 1.2 Background

### 1.2.1 Global Trends

Global Trends Worldwide, inclusive education has become a highly important focus, and currently, the European Union treats this topic as a common policy goal, shifting from the inclusion of students with special educational needs to the inclusion, participation, and development of all learners (Schwab, 2020). Within the context of inclusive education, a plethora of authors have highlighted the importance of teachers' attitudes towards inclusive education and their self-efficacy beliefs (Schwab, 2018; Avramidis & Norwich, 2002; de Boer, Pijl, & Minnaert, 2011; Forlin, 2013; Tschannen-Moran & Hoy, 2001).

With increased attention in both developed and developing countries towards inclusive education, several international conferences have been held to deliberate on the best approaches to its implementation. One of the most prominent conferences was Education for All (EFA), held in Jomtien in 1990. During the said conference, it was resolved that access to education should not be limited to a few privileged individuals but should extend to the underprivileged, including persons living with disabilities (UNESCO, 1990). The international community at the Jomtien conference, in which Zambia was represented (Matafwali & Munsaka, 2011), did not exclude early childhood education from the Education for All agenda but set it as Objective Number One (Mwanza, 2015). Countries were urged to promote the expansion of early childhood care and development activities, especially for poor and disabled children.

Another significant world education conference was the Salamanca Conference in Spain. The Salamanca World Conference on Special Needs Education in Spain was critical in advancing the education of learners with special needs globally. All countries represented at this conference became signatories to the Salamanca Statement and Framework for Action on Inclusive Education (UNESCO, 1994; Mittler, 2000; Moberg, 1997; Avissar, 2000). The conference was a pivotal undertaking, calling upon all governments to adopt policies ensuring the provision of education for all in an inclusive manner. The emergence of such conferences led to a major shift towards inclusive education globally, ensuring children could access education regardless of their physical or mental conditions at every level of education, including early childhood, without discrimination (UNESCO, 1994).

### **1.2.2 Trends in Africa**

Trends in Africa While Africa is part of the global community, it is paramount to explore trends in the African context regarding inclusive education to appreciate early childhood teachers' efficacy. The South African Human Rights Commission report (2002) highlights that the shift to inclusive school practices significantly empowers individuals with disabilities by providing quality education and training through mainstream institutions. This facilitates productive interactions and opportunities for all learners from as early as the early childhood level. Similarly, Arrah (2014) posits that, despite a lack of adequately skilled teaching personnel in most schools, the government of Cameroon has made progress in working with relevant stakeholders to support inclusive education. There is political will to promote equal opportunities through inclusive education at all levels in most African countries, but inadequate resources hamper effective implementation (Arrah, 2014).

In its bid to provide access to compulsory primary education of good quality for all children, especially those with disabilities, Senegal committed to achieving Education for All by 2015. This was achieved through the introduction of special education in regular classroom practices (UNESCO, 2000). As a result of the social and academic benefits associated with inclusive education, Senegal adopted and pledged to meet the Education for All framework goal of enabling children with diverse learning needs to access quality education through inclusive education (UNESCO, 2000). In this regard, Senegal passed a law ensuring free access to quality education in mainstream schools, allowing children with disabilities to attend schools located as close as possible to their residences (Drame & Kamphoff, 2014).

The Namibian government, as noted by Zimba, Mowels, and Naanda (2007), introduced special education into mainstream education through its Education and Training Sector Improvement Programme (2005-2020). This was a response to poor public examination performance. The initiative provided an avenue for the implementation of inclusive school practices, encouraging active participation from all stakeholders at all levels of education, including early childhood (Zimba, Mowels & Naanda, 2007). The Namibian government heeded the call to appreciate and support the provision of quality education for all children within the framework of an inclusive schooling system.

Generally, most African countries have made significant progress in promoting inclusive education. However, Tshifura (2012) notes that several constraints remain to be overcome, including fiscal limitations, negative attitudes, a lack of support services, rigid teaching methods, inadequate teacher expertise, large class sizes, and teachers' efficacy. Additionally, Brady-Amoon and Fuertes (2011) emphasize that self-efficacy among teachers handling learners in inclusive classrooms is instrumental in guiding coping skills for effective performance. Managing inclusive education, particularly in Southern African countries, is compromised by factors such as stigma, discrimination, poor school infrastructure, and inadequate learning resources to support inclusive teaching and learning (Tshifura, 2012).

Trends in Zambia, like other developing countries, Zambia has actively promoted inclusive education. The latest policy document on education, *Educating Our Future*, embraces the introduction of special education in regular schools (MOE, 1996). Many children with disabilities have been incorporated into mainstream schools (MOESVTEE, 2013). Upholding the Education for All pledge, the Government of the Republic of Zambia has introduced early childhood education programs in various locations nationwide as part of promoting inclusive education. While earlier efforts were made, significant advancements in early childhood education only began in the 1990s following the Jomtien World Summit on the Declaration of Education for All, in which Zambia participated (Matafwali & Munsaka, 2011).

Having embraced inclusive education following essential international conferences, learners with special needs have been given the opportunity to learn alongside their peers in the same classrooms. They participate in field trips, after-school activities, sports meeting, and play together (Woodcock, Hemmings & Kay, 2012). Inclusive education does not exclude early childhood education but embraces diverse students at every level. Thus, inclusive education policies should value diversity and the unique contributions each learner brings to the

classroom. Teachers must also appreciate this diversity. A truly inclusive setting ensures every learner feels safe and has a sense of belonging, participating in decisions that affect them, particularly when school staff are trained to respond to the needs of all learners (UNESCO, 2009).

### **1.2.3 Trends in Zambia**

Zambia, like other developing countries, has not remained dormant in the agenda to promote inclusive education. The latest policy document on education, “Educating Our Future” has embraced introduction of special education in regular schools (MOE, 1996). Many children with disabilities have been incorporated in the mainstream schools (MOESVTEE, 2013). In upholding the education for all pledge, the government of the Republic of Zambia has also introduced early childhood education programmes in many locations in the country which are part and parcel of the promotion of the inclusive education programmes. Basically, though not ignoring earlier efforts, the real advancements in early childhood education only started in the 1990s following the Jomtien World summit on the Declaration of Education for All held in Thailand in 1990 where Zambia was a participant (Matafwali & Munsaka, 2011).

Having embraced inclusive education after essential international conferences stated earlier on were held, learners with special needs were given an opportunity to learn side by side with typical learners in the same classroom where they enjoyed field trips and after-school activities together while attending the same sports activities and plays (Woodcock, Hemmings & Kay, 2012). It is important to point out that Inclusive education does not exclude early childhood level but also embraces different and diverse students at every level of education. Therefore, inclusive education policies should value diversity and the unique contributions each learner brings to the classroom and indeed a teacher should not be left out in appreciating the diversity of the learners. A true inclusive setting makes every learner feel safe and has a sense of belonging where they take part in decisions that affect them, especially if the school staff have the training that supports and responds to the needs of all learners (UNESCO, 2009).

Zambia's pursuit of Sustainable Development Goals (SDGs) reflects a strong commitment to achieving sustainable development by 2030. The SDGs, established by the United Nations in 2015, comprise 17 global goals designed to address a broad range of issues, from poverty and hunger to climate change and justice among others (World Bank, 2021; World Bank, 2023). Each goal has specific targets and indicators to measure progress. This study focuses on

inclusive teaching-efficacy among ECE teachers and indeed SDG number 4 is of critical interest to the current study. The purpose of SDG 4 is to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all. Recent studies show that while progress has been made, educational inequalities persist, especially in low-income regions (UNESCO, 2023). While several factors are being considered in achieving the goal, psychological factors such as teaching efficacy in inclusive education provision remained unexplored. Research indicates that educational disparities are persistent, with significant impacts on future opportunities for the affected students (Duflo et al., 2017).

Indeed, the SDG 4 is key in this study due to its focus on the provision of quality inclusive education. Zambia, as a signatory to the United Nations' Sustainable Development Goals (SDGs), has committed to achieving Sustainable Development Goal (SDG) 4 by 2030 (United Nations, 2015). This ambitious goal underscores the importance of providing access to quality education for every individual, regardless of their background or circumstances. It fosters an environment where lifelong learning is not only encouraged but systematically supported. Teachers play a critical role in fostering a supportive teaching and learning environment to allow all learners regardless of their status acquire holistic education. However, if teachers do not believe in their abilities to manage certain category of learners when they are expected to, it will be a hinderance to achieving equitable quality education. For example, the rolling out of inclusive education meant that all educators at all levels of education were expected to adopt inclusive pedagogy. With a view to achieving SDG 4, the government of the Republic of Zambia, through the Ministry of Education expects every teacher from early childhood to deliver in an inclusive classroom. What was overlooked, however, was a consideration as to whether every teacher possessed inclusive teaching-efficacy.

Indeed, achieving SDG 4 requires comprehensive planning for holistic teacher training and effective execution, especially in contexts where educational infrastructure and resources might be limited. For Zambia, rolling out an education policy that aligns with SDG 4 involves a multifaceted approach. It necessitates that stakeholders ranging from government officials and educators to community leaders and parents are equipped with the necessary skills and knowledge to implement and sustain educational reforms effectively (World Bank, 2022). One crucial aspect of this implementation process is capacity-building at all levels of the education system. Capacity-building refers to the development of skills, knowledge, and resources that stakeholders need to effectively execute policies and drive positive outcomes in education. For

instance, training programs for teachers and administrators can improve their ability to deliver high-quality education and manage diverse classrooms (UNESCO, 2021). Similarly, community engagement initiatives can help create a supportive environment for students, particularly those from marginalized groups.

Inclusive education, which is a core component of SDG 4, has garnered significant attention in recent years. The inclusive education policy aims to integrate students with diverse needs, including those with disabilities into mainstream educational settings, ensuring that all students receive a high-quality education in an environment that respects and values diversity (Swab, 2020). This policy shift reflects a broader understanding of the benefits of inclusive education, which not only supports the educational development of individuals with special needs but also enriches the learning experience for all students by promoting tolerance and understanding (Miles & Singal, 2016).

Swab (2020) highlights that inclusive education is not merely about placing students with different abilities in the same classroom but involves a systemic approach to ensuring that the educational environment, curriculum, and teaching strategies are adapted to meet the needs of all learners. This requires significant changes in how educational institutions are structured and how educators are trained. For example, teacher training programs must include modules on inclusive practices and differentiated instruction, which are critical for addressing the diverse needs of students (Smith et al., 2015). Further, the successful implementation of inclusive education policy also demands robust monitoring and evaluation mechanisms. This includes assessing the effectiveness of inclusive practices and identifying areas for improvement. By systematically collecting and analyzing data on educational outcomes and student experiences, policymakers can make informed decisions about necessary adjustments and additional support (UNICEF, 2023).

Zambia's commitment to achieving SDG 4 by 2030 involves a strategic and collaborative approach to education policy development and implementation. Capacity-building for key stakeholders such as the teachers and a focus on inclusive education is integral to this process. As Swab (2020) notes, inclusive education is a critical area of interest that requires concerted efforts to ensure that every student has access to equitable and high-quality educational opportunities. This approach not only aligns with global educational standards but also contributes to the overall development and empowerment of individuals and communities in Zambia. This capacity building of teachers in handling inclusive education is even more critical

at early childhood education level being foundation to quality education provision. In this regard, preparing teachers to handle inclusive education requires holistic approach and indeed investigating inclusive teaching efficacy, (a critical psychological factor) among ECE teachers cannot be overemphasized.

#### **1.2.4 The Current Status of Early Childhood Education in Zambia**

The current status of education in the early childhood sector in Zambia seemingly emanated from the resolutions of the Jomtien Conference on education for all in 1990 and Dakar Framework of 2000 in Senegal (Education International, 2009). Zambia upheld the resolutions of the aforesaid conferences through the formulation of the national policy on early childhood education (MOE, 2007). The Ministry of education in its strategic plan on childhood care, development and education (ECCDE) for 2011 to 2015 emphasised on improving access to quality early childhood education as well as provide qualified human resources (MOE, 2010). The government of the republic of Zambia in 2013 made significant progress and pledged to introduce early childhood education to children in age ranges 4 to 6 years at nursery level as well as the reception (MESVTEE, 2013). It is important to note that before independence the early childhood education in Zambia was under Sub O education which involved learning to write the letters of the alphabet on the ground. With regards to the colonial government, the Day Nurseries Act of 1957 guided the provision of ECE for the local children (Peters, 2021). However, it was after Zambia's independence in 1964 that the welfare halls were being used for the provision of early childhood education under the Ministry of Local Government and Housing (Mwaanga, 2020). Indeed, such advancement in ECE saw the establishment of the Zambia Pre-school Association (ZPA) in 1972 meant to coordinate the provision of pre-school education (Ngoma, 2022).

Following participation in international conferences, the Zambian National Conference on Education for All in 1991 led to the creation of the "Focus on Learning" policy document (MOE, 1992). This policy extended the age range for pre-school learning to include children from 3 to 7 years old, compared to the previous range of 3 to 6 years outlined in the Education Reforms of 1977, and assigned local authorities and individuals the responsibility for managing early childhood education (ECE) matters. The government's role was primarily to train high-quality teachers and supervisors, guide curriculum development, and ensure that developmental milestones in social, physical, and mental domains were achieved. Notably, the government also subsidized ECE for children with special education needs. The 1996

Educating Our Future policy document further emphasized early childhood education as a cornerstone of human development and lifelong learning within the Zambian education system (MOE, 1996). Local councils, communities, non-governmental organizations, private individuals, and families were recognized as crucial players in the funding and provision of early childhood education.

The government of Zambia officially adopted ECE as part of the mainstream education system in 2011. In 2014, the Ministry of general education annexed ECE centres in government primary schools (MoGE, 2016). It is important to point out that before the year 2011, very little had been done in terms of uniformity and consistency in the implementation of ECE curriculum in Zambia. Since the designation of ECE as part of the mainstream education, efforts to meet the need for highly qualified teachers (Nkosha, 2013), have been made. In as much as the Zambian government is currently providing ECE for children aged 3-6 years, some parents are occupied with other life tasks and require their younger children to be cared for. As a result, day care services for children are provided by individuals and non-governmental organisations.

Care in early childhood education refers to the practices and actions taken to ensure that children receive the necessary support for their survival, growth, and development. According to the Ministry of Education (2007), this involves more than just meeting basic needs; it includes fostering a nurturing environment that supports physical health, emotional security, and cognitive growth. Care practices are integral to creating a foundation for lifelong learning and well-being. Care, as an element of early childhood education, refers to a set of practices and actions that are provided by caregivers—families, community services and institutions in order to ensure the child’s survival, growth and development (Ministry of Education, 2007). Indeed, care in this regard must be inclusive which accommodates the diverse needs of children, ensuring that all children, including those with special education needs or developmental delays, receive the support necessary for their survival, growth, and development. According to the Ministry of Education (2007), inclusive care involves creating an environment where all children can thrive, regardless of their individual challenges. This includes providing access to appropriate resources, adapting teaching methods, and fostering an environment of acceptance and understanding

It is significant to note that Zambia highlights the importance of inclusive care in early childhood education through the Educating our Future policy document (Ministry of Education, 1996). The policy document underscores early childhood education as a foundation

for human development and lifelong learning, highlighting the importance of inclusivity in education. It calls for collaborative efforts to ensure that inclusive practices are integrated into the education system (Ministry of Education, 1996). Additionally, Early Childhood Care and Education (ECCE) Policy outlines the framework for providing inclusive care and education. It emphasizes the need for inclusive practices that address the diverse needs of all children and promote equal opportunities for learning and development (Ministry of Education, 2007).

Following the designation of ECE as part of mainstream education, the use of familiar local languages for instruction in early childhood to the fourth grade was made a requirement in order to make foundational education more accessible and more meaningful to all children, regardless of their background (Ministry of Education 2016). Studies conducted in Zambia have revealed that ECE is predominantly an urban phenomenon. It is focused on preparation for primary schooling than for younger children who may need parental care (Matafwali et al., 2012). In addition, a study by Mwanza-Kabaghe et al. (2015), revealed that out of the 20 early childhood education centres that were sampled in Zambia's capital city, Lusaka, only one of them was found to be successfully implementing ECE as it should be implemented. While strides in curriculum development for ECE have been made, a lot more focus on the development of ECE infrastructure, ECE management, pedagogies and a sustainable multi-sectorial approach in ECE still require government investment. These areas could also point to the need for more research especially with regards to whether teachers in ECE centres are prepared through capacity building to implement inclusive education policy at the foundational (early childhood education) level.

### **1.2.5 Status of Teacher Training for Early Childhood Education in Zambia**

Teacher preparation in the provision of inclusive education is very significant. Ndhlovu, Muzata and Chipindi-Serenje (2016) report that most of the schools that were newly established as providers of early childhood education, teachers had not been prepared for the program. It is further revealed by Muzata, Mahlo and Mabunda (2017) that special education teachers in Zambia were not adequately involved in the development of the 2013 revised curriculum. The authors stated that teachers had limited understanding of the concept of curriculum adaptation which is necessary for implementing of the curriculum to learners with special education needs.

In order to appreciate the provision of inclusive education in early childhood, teachers play a critical role as key stakeholders. Indeed, their self-efficacy in inclusive Early Childhood

Education (ECE) settings attract attention for effective teaching (Smith & Brown, 2023). Despite the fact that the Zambia Pre-school Association (ZPA), established in 1972, broadened its mandate to include the training of teachers for Early Childhood Education, teacher preparation for early childhood was not a priority in government planning (ZPA, 2022). Early childhood education was theoretically regarded as highly important for the nation, but there was no immediate action to train teachers for the ECE sector (Kasanda, 2006).

In recent years, the training of early childhood teachers has gained prominence, with many colleges enrolling students in ECE programs (Ngoma et al., 2021). The Government of the Republic of Zambia introduced early childhood teacher training in numerous institutions. The number of colleges training teachers in ECE has increased, including existing institutions such as David Livingstone College of Education (DALICE) and Kitwe College of Education (KCE). Additionally, other colleges like Kasama College of Education and Chipata College of Education have been incorporated to enhance the training of early childhood teachers (Tukombe, 2014). High-quality training that provides in-depth knowledge of child development and how young children learn is significant for effective early childhood education (Mwansa, 2023). The aforesaid high quality training of the teachers may have different dimensions but little was known as whether these teachers possess inclusive teaching efficacy to handle diverse ECE learners. Furthermore, the value of inclusive education in early childhood education can be effectively achieved if teachers have what it takes to provide instructions to diverse learners. Additionally, the self-efficacy of these teachers has an impact in the effective delivery of lessons to the early childhood learners especially in inclusive education provision (Bandura, 1997).

As indicated by Ozoke (2018), early childhood education is the most effective starting point for achieving successful inclusive education. At this developmental stage, children are generally more open to diversity and less influenced by existing societal stigmas and discrimination. This early intervention is crucial as it helps to foster a more inclusive mindset from a young age, which is essential for mitigating biases that can form later in life (Smith & Brown, 2023). Furthermore, research underscores that early exposure to inclusive practices not only promotes social and emotional development but also enhances academic success and long-term educational outcomes (Ngoma et al., 2021; Mwansa, 2023). By embedding inclusive principles in early childhood education, educators can build a foundation that supports

equitable learning environments and helps dismantle barriers that affect marginalized groups (Mwansa, 2023).

The education policy, *Educating Our Future* emphasizes the value of early childhood education provision and trained teachers are very important in this case (MOE, 1996). Scholars have emphasized on deployment of quality ECE teachers with valid qualifications in all the ECE centres, with a minimum of Diploma in order to appreciate effective implementation of ECE in Zambia (Kasanda, 2006; Chikonde, 2018). Even though pre-schools had all along been under local authorities, local communities, NGOs and private individuals (UNESCO, 2006), the Ministry of education realized that its direct involvement in the Early Childhood Care and Education is significant in achieving the benefits of early childhood education. Leaving ECE only to private providers disadvantages the underprivileged children as well as compromising quality of education being provided and it is clearly indicated in literature that most early childhood private schools provide lessons to pre-scholars in a non-conducive environment with outdated curricula (UNESCO, 2006). As a signatory to the major international legal instruments on education, the government of Zambia started considering how best quality ECE could be provided to the Zambian children. The major progress recorded so far is the recruitment and deployment of the first ever early childhood teachers in 2013 (Ministry of Education, 2013) which is in contrast to previous years where no teachers were employed by government for the sector.

Ndhlovu, Muzata and Serenje-Chipindi (2016) state that in the 2012/2013 financial year, the government provided six billion kwacha (six million Kwacha rebased) to the establishment and provision of early childhood education. To increase access to sustainable ECE, the government recruited one thousand and one hundred (1100) preschool teachers in October, 2013 (Post newspaper, 15th October, 2013). While it is interesting to note that a good number of early childhood teachers were employed, little was known about their self-efficacy in handling learners in inclusive early childhood centres in Zambia.

### **1.2.6 The Concept of Self-efficacy in teaching**

Albert Bandura grounds the concept of self-efficacy in the social cognitive theory. Bandura (1997) conceptualized it as an individual's judgment of their capabilities to attain a desired level of performance. He published his influential work, "Self-efficacy: Toward a unifying theory of behavioural change", in 1977 which provoked remarkably, the growth of research on

self-efficacy (Hofman, & Kilimo, 2014). In this regard, research supports the claim that self-efficacy has an important influence on human achievement in a variety of settings, including educational achievement (Woodcock, Hemmings & Kay, 2012). Numerous studies have explored teacher self-efficacy, with researchers focusing on the practical applications of their findings. Evidence from this research suggests that teachers often do not perceive themselves as equally efficacious across all teaching situations (Wang et al., 2012; Hofman & Kilimo, 2014). Therefore, a teacher may feel confident when teaching a particular group of learners but may experience varying levels of self-efficacy in different situations, such as when teaching students with special needs compared to a general group of learners. From the afore reviewed literature for a background to this study, it is clear that a teacher that was prepared or trained to teach ordinary ECE learners may not be equally efficacious to handle an inclusive class of learners. While the inclusive education policy, which provides a backbone to the provision of inclusive education, was designed to promote inclusive education to all learners regardless of their background, the question as to whether the teachers engaged possessed inclusive teaching efficacy remained unanswered.

Thus, Wang, Zan, Liu, Liu and Sharma (2012) insisted that when judging teachers' self-efficacy, it is necessary to consider the teaching task, context as well as personal competence. Therefore, teaching in an inclusive classroom may be an issue of concern to the teacher and stakeholders as a whole. For example, teachers may handle learners with special education needs in an inclusive classroom with mixed feelings. This means that as teachers implement inclusive teaching, they must be able to respond, at least tentatively in the affirmative to the questions they have about inclusion. However, the most important factor that influences teachers' beliefs about inclusion is their direct experiences with inclusion (Leyser, Zeiger & Romi, 2011).

What is even more intriguing is the teaching of an inclusive class of early childhood learners because they are in a critical stage of development and indeed require a special commitment by the teachers. This is because ordinarily, a preschool learner requires an extra attention because they are still in a rapid development, mentally and physically. As Bandura (1997) argues, low efficacious individuals are not likely to succeed in their tasks. It is revealed in a study by (Hofman & Kilimo (2014) that although most teachers support the concept of inclusion at all levels including early childhood education, they are barely willing to teach in inclusive classrooms. Teachers are key stakeholders in the provision of inclusive education and

in this regard, their self-efficacy to handle an inclusive class of learners is significant (Leyser, Zeiger & Romi, 2011).

Empirical evidence underscores the significant appreciation teachers have for their involvement in decision-making processes related to inclusive education and its practical application within their classrooms (Hemmings & Weaven, 2005). Teachers' engagement in shaping how inclusive education is implemented allows them to tailor approaches to meet the diverse needs of their students effectively. This involvement fosters a greater demand for the necessary resources and support needed to develop and implement successful inclusive practices, especially at the early childhood level (Smith et al., 2022).

Early childhood education is a critical stage where foundational inclusive practices can profoundly impact learners' attitudes and experiences. Therefore, the active participation of educators in this process is crucial for addressing the unique challenges and opportunities presented in diverse classroom settings. Effective support for teachers at this stage can facilitate the creation of inclusive environments that accommodate various learning needs and promote equitable educational outcomes (Jones & White, 2023). Moreover, recognition and appreciation of the importance of early childhood inclusive education by both teachers and administrators are essential for advancing the field. When educators and policymakers acknowledge the value of robust, inclusive practices and the integral role they play in shaping educational experiences, it can lead to more substantive and sustained engagement in inclusive education initiatives. This increased recognition can help move beyond superficial participation and ensure that inclusive education is not merely a checkbox but a core component of educational practice and policy (Fraser & Lancaster, 2012; Green & Carter, 2024).

A paradigm shift in perspective and commitment towards inclusive education is pivotal for fostering more effective implementation of inclusive practices, thereby enhancing teacher efficacy and improving educational outcomes for all learners. Such a transformation involves not only a change in attitudes and beliefs but also the establishment of robust support structures and the provision of comprehensive professional development opportunities. These elements are crucial for embedding inclusive practices deeply into educational frameworks rather than treating them as temporary or superficial initiatives (Morris et al., 2023). Indeed, enhanced support structures play a fundamental role in this process by ensuring that teachers and educational institutions have the necessary resources and guidance to implement inclusive

strategies effectively. This includes administrative support, access to specialized materials, and the development of inclusive curricula that accommodate diverse learning needs. Professional development opportunities are equally vital, as they equip educators with the skills and knowledge required to adapt their teaching methods and address the varying needs of their learners. Continuous training and development help teachers stay abreast of the latest research, strategies, and best practices in inclusive education, thereby fostering an environment where all learners can thrive (Green & Carter, 2024).

Furthermore, strategic resource allocation especially at early childhood level is essential for sustaining inclusive education efforts. This encompasses not only financial resources but also human capital, such as hiring specialists and providing time for collaborative planning among educators. Effective resource allocation ensures that inclusive practices are not only implemented but are sustained over the long term, allowing for ongoing evaluation and refinement based on feedback and evolving needs (Morris et al., 2023). Incorporating these elements into educational practice transforms the approach to inclusive education from a set of isolated initiatives into a cohesive and integral part of the educational system. This comprehensive approach supports the development of an inclusive culture within schools, enhances teacher self-efficacy, and ultimately leads to better educational outcomes for all students, regardless of their individual needs and backgrounds (Smith et al., 2022). By addressing these factors, educational institutions can move towards a more equitable and effective educational environment that truly reflects the principles of inclusion and diversity.

Additionally, Hofman & Kilimo (2014) argued that early childhood special education teachers' who perceived themselves less capable were more motivated to improve their skills and knowledge compared to teachers with a high level of self-efficacy, in addition to some limitations that were related to the measurement of teacher self-efficacy in this study. The lack of a strong relationship between teacher beliefs and observed teacher-child interaction quality in the study under review contradicted with research that had indicated that early childhood teachers' practices were influenced by their efficacy beliefs (Montgomery & Mirenda, 2014).

While self-efficacy has been extensively studied, many scholars have focused on self-efficacy and adaptation of the learners in a learning environment (Mwanza, 2017, Wilson, 1994) while others concentrated self-efficacy and its effect on learner performance (Sharma, Loreman, & Forlin, 2012., Guo, Dynia, Pelatti, & Justice, 2014). On the other hand, there is also compelling evidence that early childhood teachers do not always practice what they believe to be important

and are not better teachers in reality because they report a high level of low self-efficacy (Engstrand & Roll-Pettersson, 2014; Guo et al., 2014). Indeed, effective implementation of the policy remains a critical interest of the policy makers to produce the intended results. The inclusive education policy is not an exception in this case. Several efforts have been put forth to ensure effective inclusive education provision even at ECE level. However, it remained unclear as to whether the ECE teachers possessed inclusive teaching efficacy to handle learners at this foundational level of education.

### **1.3 Statement of the Problem**

The Zambian government, through the Ministry of Education, is committed to expanding early childhood education programs by training teachers and promoting the Education for All agenda (MOESVTEE, 2012; MoE, 2005, 2007). Additionally, the Ministry has implemented an inclusive education policy, which mandates that all schools provide an inclusive learning environment (Chanda, 2019). A key factor influencing the success of inclusive education is teachers' self-efficacy ie their confidence in their ability to teach diverse learners. Research shows that teachers with high self-efficacy are more likely to create supportive classroom environments where students with varying abilities thrive (Sharma, Loreman, & Forlin, 2012; Guo, Dynia, Pelatti, & Justice, 2014). Bandura (1997) further emphasized that belief in one's abilities strongly influences motivation and effort, while Mittler (2000) pointed out that teachers with low self-efficacy are less likely to invest effort in lesson preparation and are more likely to give up when faced with challenges in instruction.

Frameworks such as Universal Design for Learning (UDL) provide a structured approach to inclusive teaching by emphasizing flexible teaching strategies that cater to diverse learning needs. UDL recognizes that learners have different strengths, abilities, and learning styles, promoting multiple means of engagement, representation, and expression to ensure all students can access and participate in education effectively. While UDL has primarily been developed in high-income countries, research suggests that it holds significant potential for supporting inclusive education in low- and middle-income countries (McKenzie, Karisa, & Kahonde, 2023). Integrating UDL principles into teacher training programs can enhance educators' self-efficacy in managing inclusive classrooms, equipping them with strategies to create learning environments that accommodate all students.

Although all learning institutions, including early childhood education (ECE) centers, are expected to effectively implement inclusive education, the current reality suggests that many teachers lack the necessary confidence and capacity to manage inclusive classrooms. Despite the requirement for pre-service and in-service training to enhance teachers' inclusive teaching efficacy, it remains unclear whether teachers feel adequately prepared to meet the needs of diverse learners in ECE settings. Without targeted efforts to strengthen teachers' self-efficacy, their ability to implement inclusive education policies successfully is uncertain.

Neglecting this issue in research could lead to a failure to address the psychological factors that influence policy implementation among teachers. As a result, the Ministry of Education may struggle to identify the barriers preventing effective execution of the inclusive education policy, ultimately compromising the quality of early childhood inclusive education. This study is motivated by the need to investigate teachers' inclusive teaching efficacy in early childhood education centers in Zambia to ensure high-quality inclusive education as a foundational stage of learning. Furthermore, while previous research in Zambia has explored general self-efficacy and its role in university students' adaptation (Mwanza, 2017; Wilson, 1994) or its relationship with learners' academic performance (Suldo, Shaunessy, Thalji, Michalowski, & Shaffer, 2009; Lai, 2014), there is a significant gap in studies focusing on inclusive teaching efficacy within early childhood education. Addressing this gap is crucial to strengthening the implementation of inclusive education policies at the foundational level of learning.

#### **1.4 Purpose of the study**

The purpose of this study was to investigate inclusive teaching efficacy among teachers handling inclusive early childhood learners in Zambia in order to explore teachers' beliefs that feed into their self-efficacy in implementing inclusive education policy.

#### **1.5 Research Objectives**

This study was guided by the following objectives:

- (i) To investigate ECE teacher understanding of inclusive education in Zambia.
- (ii) To establish sources of inclusive teaching efficacy among teachers handling learners in early childhood centres in Zambia.

- (iii) To determine the extent to which teachers of early childhood demonstrate inclusive teaching efficacy
- (iv) To ascertain factors affecting inclusive teaching efficacy among early childhood teachers in Zambia.

## **1.6 Research Questions**

Research questions seek to address or investigate a study (Mackey & Gass, 2005). The following are the research questions for this study:

- (i) What knowledge do Inclusive ECE teachers hold in handling learners in inclusive early childhood learners in Zambia?
- (ii) What are the sources of inclusive teaching efficacy among teachers handling learners in inclusive early childhood centres in Zambia?
- (iii) What is the level of teaching-efficacy among inclusive early childhood teachers in Zambia?
- (iv) What are the factors that influence inclusive teaching efficacy among early childhood teachers in Zambia?

## **1.7 Significance of the Study**

This study focused on the inclusive teaching efficacy among early childhood education teachers in Zambia. Zambia is committed to achieving SDG 4 by 2030 and indeed strategic and collaborative approach to education policy development and implementation is critical in this case. Therefore, this study on inclusive teaching efficacy which refers to the self-beliefs held by teachers in their capacity to support learners in learning environments that have both learners with special needs and those without special needs is significant at the following levels:

### **System Level:**

The findings of this study hold significant potential for influencing educational policy at a systemic level. Specifically, the Directorate of Planning, Policy and Research within the Ministry of Education (MOE) can leverage these insights to address existing gaps in policies related to inclusive education. By incorporating the study's findings, the MOE can develop and refine policies that better accommodate diverse learning needs, thus promoting a more

inclusive educational environment. Additionally, these findings contribute to the achievement of Sustainable Development Goal (SDG) 4, which aims to ensure inclusive and equitable quality education and promote lifelong learning opportunities for all. The study's implications align with SDG 4 by providing evidence-based recommendations that can enhance the inclusivity of educational policies and practices.

### **Program Level:**

At the program level, the findings are particularly pertinent for the Directorate of Teacher Education Service, which oversees the professional development of educators, both pre-service and in-service. The study's results can inform the development of Continuing Professional Development (CPD) programs, specifically tailored to address the needs of teachers managing inclusive classrooms. By highlighting the areas where current training programs may fall short, the findings can guide the creation of CPDs that focus on equipping teachers with the skills and strategies necessary for effective classroom management in diverse educational settings. This targeted approach can enhance the overall effectiveness of teacher training programs and support the delivery of high-quality inclusive education.

### **Learner Level:**

The study's findings have the potential to impact classroom management practices and the efficacy of inclusive teaching indirectly but meaningfully. Through improvements in teacher training, mentorship, and coaching, educators may adopt more effective strategies for managing inclusive classrooms. As teachers receive better preparation and support in inclusive education, their practices in the classroom are likely to evolve, leading to a more supportive and effective learning environment for all students. This, in turn, can positively affect student outcomes and experiences, as inclusive teaching practices become more integrated into everyday classroom interactions.

### **Scientific Level:**

From a scientific perspective, the study's findings offer valuable insights into the psychological mechanisms that influence teaching practices. Educational researchers can use this information to further investigate how these psychological factors impact the efficacy of inclusive teaching strategies. By shedding light on the underlying cognitive and emotional processes that affect teachers' approaches to inclusive education, the study opens new avenues for research. This

could lead to a deeper understanding of how psychological elements contribute to the success of inclusive teaching and inform future research agendas aimed at optimizing educational practices for diverse learner needs.

### **1.8 Delimitation of the study**

The delimitation of the study provides the contextual boundary of the study with reference to the content and geographical coverage. The study boundaries that the researcher sets in deciding what to include and what to exclude is what describes the delimitation. Delimitation helps to narrow down the study and make it more manageable and relevant to the research goal (Kombo & Tromp, 2006). It is used to address how the study was narrowed in scope (Kasonde-Ng'andu, 2013).

It is therefore significant to note that teaching efficacy, which is central to this research, is a concept within educational psychology that refers to a teacher's belief in their own ability to influence student outcomes (Bandura, 1994). While referring to the delimitation of this study it is worth to point out that teaching efficacy is an educational psychological construct related to motivation, self-regulation, and emotional intelligence.

Additionally, research on teacher efficacy often examines how teachers' beliefs influence their teaching practices, which directly ties into how they adapt their methods to be inclusive education of all learners, regardless of individual needs or challenges. This focus on the teacher's psychological processes in adapting to diversity is more aligned with educational psychology than special education, which might focus on specific strategies or interventions for students with disabilities. This coverage provides an argument that inclusive teaching-efficacy though straying to inclusive education provision in ECE is a psychological concept and the basis of the philosophy of this study.

Furthermore, it is vital to note that Zambia comprises ten (10) provinces with several inclusive ECE centres dotted around the country which demanded that the researchers travel around the country to satisfy the survey phase of the study. This study focussed only on teachers handling inclusive early childhood learners in Zambia. The participating teachers were chosen because of their experiences in dealing with issues surrounding inclusive school practices in early childhood classrooms. It is, however vital to acknowledge that there are many other ECE centres in other provinces such as Northern, Muchinga, Central and Southern provinces among

other Provinces, this study restricted itself to the sampled provinces and districts due to operational and methodological reasons.

It is further important to point out that the ECE learners and parents, despite being key stakeholders in the provision of inclusive education, were not involved in this study. This is because the study focused on pedagogical related personal concept, the inclusive teaching efficacy of the teachers at this foundational level of education. Indeed, teachers are directly involved in pedagogy leading to effective implementation of the inclusive education policy. Teachers are crucial stakeholders in inclusive education policy implementation and positive feedback from them is critical for a success in inclusive education policy delivery. For such reasons, the study concentrated on ECE teachers.

### **1.9 Limitations of the study**

This study was conducted with hope that its outcome would benefit all to whom it was intended and all effort was made to maintain that status. However, there are some factors that endeavour was made to control in order to safeguard the validity and reliability of the findings.

Due to the Corona virus pandemic, there were few people to interview thereby limiting the sample of the study and consequently affecting the generalization of the findings. However, to make the research successful, the researcher used phone communication to reach the threshold of the sample size having collected their phone numbers for the sake of time and social distance regulations due to Corona virus outbreak.

Participants may exhibit different characteristics and experiences on various themes of the study that may make conclusions in some cases rather difficult. As a result, this may lead to difficulties in making accurate statistical and thematic analyses of the data collected. However, use of different instruments in the collection of data may assist in minimizing the problem noted above. In this regard, the data was reliable and valid to support the findings of the study.

Furthermore, the purposive sampling technique used to select schools and ECE teachers does not completely eliminate the effect of the biased selection and hence limit the generalization of the findings. It is thus, advised that the research outcome may only be generalized to schools with similar conditions as sample schools, but can also be applied to any school which run early childhood education with inclusive class of learners.

## **1.10 Conceptual Framework**

A conceptual framework is a structure that organizes concepts, theories, and ideas to guide research, analysis, and understanding within a particular field or discipline (Green et al., 2020). Indeed, the importance of conceptual framework in research process cannot be overstated. As the term states ‘conceptual framework’, it links particular research concepts in such a way that a network of concepts is formulated that describes the entire research process. Therefore, the conceptual framework plays a critical role as it guides the researcher in identifying variables and establishes the relationship between them (Creswell, 2014). In a nutshell, it is significant to note that a conceptual framework is basically theoretical structure that outlines the key variables or concepts under investigation and further illustrates how they are linked with regards to their interrelationships, providing a foundation for research design and analysis.

The current study focussed on inclusive ECE teachers’ self-beliefs, which feed into their motivation and quality implementation of the inclusive education policy. Self-efficacy, which is a belief in one's own capacity to complete a task, is derived from various sources. While some of these characteristics originate from within the individual, others are influenced by the environment in which they live.

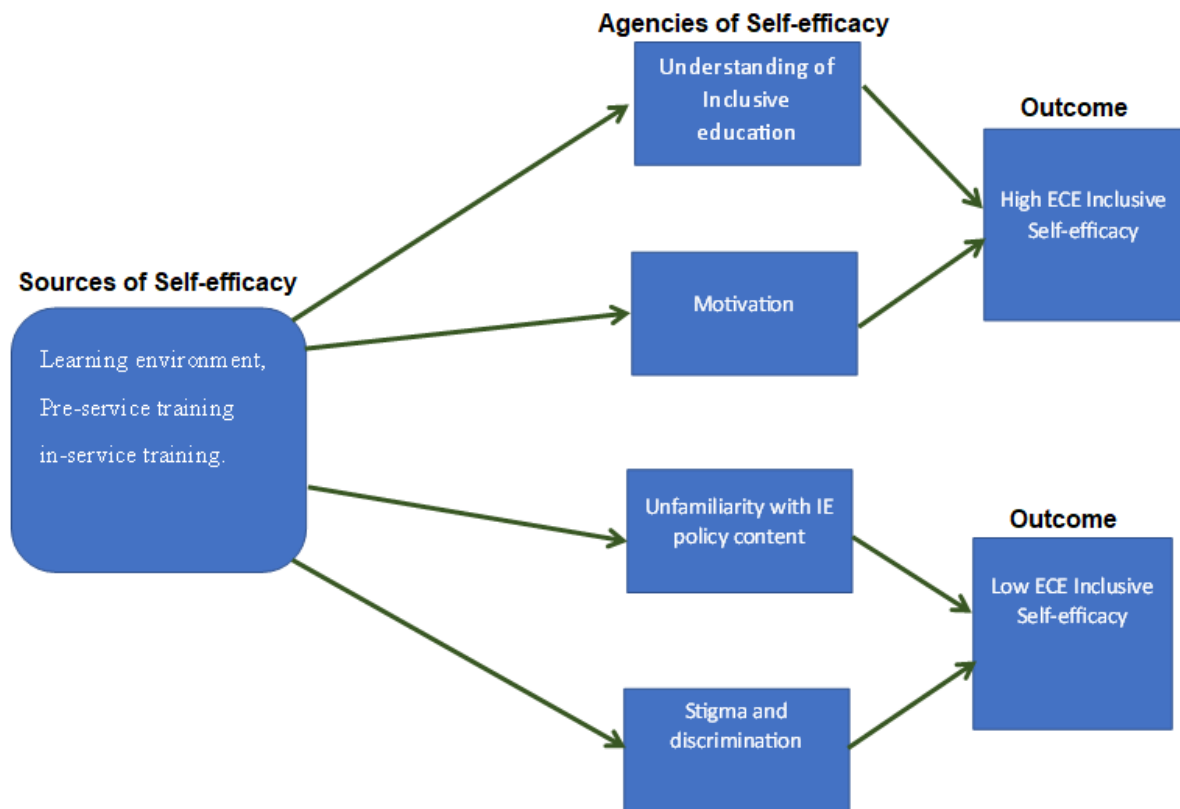
In terms of the instructors' locus of control and self-evaluation, these factors may contribute to their academic or educational self-efficacy (Rotter, 2022). Nonetheless, the three main sources, namely, the teacher's in-service training, pre-service training and environment, may provide the majority of the aspects or variables in this assessment. Regarding to instructors' locus of control and self-evaluation, these factors play a crucial role in shaping their academic or educational self-efficacy (Miller & Brown, 2022). Locus of control refers to the extent to which individuals believe that they can influence outcomes through their own efforts versus external factors. Teachers with an internal locus of control generally believe that their actions and decisions directly affect their success, which can positively influence their self-efficacy and motivation (Rotter, 2022). Similarly, self-evaluation involves teachers' reflective assessments of their own skills and performance. This self-reflection can enhance their confidence and perceived ability to manage diverse classroom situations effectively (Schunk & DiBenedetto, 2022).

The three primary sources that contribute significantly to teachers' self-efficacy are their in-service training, pre-service training, and the broader educational environment. In-service

training, which includes professional development and continuous education programs, provides teachers with ongoing opportunities to enhance their skills and adapt to new teaching methods, thereby reinforcing their confidence in handling inclusive education settings (Desimone & Garet, 2023). Pre-service training, encompassing the education and preparation teachers receive before entering the profession, lays the foundational knowledge and skills essential for effective teaching practices (Timperley et al., 2022). Additionally, the broader educational environment, including school culture, administrative support, and resources, plays a significant role in shaping teachers' self-efficacy by creating conditions that either support or hinder their professional growth and effectiveness (Wang & Degol, 2022). Together, these sources provide a comprehensive framework for understanding the factors that influence teachers' confidence and competence in implementing inclusive education policies.

These elements could have a favourable or negative impact on the teacher's self-evaluation. It is highly likely that strong levels of self-efficacy among teachers will result from their environment and the experiences gained through training. For example, if these factors contribute to their high levels of motivation to teach inclusive classrooms or enhance their understanding of inclusive education, their self-efficacy is likely to be strengthened. Conversely, if their training or experiences do not provide adequate knowledge of inclusive education policy and content, or if they lead to feelings of stigma associated with teaching such classes result in negative perceptions from peers or society, the teacher's level of inclusive self-efficacy is likely to be low (Kontaş & Özcan, 2022).

This study investigated these kinds of interactions, using teachers' sources of inclusive ECE self-efficacy as the independent variable (IV) and their level of self-efficacy as the dependent variable (DV). This is accomplished through a few intermediary variables that act as links between the sources of self-efficacy and the teachers' actual level of inclusive teaching-efficacy. These variables include the teachers' motivation, their comprehension of inclusive self-efficacy, their familiarity with the inclusive education policy and content, as well as the stigma and discrimination. Figure 1 serves as the visual representation of the conceptual foundation for this investigation and shows these relationships.



**Figure 1:** *The relationships between the independent and dependent variables of the ECE teachers' inclusive self-efficacy*

### 1.11 Theoretical Framework

The theoretical framework is a vital research component and plays a critical role in providing a research base. Kombo and Tromp (2013:56), describes a theoretical framework as “a collection of interrelated ideas based on theories”. The aforementioned scholars’ further point out that a theoretical framework is an evidence-based set of propositions, which helps to provide strong link between the study that is being undertaken and what has already been developed. Indeed, it is significant to simply state that theoretical framework is a backbone on which the current study is underpinned. Additionally, Vinz (2015) posits that a theoretical framework, encompasses a set of interconnected assumptions that serve as a guiding perspective for discussing a particular research topic. This clearly indicates that theoretical framework provides the scientific justification for an investigation. Therefore, this study was guided by Albert Bandura's social cognitive theory of self-efficacy. This theory suggests that individuals with high self-efficacy expectancies, that is, the belief in their ability to accomplish their goals, tend to be healthier, more effective, and generally more successful compared to those with low self-efficacy expectancies (Bandura, 1997). Self-efficacy refers to an

individual's conviction in their ability to successfully engage a specific behaviour. This is because if someone doubts their capability to achieve desired results, they are less likely to engage in the behaviour (Sze, Waki, Enomoto, Nagata, Nangaku, Yamauchi & Ohe, 2023).

Regarding the focus of this study, which is inclusive teaching-efficacy, Ferreira et al. (2023) observed that teachers' self-efficacy can either strengthen or weaken their teaching abilities, depending on its direction. This direction can be positive or negative, and it will consequently impact teachers' self-efficacy. The theory further posits that "Thought processes are not only emergent brain activities, they also exert determinative influence," and that "reflecting on one's own functioning entails shifting the perspective of the same agent." This indicates that how well teachers manage students with special education needs is based on their own perceptions of their capabilities (Salami, 2011).

Teachers play a significant role in instilling confidence or self-efficacy in individuals during their training. Subsequently, exposure to real-world experiences complements the input received from trainers (Arriaza & Monterrosa, 2018). In this case, performance in a particular area is one of the influential factors contributing to this self-efficacy. This aligns with the findings of Bahufite, Kasonde-Ng'andu, and Akakandelwa (2023), who emphasized academic achievement as a major factor in self-efficacy. Thus, this study explores various potential factors, including those related to training, which may hinder or enhance teachers' self-efficacy in inclusive early childhood education.

The study delves into different sources of self-efficacy, such as mastery experience, which is the successful completion and mastery of a desired behaviour, and vocal persuasion, which refers to the verbal support individuals receive from others to undertake a behaviour. These sources are considered the primary influencers of self-efficacy (Sze et al., 2023; Konaş & Özcan, 2022). Additionally, social support, which includes finding encouragement, moral support, involvement, and accountability from others, contributes to personal persuasion and the level of self-efficacy.

Hence, this theory aligns well with the objectives of this study as it provides evidence on how cognitive, motivational, affective, and selection processes mediate the impact of self-efficacy on desired outcomes, such as teachers' performance and perception in an inclusive classroom. These processes are believed to operate in tandem, rather than in isolation, in the ongoing regulation of human functioning. According to Social Cognitive Theory, self-efficacy and

motivation are augmented when individuals believe in the acceptability of their personal development and anticipate satisfaction upon achieving their goals (Sze et al., 2023).

Likewise, the self-efficacy of teachers, the focal point of this study, is influenced not only by their professional development but also by the treatment they receive within the teaching environment and the feedback provided by their colleagues. These factors can either boost or hinder teachers' self-efficacy (Almuhammadi, Assalahi, & Madini, 2020). Therefore, this study takes into account the sources and factors of self-efficacy, including environmental interactions with inclusive early childhood education (ECE) teachers as well as societal and professional considerations, as potential influencers of inclusive ECE teaching efficacy. It is based on these distinguishing characteristics that Albert Bandura's social cognitive theory was chosen as the guiding framework for this study.

### **1.12 Operational Definition of key terms**

**Early childhood:** The period from birth to seven years old with a remarkable growth and brain development at its peak where children are highly influenced by the environment and the people that surround them.

**Preschool:** Refer to educational institutions that are attended prior to primary school or first grade

**Inclusive education:** is a process of addressing and responding to diverse needs of all learners through increasing participation in learning, cultures and communities, and reducing exclusion from education and from within education. In this study, inclusive education means children with disability learning or acquiring knowledge and skills in the same setting as those without disability.

**Mainstream:** This refers to an ordinary or regular education. It also means an ordinary class or school.

**Special education needs:** refer to requirements of children with learning problems or disabilities that make it harder for them to learn compared to most children of the same age.

**Self-efficacy:** refers to teachers' beliefs pertinent to their ability to bring about desired change in children's achievement.

**Inclusive teaching-efficacy:** teacher's beliefs in their abilities in the context of handling inclusive early childhood education learners.

### **1.13 Summary of Chapter One**

This chapter has presented the background to this study on which the global, African and Zambian trends of inclusive education have been presented. It also outlined the identified problem that had prompted its undertaking and highlighted the purpose of the intended study. In addition, the chapter has outlined the objectives, research questions, significance and delimitation of this study as well as the limitations of the study. It further indicated the conceptual framework and theoretical framework guiding the study. Finally, operational definitions within the study were presented. The next chapter discusses literature pertaining to the main concepts of this study, and the lacunas identified therein.

## **CHAPTER TWO: LITERATURE REVIEW**

### **2.1 Overview**

The previous chapter presented a background to the study, highlighting the problem that prompted its undertaking, its purpose, outlined the objectives and questions that guided the study, the theory adopted, and the significance attached to undertaking the study. The foregoing chapter further outlined the scope of the study, operational definitions within the study, and the delimitation of the study. The focus of this chapter is literature pertaining to the main concepts of the study. The literature provides the reader with a theory base, a survey of published works, analysis of that work and factual overview of what has gone before in order to evaluate, synthesize and represent the emergence of one's study from previous studies by other researchers (Hofstee, 2006, O'Neil, 2010). This chapter begins by reviewing literature on the various characteristics of the main concepts associated with the study; self-efficacy and inclusive education. Literature on inclusive teaching efficacy in early childhood education will then be reviewed before finally reviewing some factors affecting the teachers' inclusive self-efficacy. A summary of the chapter presenting the lacunas identified in the literature, and subsequent justification for the study will constitute the final part of this chapter.

### **2.2 General Self-Efficacy**

Fundamentally, Bandura's seminal theoretical contribution known as the social cognitive theory serves as the foundation for self-efficacy (Bandura, 1997). Self-efficacy is defined by renowned researcher Albert Bandura as a person's assessment of their capacity to reach a desired level of performance (Bandura, 1997). Additionally, the belief that one can effectively execute a particular behaviour is defined as self-efficacy by Sze et al. (2023). According to Judge, Erez, and Bono (1998), self-efficacy is the belief that one can perform well in a range of circumstances. As the review literature will show, Bandura's stated hypothesis "birthed" a number of studies on self-efficacy.

According to certain research (Bahufite, Kasonde-Ng'Andu & Akakandelwa, 2023; Engin, 2020; Chen, Gully, Whiteman & Kilcullen, 2000), self-efficacy has a basic impact on learning and motivational attributes like the need for achievement and conscientiousness in people. Thus, instructors and students who have strong efficacy beliefs and use the basic instruments provided by formal education to learn acquire the abilities required for social and economic stability (Bahufite, Akakandelwa & Kasonde-Ng'andu, 2022; Smith, 2002).

Although a person can have different self-efficacy beliefs depending on different tasks, that is, Specific Self-Efficacy (SSE), a general self-efficacy can also be determined. General Self Efficacy (GSE) refers to ‘individuals’ perception of their ability to perform across a variety of different situations,’ (Judge, Erez, & Bono, 1998: 170). A study by Eden (1988) found that self-efficacy positively influences a wide range of tasks, implying that SSE can be viewed to be a sub-set of GSE. That is, GSE has “spill over” effects that can also determine SSE (Shelton, 1990; Sherer, Maddux, Mercandante, Prentice-Dunn, Jacobs, & Rogers, 1982). As such, Chen, Gully, Whiteman, and Kilculln (2001) posit that ‘GSE captures differences among individuals in their tendency to view themselves as capable of meeting task demands in a broad array of contexts.’ SSE has even been viewed to be an outcome of GSE, however, according to Imam (2007: 2), ‘majority of self-efficacy researchers have continued to focus on SSE. Indeed, the current study focus is on an inclusive teaching-efficacy among early childhood teachers in Zambia. As indicated by Eden (1988) that self-efficacy influences a number of tasks, teachers handling inclusive ECE learners have a special task to manage learners not only with special education needs or those without but specific task to handle inclusive ECE learners. This, indeed prompted the researcher to explore whether these teachers have inclusive teaching efficacy.

### **2.2.1 Origins of Efficacy through Agency**

John Locke, an accomplished scholar argued that human beings at birth are akin to a ‘tabula rasa’ or blank slate upon which anything may be written (Knaller & Dean, 1824). It is this very idea that persists with regard to agency and its relationship to self-efficacy. ‘Infants exploratory experiences in which they see themselves produce effects by their actions provide the initial basis for developing a sense of efficacy...by repeatedly observing that environmental events occur with action, but not in its absence, infants learn that actions produce effects,’ (Ramachaudran, 1998: 9). However, those actions must be perceived as distinct to oneself, and in this way ‘the self becomes differentiated from others through dissimilar experience...based on growing personal and social experiences they eventually form a symbolic representation of themselves as a distinct self,’ (Ramachaudran, 1998: 3).

This efficacy is eventually influenced by actors such as the family, the peer group, the school system, the transitional experiences of adolescence and adulthood (Sze et al., 2023; Konaş & Özcan, 2022; Ramachaudran, 1998). The school system in this case may represent the teachers

in inclusive early childhood class of learners who play a critical role in the transition of these delicate learners to responsible and relevant adults.

### **2.2.2 Sources of Self-Efficacy**

According to Bandura's well-known study on self-efficacy, beliefs "determine how people feel, think, motivate themselves, and behave." These beliefs work through four main pathways to achieve these various outcomes. They consist of selection, emotive, cognitive, and motivational processes (Ramachaudran, 1998: 3). Using a social learning environment, Bahufite, Kasonde-Ng'Andu, and Akakandelwa (2022) illustrated the connection between the emotive and cognitive aspects of an individual's behaviour. Furthermore, having a strong feeling of self-worth, intrinsic motivation, and a strong sense of belonging can all significantly boost one's self-esteem. Furthermore, Bahufite, Akakandelwa, and Kasonde-Ng'andu (2023) discovered a relationship between motivation and metacognitive knowledge, a component of knowledge and comprehension. Accordingly, motivation improves knowledge, which raises self-efficacy.

The sources of these effects are suggested to be experience, vicarious experience, social persuasion, and affect or emotions. It can be deduced that these sources (experience, vicarious experience, social persuasion and affect) can also influence, or be used to enhance or increase self-efficacy. Furthermore, in their study, Puliatte, Martin, and Bostedor (2021) found a favourable correlation between preservice teachers' views and self-efficacy regarding inclusion behaviours with respect to the inclusive education environment. The findings also imply that preservice teachers' views on inclusive education, their capacity and confidence to engage with children with disabilities, and their effectiveness in cooperation increased with the amount of interaction and experience they had with students or individuals with impairments. Additionally, Kondo, Golloher, Simpson, and Hughes (2023) state that an analysis of the teachers' training and experience levels revealed that a teacher's comfort level in managing a classroom with disabled students was influenced by their prior work with children.

It can thus be observed that, the process of achieving effective desired outcome in the provision of inclusive early childhood education requires an identification of the sources of inclusive teaching efficacy among teachers in this sector.

### **2.2.3 Efficacy Activated Processes**

Efficacy strongly influences the goals that individuals set for themselves through self-appraisal. Ramachaudran (1998) argued that the stronger the perceived self-efficacy, the higher the goal challenges people set for themselves and the firmer is their commitment to them. Due to the fact that the majority of courses of action are first organized in thought, self-efficacy determines what types of anticipatory outcomes or scenarios individuals construct and rehearse in their minds.

Causal attributions, outcome-expectancies and cognized goals have been identified as the different types of cognitive motivators, with the attribution theory, expectancy-values theory and goal theory been the corresponding theories behind them respectively. Causality within the attribution theory points to three dimensions: locus, stability and controllability. As such; in respect to its locus, a cause can be considered as external or internal (factors that are inside or outside the individual). Regarding its controllability, an event can be caused by a factor which is or is not under the individuals' control. In terms of its stability, a cause can be permanent or subject to change. Intelligence is frequently seen as internal, stable, and uncontrollable. Effort is considered as internal, unstable and controllable. Task difficulty and luck are taken as external, unstable and uncontrollable (Weiner, 1985) in Boruchovitch (2004: 1).

Those individuals that attribute success to internal, stable and controllable factors tend to be individuals that possesses a higher self-efficacy, while those who attribute success to external factors tend to possess lower self-efficacy or belief in their abilities (Yailagh, Lloyd & Walsh, 2009). In expectancy-value theory, outcome expectancies are governed by an individual's self-belief about his or her efficacy or capabilities. It is as such, no wonder that an individual may choose to not pursue attractive or even beneficial options (external motivations) due to the fact that he or she has judged that he or she lacks the capability for them. Goals are largely driven by self-influence as individuals 'seek self-satisfaction from fulfilling valued goals and are prompted to intensify their efforts by discontent with substandard performances...' (Ramachaudran, 1998: 4).

After all, Engin (2020) found that teachers with high self-efficacy were more motivated than those with low or medium self-efficacy in the setting of education. Teachers who had a medium level of self-efficacy also showed greater motivation than those who had a low level of self-efficacy. Therefore, self-efficacy beliefs influence motivation through influencing the

objectives people set for themselves, the amount of work they put in, their tenacity in the face of adversity, and their ability to bounce back from setbacks. Thus, one's self-efficacy determines whether they achieve their goals or need to modify their own objectives (Bandura, 1984).

The level of belief an individual has in his or her capability to cope with a difficult situation determines how much stress or depression that individual will have, as well as his or her level of motivation. Individuals who believe that they cannot manage stress tend to experience higher anxiety, dwell on disturbing thoughts, and focus on their inability to cope. Because of this, these people often exaggerate the dangers in their surroundings, which causes worry. In a similar vein, Ateş and Saylan's (2015) study on the academic self-efficacy and academic motivation toward biology of pre-service science teachers discovered that "intrinsic motivation" and "test anxiety" generated the highest and lowest mean scores on academic motivation self-efficacy, respectively. This was the case, even though about 80% of those surveyed stated that studying biology was fun and that it gave them a sense of accomplishment. They claimed to have studied biology thoroughly and that they placed a high value on achieving a respectable grade in the course.

Self-efficacy beliefs can shape one's course of life, as well as the direction of personal development by influencing the types of activities and environments or social networks individuals choose to be a part. This is because "people avoid activities and situations they believe exceed their coping capabilities. But they readily undertake challenging activities and select situations they judge themselves capable of handling," (Ramachaudran, 1998: 4). Additionally, a study by Hu (2010) on the effects of perceived self-efficacy, social-support and adjustment to college on the health promoting behaviours (HPB) of Chinese/Taiwanese international students in the United States of America (U.S.A), in fact found that perceived self-efficacy was one of the main predictors of HPB, even among American college students.

#### **2.2.4 High and Low Self-Efficacy in Individuals**

It is important to point out that Self-efficacy has the general tendency to bestow certain characteristics upon individuals depending on how much of it or how little of it such an individual possesses (Bandura, 1997). Individuals in possession of high self-efficacy have the tendency to pursue difficult tasks with the view of overcoming or mastering them. This is because of the belief that their actions can influence their external environment, and as such,

increased effort toward a task, will lead to the accomplishment of that task. In addition, they perceive failure as merely a result of insufficient effort, and not personal insufficiency.

Thus, individuals with high self-efficacy tend to be optimistic, focusing on what can be done, as opposed to what cannot be done. For instance, according to Schunk (1994) students with a high sense of self-efficacy beliefs study harder and persist longer when they approach difficulties. Similarly, it can be stated that teachers handling inclusive early childhood learners may present optimistic or pessimistic behaviour about their ability to handle inclusive learners depending on their level of self-efficacy. Indeed, this persistence at a task develops a higher know-how and interest toward it, resulting paradoxically, in an intrinsic interest towards the task (Bandura, 1994). Bandura (1994) further expounds that such an outlook lowers vulnerability to depression, reduces stress and produces more personal accomplishments. As revealed by several studies (Jerusalem & Mittag, 1995; Jerusalem & Schwarzer, 1992), individuals with high self-efficacy are more likely than not to view a potentially stressful situation as a challenge rather than a threat, compared to those with low self-efficacy. As a result of this, those with higher self-efficacy reported better physical health and lower anxiety compared to those individuals with lower self-efficacy.

On the other hand, individuals in possession of low self-efficacy tend to view difficult tasks as threats that have to be avoided as much as possible. This is because they perceive any possible failure to be an attestation of their inabilities, as such individuals with low self-efficacy will tend to have lower commitment toward a task, as well as set minimalistic aspirations. Additionally, when faced with challenging assignments, these people would concentrate more on what they are unable to accomplish than on what they are capable of. Students with poor self-efficacy beliefs, for instance, perform lower on learning tasks and are more likely to shy away from challenging assignments (Schunk, 1994). This is not surprising, since Yıldızı and Özdemir's (2019) study found a favourable relationship between math achievement and students' perceptions of their own efficacy. They also found that children with high proficiency in mathematics often have positive experiences connected to the sources of self-efficacy, while students with low mathematics achievement typically have negative experiences.

This could be explained by the fact that individuals with low self-efficacy tend to have a pessimistic approach to life, as a result of this, they easily fall victim to illnesses such as stress and depression (Bandura, 1994).

### **2.2.5 Differences among Self-efficacy, Self-Concept, Self-Esteem and Locus of Control**

While the researcher reviews self-efficacy, it is important to briefly attend to personal concepts that are often confused with self-efficacy in order to understand and appreciate inclusive teaching efficacy in ECE (Singogo and Muzata, 2023). Chief among these personal concepts are self-concept, self-esteem and locus of control. These concepts are, however, distinct from each other in that, as Bandura (1986) expostulates, self-concept regards a general self-assessment of one's abilities or lack of abilities with no focus on whether or not one can accomplish a task successfully. This concept is quite vague and as such will not be included in this study.

Self-esteem beliefs are also distinct from self-efficacy in that self-esteem beliefs arise from an appraisal of one's self-worth. It is possible for an individual to have high self-esteem and low self-efficacy and vice-versa (Bandura, 1997). In other words, self-esteem simply refers to whether an individual likes or dislikes him or herself or how much an individual likes or dislikes him or herself (Gajdzik, 2005).

Although both, self-efficacy and perceived locus of control deal with outcomes, locus of control deals particularly with overall expectations that the outcome can be controlled either by the individual or by his or her environment. Individuals with internal locus of control believe that they are in control of outcomes while those with external locus of control believe that the environment or others control outcomes (Rotter, 1966).

### **2.3 Self-efficacy in Education**

Self-efficacy in education remains critical area of interest whenever there is a call for effective education provision. Literature has revealed that self-efficacy has an important influence on human achievement in a variety of settings, including educational achievement (Woodcock, Hemmings & Kay, 2012). Indeed, inclusive early childhood education (ECE) emphasizes the importance of providing equitable educational opportunities for all children, including those with diverse backgrounds, abilities, and needs. Teachers play a crucial role in creating inclusive environments where every child feels valued and supported in their learning journey. As Bandura (1997) argues that an individual's judgment of their capabilities to attain a desired level of performance is determined by their level of self-efficacy. This is evident that education providers, teachers in particular, need to possess a high level of self-efficacy in order to effectively achieve their role in the education. Self-efficacy in education remains key as regards

teachers' belief in their capability to accomplish education tasks and goals. It is significant to point out that inclusive ECE teachers' self-efficacy relates to their confidence in their ability to effectively meet the needs of all children in their classrooms, regardless of their differences. Hence, the practical application of their work cannot be overstated for all teaching situations (Wang, Zan, Liu, Liu & Sharma, 2012).

Thus, Wang, Zan, Liu, Liu and Sharma (2012) stated that it is necessary to consider the teaching task, context as well as personal competence when assigning responsibilities to a particular teacher. This implies that teaching in an inclusive class of learners may be an issue of concern to some teachers. For instance, some teachers may handle learners with special education needs in an inclusive classroom with negative feelings (Singogo & Muzata, 2023). This means that as teachers implement inclusive education teaching, understanding their beliefs remains critical. The questions they have about inclusion should not be taken for granted as they may be results from their beliefs about handling inclusive education which may in turn influence their inclusive teaching beliefs about inclusion is their direct experiences with inclusion (Bandura, 1997; Leyser, Zeiger & Romi, 2011, Singogo & Muzata, 2023). Teaching inclusive early childhood learners who are in a critical stage of development require a special commitment by the teachers. This is because scholars have argued that certain skills are only acquired effectively in early childhood stage, after which it becomes difficult to acquire them and ordinarily, a preschool learner requires an extra attention because they are still in a rapid development, mentally and physically (Leyser, Zeiger & Romi, 2011). Teachers' role in the provision of inclusive education in this regard cannot be overemphasized. Therefore, their determining their self-efficacy in handling an inclusive class of learners was significant. Perhaps, the inclusive education policy has compelled these teachers who may be doubting themselves to embark on inclusive teaching without relevant important knowledge and skills which according to Singogo and Muzata, (2023b) has an impact on their inclusive teaching efficacy. Additionally, (Hofman & Kilimo (2014) pointed out that that despite the fact that most teachers are in agreement in the provision of inclusive education, they are barely interested in teaching in inclusive learners. With such revelation, it was imperative for the current study to examine the level of the inclusive teaching efficacy of the ECE teachers in Zambian context for the purposes of promoting and appreciating the success of the inclusive education policy.

Furthermore, research has consistently shown a strong correlation between teachers' self-efficacy and the quality of education provision in inclusive settings. On the other hand, Hofman and Kilimo (2014) argued that early childhood special education teachers' who perceived themselves less capable were more motivated to improve their skills and knowledge compared to teachers with a high level of self-efficacy. Indeed, the current study drew significant lesson from the aforementioned results in that teachers who perceived themselves less capable were interestingly willing to upgrade their skills. The need to explore whether Zambian ECE teachers believed in their capability to manage inclusive ECE learners was of great significance, especially that the current study involved the exploratory sequential mixed method in understanding the inclusive teaching efficacy. When teachers have high levels of self-efficacy, they are more likely to provide individualized support thereby creating inclusive environment in the classroom set up as well as outside the classroom. This fosters a sense of belonging for each and every child. Further, the teacher adapts teaching strategies, materials, and interactions to meet the diverse needs of all children in their classrooms. Not only that it also promotes implementation of evidence-based practices for supporting diverse learners, such as differentiated instruction, positive behavior support, and collaborative learning (Avramidis, Bayliss, & Burden, 2000; Montgomery & Mirenda, 2014).

In a USA study by Rodriguez and Chen (2020), which sort to examine inclusive teacher efficacy in urban early childhood settings using mixed method revealed that teachers in urban ECE settings faced unique challenges related to diversity, language barriers, and socioeconomic factors. In spite of the aforementioned challenges in the study under review, many teachers demonstrated high levels of self-efficacy in their ability to support all children effectively. Indeed, the study underscored the significance of context-specific support and professional development initiatives to enhance inclusive teacher efficacy in urban ECE environments. This USA study is similar to current study in that they both employed the mixed. However, the two studies differ in that they were conducted in different geographical location with cultural differences.

Another interesting Australian study conducted by Smith and Johnson, (2019) investigated strategies for promoting inclusive practices in ECE programs serving rural communities. A combination of surveys, focus groups, and observations was used to assess teachers' self-efficacy and the implementation of inclusive practices in rural ECE settings. The study identified several challenges faced by ECE educators in rural areas, including limited

resources, geographic isolation, and a lack of professional development opportunities. Despite these challenges, teachers demonstrated a strong commitment to inclusive education provision and expressed a desire for more support and collaboration within their communities. Indeed, the study under review brought out captivating findings with emphasis on tailored interventions and community partnerships to enhance inclusive teacher efficacy in rural ECE programs. However, the current study sought to explore inclusive teaching efficacy and assess its sources with specific focus on three selected provinces in Zambia.

Additionally, Nguyen and Lee, (2020), examined the inclusive teacher efficacy beliefs of educators working in ECE settings with diverse multicultural populations in Canada. Surveys, interviews, and classroom observations were used to explore teachers' perceptions of their efficacy in meeting the needs of culturally and linguistically diverse children and families. This study revealed that teachers who demonstrated a deeper understanding of cultural diversity and employed culturally responsive practices reported higher levels of self-efficacy in supporting all children effectively. Although the study was focusing on teacher efficacy in inclusive ECE, it did not explore where these ECE teacher draw their confidence in handling inclusive learner. Additionally, their findings are based on the Canadian sample and that 'provoked' the current study.

## **2.4 Overview on Inclusive education**

The term inclusive education has in recent past attracted a lot of attention across the globe. Some scholars have defined and referred to it only in terms of 'disability'. However, it is paramount to indicate that inclusive education encompasses a broad spectrum of principles and practices aimed at ensuring equitable access, participation and success for all learners, regardless of their diverse backgrounds, abilities, or characteristics. It simply goes beyond the traditional understanding of inclusion solely within the context of disability. It extends its scope to embrace various dimensions of diversity such as socio-economic status, language, culture, ethnicity, gender identity and sexual orientation (Booth & Ainscow, 2016; Florian, 2017).

Indeed, the concept of inclusive education is broad, complex, and sometimes ambiguous (Matafwali 2022). Scholars have different views and perspectives as they define inclusive education. It is however, vital to note that, inclusive education is related to equity, diversity, equality, citizenship, justice, and universality (Rapp & Corral- Granados, 2021). Inclusive education is both an educational objective and a practice that strives to eliminate obstacles so

that all students can access, participate in, and benefit the most academically and socially from school (Slee, 2018). Further, inclusive education is a process that addresses and responds to the variety of needs of learners by enhancing involvement in learning, cultures, and communities while lowering exclusion from and within the educational. The key issues that are critical when inclusion is seen as a goal for education include accessibility, equality, equity, participation, and relevance. It appreciates learner diversity and classroom diversity. Inclusive education as pointed out by Hehir et al.; (2016:3),

“Involves a process of systemic reform, encompassing changes and modifications in content, teaching methods, approaches, structures, and strategies in education to overcome barriers, with a vision to provide all children within the relevant age range with an equitable and participatory learning experience and environment that best meets their needs and preferences.”

Woodcock, Hemmings and Kay (2012) add that inclusive education involves different and diverse students learning side by side in the same classroom where they enjoy field trips and after-school activities together. Over the past two decades, inclusive education became a global area of interest by most countries across the globe, Zambia inclusive. As stated in the preceding chapter, major international conferences were held in a bid to stress the need for inclusive education at all levels. Among them include the Education for All conference in Jomtien held in 1990 and the World Conference on Special Needs Education in Salamanca, Spain in 1994 (UNESCO, 1990; UNESCO, 1994). Majorly, there was a call during the said conferences for countries to promote the policy of education for all agenda which as a matter of agency and not to leave anyone behind including learners with special education needs. Zambia, being a signatory to the aforementioned conferences, took up the challenge and embraced the inclusive education system as enshrined in the 1996 educating our future policy document (MOE, 1996) which includes all levels of education including the early childhood.

Every policy requires that the implementers are conversant and well informed on the procedures for its successful implementation. One of the most important aspects in this regard is whether the implementers are knowledgeable enough and believe in their capabilities (Bandura, 1997) to execute their duties in order to achieve the goals of the policy. Initially, moderate or severe learners with special needs were expected to be handled by special education teachers whose training is built on teaching learners with varying difficulties and

needs (Singogo & Muzata, 2023). Indeed, it is expected for teachers with such training to have higher inclusive teaching efficacy, competence, and capacity as compared to those whose focus was different or general. With the foregoing, it is clear that adequate knowledge is significant to succeed in policy implementation and inclusive educational policy is not exceptional. It was however, not known in Zambia as in how much knowledge inclusive early childhood teachers held with regards to their level of understanding of inclusive education practices in ECE which might impact on their self-efficacy (Singogo & Muzata, 2023b). Indeed, this situation was a critical issue of concern because some education policies have failed or faced severe difficulties due to the under-preparation of key implementing stakeholders in every necessary domain of that policy (Kubacka & D'Addio, 2020).

#### **2.4.1 Inclusive Teaching Efficacy**

Many questions arise when it comes to handling learners in inclusive class. One of the common and interesting questions is “do teachers who were initially trained to handle non-inclusive class believe in themselves to handle an inclusive one?” Singogo and Muzata, (2023) in appreciating the aforementioned dilemma coined what is now described as inclusive teaching efficacy. Therefore, Inclusive teaching-efficacy is defined as teacher’s beliefs in their abilities in handling learners in the context of inclusive education setting (Singogo & Muzata, 2023). Among the factors shown to affect teacher effectiveness in inclusive classrooms is inclusive teaching efficacy. Gibson and Dembo (1984) state that teacher efficacy consists of two components: general self-efficacy and personal self-efficacy. General self-efficacy refers to teachers’ belief that external influences can be overcome by good teaching. Personal self-efficacy refers to teachers’ beliefs in their ability to bring about change in a student (Gibson & Dembo, 1984). It has been argued by many researchers, that self-efficacy is a context construct and that there are variations across participants and different student groups (Tschannen-Moran, Woolfolk & Hoy, 2001; Raudenbuch, Rowen, & Cheong, 1992; Ross, Cousins, & Gadalla, 1996). This simply means that a teacher that is efficacious to teach a particular discipline or level of education may not be equally efficacious in teaching other subjects or level of education. What is even more interesting is that Smith (2000) found that even teachers who reported higher teacher efficacy for teaching children with mild special learning needs reported lower teacher efficacy when asked about teaching children with severe disabilities. In this regard, early childhood inclusive education level has its areas of interest in those, sources of inclusive teaching efficacy in early childhood schools in Zambia remains unexplored.

Similarly, an important undertaking about the predictors of teachers' inclusive Teaching Efficacy to teach in inclusive classrooms would be necessary. A study by Sokal and Sharma (2013) in Canada on 131 teachers (pre-school to grade 8) meant to determine factors that contribute in shaping participants' teacher efficacy scores used a simple linear regression. The three variables (i.e., knowledge of local educational policies and acts, confidence level, and training in special education) were used to examine participants' attitude scores used in the regression equation. A significant model emerged,  $F(3,127) = 14.30, p < .001$ , which accounted for 23% (adjusted  $R^2$ ) of the variance in participants' teacher efficacy scores. It was found that only confidence in teaching students with disabilities ( $\beta = 4.23, p < .001$ ) significantly explained participants' teacher efficacy score. The outcome of this study suggests that as a participant's level of confidence in teaching students with disabilities improves, overall teaching efficacy to teach in inclusive classrooms improves (Sokal & Sharma, 2013). This Canadian study brought out interesting results but its whole weight was on quantitative technique and focused on a range of teachers up to grade 8.

Studies from within Zambia have demonstrated that exposure to quality early childhood experiences can facilitate for a smooth transition from Pre-school to Primary school and can also meet the developmental and academic learning needs of the children (Matafwali & Munsaka, 2011; Zuilkowski, Fink, Moucheraud, & Matafwali, 2012; Matafwali & Serpell, 2014; Matafwali & Kabali, 2017). Additionally, a study by Lungu and Matafwali (2020) explored the nature of play-based teaching and learning at Early Childhood Education (ECE) Centres in Zambia from the perspective of teachers using a qualitative approach. Results of the aforementioned study revealed that children were engaged in both conventional and indigenous play activities mainly through free play and teachers demonstrated a positive perspective of play based learning, asserting that play based pedagogy benefits children holistically. While Lungu and Matafwali (2020) focused on nature of play based teaching in ECE with qualitative approach, their study did not focus on inclusive teaching efficacy of the teachers. Though both studies are focusing of ECE, the current study will use a mixed design to explore the role of inclusive teaching efficacy in teacher performance and motivation.

Further, neurological evidence suggests that there is significant child brain development that happens before the start of school (Siegel, 1999). This evidence is further propagated in developmental psychology in the notion of critical periods which are times at which certain abilities can be learnt with ease after which it becomes difficult to learn them (Lenneberg,

1967). Since early childhood is a period of rapid change and development, it is thus considered the most critical period in a child's learning and teachers play a critical role to facilitate the transition of these delicate learners. In this regard, leaving teachers' self-efficacy unexplored especially with regards handling inclusive early childhood learners may be detrimental to the holistic development and effective transition to adult life.

With the above revelation that early childhood is critical in that certain abilities can be learnt with ease in early childhood after which it becomes difficult to learn them, there is need to appreciate this level of education in the Zambian context. However, there is evidence that ECE in Zambia is predominantly an urban phenomenon focused on preparation for primary schooling (Matafwali, Munsaka, Mweemba & Muleya, 2012). Additionally, a study conducted by Mwanza-Kabaghe, Mubanga, Matafwali, Kasonde-Ng'andu, & Bus (2015) revealed that out of the 20 early childhood education centres that were sampled in Zambia's capital city, Lusaka, only one of them was found to be successfully implementing ECE as it should be implemented. The aforesaid study brought out very interesting finding that clearly shows that a lot more need to be done in order to promote sustainable early childhood education and indeed, teachers' beliefs about their ability to effectively handle this critical level of education need not to be ignored. Investing in ECE, especially with the advent of inclusive education agenda, would be difficult if the role of teaching efficacy remains 'mysterious.'

Likewise, special attention is required for inclusive teaching efficacy in the context of inclusive education for learners with special needs. For example, Majoko (2018) conducted a study on Inclusion in Mainstream Early Childhood Development. This study examined teachers' concerns about inclusion in mainstream Early Childhood Development (ECD) in the Mashonaland West educational province of Zimbabwe. Embedded within the "core expertise" of inclusive pedagogy, the study draws on a sample of twenty-one mainstream ECD teachers purposively selected from the educational province. The findings reveal that participants had systemic concerns about inclusion in mainstream ECD, including the lack of physical facilities, time, clear and specific policy, finance, support services, and flexible curricula. Participants also had teaching-related concerns about inclusion, including stakeholders' negative attitudes, large class sizes, inadequate professional preparation, and the nature and severity of disabilities leading to low self-motivation to handle mainstream classrooms. Kondo et al. (2023), in a similar vein, also emphasized the teachers' preparation as a key factor in their self-efficacy to teach inclusive classrooms. They noted that the levels of education for ECE practitioners alone

may not suffice for an enhanced perception of inclusive education. Rather, teacher preparation for inclusive practice could help them focus on meeting the various needs of children with disabilities in inclusive ECE classrooms. Indeed, the low self-motivation in handling the mainstream class of learners could serve as an interesting wakeup call in terms of new areas of scientific exploration, particularly in the Zambian context, as a key contribution to training motivated and productive early childhood teachers for quality early childhood education.

#### **2.4.2 Teachers' Beliefs and teaching ECE**

Teachers' beliefs in their ability play a critical role to succeed in executing their duties with effectiveness. A study by Guo, Dynia, Pelatti and Justice, (2013) revealed that teachers' self-efficacy is highly related to the second-fourth grade reading skills, explaining 70% of the between school variances in student outcome. The aforementioned study was significant in that it unveiled that teachers' self-efficacy was strongly related to second-fourth grade students' reading skills and that teachers' perception of self-efficacy significantly predicted students' language skills. It is interesting to note that the said study focused much on the influence of teachers perceived self-efficacy on the performance of learners in inclusive classrooms paying specific attention to the reading ability in the fourth grade (Guo, Dynia, Pelatti & Justice, 2013).

Another study examined pre-school teachers in classrooms serving preschool children exhibiting social and/or economic risks in the US, using an abbreviated 7-item version of the Teacher Self-Efficacy Scale (TSES; Bandura, 1997). This study found that preschool teachers reported having generally high self-efficacy. Further, Leyser Zeiger & Romi (2011) assessed preschool teacher self-efficacy and found that 48 preschool teachers in the US who taught children at-risk for academic difficulty reported having similarly high levels of self-efficacy (M=43.60 on a 5-point Likert scale). Equally, in another investigation of 64 general education preschool teachers, Montgomery & Miranda (2014) found that these teachers demonstrated high and positive efficacy about their capabilities to teach children. Taken together, such findings indicate that general education preschool teachers seem to be optimistic about their abilities to teach young children in the classrooms such as motivating and engaging children, control disruptive behaviours, use effective instructional strategies (Woodcock, Hemmings & Kay, 2012). The results in the aforementioned studies are very vital in that they provide an insight to what is obtaining in American set up though none of the studies focused on the role of general self-efficacy of teachers in an inclusive classroom.

According to Bandura's social cognitive theory, self-referent thought of an individual acts as a mediator between her/his knowledge and actions. Most individuals often evaluate their own experiences and thought process through self-reflection. Bandura views people as self-organizing, proactive, self-reflecting and self-regulating rather than as reactive organisms (Ahmmed, Sharma, & Deppeler, 2014).

From this perspective, human functioning can be explained as the product of a dynamic interaction between personal, behavioural and environmental influences. In other words, how people interpret the results of their own behaviour will inform and alter their self-beliefs as well as their environments, which in turn alter their subsequent behaviours. This is the foundation of Bandura's (1997) concept of reciprocal determinism, in which behaviour, personal factors, and environmental factors generate interactions resulting in a triadic reciprocity.

Bandura's social cognitive model considers self-reflection as a unique human capability, through which an individual evaluates and alters his behaviour, including the perceptions of self-efficacy. In this regard, it is important to state the teacher handling an early childhood class can also be informed by his personal beliefs which may result in alteration of their behaviour. Additionally, Klassen & Chiu (2010) suggested that some people have a strong sense of self-efficacy, and others do not; some have self-efficacy that covers many situations, whereas others have narrow self-efficacy; and some believe they have high self-efficacy to do the most difficult tasks, while others do not. Bandura's key contention regarding the role of self-efficacy in human functioning is that an individual's motivation to do a particular task and actions may not be based on what he or she really is, but on what he or she believes he or she can do. This motivates the current study to investigate inclusive general teaching efficacy among teachers in inclusive early childhood schools in Zambia.

Further studies have shown that teachers are not interested in accommodating learners with special education needs, as they believe that they do not have knowledge on how to implement inclusive education because there is no time (Hemmings & Weaven, 2005). This means that teachers undermine their abilities to handle learners with special education needs and deem it that there are other people who can do it better using their specialized knowledge.

Fraser and Lancaster (2012) argue that, as individuals' behaviour can often be better predicted by the beliefs they hold about their capabilities, rather than by what they are actually capable

of accomplishing. It can thus be assumed that self-efficacy perceptions can determine what individuals do with the knowledge and skills they have. They also acknowledge that beliefs and reality are seldom perfectly matched and individuals are typically guided by their beliefs when they engage with the world. As a consequence, people's accomplishments are generally better predicted by their self-efficacy beliefs than by their previous achievements, knowledge or skills (Fraser & Lancaster, 2012). Therefore, teachers' self-efficacy is an important aspect of the classroom and in this case an inquiry would be significant as to check on the beliefs teachers have in handling learners in inclusive early childhood schools in Zambia. It is argued by Hofman and Kilimo (2014) that teachers' qualification and attitude impede effective implementation of early childhood inclusive education. Further, positive attitudes are indispensable for success, particularly when learners with special educational needs (SEN) are placed into regular classrooms.

Another study designed by Guo, Dynia, Pelatti, and Justice (2013) to investigate the relations among teachers' self-efficacy, classroom quality and language and literacy gains of children with language impairments in early childhood showed that early childhood special education teachers received high ratings for their self-efficacy. The study however revealed that in terms of gains in children's language and literacy, early childhood teacher recorded low levels of self-efficacy. This indicates that there was an overall high rating of self-efficacy received by the early childhood teachers (n=28) handling learners with special education needs (Guo, Dynia, Pelatti & Justice, 2013). The focus of the study under review was on language impairment with little attention to general self-efficacy of teachers concerning self-beliefs held by teachers in handling an early childhood classroom with specific focus to the Zambian context.

Several studies on self-efficacy have concentrated on enhanced achievement in reading skills in relation to the perceived teacher efficacy across grade levels (Ashton & Webb, 1986; Goddard, Hoy & Hoy, 2000; Guo et al., 2012). For instance, a study in the Netherland on 775 teachers drawn from 53 elementary schools revealed that language skills were significantly predicted by the perceived teacher efficacy (Moolenaar, Sleeper & Daly, 2012). It is important to note that language acquisition skills at early childhood level play a critical role in other grade level and hence the significance of the said Netherland study. This in turn may directly influence positively to the low reading rate difficult in the primary grade among children with

language impairments but exploring inclusive general teaching efficacy will be an eye opener overall other than language impairment.

Similarly, a study by Schwab and Alnahdi (2020) to investigate factors influencing teachers' use of inclusive teaching practices was conducted in Austria. A sample of 221 Austrian in-service teachers participated who filled out the attitudes towards inclusion scale (AIS), the Teacher Efficacy for Inclusive Practices Scale (TEIP) and the teacher version of the Inclusive Teaching Practices Scale (ITPS-T). The study results revealed that teachers had high self-perceptions towards their use of inclusive teaching practices; compared with secondary school, primary school teachers reported using more inclusive teaching practices. Additionally, it was further shown that there was no difference between expert and novice teachers; teachers' attitudes and self-efficacy were associated with inclusive teaching practices; and self-efficacy predicted teachers' use of inclusive teaching practices (Schwab & Alnahdi, 2020). The study covered a number of important sectors in inclusive education and self-efficacy although the sample was purely Austrian in-service teachers involving secondary and primary school teachers.

## **2.5 Importance of ECE Provision**

The importance of early childhood education (ECE) provision cannot be overemphasised. It holds significant importance as it serves as the foundation for a child's overall development, providing a crucial period during which cognitive, social, and emotional skills are established. Numerous studies and educational experts emphasize the importance of quality ECE for long-term positive outcomes in various aspects of a child's life. The focus on the importance of early child education does isolate the role the teachers play in this important sector. Teachers remain key stakeholders in ECE provision in order to achieve the benefits that come with the acquisition of the early childhood education.

Scholars (Barnett, 2011; Camilli et al., 2010) have argued that ECE provision plays a critical role in the children's cognitive Development. ECE significantly contributes to the cognitive development of young children, playing a fundamental role in shaping their intellectual abilities and foundational skills. Through engaging activities and tailored educational experiences, ECE programs foster language acquisition, enhancing communication skills, vocabulary, and linguistic comprehension (Barnett, 2011; Camilli et al., 2010). Moreover, numeracy skills are nurtured, laying the groundwork for mathematical understanding and problem-solving

abilities. The early exposure to educational stimuli in a supportive environment during these formative years creates a solid cognitive foundation that influences a child's learning trajectory throughout life. In this regard, it is important to indicate that Early Childhood Education (ECE) is a cornerstone in fostering the cognitive development of young children and therefore its provision attracts critical attention by all stakeholders. ECE is not just a mere introduction to academics; quality ECE programs create an immersive and tailored learning environment. Through a rich tapestry of engaging activities, children embark on a journey of language acquisition, experiencing significant enhancements in communication skills, vocabulary, and linguistic comprehension. The early exposure to educational stimuli within a supportive setting during these formative years lays the groundwork for a solid cognitive foundation, exerting a profound and enduring influence on a child's learning trajectory throughout their lifetime.

It is further pointed out by Denham et al. (2012) that quality ECE programs promote Social and Emotional Skills development in ECE. These meticulously designed programs serve as incubators for creating an environment where young learners not only grasp academic concepts but also develop essential life skills. In this regard, the key facilitators of these ECE programs are the teachers and therefore understanding how much they understand inclusive education provision remained relevant focus for the current study. Indeed, rooted in research (Denham et al., 2012; Pianta et al., 2009), ECE programs facilitate the cultivation of empathy, effective communication, and positive interpersonal relationships. This early investment in social and emotional intelligence lays the groundwork for positive social behaviours, emotional resilience, and the nuanced ability to navigate complex social interactions. ECE, therefore, emerges as a crucial platform for fostering a holistic approach to early childhood development, nurturing emotional intelligence and social competency. Worth to note is that beyond the immediate benefits, children participating in high-quality ECE programs exhibit an enhanced state of school readiness, representing a tangible bridge between early childhood experiences and the formal education system (Duncan & Magnuson, 2013; Gormley et al., 2005). These programs not only provide a structured and stimulating environment but also instil essential skills such as attentiveness, cooperation, and the ability to follow instructions. As a result, ECE acts as a facilitator, ensuring a smoother transition for young learners into the structured expectations of formal schooling. The preparation offered by ECE programs contributes significantly to a child's adaptability and preparedness for the educational journey that lies ahead.

Further, extensive research consistently underscores the profound impact of early participation in quality ECE on long-term educational attainment (Reynolds et al., 2011; Schweinhart et al., 2005). While individuals may pay attention to immediate benefits drawn from ECE provision, its role goes beyond immediate benefits. Children benefiting from enriching early learning experiences are not only better positioned for immediate academic success but are also more likely to pursue higher education. The enduring impact of quality ECE extends beyond the preparatory phase, playing a transformative role in influencing educational trajectories and contributing significantly to sustained academic success and skill development throughout an individual's life. To achieve quality ECE and yield its benefits, the need for quality ECE teacher cannot be overstated, especially in the advent of inclusive education provision at every level of education provision. However, whenever the issue of quality early childhood education is tabled, little is deliberated about the inclusive teaching efficacy especially at this critical stage of development (Sintema & Singogo, 2021; Singogo & Muzata, 2023; Schweinhart et al., 2005).

Scholars (Heckman, 2006; Yoshikawa et al., 2013) have argued that quality ECE reduces achievement gaps among children from diverse socioeconomic backgrounds, thereby fostering more equitable educational outcomes). The level playing field provided in ECE addresses disparities in early learning opportunities. Indeed, ECE emerges as a powerful tool in mitigating educational inequalities and championing social justice. This emphasis on inclusivity becomes a cornerstone in shaping a fair and equitable educational landscape (Heckman, 2006; Yoshikawa et al., 2013). What is even more interesting is that ECE extends beyond intellectual realms to encompass the vital role it plays in promoting positive health outcomes among young children. Far beyond being solely an intellectual pursuit, ECE programs are meticulously designed to support overall well-being. Early identification of health concerns, coupled with a deliberate emphasis on nutrition and physical activity, contributes to enhanced health outcomes (Werner et al., 2018; Yoshikawa et al., 2013). ECE thus emerges as a holistic approach to early childhood development, nurturing not only the mind but also the body, ensuring a comprehensive foundation for lifelong well-being.

Epstein (2018) points out that successful ECE programs go beyond the traditional teacher-student paradigm by actively involving parents in their children's educational journeys. As Ozokes (2018) adds, effective inclusive education provision is best done at ECE and parents play an important role in promoting coexistence at this foundational level of education. These

programs recognize the pivotal role parents play in a child's development and actively foster positive parent-child relationships. By encouraging active parental participation (Epstein, 2018; Powell et al., 2010), ECE programs establish a collaborative and symbiotic partnership between educators and parents. This dynamic collaboration reinforces learning both at home and school, thereby enhancing the overall educational experience for young learners (Singogo, 2017). Similarly, the impact of ECE extends beyond the individual to contribute significantly to social integration and the cultivation of good citizenship values. By emphasizing cooperation, respect, and a sense of community, ECE programs instil foundational principles that contribute to the formation of responsible and engaged citizens (Moss, 2017; Siraj-Blatchford et al., 2010). The early exposure to these values not only shapes positive attitudes and behaviours in individual children but also plays a crucial role in fostering social cohesion and a sense of shared responsibility.

Indeed, investments in quality ECE programs yield substantial and enduring economic benefits for societies. The positive outcomes associated with early childhood education; including improved educational attainment and reduced societal costs related to remedial education, healthcare, and criminal justice, underscores the economic value of prioritizing ECE interventions (Heckman, 2006; Karoly et al., 1998). These economic benefits not only accrue to individuals but also contribute to the overall prosperity and productivity of communities and nations, establishing a strong economic rationale for investing in early childhood education. Furthermore, ECE programs play a transformative role in promoting equity in educational opportunities, ensuring that children from diverse backgrounds have equal chances for a robust start in life (UNESCO, 2015; World Bank, 2018). By actively addressing disparities in early learning experiences, ECE becomes a catalyst for breaking down barriers, fostering inclusivity, and creating a foundational platform for equal educational opportunities. This emphasis on equity aligns seamlessly with global initiatives aimed at ensuring that every child, regardless of socio-economic background, receives the necessary support for optimal development, thus fostering a more just and inclusive society.

With the aforementioned benefits of the ECE provision, the need to emphasise the holistic preparation of the inclusive ECE teachers remains critical as they are directly involved in facilitating programs in the classroom set up. With the agenda for achieving successful inclusive education teachers cannot be left behind because they monitor learners embrace one another at this early childhood level where learners are barely into stereotypical behaviours

(Ozoke, 2018). Additionally, research has actually shown the positive outcomes associated with early identification and intervention on infants and further evidence has revealed that services to young children (including early childhood education provision) who have or are at potential risk for developmental delays have been shown to positively impact outcomes across developmental domains (Siegel, 1999). What is even more interesting is that there is cumulative evidence that investment in early childhood learning is justified by the returns it provides to the society in the long term (Gormley, Gayer, Phillips & Dawson, 2004, Lynch, 2004).

When considering effective inclusive education at this level (early childhood), engaging stakeholders especially the teachers should not be optional. Teachers' beliefs have an impact on the effective provision of education. Therefore, teachers' self-efficacy remains vital in achieving successful inclusive education provision (Lai, 2014).

### **2.5.1 Inclusive ECE Teacher Preparation**

Globally teacher preparation for inclusive Early Childhood Education (ECE) may vary. However, this preparation is more often than not biased to learners with special education needs leaving a lacuna in preparing an inclusive education teacher. An inclusive Early Childhood Education (ECE) teacher is professionally trained to effectively handle the affairs of both learners with special education needs and indeed those without. Such a teacher embraces diversity and is dedicated to creating an inclusive learning environment that accommodates and supports the needs of all children, regardless of their backgrounds, abilities, or disabilities. These educators play a crucial role in fostering a sense of belonging and ensuring that each child has equal access to quality education and experiences. Teachers create a positive classroom environment and employs varied teaching strategies to accommodate diverse learning styles and abilities (Tomlinson, 1999). This approach ensures that each child can access the curriculum at their individual level. By creating a positive and accepting classroom climate is essential for an inclusive ECE teacher. This involves promoting a sense of belonging, respect, and cooperation among all students (Salend, 2016).

Further, scholars have pointed out that Inclusive ECE teachers promote collaboration with Support Services. Special education professionals, therapists, and other support staff are engaged to provide additional resources and accommodations for children with special needs (Turnbull et al., 2015). Understanding inclusive education empowers teachers on such things

as adaptability and being responsive to the evolving needs of their students. They modify their teaching methods, materials, and assessments as necessary to meet individual needs (Pisha & Coyne, 2001; Muzata, 2017).

Indeed, preparing an inclusive ECE teacher calls for critical analysis by the trainers to ensure holistic development of this individual in readiness of inclusive class of learners. Inclusive teachers advocate for the rights and inclusion of children with diverse needs. They actively work to eliminate barriers and promote an inclusive culture within the school community (Ferguson & Houghton, 1992). Recognizing and valuing cultural diversity is integral to an inclusive ECE teacher's practice. They incorporate diverse perspectives and cultural references into their curriculum to create an inclusive learning environment (Derman-Sparks & Edwards, 2010). Additionally, they engage in clear and open communication with both students and parents. This is crucial because keeping parents informed and involved in their child's education fosters a collaborative approach to learning (Soodak & Erwin, 2000) and positive parental feedback is essential for inclusive teaching efficacy (Bandura, 1997; Sintema & Singogo, 2021).

Further, it is important to note that countries around the world have implemented several initiatives and strategies to enhance teachers' efficacy in inclusive ECE settings. For example, the United Kingdom (UK) has initiatives such as the Early Years Initial Teacher Training (EYITT) program. This program focuses on preparing early childhood educators to work with children with diverse needs, emphasizing inclusion and providing targeted support for those with special educational needs (Department for Education, UK, 2021). Additionally, in Australia, the Early Childhood Australia (ECA) organization offers professional development opportunities for early childhood educators. The ECA emphasizes inclusive practices and provides resources to enhance teachers' capacity to create inclusive learning environments (Early Childhood Australia, 2021).

New Zealand exemplifies a commitment to inclusive Early Childhood Education (ECE) through the guidelines and standards set by the New Zealand Teachers Council. These guidelines, integral to teacher education programs, particularly those tailored for educators in the early years, underscore the nation's dedication to fostering inclusive educational practices. The Teaching Council of Aotearoa New Zealand has outlined comprehensive guidelines aimed at preparing educators for the diverse and dynamic landscape of ECE. Emphasizing inclusivity, these standards are designed to ensure that teachers are equipped with the necessary

knowledge, skills, and attitudes to cater to the unique needs of all students in their care (Teaching Council of Aotearoa New Zealand, 2021). The guidelines not only recognize the diverse student populations present in New Zealand's educational settings but also stress the importance of creating inclusive environments that celebrate and accommodate differences. By doing so, the Teachers Council acknowledges the value of embracing diversity and promoting educational equity from the foundational stages of a child's learning journey.

In alignment with international best practices, the New Zealand guidelines focus on various aspects of teacher preparation for inclusive ECE. This includes understanding the principles of inclusive education, implementing differentiated teaching strategies, and fostering positive attitudes toward diversity. Furthermore, the guidelines promote culturally responsive teaching, recognizing the significance of acknowledging and respecting the cultural backgrounds of students (Teaching Council of Aotearoa New Zealand, 2021). Teachers in New Zealand are encouraged to cultivate inclusive classrooms that go beyond mere accommodation and actively embrace the unique strengths and abilities of each learner. By emphasizing the importance of inclusive practices, the guidelines set by the Teaching Council contribute to creating a supportive and enriching educational environment that values diversity, promotes social cohesion, and lays the groundwork for lifelong learning. In essence, New Zealand's commitment to inclusive ECE teacher preparation is reflected in the meticulous guidelines provided by the Teaching Council, affirming the nation's dedication to ensuring that every child, regardless of background or ability, receives an education that nurtures their full potential. This is essentially a great move for New Zealand spearheaded by the country's teaching council; however, much of it is focussing on the learner outcome and little on the teachers' beliefs that are key in accomplishing effective inclusive education provision in ECE.

Furthermore, the United States Division for Early Childhood (DEC) of the Council for Exceptional Children provides resources and professional development for early childhood special education professionals. Programs like the Inclusive Classroom Profile (ICP) support teachers in assessing and improving their inclusive practices (Division for Early Childhood, 2021). Similarly, various provinces in Canada have developed inclusive education policies and training programs for educators. For instance, the Faculty of Education at the University of British Columbia offers courses on inclusive education and special needs, ensuring that teachers are equipped with the knowledge and skills to support all learners (University of British Columbia, 2021). While these programs are interesting, they are designed to support

learners with SEN and if this remained unattended to, the inclusive teaching-efficacy of the ECE teachers would negatively be affected.

Indeed, important concepts that are key in the current study have been reviewed as a framework for guiding the study. The study addressed four objectives. It is therefore important to note that this segment of the literature review focuses on existing literature related to the themes developed from the research objectives to highlight the research gap identified in the current study. The themes include: understanding inclusive education among early childhood teachers, sources of teaching efficacy in inclusive education, teaching efficacy among early childhood teachers, and factors influencing inclusive teaching efficacy. So far, key concepts such as self-efficacy, inclusive education as well as inclusive teaching-efficacy have adequately been addressed.

## **2.6 Understanding of Inclusive Education Among Early Childhood Teachers**

Inclusive teaching in Early Childhood Education (ECE) is a crucial aspect of fostering a supportive and equitable learning environment for all children. This literature review explores the existing knowledge base on teachers' knowledge in implementing inclusive practices in ECE settings. The aim is to understand the factors influencing teachers' knowledge and confidence in inclusive teaching and identify potential areas for improvement. As it is often said "Knowledge is power" (Hobbes, 1651), teaching learners in inclusive ECE especially that it is a foundation upon which the subsequent education levels are built (Munsaka & Matafwali, 2013) requires well-informed teachers. Teacher training is critical in ensuring that teachers who are the key stakeholders in the provision of inclusive education are adequately empowered with relevant knowledge and skills to handle learners of diverse learning needs.

The idea that learning is continuous underscores the notion that individuals are perpetually engaged in the process of acquiring knowledge and skills from birth to death. This perspective is grounded in various theoretical frameworks and educational philosophies that highlight the lifelong nature of learning. Lev Vygotsky, a prominent figure in developmental psychology, emphasized the significance of social interactions and cultural influences in shaping one's cognitive development (Vygotsky, 1978). According to Vygotsky, learning is not confined to specific developmental stages but is a continual process throughout the lifespan.

Indeed, the concept that learning is continuous holds significant implications for teachers, particularly in the context of inclusive Early Childhood Education (ECE). In the realm of

inclusive ECE, teaching efficacy, knowledge, and ongoing professional development often in the form of Continuous Professional Development (CPD), play pivotal roles in fostering an environment where diverse learners can thrive. Vygotsky's emphasis on the value of social interactions and cultural influences in shaping one's cognitive development (Vygotsky, 1978) cannot be overemphasized. Interaction's through CPDs are crucial in positively uplifting a teacher's inclusive teaching efficacy (Singogo & Muzata, 2023; Bandura, 1997; Vygotsky, 1978). Teaching efficacy, or an educator's belief in their capacity to positively impact student learning, becomes a critical element in facilitating effecting teaching and learning in an inclusive ECE setting. As the inclusive classroom encompasses a diverse range of learners with varying needs, effective teachers must possess a strong sense of teaching-efficacy to adapt their instructional strategies to meet the individual requirements of each child (Tschannen-Moran & Hoy, 2001; Ingersoll, & Strong, 2011). Moreover, the understanding of continuous learning aligns with the need for educators to possess a deep and evolving knowledge base. Inclusive ECE demands a comprehensive understanding of child development, diverse learning styles, and effective strategies for accommodating children with varying abilities (Muzata, 2021). This knowledge base extends beyond traditional developmental stages, aligning with the continuous learning perspective.

Continuous Professional Development (CPD) becomes a key vehicle through which educators can stay abreast of the latest research, pedagogical techniques, and inclusive practices. Engaging in regular CPD allows educators to refine their teaching strategies, deepen their understanding of diverse learning needs, and enhance their overall effectiveness in fostering an inclusive and supportive learning environment (Ingersoll & Strong, 2011). In the context of inclusive ECE, the collaborative and socially interactive aspects emphasized by Vygotsky gained additional significance. In an inclusive setting, educators must not only consider individual learning needs but also facilitate positive social interactions among all children, regardless of their abilities or backgrounds. This aligns with the notion that learning is not confined to an individual's cognitive development but is intertwined with social and cultural influences. It is therefore significant to note that teachers' role in facilitating teaching and learning in inclusive ECE demands adequate day to day knowledge through personal research and structured CPDs. For example, ECE teachers must aware that the best stage to ground effective inclusion is at early childhood because learners are supportive and not much into stigma and discrimination or stereotypical exhibitions (Ozoke, 2018).

Similarly, Jean Piaget, a renowned psychologist, contributed to the understanding of continuous learning through his stages of cognitive development (Piaget, 1952). Piaget's work suggests that individuals actively construct their understanding of the world, and this process continues to evolve across the lifespan. The idea aligns with the concept that learning is not a finite endeavor but an ongoing journey that adapts to changing circumstances and experiences. Additionally, Malcolm Knowles, a key figure in adult education, introduced the concept of andragogy, which emphasizes self-directed learning in adults (Knowles, 1984). This perspective supports the idea that individuals take an active role in their learning process, seeking knowledge and skills throughout their lives. Knowles' work further reinforces the notion that learning is not restricted to formal educational settings but extends into various life experiences. In this regard, implementing inclusive education policy at this foundation (ECE) level requires a motivated and knowledgeable educator. Indeed, exploring the level of understanding of inclusive ECE teachers in Zambia was therefore critical.

Further, it is important to acknowledge the work of a classical scholar, a philosopher and educational reformer, John Dewey who argued that learning is intertwined with experience, and education should be a continuous process that addresses the needs and interests of individuals at different stages of life (Dewey, 1916). In line with Dewey's argument in addressing the needs and interests of individual, the currently study sought to assess the knowledge ECE teachers hold about inclusive early childhood education. Knowledge is indeed critical in the promotion of the inclusive teaching efficacy (Singogo & Muzata, 2023). Worth to note is that Dewey's ideas resonate with the belief that learning is not limited to specific age groups or institutional settings but is a lifelong pursuit. His emphasis on experiential and continuous approach to education is significant for this current study. This is because teachers exposed to managing inclusive early childhood education are not exceptional to undergoing continuing professional development which enhances their knowledge and skills for such class of learners. However, it was not known to what level ECE teachers understood inclusive ECE and their beliefs which shape the outcome of their teaching tasks. Indeed, the concept of continuous learning in search for knowledge is crucial for inclusive ECE teachers as it promotes ongoing intellectual, emotional, and social development. These perspectives collectively assert that learning extends beyond formal education, emphasizing the importance of experiences and self-directed engagement in acquiring knowledge and skills throughout the entire lifespan. What is vital to point out here is that teaching learners in an ordinary ECE class is different from teaching learners in an inclusive ECE class. This argument is based on the

fact that the latter, houses learners with special education needs and indeed the knowledge that the teacher may hold must be inclusive in nature. Should the aforesaid knowledge be inadequate it is likely to impact negatively on their belief to handle an inclusive ECE learners and subsequently affecting their inclusive teaching efficacy (Bandura, 1997; Singogo & Muzata, 2023).

Professional Development Opportunities play a pivotal role in empowering teachers with the required knowledge and skills to face the reality in the teaching and learning environment. Research indicates that teachers' knowledge and efficacy in inclusive Early Childhood Education (ECE) are intricately tied to the quality and extent of professional development they engage in (Mellard, McKnight, & Jordan, 2012; Sailor, McCart, & Anderson, 2019). The significance of ongoing professional development in shaping inclusive teaching practices has been a consistent theme in educational research. Contextually, inclusive ECE teachers require relevant inclusive knowledge and skills for their effective and desired performance. This means that when executing a CPD program in this case, there is need to package it in such a way that it must cater for 'inclusivity' and not biased to either learners with special education needs or those without.

Further, Mellard, McKnight, and Jordan (2012) conducted a comprehensive study that emphasized the positive impact of professional development on teachers' ability to implement inclusive practices. Their findings underscored the transformative nature of continuous training, highlighting its role in equipping educators with the necessary skills and strategies to effectively address the diverse learning needs present in inclusive ECE settings. Similarly, Sailor, McCart, and Anderson (2019) contributed to this body of knowledge by emphasizing the dynamic nature of inclusive education. Their research highlighted the need for adaptive professional development that considers the evolving landscape of ECE and incorporates evidence-based practices. This aligns with the idea that effective professional development is not only about acquiring initial skills but also about staying informed and responsive to the evolving needs of students and the educational environment. Indeed, staying informed and responsive is an important issue of interest for the current study in that delving into inclusive ECE teachers' knowledge base was critical in appreciating inclusive teaching efficacy among early childhood teachers in Zambia.

Literature consistently emphasizes that professional development should be ongoing, personalized, and directly related to the challenges faced by educators in inclusive ECE

(Giangreco, Edelman, Broer, & Doyle, 2001; Praisner, 2003). Giangreco et al. (2001) emphasized the importance of tailoring professional development to individual needs, recognizing that teachers bring varied experiences and strengths to the inclusive classroom. Personalized training can enhance teachers' confidence and competence, ultimately impacting their inclusive teaching efficacy.

Furthermore, Praisner (2003) explored the idea of collaborative professional development, emphasizing the role of peer collaboration and mentorship. Collaborative efforts among educators can create a supportive network for sharing best practices and problem-solving, contributing to the overall efficacy of inclusive teaching initiatives. Literature strongly supports the notion that professional development is a cornerstone in enhancing teachers' knowledge and efficacy in inclusive ECE (Singogo & Muzata, 2023). It is therefore important to note that the ongoing, adaptive, and personalized training, coupled with collaborative efforts, equips ECE educators with the tools needed to create inclusive environments that cater to the diverse needs of young learners.

In the realm of early childhood education, the effective implementation of inclusive education policies is paramount for fostering an environment where all children, regardless of their abilities, can thrive. However, as highlighted by Muzata (2013b), educators face substantial hurdles in integrating interactive methodologies to educate hearing-impaired (HI) learners about critical topics such as HIV/AIDS. The challenges identified, particularly concerning sign language communication and the lack of appropriate teaching materials, underscore the complexities of catering to diverse learning needs within inclusive classrooms. The aforementioned study revealed that there was lack of communication between the teachers and learners with HI resulting from lack of knowledge of sign language. The current study focus was whether the ECE teachers believe in themselves to manage inclusive ECE learners. Understanding their beliefs is significant as this feeds into their self-efficacy. This is because teacher efficacy, which refers to the teachers' beliefs in their capabilities to positively impact student learning outcomes, plays a pivotal role in navigating these challenges and ensuring the successful implementation of inclusive education policies (Badura, 1997). In the context of educating HI learners in early childhood settings, teacher efficacy encompasses not only proficiency in sign language and braille but also the ability to adapt instructional strategies to meet individualized needs.

Research suggests that teacher efficacy significantly influences instructional practices and student achievement (Bandura, 1997). Teachers who possess a strong sense of efficacy are more likely to persist in the face of challenges, seek out innovative teaching methods, and advocate for resources to support inclusive practices. Conversely, low levels of teacher efficacy can hinder efforts to implement inclusive education policies effectively. Furthermore, the scarcity of trained teachers proficient in sign language and braille, as identified by Muwana and Ostrosky (2014) underscores the urgent need for comprehensive professional development programs tailored to early childhood educators. These programs should encompass not only technical skills but also strategies for fostering a supportive and inclusive learning environment. Researchers have argued that to address these challenges, policymakers and educational stakeholders must prioritize investments in teacher training and resource provision. This includes expanding access to specialized professional development opportunities, equipping educators with instructional materials tailored to diverse learning needs, and fostering collaboration among multidisciplinary teams to support the holistic development of HI learners. The successful implementation of inclusive education policies in early childhood settings requires concerted efforts to enhance teacher efficacy. This requires provision of the specialized training to empower ECE teachers with relevant knowledge and skills to build their confidence in handling inclusive ECE learners. It was not clear how much knowledge ECE teachers in Zambia held in inclusive ECE provision.

Matafwali (2020) investigated the relationship between teacher qualifications and their ability to effectively implement inclusive education strategies in Zambian classrooms. Specifically, it sought to understand how teachers' skills and qualifications impact their ability to create an inclusive learning environment for students with disabilities, such as those with hearing and visual impairments, and to identify the specific barriers teachers face when providing inclusive education. The study utilized a descriptive correlational design to examine the relationship between teacher qualifications and the effectiveness of inclusive education in Zambian schools. The design was chosen to allow for the analysis of variables such as teacher training, classroom practices, and the availability of specialized services (e.g., Braille and sign language interpretation) in an inclusive education setting. The study found that teachers with higher qualifications and specialized training in inclusive education were significantly more likely to provide effective and inclusive teaching practices. Teachers who had undergone specialized training in teaching students with disabilities, including those trained in Braille and sign

language, reported a greater ability to accommodate the needs of students with hearing and visual impairments in their classrooms.

However, the study also identified several challenges faced by teachers in implementing inclusive education, such as insufficient access to teaching materials (e.g., Braille textbooks) and a lack of support staff like sign language interpreters. Furthermore, the study revealed that teachers' perceptions of their own competence in managing inclusive classrooms were positively correlated with their level of training but negatively correlated with the availability of necessary resources. Students with disabilities in classrooms taught by well-trained teachers demonstrated higher academic achievement and more active participation compared to those in classrooms where teachers had less specialized training. In contrast, students in under-resourced schools, regardless of teacher qualifications, experienced lower educational outcomes due to the lack of necessary accommodations and support services. The study concluded that teacher qualifications and training play a critical role in the successful implementation of inclusive education, particularly in addressing the needs of students with disabilities in Zambia. However, to ensure the effectiveness of inclusion, the study also emphasized the need for adequate resources, including teaching aids, Braille materials, and sign language interpreters. The findings highlight the importance of not only investing in teacher training but also in providing the necessary infrastructure and support to create truly inclusive classrooms. The argument is that in order for students to actively participate in the learning process, teachers must be qualified and skilled enough to comprehend the complexity of inclusive classrooms. In this regard, the use of efficient delivery methods for the curriculum, and not only that but also providing inclusive the teaching and learning environment. Teachers have a vital role in the effectiveness and quality of inclusion, and their incapacity is seen as a major impediment to effective inclusion. Additionally, it entails offering specific services, such as Braille printing and Sign Language interpreters, to pupils who have hearing and visual impairments, respectively (Matafwali, 2022).

Kasongole and Muzata (2020) examined the reality of inclusive education for learners with learning disabilities in two selected primary schools of Kabwe District in Central province-Zambia. A qualitative research approach was used in the generation of data from sample that consisted of 50 participants; twenty (20) teachers teaching learners with learning disabilities and (30) thirty learners with learning disabilities. A purposive sampling technique was used in selecting teachers while the Quota sampling technique was used in selecting learners suspected

of having learning disabilities. Data were analyzed in themes guided by the research questions. Findings revealed the presence of learners with learning disabilities but teachers did not demonstrate understanding of the concept of learning disabilities. As a result of limited understanding of the concept of learning disabilities, learners with the learning disabilities did not receive attention within inclusive education classrooms, thereby questioning the reality of inclusive education. This research clearly reveals the failure by these teachers to provide attention within inclusive classroom settings thereby probing their preparation in inclusive pedagogies at their initial preservice training

Another study in South Africa by Hay, Smit and Paulsen (2006) investigated the preparedness of teachers for the new policy of inclusion on a sample of 2577 Free State teachers using a questionnaire. Teachers were chosen from 12 districts and through a comprehensive questionnaire an effort was made to ascertain the knowledge, skills and attitudes of teachers towards inclusive education. This measure was utilized to determine their level of readiness for inclusion. The results of the investigation indicate that a huge effort will have to be made by policy makers and provincial education departments to effect a paradigm shift towards inclusion. It appeared that respondents still think in terms of past specialized education models that were utilized in previous eras. They also appear to be mindful of South African related problems, and apparently do not exhibit adequate knowledge on inclusive education. The study under review was very interesting in that it had a huge sample of teacher respondents using a questionnaire. However, the study represents South African teachers' approach to inclusive education provision. It also took the general teacher population and not focused of early childhood education teachers.

Muzata and Mahlo (2019) in their *Zambian study* using qualitative paradigm focused on the experiences of teachers and Standard Education Officers (ESOs) based on the 2013 revised curriculum implementation in Zambia. In depth face to face and telephone interviews were conducted. The findings revealed that ESOs and teachers for learners with deafness had varied experiences. For instance, while the curriculum was appreciated as a conduit for widening employment opportunities for learners with deafness, its implementation was characterized with various challenges such as limited sign language vocabulary and lack of adapted teaching and learning materials. The study concluded that the challenges of lack of adapted materials and limited sign language vocabulary, as well as teacher incompetency in sign language had serious effects on the implementation of the curriculum for learners with deafness in Zambia.

Muzata and Mahlo's findings are key to the current study in that while they found that teachers lacked knowledge of sign language vocabulary, it was interesting to follow up as to whether this knowledge gap would affect their inclusive teaching efficacy.

## **2.7 Sources of Teaching-Efficacy in Inclusive Education**

Teaching efficacy, particularly in inclusive education settings, is crucial for promoting equitable learning opportunities for all students. Sources of teaching efficacy encompass a range of factors that influence educators' beliefs in their ability to effectively manage diverse classrooms. In inclusive education, where teachers are expected to address the varied needs of learners including those with special education needs is vital for effective pedagogical practice. This literature review explores the various sources of teaching efficacy within inclusive education, drawing from global, African, and Zambian contexts to highlight the commonalities and unique challenges faced by educators.

Research globally indicates that teaching efficacy is influenced by several key sources, including mastery experiences, vicarious experiences, verbal persuasion, and emotional states (Bandura, 1997). Mastery experiences, or the successful execution of teaching strategies, significantly enhance teachers' confidence. For example, a study by Tschannen-Moran and Woolfolk Hoy (2001) found that teachers who successfully implemented inclusive practices reported higher levels of teaching efficacy. Vicarious experiences, where educators observe peers effectively managing inclusive classrooms, also play a critical role. In many cases, professional development programs that include collaborative teaching and peer observations have been shown to improve teachers' efficacy beliefs (Guskey, 2002). Additionally, verbal persuasion from administrators and colleagues can enhance teachers' self-beliefs, as supportive feedback reinforces their capabilities (Schunk & Zimmerman, 2008). Emotional states, including feelings of stress or excitement, can also influence teaching efficacy. For instance, studies have shown that positive emotional states correlate with higher self-efficacy beliefs among educators, allowing them to engage more fully with their diverse student.

A study by Skaalvik and Skaalvik, (2014) in Norway investigated the relationship between educators' emotional states and their self-efficacy beliefs. Specifically, the researchers aimed to understand how positive emotional states impact teachers' confidence in their abilities to manage classrooms and engage effectively with diverse student populations. The study utilized a quantitative research design, employing surveys to collect data from teachers. The researchers

used standardized questionnaires to assess both the emotional states of the educators and their self-efficacy beliefs. The data were then analyzed using statistical methods to identify correlations and patterns. The findings revealed a significant positive correlation between educators' positive emotional states and their self-efficacy beliefs. Teachers who reported higher levels of positive emotions, such as joy and enthusiasm, demonstrated greater confidence in their teaching abilities. This heightened self-efficacy was linked to increased engagement with students, particularly those from diverse backgrounds. The results suggest that fostering positive emotional environments can enhance educators' effectiveness and, in turn, benefit student learning outcomes. The Norwegian study was interesting in that it focused on the emotional environment leaving a gap on whether the physical environment would have a bearing on the inclusive teaching-efficacy. Additionally, the current study, unlike the study under review, employed mixed methods which provides a comprehensive approach to the problem

In United States of America, Miller (2012) explored the beliefs of Early Childhood Education (ECE) teachers regarding inclusive education. The study sought to understand how these beliefs influence their teaching practices, particularly in accommodating diverse learners in the classroom. The research also aimed to identify the factors that shape these beliefs, including formal training, personal experiences, and institutional support. Mixed-methods design was used. Questionnaires and in-depth interviews were used to collect data. The study found that ECE teachers generally held positive beliefs about inclusive education; however, their confidence in implementing inclusive practices varied significantly. Teachers with specific training in inclusive education exhibited more favourable beliefs and greater confidence in their ability to support diverse learners. Additionally, teachers who had prior experiences with individuals with disabilities or who had diverse learners in their classrooms were more likely to embrace inclusive practices. The study under review clearly showed that teachers' prior experience plays a critical role in implementing successful inclusive education at the foundation level of education. Teachers believed that experience through pre-service and in-service training boosted their abilities to manage inclusive ECE provision. These were indeed critical and interesting findings to the current study, nevertheless, they represent the population in the USA. Due to geographical differences between the two countries, USA and Zambia, it was significant to explore these sources of teaching efficacy in the Zambian context.

Atilas, Jones, and Kim (2012) investigated whether field placements in inclusive classrooms enhance preservice teachers' efficacy when working with children who have developmental

delays or disabilities. In a study involving 165 undergraduate students at a Midwestern university, participants completed a modified version of the Teacher's Sense of Efficacy Scale. The results revealed a significant positive correlation between preservice teachers' efficacy and their inclusive field experiences. While Atilas, Jones, and Kim (2012) highlighted the positive correlation between preservice teachers' efficacy and their inclusive field experiences, their study was conducted solely in a Midwestern university context and focused on undergraduate students. This leaves a gap in understanding how these dynamics play out in different cultural and educational settings, particularly in developing countries like Zambia. The current study addresses this gap by examining the sources of teaching efficacy among inclusive early childhood education teachers in three provinces of Zambia. It explores how local contexts, resources, and training experiences influence teacher efficacy, thus contributing to a broader understanding of inclusive education practices in diverse educational landscapes. This research aims to provide insights that can inform teacher training programs and policy development in Zambia and similar contexts.

Soliman (2020) conducted a study to reveal the differences in the self-efficacy among general education teachers in both the Kingdom of Saudi Arabia and the Arab Republic of Egypt. It also aimed to reveal the sources of this self-efficacy in both countries. The core study sample consisted of (96) Saudi teachers and (88) Egyptian teachers. The researcher used the teachers' self-efficacy scale and the teachers' self-efficacy sources scale. The results of the study indicated that there is a significant difference between the average scores of the total self-efficacy and its sub-dimensions between the Saudi and Egyptian sample for the outperform of The Egyptian teachers. It indicated that the source of the mastery experience was a significant predictive of the self-efficacy of the Saudi teachers and it explained 53% of the variation in self-efficacy. It also indicated that the mastery experience was a significant predictive of the self-efficacy of the Egyptian teachers, and it explained 13% of the variance in self-efficacy.

Indeed, very informative results in Soliman's study in that mastery experience was a significant predictor of self-efficacy in both Saudi and Egyptian teachers, but the explanatory power varied considerably between the two countries. This suggests that while successful teaching experiences boost self-efficacy, the quality, frequency, and context of those experiences may vary greatly. In Zambia, teachers' mastery experiences may be influenced by local challenges such as overcrowded classrooms, varying student abilities and limited teaching materials. It is important to explore in the qualitative data how teachers perceive their successes or failures in teaching, and how does this impact their teaching-efficacy in ECE? Additionally,

given that mastery experiences are a predictor of self-efficacy, it is critical to explore what constitutes a successful teaching experience in the Zambian context. For example, a teacher in a rural setting might feel a sense of accomplishment from successfully managing a classroom with limited resources, while a teacher in an urban setting might derive self-efficacy from successfully engaging students in a technologically advanced classroom. It's important to understand how Zambian teachers define success, and how local challenges influence their sense of mastery.

Ndhlovu (2016) conducted a study to investigate whether or not there was effective management of ECC's in government primary schools of Chavuma district in North Western Province. The researcher tested the provision of teaching and learning aids, support of teacher group meetings and teacher monitoring by educational managers charged with the responsibility. These independent variables were supported by the study objectives which mainly hinged on the role of educational managers in supporting, providing and implementing the study variables to achieve effective management of ECE in primary schools of Chavuma district. Others included teachers' views on school managers' support on effective management of ECC in the primary schools of Chavuma District. The research design that was employed was a descriptive survey which was supported by a qualitative method. The targeted population was forty-eight (48) which was both purposefully and randomly chosen. Data collection instruments used were questionnaires, interview guides and checklists. Data collected was later analysed using Microsoft Excel thematically, by document analysis and in verbatim form. The findings showed that there was adequate implementation of teacher monitoring and teacher group meeting support by educational managers at both DEBS and school management levels. On the other hand, the study indicates that there was inadequate provision of teaching and learning aids in the ECC as indicated in the findings. Some of the most pertinent teaching and learning materials which schools under this study lacked were infrastructure (classroom blocks) appropriate for learners at this level. The reviewed study brought out informative findings to the current study in that it revealed that there was adequate implementation of teacher monitoring. However, what remained unanswered was whether the teachers who are the key stakeholders believe that the monitoring and the monitoring tool were adequately preparing them for inclusive ECE provision.

Another interesting study in Zambia found that being provided with an opportunity to practice was a key to improving teacher efficacy in embracing inductive inclusive teaching methods. In their study, Mambwe, Chishimba and Machishi (2019) explored student teachers' self-efficacy

beliefs about Inductive Teaching Learning Methods. These are Inquiry teaching, Problem-based teaching, Project-based, Field work, and Survey. Concurrent triangulation research design was used. Participants included both third year pre-service and in-service student teachers and were randomly sampled from 6 primary colleges of education. The scholars employed survey questionnaires and interview schedules to collect data. Indeed, quantitative data and qualitative data were analysed using SPSS and thematic analysis respectively. The study found low self-efficacy beliefs among student teachers regarding inductive teaching methods. There was also no significant difference between pre-service and in-service student teachers in self-efficacy beliefs on the five selected inductive teaching methods. The authors recommended the preparation of students in inductive methods if governments' policy shift from positivist-oriented teaching (teacher-centred) to constructivist-based teaching and learning is to be translated into practice in classrooms. They further added the need to allocate more time to pedagogical teaching and learning experiences in colleges of education and to limit classroom enrolments because this emerged as one of the contributing factors to student teachers not being given enough opportunities to practice how to teach and was also a factor that compromised time allocated to students during practices and experiences meant to enhance their pedagogical knowledge and skills. These findings are very informative for the current study though it was based on inductive teaching method. The fact that teacher lack of experience to practice resulted in low self-efficacy of the teachers, it raises the questions as to what extent teachers of inclusive ECE feel about their abilities to manage such learner.

An interesting Tanzanian study by Mtebe (2020) examined system self-efficacy amongst instructors using mixed sequential explanatory design with data collected from 357 instructors at the University of Dodoma through questionnaires followed by focus group discussions. The adapted independent factors: performance accomplishments and vicarious experience from Bandura (1977), and organizational support from Higgins and Compeau (1995) were subjected to linear regression analysis to determine the causal relationship with system self-efficacy. The study found that vicarious experience and organizational support had a significant effect on system self-efficacy amongst instructors. The author emphasized that examining system self-efficacy amongst instructors was critical to help those who were implementing eLearning systems in finding strategies that would increase system usage. As indicated earlier on in this paragraph that the study under review is interesting in that it is directly communicating to the current study in that they both adopted sequential mixed methods, however, the current study adopted exploratory sequential mixed method unlike the reviewed study which employed

explanatory sequential mixed method. Additionally, the current study explored whether vicarious experience was a source of inclusive teaching efficacy at early childhood education level in the Zambian education system in a bid to accelerate the inclusive education policy implementation with a view to achieving SDG 4 by the year 2030.

## **2.8 Teaching Efficacy among Early Childhood Education (ECE) Teachers**

Teaching efficacy is a vital construct in the field of education, particularly within the context of inclusive early childhood education (ECE). It refers to educators' beliefs in their capacity to effectively teach and support all students, including those with diverse learning needs (Tschannen-Moran & Woolfolk Hoy, 2001). In inclusive settings, where children with disabilities and typical development learn side by side, the importance of teaching efficacy becomes even more pronounced. Teachers must navigate a complex landscape of diverse student needs, making their self-efficacy beliefs crucial for fostering an effective learning environment. Globally, inclusive education provision has become a household term. Indeed, the providers are doing everything possible to ensure effective inclusive education is provided from ECE level to higher learning institutions. However, it was not known as to what extent ECE teachers were prepared based on the psychological factors such as teaching efficacy to handle inclusive education at early childhood level in the Zambian context. Research indicates that teachers with high levels of teaching-efficacy are more successful in implementing inclusive practices that benefit all students (Guo et al., 2011). Effective teaching in inclusive settings promotes not only academic achievement but also social skills and emotional development among children with varying abilities (Odom et al., 2010). When teachers believe in their ability to support all learners, they are more likely to create inclusive classrooms where every child can thrive. ECE teachers often face unique challenges in inclusive settings, such as managing diverse behaviours and adapting instructional methods. High teaching efficacy is associated with greater job satisfaction and lower levels of burnout, which are critical for teacher retention (Sutcher et al., 2016). Teachers who feel capable in their roles are better equipped to handle the stressors associated with inclusive education, ultimately leading to a more stable educational environment for young learners.

Furthermore, studies have shown that teachers who receive specialized training in inclusive education report higher levels of efficacy (Avramidis & Norwich, 2002). Effective pre-service training that includes practical experiences with diverse learners can enhance future teachers' confidence and skills (Gordon et al., 2017). The presence of strong support systems, including

mentorship from experienced educators and collaboration with special education professionals, significantly influences teachers' efficacy beliefs (Bryk & Schneider, 2002). Supportive relationships can enhance teachers' ability to implement inclusive practices effectively. It is also important to point out that opportunities for reflection on teaching practices and constructive feedback from peers and supervisors are critical for building self-efficacy (Schön, 1983). Reflective practices enable teachers to recognize their strengths and areas for growth, fostering a sense of agency in their professional development.

A study in Zimbabwe by Majoko (2018) examined the effectiveness of special and inclusive teaching in Early Childhood Education using a purposive sample of 21 special and inclusive ECE teachers. A constant comparative approach of data organisation with continual adjustment was used throughout the analysis to ensure that the codes captured the range of participants' ideas. The study revealed that ECE teachers held positive attitudes and commitment, although they were inadequately professionally prepared to manage special and inclusive teaching and the behavioural challenges presented by some children. Participants institutionalized effective special and inclusive teaching practices in ECE including diagnosis information-based child placement, teacher-made tests, child-centred pedagogy, behaviour management, collaboration, advocacy and diverse teaching strategies, approaches and techniques. The study under review was Zimbabwean based and qualitative in nature focusing on only 21 participants.

Mahlo (2017) emphasizes the need for a shift in thinking about Inclusive Education within African settings, advocating for innovative teaching and learning approaches that embrace the diversity of students in the classroom. Students with significant learning disabilities should not face discrimination, and teachers are tasked with developing strategies that support the needs of all learners, including those with profound disabilities. Teachers may feel daunted by the responsibility of addressing the varied needs of students, often due to a lack of skills or confidence in engaging with diverse learners. It is crucial for teachers to be prepared to make additional efforts for students with severe disabilities, as they have historically been marginalized. Social and educational acceptance of learners with profound disabilities is essential within the African context. Mahlo's emphasis is indeed significant in that it calls for non-discriminatory approach to teaching or managing learners with learning disabilities in an inclusive class. However, it is important to point out that there is a thin line between attending to learners in an inclusive class and learners with special education needs in the same class. What is mostly common when inclusive education is under discussion, discussants have a tendency to focus on the learners with special education needs while ignoring those without

special education needs. This defeats the purpose of inclusive education provision. The current study fills this gap as it focuses on teacher confidence in handling learners at inclusive early childhood education level. This study focused on balanced teacher confidence in ensuring that even learners without special education needs receive deserving attention as those with special education needs.

Another interesting comparative study by Savolainen et al (2011) on in-service teachers' attitudes and self-efficacy in implementing inclusive practices in South Africa and Finland revealed interesting findings. A sample of 319 South African and 822 Finnish primary and secondary education teachers completed a questionnaire containing a scale measuring sentiments, attitudes and concerns on inclusive education as well as a scale measuring teachers' self-efficacy in implementing inclusive practices. A comparative analysis indicated that whereas the overall sentiments towards disabilities were positive in both countries, teachers had many concerns about the consequences of including children with disabilities in their classrooms. While the most positive aspect of self-efficacy among the South African teachers was their self-efficacy in managing behaviours, the Finnish teachers saw this as their weakest point. Self-efficacy, in particular efficacy in collaboration, was clearly related to overall attitudes towards inclusion. The study under review is significant to the current study in its focus is on teaching efficacy of the teachers in primary and secondary school levels although the current study focus is on ECE in Zambia. Further, the study under review is comparative in nature between South Africa and Finland using quantitative approach. Therefore, there was need to employ mixed methods investigating the level of teaching efficacy of the ECE teachers in Zambia.

A study by Mwansa (2020) aimed to investigate the relationship between early childhood teachers' self-efficacy and their ability to teach students with disabilities in Zambia. The focus was on understanding how the teachers' sense of self-efficacy could influence their teaching practices and outcomes for students with disabilities, particularly in a context where resources and training were often lacking. The research employed a qualitative research design using in-depth interviews and focus group discussions with a sample of early childhood teachers across various schools in Zambia, both urban and rural. The participants were early childhood educators with varying levels of experience and training, including teachers from both public and private institutions. The study revealed that teachers reported feeling ill-prepared and lacking confidence when it came to teaching students with disabilities. Teachers also noted that

their schools lacked the necessary resources, such as learning materials, assistive technologies, and a conducive physical environment, which contributed to their low self-efficacy in inclusive education settings. The study further revealed that teachers often felt isolated in their efforts to support students with disabilities. There was little institutional or community-based support, and teachers did not have access to specialized guidance from special education professionals or mentors. Many teachers called for more robust policy support from the government to address the gaps in training and resources, as well as to provide a framework for inclusive education that would ensure all students, regardless of ability, have access to quality education. Interestingly, the findings of the reviewed study provided critical information for the current study. However, the emphasis of the study under review was biased learners with disability. Additionally, the findings were purely based on the qualitative approach.

The Ministry of Education (2021) in Zambia conducted a study to assess the current state of inclusive education in the country, specifically focusing on the challenges faced by teachers and the impact on the successful implementation of inclusive education policies. The survey was conducted nationwide across Zambia, covering both urban and rural areas, to ensure a representative sample of the education system involving primary and secondary school teachers, with a focus on both mainstream and special education contexts. A quantitative approach using questionnaires was employed to collect data from teachers. The questionnaires gathered information on teachers' perspectives, experiences, and self-reported challenges regarding inclusive education practices. The survey also included open-ended questions that allowed teachers to express their needs and suggestions in more detail. The study revealed that there was lack of professional development opportunities related to inclusive education. In the study, teachers expressed a need for more comprehensive training programs which focus on inclusive teaching strategies and classroom management techniques specifically designed for diverse learners, including students with disabilities. The aforementioned study showed that Zambia's inclusive education policy implementation is hindered by insufficient teacher training, and a lack of tailored educational materials for students with disabilities. The study produced very interesting findings with regards to teaching practices in an inclusive setting and inadequate inclusive education teachers. However, it remained unclear whether the available teachers' knowledge had any impact on their teaching efficacy. The focus of the current study was to ascertain if ECE teachers teaching efficacy was influenced by the motivation to teach inclusive early childhood education learners.

Additionally, Chitiyo and Wheldall (2007) investigated the impact of capacity-building initiatives aimed at improving teacher efficacy in managing inclusive classrooms in Zambia. Their focus was on teacher collaboration, community involvement, and peer learning as strategies for overcoming challenges associated with inclusive education. The study took place in selected schools across Zambia, with both urban and rural schools represented. The schools included in the study were those that had undertaken or were part of capacity-building programs. The study utilized a qualitative research design, primarily using case studies and interviews to gather in-depth information on the effectiveness of capacity-building programs. Observation and focus group discussions were also used to gather insights into teachers' experiences within the collaborative teaching environments. The researchers examined specific programs that were designed to promote collaborative teaching and community engagement. The focus was on primary and early secondary education (though some teachers from early childhood settings might have also participated), as these levels are where the majority of inclusive education challenges are most evident in Zambia. Programs that promoted collaborative teaching were found to enhance teacher efficacy by fostering a supportive environment in which teachers could share strategies and problem-solve together. Further, Schools that involved community members and parents in the education process were more successful at creating a supportive learning environment for diverse learners, as parents could contribute to the broader educational goals and advocacy for inclusive practices. Initiatives that encouraged peer learning and knowledge-sharing between teachers resulted in greater confidence and effectiveness in managing inclusive classrooms.

Both the Ministry of Education Survey (2021) and the Chitiyo and Wheldall (2007) study underline the importance of teacher training and capacity-building in addressing challenges related to inclusive education in Zambia. While the Ministry's survey highlights the gaps in professional development and the need for more tailored training programs, the Chitiyo and Wheldall study demonstrates how collaborative teaching and community involvement can positively impact teachers' sense of efficacy, helping them manage inclusive classrooms more effectively. Together, these findings suggest that teacher collaboration, peer support, and community engagement are essential components for the successful implementation of inclusive education in Zambia, but these initiatives must be accompanied by robust training and resource allocation to ensure long-term sustainability. Non of the reviewed studies concentrated on teaching efficacy in early childhood education level with regards to psychological effects of various teacher demographics on the teaching efficacy.

Ndhlovu, Muzata, Chipindi, and Mtonga (2016) assessed inclusiveness of schools for early childhood education in Zambia. The study revealed that despite government of the Republic of Zambia's effort and implementation of early childhood education, children with disabilities were not visible or catered for in any of the developments towards inclusive education provision. The authors attributed the inability to support such children to several factors such as lack of inclusion in the budget made by government towards early education in 2012 and 2013 financial years, there was no mention of early education for children with disabilities. It was further revealed in the study under review that among the teachers recruited, there was no teacher with specific training toward children with disabilities. Interestingly, the under review found that there was no ECE teacher among the employed with specialized knowledge and skill to handle learners with disabilities. This situation only leaves to show that most of the schools that were newly established as providers of inclusive early childhood education, teachers had not been prepared for the program. This existing gap as to whether these teachers believed in their abilities to manage learners in inclusive ECE classes was followed up by this current study.

Mfuthwana and Dreyer (2019) conducted a qualitative study in South Africa to understand the perceptions of teachers regarding the role Inclusive Education Teams (IETs) play in establishing an inclusive school in the Western Cape Province. Participants were purposefully selected from an inclusive school. Data were collected through semi-structured individual interviews and a focus group discussion. The findings show that, despite the in-service training provided by the IET, teachers still needed continuous, contextually responsive support. This South African study was informative in that provided the significance of the in-service training activities using qualitative approach. The current study, however, extended its scope to explore teacher's perceptions on their pre-service training to handle inclusive ECE learners in three provinces in Zambia. Further, the current study did not adopt the qualitative approach only but employed the mixed methods specifically, the exploratory sequential mixed method to have a holistic understanding of the ECE teachers' beliefs with regard their pre-service training experience in managing inclusive ECE learners.

Another interesting study by Mwanakasale and Sampa (2020) on Teacher Self-Efficacy and Inclusive Practices in Zambian Early Childhood Education explored the relationship between early childhood education (ECE) teachers' self-efficacy beliefs and their effectiveness in promoting inclusive practices within Zambian classrooms. The study sought to determine how teachers' confidence in their abilities influenced their ability to manage diverse classrooms and

create learning environments that support all children, regardless of their socioeconomic backgrounds or abilities. The study also aimed to highlight the importance of teacher self-efficacy in fostering inclusive education, a key priority in Zambia's efforts to improve educational outcomes and societal inclusion. The scholars used quantitative approach on a sample of 150 ECE teachers to collect data with structured questionnaire using stratified random sampling. The design was based on a correlational framework, where the researchers examined the relationship between two primary variables: teachers' self-efficacy and their implementation of inclusive practices. The self-efficacy scale was adapted from widely used instruments in educational research, such as the Teacher Efficacy Scale, and tailored to the Zambian ECE context (Bandura, 1997). The study under review found that teachers with higher self-efficacy beliefs reported greater confidence in managing diverse classrooms, including those with children from different socioeconomic backgrounds, with disabilities, or with varied learning needs. These teachers were more likely to implement effective inclusive strategies such as differentiated instruction, flexible grouping, and individualized attention for students. This finding aligns with Dellinger et al. (2008), who identified that teachers with high self-efficacy are better equipped to use instructional methods that meet the diverse needs of their students. Teachers who believed strongly in their ability to promote inclusive practices were found to create more inclusive learning environments. A significant positive correlation was found between teachers' self-efficacy beliefs and their perceived effectiveness in creating inclusive learning environments. Teachers who expressed high levels of self-efficacy also reported higher success in implementing inclusive education strategies. This relationship underscores the role of teachers' self-beliefs in shaping classroom practices and outcomes for children with diverse needs. Similar results were found in studies conducted in other contexts, such as Yong et al. (2019), which showed that teachers' self-efficacy was strongly correlated with their ability to implement inclusive practices in early childhood classrooms.

Mwanakasale and Sampa's (2020) study highlights the critical role of teachers' self-efficacy in promoting inclusive education in Zambia's early childhood classrooms. The study reveals that educators who are confident in their abilities to manage diverse learners are more likely to foster inclusive environments, which ultimately leads to positive learning outcomes for all children. However, the study also underscores the need for targeted professional development and adequate resources to support teachers in developing the skills and confidence needed to address the diverse needs of students. The findings suggest that by enhancing teachers' self-

efficacy, Zambian education systems can improve inclusivity and equity in early childhood education settings.

## **2.9 Factors Influencing Inclusive Teaching Efficacy**

Teachers are important stakeholders in the provision of education at every level. Moreover, the introduction of inclusive education through policy development and implementation requires that policy implementers are well equipped with relevant knowledge and skills in order to effectively deliver as required. Indeed, inclusive education implementation is not exceptional. Teachers, who are the key stakeholders are expected to be well-prepared for the task (Singogo & Muzata, 2023). However, little attention is paid to psychological factors that are key in achieving successful inclusive education provision. One such a factor is inclusive teaching efficacy of the teachers' handling learners in inclusive classrooms. Teachers' beliefs in their ability play a critical role succeed in executing their duties with effectiveness. A study by Guo, Dynia, Pelatti and Justice, (2013) revealed that teachers' self-efficacy is highly related to the second-fourth grade reading skills, explaining 70% of the between school variances in student outcome. The aforementioned study was significant in that it unveiled that teachers' self-efficacy was strongly related to second-fourth grade students' reading skills and that teachers' perception of self-efficacy significantly predicted students' language skills. It is interesting to note that the said study focused much on the influence of teachers perceived self-efficacy on the performance of learners in inclusive classrooms paying specific attention to the reading ability in the fourth grade (Guo, Dynia, Pelatti & Justice, 2013).

Another study examined pre-school teachers in classrooms serving preschool children exhibiting social and/or economic risks in the US, using an abbreviated 7-item version of the Teacher Self-Efficacy Scale (Bandura, 1997). This study found that preschool teachers reported having generally high self-efficacy. Further, Leyser Zeiger and Romi (2011) assessed preschool teacher self-efficacy and found that 48 preschool teachers in the US who taught children at-risk for academic difficulty reported having similarly high levels of self-efficacy (M=43.60 on a 5-point Likert scale). Equally, in another investigation of 64 general education preschool teachers, Montgomery and Mirenda (2014) found that these teachers demonstrated high and positive efficacy about their capabilities to teach children. Taken together, such findings indicate that general education preschool teachers seem to be optimistic about their abilities to teach young children in the classrooms such as motivating and engaging children, control disruptive behaviours, use effective instructional strategies (Woodcock, Hemmings & Kay,

2012). The results in the aforementioned studies are very vital in that they provide an insight to what is obtaining in American set up though none of the studies focused on teachers' beliefs in handling inclusive early childhood learners in Zambia.

The self-referent thinking of an individual mediates between her/his knowledge and behaviours, according to Bandura's social cognitive theory. Self-reflection is a common method used by most people to assess their own experiences and cognitive processes. According to Bandura, individuals are proactive, self-organizing, self-reflective, and self-regulating entities as opposed to reactive organisms (Ahmed, Sharma, & Deppeler, 2014). According to this viewpoint, human functioning can be explained as the outcome of a dynamic interaction between a person's personality, behaviour, and environment. In other words, people's self-beliefs and environments will be influenced and changed by how they perceive the outcomes of their own behaviour, which will in turn change their subsequent behaviours. This is the cornerstone of Bandura's (1997) idea of reciprocal determinism, which holds that interactions between behaviour, personal variables, and environmental factors produce outcomes. The environmental effect was reiterated by Alabi et al. (2021) in their research in Nigerian schools, which put forward the learning environments among the key factors of teachers' self-efficacy.

Bandura's social cognitive model considers self-reflection as a unique human capability, through which an individual evaluates and alters his behaviour, including the perceptions of self-efficacy. In this regard, it is important to state the teacher handling an early childhood class can also be informed by his personal beliefs which may result in alteration of their behaviour. Additionally, Klassen and Chiu (2010) suggested that some people have a strong sense of self-efficacy, and others do not; some have self-efficacy that covers many situations, whereas others have narrow self-efficacy; and some believe they have high self-efficacy to do the most difficult tasks, while others do not. Bandura's key contention regarding the role of self-efficacy in human functioning is that an individual's motivation to do a particular task and actions may not be based on what he or she really is, but on what he or she believes he or she can do. This motivates the current study to investigate inclusive general teaching efficacy among teachers in inclusive early childhood schools in Zambia.

It is argued by Hofman and Kilimo (2014) that teachers' qualification and attitude impede effective implementation of early childhood inclusive education. Further, positive attitudes are indispensable for success, particularly when learners with special educational needs (SEN) are

placed into regular classrooms. The teachers' qualification as well as inadequate training to handle inclusive early childhood education classroom have been pointed out as hinderance, to the successful implementation of inclusive ECE education as well as teachers' self-efficacy in the practice (Evashkovsky & Osipova, 2023; Kasongole & Muzata, 2020).

Several studies on self-efficacy have concentrated on enhanced achievement in reading skills in relation to the perceived teacher efficacy across grade levels (Ashton & Webb, 1986, Goddard, Hoy & Hoy, 2000; Guo et al., 2012). For instance, a study in the Netherland on 775 teachers drawn from 53 elementary schools revealed that language skills were significantly predicted by the perceived teacher efficacy (Moolenaar, Sleeger & Daly, 2012). It is important to note that language acquisition skills at early childhood level play a critical role in other grade level and hence the significance of the said Netherland study. This in turn may directly influence positively to the low reading rate difficult in the primary grade among children with language impairments but exploring inclusive teaching efficacy provides an insight into the psychological wellbeing of the ECE teachers.

Similarly, a study by Schwab and Alnahdi (2020) to investigate factors influencing teachers' use of inclusive teaching practices was conducted in Austria. A sample of 221 Austrian in-service teachers participated who filled out the attitudes towards inclusion scale (AIS), the Teacher Efficacy for Inclusive Practices Scale (TEIP) and the teacher version of the Inclusive Teaching Practices Scale (ITPS-T). The study results revealed that teachers had high self-perceptions towards their use of inclusive teaching practices; compared with secondary school, primary school teachers reported using more inclusive teaching practices. Additionally, it was further shown that there was no difference between expert and novice teachers; teachers' attitudes and self-efficacy were associated with inclusive teaching practices; and self-efficacy predicted teachers' use of inclusive teaching practices (Schwab & Alnahdi, 2020). The study covered a number of important sectors in inclusive education and self-efficacy although the sample was purely Austrian in-service teachers involving secondary and primary school teachers.

Another interesting study in the United States of America by Poteat and Scheer (2016) was carried out in diverse educational settings across several school districts, ensuring a broad representation of teachers' experiences. The study adopted mixed methods design to explore how teachers perceive the attitudes of their colleagues and the impact on their professional identities. The quantitative portion involved surveys that assessed teachers' perceptions of

workplace dynamics, including the degree of support or negativity they experienced from colleagues. The qualitative component consisted of in-depth interviews, allowing for a richer understanding of how negative attitudes from workmates affect teachers' emotional well-being and sense of community. A total of 150 teachers participated in the study, selected through stratified random sampling to ensure that teachers from different grade levels, subject areas, and geographic locations were included. The sample consisted of both male and female educators, with a wide range of teaching experience, from novice teachers with under five years of experience to seasoned educators with more than 20 years of service. The goal was to capture a diverse spectrum of perspectives on the issue of workplace relationships and their effect on teachers' professional identities.

The findings of Poteat and Scheer (2016) revealed that negative attitudes by workmates, such as gossip, exclusion, and lack of professional support, significantly threatened teachers' professional identity and sense of belonging within the educational community. Teachers who experienced such negativity reported feelings of isolation, stress, and a diminished sense of value in their roles. These findings underscore the critical role that interpersonal relationships and workplace culture play in shaping educators' experiences, and the need for schools to foster supportive environments that enhance teachers' sense of belonging and professional pride. It was not known in the Zambian context whether such factors as negative attitudes among teachers in ECE could affect the inclusive teaching efficacy of the teachers in ECE centres.

A study by Robson and Norwich (2010) in England brought out interesting findings on the impact of the number of children with special education needs in an inclusive class. The study found that having a higher number of students with SEN in inclusive classrooms was associated with increased teacher stress levels. Teachers reported feeling more overwhelmed and stressed when dealing with a larger proportion of students with diverse needs. It was actually critical in the current study in that teachers believed that the ECE learners on their own without SEN children were simply behaving like children with SEN. This belief became complex with the increased number of learners with SEN in their inclusive ECE classrooms.

It is clear from the reviewed studies that teachers' self-beliefs may have an influence in their day-to-day performance and indeed much more in the early childhood level of education in Zambia, especially in an inclusive education setting. Teachers' self-beliefs play a pivotal role in shaping their instructional practices, interactions with students, and overall effectiveness in the classroom (Bandura, 1997). Research consistently underscores the significance of teachers'

beliefs in influencing various aspects of their professional behavior and outcomes, particularly in early childhood education settings and inclusive education environments. For example, in recent qualitative study by Singogo and Muzata, (2023), it was revealed that ECE teachers felt stigmatized by being addressed as “ECE teacher” instead of addressing them using their names. The aforesaid study brought out very interesting finding in that it brought to the fall what would normally be ignored when addressing issues that would hinder effective implementation of the inclusive education policy at ECE level. However, the study under review was purely qualitative and would not address the extent to which these factors affected inclusive teaching efficacy. Hence, this study employed the exploratory mixed method design that provided triangulation in understanding how variables such knowledge ECE teachers possessed or level of understanding the teaching and learning process in inclusive ECE classroom affected the teaching efficacy.

Worth to note is that inclusive education aims to accommodate diverse learners, teachers need to possess not only the requisite pedagogical skills but also a positive mindset towards inclusion. Teachers' self-beliefs regarding their efficacy in catering to the needs of students with diverse backgrounds, abilities, and learning styles significantly impact their instructional decisions, classroom management strategies, and interactions with students. A study by Forlin, Loreman, Sharma, and Earle (2011) highlights that teacher' beliefs about inclusion directly influence the extent to which they implement inclusive practices and create inclusive classroom environments. Moreover, teachers' confidence in their abilities to adapt instruction, provide individualized support, and foster a sense of belonging among all students is crucial for the successful implementation of inclusive education initiatives.

A Kenyan Study by Carew, Deluca, Grose and Kett (2019) assessed the impact of an inclusive education intervention on teacher preparedness to educate children with disabilities within the Lakes Region of Kenya. A longitudinal survey was conducted with in-service teachers (matched  $N=123$ ) before and after they had participated in a comprehensive intervention programme, delivered in the field by Leonard Cheshire Disability. Results showed that the intervention increased teaching-efficacy, produced more favourable cognitive and affective attitudes toward inclusive education and reduced teacher concerns. However, the study under review did not focus on inclusive teaching efficacy but concentrated on teacher preparedness to handle learners with disability. Indeed, when inclusive education is under discussion, there is a tendency to overlook the presence of children without disability. The researcher realized

the significance of inclusive education at early childhood level in Zambia. Hence, a study was necessary to ascertain factors that would influence inclusive teaching efficacy using mixed methods in Zambia.

Teachers' attitude toward inclusive education is a critical factor that influences teachers' self-efficacy. In a study conducted in South Africa by Donohue and Bornman, (2015), it was revealed that teachers were more comfortable to handle learners with specific disabilities than others. The study examined South African teachers' attitudes toward the inclusion of learners with different abilities in their hypothetical mainstream classrooms. Participants were 93 South African teachers who responded to the Teachers' Attitudes and Expectations Scale, a measure developed for this study, regarding four vignettes depicting learners with different types of impairments. Overall, teachers reported that inclusion would benefit learners' social development (mean scores from 2.57 to 3.35) more than their intellectual development (mean scores from 2.14 to 2.83). It also was found that teachers overwhelmingly were more confident about including learners with Down syndrome into their hypothetical mainstream classes when compared with the inclusion of learners with other disabilities,  $F(3, 90) = 9.59, p < 0.01$ . The results suggest that providing teachers with sufficient resources within the classroom and training that includes hands-on experience with children with disabilities could positively influence their attitudes toward the inclusion of learners with disabilities in their classrooms. From the results of the aforementioned study, it is clear that experience had a positive impact on teachers' attitudes towards inclusive education. These results show that hands-on experience in handling learners with special education needs play a critical role in achieving inclusive education. However, the sample included only 93 South African teachers using quantitative approach. It still remained unclear in the Zambian context whether the experience of the ECE teachers had an impact on handling inclusive ECE learners. The current study increased the sample to 153 participants and respondents in an exploratory sequential mixed methods which filled the methodological and geographical gap.

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Mpofu and Shumba (2017) sought to determine perceived challenges faced by teachers of students with special needs in ECD centers in Zimbabwe. A survey design was used to assess these perceived challenges. Data were collected using questionnaires, interviews and observations check list. A random sample of 50 ECD teachers (40 female, 10 male) and 20 parents (10 male, 10 female) of children with special needs were used in this study. Data were analysed using descriptive statistics and themes derived from research questions used in this study. The study found that children with special needs in ECD centers were being taught by untrained teachers and the school curriculum was inappropriate; and the physical environment was poor. Students with special needs are learning under very challenging conditions in these centers. Mpofu and Shumba's (2017) study highlights significant challenges faced by ECD teachers in Zimbabwe, including untrained teachers, an inappropriate curriculum, and poor physical environments for students with special needs. These findings underscore broader issues in the region that may also affect Zambia's ECE teachers, providing a logical basis for the current study on inclusive teaching efficacy among ECE teachers in Zambia. Furthermore, while Mpofu and Shumba focus on the challenges, your study explored teaching efficacy in inclusive education, examining how confident and capable Zambian ECE teachers feel in supporting children in an inclusive setting. A critical gap emerged on teacher efficacy in inclusive ECE and offering insights into the professional development needs and support

systems required for Zambian ECE teachers to better serve children not only those with special education needs but effective inclusive education provision.

In the context of Zambia, where early childhood education serves as a critical foundation for future academic success and societal inclusion, the role of teachers' self-beliefs becomes even more pronounced. Mwanakasale and Sampa (2020) correlated teachers' self-efficacy beliefs and their effectiveness in promoting inclusive practices in Zambian early childhood classrooms. The results suggest that teachers who possess strong self-beliefs regarding their competence in managing diverse classrooms are more likely to create inclusive learning environments and facilitate positive learning outcomes for all children, irrespective of their backgrounds or abilities.

Furthermore, the influence of teachers' self-beliefs extends beyond classroom practices to broader educational outcomes and societal development. A longitudinal study by Borman, Goetz, and Dowling (2017) demonstrates that teachers' self-efficacy beliefs not only impact immediate instructional practices but also have long-term effects on students' academic achievement and socio-emotional development. In the Zambian context, where educational disparities persist and inclusive education remains a cornerstone of efforts to promote equitable access to quality education, nurturing teachers' positive self-beliefs emerges as a crucial strategy for advancing educational equity and fostering inclusive societies.

Indeed, the significance of teachers' self-beliefs in shaping educational practices and outcomes cannot be overstated, particularly in the context of early childhood education and inclusive education in Zambia. By recognizing and supporting teachers' self-efficacy beliefs, policymakers, educational leaders, and teacher educators can empower teachers to create inclusive learning environments that cater to the diverse needs of all students, thus contributing to the realization of inclusive and equitable education for every child (Poteat & Scheer, 2016). Indeed, the beliefs have an impact on the teacher effectiveness as they feed into their teaching efficacy. There is need to ensure that every teacher is appreciated to believe in their capabilities whether at early childhood level or other levels. Stigmatizing attitudes and discriminatory practices within the work environment were found to have a negative effect on teacher's performance (McKenna, 2017; Poteat & Scheer, 2016). Indeed, creating a hostile or unsupportive atmosphere for teachers may diminish teachers' sense of efficacy and motivation to engage in inclusive teaching practices. This in turn may affect, ultimately affecting the quality of education provided to children. With the aforesaid impact, it was necessary to

explore what factors were affecting inclusive teaching efficacy. The status of the level of inclusive ECE teacher efficacy and whether it was affected by certain factors in handling inclusive early childhood learners was unclear which prompted the current study.

Further, it is paramount to indicate that Zambia adopted its first inclusive education policy in 1996 (MOE, 1996, Ngulube et al., 2020). Since that time, teachers have been critical for the successful implementation of the inclusive education policy. However, several concerns may be brought to the fore such as sufficiency of the training to implement the policy. Sufficient training has been found to support policy and facilitate its implementation. Nevertheless, to date the majority of inclusive education research in Zambia has been conducted at the primary school level with a dearth of studies having been conducted to explore the factors that may influence the inclusive teaching efficacy at ECE level. A study by Ngulube et al., (2020) explored inclusive education policy implementation using mixed methods in secondary schools in Zambia from the perspectives of teachers and school administrators. Study participants were purposively sampled. Thirty-two purposively selected teachers responded to a survey and four senior school administrators participated in semi-structured interviews. The study found that educators in Zambia lacked clear and coordinated inclusive education policy guidelines. Interesting findings were noted in the study under review but the study focused on the educators in secondary schools in Zambia. The current study focused on the inclusive education provision in ECE with specific interest in addressing specific factors that influence teachers' beliefs in managing inclusive education provision.

Studies have revealed that coursework in special education impacts pre-service teachers' attitudes towards inclusion (Jung, 2007; Romi & Leyser, 2006). In their survey investigation of the influence of one special education course on pre-service teachers' attitudes towards inclusion, Campbell, Gilmore, and Cuskelly (2003) found significant differences between pre-service teachers' total score at the beginning and end of the semester. The study further revealed that, pre-service teachers' major (i.e. special or general education), has been shown to be related to attitudes towards inclusion. Romi and Leyser (2006) found that special education pre-service teachers held more positive attitudes towards inclusion than their counterparts in general education, and special education pre-service teachers scored higher on self-efficacy measures, indicating they felt more confident about working in inclusive settings than general education pre-service teachers. These findings are very informative in that they pinpointed pre-service teacher confidants as critical to the provision of effective inclusive education. However, it was

not clear as to whether the teacher confident had an impact on inclusive early childhood teachers in Zambia. Indeed, researchers have reiterated that conducting assessment on teachers' attitudes on the provision of inclusive education is the first phase in a sequence of actions geared towards promotion of inclusive education (Avramidis, Bayliss, & Burden, 2000b)

Additionally, unclear policy guidelines regarding the implementation of the inclusive education policy in Zambia have been identified as a critical factor hindering the provision of inclusive education (Smith, 2020). Teachers, who are key stakeholders in the provision of the inclusive education require holistic training in order to prepare them for an inclusive class of learners. For example, the exposure of the teachers to the use of the universal design for learning framework remain critical in the effective provision of sustainable inclusive education (McKenzie, Karisa, & Kahonde, 2023). Indeed, Zambia's education system is highly centralized, with major decisions being made by the Ministry of Education (MOE) (Jones, 2019). To address this issue, a key recommendation is to establish a reliable, ongoing, and consistent support system that connects the MOE with regional education offices, education departments, and schools (Ngoma, 2021). The significance of clear policy guidelines on inclusive education cannot be overemphasized. Outlining and emphasizing on the inclusive education services that consider a given class as neither special nor an ordinary one but an inclusive class must play a pivotal role in providing real inclusive education. The use of universal design for learning remain a cornerstone to the effective provision of inclusive education at all levels including the early childhood education (McKenzie, Karisa, & Kahonde, 2023; Chirwa, 2020). The MOE should also focus on developing and disseminating comprehensive information about inclusive education, covering areas such as psychology factors such have an impact on teacher performance in an inclusive class of learners (Phiri, 2022).

Further, the MOE is encouraged to launch a national information campaign to emphasize the government's commitment to educating students in inclusive settings (Chirwa & Ngoma, 2020). Indeed, empowering Zambian educators and stakeholders to work towards a shared vision for the future of inclusive education will not only promote relevant Inclusive education but also provide strong early child education as a foundation to subsequent education levels (Smith, 2020). Such advances are very important but little is emphasized on the psychological factors that influence the educators' ability to implement the inclusive education policy.

Until recently, special education has not been a government priority in most Southern African countries (Chitiyo & Chitiyo, 2007). Zimbabwe, for example, did not have a national policy on special education until 1980, and Botswana did not take direct responsibility for educating individuals with disabilities until 1984 (Abosi, 2000). South Africa is experiencing the aftermath of the apartheid system that operated on the principle of segregation among its inhabitants. As a result of apartheid, South Africa's physical structure of school services, human resources, and instructional resources have varied along racial and ethnic lines (Artiles, Kozleski & Waitoller, 2011; Lomofsky & Lazarus, 2001). Post-apartheid South Africa is redressing the imbalances created by the previous government's policies through legislation, new educational policies, and constitutional commitments (Department of Education, 1997). Consequently, the South African government has recognised education as a basic human right and made a commitment to provide services to all children in inclusive settings (Artiles, Kozleski, & Waitoller, 2011). Despite having an articulated policy on special education since 1977, Zambia's implementation of policy addressing inclusive education has been gradual and difficult (Kalabula, 2000). Zambia is experiencing challenges in attempts to address the educational needs of its populace, particularly achieving universal access and completion of school for all children (Artiles, Kozleski & Waitoller, 2011; Chitiyo & Chitiyo, 2007). Specific challenges that have been identified as major obstacles in the provision of special education services include a lack of government support, cultural influences, limited resources, and poverty. While these studies identified important factors in special and inclusive education provision, there is barely no linkage of the factors to inclusive teaching efficacy of the teachers in early childhood in Zambia.

A phenomenological study by Mukelabai, Muleya and Simui (2021) in Zambia to construct a shared essence of lived experiences of how pre-service teachers are prepared in inclusive pedagogies was conducted. The researchers employed purposive sampling to select six participants; two females and four males in their third and final year of secondary teachers diploma studies. Data were generated through phenomenological observation, semi structured and focus group interviews. The findings from participants' essences reveal that; developing inclusive pedagogies among pre-service teachers demands a recognition and welcoming disposition towards diversity. The challenges in their practices were drawn from demand for planning time, practice & commitment, Overcrowded classrooms (Singogo & Muzata, 2023) and poor modelling of the practice from lecturers to identifying learner diversities in a classroom. Theory lessons in teacher education systems should pursue core features of growth

mindset, values and norms that embrace social justice. The study under review further added that these lessons should also be linked to practicum components of the peer, school visitation observations and field-based platforms of preparing pre-service teachers as a way of modelling what we teach. Indeed, pre-service teacher preparation for holistic skill development remained critical. One important factor that is mostly overlooked in the process of inclusive education provision is a psychological component of teacher preparation, that is, the inclusive teaching efficacy. This is even more critical in that little was known on the critical factors that influence the teaching efficacy of the teachers in inclusive ECE in Zambia.

## **2.10 Summary of Chapter**

Literature has demonstrated empirical evidence that teachers' self-efficacy influence learners' academic performance. While self-efficacy has been extensively studied, many scholars have focused on self-efficacy and adaptation of the learners in a learning environment while others concentrated self-efficacy and its effect on learner performance. On the other hand, there is also compelling evidence that early childhood teachers do not always practice what they believe to be important and are not better teachers in reality because they report a high level of low self-efficacy. In this regard, it was important to investigate inclusive teaching efficacy among teachers in inclusive early childhood centres in Zambia. Very little attention had been paid to inclusive teaching efficacy among early childhood teachers in most of the studies done in Zambia. Hence, the present study sought to fill this research gap. The next chapter brought to light the research methodology that was employed to collect the necessary data for the study.

## CHAPTER THREE: METHODOLOGY

### 3.1 Overview

This chapter presents the methodology of this study. It outlines the research paradigm, research design, target population, sample, research instruments, sampling procedure, trustworthiness and data analysis. The chapter also presents the ethical considerations taken during the study and provides a summary of the chapter.

### 3.2 Research Paradigm

A research paradigm constitutes a set of suppositions and ideas that provides an understanding of the world when its scientific aspect is related to its assumptions (Khan, 2014). Additionally, Guba and Lincoln (1994) explain a paradigm as a basic belief system based on the nature of reality, epistemological and methodological assumptions. In order to understand the world, researchers have developed philosophical assumptions which guide how to comprehend the world. Such philosophical world views include positivism, constructivism, interpretivism and pragmatism among others.

This study adopted the pragmatic paradigm in order to appreciate holistically inclusive teaching efficacy among teachers handling learners in inclusive early childhood centres in Zambia. Unlike post positivism, pragmatism world view is concerned with what works at a particular time to provide solutions to the existing problem (Bahufite, 2023; Patton, 1990). Pragmatists argue that knowledge claims arise out of actions, situations, and consequences and indeed what is more important here is not necessarily the method being used but a given problem under study. Therefore, in pragmatic approach, researchers are accorded freedom of choice to use all relevant available approaches in order to understand and solve the presenting research problem (Rossman & Wilson, 1985; Mulphy, 1990). Interestingly, the aforestated world view supports the mixed methods in understanding the problem under study and do not view the world as an absolute unity (Tashakkori & Teddies, 1998; Patton, 1990). That is, the pragmatic paradigm facilitates the triangulation between the interpretivist and positivist approaches in both data collection and analysis. Positivism focuses on developing knowledge through systematic reconstruction of the history and development of scientific knowledge in which propositions are examined from experiments to establish the truth through scientific observations or statistical means (Halfpenny, 2015). Positivism is therefore quantitative in nature as it emphasizes on objectivity to ascertain reality. On the other hand, the interpretivism world view

seeks to understand phenomena, interpret meaning within particular social and cultural contexts, and to uncover beliefs and elicit meaning from action and intention through dialogical interaction between researchers and participants (Crotty, 2005). Interpretivists argue that the social world is open and changing by ways people go about their lives and that different people may construct meaning in different ways, even in relation to the same phenomenon. In order to understand and appreciate inclusive teaching efficacy among teachers handling learners in inclusive early childhood centres in Zambia, it required different approaches especially that the chosen research design involved both qualitative and quantitative approaches.

### **3.2.1 Justification for choice of the Research paradigm**

The pragmatism paradigm which was used in this study, allows the use of both qualitative and quantitative approaches in a study. Understanding inclusive teachers' self-efficacy could not be satisfied with a single approach due to the fact that it required exploring the teachers' beliefs and then examine the extent to which these beliefs affect the inclusive teacher's efficacy. For example, interpretivism is subjective in its view of reality while positivism is objective (Valerdi & David, 2009). The aforementioned world views cannot be applied to handle the problem under study in isolation. Therefore, this study adopted a mixed method, triangulating qualitative and quantitative approaches of data collection and analysis. The choice of pragmatic world view in this study, is further justified in this methodology due to the fact that pragmatists support mixed methods and indeed to understand inclusive teaching efficacy in early childhood education required a qualitative approach to explore the phenomenon and subsequently use the themes produced to test how statistically significant they apply to the large population (Creswell, 2014; Tashakkori & Teddies, 1998).

### **3.3 Research Design**

Kasonde-Ng'andu (2013) defines a research design as the research structure that holds the elements in a research project together. This means that a research design guides the researcher to get relevant information to solve the research problem. Additionally, Kombo and Tromp (2006) explain research design as an arrangement for the collection of data as well as the analysis relevant to the purpose of the study.

This study adopted the mixed methods design. Creswell (2014b), states that the use of mixed methods is necessary when the use of quantitative or qualitative research alone is not fully addressing the problem under study. To understand inclusive teaching among early childhood

teachers, it was significant to explore teachers' beliefs in handling inclusive ECE. Indeed, the need to examine the relationships between various demographic variables and inclusive teaching was also essential to fully address the problem under study. The researcher's desire was to fully explore how efficacious ECE teachers were in managing inclusive early childhood learners and this called both for approaches referred to as mixed method. In this regard one approach was inadequately addressing the problem. Creswell (2014) points out that "*Quantitative research does not adequately investigate personal stories and meanings or deeply probe the perspectives of individuals. Qualitative research does not allow us to generalize from a small group to a large population*".

This indicates that to unearth the truth and discover the reality, it was imperative to employ mixed methods. This is because mixed methods though expensive and time consuming to carry out, investigate the problem in a thorough manner. There are however, different types of mixed methods and these are the concurrent mixed methods design, the explanatory sequential mixed design and the exploratory sequential mixed methods design (Creswell, 2014). Similarly, Fraenkel, Wallen and Hyun (2012) points out explanatory, exploratory and triangulation designs as the major mixed designs. The explanatory sequential involves the use of quantitative and then followed by qualitative data collection while in the exploratory sequential, the researcher employs the use of qualitative methods in data collection and thereafter the quantitative method. In the concurrent mixed design, the two sets of data are collected at the same time. All these mixed-method designs among others play a critical role in research but they are used according to the nature of a given research problem (Creswell, 2014).

This study employed an exploratory sequential mixed design in order to achieve the set objectives. Worth noting is that mixed method designs provide an in-depth and complete understanding of the research problem involving the use of both qualitative and quantitative approaches (Creswell, 2014). In this design, Creswell (2012) states that the researcher begins with qualitative data collection to explore a phenomenon and then collects quantitative data to explain relationships found in the qualitative data. Themes are identified in the qualitative phase and design an instrument and subsequently test it.

In the current study, this design was used to collect data in two phases, with the first phase involving qualitative data collection using an interview guide with a small number of individuals. This was then followed by quantitative data collection with a large, randomly selected number of participants. Moreover, this design was chosen because it allows the

researcher to identify measures actually grounded in the data obtained from early childhood teachers. Additionally, it allows the researcher to explore views in the initial stage by listening to participants rather than approach a study with a predetermined set of variables (Creswell, 2012). Given the dearth of literature on inclusive teaching efficacy, the exploratory sequential mixed-methods design was the most appropriate choice for this study. The themes that emerged from the qualitative data were subsequently validated through quantitative analysis. In other words, the qualitative results guided the development of the quantitative phase (Fraenkel, Wallen, & Hyun, 2012; Creswell, 2014), and, importantly, the quantitative results were used to validate the findings from the qualitative phase of the study.

### **Justification for Selecting Exploratory Sequential Mixed-Methods Design**

The exploratory sequential mixed-methods design is particularly suitable for addressing research topics that are not well-explored or understood, such as inclusive teaching efficacy among teachers handling inclusive ECE learners in Zambia. Given the relative scarcity of research on inclusive teaching efficacy in this context (Miller & McGowan, 2023), starting with a qualitative phase allows for a thorough exploration of teachers' perspectives, experiences, and beliefs. This initial phase is essential for uncovering themes and constructs that are not yet well-documented in the existing literature. Additionally, the intention to develop an inclusive teaching efficacy model further energizes the use of this design. By first exploring qualitative data to identify relevant constructs and themes, and then developing and validating a model through quantitative methods, the study aims to create a comprehensive and empirically grounded framework that enhances our understanding of inclusive teaching efficacy.

Further, in an exploratory sequential mixed-methods design, the qualitative phase precedes the quantitative phase (Creswell, 2014). This sequence is advantageous because it enables the development of research instruments that are directly informed by qualitative insights. For example, in the current study, qualitative interviews with early childhood teachers provided an in-depth understandings and specific challenges related to inclusive teaching-efficacy in early childhood education provision. These insights were significant in designing a questionnaire in the quantitative phase that accurately reflects the themes and variables identified during the qualitative phase. With regards to depth and breadth of understanding the design under review provides rich, detailed insights into teachers' beliefs and practices in the qualitative phase, while the subsequent quantitative phase allows for a broader analysis of these insights across a larger

population. This combination is crucial for developing a well-rounded understanding of inclusive teaching-efficacy in the inclusive education practices in Zambia as it integrates detailed personal experiences with broader statistical trends. According to Creswell and Plano Clark (2018), this iterative process ensures that the quantitative measures are both contextually relevant and theoretically grounded. Additionally, the design allows for the validation and extension of qualitative findings through quantitative methods. After identifying key themes and constructs in the qualitative phase, the researcher can use quantitative data to test the prevalence and generalizability of these findings across a larger sample. This approach not only strengthens the reliability of the results but also provides a more comprehensive understanding of the phenomena under study. Recent research highlights the importance of this validation process in enhancing the robustness of mixed-methods studies (Teddlie & Tashakkori, 2020).

As the inclusive education policy is being implemented, exploring inclusive teaching efficacy among ECE teachers was critical in assessing how effective the policy under review excelled in its implementation. In this regard, Johnson and Onwuegbuzie (2017) argue that the use of exploratory sequential mixed methods is valuable for informing policy and practice. By first exploring teachers' beliefs in detail and then quantifying these beliefs across a broader sample, the study can offer evidence-based recommendations for improving inclusive education practices in Zambia. The combination of qualitative and quantitative data provides a comprehensive basis for developing targeted interventions and policy changes (Johnson & Onwuegbuzie, 2017).

### **3.4 Population of the study**

Research population plays a crucial role in the research process mainly because it usually defines the research. Scholars have defined population as the total set of elements or individuals of interest to the researcher holding common characteristics based on the sampling criteria established by the researcher (Msabila & Nalaila, 2013; Marczyk, DeMatteo & Festinger, 2005). Sidhu (2014:253) posits that a “population is an aggregate or totality of objects or individuals regarding which inferences are to be made in a sampling study”. Key things to note in the scholars’ definition of population include the set of element or universe in an inquiry that have similar characteristics. Therefore, it is worth to point out that objects or people of interest to the researcher from which a representative sample is picked for the purposes of drawing conclusions constitute population. This current study population consists of inclusive ECE teachers, ECE college coordinator and ESOs. The common attribute for the population is that

they are all specialists, with different duties for ECE. They are all responsible in facilitating and provision of inclusive early childhood education.

### **3.5 Sample Size**

A sample is simply explained as a smaller group or subset of the accessible target population and has features of a target population (Kombo & Tromp, 2006). Kasonde-Ng'andu (2013) adds that a sample is a subset of the population taken to be representative of the whole study population. Sampling itself is a process of drawing a sample from a population. It is done in order to reduce the cost and time of doing research. A sample also helps to reduce on number of participants in the research by making it manageable as well as controllable on the part of the researcher (Mugenda & Mugenda, 2003). The study used a total sample of 153 participants of which 150 were ECE teachers and three (3) informants of which 17 were subjected to an interview in the first phase and 133 answered the questionnaires in the second phase. On the other hand, one (1) college coordinator and two (2) ESOs were interviewed.

The decision to arrive at the aforementioned sample size in the qualitative phase of this study was based on data saturation. Data saturation refers to the point at which no new information or themes are emerging from data collection Hennink & Kaiser (2022). This concept helps researchers determine when they have collected sufficient data to address their research questions comprehensively. The optimal sample size for a qualitative study is influenced by several factors, including the research question, the target population, and the study's objectives. Data saturation in qualitative interviews means that a researcher is not finding any additional data from interviews. In most cases, researchers go out of their way to seek groups that stretch data diversity as far as possible just to ensure that saturation is based on the broadest possible range of data on the category. The recent study findings by Hennink and Kaiser (2022) suggest that saturation can be reached with a smaller number of participants than traditionally thought. Their review of 23 peer-reviewed studies indicates that conducting 9–17 interviews or 4–8 focus group discussions may be adequate to achieve saturation, particularly in studies involving homogeneous groups and well-defined objectives. The scholars (Hennink & Kaiser ,2022) have emphasized the need for the researchers to implement a rigorous recruitment strategy to uphold the study's credibility, regardless of the sample size. Indeed, the ultimate aim of qualitative research is to attain saturation, which is achieved when researchers consistently observe recurring themes and patterns, irrespective of the number of participants involved.

In quantitative phase of this study, the decision to arrive at 133 participants was based on the fact that it is large and representative enough. This was supported by Cohen et al. (2005:93) who argued that “a sample of thirty is held by many to be the minimum number of cases if researchers plan to use some form of statistical analysis on their data”. Therefore, being an exploratory sequential mixed method, the quantitative phase sample determination adopted the probability proportional to size sampling in which 20% of the total ECE teachers were selected from each of the three provinces which constituted 133 teachers. Probability Proportional to Size (PPS) is a sampling technique where the probability of selecting a unit is directly proportional to its size measure (Sarndal, Swensson, & Wretman, 2021). This method ensures that units with larger sizes or counts have a higher likelihood of being included in the sample, which helps to reflect the relative importance or magnitude of each unit in the population.

In the current study, studying inclusive teaching-efficacy among ECE teachers in Lusaka, Eastern, and Copperbelt requires that each province is represented by right proportional to its size of the number of ECE teachers. By using PPS sampling, it ensures that the sample from Lusaka (which has the largest number of ECE teachers) is proportionally larger than that from Eastern and Copperbelt. This way, the results of the study will be more balanced and reflective of the actual distribution of teachers across the provinces. Therefore, the use of Probability Proportional to Size (PPS) for sampling in the study selected samples from each province such that the sample sizes were proportional to the sizes of the populations in those provinces. In this regard, the following numbers of Early Childhood Education (ECE) teachers in three provinces were collected from the Ministry of Education, Directorate of Early childhood education, Lusaka as shown below:

- Lusaka: 302 teachers
- Eastern: 210 teachers
- Copperbelt: 156 teachers

The researcher selected a sample of 20% of the total number of teachers in each province as adequate for statistical analysis (Cohen et al 2005). The following procedure was performed by the researcher in applying PPS to obtain the sample:

First, the researcher summed up the number of teachers across all sampled provinces to get the total population size. Total number of ECE teachers in Lusaka = 302 + 210 (Eastern)+156

(Copperbelt) = 668. Thereafter, the researcher determined the Sample Size by calculating 20% of the number of teachers in each province which was done as follows:

**Lusaka:** Sample size for Lusaka is  $20\% \times 302 = 0.20 \times 302 = 60.4 = 60$  teachers

**Eastern:** Sample size for Eastern is  $20\% \times 210 = 0.20 \times 210 = 42$  teachers

**Copperbelt:** Sample size for Copperbelt is  $20\% \times 156 = 0.20 \times 156 = 31.2 = 31$  teachers.

It is vital to note that all final numbers were to the nearest whole number, but keeping the proportion consistent with the 20% requirement. Table 1 below provides a summary of the sample size for the quantitative phase.

**Table 1: Determination of the Sample size in the quantitative phase of the study**

Province	Number of ECE Teachers	Sample (20%)
Lusaka	302	60
Eastern	210	42
Copperbelt	156	31
TOTAL	668	133

Adapted from MOE, (2022)

### 3.6 Sampling Procedure

After the final decision of the number of respondents to take part in a two-phase study, sampling decisions took the centre stage. Being an exploratory sequential mixed method design, the qualitative method of data collection took the first phase.

#### 3.6.1 Non-probability Sampling

Non-probability sampling was applied in the qualitative phase of this study. In this case, purposive sampling technique was used. Fraenkel and Wallen (2003) argue that qualitative researchers are likely to choose purposive sampling to yield the best understanding of whatever they wish to study. Purposive sampling is known to be very useful in qualitative research

because of the detailed descriptions of data it brings from the field. Lodico et al. (2010) posit that the goal of purposive sampling is not to obtain a large and representative sample but its goal is to select persons, places, or things that can provide the richest and most detailed information that can help us answer the research questions. Kombo and Tromp (2006) point out that purposive sampling targets a group of people believed to be reliable for the study. It must, however be indicated that there are various types of purposive sampling techniques. These include critical case purposive sampling which involves selecting participants or cases that are particularly significant for the study's overall goal. The technique targets participants whom, if they are well-understood, provide valuable insights into the broader issue being studied (Patton, 2015). Homogeneous purposive sampling; which involves the selection of the participants who have similar experiences or characteristics (Etikan, Musa & Alkassim, 2016). Additionally, this is done in order to pay attention to a particular subgroup that share similar traits and indeed, this helps to increase the depth of the analysis (Etikan, Musa & Alkassim, 2016). Expert Purposive Sampling is another type of purposive sampling technique. It involves selecting research participants by virtue of their specialized knowledge or expertise on the topic under study. Expert purposive sampling calls for deep, specialized knowledge possessed by the participants in the study because the researcher relies on the judgment of experts (Etikan et al., 2016).

There are other types of purposive sampling not handled in this study in the forgoing paragraph. However, the current study adopted homogenous purposive sampling and expert purposive sampling to select ECE teachers and Education Officers respectively in the qualitative phase of this study (Creswell, 2014). Teachers were selected by homogenous purposive sampling because they were all in-service ECE teachers in the government of Zambia centres which entails that they all had similar characteristics in their day-to-day activities and work experiences. Education Officers were selected by expert sampling because of their expertise in the field of special and inclusive education provision.

It must, however be indicated that there are various types of purposive sampling. This study adopted homogenous purposive sampling (Creswell, 2014). Thus, in the first phase the researcher carefully selected the teachers' in-charge of teaching inclusive early childhood learners. The purposive sampling was appropriate for this study because it sought to study participants of similar characteristics and performing in similar contexts, that is, teachers

handling learners in inclusive early childhood schools. Indeed, this intentional bias is one of the advantages of purposive sampling (Tongco, 2007).

This initial phase involved selecting a group of seventeen (17) teachers to participate in interview process. These were teachers from 17 purposively selected inclusive early childhood schools in Eastern province of Zambia. The study targeted teachers in order to have an in-depth understanding of the inclusive teaching-efficacy as they are directly affected. Moreover, only schools with ECE centres were purposively sampled using the information collected from the Directorate of early childhood education of the Ministry of Education.

### **3.6.2 Probability Sampling Techniques**

In the quantitative phase of this study, the researcher employed the probability sampling techniques. According to Adu and Okeke (2022:118);

“Probability sampling techniques involve such sampling techniques in which the probability that an element or a unit in the target population is selected for inclusion in the sample is known. This implies that each element in the target population has a measurable chance of being included in the sample”.

It must be noted that there are different types of probability sampling techniques such as simple random, systematic random, stratified sampling among others. However, simple random technique was used. Random sampling was used in this study which meant that every respondent eligible had an equal chance of being selected (Kombo & Tromp, 2013; Onwuegbuzie & Collins ,2007; Sidhu, 2014). Thus, before the study, everyone is only a potential respondent (Ghosh, 2015; Lim & Ting, 2012; Murkheji, 2015; Sidhu, 2014). They all stand at zero probability. Lim and Ting (2012:8) say “using a random sampling technique, every element in the population has a known, nonzero probability of being selected into the sample”. The researcher adopted simple random technique to select the three (3) provinces of Zambia, the Copperbelt, Lusaka and Eastern. Indeed, each of the ten (10) provinces had the same chance of being selected in this study (Tanner, 2022; Miller & Johnson, 2021).

Further, a proportionate random sampling technique was employed to select 133 teachers handling inclusive early childhood classes. Using the list of schools obtained from the Directorate of early childhood education of the Ministry of Education, 20% of the ECE centres

were picked out of the total number of schools and 20% of the early childhood teachers were involved.

Having obtained the 20% of the total ECE teacher population in Lusaka (302), Eastern (210) and Copperbelt (156) which is 60, 42 and 31 respectively, simple random technique was used to select the actual proportions. The list showing early childhood centres and number of ECE teachers was collected from the Ministry of Education, Directorate of early childhood education. Names of the ECE centres were carefully cut from the list from each province and the pieces of papers with names on it were put in three different boxes labelled Lusaka, Chipata and Copperbelt. Ghosh (2015) identifies types of random sampling techniques that help to avoid bias which include the lottery method, Tippett's numbers, Grid system, and selection from a sequential list. To avoid bias a lottery method was used to pick from the boxes 60, 42 and 31 ECE teachers respectively. Hence, the total sample for the quantitative phase was 133 ECE teachers.

Random sampling played a critical role in this study in that it provided every ECE teacher an equal chance of being selected (Kombo & Tromp, 2013; Sidhu, 2014). Simple random sampling was chosen because every respondent in the population had a known, nonzero probability of being selected into the sample (Lim & Ting, 2012). This means that every ECE teacher was only a potential respondent before the second phase of the study. There was actually no prior knowledge by the researcher from the onset of which ECE teacher would answer the questionnaires (Ghosh, 2015). The researcher used the lottery method in schools where there were many respondents. It was more convenient to avoid bias by respondents selecting names "out of boxes" to indicate their selection for the study.

### **3.7 Data Collection Procedures**

The mixed-methods approach was used. The study used interviews and questionnaires in the data collection. In the first phase of qualitative data collection, the researcher conducted interviews after making appointments with the participants during the research visit to the schools. Before the participants were engaged in any task, the researcher sought their consent on their willingness to participate in the project by availing a consent form for them to consent by signing it. The interviewees were teachers where each interview lasted approximately for one hour and fifteen minutes. The interviews were recorded using a tape recorder and later transcribed verbatim.

The second phase involved the distribution of the questionnaires to the participants (teachers) in the sampled early childhood schools by the researcher. Arrangements were made when to collect them, at least seven days period was given for the participants to complete the questionnaire unless special request made by the participant and the researcher was flexible enough to provide adequate time to complete the questionnaires.

### **3.8 Data Collection Instruments**

The first phase of data collection in this study used a semi-structured interview guide to collect the qualitative data. The study employed the semi-structured interview in this phase of data collection because, in accordance with the topics associated with the research goals an interview guide makes it possible for the interviewee to have the freedom of wide range responses. Interviews enable a qualitative researcher to check what is in another person's mind and easily capture one's, feelings, thoughts and interests more than other forms of research instruments (Creswell, 2017; Patton, 1990). In this study, the use of interview guide helped the researcher to understand what beliefs were held by teacher in managing inclusive ECE learners involved. In addition, an interview guide was chosen because it was appropriate in the collection of data associated with feelings and thoughts of respondents. Although use of interview guide in the study was quite time consuming, it was effective in the collection of data to support the quantitative phase study, in that it enabled the researcher to probe the responses for detailed information on particular item covered in the interview guide (Mugenda & Mugenda, 2003). Furthermore, this type of interview is methodical in its essence, and it makes it possible to compare the responses of different interviewees (Kothari, 2004; Parahoo, 1997).

Another important point is that a semi-structured interview is suitable for the clarification of a research question that does not focus on the actual existence or non-existence of the objective reality but rather on the meaning given to it by the person investigating. The interviewees were teachers and each interview lasted approximately one hour and fifteen minutes.

The second phase involved the use of a structured questionnaire that was generated from the themes resulting from the qualitative data collected and analysed in the first phase of data collection. The questionnaire was chosen at this stage because of its ability to gather data over a large sample in more accurate manner (Kasonde-Ng'andu, 2013). The questionnaire helped in collection of data pertaining to the common types of disabilities in sample schools, teachers' understanding of inclusive education in ECE, sources of inclusive teaching efficacy, ECE

teachers' appreciation of their training institutions as well as teachers' level of motivation to handle ECE class.

Additionally, the questionnaire covered the inclusive teachers' self-efficacy tool, comprising 13 items, which helped to assess the teachers' inclusive ECE self-efficacy levels, as well as the factors affecting these levels.

### **3.9 Trustworthiness and credibility of the findings**

The degree of confidence in data, interpretation and methods used to ensure the quality of a study is referred to as trustworthiness (Polit & Beck, 2014). To ensure the trustworthiness of this study, all effort was made to establish the protocols and procedures necessary for the study to be conducted in a legitimate and conducive environment (Amankwaa, 2016).

Authenticity on the other hand is the extent to which researchers fairly and completely show a range of different realities and realistically convey participants' lives (Polit & Beck, 2014). Authenticity in this study was based on the sample selected being unique to other settings and their involvement in the study provided a detailed answer to the stated objectives. To further increase credibility, member check was done. Birt, Scott, Cavers, Campbell & Walter, (2016) point out that Member checking, also known as participant or respondent validation, is a qualitative research technique used to enhance the credibility and trustworthiness of study findings. This process involves sharing research results or interpretations with participants and seeking their feedback to confirm accuracy and gain additional insights. The aim is to ensure that participants recognize their experiences and perspectives in the researcher's interpretations, thereby strengthening the credibility of the study (Creswell, 2017). Indeed, researchers use member checking technique to help improve the accuracy, credibility and transferability in qualitative research (Creswell, 1994). In the first phase of this study, member checking was done after transcribing verbatim and interpretation of data in order to check the authenticity of the work. Furthermore, every effort was made to reproduce the interview scripts as accurately as possible during the transcription.

It is therefore significant for researchers to establish the protocols and procedures necessary for a study to be considered worthy of consideration by readers (Amankwaa, 2016). Among them include credibility, dependability, confirmability and transferability (Guba and Lincoln, 1994

### **3.9.1 Credibility**

Credibility in research refers to the believability of the findings and conclusions drawn from a study. It is a crucial aspect of research quality and is often evaluated based on several key criteria. Credibility of the study, or the confidence in the truth of the study and therefore the findings, is the most important criterion (Polit & Beck, 2014). Techniques used to establish credibility include prolonged engagement with participants, persistent observation if appropriate to the study, peer-debriefing, member-checking, and reflective journaling. Evidence also should be presented of iterative questioning of the data, returning to examine it several times. Negative case analysis or alternate explanations should be explored as well. This study used the exploratory sequential mixed methods design, which in itself has several advantages in ascertaining the credibility of the results.

Furthermore, after the interview, the researcher sent text messages to the respondents requesting them to provide any other additional data that they could have forgotten telling the researcher. Indeed, some additional information was received from some participants. Not only had that but the researcher also exposed the transcribed transcripts of the interviews to respective research participants through their WhatsApp contact. This was to help them read through and make adjustment where necessary.

### **3.9.2 Dependability**

Dependability refers to the stability of the data over time and over the conditions of the study (Polit & Beck, 2014). Dependability (trustworthiness) is equal to reliability in quantitative research which refers to the consistency and replicability of findings (Ary et al., 2010). According to Williamson, Radford and Bennetts (2003: 131), “dependability requires that the argument is complete, allowing the reader (or reflective designer) to follow and understand it without unexplained leaps from argument to conclusion.” Procedures for dependability include maintenance of an audit trail of process logs and peer-debriefings with a colleague. Process logs are researcher notes of all activities that happen during the study and decisions about aspects of the study, such as whom to interview and what to observe. Dependability in this study was sought through engaging in member checking by sharing preliminary findings with participants. It also sought their input to validate the accuracy and interpretation of the findings. Further, meetings were held regularly with the research expert, the supervisor to discuss progress, challenges, and decisions made during the study.

### **3.9.3 Confirmability**

Confirmability is another important concept in promoting trustworthiness in research. Confirmability in research refers to the degree to which the findings of a study are objective, unbiased, and free from the influence of the researcher's perspectives, values, or biases (Creswel, 2014; Shenton, 2004). It emphasizes the need for the research process to be conducted in a way that the results can be independently verified by others. Furthermore, confirmability is the degree findings are consistent and could be repeated. This is analogous to objectivity in quantitative research (Polit & Beck, 2014). In some studies, these notes are reviewed by a colleague; in other studies, they may be discussed in peer-debriefing sessions with a respected qualitative researcher. These discussions prevent biases from only one person's perspective on the research. In relation to this study, the researcher presented the finding before a team of experts at a symposium organized by the Directorate of Research and Graduate studies (DRGS) and other fora.

### **3.9.4 Transferability**

The extent to which findings are useful to persons in other settings is referred to as transferability. It is different from other aspects of research in that in this case readers determine how applicable the findings are to their situations (Polit & Beck, 2014). Through the use of ECE teachers the findings are useful to the teachers and regarding how they should approach inclusive early childhood learners.

### **3.10 Test of Reliability and Pilot Research Instrument**

After collecting information through interview to compile the questionnaire as a tool for testing teachers' self-efficacy, the tool was subjected to piloting and subsequently, reliability test. The test's reliability is described by Pycszak and Tcherni-Buzzeo (2019) as the consistency in results when the test is administered a number of times to the same individuals under the same conditions. Other scholars like Patton (1990) describe reliability as a measure of the degree to which a data collection instrument is able to provide consistent results or data after repeated trials with the same or similar respondents and in a controlled environment. This means that reliability focuses on whether or not an instrument is doing what it is supposed to do in solving or attending to the problem under study. In order to achieve this, instruments were piloted with the view to strengthening them before embarking on the full-scale data collection.

To do this, questionnaire was administered to a sample of 30 teachers handling inclusive early childhood education classes within the target population, but which was not part of the sampled schools. This was done in Lusaka Province, one of the sites within the scope of the study. Using SPSS, the Cronbach Alpha coefficient was thence computed for that purpose, which yielded the outcome of .645 after elimination of 3 items from 13 initial items of the inclusive Teachers' self-efficacy tool. Reliability Statistics for Teachers' Motivation Tool, produced the Cronbach's Alpha of .715, with no need for item elimination, while the Cronbach's Alpha for Teachers' Understanding of Inclusive ECE tool, was .603.

**Table 2: Reliability Statistics of the different tools constituting the questionnaire**

Test	Cronbach's Alpha	Cronbach's Alpha Based on Standardized Items	N of Items
Teachers' Inclusive Self-efficacy	.645	.645	10
Teachers' Motivation to teach Inclusive classroom	.715	.722	12
Teachers Knowledge/	.589	.603	9

### 3.11 Validity of the Results

Research results play a critical role in real life situation as they provide solution to what was then a problem and indeed direct the action. It is therefore, extremely important for researchers to attend to the issues of the validity of the results under review in order for them to be considered worthy to solve an identified problem. Validity measures the extent to which the research instruments have helped the researcher to collect the intended information for a study. And it measures the trustworthiness of a study (Mukherji and Albon, 2015). The current study employed exploratory sequential mixed methods where there were two phases of data collection. Hence, this method provided triangulation which was significant in promoting the validity of the research results. Scholars have argued that validity is ascertained through the use of multiple methods (David & Saeipoor, 2016). Indeed, this study employed methodological triangulation using complementarity, completeness, and compensation principles which were crucial in facilitating validity of data.

### 3.12 Data Analysis

After the data is successfully collected the researcher's responsibility is to make sense of the data. Mertens, Pugliese and Recker (2017:1) describes data analysis as "an iterative process of manipulating and interpreting numbers to extract meaning from them answer research questions, test hypotheses, or explore meanings that can be derived inductively from the data". It is clear from the aforesaid definition that the definition provided for data analysis is inclined to quantitative data analysis. This is because its emphasis is on manipulating numbers which is a typical feature of quantitative analysis. It is however important to note that, in a mixed-methods study, the researcher has the option to choose the type of analysis to use. In this case, the analysis is dependent on the design used in the study. Osborne (2008:131), Puts forth that "Mixed methods data analysis includes parallel mixed analysis, concurrent mixed analysis, and sequential mixed analysis". This simply means that the type of mixed method designs the researcher adopts determines the type of analysis used. Therefore, the mixed methods include explanatory sequential mixed methods; convergent parallel mixed methods; exploratory sequential mixed methods; embedded mixed methods; transformative mixed methods; and multiphase mixed methods (Creswell, 2014). As indicated, data analysis follows the design chosen. For this study, explanatory sequential mixed method design was adopted. In this regard, it meant that qualitative data collection was done in the first phase of the study through the use of interviews and thereafter, the quantitative data collection was done in the second phase using the questionnaires.

For the qualitative data, analysis involved refining and reorganizing it in light of the emerging themes. Therefore, data from semi-structured interviews was analysed using thematic analysis. However, the Interpretive Phenomenological Analysis (IPA) was first applied in the prior analysis. IPA involves a rigorous and systematic data analysis process involving multiple rounds of data coding and interpretation to identify patterns, themes, and underlying meanings in the data (Smith & Osborn, 2015). Data were grouped into meaning units, condensed into codes then codes were later regrouped into themes. Interactions in the data were done through thematic mapping to show how themes interacted.

Quantitative data which was collected using questionnaires in the second phase of this study were analysed using the statistical package for social sciences (SPSS). It is vital to note that the quantitative phase covered a larger geographical area of three provinces and formed the largest sample. Data analysis as pointed out by Hendricks (2011), begins with the recognition

of variables. In a general sense, the term variable describes anything that changes (Muzata, 2017). Mertens et al. (2017:1) argue that “exploration is the first step of any data analysis: we run a few basic manipulations and tests to summarise the data in meaningful statistics, such as means and standard deviations; we visualize the data; we try to improve our understanding of the information in the data”. Quantitative data analysis in this study started with the identification of variables for entry into SPSS. It is important at this stage to point out that nominal and ordinal data were handled in this study (Jupp, 2006). After collecting all the questionnaires, each one of them was carefully checked by the researcher for completion rates by respondents and indeed most questions were fully answered. Thereafter, serial numbering of the questionnaires was done in readiness for entry into SPSS. The researcher labelled ‘entered’ on each questionnaire whose variables were entered. Additionally, to avoid re-entry, the researcher put his initials on each entered questionnaire. After coding the quantitative data, the researcher ran case summary reports to verify the total entries and see the excluded cases to determine their impact on the overall analysis. Running summary reports in SPSS also helped the researcher review the questionnaires and verify wrong entries and unassigned entries.

In the second phase of this study, the researcher employed Statistical Package for the Social Sciences (SPSS) to conduct both descriptive and inferential statistical analyses on the quantitative data. Descriptive statistics, including tables, percentages, means, and standard deviations, were initially calculated to summarize the dataset’s central tendencies, distribution, and variability. These descriptive metrics provided a comprehensive overview of the dataset, facilitating the identification of general patterns and characteristics inherent to the sample. Descriptive statistics serve as an essential preliminary step, establishing a foundation for more advanced inferential analyses by highlighting trends and allowing for a clearer interpretation of the data structure.

Subsequently, inferential statistics, such as tests for significant differences and correlations, were utilized to investigate relationships between variables and assess whether observed patterns could be attributed to underlying causes rather than random fluctuations. These inferential analyses allowed the researcher to test hypotheses and draw evidence-based conclusions regarding the generalizability of the findings to the broader population. By exploring the degree of association between variables and determining statistical significance,

the researcher was able to move beyond mere description and offer robust insights into the potential mechanisms at play.

SPSS was selected as the analytical tool due to its reliability and flexibility in handling complex datasets. Its wide array of statistical procedures supports the rigorous demands of multivariate analysis, hypothesis testing, and data modeling, making it well-suited for comprehensive data analysis. As noted by Sidhu (2014), SPSS's comprehensive capabilities are particularly valuable in studies requiring sophisticated statistical methodologies. Its capacity to conduct a broad range of statistical tests with ease makes it a preferred choice for ensuring both the depth and accuracy of analysis. Furthermore, SPSS's well-established position within the academic community and its frequent use in empirical research enhance the credibility of the analytical approach, as it is recognized for producing reliable, reproducible results (Mukherji & Albon, 2015).

Moreover, the user-friendly interface of SPSS enables efficient data management, even for large datasets, without the need for extensive programming knowledge. This functionality is particularly advantageous in research where the focus must remain on the conceptualization and interpretation of results rather than on technical complexities. In addition, SPSS provides advanced data visualization tools that aid in the clear representation of data patterns, further enhancing the interpretability of the findings. These features align with best practices for statistical analysis and contribute to ensuring that the data are accurately represented and comprehensively understood.

In a nutshell, SPSS was chosen for its robustness, its extensive range of statistical procedures, and its capacity to facilitate both exploratory and confirmatory data analyses. Its versatility and widespread application in academic research provide assurance that the findings are based on a well-established analytical framework, lending strength to the conclusions drawn from this study. The combination of descriptive and inferential statistical techniques within SPSS enabled a rigorous, methodologically sound analysis that is crucial to the study's aims of providing meaningful and reliable insights

Worth noting is that nonparametric tests were also used to supplement parametric tests (Murphy et al., 2014), to help easily generalize data from 133 respondents, thereby reducing high error occurrences during analysis. The quantitative data obtained with the questionnaire was meant to verify the facts from interviews. In that regard, the Statistical Package for Social

Sciences (SPSS) was used to assess the association between demographic variables and the level of teaching-efficacy among teachers. Specifically, the Related Samples Wilcoxon Signed Rank Test, a nonparametric test, which according to Kokoska (2015), is preferred alternatively to test the differences between related samples, measured at the interval level, or repeated measurements on a single sample. This non-parametric test was chosen, because of the nominal nature of the variables such as respondents' gender, but also the various levels of self-efficacy as well as teachers' understanding of inclusive ECE. Also, the Independent-Samples Kruskal-Wallis Test, correlation coefficient, Chi-square test and One-Way Analysis of Variance (ANOVA) were employed for this purpose. Scholars like Murphy et al. (2014:43), have argued that "Nonparametric tests can have more power than their parametric equivalents under a variety of circumstances especially when conducting tests using distributions with heavy tails". For the aforesaid argument, the researcher opted to incorporate some nonparametric tests in appreciating how certain variables interacted in this study.

Moreover, the linear regression model was also used to prove the predictability of different motivation and teachers' level of understanding of inclusive early childhood education on their level of teaching-efficacy.

### **3.13 Ethical Considerations**

Ethical issues in research have become increasingly significant procedures just as it is in other sensitive fields such medical which calls for serious individual's privacy and rights to participate in studies. According to Macks, Woodsong, Macqueen, Guest and Namey (2005) research ethics are those that take into consideration the nature of the interaction between the researcher and the persons he/she is studying. Ethics in research also take into account the conduct of the researcher in carrying out his/her research in relation to method, procedures and purpose (European commission, 2010). In this regard, addressing respect for persons, this study will utilize informed consent forms, while also explaining the purpose of the study to potential participants.

According to Macks, Woodsong, Macqueen, Guest and Namey (2005) research ethics are those that take into consideration the nature of the interaction between the researcher and the persons he/she is studying. Ethics in research also take into account the conduct of the researcher in carrying out his/her research in relation to method, procedures and purpose (European commission, 2010). Indeed, there is a growing demand for ethics in educational

research like it is in medicine and other sensitive areas. This simply calls for safety to participants or respondents in a given study. Therefore, principles and guidelines that support the protection of what we value in research are referred to as ethics (Johnson & Christensen, 2012). They identify three main ethical frameworks: deontology, ethical skepticism, and ethical utilitarianism. The deontological perspective maintains that ethical decisions should follow a universal set of rules, where, for instance, deception in research is considered wrong (Muzata, 2017). Ethical skepticism, on the other hand, contends that moral codes cannot be absolute, as ethical standards vary across cultures and times. Therefore, researchers should act according to what is right at any given moment. Ethical utilitarianism asserts that ethics are determined by the outcomes of the study, where a research study may be deemed acceptable if the benefits outweigh the costs, particularly if the findings are of value to humanity (Johnson & Christensen, 2012). In this perspective, actions are considered ethical when they promote the greatest happiness for the greatest number of people (Denzin & Lincoln, 2011).

From the perspective of this study, ethical considerations are crucial, regardless of which ethical approach is adopted. In fact, these various interpretations should encourage researchers to exercise extra caution in protecting participants, as the consequences of failing to do so are unpredictable. It is inhumane to subject individuals to mistreatment for the sake of societal benefit or research. This could have harmful effects on future research if allowed. For example, would anyone want to subject a loved one to public or even private harm just to obtain reactions that may benefit the public? If such actions were considered, the victim must consent, and society must also be in agreement (Denzin & Lincoln, 2011). Researchers must ensure that participants voluntarily agree to participate without any form of coercion, be it physical or psychological. Regardless of the ethical framework applied, participants' identities and dignity must be protected. Failing to address ethical concerns in research puts participants at significant risk. Kvale and Brinkmann (2009) highlight that researchers may not always foresee the potential ethical or political repercussions of interviews. People may fear misrepresentation, become sensitive, or distrust research involving their personal lives or jobs. Thus, it is vital that participants are fully aware of the study's purpose and their right to consent or withdraw without repercussions.

Lindon (2015) stresses that researchers in fields like social science and psychology must uphold ethics as a sign of respect for participants, emphasizing the need for informed consent. Mukherji and Albon (2015) also highlight that participants must understand the study's goals,

data collection procedures, their right to withdraw, and the confidentiality of their responses. This ensures that participants are aware of the study's purpose and that they are not exposed to physical, emotional, or psychological harm. When ethics are respected, researchers are more likely to gather valid and reliable data.

It is important to point out that several ethical steps were taken to ensure compliance with ethical standards before embarking on this study. Data collection instruments (questionnaires and interview guide) never requested participants' names or any other identity. For examples, schools that were sampled in this study were represented by pseudonyms. Furthermore, the university of Zambia ethics committee granted the researcher the ethical clearance letter (see appendix F) and introductory letter from the University of Zambia (UNZA) at the department of educational psychology, Sociology and Special education. For ethical clearance and introductory letters or permissions and introductions, see the appendices.

Additionally, this study sampled three provinces in Zambia and this prompted the researcher to collect main introduction letter from the Ministry of education Headquarter under the Directorate of the Early Childhood Education which was presented to all Provincial Education Officers (PEOs) whose provinces were sampled. The researcher visited the provincial education offices and the district education offices for further permission before visiting sampled schools. Study objectives were explained to all the relevant officers to help them appreciate the purpose of the study. Participants/respondents were informed of the need for consent and their freedom to withdraw from the study at any time if they wished to. Confidentiality was assured to all participants with regards their names, responses among others, at every level of this study. Permission was sought to record interviews and that all recordings would be strictly confidential and destroyed after analysis.

Ethical guidelines must be adhered to throughout the research process. This is particularly important in qualitative research, where participants are often fewer and more easily identifiable. Flick (2013) notes that qualitative research, both in data analysis and reporting, can raise ethical issues if not handled carefully. As new ethical concerns emerge during data analysis, researchers must be cautious to avoid exposing participants to unforeseen risks related to the credibility of their responses. The increased use of digital data collection methods also raises concerns about privacy and the protection of participants' identities. Further, Flick (2013) emphasizes the importance of data protection and respecting the privacy of research participants, particularly when the collected data is stored or analysed. Ary et al. (2010) support

this, stating that participants have a right to anonymity, which should be maintained unless explicitly agreed otherwise. It is essential that researchers take steps to protect participants' identities throughout data analysis and the reporting process. In this study, personal details such as participants' names, gender, and location were not disclosed in the findings to prevent identification and ensure their privacy.

Confidentiality is a critical component of ethical research. Cooper (2016) advises researchers to adopt measures to ensure that participants' identities are protected, such as assigning unique identification numbers to participants and ensuring that data remains confidential. The study adhered to these principles by coding questionnaires with numbers and not asking for identifying personal information. It is also vital to note that research findings require accurate and truthfully reporting, without any misrepresentation or manipulation of the data (Ary et al., 2010). This study adopted multiple methods. This helped to reduce bias as well as promoting true reflections of the findings out of the collected data.

In a nutshell, the following principles guided this study:

*Voluntary Participation:* this is a principle that requires that potential participants not be coerced into participating in the research (Trochim, 2006). In line with this principle and the study objectives, this study utilized voluntary participation.

*Informed Consent:* informed consent refers to the notion that participants must be informed fully about the purpose, procedures, and potential risks involved in taking part in a study and be given the opportunity to disagree or agree (consent) to take part (Trochim, 2006). Participants were informed verbally and in writing of the purpose and procedures involved in the study. Only participants who were willing to participate in the study were involved and those who were not willing were not forced to do so in any way, shape, or form.

*Confidentiality:* this emphasizes on the idea that the identity of participants be thoroughly protected by ensuring that no identifying information is made available to anyone not directly involved with the research (Trochim, 2006). This ensures that participant's anonymity is protected. In this study, the participants were guaranteed by ensuring that no traceable information such as name, mobile number or any other identifying information was requested.

### **3.14 Summary of Chapter Three**

This chapter discussed the methodology adopted in this study, outlining the reasons for adopting the selected research design. The population and sample for the study was outlined. This chapter also discussed the instruments used in the gathering of relevant data from participants, as well as the data collection procedure and timeline. In depth description of data analysis instrument and procedures was also presented in this chapter, and finally, the ethical principles guiding the study were also outlined. Validity and reliability were addressed, suggesting that the results could be considered transferable, reliable, and trustworthy. The next chapter presents the findings and the results of the study.

## **CHAPTER FOUR: PRESENTATION OF FINDINGS**

### **4.1 Overview**

The previous chapter highlighted the methods used to collect data for this study. This chapter presents the findings and the fact that data were collected using exploratory sequential design, the chapter began by presenting the qualitative data and later the quantitative data. The qualitative data were collected through the use of semi-structured interview. A coding framework was formulated out of reading and re-reading of the transcribed verbatim. Analysed quantitative data are presented in form of statistical test results. The study entitled “Inclusive teaching efficacy among teachers of learners in early childhood education centres in Zambia was guided by the following research questions:

- (i) What knowledge do Inclusive ECE teacher hold in handling learners in inclusive early childhood learners in Zambia?
- (ii) What are the sources of inclusive teaching efficacy among teachers handling learners in inclusive early childhood centres in Zambia?
- (iii) What is the level of teaching-eficacy among inclusive early childhood teachers in Zambia?
- (iv) What are the factors that influence inclusive teaching efficacy among early childhood teachers in Zambia?

The findings and results have been presented according to the research questions in a sequential mixed method format. The results are presented in two parts, namely qualitative and quantitative presentations. Verbatim quotes have been inserted in the presentation of qualitative findings from interviews. The quantitative data is presented as test results in part two.

### **4.2 Background Characteristics of participants**

This study was guided by exploratory sequential mixed method design. This means that even the presentation of the demographic characteristics of the participants was subjected to a sequence. The following table shows the characteristics of the participants that participated in the qualitative phase of the study:

**Table 3: Demographic Information of the Inclusive ECE teachers in qualitative phase**

<b>Background characteristics</b>	<b>N</b>
<b>Sex</b>	
Male	2
Female	15
<b>Age</b>	
24 years and below	1
25-29 years	4
30-34 years	6
35-39 years	3
40-44 years	2
45-49 years	1
<b>Category of training</b>	
Special Education teacher	2
Regular teacher	15
<b>Level of Education</b>	
Certificate	10
Diploma	6
Degree	1
<b>Area of Specialization</b>	
Early Childhood	14
Primary	3

<b>Length in service</b>	
<1year and below	1
2-6years	3
7-9years	1
10 or more years	12
<b>Total</b>	<b>17</b>

As shown on the table above, the females constituted the largest number of participants totalling to 15 female and 2 male ECE teachers. Most of the participants in this phase were in the age range of between 30 and 34. With regards to category of training 15 had no special education training (regular teachers) and only 2 were trained in special education. Similarly, of the said number of teachers, the highest were certificate holders (10), 6 had diplomas and 1 was a degree holder. The area of specialisation was another interesting variable. 14 were specialised in ECE teaching and 3 had primary specialisation but handling ECE learners. In terms of the length in service, most of the teachers had taught more than 10 years of service and only 1 had below 1 year experience in service. Additionally, the two educational standard officers were male and female who had been serving in their position for more than 5 years. On the other hand, the ECE college coordinator was female with 7 years' experience in that position.

As already indicated in the third chapter of this report, the study also collected quantitative data using the questionnaire developed using the findings from the qualitative phase. Hence, the next sub-section provides characteristics of study respondents relating to the quantitative sample. Indeed, the quantitative phase involved 133 ECE teachers who responded to the questionnaire to provide the needed quantitative results for this study. Table 4 shows background characteristics of respondents of whom 84% were females, while the rest were males at 13%. The highest percentage distribution of respondents was in the age group 30-34 years (26%), and the minority were in the age groups 24 years and below and 45-49 years (4%). Regular teachers had the highest proportion of teachers (91%), compared to special education teachers (9%). The majority of the respondents had diploma qualification (66%), while the minority had master's degree (2%). By area of specialization, early childhood teachers had the

highest percentage distribution (69%), followed by primary teachers (26%), and the lowest was among secondary teachers (5%). Respondents who are GRZ in-service teachers were the majority (71%), compared to the pre-service who were the minority (5%). By duration of service, those who have spent 10 years and above were the majority, while the minority had spent less than a year and 4-6 years (14%).

**Table 4: Demographic Information of the Respondents in Quantitative phase**

<b>Background characteristics</b>	<b>Freq.</b>	<b>Percent</b>
<b>Sex</b>		
Male	18	13.1
Female	115	83.9
<b>Age</b>		
24 years and below	6	4.4
25-29 years	26	19
30-34 years	35	25.5
35-39 years	27	19.7
40-44 years	21	15.3
45-49 years	5	3.6
50 years and above	11	8
<b>Category of training</b>		
Special Education teacher	12	8.8
Regular teacher	125	91.2
<b>Level of Education</b>		
Certificate	25	18.2

Diploma	91	66.4
Degree	19	13.9
Master's Degree	2	1.5
<b>Area of Specialization</b>		
Early Childhood	94	68.6
Primary	36	26.3
Secondary	7	5.1
<b>Length in service</b>		
<1year	20	14.6
1-3years	29	21.2
4-6years	20	14.6
7-9years	21	15.3
10 or more years	43	31.4
<b>Total</b>	<b>133</b>	<b>100</b>

### 4.3 Teachers' Knowledge of Inclusive Early Childhood Education

Teachers' knowledge of inclusive ECE is theme developed from the first objective of this study. The qualitative phase employed the interpretative phenomenological analysis (IPA) to make meaning of the data collected through the interview.

This was meant to investigate knowledge ECE teachers' hold about inclusive education in Zambia. These themes included, teacher understanding, features of inclusive ECE class, teaching and learning process. Teachers' knowledge on inclusive ECE education included areas such as: teacher understands of ECE inclusive education, teacher's understanding on the main features of ECE class, teacher's understanding of teaching and learning process.

### 4.3.1 Teacher Knowledge

Data on knowledge brought a number of aspects regarding teacher understanding of inclusive education. The themes emerging from the thematic analysis include process related knowledge. Teachers' understanding of Inclusive Education meant teachers knowledge on the concepts, terminologies, application and characteristics of an ECE inclusive class. The findings of this study show teachers had little understanding of what an ECE inclusive education provision is all about. By little understanding it meant lack of clear-cut knowledge on what is involved in inclusive ECE. The concept of inclusive education was understood in terms of disability. This meant that The ECE teachers view of inclusive education was only limited to learners with disability. The verbatim below confirms this statement. In this regard, one respondent said:

*“Ummm, I know this inclusive education in terms of mixing those with disability and the normal ones in one class.. yeah” (Mch ECE TR).*

The other said:

*“I should say I lack much of knowledge about it[Inclusive education], but I think it's all about children who have special education needs and others so called the normal in one class without discrimination. I think that's all I know” (Nyak ECE TR).*

It was further explained by another teacher from another ECE Centre:

*“From layman's point of view, I say so because I didn't train for special education. As indicated special education is simply mixing learners who are handicapped with those who are not, treating them as one, and teaching them together” (StBt ECE TR).*

It was also added by another teacher:

*“My understanding of IE is getting children with disabilities and those without disabilities aah. you put them in one class. They learn together” (Hls ECE TR).*

### 4.3.2 Knowledge about Teaching and learning procedures.

Teacher knowledge about teaching and learning process was an important finding. One aspect of knowledge involved scanty knowledge regarding the process of teaching and learning. Most teachers in the qualitative sample admitted to not knowing what changes happen when a class is regarded inclusive. Understanding teaching and learning procedures is at the centre of effective teaching and learning. Teaching and learning process meant the ability to prepare and implement the effective lesson delivery. This meant the teachers knowing what it takes to plan, teach and evaluate learners in an inclusive ECE class. What came out of the interview was that teachers planned to teach an inclusive class without considering the diversity of their learners. Understanding the teaching process also meant teachers' ability to use different methods that bring the best to the inclusive class of learners. Learning processes entails understanding learner capabilities and differences. Responses from the majority respondents show that many teachers have little knowledge on the teaching and learning process in an inclusive ECE education. The major factor for this drawback is that many teachers are not trained in inclusive ECE. The verbatim below confirms this finding, as one participant stated:

*I prepare that lesson plan without considering who is in my class knowing that those are learners I have my learners. This child who is having...so when I go in class, I give attention to the disabled child and these other learners without considering separating them or not. Yes I fail to give enough time that's why I said those learners need to be separated so that they are given enough time, because those need enough time to be taught from these others (NAD ECE TR).*

Another one added;

*“For an inclusive class, if the lesson was supposed to go for an hour, maybe it can go more than that for the other group [LSENs] for them to understand. There will be repetition to make sure that the other group have understood” (Mpez ECE TR).*

It was further pointed out that:

*Since these books they don't have those baaba [for] inclusive learning that's why in my case in the beginning, I said its better they should be taking us*

*for training so that we know what is supposed to be given to ba [the] inclusive because what we have is for these others so I could say for the normal oness (NADA ECE TR).*

On the other hand, while a lesson plan presents what teacher intends to achieve in a particular lesson with all the learners in mind, it was revealed that learners with special education needs come as an option during teaching and learning.

One of the respondents argued in this matter as saying:

*“As for me I plan normally the way the lesson plan should be. I attend to those children with disability later on when I’m done with those others. Those need a lot of time so they delay others” (Tik ECE TR).*

Another one pointed out:

*“The...the... yeah, lesson plan is just the same, just prepare one, I don’t separate instructions for the learners. Usually, I attend to them after I have done my work for those without special needs” (Gon ECE TR)*

It was also said;

*“In terms of lesson planning aah..I just do the normal lesson plan include all the activities. Then im.... when im done with those others then I go and attend to those with special education needs in their own time. [Laughs], no I just leave them do their work just doing their work, I go to those” (Zem ECE TR).*

### **4.3.3 Knowledge to communicate**

Knowledge to communicate emerged as a critical theme of interest. Knowledge to interact with learners in an inclusive class meant the ability to communicate with children with SEN in an inclusive class and interpret the behaviour of learners with special education needs in class. Teachers felt that understanding learners with special education needs was hectic. By hectic, they meant failure to understand their expression for example whether a child is sick or not. Further, it was revealed that teachers lacked relevant communicative skills such as sign language which made it difficult for them to interact with learners who required such skills.

They expressed that they required additional knowledge to appreciate the effective handling of inclusive ECE learners. The following verbatim substantiates the finding:

*“I really want to teach the class, this inclusive class but sometimes I don’t understand what they want, I just look at them whether the child is saying they have a headache when they are pointing at their head, I don’t know”*  
**(Umo ECE TR).**

Another stated:

*Yeah, because whatever I’m doing to help them it’s just coming from me to say this is a human being. I need to help in some way but really fail to know if they are following me or not. The intensive schooling aah, aah, method of special education in communicating with these learners is important. I haven’t done much training of this knowledge. So, I think that has limited my ability to teach an inclusive ECE class* **(CzP ECE TR).**

Another participant added that:

*“As I said, yes, I’m trained but my training we didn’t go in detail for me to handle or have that understanding such children in a mixed class. They need teachers who have done special education, who will know exactly what they want and how to guide them”* **(CSTP ECE TR).**

It is interesting to note that other participants were ready to take on inclusive ECE learners but they were hindered by a lack of required skills. This is evident as one pointed out that

*I can say that the way I have been teaching, I am always ready to receive learners with such challenges but I have issues where a learner is blind or maybe deaf that can be a challenge because so far, I don’t have knowledge of sign language. Like for those you find that there is one with a different challenge, another one with a different challenge for those that have got hearing challenge when we give work when you are teaching we put them in front so that there are able to read the lips of the teacher then we always concentrate to see that that learner is not playing*

*akuyangana pa meso[looking at your face] (Tik ECE TR).*

Similarly, another one added:

*Eeh,..Im ready because if we say those should be taught in in a separate class that means that we will be side lining them, will not have an opportunity for them to learn. Some government schools we don't have special education teachers. So we are ready to teach an inclusive class as long as the little information they get little knowledge they get they can help them at one point or the other (Zem ECE TR).*

#### **4.3.4 Knowledge about Features of ECE Class.**

Teachers' knowledge of the main features of an ECE class emerged as a theme in this study. This sought to understand and bring to light on whether the current teachers have what it takes to teach an inclusive ECE class. Teachers displayed limited understanding of what clearly constitutes an inclusive ECE class. Much of their expression was biased to an ordinary ECE class and this was attributed to inadequate knowledge of necessary features of an inclusive class. The verbatim below indicates the findings.

*Well, I must say that teaching children with special... has special needs also requires full knowledge. I understand a bit on things to do with class entry should be accessible to wheel chairs and others. This means the physical environment should be designed to accommodate children with various physical disabilities, like wider doorways, adjustable furniture and the like. Maybe those other things that may require special education training, I may not know them (Kanj ECE TR).*

Another teacher added:

*"I'm not trained to handle the other part of the SEN. I'm sure a bit of training just for a bit of guideline would be necessary to handle the learners with special needs even the learning and the teaching Aids if there are there" (Mpez ECE TR).*

It was stated by another one:

*There are a lot of things that we can't handle on these children because there is.. yes, a great different. Okey, a time that I was handling these ones without the disability, it was wonderful I knew what to do with them... yes the class, yes there could be those children who are hyper but you can easily control now with these ones that I have here there is one who doesn't want to sit down, he just wants to be walking around so the different is there. The time that I was teaching those at least I could see that everyone looking at you ready to learn but with my friends that they have brought in now, umm you see standing. The other will stand start beating the friend doing whatever, wanting to play with toys so all those*  
**(Nyak ECE TR).**

#### **4.4 Sources of inclusive teaching efficacy (ITE) in early childhood schools among teachers**

The second objective of this study was exploring teachers' sources of inclusive teaching efficacy among teachers handling learners in early childhood schools in Zambia. This meant to have an insight as to where the ECE teachers draw their confidence to perform in an inclusive ECE class. The themes that emerged include: Learning environment and teacher experience. The study further revealed themes associated with sources of teachers' self-beliefs in their abilities to teach learners in an inclusive class. This finding was significant because getting the insight of the sources also provided enablers of inclusive teaching-efficacy required to strengthen the implementation of the inclusive education policy. Interpretive Phenomenological analysis revealed several other sources, including the pre-service training and in-service training.

##### **4.4.1 Learning environment**

The study revealed that the learning environment influenced teachers' beliefs in their abilities. The learning environment meant the ECE classroom characteristics and the school support system. By classroom characteristics, participants meant space, ventilation, and furniture size. The size of the classroom and whether it was permanently allocated to the ECE learners was a factor. Teachers felt that the disturbance that came with the shifting and relocation to other undesignated rooms due to national examinations and other events that required relocation

affected them. The school support system meant interacting with workmates and administrators. They felt undermined by the way their colleagues addressed them. The following verbatim substantiates this finding;

One teacher said;

*“To have a big classroom and more teaching aids. I know I can make them using locally available materials, but they require space. Even aah, I do not know if I can also talk of the outside; we do not have enough spaces where learners can do other activities, and we do not have enough space. Yeah, it is small. It affects me” (Mseka ECE TR).*

Another one added:

*The play park, by the time I was starting work I found it was damaged it's not in good condition to use. Aah.. uh umhu like the head is talking about the resources. So, if I can have a playing park, the ECE can have their own class, their own permanent room for the ECE only, they have a lot of activities. You find that it is difficult to handle whereby when you knock off you have to shift those things. In that process you start losing things one by one by shifting. Ummh the classroom like in my case you find that the classroom we are sharing with grade four.... So, they end up stealing the toys for the learners. So, if they can have the permanent class and if the administrators can pay attention, it would be better for the teachers. You find that they don't even pay attention to you. You are just on your own. The classroom is not in good conditions there are potholes. (Nyak ECE TR).*

#### **4.4.2 Personal Experience**

Experience emerged as another source of efficacy for inclusive ECE teacher in this study. By experience it meant how long the teachers had been handling inclusive ECE class. It also meant whether the teacher had ever interacted with children with special education needs at family level, religious level and society in general. ECE teachers stated that they relied on experience to manage inclusive ECE learners. Their experience was with reference to personal

professional development where they got involved in research in order to understand how to handle learners with special education needs. The following verbatim confirms this:

*“Well, like for me I’m not trained but don’t shun these learners. I read books, like there was an old book I got from a friend, I use that book to understand some sign language. I get some experience slowly though not very much” (Katp ECE TR).*

Another one added;

*I have a child with ADHD at my home and that has given me prior experience. The experience I have from home enables me to be patient with learners with special needs in my class. My own child is not understood by many people at home including his father. I take time to enlighten my family on how to handle our boy. Yeah, it is not easy but by and by I have come to understand that we appreciate everyone regardless of their disability (Chz ECE TR).*

#### **4.4.3 The in-service training**

The in-service training emerged as an important theme in this study. By in-service training meant that teacher drew their confidence to teach inclusive ECE through capacity building through continuing professional development (CPDs). Experience gained through their length in service, personal development and interaction with the society at large. Teachers believed there was a need for in-service training to orient them with inclusive classroom context skills. This study revealed that the participants were not knowledgeable enough to implement the policy effectively. This means they lacked relevant knowledge and skills to handle inclusive ECE learners.

##### **4.4.3.1 Continuing Professional Development (CPDs)**

CPDs are crucial in the promotion of teacher effectiveness. They are integral part in orienting teachers achieve their intended goals in their profession. This study revealed that CPDs were a source of inclusive teaching efficacy for ECE teachers under the in-service orientation. Teachers felt that exposure to CPDs gave them confidence to manage inclusive ECE learners.

One teacher said:

*Mmh like the previous day we had a work shop mmmh, it was in three venues. Okey soooaaah I learnt about lesson planning that is specifically ku [at] language and ... yes and how to do a morning routine, aah apart from that we learnt about Parent-Community Involvement (P C I) in early childhood, how you can involve community and parents aah there are a lot of things that I learnt apart from that I learnt about IAI (Interactive Audio Instructions), the use of radio, radio program yes though we were told that aaah, aah, we will be called again for another orientation on how to use the radio. But I must state that all the workshops I have attended they are just general, nothing on inclusive education, maybe in future (CHI Str ECE TR).*

Another teacher added:

*Ummmm, it is difficult because I am not trained to handle such children with special needs. CPDs are rare and we learn little from CPDs, you can't learn or know sign language and those others in workshops mwebantu [you people]; we were just taught basics, so I do not know how to handle these children; even if I tell them to scribble sometimes, I leave them so that they catch up in their own time (Mseka ECE TR).*

On the other hand, the teachers who were against workshops and CPDS argued that they were too brief to enable an ECE teacher successfully teach a full-fledged inclusive ECE class. This meant that CPDs were biased to special education and not focused on handling an inclusive class. They felt the need to introduce CPDs that focus on both special education learners and those without. The following verbatim supports this:

*Aaah...I can say just to be frank, I wasn't ready, now since the government, they bring them in and there is nothing I can do all we are asking for if only there can be, if only we can be given a chance of going to school to learn about how to handle these it would be better unlike those tuma workshops, ye, tuma workshops where you go for three days, what can you get from there (Mpeza ECE TR).*

Another one further noted that:

*If only they could think about that, the government could say that those people that have been given these children with disability, they should go and learn more so that they can handle the children the way they are supposed to be handled because even what I teach there is nothing for special need. Of course, at school I just learnt at guidance and counselling level. it was just the basics (Nyak ECE TR).*

The other teacher lamented that:

*“The best way to achieve effective inclusive ECE is to advocate for re-training and not entirely depending on CPDs which are shallow. We need to be re-trained not just tuma [small] workshops for 3 days, they can’t give us enough knowledge we need to handle the SEN “. (TIKO ECE TR).*

#### **4.4.3.2 Experience gained through their length in service**

It was revealed that ECE teachers felt able to handle inclusive ECE class as they served longer. They felt capable because of the time they have been interacting with learners with SEN. On the other hand, teachers that were new in service had difficulties in understanding learners with special educational needs.

The following verbatim confirms this;

*“When I just started teaching these children, it was very strange as I could not understand them but with time I am somehow managing though with challenges. I have been having them so I have learnt on how to interact with them more than before” (Nad ECE TR).*

On the contrary, a new teacher at one of the sampled ECE centres indicated that:

*“I am new in the system and I have found it hard to handle learners with special education needs”. She said;*

*She iterated, “I’m new in the system and I found these learners with disabilities in my class. I don’t have an experience on how to teach these*

*children. I find it hard, already I have a problem with expressive arts. So I don't know how best I can help them for now” (Mseka ECE TR)*

#### **4.4.4 The pre-service training**

Pre-service training emerged as a critical source of inclusive teaching efficacy. By pre-service training, it meant that teachers believed their training to handle inclusive ECE left a lot to be desired. The subthemes that emerged under preservice training brought out interesting findings with regards to sources of teaching efficacy among inclusive ECE teachers. One of them was the existing curriculum and the second one was the tool that educational monitors use to monitor the performance of the ECE teachers. Curriculum content and monitoring tool cited critical issues of interest in preparation of teachers to handle an inclusive class of learners. Teachers felt that there was a need for curriculum adjustment in the ECE teacher training institutions in order to empower pre-service teachers in ECE training institutions with relevant knowledge and skills for an inclusive class of learners.

##### **4.4.4.1 The curriculum adjustment**

The study revealed that there was a curriculum gap in institution of teacher training to accommodate learners with special education needs. By curriculum gap, it meant a gap in the teacher training institutions where the participants felt they only learned the basics in their colleges/universities, which did not prepare them for a whole fledged inclusive class. The inclusive teaching efficacy gap was noted in the training of these teachers. ECE teachers felt inadequately trained for the implementation of the inclusive education policy at early childhood. Teachers felt the need to beef-up the curriculum in order to add more content based on the learners with special education needs such as adding sign language, assessment skills and how to handle learners with special needs in classroom set up as indicated in the following direct quotes:

*I think every teacher needs to be exposed to almost full special education training. I say so because we are in inclusive era where every child needs to learn anywhere with any teacher. The curriculum at teacher training, I mean those that are in-charge should add things that will help us teach the learners with special needs in manner they deserve to be taught or managed. Some of them I don't understand them, so fear that I may do that we I'm not supposed to do to them (Chz ECE TR).*

Another one said:

*“Maybe by getting training, mmmm because as far as I know, some teachers have been trained to handle all children with special needs. Yes, but not much was learned regarding our training. They need to add more to help us” (Beto ECE TR).*

On the other hand, the ITE gap was also pointed out at the college level. While ECE teachers are trained and monitored, attention is biased toward general classroom management.

The ECE coordinator stated:

*“We need adjustments at the college level starting from our curriculum, such as monitoring tools and approach to lesson delivery. There is a need for orientation workshops for every lecturer; I think it would prepare our students well for inclusive teaching” (ECE College Coordinator).*

#### **4.4.4.2 Monitoring tools**

The monitoring emerged as a theme at pre-service level. By monitoring tool, it meant the tool the trainers employ to monitor the trainee teachers at institutional level as well as field practice level. It was revealed that the tool lacked adequate content to emphasise the importance of inclusive monitoring.

The education officer from the ECE teacher training said:

*Over the monitoring tool, nothing much is said on inclusive education, but there is a revised tool which I so far do not know the content. Revision of the tool is the way to go in order to guide our teachers well to plan and implement the inclusive policy. Orientations on using the monitoring tool are also needed to help ourselves and extend it to others (ESO1)*

#### **4.4.5 Personal love for children**

Personal love for children emerged as a sub theme on intrinsic sources of inclusive teaching efficacy. It was clearly indicated that some teachers put in the best in facilitating teaching and learning in the inclusive ECE because of the intense feeling to guide the learners at that

foundational level with passion. Teachers felt that doing so gave them joy to attend to learners with diverse needs. This is indicated in the following verbatim

*“Okey I just love to interact with young ones. I have got a caring heart, I’m a mother I know how to handle children. Yaa, I like handling more children yeah”.* **(Gon ECE TR).**

Another one added;

*“Okey on that one I had that passion of teaching early childhood learners. No, I was not born with it but just the interest to be with these young ones”* **(Mch ECE TR).**

It was indicated;

*It’s because I love my job, I love what I do I love the children and what makes me even more happy and even my interest go higher the way I found aba ban aba inclusive aba balimuno it gives me really strength because Godwin enzovala[was putting on] diaper but this time kulibe naivo[nothing like that]. Godwin was one of those banja yabana bochosa malende[children who were producing saliva], this time aah... he even calsl me ba[the] teacher nika tuned[go urinate] so that one awe, ummmm...ummm* **(NADA ECE TR).**

Another one said;

*That question was not necessarily that what motivated me. When I was teaching, I never thought like it would be an inclusive class but for these other learners. As time went on, I had a learner with special needs. Since in a community you are a teacher, you have to tackle them. So, sometimes I developed interest to love them. So, the love for learners so that they also have an opportunity to learn* **(NYAK, ECE TR).**

Additionally, the analysis of the information provided by respondents helped to appreciate the general sources of inclusive teaching efficacy through the questionnaire. Table 5 was used to summarise such data. It can be said that most agreement was generated for the statement stating ‘The child/relative in our family with disability’, with 10.44 mean rank among the participants’

sources of inclusive teaching efficacy. Secondly, there was a high agreement that ‘My full training in special education’, ranked 9.98 among the overall responses. On the other hand, the least agreement with mean rank of 5.11 was generated for the statement stating ‘Love for Children’.

**Table 5: Source of Inclusive Teaching Efficacy**

	<b>N</b>	<b>Sum</b>	<b>Mean</b>	<b>Std. Deviation</b>	<b>Mean Rank</b>
The child/relative in our family with disability	132	379	2.87	1.310	10.44
Need for full training inclusive education	132	365	2.77	1.203	9.98
Vicarious experience	132	321	2.43	1.079	9.05
Social persuasion	131	308	2.35	1.074	8.85
Curiosity	128	292	2.28	1.034	8.60
Emotionally attached	132	301	2.28	1.072	8.45
My experience in teaching ECE	131	289	2.21	.950	8.23
Learner friendly infrastructure and suitable furniture	132	290	2.20	1.087	8.05
spacious permanent class	132	285	2.16	1.165	8.81
The learning environment	131	273	2.08	1.016	7.79
knowledge for inclusive ECE learners	131	264	2.02	1.000	5.21
Support from School Administration	132	259	1.96	.877	7.23
Religious Background	132	258	1.95	.972	7.23
Passion	132	223	1.69	.892	5.66
Love for Children	132	194	1.47	.623	5.11
Valid N (listwise)	126				

These observations were also subjected to the statistical test in order to find out whether they reflected the actual picture of the outcome of the test. The Chi-Square test was used resulted in  $\chi^2(2, N = 126) = 249.227, p < .001$ , to prove a significant association between the expected and observed results pertaining to the teachers’ sources of Inclusive self-efficacy ECE in that regard.

#### 4.5 Teachers' Self-efficacy in the inclusive early childhood Education

This objective sought to determine the ECE teachers' level of teaching efficacy in inclusive early childhood centres in Zambia. The IPA in the qualitative analysis brought out interesting findings in this regard. The study revealed that teachers lacked confidence in handling inclusive ECE learners. They indicated that they were comfortable in handling non inclusive class but felt insufficient in an inclusive ECE class. Lack of mentorship in uplifting their abilities to manage inclusive ECE learners negatively affected their confidence to manage inclusive ECE learners. This is confirmed in the following verbatim:

*Indeed, inclusive education has come to stay but I think we are still not confident enough to handle such classes. Ummmm, maybe in situations where we have someone to consult from where we get stuck with teaching the inclusive pupils. Like in our case here, we are two but none of us is trained in special education. So, we don't have where you can run to when you can't understand certain things (NAD ECE TR).*

The ESO1 also echoed similar sentiments, added:

*Yeah in terms of inclusivity we still have a lot of work to improve its provision. I must admit that most of our teachers in ECE do not know how to handle inclusive learners especially those with special education needs. Oh yes when we do some monitoring in our district, we find these challenges of teachers lacking confidence in such classes [inclusive].*

**(ESO 1)**

From the statement in the verbatim, it is clear that lack of confidence in their abilities to handle inclusive ECE learners emerged as a critical issue of concern among ECE teachers.

Most interestingly, the level of self-efficacy was subjected to statistical analysis in the quantitative phase of this study taking note that this adopted the exploratory sequential mixed method design. Indeed, the teacher's degree of self-efficacy was assessed and the results are (N = 133, M =31.67, SD = 6.65) and levels provided in Table 6. The teacher's levels of self-efficacy in instructing inclusive early childhood classes were calculated using a total of 52 points, with 70% and above set to High, 40% set for the lower boundary of the average score, and 70% and above set to Medium. The results showed that 44 (44.1%) respondents had low

levels of self-efficacy, meaning they did not have sufficient assurance in their abilities to teach an inclusive early childhood classroom, whereas 3 respondents (2.3%) had high levels of self-efficacy, 86 (64.7%) had an average level, and 3 respondents (2.3%) had high levels.

**Table 6: Teachers' Levels of Teaching-efficacy**

		Sex of Respondents		Total
		Male	Female	
Teachers' Level of teaching-Efficacy	Average	11	75	86
	High	0	3	3
	Low	7	37	44
Total		18	115	133

In order to determine whether these observations accurately depicted the test's conclusion, they were also put through a statistical analysis. The Chi-Square test was employed, and the results showed  $\chi^2(2, N = 133) = 77.699, p < .050$ , to prove a significant association between the expected and observed results pertaining to the teachers' levels of self-efficacy in that regard.

#### **4.6 Factors affecting inclusive teaching efficacy among early teachers in Zambia.**

##### **A. Qualitative Data**

The study also sought to establish the factors affecting the inclusive teaching efficacy among early childhood teachers. Interesting themes emerged in the interpretive phenomenological analysis (IPA) to that effect. The number of learners with special education needs, unfamiliar with inclusive education policy content, mentorship, stigma and discrimination as well self-esteem were key aspects that emerged from the analysis.

##### **4.6.1 The Number of learners with SEN**

The number of learners with special education needs emerged critical theme under factors. The number of learners meant the total number of learners with special education needs in an inclusive class. ECE teachers felt that increased number of learners with special needs increased their stress levels which affected their abilities to facilitate teaching and learning effectively. They equated one (1) child with special education needs to ten (10) children without special education needs. By increase in stress levels meant that learners with special education needs required more time and special attention as compared to those without. Others

added that some children with special needs were violent and if left without attention, they would cause confusion and injure others which were stressful to them. They described the range of 1 to 4 learners with special education needs in an inclusive class as better off. The following verbatim substantiates the findings:

*“Ummmm, the ECE learners are like children with SEN on their own, so adding again those, the inclusive ones with disability, it is stressful on my part” (MSka ECE TR).*

Another stated:

*What I know is that one child with SEN is equal to ten children without special needs. Like in my case I have handled 4 with SEN in an inclusive class. It was very difficult for me; one boy was very violent and always needed to put an eye on him. Other one would just do things you can't expect like go and weewee [urinate] on the board, very frustrating. My personal beliefs are that those learners who are disabled should be very few maybe 2 or 3. They can be intimidated by their friends because of their disability. Maybe if I can go for training, I can know how to handle them and I can be ready to teach them but as at now I think I don't know how to handle them (Tikon ECE TR).*

#### **4.6.2. Unfamiliar with IE policy content**

Another theme that emerged was the ECE teachers being unfamiliar with the inclusive education (IE) policy guidelines. By being unfamiliar with IE policy content meant that ECE teachers had heard of the inclusive education and were practicing it but they were not exposed to what guidelines were enshrined to be implemented in the document. Further, teachers felt they lacked mentorship in the implementation of the IE policy. Lack of mentorship meant that teachers felt that they haven't had access to an experienced educator or mentor who could guide them through the process of effectively implementing inclusive education practices. Mentorship involves receiving advice, feedback, and practical strategies from someone who has expertise knowledge in the field. The direct quotes below confirm this:

*Umm, I may lie I have never read the inclusive policy document. I need to find out whether we have the document in my school I don't know. At*

*college level no, I can't remember being exposed to that inclusive document no. otherwise, all I know is that I teach them together those with disability and those other, yeah. (Gon ECE TR).*

Another teacher pointed out;

*You know, I believe, since the policy is here to stay, we just have to fit in. We need our friend with some of inclusive knowledge to mentor us then we will catch up. Truly, mentorship is vital in education because it offers us teachers the chance to learn from experienced colleagues. As you may be aware mentors are not always there, some schools don't have anyone with special education background. Lack of mentorship makes us use trial and error methods and feel uncertain and frustrated, just doing it because it's a requirement (Chdz ECE TR).*

#### **4.6.3 Stigma and discrimination**

'Stigma and discrimination' was another emerging theme under the factors affecting inclusive teaching efficacy of ECE teachers. Teachers felt stigmatized by way of address, not getting involved, financial support and being referred to as player. By way of address, it meant the way they were being addressed during either introduction or general interactions. They felt stigmatized when their introduction was attached to the level they teach, like ECE teacher unlike just mentioning their name. By not getting involved meant that the ECE teachers felt that the school administration would sometimes forget about their involvement in school activities such as meetings. Not only that but fellow teachers would oppose their views or contributions during meetings with specific reference to them as ECE teachers. Further, by financial support meant that ECE teachers felt that the section would usually receive support at last when other section had already received. This made them feel discriminated and unsupported in their execution of their duties. Moreover, they experienced stigma where they were being referred to as players with children. These experiences are vivid in their actual words as quoted below:

*Like ECE in general without even inclusive, teachers and others just look at us as those just playing with learners uhuh again when they are introducing you, when they are introducing a primary teacher, they will say this is Mrs Banda aah a teacher but with us they will say this is Mrs*

*Chisaka [pseudonym] an ECE teacher putting title in front but these others are just teachers. You will find that that stigma its always there they think that us we don't have much information all what we know is playing, singing and the like. Ummm at first when I came here, I was feeling awkward and bad but later on I understood that these people don't know what they are referring to uhuh. Even the way they were introducing even parents would say *abwela chabe kusebela* [just come to play]. From the work that they have seen some of the people have realized to say *ah huh* not just playing. ECE has just come a lot of people are ignorant in most of the things day by day as they are learning with first coming back. So feeling bad will always be there because when you have overstayed in a certain area we are able to understand people's mind" (ECE MPez TR).*

The other teacher added:

*Ummm okey there are situations where you just amongst teachers and then someone comes and says this is Mr Phiri, this is, Mr Banda and this is madam Banda the teacher for ECE or sometimes say teacher wa nursery that's in Chinyanja but these others they are just introduced this is Mr Phiri, this is Mr Banda. Sometimes you just feel like you are just nobody. It affecst me sir sometimes I feel I'm just nobody yes I'm a nobody I'm just wasting time so to say (Zemb ECE TR).*

The other one reiterated with an example:

*For example, when you are being given duties at school you will find that all teachers are given duties and you are just left out and then you say you want to join other people, they will say this is an ECE teacher she can't handle it but you feel you can handle like others. They will even say this is an ECE teacher why include ECE, is it the ECE doing the job or a person who is doing that job? So, when it comes out to that. Sometimes when they are being introduced, it may be at zonal level, they say this is an ECE teacher by not including the title and not a name just like others. At home they really support me (MPEZ ECE TR).*

What was even intriguing was that stigma was also experienced outside the school environment. Some teachers felt unsupported at family, church and society at large as they handled inclusive ECE learners. What came out vividly was the way they felt when ECE teaching was described as a career for dull people. This affected some of the teachers who decided to upgrade to primary school level teaching as a way of avoiding stigma and discrimination.

*“Mu [in] my family ka ati [they] haa, kutiwaya mukuyamba[would say, “how do you go for”] ECE course iwe [you]. Tawayishiba ati [You don’t know that] ECE ni[is a] course yaba [for] fikopo [dull people] “... (St Bto ECE TR).*

In expressing societal stigma, a female teacher said as follows:

#### **4.6.4. Caretaking**

Under this objective, another vital theme that emerged was the unavailability of the caretaker or assistant teacher. ECE teachers felt that it was difficult for them to succeed in the provision of inclusive education without an assistant office. By caretaking, they meant that children with diverse needs required an extra care which is significant for a smooth flow of teaching and learning. For example, those with difficulties in managing themselves require assistance in feeding and mobility to and from the toilets. It was revealed in this study that there were barely any caretakers. This meant that teachers had to perform both teaching and the role of a caretaker and this made them feel overwhelmed. The following quotes confirm the finding:

*“We don’t have the care taker, no we don’t have. It affects me because you know these children especially those who are very young and physically challenged ones of which I have two, may need to go to the toilet, you have to take them yourself you know. If we had a caretaker at least he/she can do that part” (Gon ECE TR).*

Another ECE TR added that:

*“Umm I don’t have a caretaker in my case. I don’t think there are caretakers in these schools. Our work is made tough without these people they are really helpful at this level to be honest” (MPz ECE TR).*

#### **4.6.5 Positive Feedback**

The feedback emerged another critical theme in exploring the perceived factors affecting inclusive teaching efficacy. By feedback, it meant that, teachers felt their effort in implementing inclusive education needed an intervention and appreciation from key stakeholders. Teachers felt that teaching inclusive classes involved an extra commitment and it required positive feedback from key stakeholders. By positive feedback it meant moral and material support from the administrators, parents, colleagues among others. can shape teachers' perceptions of their effectiveness. Positive feedback and recognition for implementing successful inclusive strategies can reinforce teachers' belief in their inclusive teaching efficacy. The following verbatim confirms the finding:

*“What will help me work harder, they should increase our salaries. I’m already working hard but working hard it’s just that the environment also the administration should play a very hard role and you are being given something to appreciate your work, it really gives you the energy and morale to..to ..to do better” (CHIS ECE TR).*

The other added:

*“Basically, positive feedback in this work is important; there are times when we are drained by the behaviour of some of these children who display unruly behaviour. Some parents shout at us especially when their child may be is injured by the violent children” (Nyak ECE TR).*

#### **4.6.6. Attitude towards Inclusion**

Attitude towards inclusion was another theme of interest in pursuing perceived factors affecting inclusive teaching efficacy. By attitude towards inclusion in this case, it meant how teachers viewed inclusion, readiness to embrace it. From the interviews, some teachers viewed inclusive education provision as a barrier to helping learners with special needs. With regards to readiness, teachers felt not ready to handle learners with special education needs. Lack of readiness was attributed to insufficient knowledge in the field of inclusive education. They believed that the best way to help learners with special education needs was to separate them from the main stream. The direct quotes below confirm the finding:

*“Aweeee [No] me I am against mixing. They learn nothing I have seen it myself, no if they want these children to be mixed with others so that discrimination is thrown out they better take a teacher and give... for training so that we know how to handle those learners” (NAD ECE TR).*

Another one added:

*They should be separated because it will be it will be... for instance, if a child has got special need and the other is just okey, there becomes a time whereby if it's you the teacher maybe he has gone out they will be able to say things that they don't want and get home and when they get home to explain and that's how they will hate school because of bullying. So, if they more just separate them that will be great (MSKa ECE TR).*

Further, a female teacher advised:

*“I think it should be small number may be three; they need to have their own class that is the best. They don't learn anything in a mixed class because they are difficult to handle” (CHIS ECE TR).*

On the other hand, those that had positive attitude towards inclusion felt that every inclusive ECE class required more than one teacher for effective provision of the inclusive education. By this they meant that attention and classroom management would be enhanced especially when it came to learners with special needs who needed an extra attention. Others advocated for special class to uplift the welfare of the learners with special education needs in an inclusive class. The verbatim below substantiates this:

*“I believe an ECE; already an ECE must be with 3-4 teachers in class, a maid, a caretaker, a helper and a teacher. So, I believe for an inclusive class the need to have more teachers is higher. If we can have four even if we can have physically challenged individuals... we can do... we can do wonders” (Gon ECE TR).*

Another teacher added:

*Day to day thoughts maybe a major thing for learners' progress because these learners have got different levels of understanding. Aaah, I have said so because each and every day you face a different challenge. It is better when you are two*

*than when you are one. So, each and every day has got its own challenges and it is up to the teacher to overcome them (Knj ECE TR).*

#### **4.6.7 ‘Need for Motivation’**

The need for motivation was also a critical factor perceived to have a bearing on inclusive teaching efficacy. Teachers felt that teaching inclusive early childhood learners was quite hectic and sometimes frustrating. In this regard, they felt the need for constant support through motivation. Motivation was expressed in two ways that is through intrinsic sources and external sources. Intrinsic sources emerged as important drivers of teaching efficacy. These sources were expressed in a variety of ways which included personal love for children, teacher’s religious faith and being a parent to a child with special needs. Personal love for children meant inner intense feeling of the well-being of the child to enable them acquire relevant knowledge and skills. Teacher’s religious faith meant the experiences the teacher has had in interacting with the children in a religious setting such as being a Sunday school teacher. Lastly being a parent to a child with special needs was expressed by teachers who were living with a child or relative with special needs.

#### **4.6.8 External factors**

What emerged under external factors as drivers of inclusive teaching efficacy included, lack of inclusive materials and locus of controls. By lack of materials meant absence of useful materials for an inclusive ECE class such as prescribed books and braille. Locus of control was also critical theme. Teachers felt that they had little control over their failures to handle an inclusive ECE class because the implementer (government) did not prepare them for inclusive education. They believe that external factors, such as lack of prior exposure to inclusive practices, largely determine their outcomes. Some chose to leave the learners with special needs unattended to because they felt they did not have what it takes to handle such learners. Indeed, ECE teachers exhibited feelings of helplessness and reduced self-efficacy as reflected in the following verbatim:

*“Like in my case the special education...I mean inclusive education found me already teaching and you know what it means. I don’t understand a lot of issues about the special children. So, the government would have considered us for re-training with their sponsorship, not to sponsor ourselves”. (Mang ECE TR).*

Another one said:

*“To be frank, there are no books for inclusive, even if you may want to learn something where do you check especially if you have this small phone you can't google” (St Beto ECE TR).*

It was noted;

*My comment can be that it is a very challenging thing, you find that those learners... I can help those learners by researching more may be on sign language. For now, I can't teach that learner because I don't have skills that it takes to teach that learner but if I'm given an opportunity, we can learn to help that child. To me I can just feel good because government promotes the same inclusive education. Even us I feel we have to learn something other than the government leaving us completely having nothing about it and expect us to deliver. If I can find someone that can teach me sign language that can be a good thing (MPez ECE TR).*

## **B. Quantitative Results Analysis**

The quantitative data necessary to support this study was obtained by administering a questionnaire to a sample of 133 in-service teachers in inclusive early childhood schools located in Lusaka, Copperbelt, and Eastern provinces of Zambia. The purpose of this collection was to examine the various agents of teachers' inclusive teaching-efficacy in early childhood education.

In order to determine the personal factors that contribute in shaping participants' teacher self-efficacy scores in this study, a simple linear regression test was used. The 9 variables, namely, sex of respondents, age of respondents, category of training, level of education, area of specialization, nature of service, length in service, teachers' motivation to teach ECE class as well as teachers' understanding of ECE inclusive education were used in the regression equation. A significant model emerged,  $F(2,130) = 2.265$ ,  $p = .022$ , which accounted for 14% ( $R^2$ ) of the variance in participants' teacher efficacy scores. It was found that only teachers' understanding of ECE inclusive education ( $\beta = -.028$ ,  $p = .002$ ) and teachers' motivation ( $\beta = .018$ ,  $p = .017$ ) significantly explained participants' teacher efficacy score. The outcome of this

study suggests teachers' motivation, as well as understanding of ECE inclusive education improves, their overall teaching efficacy to teach in inclusive classrooms.

### Model Summary

Model	R	Adjusted R Square	Std. Error of the Estimate	Change Statistics		
				R Square Change	F Change	Sig. F Change
1	.372 <sup>a</sup>	.138	5.65672	.138	2.160	.029

a. Predictors: (Constant), Teachers' Understanding of ECE Inclusive Education, Level of Education, Nature of Service, Sex of Respondents, Category of training, Teachers' Motivation to Teach ECE Class, Area of Specialization, Age of respondents, Length in Service

### ANOVA<sup>a</sup>

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	621.927	9	69.103	2.160	.029 <sup>b</sup>
	Residual	3871.813	121	31.998		
	Total	4493.740	130			

a. Dependent Variable: Teachers' Self-efficacy Level

b. Predictors: (Constant), Teachers' Understanding of ECE Inclusive Education, Level of Education, Nature of Service, Sex of Respondents, Category of training, Teachers' Motivation to Teach ECE Class, Area of Specialization, Age of respondents, Length in Service

### F ratios:

For immediate recognition, the omnibus test of the main effect of sentence format was significant,  $F(2, 177) = 6.30, p = .002, \text{est } \omega^2 = .07$ .

### t values:

The one-degree-of-freedom contrast of primary interest was significant at the specified  $p < .05$  level,  $t(177) = 3.51, p < .001, d = 0.65, 95\% \text{ CI } [0.35, 0.95]$ .

### Hierarchical and other sequential regression statistics:

High school GPA predicted college mathematics performance,  $R^2 = .12, F(1,$

148) = 20.18,  $p < .001$ , 95% CI [.02, .22].

		<b>Coefficients<sup>a</sup></b>				
		Unstandardized		Standardized		
		Coefficients		Coefficients		
Model		B	Std. Error	Beta	t	Sig.
1	(Constant)	17.751	6.938		2.559	.012
	Sex of Respondents	.723	1.505	.042	.481	.632
	Age of respondents	-.149	.368	-.040	-.406	.686
	Category of training	4.499	2.327	.173	1.934	.055
	Level of Education	-.350	.851	-.036	-.412	.681
	Area of Specialization	-.135	1.004	-.012	-.135	.893
	Nature of Service	.555	1.060	.048	.524	.601
	Length in Service	.509	.400	.128	1.273	.206
	Teachers' Motivation to Teach ECE Class	.103	.087	.106	1.188	.237
	Teachers' Understanding of ECE Inclusive Education	-.376	.102	-.315	-3.674	.000

a. Dependent Variable: Teachers' Self-efficacy Level

#### **4.7 Effect of ECE Teachers' Understanding of Inclusive education on their efficacy**

The teachers' understanding or knowledge of inclusive education in Zambia was validated before it was tested against their self-efficacy, yielding the results ( $M = 23.98$ ,  $MD = 23.00$ ,  $SD = 4.96$ ). The degrees of understanding of the practice were then calculated, as shown in Table 7, which shows that 21 respondents had a low understanding of inclusive early childhood education practice, 107 respondents had an average level of understanding, and 5 respondents had a good understanding of their practice.

**Table 7: Teachers' Levels of Understanding Inclusive ECE**

		Sex of Respondents		Total
		Male	Female	
Teachers' Level of Understanding Inclusive ECE	Average	14	93	107
	High	0	5	5
	Low	4	17	21
Total		18	115	133

These observations were also subjected to the statistical test in order to find out whether they reflected the actual picture of the outcome of the test. The Chi-Square test was used resulted in  $\chi^2(2, N = 133) = 135.759, p < .050$ , to prove a significant association between the expected and observed results pertaining to the teachers' levels of Understanding Inclusive ECE in that regard.

Thereafter, the Related-Samples Wilcoxon Signed Rank Test was used to prove the existence of significant effect of the teachers' understanding of ECE inclusive education and their self-efficacy at  $p < .001$ . This entails that the general teachers' self-efficacy depended on their general understanding of and knowledge in the inclusive early childhood education delivery.

However, in terms of the various levels of understanding, considered to be low average and High, the Independent-Samples Kruskal-Wallis Test, which was run, could not prove the effect of these levels of understanding on the level of teacher's self-efficacy, at  $p = .077$ , as shown in table 8

**Table 8: The effect of Teachers' Level of Understanding Inclusive ECE on their Self-efficacy Level**

	Null Hypothesis	Test	Sig.	Decision
1	The distribution of Teachers' Self-efficacy Level is the same across categories of Teachers' Level of Understanding Inclusive ECE.	Independent-Samples Kruskal-Wallis Test	.077	Retain the null hypothesis.

**Asymptotic significances are displayed. The significance level is .050.**

Additionally, the positive effect of Teachers' Understanding of ECE Inclusive Education of their Self-efficacy Level was proven with  $t(2, 132) = -2.041, \rho = .043$ , at  $\alpha = .050$  meaning that the better understanding of the ECE inclusive education by teachers, translates into their higher self-efficacy in the practice.

Not only that, the Independent-Samples Mann-Whitney U Test rejected the teacher's gender as a factor of their self-efficacy at  $p = .587$ , and their training at  $p = .188$ .

Nonetheless, Related-Samples Wilcoxon Signed Rank Test proved that the teachers' age influenced their self-efficacy supported by ANOVA test with  $F(2, 132) = .518, \rho = .473$ , to isolate age from the possible factors of teachers' self-efficacy in inclusive Early childhood education delivery.

Also, Related-Samples Wilcoxon Signed Rank Test affirmed the length of service as a factor of teacher's self-efficacy with  $p < .001$ . However, the Independent-Samples Kruskal-Wallis Test rejected the Area of Specialization, Level of Education and Category of training, respectively at  $p = .991, p = .242$  and  $p = .188$

The Independent-Samples Kruskal-Wallis Test was used to retain the null hypothesis that the teachers' level of education exerted no significant influence of their self-efficacy level at  $p = .242$

#### 4.8 Effects of the Teachers' Sources of inclusive teaching efficacy on their self-efficacy

This study sought to verify the null hypothesis ( $H_0$ ) stating that *“There is no significant effect of Sources of inclusive teaching efficacy on the teachers' efficacy in the inclusive Early childhood Education”*

Effect of inclusive ECE Teacher motivation on their self-efficacy in the inclusive early childhood Education

At first Shapiro-Wilk normality test was run to prove the data to be normally distributed with  $p = .190$ . Thereafter, the study verified the null hypothesis posing that *“There is no significant relationship between Teachers' motivation and their self-efficacy in the inclusive Early childhood Education”*. To that effect, a positive correlation or  $r(131) = +.201, p = .020$ , at  $\alpha = .050$  was found between teachers' motivation and their self-efficacy in inclusive ECE. This means the higher their motivation to teach ECE class, the more their self-efficacy in the practice. This relationship was also confirmed with the Related-Samples Wilcoxon Signed Rank Test, which proved a significant effect of teacher's motivation on their efficacy in the inclusive Early childhood Education, with  $p < .001$ , as depicted in Table 9.

**Table 9: Test for Effect of Teachers' Motivation to Teach ECE Class on their Self-efficacy Level**

	Null Hypothesis	Test	Sig.	Decision
1	The median of differences between Teachers' Self-efficacy Level and Teachers' Motivation to Teach ECE Class equals 0.	Related-Samples Wilcoxon Signed Rank Test	.000	Reject the null hypothesis.

Asymptotic significances are displayed. The significance level is .050.

#### 4.9 Types of Disabilities

This study went further to investigate the impact of the type of disabilities on the teachers' inclusive self-efficacy. To do that, the question seeking to find out the type of disabilities which were common in schools was posed and the obtained results revealed that the most dominating was Gifted Children (8.18 mean rank), followed by deaf (7.82), while the least frequent were Specific Learning Difficulties (5.00) and totally blind (4.39), as presented in table 10.

**Table 10: Types of Disabilities Common in Sampled Inclusive Schools**

	N	Sum	Mean	Std. Deviation	Mean Rank
Gifted Children	133	493	3.71	.694	8.18
Deaf	132	474	3.59	.819	7.82
Autism	133	457	3.44	.801	7.28
Moderately Mentally Retarded	133	450	3.38	.935	7.20
Physically Impaired	133	445	3.35	.962	7.09
Mild Mentally Retarded	132	441	3.34	.881	6.97
Hard Hearing	133	415	3.12	1.023	6.35
Partially Sighted	133	414	3.11	1.049	6.35
Attention Deficit Hyperactive Disorder	132	391	2.96	1.135	5.97
Communication Disorder	132	378	2.86	1.032	5.39
Specific Learning Difficulties	132	356	2.70	1.055	5.00
Totally Blind	133	333	2.50	1.091	4.39
Valid N (listwise)	130				

These observations were also subjected to the statistical test in order to find out whether they reflected the actual picture of the outcome of the test. The Chi-Square test was used resulted in  $\chi^2(2, N = 130) = 231.931, p < .001$ , to prove a significant association between the expected and observed results pertaining to the types of disability in inclusive ECE under our investigation. Furthermore, One-Way Analysis of Variance (ANOVA) test with  $F(2, 129) = .729, p = .721$ , was used to prove a significant effect of the variable type of disability on the teacher's inclusive self-efficacy in Early Childhood Education in the Zambian schools.

#### **4.10 Other factors of teachers' Inclusive Self-efficacy**

This study further endeavoured to verify the effects of individual teachers on their level of self-efficacy. To do that the Independent-Samples Mann-Whitney U Test, was run, which rejected the teacher's gender as a factor of their self-efficacy at  $p = .587$ . The same applied for the teachers' training at  $p = .188$ . Furthermore, the Independent-Samples Kruskal-Wallis Test rejected the Area of Specialization, Level of Education and Category of training, respectively at  $p = .991$ ,  $p = .242$  and  $p = .188$ .

Nevertheless, some factors were found to significantly affect the teachers' self-efficacy. In that regard, the one-way analysis of variance (ANOVA) test with  $F(2, 132) = .518$ ,  $p = .473$ , was used to prove the age as a possible factor of teachers' self-efficacy in inclusive Early childhood education delivery. Also, Related-Samples Wilcoxon Signed Rank Test affirmed the length of service as a factor of teacher's self-efficacy with  $p < .001$ .

#### **4.11 Summary**

This chapter presented the findings and the fact from data which were collected through exploratory sequential process. The data pertaining to Teachers' Self-efficacy in the inclusive Early childhood Education, proved the Chi-Square test  $\chi^2(2, N = 133) = 77.699$ ,  $p < .050$  that, teachers' levels of self-efficacy in sampled schools was significantly high.

Teachers' understanding of Inclusive Early Childhood Education was also tested, proving their adequately significant understanding of the main features of ECE class, as well as the teaching and learning process in inclusive classroom in general. However, the findings that lack of clear-cut knowledge on what is involved in inclusive ECE classes leading to their being hesitant in effectively handling inclusive early childhood learners, especially that the concept of inclusive education was basically understood in terms of disability. Teachers displayed limited understanding of what clearly constitutes an inclusive ECE class. Creating an inclusive ECE class involves designing an environment that fosters learning, social interaction, and emotional development for every child. Much of their expression was biased to an ordinary ECE class and this was attributed to inadequate knowledge for necessary features of an inclusive class. In terms of teaching and learning process, the findings showed that teachers planned to teach an inclusive class without considering the diversity of their learners. Responses from majority participants show that many teachers have little knowledge on the teaching and learning process in an inclusive ECE education.

Sources of inclusive teaching efficacy (ITE) in early childhood schools among teachers were revealed through Interpretive Phenomenological analysis, to include the learning environment, Pre-service training, and in-service training. Personal Experience with reference to personal professional development where they got involved in research in order to understand how to handle learners with special education needs. It can be said that most agreement was generated for the statement stating 'The child/relative in our family with disability', with 10.44 mean rank among the participants' sources of inclusive teaching efficacy. Secondly, there was a high agreement that 'Need for full training in special education', ranked 9.98 among the overall responses. On the other hand, the least agreement with mean rank of 5.11 was generated for the statement stating 'Love for Children'. These observations were proven with the Chi-Square test  $\chi^2(2, N = 126) = 249.227, p < .001$ , to significantly represent the actual sources of teachers' Inclusive self-efficacy ECE in that regard.

The study also sought to establish the factors affecting the inclusive teaching efficacy among early childhood teachers. These were revealed to include the number of learners with special education needs, unfamiliar with IE policy content, mentorship, stigma and discrimination as well as self-esteem were key aspects that emerged from the analysis. Moreover, A significant linear regression model emerged,  $F(2,130) = 2.265, p = .022$ , which accounted for 14% ( $R^2$ ) of the variance in participants' teacher efficacy scores. This proved that only as teachers' understanding of ECE inclusive education ( $\beta = -.028, p = .002$ ) and teachers' motivation ( $\beta = .018, p = .017$ ) could significantly impact their overall teaching efficacy to teach in inclusive classrooms. Additionally, the positive effect of Teachers' Understanding of ECE Inclusive Education of their Self-efficacy Level was proven with  $t(2, 132) = -2.041, \rho = .043$ , at  $\alpha = .050$  meaning that the better understanding of the ECE inclusive education by teachers, translates into their higher self-efficacy in the practice.

This study further endeavoured to verify the effects of individual teachers on their level of self-efficacy. To do that the Independent-Samples Mann-Whitney U Test, was run, which rejected the teacher's gender as a factor of their self-efficacy at  $p = .587$ . The same applied for the teachers' training at  $p = .188$ . Furthermore, the Independent-Samples Kruskal-Wallis Test rejected the Area of Specialization, Level of Education and Category of training, respectively at  $p = .991, p = .242$  and  $p = .188$ . Nevertheless, some factors were found to significantly affect the teachers' self-efficacy. In that regard, the one-way analysis of variance (ANOVA) test with  $F(2, 132) = .518, \rho = .473$ , was used to prove the age as possible

factors of teachers' self-efficacy in inclusive early childhood education delivery. Also, Related-Samples Wilcoxon Signed Rank Test affirmed the length of service as a factor of teacher's self-efficacy with  $p < .001$ . Not only that, a positive correlation or  $r(131) = +.201, p = .020$ , at  $\alpha = .050$  was found between teachers' motivation and their self-efficacy in inclusive ECE. Furthermore, ANOVA) test with  $F(2, 129) = .729, \rho = .721$ , proved a significant effect of the variable type of disability on the teachers' inclusive self-efficacy in Early Childhood Education in the Zambian schools.

## **CHAPTER FIVE: DISCUSSION OF FINDINGS**

### **5.1 Overview**

This chapter is devoted to the discussion and interpretation of the research findings, which were presented in chapter 4. The discussion is in line with the of findings and results, with most effort focused on answering the research objectives and verifying the four research hypotheses, namely (i) to investigate ECE teachers' level of understanding of inclusive education in Zambia (ii) to establish sources of inclusive teaching efficacy among teachers handling learners in early childhood centres in Zambia (iii) to determine the level of teaching-efficacy among inclusive early childhood teachers in Zambia (iv) to ascertain factors affecting inclusive teaching efficacy among early teachers in Zambia.

Furthermore, the interpretation of results is done in light of the literature, the conceptual framework as well as the guiding theory, namely the social cognitive theory. Furthermore, reference is made to the research methodology in an effort to bridge the gap identified in the knowledge and to provide a solution to the research problem, as stated in the introductory part of this thesis.

### **5.2 Knowledge of Inclusive ECE teachers**

Teachers' understanding of Inclusive Education means teachers' knowledge on the concepts, terminologies, application and characteristics of an ECE inclusive class. The interview findings of this study suggested that many teachers had little or no clear understanding of what an ECE inclusive education was all about. It was indicated in the findings that lack of clear-cut knowledge on what is involved in inclusive ECE classes lead to their being hesitant in effectively handling inclusive early childhood learners. Further, the concept of inclusive education was understood in terms of disability. This meant that the ECE teachers' understanding of inclusive education leaves a lot to be desired. This is because their understanding is based only on learners with disability.

One aspect of teacher knowledge involved scanty knowledge regarding process of teaching and learning. It was clear from the qualitative analysis that most teachers admitted to not knowing what changes take place when a class is regarded as inclusive. This showed that the level of knowledge among teachers of inclusive early childhood learners was still scanty in ensuring that the actual inclusive practices are implemented.

It is clear from the qualitative findings that ECE teachers had limited understanding of what inclusive education was all about as they limited it learners with disability in their definition. They also had serious language barrier with regards to communicating with hearing impaired learners. These findings are in line with the finding of Muzata (2013b), who revealed that there was lack of communication between the teachers and learners with HI resulting from lack of knowledge of sign language. However, this study is different from the aforesaid study in that the ECE teachers believed that they could not function as required because such a class was supposed to be handled by teachers with full training in special education. Indeed, sign language emerged just as an example of their challenges. The belief that they were insufficiently trained for inclusive ECE learners was perceived to have a negative effective on their capabilities to effectively handle an inclusive class. The current study focus was whether the ECE teachers believe in themselves to manage inclusive ECE learners. Understanding their beliefs with regards to the knowledge they possessed on inclusive education provision was significant as this feeds into their self-efficacy. This is because teacher efficacy, which refers to the teachers' beliefs in their capabilities, has an impact on the outcomes. This is in line with the social cognitive theory upon which this study is anchored which argues that individual beliefs are not merely brain activities but determines the outcome of the given task (Badura, 1997).

Nonetheless, statistically teachers' level of understanding of inclusive early childhood education was revealed to be overwhelmingly high, with 112 participants demonstrating an advanced level of understanding in this area. This implies that a better understanding of inclusive education in early childhood education (ECE) by teachers translates into higher self-efficacy in their practice. Fraser and Lancaster (2012) concurred with this by arguing that if teachers and administrators would recognize and appreciate the importance of early childhood inclusive education, it would potentially eliminate superficial participation in the sector. This means that teachers with a higher understanding of inclusive early childhood education and who are also self-efficacious are likely to be highly motivated to handle children in need of special education in an inclusive classroom.

In the current study, teachers felt that understanding learners with special education needs was hectic and it was revealed that they lacked relevant communicative skills such as sign language which made it difficult for them to interact with learners who required such skills. This implies that some teachers, though ready to adequately handle inclusive ECE class, may be hindered

by lack of required skills. The issue of relevant skills was earlier raised by a study by Guo, Dynia, Pelatti and Justice, (2013) who demonstrated the relationship between teachers' self-efficacy and the second-fourth grade reading skills to be highly significant. However, Fraser and Lancaster (2012) argued that, as individuals' behaviour can often be better predicted by the beliefs they hold about their capabilities, rather than by what they are actually capable of accomplishing. Nonetheless, content delivery, alone may not justify the teacher's understanding of the actual settings of the early childhood education. It is also necessary to adequately grasp the features of ECE Class. In this regard, the current study noticed a limited understanding of what clearly constitutes an inclusive ECE class among teachers. Moreover, much of this expression was biased to an ordinary ECE class and can be attributed to inadequate knowledge for necessary features of an inclusive class.

Understanding teaching and learning process is at the centre for effective teaching and learning. Teaching and learning process meant the ability to prepare and implement the effective lesson delivery. The findings of this study revealed that teachers planned to teach an inclusive class without considering the diversity of their learners. It is vital to note that understanding the teaching process in inclusive ECE include teachers' ability to use different methodologies that bring the best to the learners. Learning processes entails understanding learner capabilities and differences. Responses from the majority of participants show that many teachers have little knowledge on the teaching and learning process in an inclusive ECE class. The major factor for this drawback is that many teachers are not trained in inclusive ECE education.

This implies that despite teacher lesson planning with all the learners in mind, at a certain point, learners with special education needs may end up being disregarded during teaching-learning process. Hence, teacher's full understanding of the entire inclusive early childhood education setup would be treated as a compelling component to their ability to handle such a class. The study also found that lesson planning often did not adequately account for the diverse needs of students in an inclusive ECE class. This suggests that teachers may be unaware of the specific strategies needed to effectively teach in inclusive settings, which can result in learners with special educational needs being overlooked during the teaching-learning process. This issue is consistent with the research by Hammond and Ingalls (2003), who found that teachers often struggle with differentiating instruction to meet the needs of all students, especially in diverse, inclusive classrooms. Moreover, Muijs and Reynolds (2001) suggest that teachers who do not fully understand the needs of their learners often resort to one-size-fits-all approaches, which

fail to meet the needs of students with special education needs.

Indeed, the findings of this study highlight the need for teachers to have a comprehensive understanding of inclusive education, which includes not only knowledge of disability but also a broader understanding of teaching methodologies, communication skills, and differentiated instruction. Despite some teachers' high self-reported knowledge of inclusive education, gaps remain in their ability to implement effective inclusive practices. As Forlin (2010) suggests, professional development, including ongoing training in inclusive pedagogies and collaboration between general and special education teachers, is critical to enhancing teachers' abilities and confidence in managing inclusive classrooms.

### **5.3 Sources of inclusive teaching efficacy (ITE) in early childhood centres among teachers**

This study uncovered some sources of teachers' self-efficacy in inclusive ECE, including, Learning environment and teacher experience, Pre-service training, and in-service training.

#### **5.3.1 Learning environment**

In terms of learning environment, it was discovered that the ECE classroom characteristics and the school support system exerted a certain level of influence on teachers' beliefs in their abilities. In that regard, this study findings show that classroom size was an essential source of inclusive teaching efficacy among ECE teachers. This finding was in tandem with the findings of Alabi et al. (2021) on a Nigerian sample which revealed that learning environments influence the teachers' belief in their capabilities. The possible reason for the similarity could be that, generally, teachers are more likely to participate in policy implementation at the school level when the work environment is stable and supportive in both structure and processes. In this case, the environment involves the people and the space these ECE teachers operate from. However, this finding is an eye-opener to school administrators. The school support system is essential to facilitate a user-friendly and motivating learning environment for teachers and learners. There is a need to provide large classrooms for ECE learners to allow teachers display their teaching aids without unnecessary disturbances.

What was even more interesting was another study by Singogo and Muzata, (2023) which revealed that the environment does not only constitute the classroom in which an ECE teacher operates but the entire interactions such as with the workmates. The aforesaid study finding

is in tandem with the current study findings, however, the current study brought situated finding of the classroom size and whether it was permanently allocated to the ECE learners or on temporal basis. The belief by the ECE teachers that a small and temporally allocated class being used by their ECE learners was stressful was indeed detrimental to their inclusive teaching efficacy. This is clearly indicated in the theory, the social cognitive, on which this study is underpinned that beliefs an individual hold have an impact on their self-efficacy to accomplish a particular task. In this regard, the inclusive ECE teachers' belief with regards size of the classroom in which they operate should not be taken for granted when it comes to implementing inclusive education policy at this foundational level of education. Therefore, it is important to note that there is need for management in the ECE centres to pay extra attention when allocating classroom to ECE learners. It must be noted that the size of such a class matters to the teachers involved in that it must be large enough to accommodate the relevant ECE corners. The disturbance of such ECE class arrangement should as much as possible be avoided to help prevent the perceived negative impact it has on their teaching efficacy.

### **5.3.2 Personal Teacher's Experience**

The findings of this study suggested that ECE teachers relied on their experience to manage inclusive ECE learners. Their experience was with reference to personal professional development where they got involved in research in order to understand how to handle learners with special education needs. This finding aligns with the idea that the most important factor that influences teachers' beliefs about inclusion is their direct experiences with inclusion (Leyser, Zeiger & Romi, 2011). Moreover, the experience with teacher's own child or relative's child with disability proved to be a major driving force to their self-efficacy in inclusive early childhood education. This is similar to the vicarious experience expressed by Bandura as cited by Ramachaudran (1998) as one of the major sources of self-belief leading to higher self-efficacy.

Nonetheless, personal love for children, which is an intrinsic source of inclusive teaching efficacy, weighed less in this study finding, though some teachers felt they would put in the best in facilitating teaching and learning in the inclusive ECE because of the intense feeling to guide the learners at that foundational level with passion.

### **5.3.3 The in-service training**

The in-service training such as continuing professional development (CPDs) as well as experience gained through their length in service, personal development and interaction with the society at large had a positive impact on the teacher's self-efficacy.

The study showed that ECE teachers believed there is much more to be done to help trainee teachers acquire adequate, relevant knowledge and skills to handle an inclusive ECE class of learners. Similarly, Muzata (2017) argued that the curriculum development process is critical and requires sufficient stakeholder involvement. However, the study mentioned above found that teachers in Zambia were left out of the 2013 curriculum development process, making the implementation process challenging for learners with special education needs. It is essential, therefore, to point out that ECE teacher training institutions beef up their curriculum to prepare teachers for inclusive classes of learners, as this will change their perception and positively affect their inclusive teaching efficacy (ITE). This means that CPDs were one of the major sources of inclusive teaching efficacy for ECE teachers under the in-service orientation which gave them confidence to manage inclusive ECE learners. It is important to note that the previous research findings suggests that as a teachers' level of confidence in teaching learners with disabilities improves, overall teaching efficacy to teach in inclusive classrooms improves (Sokal & Sharma, 2013). However, the current study also revealed that workshops, which are part of CPDs have been arguably too brief to enable an ECE teacher successfully teach a full-fledged inclusive ECE class. Moreover, CPDs were felt to be biased towards special education and not focused on handling an inclusive class. The teachers in-charge of the inclusive ECE class requires relevant knowledge and skills to handle such a class of learners. This means that this teacher is not inclined to knowledge of handling only special education learners and neither is he/she inclined to learners without special education needs but be skilled and knowledgeable for an "inclusive class of learners". It is in this regard that the inclusive education provision comes with the call for inclusive CPDs for the teachers involved in order to achieve its successful implementation. It is therefore significant to argue that inclusive CPD will empower an 'inclusive teacher' to effectively attend to all learners and not biased to learners with special education needs as is usually the case but cater to all learners in an inclusive setting, that is, focus on both special education learners and those without.

Moreover, it is essential that teacher training institutions incorporate more comprehensive modules on inclusive education into their curricula. Training programs should aim to prepare teachers for managing inclusive classrooms, where learners with and without disabilities are taught together. This was also highlighted by Ainscow, Booth, and Dyson (2006), who argued that a broader understanding of inclusive education—one that encompasses all learners—should be embedded in teacher education programs from the outset. The current study suggests that a shift in curriculum focus is necessary to positively impact teachers' self-efficacy in handling inclusive ECE classrooms, as teachers who are well-prepared through inclusive curricula are more likely to perceive themselves as capable of managing inclusive classrooms.

In addition to pre-service training, in-service CPDs have emerged as an essential source of continuous learning and professional growth. Teachers in this study reported that CPDs contributed positively to their self-efficacy in inclusive teaching. However, there were notable challenges. Sokal and Sharma (2013) noted that as teachers' confidence in working with learners with disabilities improves, their overall efficacy in inclusive settings also increases. This resonates with findings in the current study, where teachers who participated in CPDs related to special education showed greater confidence in handling SEN learners, and consequently, their general teaching efficacy improved.

That said, the study also revealed significant gaps in the effectiveness of CPDs for inclusive education. Teachers expressed that CPDs were often too brief, which limited their ability to acquire the necessary skills and knowledge to teach a full-fledged inclusive ECE class. Workshops, while well-intentioned, were often too narrowly focused on special education and did not adequately address the needs of an inclusive classroom. As noted by Kagan and Neuman (2012), effective CPDs should go beyond just special education and extend to building teachers' capacity to address the diverse learning needs of all students in an inclusive setting, including those without special educational needs.

Inclusive education demands a holistic approach to teaching that integrates learners with disabilities with those without, focusing on the diversity of learners in the classroom rather than addressing special education needs in isolation. Teachers involved in inclusive settings must be equipped with knowledge and skills that are relevant to managing an inclusive class of learners. This means that CPDs should not merely focus on teaching students with special educational needs but must also develop teachers' capacity to accommodate all learners in an inclusive environment. This perspective is in line with Fraser and Lancaster (2012), who argue

that teachers' understanding of inclusive education should include both learners with and without SEN to ensure the full participation of all students.

However, some studies present a contrary view to the dominant belief that CPDs should focus on inclusivity for all learners. Allan (2010), for instance, noted that while inclusive CPD is important, the diversity of needs among learners in inclusive settings presents a challenge that can be overwhelming for teachers who feel ill-equipped. In this study, some teachers reported that the generalization of inclusive teaching strategies in CPDs did not sufficiently address the unique and specific needs of learners with disabilities. These findings suggest that while CPDs should aim for inclusivity, they should also provide targeted support for teachers working with SEN learners, as a blanket approach might be too vague to effectively guide teachers' practices. This aligns with the critique of CPDs in the current study, where teachers felt that in-service training was biased towards special education and insufficient for fostering an inclusive approach to teaching.

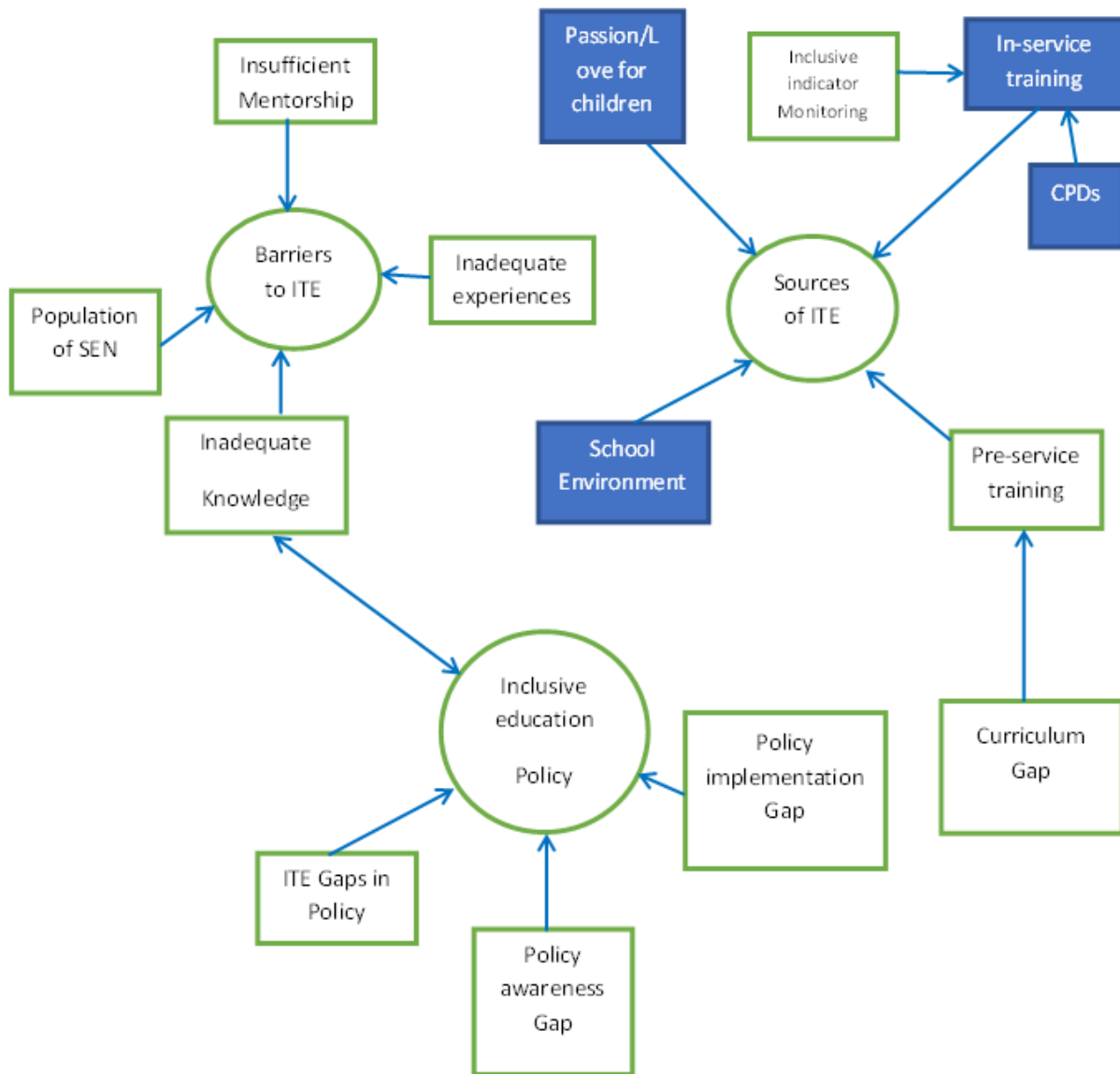
Further, there is an emerging body of literature, such as Smith et al. (2016), which has found that peer support networks and mentoring programs can be effective in supplementing CPDs. Teachers who work in collaborative environments with peer mentors or participate in professional learning communities often demonstrate increased self-efficacy. Such programs allow teachers to share experiences, engage in reflective practice, and learn from one another in real-time. This type of professional support, while less formal than traditional CPDs, can greatly enhance teachers' confidence in working in inclusive settings. Thus, peer-led professional development could be considered a promising alternative or supplement to traditional CPDs for inclusive education.

#### **5.3.4 The pre-service training**

The reliance on academic training in special education came out clearly as one of the major sources of self-efficacy for teachers. However, some participants expressed a need for curriculum adjustment in the ECE teacher training institutions in order to empower preservice teachers with relevant knowledge and skills for an inclusive class of learners. That is, there is need to beef-up the curriculum in order to add more content based on the learners with special education needs such as adding sign language, assessment skills and how to handle learners with special needs in classroom set up. Similar to this finding, is the study by Muzata (2021), who revealed that teachers had relevant knowledge of inclusive education. However, they had

difficulties in understanding the principles of inclusive education, but this study indicated that lack of confidence in their knowledge affected teachers' abilities to handle inclusive ECE learners. Therefore, there is a need for exposure to continuous professional development (CPD) focused on understanding the inclusive teaching and learning process. This finding is supported by Hofman and Kilimo (2014), who argued that most teachers support the concept of inclusion at all levels without the willingness to teach in inclusive classrooms. Most in-service teachers were only exposed to inclusive education policy while in-service, which may lead to the belief and feeling of inadequacy to manage inclusive learners.

Furthermore, the ITE gap was pointed out at the college level. While ECE teachers are trained and monitored, attention is biased toward general classroom management. In that regard, the finding shows that the implementation of the policy needs a multisectoral approach. The college curriculum must be designed to address a typical inclusive class of learners when preparing ECE teachers. The monitoring tool must promote inclusivity at all times. This finding was consistent with other scholars Evashkovsky and Osipova (2023) as well as Kasongole and Muzata (2020), who revealed inadequate teacher training to implement inclusive education. The possible similarity in the results is that teacher preparation is focused mainly on non-inclusive learners. This creates an ITE gap, making it difficult for teachers to act competently in the context of inclusive classes. The CPDs focused on handling inclusive learners promote confidence in teachers who feel inadequately prepared for inclusive learners. The key relationships in the findings, as indicated in the thematic mapping in Figure 2, are that inclusive education policy implementation success is related to relevant policy knowledge and awareness. The IPA revealed that ECE teachers were not knowledgeable enough to handle an inclusive class. The teachers were passionate about managing such a class of learners but believed they had insufficient knowledge of their methodology for an inclusive class.



**Figure 2: Sources of inclusive teaching efficacy among early childhood teachers in Zambia: Thematic map of results**

#### **5.4 The level of teaching-eficacy among inclusive early childhood teachers in Zambia**

The qualitative phase of the study brought interesting findings with regard to ECE teachers’ self-beliefs. Worth noting is that the Social cognitive theory upon which this study is underpinned argues that an individual’s belief has an impact on the outcome of their task. In exploring inclusive teaching efficacy of the ECE teachers, an interview revealed that ECE teachers believed that they had difficulties in implementing the inclusive education policy in their sector. What came out vividly was the belief that they were insufficiently trained in handling learners in an inclusive setting and lacked experience with regards to teaching such learners especially learners with special education needs. It was further indicated in this study

that most ECE teachers lacked confidence to effectively attend to learners in an inclusive class. These findings were in tandem with the findings of Singogo and Muzata (2023) who also revealed in their qualitative study that the ECE teachers felt insignificant to handle inclusive ECE learners due to inadequate exposure to inclusive teaching methods. The aforementioned study findings are similar to the current study finding in that they all focussed on inclusive ECE teachers with qualitative approach. However, the current study further subjected the themes that emerged from the qualitative study to the quantitative phase for validation. It is important to note that the qualitative phase interestingly showed that the ECE teacher had perceived low teaching for inclusive early childhood learners. What is intriguing here is that the results from the second phase proved otherwise. The results showed that 67% of the ECE teachers in the second phase displayed an advanced level of self-efficacy in inclusive Early Childhood education, with an average score of 86 and 3 participants scoring high in self-efficacy. This is a positive indication, particularly because, as supported by Pelatti and Justice (2014), teachers with higher levels of self-efficacy tend to create a more inclusive and welcoming educational environment for their students. Nevertheless, similar to trees shaping a forest, self-efficacy is not independent of other factors that contribute to the smooth functioning of inclusive early childhood education. One of the most significant factors associated with this variable is teachers' beliefs, knowledge, and understanding of inclusive Early Childhood education (Sawyer et al., 2022). From the qualitative findings, the most critical source of inclusive teaching efficacy among ECE teachers was the environment in which they operate. However, the teachers displayed lack of adequate knowledge in implementing inclusive ECE policy. Therefore, it is clear from the existing literature that teaching efficacy is effected by what knowledge teachers hold about inclusive education (Singogo & Muzata, 2023b). Hence, what could be causing the disparity in the findings between the two phases is the nature of the sources of ITE in particular the classroom size. Other researchers found that knowledge and skills of the educators in the inclusive ECE provision outweighed the environment in which such provision was done (Buisse, et al., 2006). In this regard, it is clear that what could be raising the ITE of the ECE teachers as indicated in this study may have a minimal bearing on the much needed sources to build and promote effective inclusive ITE, subsequently succeeding in the implementation of the inclusive education policy.

## **5.5 Factors Affecting inclusive teaching efficacy among early childhood teachers in Zambia**

This was the last objective of this study which aimed at exploring the factors affecting inclusive teaching efficacy among ECE teachers. Interesting factors emerged in the study. The number of learners with special education needs, familiarity with inclusive education policy content, mentorship, stigma and discrimination as well as self-esteem were key aspects that emerged from this study's findings, as factors of teachers' self-efficacy. This aligns with the study by Bandura's social cognitive theory of self-efficacy which views human agency as operating in the context of three-way mutual influence between internal personal factors, behaviour, and the external environment, a view called "triadic reciprocal causation" and distinguishes self-efficacy from related constructs such as self-concept, self-esteem, motivation as well as other control beliefs such as locus of control (Salami, 2011).

### **5.5.1 The Number of learners with SEN**

The study showed that the number of learners with special education needs in an inclusive class was perceived to affect a teacher. This means that the more children with SEN in an inclusive class, the more difficult and stressful it was to handle such a class. This was a great deal in that the teachers indicated that they would leave some learners with SEN unattended as they required individual attention.

The study further revealed in this regard, that teachers were uncomfortable with the increased number of children with SEN in inclusive ECE classes. It was indicated in the finding that one child with SEN was equal to ten learners without special education needs. The ECE teachers felt that it was stressful to handle a large number of learners with special education needs in their inclusive ECE classroom. By large number, they meant having more than three children with SEN in their class. This finding was in tandem with the findings of Robson and Norwich (2010) in England who found that having a higher number of students with SEN in inclusive classrooms was associated with increased teacher stress levels. Teachers reported feeling more overwhelmed and stressed when dealing with a larger proportion of students with diverse needs. It was actually critical in the current study in that teachers believed that the ECE learners on their own without SEN children were simply behaving like children with SEN. This belief became complex with the increased number of learners with SEN in their inclusive ECE classrooms. While the need to promote inclusive education provision remains unquestionable,

the number of learners with SEN in a given inclusive ECE class requires the attention of the stakeholders. It was perceived to have a negative effect on the teachers who are directly involved in facilitating the teaching and learning process in these classes. Other scholars had previously found that increasing numbers of students with SEN led to changes in teacher practices, lower job satisfaction, and increased stress levels (Hammond & Ingalls, 2003). What is critical in this study is that teachers are dealing with learners at the foundational level of education. This implies that addressing the issues of numbers in inclusive classes would boost teachers' belief in their own performance in handling inclusive classroom. Indeed, the social cognitive theory upon which this study is anchored postulates that these beliefs may lead to poor implementation of inclusive education in policy if left unattended.

The teacher-learner ratio becomes more critical when it comes to caretaking, as far as this study is concerned. It was revealed in this regard, that there was a critical shortage of caretakers in inclusive ECE classes. This meant that teachers had to play both the role of teacher and the role of a caretaker, which made them feel overwhelmed.

### **5.5.2 Unfamiliarity with Inclusive Education Policy Content**

It was also disclosed that teachers felt they lacked mentorship in the implementation of the IE policy. Lack of mentorship meant that teachers felt that they have not had access to an experienced educator or mentor who could guide them through the process of effectively implementing inclusive education practices. Mentorship involves receiving advice, feedback, and practical strategies from someone who has expertise in the field. Scholars have argued that in order to succeed in the implementation of a particular policy, state holder preparation plays a critical role (Kubacka & D'Addio, 2020). The introduction of inclusive education policy document is not exception in this case. What came out of this study was that the key stakeholders, the teachers who are directly involved in implementing the policy at foundation level of education, were unfamiliar with the content of the policy document. Similar to this finding is the study by Muzata (2017) which revealed that the key stakeholders, the teachers of learners with special education needs were not included in the process of curriculum development process. Indeed, the resultant effect of the aforementioned study was failure by the teachers to effectively adapt the curriculum in such a way that it would accommodate learners with special education needs. The two studies are similar in that their focus is a teacher readiness to handle learners, however the current study's attention was specifically inclusive early childhood teachers' efficacy. This implies that the inclusive education policy which

guides the provision of inclusive education had not been exposed to the key stakeholders, the teachers. This revelation is critical in that being unfamiliar with the policy one is engaged to implement leaves a lot to be desired. Exposing inclusive ECE teachers to the content in the policy document will empower them with relevant skills that are instrumental for their effective performance in their ECE classes.

### **5.5.3 Stigma and discrimination**

Stigma and discrimination also affected inclusive teaching efficacy among the inclusive ECE teachers. The study revealed that inclusive ECE teachers felt stereotyped by being addressed as such, also insinuating their being referred to as players with children or lower-level teachers, or career for dull people. This affected some of the teachers who decided to upgrade to primary school level teaching as a way of avoiding stigma and discrimination. This made them feel discriminated and unsupported in the execution of their duties. Moreover, they experienced stigma where they were being referred to as players with children.

This finding is similar to the finding of Poteat & Scheer, (2016) who revealed that negative attitudes by workmates threaten teachers' professional identity and sense of belonging within the educational community. Teachers who feel stigmatized may question their career choice or feel disconnected from their colleagues, which can diminish their confidence in their teaching abilities. While the two findings were similar, the study revealed the stigma experienced by teacher in handling ECE learners motivated some of the teachers to upgrade from ECE level to primary or secondary school teaching. This implies that teaching ECE learners requires stakeholder involvement to provide support through physical motivation in form of awards and emotional support. It was in this regard that some ECE teachers advocated for a standalone ECE school to avoid issues of stigmatization. This revelation should therefore not be taken for granted because it is clear that some ECE teacher feel the best way to handle issues of stigma and discrimination in their sector is to change the career pathway by upgrading to a different level affecting the ECE. The school managers have a task to sensitize their subordinates to coexist in order to minimize or completely eliminate those vices. Indeed, stigmatizing attitudes and discriminatory practices within the work environment can create a hostile or unsupportive atmosphere for teachers. This negative environment can diminish teachers' sense of efficacy and motivation to engage in inclusive teaching practices, ultimately affecting the quality of education provided to children.

#### **5.5.4 Self-esteem and Personal factors**

As part of their self-esteem, locus of control of teachers was also critical in this study. The study observed that teachers felt that they had little control over their failures to handle an inclusive ECE class as they were not adequately prepared for inclusive education during their training. They believe that external factors, such as lack of prior exposure to inclusive practices, largely determine their outcomes, which affect their self-efficacy or attendance to learners with special educational needs.

Not only that, but, with regard to the social cognitive theory of self-efficacy, one of the main personal factors of teachers' self-efficacy is their understanding of the system they operate in. In that regard, the impact of teachers' understanding of inclusive ECE on their self-efficacy was found to be statistically significant. This implies that teachers' overall self-efficacy depends on and can be predicted by their general understanding and knowledge of inclusive early childhood education practices. This finding aligns with the observations of Sawyer et al. (2022), who noted that enhancing teachers' educational knowledge has the potential to elevate their level of self-efficacy. However, the scenario differs when considering various specific levels of understanding. Nonetheless, this does not have a detrimental effect on the situation. It simply suggests that whether a teacher's understanding of inclusive early childhood education is low, average, or high, it does not impact their self-efficacy significantly; what matters is the presence of this type of knowledge.

Also, the current study sought to delve deeper into exploring other personal factors that can be considered as significant determinants of teachers' self-efficacy. On one hand, the study found that teachers' age and experience have a proven impact on their self-efficacy. This finding aligns with the research conducted by Leyser, Zeiger, and Romi (2011), who identified teachers' experience with inclusion as the most influential factor shaping their understanding of inclusive education. However, Schwab and Alnahdi (2020) could not establish a significant effect of teachers' experience on their self-efficacy. Instead, they highlighted teachers' attitudes as the ultimate factor affecting their self-efficacy.

On the other hand, the study conducted by Hofman and Kilimo (2014) concluded that teachers' qualifications and attitudes hinder effective implementation of early childhood inclusive education. Conversely, this study does not consider factors such as teachers' gender, area of specialization, level of education, and training category as determinants of their self-efficacy

level. This implies that regardless of gender, area of specialization, level of education, or training category (primary, secondary, or early childhood education), teachers' confidence in their ability to handle an inclusive classroom remains unchanged as long as they have acquired sufficient knowledge and understanding in this area. Similarly, a study conducted by Schwab and Alnahdi (2020) in Austria revealed that teachers had high self-perceptions in their use of inclusive teaching practices. However, they also found that primary school teachers tended to utilize more inclusive teaching practices compared to their secondary school counterparts.

Additionally, teachers in this study bemoaned the lack of a necessary positive feedback from key stakeholders for the extra commitment in their duties. Feedback from students, parents, colleagues, and administrators can shape teachers' perceptions of their effectiveness. Positive feedback and recognition for implementing successful inclusive strategies can reinforce teachers' belief in their inclusive teaching efficacy.

### **5.5.5 Need for Motivation**

The need for motivation was also a critical factor perceived to have a bearing on inclusive teaching efficacy. Teachers felt that teaching inclusive early childhood learners was quite hectic and sometimes frustrating. In this regard, they felt the need for constant support through motivation. Motivation was expressed in two ways that is through intrinsic sources and external sources. Intrinsic sources emerged as important drivers of teaching efficacy. These sources were expressed in a variety of ways which included personal love for children, teacher's religious faith and being a parent to a child with special needs. The personal love for children meant teacher's inner intense feelings of the well-being of these early childhood learners to enable them acquire relevant knowledge and skills. Teacher's religious faith meant the experiences the teacher has had in interacting with the children in a religious setting such as being a Sunday school teacher. Lastly being a parent to a child with special needs was expressed by teachers who were living with a child or relative with special needs.

This fact was confirmed by a positive correlation ( $r = +0.201$ ) between teachers' motivation and their self-efficacy in inclusive ECE. Coincidentally, Bahufite, Akakandelwa, and Kasonde-Ng'andu (2022) also found that motivation is related to metacognitive knowledge, which is a factor of knowledge and understanding. This means that motivation enhances knowledge, which in turn boosts self-efficacy. In other words, the higher their motivation to teach inclusive ECE classes the greater their inclusive teaching-efficacy in practice. However, this view differs

from Hofman and Kilimo's (2014) findings, which suggest that early childhood special education teachers who perceive themselves as less capable are more motivated to improve their skills and knowledge compared to teachers with a high level of self-efficacy.

The findings of this study proved a negative attitude by teachers towards inclusive ECE, in the sense that they felt not ready to handle learners with special education needs. This lack of readiness was attributed to insufficient knowledge in the field of inclusive education. They believed that the best way to help learners with special education needs was to separate them from the main stream. However, a positive attitude was also expressed towards inclusion, as proven by the feeling that every inclusive ECE class required more than one teacher for effective provision of the inclusive education. By this they meant that attention and classroom management would be enhanced especially when it came to learners with special needs who needed an extra attention. Nevertheless, this attitude was not statistically proven to be significantly positive or negative.

The findings of this study indicate that teachers' understanding, along with associated variables like motivation and experience, can be considered the strongest predictors of their self-efficacy in inclusive early childhood education. However, previous research has introduced the notion of teachers' attitude towards inclusive education as a significant determinant of self-efficacy. Although beyond the scope of this study, it is acknowledged that attitude is considered part of teachers' understanding of the practice. Nonetheless, further exploration of this topic, particularly in the local context, could provide valuable insights.

## **5.6 Summary**

This chapter was devoted to the discussion and interpretation of the research findings, which were presented in the preceding chapter of this thesis. With regards to the ECE teachers' beliefs and level of teaching-efficacy among inclusive early childhood teachers in Zambia, the study found that ECE teachers believed that they had difficulties in implementing the inclusive education policy in their sector. It was, however, revealed quantitatively that 67% of respondents in this study displayed an advanced level of self-efficacy in inclusive Early Childhood education, a positive indication, that they could create a more inclusive and welcoming educational environment for their learners.

Nonetheless, teachers' level of understanding of inclusive early childhood education was revealed to be statistically overwhelmingly high, despite the expressed lack of clear-cut

knowledge on what is involved in inclusive ECE classes as well as being narrowed to only learners with disability. This implies that a better understanding of inclusive education in early childhood education (ECE) by teachers translates into higher self-efficacy in their practice.

This study uncovered some sources of teachers' self-efficacy in inclusive ECE, including, Learning environment and teacher's experience, pre-service training, and in-service training. This study showed that classroom size was an essential source of inclusive teaching efficacy among ECE teachers. The belief that, having a large permanently allocated class for their inclusive ECE learners would boost their morale was vividly critical issue of concern among ECE teachers. There is a need to provide large classrooms for ECE learners to allow teachers to display their teaching aids without unnecessary disturbances. The findings of this study suggested that ECE teachers relied on their experience to manage inclusive ECE learners, similar to the vicarious experience expressed by Bandura as one of the major sources of self-belief leading to higher self-efficacy, in line with this study's guiding theory. It arose from this study that the in-service training such as continuing professional development (CPDs) as well as experience gained through their length in service, personal development and interaction with the society at large had a positive impact on the teacher's self-efficacy. It is essential, therefore, to point out that ECE teacher training institutions beef up their curriculum to prepare teachers for inclusive classes of learners, as this would change their perception and positively affect their inclusive teaching efficacy (ITE). That means, CPDs were one of the major sources of inclusive teaching efficacy for ECE teachers under the in-service orientation which gave them confidence to manage inclusive ECE learners. However, this study also revealed that workshops, which are part of CPDS have been arguably too brief to enable an ECE teacher successfully teach a full-fledged inclusive ECE class. Additionally, the CPDs were perceived biased towards special education and not focused on handling an inclusive education practice. It is in this regard that the call for inclusive CPDs cannot be overstated due to that fact that the inclusive CPDs would not be biased to learners with special education needs as usually the case but cater to all learners in an inclusive education setting.

The number of learners with special education needs, familiarity with inclusive education policy content, mentorship, stigma and discrimination as well self-esteem swas found to be the key factors of teachers' self-efficacy. The study revealed, in that regard, that Inclusive ECE Teachers felt stereotyped by being addressed as such, also insinuating their being referred to as players with children or lower-level teachers, or career for dull people. This affected some

of the teachers who decided to upgrade to primary school level teaching as a way of avoiding stigma and discrimination. Also, as part of their self-esteem, locus of control of teachers was also critical in this study. The study observed that teachers felt that they had little control over their failures to handle an inclusive ECE class as they were not adequately prepared for inclusive education during their training. Not only that, but, teachers' overall self-efficacy depends on and can be predicted by their general understanding and knowledge of inclusive early childhood education practices. Intrinsic sources emerged as important drivers of teaching efficacy. These sources were expressed in a variety of ways which included personal love for children, teacher's religious faith and being a parent to a child with special needs. This fact was confirmed by a positive correlation ( $r = +0.201$ ) between teachers' motivation and their self-efficacy in inclusive ECE. This means that the higher their motivation to teach ECE classes, the greater their self-efficacy in practice. Furthermore, the findings of this study proved a negative attitude by teachers towards inclusive ECE, in the sense that they felt not ready to handle learners with special education needs in an inclusive ECE class. Nevertheless, this attitude was not statistically proven to be significantly positive or negative.

## **CHAPTER SIX: CONCLUSIONS AND RECOMMENDATIONS**

### **6.1 Overview**

The main intent of this chapter is on the conclusions and recommendations of the entire research in light of the research objectives and the findings. In this chapter, the key findings, as well as their implications, are briefly highlighted, in relation to our research hypotheses and objectives and as far as the inclusive early childhood education teachers' self-efficacy is concerned. The chapter ends with some suggestions for change and improvement in line with identified issues and challenges in the education system and their educational and psychological implications, arising from the research findings. All the suggestions are made in form of recommendations addressed to the various educational stakeholders, who might be interested in this study's findings for reference to improve their professional practice.

### **6.2 Conclusions**

The findings of this study confirm Bandura's concept of reciprocal determinism, which posits that the interplay between behaviour, personal variables, and environmental factors yields outcomes. In this context, teachers' understanding of the principles of early childhood inclusive education fosters their confidence and, consequently, their self-efficacy in managing such classrooms. The motivation generated by this knowledge serves as the driving force behind this enhancement in self-efficacy.

Furthermore, with increasing tenure in service, teachers gain greater exposure to the diverse skills required to effectively navigate an inclusive classroom, thereby deepening their knowledge and understanding of the practice and, subsequently, their self-efficacy.

It is worth noting, however, that factors such as teachers' gender, specialization, and educational level do not influence their self-efficacy, provided they possess ample knowledge in this domain and have acquired substantial experience in working learners requiring special education. This study implies that teachers' attitudes also represent an intriguing facet of self-efficacy that warrants further investigation in future research.

Moreover, empowering teachers emerges as a critical factor for the successful implementation of inclusive early childhood education. This can be achieved by offering continuous

professional development opportunities that enable educators to acquire the requisite knowledge and skills to effectively address the diverse needs of their learners.

The study also revealed exciting findings on ECE teachers' beliefs about inclusive learners. The study showed that teachers' lack of confidence in handling inclusive learners affected the implementation of the inclusive education policy. In that regard, the lack of good mentorship, experience managing inclusive learners, and the number of children with SEN in an inclusive class influenced teachers' beliefs about teaching children with SEN.

The study further comes to the realisation that the pre-service training, school environment, and in-service training are critical issues among the sources of teachers' efficacy in handling ECE learners. In addition to that, it was observed that every teacher may be considered effective in providing inclusive education, but it is important to note that other teachers may not possess inclusive teaching efficacy. This is because even if they believe in their competency to handle a non-inclusive class, they may still doubt themselves if exposed to an inclusive class.

The findings of this study led to the conclusion that teachers' understanding of the early childhood inclusive education principles, enhances their confidence and hence self-efficacy to handle this type of class. The motivation resulting from this knowledge is also perceived to be the ultimate engine to this boost in self-efficacy.

### **6.3 Recommendations**

Based on the above conclusions and in line with the findings and the discussion of the study, the following recommendations were made to address the identified issues in the inclusive early childhood education teaching efficacy of teachers.

- Firstly, the government through the Ministry of Education should consider empowering inclusive early childhood education teachers by providing ongoing professional development opportunities, which will enable teachers to acquire the necessary knowledge and skills to effectively address the diverse needs of their learners. Adapting frameworks such as the Universal Design for Learning can be very powerful frameworks to help teachers implement inclusive education.
- Curriculum designers in teacher education institutions should beef-up their education curriculum with content that focuses on a typical inclusive class of learners in order to

add more content that caters to both learners with and those without special education needs.

- The government through the Ministry of Education should address issues of teacher-learners ratio in inclusive classes in an effort to foster teachers' performance in helping their learners with special education needs.
- The Ministry of education through the Office of the Permanent Secretary needs to seriously engage teacher training institutions to align their curriculum with emphasis on preparing an inclusive education teacher and not biased to special education training. Exposure of teacher-trainees to inclusive practices may boost their competence and teaching-efficacy in handling inclusive education learners.
- To enhance teachers' inclusive teaching-efficacy among inclusive early childhood education teachers, it is crucial to provide ongoing professional development opportunities. The District Resource Centre Coordinators (DRCCs) are responsible for coordinating resources, support, and training at the district level. DRCCs should organise inclusive education tailored CPDs to equip teachers with the necessary knowledge and skills to effectively address needs of an inclusive class of learners. This may be done through workshops, training sessions and conferences prepared at school or district levels to share best practices and innovative teaching techniques for inclusive education provision.
- The Headteachers should ensure that ECE teachers are fully engaged in school activities so that they do not feel left out. They also need to provide conducive large classrooms for ECE learners with almost negligible disturbances. This is because ECE teachers felt motivated when they were provided with large permanent classrooms for their learners which positively impacted their inclusive teaching-efficacy.

#### **6.4 Future research**

- Future research may systematically investigate the effect of teachers' attitude on their teaching-efficacy, particularly in the local context.
- It may also increase the sample size across different provinces to further study the concept of inclusive teaching efficacy.

- This study was conducted to explore inclusive teaching efficacy among early childhood teachers. Therefore, future research may consider exploring inclusive teaching efficacy among primary, secondary and tertiary educators

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## APPENDICES

### Appendix A: SEMI-STRUCTURED INTERVIEW GUIDE FOR TEACHERS

**Dear Participant,**

I am a postgraduate student at the University of Zambia (UNZA) pursuing a doctoral study in Educational Psychology. I am conducting research on the topic, **‘Inclusive teaching-efficacy among teachers handling learners in inclusive early childhood Schools in Zambia.’** You are kindly requested to participate in this research by responding to the questions. All responses recorded will be taken as strictly classified. This study is purely for academic purposes and not meant to cause you any mental or physical harm. I therefore, encourage you to be free when providing your responses.

- i. Would you please share your understanding of inclusive Education?
- ii. Kindly explain the content of inclusive education policy document
- iii. Kindly tell me your motivation to become an early childhood teacher
- iv. Would you kindly explain areas that make you feel good as you manage inclusive ECE learners? Tell me more.....
- v. Kindly describe your experiences around working with children with special needs if you have any in your class?
- vi. Do you find a difference in your teaching experience when you are teaching children who don't have special needs and when you are teaching an inclusive class? If you do, what is the difference?
- vii. Would you say you were always prepared to teach learners with special needs? How ready were you? Is it the training in college? Is there any in the family?
- viii. Do you have any child in the family who is living with special needs? How does that help in your work as an ECE teacher?
- ix. Kindly tell me your feeling in your ability to manage the children with special needs in an inclusive ECE set up ? Probe why the confidence is that much.....
- x. Would you kindly tell me what gives you strength as you manage an inclusive ECE class.....? Is there anything that you find challenging? Share more
- xi. Kindly tell me about the things that make you comfortable to manage an inclusive ECE class.....

- xii. Kindly tell me the changes you would want to see to improve your happiness as you handle inclusive ECE class.....
- xiii. Kindly tell me about things that drive you to manage learners in your inclusive ECE class...
- xiv. How does your confidence affect the level of your motivation?
- xv. Would you please tell me how you feel in managing inclusive class of ECE learners? shed more light.
- xvi. Kindly express on anything you think would enhance your efforts as you manage an inclusive class of learners? Please shed more light.
- xvii. Would you please share with me all your beliefs as you teach learners in an inclusive class?
- xviii. Kindly tell me your experiences with lesson planning of an inclusive ECE class?
- xix. Would you please tell what you think would help you work harder in planning and teaching learners in inclusive ECE class?
- xx. How capable do you feel when managing learners in an inclusive ECE class?. How does that encourage you to be an ECE teacher?
- xxi. Would you please tell me what you think would make you happier as you handle an inclusive class of ECE learners.
- xxii. Do you think the number of learners with special needs does affect the confidence of the teacher in teaching an inclusive class? Please share your experience.....?
- xxiii. Tell me about your training in college or any course you have done that has prepared you to handle an inclusive ECE class.? Kindly explain the areas that you think you were adequately prepared for.
- xxiv. xxiv)Are there things that you think should have been added to your training to fully equip you in your abilities to handle mixed ECE class.

## Appendix B: CONSENT FORM

### CONSENT FORM CONSENT TO PARTICIPATE IN THIS STUDY (Return slip)

I, \_\_\_\_\_ (participant name), confirm that the person asking my consent to take part in this research entitled “Inclusive teaching Efficacy Among teachers of Learners in Inclusive ECE centres in Zambia” has told me about the nature, procedure, potential benefits and anticipated inconvenience of participation. After reading, I have understood the study as explained in the information sheet. Additionally, I have had sufficient opportunity to ask questions and I am prepared to participate in the study. I am aware that the findings of this study will be processed into a research report, journal publications and/or conference proceedings, but that my participation will be kept confidential unless otherwise specified. I agree to the recording of the interview. I have received a signed copy of the informed consent agreement.

Participant Full Name (please print) \_\_\_\_\_  
\_\_\_\_\_

Participant Signature

Date \_\_\_\_\_

Researcher's Full Name (please print) \_\_\_\_\_  
\_\_\_\_\_

Researcher's signature

Date \_\_\_\_\_

## **Appendix C: PARTICIPANT INFORMATION SHEET**

Title: “Inclusive teaching Efficacy Among teachers of Learners in Inclusive ECE centres in Zambia”

### **Dear Prospective Participant/Respondents,**

My name is Derick Singogo conducting a Doctor of Philosophy study at the University of Zambia in educational Psychology. I am inviting you to participate in a study entitled, “Inclusive teaching Efficacy Among teachers of Learners in Inclusive ECE centres in Zambia”. I kindly urge you to participate in this very important study by virtue of your position as an ECE teacher. For your privacy, I will not use your names and other important personal particulars in the questionnaires, interviews and the report. However, your participation is voluntary and you may withdraw from the study at any stage you feel like without any consequences.

### **WHAT IS THE PURPOSE OF THE STUDY?**

This study was designed to explore inclusive teaching efficacy among teachers handling inclusive early childhood learners in Zambia in order to explore teachers’ beliefs that feed into their self-efficacy in implementing inclusive education policy.

Do teachers believe in themselves to handle inclusive early childhood education? These are crucial issues this study wishes to explore and only you can have the cardinal answers required. Your participation in this study will distinguish you from individuals who are not professionals in your field. Professionals take part in such studies. They transform the education system and have an impact on major policy shifts. You will be acknowledged in the research report as teachers that made a huge contribution to literature and generally to the scholarly world.

### **WHY AM I BEING INVITED TO PARTICIPATE?**

You were chosen to participant in this study because you are a very important person who is directly involved in implementing inclusive education in ECE centres. I know you have the right information about inclusive education in ECE. I do not, however, know your beliefs as teachers in handling inclusive ECE learners who are allocated to you as per government requirement. I know your involvement in this study can help promote effective implementation of the inclusive education provision at this important level of education. I am aware about you as a teacher for inclusive ECE at this school because I know the school and your DEBS and

head teacher made us aware that you are the right person to help us with information on this study. You are not the only one involved in this study. The study will capture a lot more others ECE teachers from inclusive centres around Zambia. You therefore need to feel free to participate because your contribution is highly valued.

#### THE NATURE OF YOUR PARTICIPATION IN THE STUDY

The study involves questionnaires and interview. In some questions you simply tick a response you consider suitable and, in some cases, you give short statement according to the question. The questionnaire will take you less than or equal to 35 minutes to complete while the interview may last for an hour.

#### WITHDRAWAL FROM THE STUDY

I encourage you to complete the study because you are a key person who has information on the subject being investigated. I can assure you that this study is risk free and there is no need to withdraw from it because you equally will one day carry out such studies and will need Respondents to improve our education system practices. You will not need to write your names and other particulars on the questionnaires and so no one will even know you participated in the study. Though the interview will be audio recorded, I will not even use your names at all. Unless you have very serious commitments, it would not be ideal to withdraw from the study. Let's work together to improve our education system through research. However, your participation is voluntary and you may withdraw from the study at any stage you feel like without any penalty.

#### WILL THE INFORMATION THAT I CONVEY TO THE RESEARCHER AND MY IDENTITY BE KEPT CONFIDENTIAL?

It is an ethical responsibility of every researcher to adhere to confidentiality requirements for the research participants. The information you will provide will strictly be used for academic purposes. Your names will not be reflected in the research report, not even on the questionnaires and interviews. This study will only be conducted by me under the supervision of Doctor Kenneth Kapalu Muzata. No one else will have access to the data I will collect. If I get stuck with the data, I will seek further clarification from you as my Respondent and no one else. Since your names will not be recorded anywhere on the research tools, no one will know you are the one who answered in a certain manner. Your answers and even places where I am collecting this data are accorded pseudonyms, all in the interest of protecting our respondents'

participation in this study and indeed in future studies. I will do the transcribing of the audio recorded interviews and analysis of the questionnaire and other data. As a PhD student, I am obliged to do all this myself to enhance my research skills. Therefore, there is no one else who will have access to the recordings and other data I will collect from you. In any case, for this study particularly, you need not to fear because it involves teaching and how best we can improve it. There are no risks anticipated for taking part in such a study, if any, it could be personal. The study is educational.

#### HOW WILL THE RESEARCHER(S) PROTECT THE SECURITY OF DATA?

All data collected through hard copies will be transferred for analysis and storage in software tools such as the SPSS. The software is not easily operated by anyone who is not involved in scientific research and so to have access to them by unknown people is not possible. Further, my computers are password lock tight that no one can access my data without my consent. After all data is entered into the necessary software, hard copies will be shredded within the period of five years of my completion of my PhD programme. During the study period, the hard copies will be well stored in my office lock ward lops for reference during analysis. The audio recorded interviews will be stored on CDs with passwords only known by me to ensure security. My computer is also well secured with password to be only accessed by me and not any other person. All these materials will be destroyed and deleted from the computer once the report for my study is compiled and approved by UNZA.

#### WILL I RECEIVE PAYMENT OR ANY INCENTIVES FOR PARTICIPATING IN THIS STUDY?

This study does not attract any payment. I am a student who is self-sponsored on the PhD programme and I am facing difficulties even to find money to pay for my fees. I will only appreciate that your participation in this study is a self-sacrifice emanating from your professional position as a teacher/ education standard officer. Any costs you will incur by participating in this study will be highly appreciated. I have strong belief that your participation in this study is a service to the nation and the academic world. The only payment you should appreciate is your value as a professional having been considered to be part of this very important study.

## HAS THE STUDY RECEIVED ETHICS APPROVAL

This study has received written approval from the Research Ethics Review Committee of the University of Zambia. A copy of the approval letter is hereby attached.

## HOW WILL I BE INFORMED OF THE FINDINGS/RESULTS OF THE RESEARCH?

If you would like to be informed of the final research findings, please contact Derick Singogo on cell phone number 0977471198 or send me an email on [derricksingogo74@gmail.com](mailto:derricksingogo74@gmail.com). The findings will be accessible any time after publication of the report. Please do not use home telephone numbers. Departmental and/or mobile phone numbers are acceptable. Thank you for taking time to read this information sheet and for agreeing to participate in this study.

Derick Singogo

## Appendix D: QUESTIONNAIRE FOR TEACHERS

**Dear Respondent,**

You have been selected to participate in this study meant to explore inclusive teaching efficacy among early childhood teachers in Zambia. Teachers for special education are guided in the new curriculum to adapt it to the needs of learners with disabilities. This study therefore wishes to explore your beliefs as teachers in managing inclusive ECE learners. You are therefore requested to be as honest as possible as your contributions play a very significant role in improving the standards of education for learners in inclusive ECE. I kindly request that you respond to this questionnaire now with the utmost honesty. Be rest assured that the information you will provide will be strictly utilised for the purpose of the study only and not, any other. Do not write your name on this paper. Treat this work as a contribution towards building up knowledge on **inclusive teaching efficacy** in Zambia. Put a **tick** on your choice or fill in the appropriate responses in the space provided.

**Name of school**.....**District**.....

**Province**.....

### **SECTION A: DEMOGRAPHIC INFORMATION**

1. What is your sex? (a) Male

(b) Female

2. How old are you (in years)? (a) < 24 years

(b) 25 – 29 years

(c) 30 – 34 years

(d) 35 – 39 years

(e) 40 – 44 years

(f) 45 – 49 years

(g) 50 years and above

3. Kindly indicate the Category of your training

a) Special education teacher

b) Regular teacher

4. What is your level of education?

a) Certificate

b) diploma

c) degree

d) Master degree

5. What is your area of Specialization?

a) Early childhood

b) Primary

c) Secondary

d) Others, Specify.....

6. Are you (i) GRZ In-service teacher?

(ii) Private in-service teacher?

(ii) Pre-service teacher?

7. How long have you been teaching?

(a) < 1 year

(b) 1 – 3 years

(c) 4 - 6 years

(d) 7 – 9 years

(e) 10 or more

**8. SECTION B: Types of disabilities:** To what extent are the disabilities on the table below present in your inclusive ECE class? (State by **ticking** whether they are **very common, common, not sure or not common**)

	<b>Disability type</b>	Very common	Common	Not sure	Not common
A	Attention Deficit Hyperactive disorders.				
B	Deaf				
C	Hard of Hearing				
D	Specific Learning Difficulties				
E	Mild Mentally Retarded				
F	Moderately Mentally Retarded				
G	Partially Sighted				
H	Totally Blind				
I	Physically Impaired				
J	Gifted Children				
K	Communication disorder				
L	Autism				

(M) Others, specify.....

**9. How many children with disability/special education needs are in your inclusive class?.....**

**SECTION C: Teachers' Understanding of Inclusive education In ECE :**Please indicate by **ticking** the extent to which you agree or disagree with the statements in the table below based on **your understanding of inclusive education.**

		<b>Strongly Agree</b>	<b>Agree</b>	<b>Not Sure</b>	<b>Disagree</b>	<b>Strongly Disagree</b>
<b>1</b>	I <b>clearly</b> understand what is involved in inclusive ECE					

<b>2</b>	Only learners with disability learning together with those without disability constitute what is known as inclusive education					
<b>3</b>	I can carry out assessment to identify ECE learners with special education needs in my inclusive class					
<b>4</b>	To a large extent, I don't know how best I can interact with learners with special education needs in my inclusive ECE class					
<b>5</b>	I understand how to teach learners with Special education needs (SEN) in an inclusive ECE class					
<b>6</b>	I have difficulties in identifying some special needs in my inclusive class.					
<b>7</b>	I teach the children with Special Education Needs (SEN)/disability when I'm done with those others without special needs.					
<b>8</b>	I have problem with communicating to some children with special needs in my inclusive class.					
<b>9</b>	I don't know how to handle children with disability/special needs in my inclusive class so I leave them to decide to do their own activities.					
<b>10</b>	Children with special educational needs are handicapped					

**SECTION D: (Sources of inclusive teaching efficacy)** Where would you say you **draw your confidence** to handle inclusive ECE learners? [Kindly Indicate on the table below by **ticking** either on strongly agree, agree, not sure or strongly disagree depending on your feeling/experience].

		<b>Strongly Agree</b>	<b>Agree</b>	<b>Not Sure</b>	<b>Disagree</b>	<b>Strongly Disagree</b>
11	Love for children					
12	Curiosity					
13	Religious background					
14	My experience in teaching ECE					
15	Support from school administration					
16	My college/University training for inclusive ECE learners					
17	The learning environment					
18	I have a spacious permanent class with 'talking walls.'					
19	The child/relative in our family with disability					
20	Passion					
21	Learner friendly infrastructure and suitable furniture					
22	Social persuasion					
23	Emotionally attached					
24	Vicarious experience					
25	My full training in special education					

**SECTION E: Inclusive Teacher Efficacy: How do you feel about your capability to teach/manage inclusive ECE learners?** Indicate by either **ticking** on strongly agree, agree, not sure or strongly disagree on each of the statement on the table below

		<b>Strongly Agree</b>	<b>Agree</b>	<b>Not Sure</b>	<b>Disagree</b>	<b>Strongly disagree</b>

<b>26</b>	I feel I have a lot to learn for me to teach well in an inclusive class					
<b>27</b>	I lack special education training, hence, can't fit in inclusive class					
<b>28</b>	I feel my teaching for children with special education needs in my inclusive class leaves a lot to be desired					
<b>29</b>	I feel stigmatized when they say, "you ECE teacher" instead of addressing me by my name					
<b>30</b>	I feel ECE teachers' views as inclusive ECE teachers are not usually considered important during meetings					
<b>31</b>	Children with Disability are difficult to handle in my case					
<b>32</b>	I feel stressed up with more children with SEN in my inclusive class					
<b>33</b>	Lack of teachers'/learner's books for inclusive ECE are a hindering factor to me.					
<b>34</b>	Teaching inclusive ECE learners require workshops (Professional Development) to help me understand how to handle learners with special needs/disability.					
<b>35</b>	I find it difficult to deliver the required material to learners with special needs/disability in my inclusive ECE class.					

36	Inclusive ECE class always requires more than one teacher for them to learn effectively.					
37	I feel honored if my 'talking walls' in my inclusive ECE class are not disturbed due to exams and other programs					
38	I believe early childhood children behave like children with special education needs in some way therefore adding children with special needs in such a class may be too stressful to a teacher					

**SECTION F: ECE Teacher Training Institutions: How you rate the college/institution in preparing you to handle an inclusive ECE class. Kindly indicate by either ticking on strongly agree, agree, not sure or strongly disagree on each of the statements on the table below**

		<b>Strongly Agree</b>	<b>Agree</b>	<b>Not Sure</b>	<b>Disagree</b>	<b>Strongly Disagree</b>
39	Need to adjust the curriculum to prepare a teacher for inclusive teaching					
40	I can't handle <b>severe disabilities</b> in my inclusive ECE class					
41	There are no books for inclusive ECE in colleges/Universities					
42	Honestly, teachers with special educ. can manage inclusive class well					
43	The tool for monitoring teachers lacks focus on inclusive class					

44	I lack sign language and braille skills to handle inclusive ECE class					
45	Just learnt a component of special education during training					
46	Lecturers with no special Edu. lack focus on SEN during monitoring					
47	Stigma and discrimination exist in ECE teacher training institutions					
48	Not much emphasis is done on inclusive education in teacher education					

**SECTION G: Teacher motivation: What motivates you to teach an inclusive ECE class?**

[Kindly Indicate on the table below by **ticking** either on strongly agree, agree, not sure or strongly disagree depending on how a statement applies to you].

		<b>Strongly Agree</b>	<b>Agree</b>	<b>Not Sure</b>	<b>Disagree</b>	<b>Strongly Disagree</b>
<b>49</b>	Large permanent classroom					
<b>50</b>	I work with an assistant teacher which is less stressful					
<b>51</b>	re-training in inclusive teaching					
<b>52</b>	Recognition as a teacher not as player with learners					
<b>53</b>	Inclusive ECE teachers' allowance be introduced					
<b>54</b>	Personal interest in children					
<b>55</b>	Experience with children with disability					
<b>56</b>	Satisfaction with my monthly salary					
<b>57</b>	Readily available teaching/learning material					

58	Conducive teaching and learning environment.					
59	Available social support					
60	Previous Teaching Experience					

***Thank you so much for participating. For more information, contact the researcher on [derricksingogo74@gmail.com](mailto:derricksingogo74@gmail.com) or mobile contact 0955471198***

## Appendix E: ETHICAL CLEARANCE LETTER



### THE UNIVERSITY OF ZAMBIA

#### DIRECTORATE OF RESEARCH AND GRADUATE STUDIES

Great East Road | P.O. Box 12379 | Lusaka 10101 | Tel: +260 211 290 258/291 777  
Fax: +260 1 290 258/251 952 | Email: director@dirgs.unza.zm | Website: www.unza.zm

#### APPROVAL OF STUDY

*IORG No. 0005376*  
*HSSREC IRB No. 00006464*

8<sup>th</sup> April, 2022

REF NO. HSSREC-2022-APR-002

Derick Singogo  
The University of Zambia  
School of Education  
Department of Educational Psychology, Sociology and Special Education  
P.O. Box 32379  
**LUSAKA**

Dear Mr. Singogo,

**RE: "INCLUSIVE TEACHING EFFICACY AMONG TEACHERS HANDLING LEARNERS IN INCLUSIVE EARLY CHILDHOOD CENTRES IN ZAMBIA"**

Reference is made to your submission of the protocol captioned above. The HSSREC resolved to approve this study and your participation as Principal Investigator for a period of one year.

REVIEW TYPE	ORDINARY REVIEW	APPROVAL NO. HSSREC-2022-APR-002
Approval and Expiry Date	Approval Date: 12 <sup>th</sup> April, 2022	Expiry Date: 11 <sup>th</sup> April, 2023
Protocol Version and Date	Version - Nil.	11 <sup>th</sup> April, 2023
Information Sheet, Consent Forms and Dates	<input type="checkbox"/> English.	To be provided
Consent form ID and Date	Version - Nil	To be provided
Recruitment Materials	Nil	Nil
Other Study Documents	Questionnaire.	
Number of Participants Approved for Study		

Excellence in Teaching, Research and Community Service

Specific conditions will apply to this approval. As Principal Investigator it is your responsibility to ensure that the contents of this letter are adhered to. If these are not adhered to, the approval may be suspended. Should the study be suspended, study sponsors and other regulatory authorities will be informed.

#### **Conditions of Approval**

- No participant may be involved in any study procedure prior to the study approval or after the expiration date.
- All unanticipated or Serious Adverse Events (SAEs) must be reported to HSSREC within 5 days.
- All protocol modifications must be approved by HSSREC prior to implementation unless they are intended to reduce risk (but must still be reported for approval). Modifications will include any change of investigator/s or site address.
- All protocol deviations must be reported to HSSREC within 5 working days.
- All recruitment materials must be approved by HSSREC prior to being used.
- Principal investigators are responsible for initiating Continuing Review proceedings. HSSREC will only approve a study for a period of 12 months.
- It is the responsibility of the PI to renew his/her ethics approval through a renewal application to HSSREC.
- Where the PI desires to extend the study after expiry of the study period, documents for study extension must be received by HSSREC at least 30 days before the expiry date. This is for the purpose of facilitating the review process. Documents received within 30 days after expiry will be labelled "late submissions" and will incur a penalty fee of K500.00. No study shall be renewed whose documents are submitted for renewal 30 days after expiry of the certificate.
- Every 6 (six) months a progress report form supplied by The University of Zambia Humanities and Social Sciences Research Ethics Committee as an IRB must be filled in and submitted to us. There is a penalty of K500.00 for failure to submit the report.
- When closing a project, the PI is responsible for notifying, in writing or using the Research Ethics and Management Online (REMO), both HSSREC and the National Health Research Authority (NHRA) when ethics certification is no longer required for a project.
- In order to close an approved study, a Closing Report must be submitted in writing or through the REMO system. A Closing Report should be filed when data collection has ended and the study team will no longer be using human participants or animals or secondary data or have any direct or indirect contact with the research participants or animals for the study.
- Filing a closing report (rather than just letting your approval lapse) is important as it assists HSSREC in efficiently tracking and reporting on projects. Note that some

funding agencies and sponsors require a notice of closure from the IRB which had approved the study and can only be generated after the Closing Report has been filed.  
•A reprint of this letter shall be done at a fee.

•All protocol modifications must be approved by HSSREC by way of an application for an amendment prior to implementation unless they are intended to reduce risk (but must still be reported for approval). Modifications will include any change of investigator/s or site address or methodology and methods. Many modifications entail minimal risk adjustments to a protocol and/or consent form and can be made on an Expedited basis (via the IRB Chair). Some examples are: format changes, correcting spelling errors, adding key personnel, minor changes to questionnaires, recruiting and changes, and so forth. Other, more substantive changes, especially those that may alter the risk-benefit ratio, may require Full Board review. In all cases, except where noted above regarding subject safety, any changes to any protocol document or procedure must first be approved by HSSREC before they can be implemented.

Should you have any questions regarding anything indicated in this letter, please do not hesitate to get in touch with us at the above indicated address.

On behalf of HSSREC, we would like to wish you all the success as you carry out your study.

Yours faithfully,



*Dr. J. I. Ziwa*

DR. J. I. Ziwa

**ACTING CHAIRPERSON  
THE UNIVERSITY OF ZAMBIA HUMANITIES AND  
SOCIAL SCIENCES RESEARCH ETHICS COMMITTEE - IRB**

cc: Director, Directorate of Research and Graduate Studies  
Assistant Director (Research), Directorate of Research and Graduate Studies  
Assistant Registrar (Research), Directorate of Research and Graduate Studies

**Appendix F: PERMISSION LETTER FROM MINISTRY OF EDUCATION**

All communications should be addressed to  
The Permanent Secretary, Ministry of General Education  
Not to any individual by name

Telephone 251293/251318/251291  
251293/211318/251291  
251003/251319



REPUBLIC OF ZAMBIA

**MINISTRY OF GENERAL EDUCATION**

In reply please quote

MoE 101/3/6

16<sup>th</sup> December, 2021

P. O. BOX 50093  
LUSAKA

Mr. Derick Singogo  
C/O Department of EPSS  
The University of Zambia  
P.O. Box 32379  
Lusaka

Dear Mr. Singogo,

**PERMISSION TO CONDUCT RESEARCH IN EARLY CHILDHOOD EDUCATION CENTRES IN LUSAKA, COPPERBELT AND EASTERN PROVINCES - MR. DERICK SINGOGO (STUDENT)**

Reference is made to the above subject matter and to your letter dated 25<sup>th</sup> November, 2021 in which you are seeking authority to conduct research in schools with Early Childhood Education (ECE) centres in Lusaka, Copperbelt and Eastern Provinces whose topic is **"Inclusive Teaching Efficacy among Teachers Handling Learners in Early Childhood Centres in Zambia"** at doctoral level.

I am pleased to inform you that authority has been granted for you to conduct research in schools with ECE centres in Copperbelt, Eastern and Lusaka Provinces. During the period you will be conducting your research, ensure that work and school programmes are not interrupted and ethical considerations are adhered to. You also required to pass through the Provincial Education Offices as you go to schools/field. You are further requested to submit a copy of your final report to the Ministry of Education Headquarters.

By copy of this letter, the Provincial Education Officers (PEOs) for Lusaka, Copperbelt and Eastern Provinces are informed accordingly.

Yours sincerely,

Charm Kalimbika  
Director - Early Childhood Education  
For/ Permanent Secretary - Technical Services  
**MINISTRY OF EDUCATION**

/hb

101/32/1