GRADUATE SCHOOL OF DEVELOPMENT POLICY AND PRACTICE

MPHIL: DEVELOPMENT POLICY AND PRACTICE

THE PRE-PRIMARY EARLY CHILDHOOD CARE AND EDUCATION (EECE) PROGRAMME IN BOTSWANA: UNDERSTANDING ITS ACCESSIBILITY AND QUALITY

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SUBMITTED TO THE UNIVERSITY OF CAPE TOWN
In (partial if the degree was by coursework AND dissertation) fulfilment of the requirements for the degree

MPhil in Development Policy and Practice

Faculty of Commerce

UNIVERSITY OF CAPE TOWN

Date of submission: March 14, 2021

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ABSTRACT

Over the past few years, there has been rising interest in the field of Early Childhood Care and Education (ECCE). The interest is evident at international, regional and national levels. Given the widely documented benefits of ECCE, and through the lobbying of various stakeholders, the government of Botswana resolved to provide a one-year pre-primary programme at all government schools. In this study, ECCE and pre-primary education programme are used interchangeably. This pre-primary education programme was initially piloted at a few select schools in 2012. After the successful run of the programme, it was then scaled-up to all government primary schools in Botswana starting in 2014. This programme is the basis of this study, in which the researcher examines two of its main indicators namely accessibility and quality.

The study was conducted using a qualitative research approach. It used the following research methods: document analysis, observation and structured and in-depth interviews with teachers, school heads and education officers from the Ministry of Basic Education (MoBE), the Department of Curriculum Development Evaluation (DCDE) and the Regional Education Office (REO). Twelve (12) schools were chosen out of a total of twenty – four 24 schools in the Gaborone sub-region. The data collected from the interviews and observations was analysed using thematic analysis. It was triangulated with the data obtained from documents.

The study made three (3) key findings. First the study reveals that although the government achieved 86% scale-up rate of the programme, the student enrolment rate remains low, at an estimated 25%. Second the study also reveals inconsistency in resource allocation, in-service training of teachers and general support offered to the teachers and the schools among the studied schools. Finally, the study reveals that there is no quality framework, that the teachers improvise by using the expected learning outcomes contained in the Integrated Early Childhood Development (IECD) curriculum of 2013.

Informed by the Lev Vygotsky's socio-cultural constructive theory, the recommendations were made based on the findings. The implications of the

recommendations are that they could improve the equitable and uniform universal allocation of resources ensuring that the quality and access of the programme is standard throughout the country. Also, the researcher proposed some quality assurance guidelines, which would ensure the standardisation of the quality matrix.

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DECLARATION

I, **LEBOGANG JOAN PILLAR**, hereby declare that the work on which this dissertation/thesis is based is my original work (except where acknowledgements indicate otherwise) and that neither the whole work nor any part of it has been, is being, or is to be submitted for another degree in this or any other university.

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ACKNOWLEDGEMENT

To the staff of Nelson Mandela School of Public Governance whom without their unwavering support, this would not have been possible.

Dr Shanil Haricharan, my deepest gratitude goes to you for your unfaltering support, mentorship and leadership throughout this journey. May the African Sun forever shine upon you wherever you may be.

Dr Boga Manatsha your selfless, challenging insights and guidance made this undertaking all the more bearable. I thank you greatly for your contributions.

The class of 2021 a group of perfect strangers yet such perfect companions for such an arduous expedition, my deepest gratitude for making this one of the most memorable undertakings of my life.

Lastly to the various government departments and schools who opened your doors and received me, I am grateful for your time and the invaluable knowledge imparted.

DEDICATION

I dedicate this to my tribe of men and women who raised me, without whom this would not have been possible. You all instilled values in me which I shall forever cherish of discipline, faith, commitment, love, passion and pursuit of knowledge. Unami Mpotokwane, Moses Mongwa Snr, Onkgolotse Daniel 'Ringo' Mpotokwane, Mama Olga Mongwa, Odisitse External Affairs and Garai Makaya I carry you in my heart everywhere I go.

My dearest parents, James Solomon Pillar and Tlotlano Judith Pillar, I could never express enough gratitude for the love, patience, sacrifices and all you have done for me. May my life be a testament to the eternal gratitude that I have for all you have done for me. My siblings; Marang, Gomolemo, Dimpho, Betsho and Tlamelo your prayers, well-wishes and support are truly appreciated.

To you Le-lady for being deputy parent without hesitation and sacrificing a greater part of your life to raise us. I am forever indebted.

My clan of gladiators who through their lives continue to inspire me every day. You truly are what sisterhood and friendship is all about. Thank you for refusing to give up on faith and hope, thank you for enflaming my embers when my hope and faith grow dim.

My two partners Patience and Osego, my immense gratitude to you for holding forth in my absence, I could never have chosen a better pair.

Lastly to God, to you be all glory and thanksgiving for holding my hand every step of the way. I know that this is not the end but rather the beginning of a fulfilling journey.

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LIST OF ACRONYMS

BOPA	Botswana Press Agency
CBCC	Community Based Childcare Centres
CRC	Central Resource Centre
DCDE	Department of Curriculum Development and Evaluation
ECCE	Early Childhood Care and Education
ECD	Early Childhood Development
ETSSP	Education and Training Sector Strategic Plan
HoD	Head of Department
IECD	Integrated Early Childhood Development
MLGRD	Ministry of Local Government and Rural Development
MoBE	Ministry of Basic Education
NDCP	National Day-care Centre Policy
NDP	National Development Plan
NGO	Non-government Organisation
NPE	National Policy on Education
OECD	Organisation of Economic Cooperation and Development
PEO	Principal Education Officer
PS	Primary School
REO	Regional Education Office
RNPE	Revised National Policy on Education
SDG	Sustainable Development Goals
SH	School Headmaster
TA	Teacher's Assistant
UN	United Nations
UNESCO	United Nations Educational, Scientific and Cultural Organisation
UNICEF	United Nations International Children's Emergency Fund

ZPD	Zone of Proximal Development

CHAPTER 1

1.1 INTRODUCTION

The past few years have seen a rising interest, internationally, regionally and nationally in the field of Early Childhood Care and Education (henceforth ECCE). ECCE is defined by Kamerman (2006) as a development process of children from birth to eight-years-old. It is thus considered more than simply a preparation for primary school. The objective of ECCE is the holistic development of a child's social, emotional, cognitive, and physical needs in order to build a solid and broad foundation for lifelong learning and wellbeing (Institute of Medicine and National Research Council, 2012). ECCE has also been noted for its ability to nurture caring, capable and responsible future citizens. Additionally, ECCE provides an augmentation of child's rearing efforts by families, as it offers a systematic child development environment, particularly since the would-be primary childcare-givers, mothers or other women, continue to join the formal job market.

Under the ECCE umbrella, there are a number of services that are provided under various categories or grouping to cater for the various age groups, and these include day-care centres, family day-care, play groups, drop-in centres, creche, pre-kindergarten, kindergarten, reception, and pre-primary (Krieg and Whitehead, 2015). The focus of this study is on the pre-primary component of ECCE, which is the initial stage of organised instruction designed primarily to introduce young children to formal schooling environment (United Nations Educational, Scientific and Cultural Organisation (UNESCO), 2016).

1.2 BACKGROUND

The value of early childhood education has long been recognised as beneficial, not only to the child's later education years, but also to the society and the economy in broader terms (Van Der Gaag and Tan, 1998). These benefits include reduction in poverty levels and the need for remedial programmes, reduction in criminal justice spending, strengthened parents' job stability, and increased future earning capacity. Children who undergo pre-primary education tend to be healthier, are less likely to need special education. Further, when they start working, in their later years, on average, they pay more taxes than their peers, who did not attend any ECCE programme. This is because those who attended ECCE programmes stand a

chance of getting better paying jobs (ECCE Workforce Report, 2012; Van Der Gaag and Tan 1998; Harmon, Finn, Chevalier and Viitanen, 2006).

There have been growing efforts by the international development community to fight poverty and inequality, and the reduction of both is seen as a social objective. As a result of this, social value has become integral to the policies and programmes that are aimed at reducing inequality or promoting social justice (Van Der Gaag and Tan, 1998). Therefore, ECCE programmes are some of the interventions aimed at tackling poverty, hence international priority has been placed on them. Shawer and Shiffman (2016) also contend that due to the benefits of ECCE, global actors and international organisations have been at the forefront promoting this initiative. This includes the adoption of international resolutions, such as the UNESCO's Education for All (1990); Dakar Framework Education For All (2000); Convention on the Rights of the Child (2005); African Child Policy Forum (2011); and United Nations' (UN) Sustainable Development Goals (SDGs) (2015) (Shawer and Shiffman, 2016).

The rise to prominence of ECCE in the 1960s in Europe and the United States of America (USA) has been attributed to the rise in the number of women joining the mainstream employment, especially during the era of industrial revolution. A survey carried out by the International Bureau of Education in 1939 reported that in many countries, where there had been a rapid growth in pre-primary programmes, such were run by governments and/or voluntary organisations (Kamerman, 2006).

The advent of formal/westernised ECCE in Africa is attributed to the arrival of colonial merchants and missionaries in the continent. Mwamwenda (2014) provides a brief history of ECCE in various countries in Africa. The examples include Ethiopia, where ECCE is traced to 1900 and was initially for the benefit of the French children, whose parents had come as railway consultants. In Kenya, it is traced to 1942, where it was set up for the European children also. In Lesotho, it is attributed to the Lesotho National Council of Women and Lesotho Day Care Centre in 1970. In Botswana, it is traced to the Non-Governmental Organisations (NGOs), individuals, religious organisations, and Young Women Christian Association in the 1960s. However, Chisholm and Chilisa (2012) argue that prior to the arrival of European traders, missionaries and colonial masters, in the nineteenth century, there was some form of

traditional early childhood education practices, which took the form of traditional games, folklore and singing, which stimulated the child's psycho-social development.

Since the pre-colonial, colonial and post-colonial era, many events, which transformed society, have taken place. These events have elevated the ECCE agenda to a place of importance at international, regional, and national level (Mwamwenda, 2014). These include, as already alluded, but are not limited to, the Convention on the Rights of Children (1989), the most rapid and widely ratified in human rights' history (Haque, Nasrin, Yesmin and Biswas, 2013); the Jomtien World Declaration on Education for All (1990) and the Dakar Framework for Action: Education for All (2000).

As mentioned, the history of ECCE in Botswana, like in most African countries, pre-dates Botswana's independence in 1966. The ECCE services were provided in the form of nurseries, creche and day-care centres, and were owned and managed by the Red Cross, voluntary organisations, religious organisations, and individuals. ECCE services were mostly accessed by the expatriate community, who were then residents in Botswana, to the exclusion by of locals, due to the cost factors and the lack of availability of ECCE centres in the rural areas, where the majority of *Batswana* (citizens of Botswana) lived (Mwamwenda, 2014; Maundeni, 2013). Even in the post-independence era, the government continued to take a backseat in the provision of ECCE, and the services continued to be provided by private entities, community-based organisations, NGOs, and religious organisations. This, to a greater extent, limited the accessibility of ECCE by the majority of the people (Bose, 2008). Similarly, following independence, those that accessed ECCE services were mainly expatriates and affluent *Batswana*, who resided in the urban areas (Monyatsi, 2012) where ECCE services were accessible in major towns.

From inception to 1980, ECCE centres in Botswana operated without any policy guidance or a regulatory framework. The first ECCE policy was the National on Day-care Centres Policy (NDCP) of 1980 (Government of Botswana, 1980). It provided for the management of ECCE centres catering for the two and half to six-year-olds. The NDCP had several flaws. The main flaws were that it failed to provide for a standardised curriculum for various levels; did not provide for the training of teachers, and did not provide for the

Ministry of Education to play a supervisory and technical or support role (Bose, 2008). In the 1990s, the government of Botswana commissioned a study with the intention of revising Botswana's education policies, which, at that time, were the National Policy on Education (NPE) 1977 and the NDCP. The outcome of the commissioned study was the Revised National Policy on Education (RNPE) in 1994 (Government of Botswana, 1994).

The major highlight of the RNPE is that it affirms that basic education ought to be broadly defined so as to include pre–primary education. The RNPE aptly notes the importance of ECCE and the need to ensure its unrestricted access in Botswana. It recommended that this should be implemented within a 25-year timeframe, from the date of the adoption of the policy (Government of Botswana, 1994). Unfortunately, the government declined this on the basis that it (government) was preoccupied with ensuring that it achieves both qualitative and quantitative development of the primary school programme (Government of Botswana, 1994). Monyatsi (2012) notes that the RNPE raised concerns with regard to the development of ECCE in Botswana. For instance, despite the growing demand for ECCE services, the provision of such services was still limited to individuals and private institutions more than the government. Moreover, access was limited to seven per cent (7%) of the population, aged three to six years-old. The ECCE curriculum was not standardised, and, worse still, the training of the ECCE teachers was done outside the formal teacher training programmes.

In 2001, the government of Botswana adopted the ECCE policy (Government of Botswana, 2001). It is primarily based on the recommendations made in the RNPE in 1994, but further influenced by recent developments, such as regional and international treaties, on the subject matter.

Limitations have been identified in the ECCE policy, such as lack of standards, regulations, and a standard curriculum. The teachers' training programme also fell short of the demands of the ECCE, hence the shortage of ECCE trained teachers remains a serious concern. Moreover, there is lack of ECCE facilities for zero to two and half year-old children (Bose, 2008). The policy makes for the provision of education for children aged between zero to six years. It further draws on the shortfalls of the NDCP and seeks to broaden the scope of ECCE to include baby care centres (zero to two and a half years); day care

or nursery (two and a half to four years) and pre–primary (four to six years), develop and enforce minimum standards for service providers, regulations for each category of ECCE services, encourage community involvement and participation (Monyatsi, 2012).

Given the importance of ECCE, the government of Botswana finally acceded to providing free one-year pre-primary programme, which was to be offered at all government primary schools in 2012 (Government of Botswana, 2015). This was a milestone in the development of ECCE in Botswana This meant that children, who had been previously excluded from accessing ECCE service, due to their socio-economic status and accessibility or availability factors, finally had the opportunity to enrol.

Without the government's intervention to provide free pre-primary education, the ECCE would have remained a service enjoyed by a few *Batswana*, due to the prohibitive costs associated with it (Maundeni, 2013). Despite being mineral rich, Botswana grapples with poverty, social inequalities and high unemployment. Therefore, the high costs of social services, such as those associated with ECCE, would have excluded most households, if the government had not intervened. The low uptake and or enrolment of children in pre-primary centres is confirmed by the Pre and Primary Education Statistics Brief of 2013 (Statistics Botswana, 2014), which estimates that the age specific enrolment ratio is 19.1% of the four to six- year-old population eligible for pre-primary schooling. In clear perspective figures, out of an estimated 95, 779 children countrywide, aged between four and five years-old, only 18, 330 (19.1%) were enrolled in an ECCE programme (Statistics Botswana, 2014).

The pre-primary programme was ultimately piloted in 2013 in nine (9) public primary schools in the Kgalagadi District in Botswana. In 2014, the programme was extended to 115, out of a total of 756 government/public primary schools throughout the country (Government of Botswana, 2015). According to the National Development Plan 11 (NDP 11), by 2016, the programme had been rolled out to 382 primary schools, with a total of enrolment of 16, 536 pupils. The remaining 374 primary schools, which had not yet implemented the pre-primary programme, continued with the school orientation programme (Government of Botswana, 2017). In 2019, it was stated that the pre-primary

programme had been implemented in 590 government/public primary schools, out of the 754 government/public primary schools, as at the beginning of 2019. The remaining 164 continue with the school orientation programme (Botswana Press Agency (BOPA), 2019). Table 1 below presents a summary of the key indicators of the scale-up pre-primary programme, 2014.

Scale-up rate of Pre-primary Programme

Table 1: Source: Government of Botswana (2015, 2017); BOPA (2019).

No.	Year	No. of Schools with Pre-primary Class(es) (total number of primary schools in Botswana = 756)	No. of Enrolled Students (total number of pre-primary learners in Botswana = 95779 in 2014)
1.	2014	115 (15,2%)	4,029
2.	2016	382 (50,5%)	16, 536
3.	2019	590 (78%)	Not available
4.	2020	613 (81%)	25, 640

The difference in the enrolment figures provided by Statistics Botswana (2014) and the Government of Botswana (2015) is occasioned by the fact that Statistics Botswana figures accounted for children enrolled at both private and public pre-primary schools, whereas the government accounted only for those enrolled in public/government pre-primary schools.

The government adopted a strategy of incremental roll-out of the pre-primary programme. To cater for the schools which have not implemented the pre-primary programme, the government introduced an interim temporary school orientation, in 2015, which is targeted at prospective standard 1 pupils (Government of Botswana, 2015). The objective of this interim programme was to ensure that no child was left behind in reaping the rewards of ECCE because of accessibility and availability issues. Thus, the purpose of the interim programme was to introduce pupils to a school learning environment by preparing them for learning, providing them with readiness activities and help them settle-in at school. The programme takes place over a period of six

weeks per cohort, and was designed to be a temporary intervention so as to enable the Ministry of Basic Education (MoBE) to prepare for the universal implementation of the one-year pre-primary programme (Government of Botswana, 2015).

The primary objective of the pre-primary programme is to provide "equitable and inclusive access for all children to quality ECCE and pre-primary programmes, with dedicated committed financing, varied delivery models and community participation" (Government of Botswana, 2015).

a. Some of the programme's notable outcomes are the expansion of the pre-primary programme to all public schools; attaining learners' preparedness for primary education; and attainment of irreversible literacy and numeracy, lifelong learning and increase retention and completion rates in all public primary schools. The section that follows presents the problem that underpins the study.

1.3 PROBLEM STATEMENT

Lack of access to ECCE services, because of factors such as affordability, availability and accessibility, and the absence of an enabling regulatory environment for the delivery of quality ECCE services, remain a serious challenge in Botswana (Maundeni, 2013; Government of Botswana, 2015). Therefore, the government's decision to provide universal one-year pre-primary schooling, with the objective of providing quality, inclusive, equitable and universal access to pre-primary education to all eligible children, is a welcome development in the development of ECCE in Botswana. Despite having resolved to provide universal access to pre-primary education in all public/government primary schools by 2015, government had by 2020 implemented the programme in 613 (81%) schools. See Table 1 above.

In 2014, the population size of eligible pre-primary pupil (children within the age bracket of four and a half and six-years-old) was estimated at 95,779 (Statistics Botswana, 2014). Without taking into consideration the annual population growth rate of Botswana, which is estimated at 2.2% as at 2019 (World Metres, 2019), the net enrolment rate of pre-primary students in

Botswana still remains low and is currently at 25, 640 (27%) (see Table 1). This is less than 50% of the targeted population. Despite the pre-primary programme's 81% roll-out rate, the Botswana enrolment rate is below the regional Sub-Saharan enrolment rate which the World Bank Database (2020), indicates as 32% as at 2019. A breakdown of the gross enrolment rate per region is as follows: Europe 98%, East Asia Pacific 83%, Latin America and the Caribbean 78%, North America 72%, Sub – Saharan Africa 32%, and Arab States 27%.

The pre-primary programme is attached to the existing public primary schools. What has not come out clearly is the provisions or considerations, if any, made for the rural and remote areas without primary schools. Such consideration is important in ensuring that no children are excluded from accessing the much-needed pre-primary programme. The fact remains that thousands of children are unwittingly excluded from this on-going global phenomenon. The exclusion of eligible children, due to the shortage of primary schools, hampers the attainment of one of the programme's objectives of universal access to pre-primary in Botswana by 2020.

With regard to the delivery of quality ECCE, the Botswana National Education for All Country Report (2015) notes the following barriers: the absence of regulation and quality standards and limited number of teachers trained in ECCE. According to the Report, only 26 teachers that had enrolled for a Bachelor Degree in Early Childhood Education were due to complete their studies at the end of 2015. A further 141 teachers had to defer their studies due to financial constraints. Other quality issues raised were the lack of a mechanism and process for assessing children's development and readiness to proceed to Standard 1. Moreover, the Report notes that, even though the pre-primary curriculum had been developed, it had not yet been cascaded to all the pre-primary centres. There was also a concern raised on the limited availability of learning resources, such as games, puzzles, books, and crafts, as prescribed in the curriculum, the present study confirms some of these challenges.

From a research perspective, most of the available literature on ECCE in Botswana focus on the development and growth or lack, thereof, of ECCE, in general. There is, therefore, limited literature on the government's pre-primary

programme. Of the research available on the programme, the focus has been on the Integrated Early Childhood Development (IECD) curriculum (Mwaipopo, 2017; Bawani, 2019). There is also an evaluation report of the programme, Evaluation of the MoBE Reception Class, commissioned by the United Nations International Children's Emergency Fund (UNICEF) (UNICEF, 2019). To the best knowledge of the researcher of the current study, no empirical initiative has targeted specific indicators such as accessibility and quality of ECCE programme in Botswana. This, thus, creates a gap in scholarship. It is this gap that this study sought to fill in.

In the section that follows, the objectives that guide the thesis development of this study is presented. The objectives are drawn from the Problem that justifies the study.

1.4 OBJECTIVES OF THE STUDY AND RESEARCH QUESTIONS

1.4.1 Study Objectives

The primary objective of the study is to investigate the contribution made by the pre-primary programme in the enhancement of accessibility and quality of ECCE in Botswana. To achieve this, below are the specific objectives drawn from the overall aim of the study:

a) To assess the extent to which the pre-primary programme achieved its objective of providing universal, equitable and inclusive access to ECCE.
b) To determine whether the pre-primary programme has delivered on its objective of providing quality ECCE.
c) Recommend strategies and policy changes that could aid in increasing the accessibility and quality of the programme.

1.4.2 Research Questions

In order to achieve the study's purpose, the following research questions will be explored:

a) To what extent has the scale-up of the pre-primary programme achieved universal, equitable and inclusive access to ECCE?

b) What has been the effect of the following factors: teacher training, learning resources, classroom buildings and learner's assessment tools on the quality of the pre-primary programme?

1.5 THEORETICAL FRAMEWORK

A theoretical framework provides structure for data collection and data analysis, on the one hand and clarity for discussing the study's concepts, on the other hand (Kivunja, 2018). This study is underpinned by Vygotsky's socio-cultural theory, Levesque, Harris & Russel (2013) framework on access and Woodhead's (1996) framework on quality.

1.5.1 Vygotsky's Sociocultural Theory

Vygotsky posits that learners' knowledge is influenced by their environment and experiences. Vygotsky highlights that in the learning process, teachers ought to be aware that children are not passive learners but rather active participants and should be treated as such. Vygotsky further recommended the use of stimulated play to teach children. He further states that during play teachers should be intentionally observant of the learners so as to pick up on development levels of learners, their abilities and interests. The intentional observation becomes critical in identifying the learner's zone of proximal development (ZPD) which is the distance between the learner's actual development level and the learner's potential (Eun, 2018).

1.5.2 Levesque et al. (2013) Access Framework

The framework highlights several barriers to access which include lack of parental knowledge on the value of ECCE (Johnson et al., (2017), language and cultural barriers (Vesley, 2013), whether the curriculum content is in alignment with the community's values, onerous administrative requirements and availability of ECCE services within the local community (Halperin, 2007).

1.5.3 Woodhead (1996) Framework

Woodhead advocates for an independent and objective selection of quality framework indicators which are informed by the programme's goals,

community's perspective on child development, curriculum and wealth, just to mention a few as opposed to universal quality frameworks (Woodhead, 1996).

1.6 SIGNIFICANCE OF THE STUDY

Research and literature on ECCE in Botswana are limited, as earlier noted. What is even more limited is the knowledge of the pre-primary programme, which was recently introduced by the MoBE. This, however, is to be expected given that the programme has only been running for five years.

The present study seeks to analyse the two main outcomes of the programme, quality and access. The outcome of this study would contribute to the discourse of ECCE in Botswana. The study makes recommendations to the government on how the programme can be improved and or enhanced.

1.7 CLARIFICATION OF CONCEPTS

Access: This means the equal, timely and equitable distribution of learning opportunities with ease of enrolment and progression. Learning occurs with minimal disruptions and learners are able to attend school on a regular basis in a safe environment (Lewin, 2015).

Universal access: This means that all children within a prescribed age bracket, regardless of race, ethnicity, religion and social class, have equal and equitable access to ECCE (McCowan, 2010).

Equitable: This refers to an opportunity to access ECCE, which is fair and equal distribution without any forms of discrimination and biasness (Mugweni, 2017).

Inclusive: This refers to the creation of an environment in which learners, regardless of their learning, physical and mental abilities and societal class, orientation and culture, are able to learn together (Forlin et al., 2015).

Quality: It is a dynamic concept which places emphasis on value derived from the programme and maintenance of high standards. It is dependent upon the culture, settings and type of intervention referred to. Lastly, it is one of the

variables that are deemed to have an impact on the child's outcome (Mugweni, 2017).

Pre-primary: It refers to the initial organised learning set-up designed primarily to introduce learners to structured school settings (Organisation for Economic Co-operation and Development (OECD), 2002).

1.8 LIMITATIONS OF THE STUDY

Due to the national Covid-19 protocols which restricted travel and interactions, data collection was limited to Gaborone sub-region. The researcher therefore did not have data from schools outside of Gaborone and/or remote areas to analyse the consistency of the implementation and delivery of the programme. The findings from the study are therefore limited to Gaborone and they cannot be generalised or extended to other areas of Botswana.

1.9 CHAPTER OUTLINE

Chapter 1 presents the background of the study. It also includes the problem statement, research aims, research questions, explanation of the key concepts and an overview of the research methodology.

Chapter 2 outlines the theoretical framework and reviews the literature on ECCE. The chapter also interrogates quality and accessibility of ECCE programmes contribute to the achievement of the intended overall impact.

Chapter 3 discuses the study's philosophical approach and methodology. It also outlines ethical concerns in this study, and the validity and or trustworthiness of the findings

Chapter 4 presents a discussion of the data and its analysis.

Chapter 5 provides a summary of the findings and recommendations.

CHAPTER 2: LITERATURE REVIEW

2.1 INTRODUCTION

One of the principles of academic research is that it is not carried out in vacuum, but rather within the context of existing scholarly works (Kaneki, 2010). Therefore, the review of literature is a critical component of research. This chapter provides reviews the literature, which was considered relevant to accessibility and quality of ECCE.

2.2 DEFINITION OF ACCESS AND QUALITY

As stated in the previous chapter, the focus of this study is on the one-year government pre-primary programme in Botswana. The policy document which provides strategic guidance on the rollout of the programme is the Botswana Education and Training Sector Strategic Plan (ETSSP) 2015 -2020 (Government of Botswana, 2015). It states that one of the overall goals and / or objectives of the programme is to "provide inclusive and equitable access for all children to quality ECCE and pre-primary programmes" (Government of Botswana, 2015: 51). As noted earlier in this study, the study's key variables are access and quality.

Pre-primary is defined as the period in childhood before children enter formal primary schooling (Black et al., 1992). Biersteker, Ngaruiyu, Sebatane, Gadyanga (2008) explain that this is a transitory period in early childhood development, which transitions the child into formal learning. Pre-primary, therefore, provides children with an opportunity to acclimatise to school regulation, interaction with peers, and learning structure. Thus, preparing children for primary school readiness and a journey of lifelong learning is what this programme intends to achieve.

2.2.1 ACCESS

Access has been defined as "the availability and provision of programmes and services for all young children. Ensuring equal opportunity and allocation of resources in a fair, consistent and inclusive manner irrespective of an individual or a group's cultural or linguistic background, religion, spiritual beliefs, socio-economic status, gender, age or abilities" (Mugweni, 2017:316). The government of Botswana has not only undertaken to provide access, but

has qualified it by stating that access should be inclusive and equitable. As a result, the scrutiny of the programme's (ECCE) access and quality was conducted through the lens of inclusivity and equality.

According to the Bellour et al. (2017:10), inclusive ECCE is a "systematic approach to providing high quality education which effectively meets the academic, social and health needs of all learners from the local community". They further state that inclusivity demands that the programme should provide access to those with disabilities, special educational needs, migrants, newcomers, and other children at risk.

Before discussing the concept of equitability, it is important to distinguish it from equality. Although these two concepts speak to fairness, their import is distinct. Equality denotes sameness in treatment of learners. This is to say that all learners ought to be treated fairly, justly, and be afforded the same opportunities, tools, and resources. Equitability, on the other hand, speaks to the fair treatment of learners. It requires that the education system ought to appreciate the peculiar circumstances of each learner, so as to equip them with tools and resources that they specifically need to reach their full potential (Levitan, 2015). Equitability, therefore, seeks to address existing barriers to participation, such as socio-economic, religious, and cultural barriers, before dealing with equality (Myers, 2007).

2.2.2 QUALITY

Quality is a subjective construct, influenced by the values, beliefs and interests of any particular group (Mugweni, 2017). It is, however, best understood through the use of a framework which highlights the key principles, indicators or variables necessary for the attainment of the desired outcomes of any ECCE programme. The frameworks derive their variables from the philosophy of the curriculum in use or the relevant ECCE policy. These variables include but are not limited to the following: building infrastructure, teachers/leaner ratio, learners' learning experiences, parent involvement and access to learning or teaching material, age-appropriate resources, qualified teachers, and support staff (Young, 2002).

2.3 GLOBAL CONTEXT: ECCE ACCESS AND QUALITY

Access has been attributed to be one of the hallmarks of a quality ECCE programme. Despite this, countries are still struggling with universal access of pre-primary education. In 2015, many countries adopted the 2030 Agenda for Sustainable Development (UN, 2015). A total of 193 countries are signatories to the declaration. Agenda 4 of the Sustainable Development Goals (SDGs) provides that member states should ensure an equitable and inclusive quality education and promote lifelong learning for all. Agenda 4 has been divided into seven targets, and Target 4.2 provides that member states should ensure that by 2030, all girls and boys have access to quality early childhood development care and pre-primary education for them to be ready for primary education (UN, 2015). The SDGs declaration states that this could be attained by providing, at minimum, compulsory quality one-year pre-primary free education, which is to be delivered by qualified educators (UN, 2015). Despite this, the UNESCO Report, cited in the World Bank Database (2020), indicates that the worldwide enrolment rate, as at 2019, is only at 62%. A breakdown of the gross enrolment rate per region is as follows: Europe 98%, East Asia Pacific 83%, Latin America and the Caribbean 78%, North America 72%, Sub-Saharan Africa 32%, and the Arab States 27%.

Quality has dominated the ECCE discourse. The quality construct is regarded as a policy priority in most western countries. Research activities, spanning over 30 years, have explored and investigated the construct of quality ECCE. These studies indicate that the provision of high quality ECCE is essential for the optimal development of children's developmental outcomes, particularly those from underprivileged backgrounds (Fenech, 2011). Other notable benefits in quality ECCE include low incarceration rates, median earnings that are higher than those who have not participated in ECCE, the ECCE participants are more likely to attend college, and ECCE also leads to lower rates of delinquency (Schady, 2006). It is, however, noted that for any ECCE programme to deliver on these outcomes, the programme ought to be of high quality. Poor quality ECCE could cause more harm than good. For instance, poor quality ECCE has been observed to increase aggression among children, poor language development, just to mention a few (Samuels, Taylor, Shepherd, Van der Berg, Jacob and Mabogoane 2015; Kabita, 2008). It is against this background that the quality of ECCE programmes has been emphasised in the recent past.

Fenech (2011) states that in the period between 1980 and 2008, there were three evolutionary waves from a theoretical perspective on quality ECCE. In the first wave, the issue was whether or not child care was harmful to the development of children. In the second wave, two measures were developed to measure the quality of ECCE, namely; Infant/Toddler Environment Rating Scales- Revised (ITERS-R) and Early Childhood Environment Rating Scale-Revised (ECERS-R). The second scale focused on ECCE provided to the two and a half to five-year age group. Its sub-scales included space and furnishings, language reasoning, personal care routine, activities, interactions, programme structures, and parents and staffing. This turned out to be the most widely used measure of quality, particularly in the western world. The third wave was a build-up on the second wave. It is grounded on the ecological framework that adopts a triad approach to child development to include quality indicators, such as staff education, staff child ratios, group size, qualifications and training, adequate indoor and outdoor space, and, lastly, health and safety provisions (Fenech, 2011).

2.4 REGIONAL CONTEXT: ECCE ACCESS AND QUALITY

Although the majority of African countries are signatories to international declarations that advocate for the provision of equitable and inclusive access to quality ECCE, such as the Dakar Framework: Education for All (2000) and the 2030 Agenda for Sustainable Development, the continent continues to experience challenges in attaining universal equitable and inclusive access to ECCE. As previously stated, for instance, the Sub-Saharan African region has a gross enrolment rate of 32%, as at 2019 (World Bank, 2020). This rate is uninterestingly much lower when compared to the pace at which other regions of the world are moving.

Research indicates that because of the risks that children face in developing countries, access to ECCE is of utmost importance in breaking the cycle of inequality, poverty and violence. The importance of ECCE is further emboldened by the fact that child centred interventions are more effective when introduced early in the lives of the children (Ghosh, 2019). As a result of the increased knowledge in the ECCE sphere and heightened interest by

international organisations, development agencies and policy makers, developing countries have, between 1999 and 2005, made remarkable strides in increasing enrolment rate, cumulating to 20 million children within that period. This has been partly, attributed to the growing evidence of the literature that shows that the ages of zero to six years are the best time to invest in interventions that improve children's welfare in the areas of health, physical, intellectual, and social wellbeing (Noboa-Hildalgo and Urzua, 2012).

In the Sub-Saharan African region, one of the main challenges faced by the growth of ECCE is the competing developmental needs of the countries. For ECCE to flourish and, thereby, increase access, ECCE programmes require financial investment by governments. Governments cannot only be supportive of ECCE in vision and principle alone; they ought to support these programmes through resource mobilisation and equitable allocation (Aidoo, 2008). Ultimately, the decision of which competing developmental priority ranks higher than the rest remains a political decision. Governments can only be advised to choose to give children the best early head start possible, and it remains within their powers to do so. This means choosing a cohesive and robust early childhood care and development programme, which encompasses child care, health, nutrition, education, and family support (Aidoo, 2008).

Access to ECCE centres seems to be a major problem in most African countries. In Zimbabwe, for example, the government, in the mid-1980s, had funded the construction of one model Early Childhood Development (henceforth ECD) centre per province. In 2004, the Zimbabwean government mandated primary schools to annex two ECD class to increase accessibility of ECD centres. Despite these commendable efforts, access continues to be low given the population size of the three to five-year-olds in the country. Zimbabwe experiences inadequate access to ECD centres mostly in the rural areas, resettlements, and illegal settlements in the peri-urban areas (Mugweni, 2017). This is the plight of most African countries. Similarly, Ghana, has comparable challenges. The Ghana Commission on Children (2002) shows that a significant number of the ECCE centres were privately owned, and mostly found in urban areas with limited presence in rural communities. In addition, the high costs of accessing the ECCE services had an adverse

impact on ECCE access, especially amongst the rural communities, and those from low socio-economic backgrounds.
Botswana has similar challenges (Maundeni, 2013; Kabita, 2003). It remains to be seen whether or not the pre-primary programme had a positive effect on ECCE access in Botswana.

Sub-Saharan Africa has the highest population of children who suffer from malnutrition and poverty. This contributes to the high numbers of children with low cognitive, social and emotional development. Most countries in the world fall under the low to middle income countries category, with diverse and persistent developmental needs (UNESCO, 2015). These circumstances play a contributory role to the quality of ECCE. There is limited research on ECCE quality in Sub-Saharan Africa, in general (McCoy and Wolf, 2018).

One of the countries in the region that seems to be doing well in ECCE is Ghana. In 2007, the government of Ghana introduced a compulsory and free kindergarten pre-primary programme. In the 2015-2016 period, Ghana's pre-primary net enrolment rate was 80%. Notwithstanding the commendable high enrolment rate, a third of Ghana's pre-primary children scored low in basic developmental milestones, such as following instructions, working independently, and getting along with others (McCoy and Wolf, 2018).

The Republic of South Africa has also managed to increase its enrolment rate from 9% in 1996 to more than 80% in 2011. This was facilitated through the adoption of the Education White Paper 5 on ECD in 2001, which affirmed the compulsory reception year (Samuels et al., 2015). The ECD policy aimed at expanding access to ECCE services, especially for the low socio-economic status children, through government's partnership with community-based centres, ECD sites, and primary schools (Samuels et al., 2015).

2.5 THEORETICAL FRAMEWORKS

Swanson (2013) defines theoretical framework as the structure of theory that supports or holds the research together. It is through the theoretical framework that the researcher's philosophy, epistemology, methodology, and analytical approach becomes clearer to the reader. The theories that informed this study are Vygotsky's socio-cultural theory, Levesque et al. (2013), and Woodhead's

(1996) quality framework. There are other ECD theoretical frameworks, which although not greatly influential in the present study, have contributed, quite immensely, to the discourse on ECCE, and are briefly discussed below.

2.5.1 Leo Vygotsky's Socio-cultural Theory

Vygotsky was a constructivist theorist, who believed that learners' knowledge and understanding is influenced by their own experiences gained prior to entering the schooling system. He posits that children learn through interacting with both the environment and people around them, highlighting that the child's first point of contact with learning is primarily their parents. This learning ensues through parents issuing instructions on what to do; when to do it; how to do it; and what not to do (Tudge and Winterhoff, 1993). All these are issued through language, which forms an essential part in the child's social inheritance. This knowledge is, then, received by the child, who, in turn, internalises it and adds his or her personal values and or understanding to the body of knowledge received. This transfer of knowledge should not be understood as imitation, but rather a transfer of knowledge through interaction to one's personal values (Tpociu and Myftiu, 2015). The critical Vygotsky states that the process, explained above, is imitated in the learning of children at school in that the children not only absorb what their teachers teach, but transform it into their personal knowledge, according to their level of development.

According to Vygotsky, through play, which could be represented in various forms, such as music, art, language, song, dance and drama, the child expresses what she/he has learnt. Central to his theory was that play represents what the child knew, but also presents an opportunity for the child to gain new knowledge. Vygotsky notes that play is a social and cultural activity, which contains all developmental tendencies in a condensed form, thus, making it a major source of development (Sarker, 2019).

Berk and Meyers (2013) state that one of the reasons why play was central to Vygotsky's theory was that it provides a window into what Vygotsky calls a zone of proximal development (ZPD). Eun (2018) defines ZPD as the area between what a learner can do without any assistance and tasks that are too difficult for the learner to complete unassisted. The imagery of spatial distance

in this concept serves not only as a metaphorical image, but also sheds light into Vygotsky's understanding of development as a continuous process, as opposed to a point on a scale. ZDP postulates that the teachers be intentionally observant of the learner's performance in class activities so as to determine their developmental progress. This would inform the teacher to give them tasks that are within their ZPD, for the continued growth through a process called scaffolding. Scaffolding refers to the assistance given to a learner by a more knowledgeable person, the teacher, for instance (Louis, 2009). The process of completing tasks through the assistance of a more knowledgeable person contributes to the learner's cognitive development. Through repetition of the task, the learner acquires the skills to complete the task independently, and then moves to the next higher ZPD (Topciu and Myftiu, 2015).

In summary, Vygotsky's theory on child development requires that there be a variety of interconnected play activities. It also calls for a continuous assessment of learners through observations to determine the level of development and areas of interests. Teacher/child interaction and the individual support afforded to each child, curriculum content, which should be developmental level appropriate, method of delivery of content, role of parents and teachers, are all critical for Vygotsky's suggestions to be achievable.

2.5.2 Jean Piaget's Theory on Cognitive Development

Piaget's theory states that in the delivery of instruction, the teacher should: first, take into consideration the level of development of the child, and second provide a variety of experiments (Huitt and & Hummel, 2003). The crux of Piaget's theory is the constructive point of view, which contends that learners are not passive in their acquisition of knowledge, but active participants (Lefa, 2014). Sheridan (2001) states that according to Piaget's theory, teaching is achieved by presenting children with appropriate tasks, which contribute to their (children's) perceptual development, such as their coordination of movement through physical action, and the use of representational systems to achieve the internalisation of abstract ideas.

2.5.3 Alfred Bandura's Social Learning Theory

Bandura expressed that children learnt by watching and observing the behaviours and attitudes of people around them. According to Mensah and Badu-Shayar (2016), those people could be parents, family, peers, teachers, and television characters. Children are said to observe and encode these models' behaviours, and, at a later stage, may imitate them. The principle underlying this theory is that children need to be guided and taught how to choose acceptable and exemplary model behaviours. Learning, according to Bandura, occurs through observation, encoding, imitation, and modelling (Mensah and Badu-Shayar, 2016).

2.5.4 Urie Bronfenbrenner's Ecological Systems Theory

According to Bronfenbrenner, the environment within which a child lives influences the child's development. The level or degree to which the environment had an influence has been broken down into four levels: meso-system, which is the child's nuclear family, and this has the most influence. It is followed by the exo-system, which includes school, especially ECCE centres, and they have substantial influence in the child's socio-emotional development. The macros-system is made up of society, culture, government, politics and policies. Lastly, there is the chrono-system, which is any life-changing factor (Mensah and Badu-Shayar, 2016). The extent to which the child's environment may impact or influence the child's development is largely dependent on the level of proximity to or of the environment.

2.5.5 Levesque, Harris and Russell's Access Framework

It has been noted by Mnthali et al. (2014) that it is insufficient to look at providing access to ECCE through the lens of merely providing physical buildings or space for ECCE classes. This is, particularly, true as data in Botswana indicates that enrolment and availability of services is skewed in favour of certain localities or regions, especially in the cities and towns, compared to the rural areas (Maundeni, 2013). In attempting to understand whether or not an ECCE programme has the hallmarks of achieving or attaining inclusive and equitable access, the framework by Levesque et al. (2013) provides a foundation for this discourse. Although the Levesque et al. access framework is premised on access to healthcare, it highlights applicable insights on barriers, challenges, and the proposed interventions, which are

equally applicable to access to ECCE. A brief explanation of the framework's considerations is provided below. Some of its key principles have been adopted to inform the access framework used in this study:

2.5.5.1 Perceived Need for ECCE

The existence of ECCE and its benefits must be clear. In order for parents to have a sense of appreciation for ECCE, they ought to be aware of the existence of ECCE services and their benefits to them and their children. The articulated benefits ought to resonate with the values and beliefs of the targeted group. As a result, awareness campaigns and outreach programmes should target communities from low socio-economic background, 'minority' groups, and the marginalised (Johnson et al., 2017).

2.5.5.2 Diversity in Language and Use of Technologies

By reducing language barriers, Johnson et al. (2017) argue that ECCE centres create a warm sense of belonging and acceptance, as they create a culture of inclusivity. By leveraging on technology, ECCE centres can keep parents up-to-date about their children's daily progress and development. This strengthens relationships among the ECCE service providers and the parents, resulting in reduction of discontinuity (Archambault et al., 2020).

2.5.5.3 Acceptability and Ability to Seek

The ECCE programme should reflect an understanding of the needs of the community. When the services provided and the needs of the community are aligned, the relationships between the two are fortified. This can be attained through one or more of the following:

a. Centres are flexible so as to allow parents to observe lessons and offering flexible hours of attendance.

b. Ensuring that the centres are both culturally sensitive and inclusive. ECCE staff ought to be encouraged to learn the cultural nuances of the communities they work in. Employing locals, who are culturally sensitive as childcare workers, can assist. Children should be taught cultural diversity and sensitivity (Vesley, 2013).

2.5.5.4 Administrative Obstacles

The demand of various documentation by ECCE centres can create onerous burden on the parents. These administrative burdens include the demand for the availing of birth certificates (of the children), parents'' identity documentation, confirmation of residence, employment status, just to name a few. All these can act as a barrier to access, as it is common for people from low socio-economic backgrounds to be without the above-mentioned documents (Vesley, 2013).

2.5.5.5 Availability, Accommodation and Ability to Reach

The inequality in the provision of ECCE centres amongst neighbourhoods, towns, cities, villages, and settlements is notable. As a result, there tends to be more centres in affluent communities than in indigent communities. The above circumstances are further aggravated by the common enrolment policy of first-come-first-served. This practice places families from disadvantaged backgrounds and or minority groups on the back foot. Consequently, these families tend to access services at the last minute due to the instability and uncertainty of their lives (Halperin, 2007). Belgium has, as an example, adopted an admissions criterion that puts more weight to considerations such as low income, ethnicity and other vulnerable considerations, as a way of making admissions to ECCE centres more equitable (Vandenbroeck, Geens and Berten, 2014). From the above stated indicators, the access framework indicators are: universality, inclusivity, equitability and administrative barriers.

2.5.6 Woodhead's Framework on quality ECD

In his seminal work, "In Search of the Rainbow" (1996), Woodhead developed a quality framework, which was borne out of his caution on over reliance on Euro-American quality models. These Euro-American quality models may not always be realistically attainable in developing countries, such as Botswana. Woodhead's message of caution was that "there is a strong tendency for Euro-American models of quality to dominate research, policy, training, and practice in early childhood development. With a few notable exceptions, this tendency has been fuelled by the Universalist aspirations of developmental psychology. Universal models of quality are both untenable and unhelpful as countries' resources and economic abilities vary. Further basing the determination of quality indicators on the programme's goal, the communities' values,

perspective on child development and the curriculum, which invariably shall vary it is unsustainable to adopt a one size suits all approach" (Myers, 2004). At the same time, we are advised not to embrace the opposite extreme, an ultimately self-defeating form of relativism. The aim, herein, is to steer a middle course, signalled by the principle elaborated in this report: "Quality is relative, but not arbitrary" (Woodhead, 1996).

The framework's quality indicators are grouped under three main headings, namely; input indicators, which are the easiest to establish and measure. They include buildings and surroundings, materials, equipment and staffing. The second indicator is process indicators. Process indicators refer to the day-to-day activities, and are more difficult to standardise. They include style of care, children's experience, approach to learning and teaching, adult/parent/caregiver relationship. The third and last indicator is the outcome indicators, which is the impact of the experience. This includes children's health, children's abilities and children's adjustment. For the purposes of this study, the quality framework is limited to learning resources and material, teachers' in-service training, efficacy of physical infrastructure, and learners' assessment.

2.5.6.1 Quality Indicators

As alluded to above, the quality indicators used in the assessment of quality for the purposes of this study is influenced by Woodhead's quality framework (1996). This framework calls for the formulation of an objective, as opposed to universal quality framework, which takes into considerations factors such as the objectives/goals of the programme. These are informed by perspectives on childhood development, values, wealth, the curriculum, and the programme's founding documents to mention a few (Woodhead, 1996). The quality indicators are formulated under three broad headings: inputs, process and outcome.

2.5.6.1.1 Inputs Indicators

a. **Infrastructure**: This includes the size of the classroom building, other facilities, such as water, sanitation and health, and classroom furniture. Chopra (2016), in her study based on the quality ECCE in the municipal corporation of New Delhi, India, found that poor infrastructure facilities

adversely affected class management, teaching and learning. As a result, this negatively impacted on the quality of the learning experience.

b. **Teacher Training and Personal Development**: Kennedy (2016) reveals that in the USA, teachers' personal development had a direct positive influence on the children's attitude towards learning. Also, it was observed in Kennedy (2016) study that continuous training gradually improved the teachers' and their teaching methodology. Similarly Young (2002) notes that one way of improving quality ECCE was through the training of teachers and ensuring that they obtain the necessary minimum qualifications, which, in most instances, is a diploma. Lastly, Mugweni (2017) advises that it is imperative for teachers to be trained on play-based learning for it to be effectively implemented as it is a new concept, especially in most African countries.

c. **Learning/Teaching Resources**: Learning and teaching resources and stimulating learning material are crucial in improving the quality of ECCE programme. Whitebread et al. (2009) referred to them as stimulating materials that enhance the fine and gross motor skills, curriculum and teaching material, interest corners, age-appropriate reading material, music instruments, games, puzzles, toys, to name a few, are important. These materials facilitate the delivery of the curriculum and helps in the implementation of play-based learning, (Whitebread et al., 2009; Zewdie et al., 2016; Mugweni, 2017). The availability of the learning and teaching resources influences the quality of ECCE learning as the present study also shows.

2.5.6.1.2 Process Indicators

Process indicators are discussed under this sub-section. Indicators considered under this sub-category include curriculum, style of care, and approach to learning.

a. **Curriculum**: It should be noted, however, that although studies have not been able to establish a causal link between the quality of ECCE curriculum and the child's outcomes, there is sufficient correlational evidence from studies, which make out a case for the provision of high quality ECCE curriculum. Curriculum helps develop and broaden the child's horizon, self-esteem, self-efficacy, cognitive growth, motor skills, and other social outcomes. Therefore, quality

ECCE curriculum remains an important indicator in influencing quality ECCE experience (Sani et al., 2018).

b. **Pedagogy**: This refers to the manner or style of teaching. In more detail, it is a set of instructional techniques, methodologies and strategies, which enable the learning process to take place (Wall, Litjens and Taguma, 2015). It is concerned, most importantly, with how learning is facilitated, as opposed to what ought to be taught. This is so because studies have established that the development of children's various capabilities is influenced more by their experiences and interactions in their early years. It should be noted, however, that due to the limited research evidence and studies, one cannot conclusively state that one style of pedagogy, or a mixture of them, delivers better outcomes than the other (Wall et al., 2015). The determining feature of quality pedagogy is, therefore, whether it promotes or accelerates the development of children's cognitive, physical, social, and emotional skills (Rajawat, 2016).

2.5.6.1.3 Outcome Indicators

This is about the impact of ECCE services. Outcome indicators include factors such children's health, abilities, adjustment to school and family's attitudes. These outcomes, as research has conclusively shown, include cognitive, physical, and socio-emotional development (Janta, 2016). Attaining these goals is dependent on the quality, or lack thereof, of the ECCE programme. In addition to these considerations, the other factor is the school readiness of the child, which the IECD (Government of Botswana, 2012) states as one of its desired outcomes of the programme. School readiness is understood as skills, which include "both academic preparation, such as the foundations of literacy and mathematics, and other essential aspects of school readiness such as motor skills, social and emotional learning, executive function and engagement" (Spier et al., 2019:229).

2.6 CHAPTER SUMMARY

This chapter has provided an analysis of related literature, which speaks to the research topic and problem statement. It further provides a comparative analysis of ECCE progress related to access and quality. In particular, Vygotsky's theory provides grounding for the quality inquiry. According to the

theory, learning material and resources that support play, regular learners' assessment, individual support of learners, teacher-child interaction, programme delivery, and parents-teachers participation are key to the success of ECCE. Informed by these groundings and Woodhead's (1996) framework, the quality framework in this study is restricted to learning resources and materials, teacher in-service training, efficacy of physical infrastructure, and leaners' assessment. These are representative of the three indicators highlighted by Woodhead (1996), namely; input, process and outcome. In this study, the access framework informed by Levesque et al. (2013) is limited to the following indicators: universality, inclusivity and equitability, and administrative barriers.

The theories that frame this study's theoretical approach as (presented in the next chapter) are informed by Vygotsky's socio-cultural theory, Levesque et al. (2013) access theory and Woodhead's (1996) quality framework. It is through the theoretical framework that the researcher's philosophy, epistemology, methodology and analytical approach becomes clearer to the reader.

CHAPTER 3: RESEARCH DESIGN AND METHODS

3.1 INTRODUCTION

This chapter discusses the research methodology used in this study. Williams (2007:65), citing Leedy and Ormrod (2001), defines research methodology as "specific procedures and techniques used to identify, select, process and analyse information about a topic. It is the section that allows the researcher to critically evaluate the study's overall validity and credibility by looking at how the data was collected and analysed". This chapter, therefore, describes the research paradigm, research design, sampling, data collection and analysis. It also explains the ethical considerations in this study.

3.2 THEORETICAL FRAMEWORK

3.2.1 Vygotsky's Socio-cultural Theory

This theory was used to inform the analysis of the implementation of learning through play by the teachers and the assessment of learners. Vygotsky's theory speaks of play as an essential element in the child's learning process, which play should be diverse and supported by a variety of play material (Tudge and Winterhoff, 1993). Its relevance was also found in Vygotsky's assertion that during play teachers can by intentionally observing learners become aware of the learners' level of development which is essential for learners' assessment and is recommended by the IECD curriculum.

3.2.1 Levesque et al (2013) Access Framework

This framework was used by the researcher to deconstruct the concept of access and how it affects the ECCE programme in totality. This was achieved by analysing access through four main indicators, namely universality, equitability, inclusivity and administrative barriers to access.

3.2.2 Woodhead (1996) Quality Framework

Through Woodhead's principle that quality framework should be generic informed by each programme's peculiar circumstances, the community's concept of child development and sustainability, the researcher identified four indicators through which to analyse the quality of this programme. The indicators are infrastructure, learning resources, teachers' in-service training and learners' assessment.

3.3 PHILOSOPHICAL APPROACH

Paradigm has been defined as the theories or worldviews through which the research actions and inquiries are guided or informed (Guba and Lincoln, 1994). There are four main research paradigms, namely; post-positivism, constructivism, transformative, and pragmatism (Mertens, 2009). The present study was influenced by the transformative paradigm. Transformative paradigm's major elements are that the research inquiry is a political, power and justice orientated, collaborative and change orientated process (Mertens, 2009). This paradigm posits that "research inquiry needs to be intertwined with politics and a political change agenda to confront social oppression at whatever levels it occurs" (Mertens, 2007:212). Mertens (2009) further highlights that some of the key features include lived experiences, inequalities based on social bias, political and social action linked to these inequalities, and beliefs.

This study on ECCE in Botswana explores issues of social justice, inclusivity and access. This programme has a high potential to narrow the inequality gap in Botswana's pre-primary education. Furthermore, the programme under investigation is change orientated as its broad benefits are the reduction in poverty levels, reduced need for remedial programmes, reduced spending in criminal justice, strengthened parent's job stability and prospective increased future earning capacity of children, who undergo an ECCE programme. Children also become healthier, and are less likely to need special education (Van Der Gaag and Tan, 1998; Harmon, Finn, Chevalier and Viitanen, 2006; Schady, 2006; Institute of Medicine and National Research Council, 2012).

3.4 RESEARCH DESIGN AND APPROACH

This study used qualitative research methods. Qualitative data collection methods provide the researcher with a deeper understanding of the subject matter. Qualitative inquiry is ideal, as Creswell (2009) posits, for use in the Humanities and Social Science subjects, such as Education, Health, Sociology, and History.

The qualitative inquiry was used to explore issues of accessibility and quality of the pre-primary ECCE programme. This approach was found to be most ideal because the insights of the people working closely with the programme,

namely; teachers, school heads, and the MoBE officers, were found to be astute and invaluable in shedding light on the implementation and reception of the programme.

3.5 STUDY POPULATION

The study's population is drawn from the government primary schools within the Gaborone sub-region of Botswana, which have implemented the pre-primary programme. As at 2020, 613 government primary schools had implemented the programme. Of these, 24 primary schools are within the Gaborone sub-region. The researcher interviewed 12 ECCE teachers and 7 head teachers and or heads of department from 12 government primary schools in the Gaborone sub-region. This represents 50% of the primary schools with the pre-primary programme within the region. In addition, the researcher interviewed Principal Education Officers from the Ministry of Basic Education (henceforth MoBE), Regional Education Officers (REO) and Department of Curriculum Development and Evaluation (DCDE).

3.5.1 Sample and sampling process

Sampling is the process of selecting study participants or informants from the whole population size (Durrheim, 2010). In the present study, the researcher took into consideration the Covid-19 movement restrictions, convenience, cost-effectiveness, and primary schools' proximity to the researcher, and chose to focus on the Gaborone sub-region. The study's population was the 24 government primary schools in the South East region, which had, at the time of the study, implemented the ECCE programme. Gaborone falls in this region.

The participating schools were chosen through the use of purposive sampling, which is a sampling technique common to qualitative research/inquiry. This technique is a non-probability sampling technique in which the researcher selects a sample that is most representative of the population and has the attributes of the population that best serves the study's purpose (De Vos et al., 2011). Creswell (2007) states that the use of purposive sampling allows the researcher to carefully select a divergent pool of participants and or sites that provide rich, detailed and in-depth understanding of the research problem.

For the purpose of this study, the following were used as pre-selected criteria for the selection of participating government primary schools within the Gaborone sub-region:

- Schools that had more than one stream of the pre-primary class. Such schools were selected for their efforts in increasing accessibility of the programme.

- Schools that had been offering the programme for a period of not less than three years. The researcher deemed that this period was sufficient for the schools to have generated knowledge and be able to provide in-depth insights on issues affecting access and quality of the programme.

- Lastly, the researcher purposively selected schools from low, medium and high-income localities so as to provide a balanced socio-economic representation.

3.5.2 Sampling size

The sample size consisted of the following:

- Twelve (12) pre-primary teachers;
- Five (5) school heads or Heads of Department – Infancy Education (which is pre-primary and lower primary school classes being standard 1 to 3);
- One (1) Principal Education Officer (PEO) from the Department of Curriculum Development and Evaluation (Pre-Primary Unit);
- One (1) PEO from the Regional Education Office;
- One (1) PEO from the MoBE (Pre-Primary Unit).

The participants were selected based on their direct involvement with the implementation of the pre-primary programme at various levels. The teachers were the primary research informants, as they deal with the basic implementation of the programme. The school heads provide supervisory and administrative support roles to the teachers. The PEO DCDE, provides technical support, whilst the PEO – REO is responsible for the programme's monitoring and supervisory role. The programme owner and provider of strategic leadership is the PEO, MoBE.

3.6 DATA COLLECTION

This refers to the method of data collection from the participants. The selection of data collection methods is informed by the research design. In this study, the researcher used interviews, observation, and document analysis to collect data. These methods are consistent with the commonly used data collection methods for qualitative research (Durrheim, 2010).

3.6.1 Primary Data Sources

Primary data is the data directly collected by the researcher (Douglas, 2015). For the purpose of this study, and in answering the research questions (equitable and inclusive access of the pre-primary programme and its quality), the researcher used interviews and observations for primary data collection.

3.6.1.1 Interview Method

De Vos et al. (2011) state that interviews are a social relationship in which the inquirer (researcher) questions the informant (participant) so as to gain information and understanding of a particular subject matter at hand. The quality and depth of the data collected is largely dependent upon the researcher's ability to creatively and astutely guide the discourse and manage the relations. The interviews can either be semi-structured or unstructured, commonly known as in-depth interviews.

In this study, the researcher adopted face-to-face semi-structured interviews. Given its flexibility, the researcher was able to make follow-up questions in order to gain more clarity on interesting points raised by the participants. The researcher gained greater insights from observing the participants' non-verbal communication, and observed them in their natural environment, especially the teachers and school heads, and heads of department.

3.6.1.2 Observation Method

Observation is a "systematic description of the event, behaviour, and artefacts of a social setting" (Marshall and Rossman, 1989:79). Of the two types of observations, participant and naturalistic, the researcher selected naturalistic observation, which is the study of an organism or behaviours or phenomenon in its natural setting (De Vos et al, 2011). This allows the researcher to observe and record the settings, conditions, atmosphere and other intangible data,

which would not ordinarily be captured by other data collection methods. The method was used to collect data from the selected primary schools to provide insight on the delivery of the ECCE programme, through the observation of classes, learners at play, and physical infrastructure. The data collected through observations was correlated with the findings from the interviews and documents.

3.6.1.3 Documentary Study Method

This method involves the review and evaluation of documents to extract meaning, gain understanding, and develop empirical knowledge to a research problem, or the subject matter being studied (Bowen, 2009). Such documents include, but are not limited to, personal, government, public and procedural documents. In this study, the documents used include the curriculum, which provided much detail on the programme's content and the learners' assessment tools. The researcher also studied the teachers' scheme books and lesson plans, which provided insights into their lesson preparation and delivery of content and overall class management. Lastly, an assessment of the children's assessment books provided data on the frequency and method adopted in assessing the learners.

3.7 DATA ANALYSIS

De Vos (2011:399) observes that qualitative analysis is the "…nonnumerical examination and interpretation of observations, for purposes of discovering underlying meanings and patterns of relationships". This entails inductive analysis of the data collected, organising, segmenting, and arranging the data in a thematic manner (Braun and Clarke, 2006). The researcher elected to use thematic analysis to analyse the data collected through semi-structured interviews. The data was analysed following Braun and Clarke (2006) framework's steps provided below:

- Familiarisation of data: Involves the reading and re-reading of the data so as to be well versed in it;
- Coding: Identification of features relevant to the research questions;
- Generalising initial themes: identifying probable themes by examining the codes and collated data;

- Reviewing the themes: Refining the identified themes and justifying them against the backdrop of whether or not they answer the research questions;
- Defining and naming the themes: This involves the detailed analysis of the various themes and their scope;
- Write-up: This involves looking at the analytic narrative, data extracts, and contextualising the themes based on the existing literature.

The data collected through observation and documentary study was analysed through content analysis. The emerging themes from the observation and documentary analysis were then juxtaposed against the emerging themes derived from the thematic analysis. By comparing the data collected through various methods: interviews, observation and documentary study, the researcher validated the study's findings to confirm their reliability (Trainor and Graue, 2014).

3.8 VALIDITY

The validity and reliability of a study is particularly important in qualitative research where the researcher's bias is great, and has the potential of clouding his/her judgment when designing the research and interpreting its findings. The researcher should, therefore, ensure that she/he guards against bias by developing a solidly founded research design to give credibility to the findings.

Denscombe (2010) argues that the issue of validity is a credibility concern, which requires the researcher to establish that the data collected was collected through appropriate methodologies and interpreted accurately. This is addressed by juxtaposing the findings from the observations and documents with that collected through interviews. Providing a detailed outline of the steps taken during the research process ensures additional credibility of the study's findings. The researcher, in the current study, has provided validation of the findings by carrying out the two methods stated by Denscombe (2010).

3.9 ETHICAL CONSIDERATIONS

Ethical considerations ensure accountability and integrity in research. They also provide some form of protection of the participants and the researcher

(McMillan and Schumacher, 2010). In qualitative research, this is critical because the researcher actively deals with human beings and should, therefore, be alive to their fundamental rights during the research process.

In order to comply with the research ethics, the researcher applied for an ethical clearance certificate from the University of Cape Town (UCT) Ethics Committee. Upon its approval, the researcher applied for a research permit from the MoBE and the Regional Education Office to gain access to the PEOs and primary schools. The application for the research permit included a copy of the research proposal, interview schedule and the UCT's ethics clearance certificate. A letter of introduction, enclosing the MoBE's and Regional Education Office's research permit, and the interview schedule, was sent to all the participants/informants.

In addition to the above, specific dates were set for the interviews and observations. Furthermore, the interviewees were informed of the research topic, its objectives and research questions. Their consent was sought for the recording of the interviews and partaking in the research. They were also informed of their rights, which include:

- Confidentiality: The participant's participation in the study would not be revealed to any third party;
- Consent: That participation in the study was based on their voluntary participation, which they could withdraw at any stage of the interview;
- Anonymity: That the participant's identity shall not be revealed to any third party, nor would the write-up be so descriptive as to provide clues on who the participant might be;
- Privilege of choice: This suggests that the participant had the right to refuse to answer any question without proffering an explanation;
- The right of withdrawal: The participant had the right to withdraw his/her consent to participate at any stage of the interview.

Lastly, the MoBE and Regional Education Office were informed of their right to have access to the final research report should they wish to do so. The researcher obliged to drop off a copy of the completed thesis.

3.10 CHAPTER SUMMARY

The chapter has detailed the research methodology used in answering the study's research questions. It has also presented the philosophy underpinning the study, and this has been influenced by the transformative paradigm. The chapter also discusses data collection process and analysis. It concludes with a summary on how the research was validated, and the research ethical issues tackled.

CHAPTER 4: FINDINGS AND DISCUSSION

4.1 INTRODUCTION

This chapter presents an in-depth discussion of the findings from the interviews, document analysis and observations. The purpose of this analysis is to answer the two research questions of this study:

a. To what extent has the scale-up of the pre-primary programme achieved universal, equitable and inclusive access to ECCE?

b. What has been the effect of the following factors: teacher training, physical facilities, and learning, and assessment tools on the quality of the pre-primary programme?

4.2 GEOGRAPHICAL BACKGROUND OF THE RESEARCH SITE

The research was conducted in the Gaborone sub-region. The estimated population of this area is 231, 592 (Statistics Botswana, 2011), of which an estimated 17, 938 are under the age of five. According to the REO, Gaborone sub-region, there are 29 government primary schools in the region, but only 24 of these have implemented the pre-primary programme. Within the schools that have implemented the programme, five have two streams of the pre-primary class, whilst the rest only have one stream. The total number of the children enrolled in the programme, as at January 2020, was 914. As previously stated in chapter three, the researcher selected 12 participating primary schools through purposive sampling. The criteria used to select the schools were:

- Whether or not the school had more than one stream;
- Whether or not the programme had been operating for three or more years; and
- Ensuring that the participating schools are representative of the diversity in socio-economic background of the sub-region, i.e., to have a representation of schools from both the middle- and low-income earning locations of the sub-region.

4.3 SUMMARY OF THE PARTICIPANTS

The researcher interviewed 19 participants/informants. One PEO from each of the following: the MoBE, DCDE and REO representing the programme owner, technical support and monitoring function respectively, were interviewed. Three school heads, two Heads of Department - Infancy (who supervise pre-primary to Standard 3 classes), and 11 teachers from the 12 primary schools selected by purposive sampling, were also interviewed.

The participants were assigned pseudonyms to maintain anonymity, in line with research ethics. These were assigned in chronology of the visits to their primary schools. PS denotes primary school, T means teacher, SH means school head, and HoD is the head of department. In accordance with the sequence of the interviews, PS 1 means primary school 1, PS 2 primary school 2, and so on. PS1T1 means primary school 1 teacher 1. PS1SH1 means primary school 1 school head 1, and PS1HoD1 means primary school 1 head of department 1.

A summary of the teachers' years of experience and qualifications is captured in Table 1 below:

Table 2: KEY: PS – Primary School; T – Teacher

Reference	**Gender**	**Qualification**	**ECCE Teaching Experience**
PS1 T1	Female	Diploma – Integrated Early Childhood	3 years
PS2 T2	Female	Diploma –Early Childhood Education	More than 10 years
PS3 T3	Female	Diploma – Early Childhood Education	12 years
PS4 T4	Female	Diploma	5 years
PS5 T5	Male	Diploma – Integrated Early	5 years

		Childhood Development	
PS6 T6	Female	Diploma – Early Childhood Education	11 years
PS7 T7	Female	Diploma – Advanced Certificate Early Childhood Education	2 years
PS8 T8	Female	Diploma – Early Childhood Education	10 years
PS9 T9	Female	Diploma – Early Childhood Education	More than 20 years
PS10 T10	Female	Diploma – Early Childhood Education and Care	6 years
PS11 T11	Female	Diploma – Early Childhood Care and Development	5 years

Figure 1 below is a graphical representation of the governance and role flow of the various actors in the implementation of this problem.

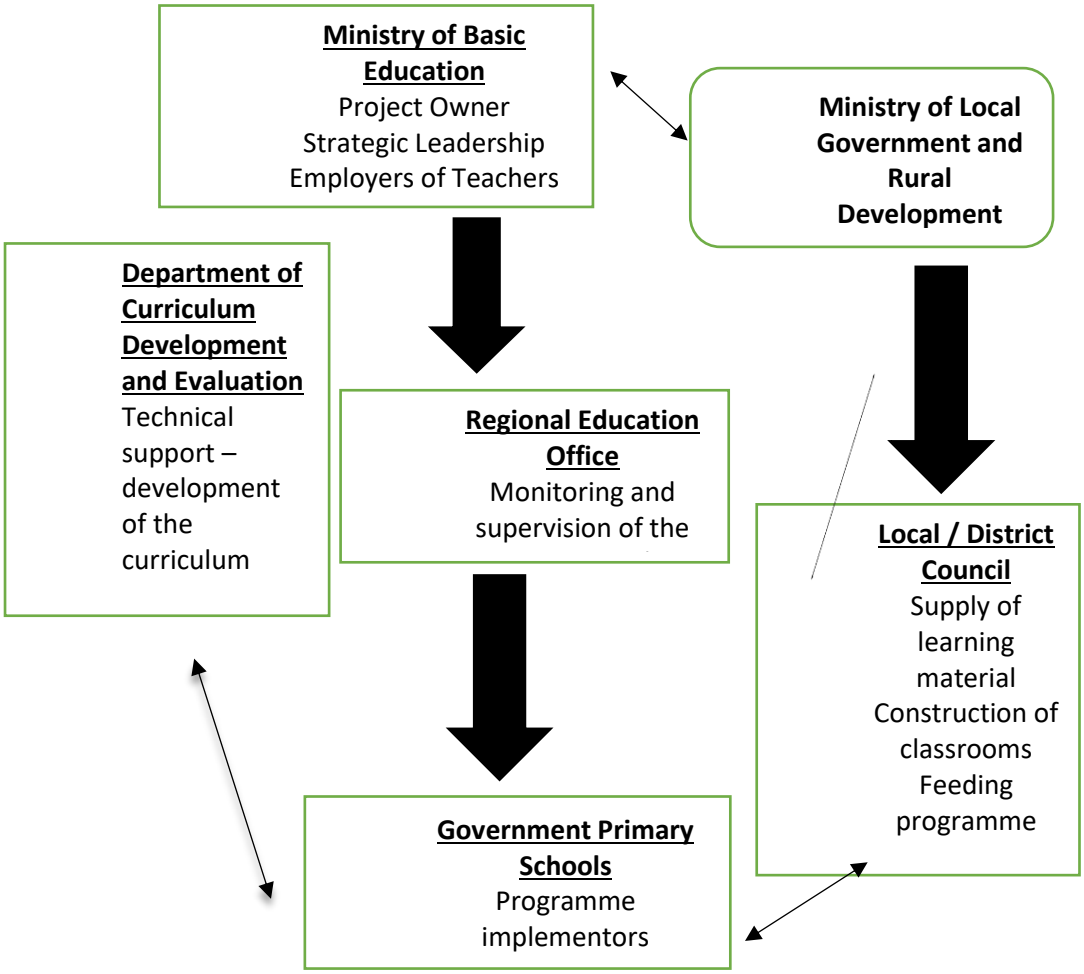

Figure 1

4.4 ANAYLSIS OF FINDINGS – ACCESS

4.4.1 Universal Access

Universal access to education means ensuring that all eligible learners are able to access education facilities in a timely manner. This is regardless of their social standing, abilities, religion and gender. It requires government to make and implement policies to address barriers to access, which include physical, social, economic, emotional and environmental (Michigan Department of Education, 2006). Universal access to primary education is important in that it tackles inequality created by limited access to ECCE (Van Der Gaag and Tan, 1998). In analysing this theme, focus was on the availability of enrolment spaces, enrolment data, and the demand for the

programme. This was to answer the research question: “To what extent has the pre-primary programme achieved universal access?”.

The Botswana Education and Training Sector Strategic Plan (ETSSP 2015-2020) (Government of Botswana, 2015) indicates the target set by the National Development Plan- 10 (NDP-10) (Government of Botswana, 2009), which is at least 40% enrolment rate by eligible children in pre-primary classes during the period of the development plan, which is 1 April 2009 to 31 March 2016. The 2012 Education Statistics Report (Statistics Botswana, 2015), however, reports an enrolment rate of 18.4%, which is less than 50% of the intended target. It was against this background that the government set, itself, a target of ensuring 100% national coverage at all government schools by 2020 (Government of Botswana, 2015).

According to the data received from the REO, the Gaborone sub-region has 29 government primary schools, of which only 24 (83%) had implemented the pre-primary programme, as at 2020. To have attained this from 2014, when the programme was launched is, in itself, a commendable effort. According to the data provided the by PEO at the MoBE, as at 2020, 613, out 751 (82 %) government primary schools, had implemented the pre-primary programme countrywide.

In the earlier chapters, it was noted that the Levesque Framework (2013) posits that there are many factors to improve access: firstly, providing the physical structure where the service is to be accessed from; secondly, awareness among the beneficiaries about the benefits of the service; and thirdly, for the purpose of this analysis, addressing administrative barriers to accessing the service.

The duty of providing buildings to be used, as a classroom, falls under the responsibility of the local council authority. In an interview with PEO at the MoBE, she indicated that at the inception of the programme:

> “[S]chools were requested to find existing structures which are not in use and convert them into classrooms. This was due to the Ministry of Local Government and Rural Development’s (MLGRD) developmental budgetary constraints” (2020).

This was further confirmed by the PEO's DCDE:

> "[W]e have not attained full coverage at all government primary schools due to the limited developmental budget of the MLGRD" (2020).

The NDP-10 (Government of Botswana, 2009) and the National Budget Speeches 2016 to 2020 do not make specific budget provision for the ECCE programme. It has been recommended by some researchers that at least 10% of the education budget, in each country, should go towards pre-primary education (Zubairi and Rose, 2017). Furthermore, lack of funding of pre-primary programme results in children from low economic backgrounds failing to access ECCE, or if they are able to access it; it is often of poor quality (Putcha et al., 2016) due to factors discussed in previous chapters.

This situation was observed at primary schools which are currently running the programme. They had to convert unused buildings and, in some instances, sacrifice the use of some buildings to create space for the pre-primary classes. Table 2 provides a summary of the buildings that were refurbished to accommodate the pre-primary classes.

Table 3 Summary of buildings used to host the pre-primary classes

Type of Building Used	**Total Number of Primary Schools**
Library	2
School Hall	2
Kitchen	2
Storeroom	1
Library Office	1
Unused Classrooms	4

The requirement that schools should use existing buildings to host pre-primary classes poses serious challenges to schools, which either desire to start the programme or expand. As a matter of fact, there is a limited supply of unused

buildings at schools. In expressing their desire to expand the pre-primary programme at their school, one school head teacher, PS2SH1, stated:

> "[W]e receive over 100 applications for pre-primary but can only admit 30 students. If we had extra facilities, we would start a second stream of pre-primary class".

This indicates that the parents are aware of the programme and that there is demand of the programme.

It has also been noted that although the majority of schools have been able to introduce the pre-primary programme, that is 24 out of 29 schools, this translates into the enrolment of only 914 learners, as at 2020. Statistics Botswana (2011) estimates the population of children, who are five- years-old and younger in Gaborone sub-region at 17, 938. Given the 2020 enrolment rate, it represents far less than 50% of the eligible children, being children between the ages of four and a half and five years.

The low enrolment rate is confirmed by various schools. Participants revealed that they have to send away more parents seeking placement for their children. PS3HoD1 said:

> "[W]e receive applications in excess of 70… we are limited to 30 due to spatial constraints and some of the applicants are from outside our catchment area".

PS10T10 also noted:

> "[W]e sometimes find ourselves admitting more than the recommended number of learners due to parents' pleas at times some parents involve the area councillor or Member of Parliament".

However, due to the limited availability of pre-primary facilities in the sub-region, schools are unable to satisfy the demand for the programme.
The data indicates that, on average, primary schools receive 70 to 100 applications for pre-primary enrolment. The schools' capacity is limited to less than 50% of the number of applications received per annum. This situation

perpetuates the widening of the inequality gap as less than 50% of the learners enrolled at primary schools would have received the head start of pre-primary education (Maundeni, 2013).

4.4.2 Inclusive Access

Inclusive access is the ability to provide learning to all children with special attention on those who are vulnerable to marginalisation and exclusion (Forlin, 2015). UNESCO (2014) provides characteristics of an inclusive programme, and it includes the following: diverse grouping of learners of different backgrounds, ages and educational abilities; a curriculum which fosters inclusion and is responsive to the learners with special needs; individualised attention, especially for those from ethnic minority and special needs; and parental involvement. Inclusive education, not only ensures that leaners are assisted to reach their full potential, but it also teaches and cultivates acceptance of diversity in learners from an early age (Hehir et al., 2016).

Inclusive access looks at whether or not the programme provides a true representation of the diversity in the community within which it exists. This is assessed by looking at the cultural diversity of the centres, both in appearance (along racial, tribal, gender) and in teaching. It further assesses the centre's ability to seamlessly accommodate diversity. In addition to that, it assesses its ability to accommodate learners with special needs and those from low socio-economic status to flourish without being discriminated or excluded from the programme. Inclusive access is important, not only because it bridges the inequality gap for the disadvantaged and low socio-economic status of learners, but also benefits children with or without disadvantaged backgrounds, such as special needs, disabilities and low socioeconomic status, according to the World Bank and UNICEF. The findings on inclusive access are summarised below, under two sub-headings, cultural inclusion and inclusion of learners with special needs.

Cultural Inclusion

The programme is taught in Botswana's two official languages, namely Setswana and English. Teachers reported to be mostly using Setswana in term one, as most learners are not conversant with the English language.

Setswana is spoken by 96% of the population in Botswana. It is, therefore, deemed to be the most inclusive of the languages spoken in Botswana (Chebane, 2016). Only three primary schools, P3, P5 and P10, reported to have had students from different nationalities, such as Zimbabwe and Zambia. P3 also reported to have had a Motswana learner of Khoi San descent, whose mother tongue was not Setswana, but of the Khoi San dialects.

The following are examples of teachers promoting inclusiveness in the classroom. PS3T3 reported that to create an inclusive environment, she would:

> "[T]ry to learn a few common phrases in Shona and *Sesarwa* (Setswana word for Khoi San dialect), especially the greetings and nursery rhymes".

The efforts by PS3T3 to be intentional in creating an inclusive environment for non-Tswana learners is commendable, especially for the those of Khoi San descent due to that the fact that they face much discrimination and exclusion in the education sector. This has led to them being underrepresented in the education system (Ketsitlile, 2011). PS10T10 also stated that she uses English, as a medium of instruction:

> "[I] use English in my classes and translate into Setswana for those who do not understand as English is the commonly spoken language by the learners".

This shows that the teachers are conscious about ensuring that their classes remain as inclusive as possible, by using the appropriate language to achieve the objective of inclusive access. Cultural and language inclusion increases the learner's participation in class. It also increases parental involvement, which is essential for the creation of an inclusive environment, ultimately contributing to quality learning (Carter and Abawi, 2018).

Inclusion of Learners with Special Needs

Seven (7) primary schools out of the twelve (12), being 58% of the primary schools, that participated, confirmed that they had enrolled learners with special disabilities. Their special needs ranged from minor physical disability, speech impediment to autism and undiagnosed special needs condition.

Although these schools reported to have enrolled learners with special needs, what the interviews revealed was that the schools had limited resources and support to competently offer the special needs learners an inclusive learning environment. To this, PS6T5 stated that:

> "[I] had a learner who was extremely restless, could not concentrate for long… at times he walks out of class and wander off… sometimes he would take off his clothes. I have reported the matter to my supervisor who referred me to the guidance and counselling teacher. They have not been able to help me and I do not know how to deal with the child. The latest update was that the matter had been referred to the Botswana Central Assessment Centre (CRC) for assessment, which is a diagnostic assessment centre for children with disabilities."

PS8T8 indicated that she felt she was not equipped to deal with her learner's special needs, and neither was there a support system within the school:

> "[I] had a learner who would mentally drift out, would not participate in any of the class activities. He isolated himself from the rest of the class. He could not speak. I suspect he was autistic. The only thing he enjoyed doing was playing with building blocks and colouring pictures of helicopters and aeroplanes. If you gave him a picture of any object other than these two, he would not colour. Unfortunately, he did not return to school after the reopening of the schools post Covid-19 lockdown".

PS3T3 stated that in her experience, the CRC services are hard to access as the centre has a long waiting period to assess students referred to it. During her interview, she expressed that:

> "[I]t is quite possible for a learner to complete her/his primary education without being assessed despite the referral to CRC being made in her/his lower primary". She further explained that:

> "[A]t our school, we encourage parents to report the matter to the clinic and rope in the assistance of the social worker to try an expedite the assessment. Where parents are able to afford, we advise that they seek

the assistance of private specialists as the CRC takes forever to assess children".

The findings indicate that schools admitting special needs learners in the Gaborone sub-region do not have the necessary infrastructure and response system to deal with their needs. Granting access to learners with special needs is not all about enrolling them into the programme. It requires that the programme should have appropriate support structures, its curriculum and policies should be inclusive, and teachers ought to be adequately trained in teaching special needs child. In the absence of these, access remains hollow as the learners will not be able to reach their potential (Report of the Inter-Departmental Group, 2015). Similarly, Miles (2002) and Lange and Thompson (2006) state that delayed diagnosis of disability could result in misunderstanding of the learner, frustration of both the teacher and the learner, exclusion and isolation, which ultimately leads to stigma. Furthermore, it poses an adverse threat to the learner's acquisition of academic skills.

The data and literature point to the conclusion that poorly structured special needs access to ECCE could result in more harm than good.

4.4.3 Equitable Access

This section relates to the research question on assessing the extent to which the pre-primary programme achieved equitable access. Equitable access is understood as the balancing exercise between social justice, fairness and the learners' right to education and equal representation within the pre-primary programme. Mugweni (2017) defines equitable access as the fair distribution of opportunities and resources for talent and skill development. In essence, therefore, the analysis investigates if the pre-primary programme has created an environment where learners experience a similar learning journey regardless of where they are enrolled. In instances where there are disadvantaged communities, examining whether or not the programme has provided equitable access for these communities to the services rendered.

Equitable access is a two-pronged scrutiny. On the one hand it provides a comparative scrutiny amongst the primary schools to measure how evenly balanced the distribution of resources are. On the other hand, it demonstrates

how the administrative enrolment processes result in the equitable access of the pre-primary programme by eligible learners.

4.4.3.1 Equitable Distribution of Resources

This refers to resource allocation in a manner that creates an environment which supports learners to excel and attain their fullest potential (Travers, 2018). These resources include human talent, time, money, educational material, and any other resource that supports the efficient delivery of the programme's material.

Teacher's Aides (TA)

One of the requirements of the ECCE programme is that teacher's aides (TA) will be assigned to each pre-primary class. Where the school is in a community with a language barrier, that is where Setswana is not the primary language used, a TA will be sourced from the local community to assist with the local language. It has been noted that teaching ECCE learners in their mother tongue produces better academic results, and helps build their cultural identity and pride (Effiong, 2013). In Botswana, the building of cultural identity and pride is of great importance, especially for the minority non-Tswana *merafe* (tribes).

Of the 12 primary schools targeted by this study, four reported that they did not have TAs. Of the four, one reported that since the inception of the programme, they had not had a TA despite running two pre-primary streams. Another school reported to have a temporary TA, whilst two stated that their TAs are tertiary students, who are on a two-month attachment. Two primary schools reported that they were provided with Tirelo Sechaba Participants as TAs. Tirelo Sechaba is a National Service Programme, which is used to create employment for unskilled youths (the youth without any tertiary qualification).

PS1T1 teacher, for instance, lamented that:

> "[W]e have over 60 learners spread into two classrooms but have no TA. It is impossible to cope, especially when there are slow learners in class, they tend to get left behind".

Her counterpart PS2T2, in another school, expressed a similar concern:

> "[W]e do not have TAs. Instead, we have tertiary students who are on attachment for two months… This arrangement adversely affects continuity and relationship building with learners and the TAs".

Teacher qualifications (this includes TAs) have significant correlation to quality ECCE as they influence classroom quality through the standard of interactions, class management and learning delivery (Manning et al., 2017). Low or no qualifications can have a negative impact on the quality of ECCE. The disparities in the quality standards of the programme are an indication of the inequitable distribution of resources.

Distribution of Learning Material

The Pre-Primary Curriculum Framework (Government of Botswana, 2013) provides a detailed breakdown of the type of support or learning material needed for each learning area. These include books, toys, building blocks, alphabets, outdoor equipment, and sports equipment. Out of the twelve (12) primary schools, six (6) reported to have adequate supplies of resources, both in variety and quantity, whilst the remaining six decried shortage of learning resources at their schools. PS11T11 disclosed that:

> "[D]ue to limited supply in learning materials, we, as teachers, either create the crafts needed for class… Sometimes we ask parents to donate".

PS4T4 expressed the same sentiments and added that:

> "[W]e cope by selling snacks at school to raise funds to buy additional materials and where we can we create our own material".

PS3T3 noted a concern that:

> "[D]ue to lack of learning material, there are some learning objectives that I skipped as I did not have the supporting learning resources for the demonstrations".

When probed as to whether the school had considered alternative ways of getting the learning material, such fundraising or donations from parents, she indicated that the school was in a low-income area, and most parents cannot afford to make contributions for the purchase of learning resources. Due to the emerging pattern of unequal distribution of resources, it is quite likely that the experiences of the pre-primary schools differ regarding quality. This, without doubt, undermines the attainment of equitable access.

4.4.3.2 Administrative Barriers to Access

Halperin (2007) highlights that enrolment policies that are not conscious of the challenges of the disadvantaged members of the society, including minorities and special needs learners, could inadvertently exclude them from accessing ECCE services. It is against this background that this section looks at how sensitive/responsive is the enrolment process to the pre-primary classes to the needs of these groups. Schools should also be alive to the administrative processes or lack, thereof that might inhibit access to pre-primary services by one segment of the society.

All the schools that participated in this study indicated that their enrolment policy was on a first-come basis. In addition to that, schools do not have a waiting list system. This could assist, firstly, in generating data to inform budgets and plans for the expansion of the programme. Secondly, by creating an accountability system where parents would be able to inquire from schools if their children have moved up on the list. Thirdly, it would allow schools to make preferential exceptions for children with special needs as and when vacancies opened up. PS1T1 explained the process as follows:

> "[W]e open up for applications in October and the public is informed by word of mouth. We admit learners who are between four and half to five years. If a learner is under four and a half years, we reject them, and their parents will have to reapply in the next academic year. All our admissions are on a first-come basis and we do not keep a waiting list".

Similar sentiments were shared by all the 12 schools. A school PS7HoD2, in addition to the explanation by the teacher, stated that schools do not have preferential admissions policies for the vulnerable groups in the society. As a result, they could not make exemptions for them during the enrolment process.

It does not appear that there is a national policy or guideline on admissions. However, the MoBE website https://www.gov.bw/learning-and-teaching/primary-school-student-registration-standard-one provides the requirements for registration of a learner, but it is silent on when one can register a learner.

Due to the fact that schools reported that they turned away applicants once they reached their admissions limit and that they did not maintain a waiting list for admissions, the researcher could not verify if those that were rejected were predominantly from the vulnerable population. The following are a summary of the conclusions made from the access data analysis:

1. The pre-primary programme has not created sufficient spaces to absorb a significant number of children. As indicated above, less than 50% of the annual applicants get admitted. These unfortunate set of circumstances perpetuates the growth of the inequality gap in education, as over 50% of pre-primary eligible children are denied the head start benefit borne from ECCE.

2. Schools and teachers have not been adequately prepared to support learners with special needs. The support structure too, has not been adequately resourced; hence the delay in undertaking the assessment of learners with special needs. This may lead to both teacher and learner frustration and stigma. It also delays the mitigation of progression of disabilities and delays the learner's development.

3. The data suggests that there are inconsistencies in the distribution of resources, with some schools being better resourced than others. These disparities have an adverse impact on equitable access to ECCE.

4. There are no admissions guidelines, and this leaves schools at liberty to frame their own guidelines. It has been noted that the guidelines make no provision for special dispensation for the marginalised and vulnerable groups in the society. Left unchecked, this could lead to their systematic exclusion.

4.5 ANALYSIS ON FINDINGS – QUALITY

Quality is a dynamic concept It relates to the maintenance of high standards and attainment of the programme's outcome. Its variables are based on inputs, process and outcome indicators, as stated by Woodhead (1996). These indicators are used, in this study, to analyse the data on the quality of ECCE in Botswana.

This section presents the findings on the second research question, which determines whether the pre-primary programme has achieved its objective of delivering quality ECCE. The emerging thematic areas from this research questions are: learning resources and materials, teachers' in-service training, efficacy of physical infrastructure, curriculum and assessment of learners. These align with the quality framework outlined in chapter three. The next sections present the data in relation to each indicator, and how it responds to the research question on quality.

4.5.1 Input Indicator - Availability or lack of learning resources and materials

In this section, the researcher assessed the availability of learning materials and resources at the studied schools. The analysis provides insight as to whether the schools received adequate learning resources and materials to enable them to deliver on the programme as envisioned. In determining the adequacy, the researcher looks at the quantity and variety of the learning resources and materials.

Learning resources refer to materials that stimulate the development of fine and gross motor skills, aid in the implementation of the curriculum, facilitate play-based learning, and are used in the creation of interest corners. The availability or lack thereof is said to have an impact on the quality of ECCE (Whitebread et al., 2015). Learning materials include equipment such as toys, puzzles, outdoor play area, musical instruments, and sporting equipment. The Pre-Primary Curriculum Framework (Government of Botswana, 2013) provides guidance as to the type of learning resources needed for each learning area. These include puzzles, charts, dolls, building blocks, numbers,

shapes, crayons, story books, audios, alphabets, kitchen toys, number beads, trampoline, balls, playground, radio, and musical instruments.

One of the questions posed to the respondents was whether they had adequate supply of learning materials. Elicited data indicates that six (6) schools have adequate learning materials, while the remaining six (6) indicated that their learning materials were not adequate for the effective delivery of the curriculum. The data further indicates that although six schools had reported to have adequate learning materials, they were not without challenges. PS9T9 had answered in the affirmative to the resource question posed, but when probed further stated that:

> "[T]he only challenge that I have is that we have not been supplied with storybooks. I however, brought about twenty of my own books".

PS11T11 confirmed that they have adequate supply of learning resources, but proceeded to state that their playground was in a bad state of repair:

> "[T]he two swings that we have are broken; they also did not dress the playground with a layer of pit sand to protect the learners from injury when they fall".

It is a long-held belief that has been established by several scholars, amongst them Mupa and Chinoneka (2015), that the lack of or insufficient supply of instructional material has a negative impact on effective teaching. These sentiments were echoed by some of the interviewed teachers. PS2T2, for instance, disclosed that the inadequate supply of learning material was both in terms of quantity and variety. She went on to explain that:

> "[I]n some instances, the lack of adequate learning material negatively affected learning. Our learners learn by seeing visual demonstrations of concepts, so in instances where we do not have the necessary resources to demonstrate these concepts, the concepts may become too complex for our leaners to grasp".

PS4T4 also confirmed that due to the unavailability of some resources, it becomes difficult to assess the child's development. In explaining her point,

she gave an example of assessing the development of gross motor skills by saying:

> "[I]n this assessment, we use the jungle gym or trampoline, swings, etc., but because ours are either broken or not assembled, when I assess the learners, I stick to rudimentary methods of assessment, which do not require these equipment".

A learning through play curriculum requires diversity of play and learning material to help in the development of learners. A supply of limited or homogeneous material affects the quality of the programme (Chukwbikem, 2013).

Observations made at the schools shed light on the teachers' assertions. There was a distinct difference between schools that were well resourced and those that were not. The resourced schools, such as PS7, had a functional playground, the classroom walls had a variety of charts, depicting body parts, animals, fruits, and numbers, etc. With under-resourced schools, such as PS2, the play area was dilapidated with broken swings, the classroom had fewer charts and artwork on the wall. This school was in a high-density area where most of the community members fall within the low-income bracket.

4.5.2 Teacher in-service training

In the earlier chapters, it had been submitted that teacher training contributes to the quality of the delivery of ECCE services (Chopra, 2016). McCoy et al. (2018) concur with what has been posited on the positive impact of teacher training on the quality of the learning. It is generally agreed that a brief in-service training of teachers can lead to long-term gains in early childhood learning. This section assesses how in-service training aided or could improve the delivery of quality ECCE.

As previously stated in the preceding sections, all the teachers who were interviewed had a diploma in Early Childhood Education from various institutions, save for one who had an advanced certificate in the same programme. The standard practice is that upon employment by the MoBE as pre-primary teachers, teachers are taken for an induction training for a period

of one week to educate them on the programme's curriculum. The MoBE is aware that not all teacher training institutions provide courses on the IECD curriculum as part of their training. This was confirmed in an interview with the PEO from REO, who state that, among other things, teachers are taught lesson planning, class management, how to assess children and to facilitate learning through play curriculum. The PEO DCDE stated that they are involved in designing different in-service training modules for the teachers to help improve on the delivery of the programme. These modules are informed by the daily challenges experienced by teachers. Out the twelve (12) teachers interviewed, two (2) reported that they had not yet been inducted or undergone any in-service training. Five (5) teachers reported to have attended more than one in-service training since being employed (PS2T2, PS6T6, PS9T9, PS10T10 and PS11T11).

The teachers stated that their in-service training covered areas such as lesson planning, class management, introduction to education policies, implementation of the curriculum, learners' assessment, management and teaching of special needs children and age-appropriate teaching methods. The content of the in-service training confirms what the two PEOs from REO and DCDE had stated.

One teacher, PS6T6, expressed her appreciation of the in-service training as it helped her particularly when dealing with shortage of learning material. She recounted:

> "[A]t one of the in-service trainings, we had a session on crafts, and how to recycle waste material into some of the required learning materials. I use this training since in my school has shortage of learning materials."

PS10T10 also reported that she is able to design the various charts because of the training she received at one of her in-service trainings. Overall, the teachers indicated that they were pleased with the in-service training with those who had only attended one session requesting that the trainings be offered more frequently to enable them to learn not only from the facilitators, but from the shared experiences of other teachers, as well. The other notable challenge was presented by PS1T1, who indicated that she had attended in-

service training at her previous school, but since joining her new school, her HoD attends all the trainings denying her the opportunity to do so. In expressing her frustrations, she said:

> "[E]ver since I got here, only the HoD attends the training sessions. Although she provides feedback after the training, I think it would be better for the pre-primary teachers to attend the training since we are the ones dealing with the children and facing the challenges, as such, we are best suited to ask questions, give feedback, make recommendations and obtain first-hand information on how we can improve on our delivery."

The researcher deduced, from some of the documents that were provided by the teachers, that those who had attended in-service training were able to plan for their lessons using scheme books. Some teachers had made their own scheme books using the sample attached in the curriculum. The lesson plans were in line with the guidelines provided by the Curriculum Framework (Government of Botswana, 2013).

Other observations made were on the inconsistency in the regularity of teachers attending in-service training, and the criteria for inviting some schools more often than others. When probed as to what the training process was, PS7HoD2 stated that:

> "[W]hen evaluating the teacher, we make recommendations to the REO for them to enrol the teacher at the next training session. It is the training unit and the REO that invite schools and indirectly select which schools get to attend the training."

The data indicates that there are inconsistencies in the teachers' in-service training programme. Those that have attended regular training sessions show signs of being able to cope with the classroom challenges and are innovative in the face of limited resources. This is consistent with the findings of various research that teacher training improves classroom quality (Shonkoff and Phillips, 2000; Kelley and Camilli, 2009).

4.5.3 Efficacy of the physical infrastructure

In this section, the researcher examined how the physical infrastructure enabled the successful implementation of the pre-primary programme, and thereby, contributed to the quality of the programme. The physical structures, which were taken into consideration, were: the classroom, outdoor play area and bathrooms. Chopra (2016) posits that poor infrastructure facilities adversely affect class management, teaching, interaction with the learners, learning, and, overall negatively effects the quality of the learning experience.

4.5.3.1 Classroom Space

The pre-primary programme guidelines state that classrooms should have enough play space for children. It goes on further to recommend that the space should be 1.5m^2 of play space per child (Government of Botswana, 2001). These recommendations are an indication that the designers of the programme were cognisant that space is a critical factor in the successful delivery of quality ECCE, especially in this programme, which is play-based and requires space for movement, play and demonstrations.

As stated in the preceding sections, the classrooms used were not constructed to be used as ECCE, and had to be refurbished to make them fit for purpose. This refurbishment, however, did not include the extension of the classroom to make them more spacious. This was confirmed by PS5SH3 when he stated that:

> "[T]he local council refurbished our old kitchen, removed the chimneys, increased ventilation, repainted… They informed us that they were not mandated to increase the building area space so we have to work with what we have."

This meant that the school had to work within the parameters of the existing space.

Out of the twelve (12) schools, only four (4) were satisfied with the spaciousness of their classrooms. These are the schools that used school halls as their classrooms, such as PS3T3, or existing old classrooms, such as PS1T1. Those that indicated to have space limitations had to do away with learning or educational corners. These corners are special corners dedicated

to the six (6) learning areas of the curriculum which are meant to enhance the learner's educational interest, curiosity and overall learning experience. As a substitute for the learning corners, most teachers stated that they put up charts, which contain similar content as would the corners. PS5T5 informed the researcher that she puts up a particular learning corner when teaching about a related subject and manages to achieve this by rearranging the class furniture. Other teachers (PS2T2, PS4T4 and PS9T9) reported that they carryout demonstrations in the outdoor playing area due to space constraints.

Most of the schools further reported that the Covid-19 protocols, particularly the social distancing requirements, have placed additional stress on the already constrained classrooms and the settings therein. PS9T9 indicated that prior to Covid-19, they did not have space challenges, and had been able to put up the various learning corners, including a sick bay area. However, with changes that were brought about by Covid-19 protocols, they had to "remove the learning corners so that we comply with the Covid-19 requirements. We now use the outdoor play area for our demonstrations and play." This was also confirmed by PS8T8, who disclosed as follows:

> "[P]rior to Covid-19 we had 4 learners sitting at one desk. But due to Covid-19 we had to reduce that to two learners per desk in line with the guidelines. This meant more furniture in the class, and it has used up most of indoor play space."

4.5.3.2 Outdoor play area

The outdoor play area is a key component of the delivery of learning area number five, which speaks of physical, creative and aesthetic development (Government of Botswana, 2013). The Pre-Primary Curriculum Framework (Government of Botswana, 2013) states that crucial to this area of development is the provision of an enabling environment, which includes an outdoor play area. The researcher observed, throughout all the schools, that the outdoor play area consisted of two or three swings, a slide and a jungle gym, regardless of whether the schools had one or two streams of pre-primary classes. The researcher further noted that the play area was not enclosed or fenced or cordoned off from the rest of the school. This posed a risk to the learners as they could wonder off without the teacher or TA noticing. In

addition, it leaves the learners' play area easily accessible to the senior primary school pupils.

Most schools raised concerns that the outdoor play equipment was insufficient given the number of children enrolled. They further informed the researcher that variety was limited. Some teachers raised safety concerns over the fact that the play area was not covered with pit sand to cushion the impact of injury should learners fall. This concern was also stated by Britto et al. (2011) when they postulate that ECCE programmes should ensure that their physical environment reduces threats and exposure to accidents of learners.

PS2SH2 and PS4HoD1 raised concern that because the pre-primary unit is within the confines of the primary school, as a result its play area has not been fenced off so as to bar senior primary school pupils from using the play equipment. For example, they found that the swings and other play equipment do not last as the senior pupils play with them much to the detriment of the pre-primary learners. PS4HoD1 further elaborated:

> "[W]e raised the concern with the Gaborone City Council and requested that they fence the play area, but they informed us that it was not in their immediate plans to do so. Due to this, we have not put-up other equipment, such as the trampoline, as we fear it might get damaged by the senior pupils."

4.5.3.3 Suitability of the Bathrooms

The recommendations of the pre-primary guideline documents are that pre-primary learners should be provided with junior toilets and toilet training for their safety (Government of Botswana, 2001). Mugweni (2011) aptly concludes that infrastructure should be age appropriate for safety and accessibility reasons in line with the recommendations provided in Government of Botswana (2011). This section considers whether the schools are in compliance with the recommendations, and if not consider the consequences of the non-compliance.

PS2SH2 advised that the school does not have junior toilets. He indicated that they are aware that the toilets pose a risk to the learners as they are too high for them. When probed as to what they have done about it, he said that they

had requested the city council to provide them with suitable toilets, but were informed that the council had financial constraints. This was corroborated by PS4HoD1, who indicated that their school too, realising the risk posed by the normal toilets to the young learners, asked for the provision of junior toilets, but were informed that the council had no budget for that.

PS6T6 said, in dealing with this situation, she changed her timetable to make provision for a class toilet break. Explaining it further, she stated that:

> "[W]e had to introduce the supervised toilet breaks. They help us ensure that the learners are safe at all times."

Several shortcomings were observed in the physical infrastructure that was provided for the pre-primary programme. Key among these are the safety concerns raised on the lack of padding in the outdoor play area, and lack of junior toilets. Mugweni (2011) and Chukwbikem (2013) state that hand basins and toilets for pre-primary learners ought to be of a suitable height to minimise accidents.

It was also noted that the classroom space limited some learning activities, due to space constraints. This comes not as a surprise as most of the buildings were not built for the purposes of ECCE programme. Overall, these findings have an adverse effect on the quality of the programme. Chukwbikem (2013) asserts that physical infrastructure is essential to the delivery of quality ECCE learning.

4.5.4 Learners' Assessment

Assessment is important as it provides teachers with feedback on the level of comprehension and development of the learners. It informs lesson planning and also acts as a monitoring and evaluation tool. It provides parents with an account of the developmental progression of their children (Bagnato, 2007). In Vygotsky's theory, learner's assessment provides insight to the teacher of the learner's ZPD. It is important to note that assessment forms are a critical part of a high quality ECCE programme (Snow and Van Hemel, 2008).

Appendix I to V of the Curriculum Framework (Government of Botswana, 2013) provides guidelines for the continuous assessment of learners in all the six learning areas. The learning areas are: Personal, Emotional and Social Development; Language Development and Early Literacy; Health, Nutrition and Safety; Mathematical and Scientific Thinking; Physical, Creative and Aesthetic Development; and Moral and Spiritual Guidance. The key indicators for the learning areas are self-concept and social awareness, communication, hygiene and nutrition, concept of numbers and science process skills, motor skills and creativity, and mannerisms respectively. The framework recommends that the assessment should be carried out continuously as the term progresses. Notes should be made and also observing of patterns and peculiar incidents should be taken into account. These observations would, then, inform the end of term report.

A question on how teachers assessed the progress of their learners was posed to all the schools. They all reported that they follow the guidelines provided in the Curriculum Framework. But the researcher observed inconsistencies among the schools in relation to the frequency and the manner in which the assessment was carried out. These inconsistencies include the frequency of assessment, and the method used when assessing learners. One teacher, PS3T3, used the observation method, and reported that she kept a file in which she made notes throughout the term as to how the learners performed and their various interactions with other learners. PS7T7 stated that:

> "[W]e call them individually to assess them through testing their fine motor skills, identification of colours, shapes, numbers, etc."

Challenges to implementing the framework were also reported. These include lack of learning materials necessary for the assessment of some learning areas, particularly physical development. PS10T10, for instance, reported that, in some instances, they ended up modifying the recommended assessment as they did not have the necessary equipment.

Most schools reported that due to the school closures, following the Covid-19 outbreak, the 2020 assessment were restricted to more basic indicators, such

as fine and gross motor skills, eye-hand coordination, holding of pencil, ability to follow instructions, among others. In emphasising this, PS12T12 stated that:

> "[B]ecause we have not been able to complete our curriculum, we had to modify the assessment indicators. Most learners, in our school, have regressed due to the Covid-19 interruptions."

The following is a summary of the analysis of data on the quality indicators:

1. Data suggests that there are inconsistencies in the allocation of resources and the distribution of training opportunities. These resources are not distributed in a fair, just and equitable manner. Some schools reportedly received sufficient resources. Some teachers confirmed that they have received more than one in-service-training opportunities. What is not clear is whether or not the skewed allocation of resources is deliberate, as in adherence to a particular allocation guideline, or due to lack of monitoring systems.

2. Safety concerns have been raised by teachers and the school management, and this has gone unattended. Some of the safety concerns are in relation to the bathrooms and the play area. In mitigating associated risks, teachers use up the valuable learning time to accompany learners to the bathrooms. It was also noted that the classroom physical structures do not support the classroom setup as recommended by the curriculum.

3. The recommended assessment framework in the curriculum is inconsistently applied by the teachers. Some reportedly carryout continuous assessments, whilst others assess learners at the end of the term. Teachers also use different assessment methods, with some using the observation method, whilst others use a test like assessment method.

4.6 CHAPTER SUMMARY

This chapter has provided an analysis of the thematic areas that emerged from data analysis. The analysis is mainly based on Levesque's (2013) framework on access and the Woodhead's (1996) framework on quality. The dominant

themes that emerged from the analysis under access are universality, equitability and inclusivity. On the other hand, what emerged in the quality analysis are availability or lack of resources, teachers' in-service training, efficacy of physical infrastructure and the assessment of learners. The findings shed insight and knowledge on the actual operations of the programme. This provides the insight on the challenges, successes and opportunities for improvement. It is against these insights that the findings and recommendations discussed in the next chapter are based.

CHAPTER 5: CONCLUSION, IMPLICATIONS AND RECOMMENDATIONS

5.1 INTRODUCTION

This chapter summarises the findings and show how they contribute to the body of knowledge in the area of ECCE in Botswana. It further provides recommendations that are consistent with the findings of the study. The chapter also explains how the data answered the research questions and objectives. Lastly, it concludes by identifying the findings which could be used to inform policy-making in relation to the pre-primary programme.

5.2 KEY FINDINGS ON ACCESS

To what extent has the scale-up of the pre-primary programme achieved universal, equitable and inclusive access to ECCE?

The dominant themes arising from this analysis are universal access, fairness and uniformity in the allocation of resources and inclusivity of learners from divergent backgrounds and abilities. A summary of the findings follows:

i. All the schools indicated that due to the limited spaces available for the pre-primary enrolment, they were unable to enrol more than 50% of the applicants. This was because they do not have the infrastructure to expand classroom streams. The responsible ministries do not have a budget to fund the necessary resources. This has compelled the schools to use the existing unused buildings, and adversely affecting the attainment of universal access.

ii. The programme through its curriculum and medium of instruction, provides for cultural diversity and inclusion. Through the use of cultural corners, the learners have the opportunity to learn of the many cultures in Botswana. The use of Setswana and English does not prejudice the learners as most are exposed to either one of the two from their family setups. In view of this, it is safe to say that the programme positively contributes to the inclusive access of ECCE.

iii. Due to lack of training, the teachers who had encountered teaching learners with specials needs, expressed their frustrations as they felt they were not well equipped to deal with such challenges. They also decried the length of time it took for the learning assessment and diagnostic centre to attend to their learners. They indicated that, in some instances, it took years before a learner could be assisted, which in turn, delays appropriate interventions. This negatively impacts on access to ECCE.

iv. It was also observed that schools were not equally resourced. This was confirmed by some teachers, head teachers and heads of department. The examples were given of how some schools were into their fourth year without TAs. Some schools reported to be using tertiary students as substitutes, whilst others use the national service participants (Tirelo Sechaba). Similar observations regarding the provision of learning materials reveals that some schools had adequate supplies, while others did not. Lastly, it was observed that there were inconsistencies with the implementation of the in-service training of teachers. Some teachers reported to have attended only one training session, whereas others attended more. This negatively affected their performance and delivery.

5.3. KEY FINDINGS ON QUALITY

What has been the effect of the following factors: teacher training, physical facilities, and learning and assessment tools on the quality of the pre-primary programme?

The data collected show that the emerging themes as: learning materials, in-service training of teachers, space constraints, safety concerns over the outdoor play area and bathrooms, and assessment of learners. Below is a summary of the findings in relation to this research question:

i. It was found out that there was a shortage of learning materials, in quantity, quality and variety. This was highlighted as a cause for concern, especially due to the Covid-19 pandemic and the associated measures control its spread. The lack of variety of learning materials limits teaching demonstrations, and this hampers the teaching and learning processes.

Learning materials, accessories and aides, such as toys, puzzles and games, play a critical role in the quality of the learning programme.

ii. All the teachers in this study, save for one, have a diploma in early childhood development from different local and regional institutions. During the interviews, the teachers seemed fully conversant with their area of specialisation, and this was evident in the way they delivered learning in class.

iii. Ten, out of the twelve interviewed teachers, confirmed to have undergone in-service training. Out of those who had attended in-service training, five indicated that they had received in-service training more than once. The workshops helped them to competently deliver their teaching and manage their class, interact with learners, and plan their lessons well. All these were evident during the researcher's field work.

iv. The limitations of space posed by the size of the classrooms was raised by most teachers. They indicated that the classes have an average 30 learners. This basically left little space for indoor playing, demonstrations and the setting-up of learning corners. Most of the respondents indicated that with the Covid-19 measures such as social distancing for instance, there has been a rise in classroom space limitations.

v. Safety concerns were raised regarding the outdoor play area. Most play areas did not have pit sand to cushion learners against injury whilst playing, and prevent the growing of weeds. Failure to fence the play area posed a risk to the leaners in that they could wander off the playground unnoticed. The teachers and school management also raised concerns that because the play area was not fenced, learners from upper grades use it much to the disadvantage of the pre-primary pupils.

vi. Some teachers and school management underscored the safety risks learners faced when using the bathrooms as the schools did not have junior toilets. Most feared that learners could get injured when using the toilets unassisted. The escorting of learners to the bathrooms was said to be disrupt lessons/classes, especially where there was no TA.

vii. Schools reported that they used the assessment framework provided in the curriculum booklet. The framework provides comprehensive guidelines of assessing learners, which cover all the learning areas of the curriculum. It further provides a template form to use for recording assessment observations, child profiling and summation of the learners' development. What was observed from the schools however, was that there were inconsistencies with the frequency and the manner in which the learners were being assessed as some schools carried out continuous assessments, whilst others assessed learners once at the end of the term. It was reported that whilst some schools used the recommended learner assessment method, observation, other schools carried out a test like assessments, where learners were called individually and questions posed to them. The once a term assessment of learners affects the validity and quality of the assessment process. It also waters down the objective of assessing the learners, which is primarily to give a teacher regular feedback on the learner's understanding and development progress.

5.4 IMPLICATIONS OF THE FINDINGS

The findings reveal some noteworthy implications for the rollout of the pre-primary programme.

Although the implementation of the programme in government primary schools in the Gaborone sub-region stands at 24 schools out of 29, the number of students enrolled still remains low. This indicates that opportunities for access to ECCE are still low. Secondly, access of the programme by children with disabilities, special needs and divergent abilities remained low. Lastly, the programme is not fully resourced to meet the expected standards. This leads to many challenges in its implementation and delivery.

5.4.1. Implications of the Findings on the Accessibility of the Pre-primary Programme

For the attainment of the universal access of the pre-primary programme, it is imperative that access be revisited. Moreover, the model or approach of annexing pre-primary classes to the existing primary schools should be

relooked into. The collected data reveals that relying on the available existing buildings within the schools will not help in achieving universal access in the foreseeable future.

The MoBE should work with the local communities and establish community-based childcare centres (CBCCs), borrowing inspiration from Malawi where they have proven to increase access to ECCE remarkably through partnerships with CBCCs. The Malawian CBCCs provide various services, and one of them is pre-primary learnings to eligible children. In Malawi, the CBCCs use existing buildings within the community, such as churches, community halls and shops (Munthali et al., 2014). For quality and safety assurance, the MoBE could develop guidelines on the building specifications to ensure learner safety, and the suitability of the building and grounds for the purposes of becoming learning centres.

Alternatively, the MoBE could opt for the South African model of partnering with the local ECCE centres and adapt it to suit the local setting. This could include the MoBE providing them with resources, such as teachers, TAs, learning materials, continuous training, subsidy on meal provision, and paying a nominal fee per learner.

As a signatory to various international and regional instruments, which are the proponents of an inclusive education, Botswana needs to do a lot more to ensure that the education system in government schools is not only inclusive, but supportive of learners with disabilities and special needs. This includes the adequate resourcing of support structures, such as the assessment and diagnostic centre to enable it to effectively and timeously deal with the matters referred to it (Forlin et al., 2015). The findings of the current study are indicative of a referral system that is overwhelmed leading to delays in processing assessment requests from schools. These delays have an adverse effect on the intended objectives of ECCE. One of the key benefits of ECD is early identification and diagnosis of disabilities and interventions. This leads to better outcomes of the interventions. A delay in diagnosing or implementation of the relevant interventions leads to the worsening of the conditions (Mensah and Badu-Shayar, 2016). Ensuring that teachers are adequately trained in teaching leaners with special needs, and where funds

permit the hiring of specialist teachers to offer support would go a long way in improving the inclusiveness of the ECCE programme.

The OECD Policy Brief of 2008 highlights three key areas which affect equity in education. They are the design of the education system, education practices at school and at home and how resources are allocated to schools. Of relevance to this study is resource allocation. The findings of this study have established the inconsistencies in teacher training opportunities, allocation of TAs and learning materials, and the skewedness in allocating resources. From these findings, it is deduced that there is an absence of resource allocation guidelines or if the guidelines exist, then the monitoring and evaluation of compliance is weak. Mugweni (2017:316) defines equity as a "human rights imperative for all children so as to have reasonable opportunities to develop their capacities…" This definition, therefore, implies that the unequal and inconsistent allocation of resources denies learners at under resourced schools the opportunity to fully develop and actualise their truest potential and capabilities.

5.4.2 Implications of the Findings on the Quality of the Pre-primary Programme

The study's theoretical framework provides the ground for the role that play in the quality of ECCE. It is noted that it not only aids the development of the children's cognitive, fine and gross motor skills, but also aids in their language and numeracy, physical, social, and emotional development. Research however, highlights that it is essential for play resources to reflect the learner's developmental stage, interests, abilities, strengths and knowledge (Chukwbiken, 2013). This implies that there is a need for a variety of playing resources if the quality of ECCE is to be attained through the pre-primary programme. It is this limited variety of play resources, both in the class and the outdoor play area which was decried by the respondents. The researcher observed a discordance between DCDE and the procuring entity, being the local councils, as the Pre-Primary Curriculum Framework spells out the playing resources necessary for the implementation of the programme, but the local councils are unable to deliver on resources due to budgetary constraints. It is imperative that the two entities realign and work together to achieve the intended quality of the programme.

Researchers are generally in agreement that quality classroom interactions have significant positive effects on the development of learners. This is influenced by the teacher's management skills, training and experience (Bowman et al., 2001; Vu et al. (2015), in their studies they found that teachers who had undergone in-service training were to have greater classroom quality. The findings of the present study indicate that there is an unequal access to training opportunities, which is an indication of weak monitoring processes. This inequality has the potential of unintendedly lowering the quality of ECCE in schools whose teachers are not afforded regular in-service training.

The importance of assessment of learners in an ECCE programme has been highlighted in the previous chapters. In summary, some of the benefits are that it provides an indication guide as to the learner's level of development, guides the teacher in lesson planning, provides opportunity to establish and cement school and parents' relationships, and also provides feedback to the school management on the performance of the programme. In the process, it highlights the areas that need adjustment and which ought to be included in the teacher's performance development plan for training purposes (Shepard et al., 1998).

Snow and van Hemel (2008) assert that the information collected from the assessment of learners is invaluable as it presents an opportunity for the school management or programme owners to make informed decisions based on the collected data. To benefit from learner assessment, the process needs to be standardised. Standardisation of the assessment process would address the discrepancies found in various schools in the manner in which the learners' assessment was carried out, the frequency of assessment and reporting of the results. To achieve this, the current study recommends that the DCDE should develop guidelines, which outline the methods of assessment, frequency, reporting and interpretation of the data collected. It is appreciated that the Pre-Primary Curriculum Framework provides a guide on how to carry out the assessment. It is however, noted that in its present form, it leaves much to the individual interpretation by the teachers and school management. This results in the inconsistency in reporting and assessment methods.

5.5 LIMITATIONS OF THE STUDY

The study was limited to government schools within the Gaborone sub-region. Therefore, its findings cannot be generalised to other areas outside this region. Apart from the school management and teachers, there are four other key stakeholders in this programme, and these are the MoBE, REO, DCDE and the local council. For the reasons out of the researcher's control, the researcher was unable to secure an interview with the local council education officer, who is responsible for the supply of learning materials and resources, the construction and maintenance of schools and the feeding programme. As alluded to in chapter three, qualitative studies are prone to bias, from both the participants and the researcher, especially during interviews and data analysis. To guard against this, the researcher triangulated the data. The study has two major focal points, access and quality, which were assessed and measured through the following variables: universal, equitable, inclusive and availability of resources, teacher training, assessment of learners, and efficacy of the buildings, to the exclusion of other variables. This limits the measurement and analysis of these two multifaceted concepts.

5.6 RECOMMENDATIONS FOR FURTHER RESEARCH

The study has highlighted some successes achieved in the implementation of the pre-primary programme. It also indicates the challenges in implementing the programme. These findings present opportunities for further research. ECCE in Botswana remains under researched. Therefore, an in-depth study on access and quality remains an interesting area of research. Most literature on these concepts and the frameworks that flow therefrom, are on European and USA experiences. This, therefore, presents an opportunity for a study that looks at these concepts through the lens of an African perspective.

Lastly, a study looking into the level of preparedness of the programme post the Covid-19 pandemic seems most relevant. In 2020, the programme was suspended for about six months, therefore, such a study would give insights into the level of preparedness should another pandemic arise in the future. The study would hopefully, equip the country with how best to respond to similar challenges, as Covid-19, with minimal disruptions to learning.

5.7 CONCLUDING REMARKS

Pre-primary education is a concept that seeks to ensure the healthy development of children to enable them to reach their full potential. This study has presented the literature which affirm the benefits of quality ECCE. These benefits include good health, quality of life, school readiness, lower chances of dropping out of school, likelihood of finishing university education, among others (Chukwbikem, 2013).

It is for this reason that access to ECCE needs to remain top of the agenda until universal access is attained. ECCE is lauded for its impact on the reduction of inequality (Van Der Gaag and Tan, 1998), as these benefits are noted to be more significant among children from low-income families. Despite this, the literature shows that children from low-income families struggle to gain access to ECCE centres (Maundeni, 2013). This explains why the introduction of the pre-primary programme in Botswana was a welcomed development.

Statistics, however, indicate that access continues to remain a challenge in Botswana. The primary reason is that although the programme has been rolled out to over 600 schools, the schools have limited placements. This study recommends that the government should look into partnering with the local communities to use community buildings, such as churches, community halls and shops, as classrooms for this programme, as is the case in Malawi. It is important that for this programme to be successful, access should be extended to the leaners with disabilities and special needs. The current statistics reveal that special needs children are underrepresented in this programme. Therefore, to create a more inclusive environment, the study recommends that teachers should be trained in teaching children with special needs. Furthermore, the centres for learner assessment and diagnosis ought to be adequately resourced.

As observed to earlier in this study and throughout this study, quality is vital in an ECCE programme. Failure to afford learners the quality learning environment has long-term detrimental effects on the learners. It is for this

reason that this study recommends the realignment of what the curriculum requires for its effective implementation. The training guidelines ought to be developed and robustly monitored through the REO.

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