DETERMINANTS OF PUBLIC INVESTMENT IN EARLY CHILDHOOD DEVELOPMENT WITHIN THE EDUCATION SECTOR AT NATIONAL AND LOCAL LEVELS IN UGANDA

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DECLARATION

This thesis is my original work and has not been presented for a degree award in any other University.

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DEDICATION

This work is dedicated to all persons who have the love for Early Childhood Development. May it inspire them to sacrifice further for Early Childhood Development.

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Sacrifices were made in the process of writing this thesis. Contribution towards its success came from numerous sources that may all not be easily reciprocated here. However, there are some that outweigh others and as such deserve to be mentioned here.

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ABBREVIATIONS AND ACRONYMS

ADEA	Association for the Development of Education in Africa
BECCAD	Basic Education Child Care and Adolescent Development
BFP	Budget Framework Paper
CGECCD	Consultative Group on Early Childhood Care and Development
CHILD	Community Health Initiative for Long-term Development
CRC	Convention on the Rights of Children
DES	Directorate of Education Standards
DEOs	District Education Officers
ECCD	Early Childhood Care and Development
ECCE	Early Childhood Care and Education
ECD	Early Childhood Development
ECDE	Early Childhood Development and Education
ECDVU	Early Childhood Development Virtual University
ECEC	Early Childhood Education and Care
EFA	Education For All
EPRC	Education Policy Review Commission
ESIP	Education Strategic Investment Plan
ESR	Education Sector Reviews
GNP	Gross National Product
GWPE	Government White Paper on Education
IECD	Integrated Early Childhood Development
MDG	Millennium Development Goals
MoES	Ministry of Education and Sports
MoFPED	Ministry of Finance, Planning and Economic Development
MoGLSD	Ministry of Gender, Labour and Social Development
MoH	Ministry of Health
MoIA	Ministry of Internal Affairs
MoLG	Ministry of Local Government
MTBF	Medium Term Budget Framework
NBFP	National Budget Framework Paper
NCDC	National Curriculum Development Centre
NECDP	Nutrition and Early Child Development Project
NGO	Non Governmental Organization
OECD	Organization of Economic Corporation for Development
PEAP	Poverty Eradication Action Plan
PPE	Pre-Primary Education
PRSP	Poverty Reduction Strategy Paper
SWAP	Sector Wide Approach
TRACE	The Right of All Children to Education
UNESCO	United Nations Education Scientific and Cultural Organization
UNICEF	United Nations Children's Fund
UPE	Universal Primary Education
WASH	Water, Sanitation and Hygiene
WES	Water and Environment Sanitation
WGECD	Working Group on Early Childhood Development

ABSTRACT

Research has shown that significant investment in Early Childhood Development (ECD) is a strategic avenue for national development due to benefits that accrue from it. Studies from other countries with different social, economic and political environment from Uganda have identified policy and contextual determinants as crucial for investment in ECD, while those specific to Uganda are yet to be determined. The purpose of this study was to establish the level of investment in ECD and identify the contextual and policy determinants for such investment. The objectives included establishing level of investment in ECD, and establishing the relationship between policy and contextual determinants and investment in ECD. Contemporary conflict theory, which emphasizes existence of opposing forces in groups and social structures with different motives and expectations, was used to explain investment determinants. The study used Ex Post Facto research design. Level of investment was the dependent variable, while contextual and policy determinants were independent variables. The study was carried out in 40 out of 77 districts in Uganda that were stratified and later randomly selected. A total of 90 respondents including 10 ECD policy makers, 40 Education Officers, and 40 ECD focal persons were purposively sampled. Questionnaires and document review were used to collect data. Spearman Rank Correlation Coefficients (rho) and Pearson's Product Moment Correlation Coefficient (r) were used to establish relationships, while Descriptive Analysis was used for qualitative data. Simple Linear Regression Analysis was employed to determine the best predictor for investment. Findings indicate an investment percentage for ECD of 7.94% of the education expenditure at national level and 25.72% at the local level. There was significant relationship between total policy determinants and investment in ECD (rho (9) = .861, p = .001) at the national but not at the local level (r (79) =.-132, p = .242). Total contextual determinants had a significant relationship with investment in ECD both at national (rho (9) = .844, p = .002) and at local level (r (79) = .597, p < .001). It was predicted that if knowledge of Benefits of Investment in ECD (KBI) variable remained constant at the local level, investment in ECD would reduce by UGX 164.490 million annually. The conclusion was that investment in ECD in Uganda is still lower than internationally recommended levels. If knowledge levels stay the same, the trend of investment in ECD may continue on the decline. We may also see more grade repetition of children in the primary schools, increased drop out rates, failed development of children and low attainment of both MDGs and EFA. It was recommended that more effort be put to sensitize leaders at all levels on the benefits of significant investments in ECD so as to prompt them into actions culminating in increased investment levels in ECD that matches internationally agreed proportions.

CHAPTER ONE

INTRODUCTION

1.1 Background to the Study

Significant investment in Early Childhood Development (ECD) yields extraordinary returns that far exceeds the returns on most investments either private or public (Rolnick & Grunewald, 2003). This is because investment in ECD is investment in human capital (Heckman & Masterov, 2004), which breeds overall economic success for families, communities and the nation (Calman & Tarr-Whelan, 2005). At the macro level, investment in ECD pays back 87% in terms of higher efficiency in primary education (Jaramillo & Mingat, 2006). It has also been noted that investments that increase the average number of years children spend in education by one year raise a country's GDP by between 3 - 6% (OECD, 2005).

Within the education sector, it has been proved that significant investment in ECD results into greater social cohesion (Young, 2000), better academic performance of students (Evans, Myers & Ilfeld, 2000), and increased capacity of children to adopt new technologies (Reynolds, 2001). These benefits, therefore, warrant priority for investment in ECD now to reduce later expenditures that will be needed to compensate for earlier disadvantages in several sectors (Heckman & Masterov, 2004; Lombardi, 2008). Failure by any nation to invest in ECD in the education sector will lead to continued human wastage in the form of failed development, grade repetition and stunted growth of children (Evans et al., 2000).

Investment in ECD incorporates investments in five sectors including health, nutrition, education, protection, and sanitation (Vargas-Barón, 2008). This therefore means that effective and efficient investment in ECD demands an approach which is multi-sectoral, and embraces the notion of partnership, while reconfiguring the traditional sector boundaries to form a cohesive support system for children and families (Bertram & Pascal, 2000).

Investment is the commitment of capital to purchase financial instruments or other assets (ECD programmes, services, human and material resources) in order to gain profitable returns in form of interest, income, or (output from better future adults) (Anderson, Renzio & Levy, 2006). Investment involves the choice made by an individual or an organization that has certain levels of risk and provides the possibility of generating returns over a period of time (Wikipedia, 2010). Benefits that accrue from ECD only come after long term commitment of public resources (Calman & Tarr-Whelan, 2005). This long term commitment of resources to ECD, therefore, is an investment for the future, which may not necessarily be possible with short term financing (Heckman & Masterov, 2004).

As different countries consider investment in ECD, it has been noted that investment in ECD may be in the form of finance, human or time resources (McREL, 2003; Miles & Darling-Hammond, 1998; Walter, 2001). This is because financial investment in its constituent proportions usually forms a backbone of other investments.

Investment in ECD may be either private or public. However, it has been noted that because of the complex nature of investment in ECD across a range of sectors, and with minimal short term returns, public investment is preferred to take the lead as opposed to private investment (Meier, 2008). Public investment in this study refers to the use of government funds from tax revenues or development partners on ECD related activities within the education sector with the intention of creating future benefits (Anderson, Renzio & Levy, 2006; Wikipedia, 2010).

In order to have an efficient and effective investment in ECD in the education sector, government must fund all arrangements for care and education of children, and encompass related concerns such as family support, protection of rights, gender equality and health (UNESCO, 2006; Vargas-Barón, 2008). Investments must also cover lifelong learning, transition, employment and social integration policies, while addressing the field's multiple dimensions for children from birth to eight years (Haddad, 2002).

Many nations including African governments are committing themselves to invest in different ECD programmes in the education sector (Vargas-Baron, 2005). For example, Namibia was investing more in teacher training (Namibia Resource Consultants, 2001); Ghana and Kenya are investing on different community based ECD programmes and ECD policy (Boakye, Adamu-Issah & Etse, 2001; Kenya Ministry of Education, Science and Technology, 2004), while Mauritius is investing in advocacy and capacity building to promote

ECD (Bassant & Moti, 2000). In the case of Uganda, the government has committed itself to invest in production of ECD teacher training curriculum, licensing and registration of ECD teachers and provision of guidelines on minimum standards for pre-primary institutions through its relevant agencies. It has also committed itself to invest in the development and dissemination of the ECD policy and policy guidelines, advocacy, community mobilization, monitoring, evaluation and research for quality assurance (MoES, 2007b).

Whereas the Government of Uganda recognises the need to have significant financial investment in ECD (MoES, 2008a), there is still little information on the exact proportion of the education expenditure that is invested in ECD at national level (MoES, 2007a) and at the local level (Baume, Neema, Kibombo & Cabanero-Verzosa, 2003; Cox, Granby, Horii and Morgan, 2006). District officials have not yet begun integrating ECD in their budgets to show investment in ECD at the local level (Okuni, 2003).

Knowledge of proportions of investment in a given area in a particular sector helps planners to track trends in its financing for further improvement (Vargas-Barón, 2006). Sectors that have established proportions of the national budget expenditure that they feel can help improve delivery of services in their areas have seen either improvement or maintenance of investment into them depending on the perceived need every financial year (Eilor, 2004; MoES, 2009; MoFPED, 2009; Mushemeza, 2005). The same proportions are also used by development partners to channel development

fund to specific activities (Eilor, 2004). This has not been very easy in the case of ECD, as the proportion of the education expenditure invested in it has not yet been established.

Investment in ECD in the education sector is by specific proportions of the national education budget. The amount of funds invested in ECD depends on what has been invested in primary education (Vargas-Barón, 2008). For example, in Central and Eastern Europe, for the equivalent of every US$100 spent on primary education, US$67 was spent on pre-primary programmes. For North America and Western Europe, expenditure on pre-primary programmes is equivalent to about 26% of that on primary education. In Latin America and the Caribbean, the average expenditure on pre-primary equals to 14% of that on primary (UNESCO, 2007). In sub-Saharan Africa, Seychelles spends up to 9% of her total education budget on ECD, while South Africa spends 1%. Within the East African region, Kenya spends 2.6% (UNESCO, 2007), while the exact percentage that Uganda spends is yet to be established (Ministry of Education & Sports, 2007a).

In Uganda, public investment in any sector including the education sector is guided by the Poverty Eradication Action Plan (PEAP) goals and objectives (Eilor, 2004). PEAP is a broad poverty eradication programme that sets a framework for investment in strategic targets. In the MoES, the Medium Term Budget Framework (MTBF) is prepared by the Education Sector Working Group (ESWG) which is comprised of representatives from the central

government, education sub-sector representatives, Education Funding Agencies Group (EFAG), NGOs and other stakeholders. It is this group that invests public finances in the Medium Term Expenditure Framework (MTEF) in accordance with ESIP priorities, recommendations of the Education Sector Reviews (ESRs) and in consonance with the budgetary ceilings as defined by the MoFPED. It also originates the Budget Framework Paper (BFP) to be incorporated into the National Budget Framework Paper (NBFP) by MoFPED. It is this body that determines the proportions to be invested in different areas in the education sector.

Different bodies have recommended proportions of the education budget to be invested in ECD that they consider useful to provide quality ECD at both national and local levels. For example, the European Commission Network on Childcare recommended to European countries an investment proportion of at least 20% of the public education budgets of EU states (Bennett, 1996; Kamerman, 2000). The Consultative Group on ECD however, recommended that this proportion of 20% of the national education budget invested in ECD should be progressively increased to reach the 25% target of the education budget (Vargas-Barón, 2008a). At the local level, cost simulation on ECD by Madrasa within the East African region, suggests a unit cost ranging from US $6 to US $15 per child per month (Issa & Evans, 2008).

The proportion of a given sector expenditure invested in a specific area at either local or national levels depends on certain determinants (Trimble,

2002). However, review of different literature shows inconsistent results on which determinants are more associated with investment in ECD. For example, while policy related determinants have been found to be more related to investment in ECD (Association for the Education of Young Children, 2000; Choi, 2004; Colletta & Reinhold, 1997), other studies consider contextual determinants as more related to investment in ECD (Balachander, 2000; Barnett, 1997; Ensalaco & Majka, 2005; Kenyan Ministry of Education, Science and Technology, 2004; Podmore, 2002; Press & Hayes, 2000; Vargas-Baron, 2008). The above inconsistencies make it difficult for one to decide which specific determinant to focus on as an intervention strategy to improve investment in ECD in Uganda, hence the need for this study.

Association for the Education of Young Children (2000) identified specific policy determinant like the use of available ECD policy and policy frameworks that give formal recognition to ECD for investment at local and national levels as one of them. Others include the use of policies that cover commitment by stakeholders on how to fund critical areas of ECD (Colletta & Reinhold, 1997) or partnership in investment as in the case of Brazil (Choi, 2003). Where governments use partnerships with private persons, use of a policy that specifies incentives to be given to persons who invest in ECD as in Morocco is critical (Choi, 2004).

On the other hand, Ensalaco and Majka (2005) found contextual determinants to have a relationship with investment proportions in ECD. For example, the

number of children who are projected to benefit from public investment is often used to determine proportion of investment in New Zealand, Australia, Kenya, and World Bank supported ECD projects (Balachander, 2000; Podmore, 2002; Press & Hayes, 2000). In many African and other developing countries where there are many competing investment priorities, the policy makers' knowledge of the benefits of significant investment in ECD usually becomes an important determinant for investment in ECD (Choi, 2005; Jamieson, 2007; Kamerman, 2006; Lusk & O'gara 2002; Vargas-Baron & Sian, 2008). Likewise, availability of human resource has been found to impact on planning for investment in ECD in Burkina Faso, Mauritania, Namibia, and Senegal (Torkington 2001; Vargas-Barón 2004). Institutional factors like donor conditionality and poverty reduction capabilities have also been seen to have a relation with financial investment in ECD (Boex & Martinez-Vazquez, 2005; Eilor, 2004; Schubert & Huijbregts, 2006; World Bank, 2007).

Deciding which set of determinants are more associated with investment in ECD in Uganda point to conflict of interest in the process of investment as suggested in the contemporary social conflict theory. The theory suggests that determinants of social transformation are always given priority. In developed countries, more resources are being focused on ECD, meaning that it is seen as important (UNESCO, 2006), while in some African countries, ECD has not attracted substantial investment (Vargas-Barón, 2008a).

1.2 Statement of the Problem

ECD is the foundation of human development and academic success. This means that it should receive more attention in terms of financial investment. Knowledge of the level of investment in a given sector helps planners to track the trends in its financing and get remedies that will influence the financing of such a sector (Vargas-Barón, 2006). Studies conducted in other parts of the world have identified specific levels of public investment in ECD (Belfield, 2006; Kaga, 2005; Neuman & Peer, 2002; Vargas-Barón, 2006). These studies have helped specific countries to commit more investment in ECD. Such studies have not been conducted in Uganda. Most of the available studies in Uganda focus on general sector financial investment where ECD is included under primary education (Mushemeza, 2005). Specific determinants for financial investment in ECD in Uganda are also not yet known. Studies that have been close to establishing determinants for investment in ECD only focused on determinants for private and not public investment in ECD (Baume, et al., 2003). Others have only focused on the need to prioritize investment in ECD provisions and services (MoES, 2007) and determinants for ECD policy development (Bakehena, Katigo-Kaheeru & Muheirwe, 2005; Kajubi, 1987). These studies however, fall short of identifying specific determinants that need to be addressed to improve public investment in ECD at either local or national levels.

The lack of adequate knowledge on the level of investment in ECD at national and local level and the determinants for such investment makes it difficult for

planners and policy makers to plan for ECD at various levels. It is this knowledge gap that this study attempted to fill so that more investment can be attracted to ECD. If this is not done, it will be difficult to plan for ECD leading to increased school drop outs, grade repetition and under development of children's potentials in different learning areas in Uganda.

1.3 Purpose of the Study

The purpose of this study was to establish the determinants of public financial investment in ECD within the education sector at national and local levels in Uganda. Specifically, the study investigated the proportion of the education budget invested in ECD at the national and local levels in Uganda. The study also investigated the relationship between contextual and policy determinants and financial investment in ECD at national and local levels in Uganda.

1.4 Objectives of the Study

The specific objectives of this study were to:

1. Establish the proportion of the education sector expenditure that was invested in ECD at national and local levels in the financial year 2008/2009.
2. Assess the relationship between policy determinants and the level of investment in ECD.
3. Establish the relationship between contextual determinants and the level of investment in ECD.

4. Investigate the extent to which specific contextual and policy determinants contribute to financial investment in ECD at local and national levels.

1.5 Research Hypotheses

This study was guided by the following research hypotheses:

H_1 Proportion of the education sector expenditure invested in ECD in Uganda is significantly lower than internationally recommended levels.

H_2 Policy determinants are significantly related to investment in ECD in Uganda.

H_3 Contextual determinants are significantly related to investment in ECD in Uganda.

H_4 Specific policy determinants have predictive values for determining financial investment in ECD in Uganda.

H_5 Specific contextual determinants have predictive values for determining financial investment in ECD in Uganda.

1.6 Assumptions of the Study

In this study, it was assumed that there were specific determinants for financial investment of public resources to ECD at national and local levels in Uganda. This was because whenever resources are to be invested in different sectors, investment planners and policy makers have to consider certain factors. Getting to know such factors helps planners to rationalise investments.

It was also assumed that there were conflicts of interest within different ministries that contributed to how financial resources were invested in ECD. Such conflicts may arise from differences in opinion on which ministry or departments should take the lead in implementing given ECD programmes.

1.7 Scope and Delimitation

This study was restricted to 40 districts in Uganda. From each of the four regions of Uganda, 10 districts were purposively selected to represent the region and later the whole country. Since the 10 districts from each region are only about a half of the districts in the region, findings from them may not be easily generalised to communities that may have different conditions. The study also identified only contextual and policy determinants of financial investment in ECD in Uganda, yet there may be other important determinants that significantly contribute to financial investment which have not been explored in this study.

This study was also limited to investment in ECD in the context of education components under the MoES. The ECD policy however, emphasises that ECD should be multi-sector in provision. Therefore, investment from other sectors like health or protection was not part of this study. The study was also limited to direct investment within the sector budget framework allocations. It did not focus on direct donor funded projects where a particular donor may decide on its own to fund a specific activity in a district of its choice.

As it has already been noted in many instances that investment in ECD is multi-sectoral, the investment is either integrated into other broader programmes or implied, thus making it difficult to establish the exact investment for ECD in a given project.

1.8 Significance

This study is important because the findings may inform ECD policy makers in Uganda and use it as a basis for improving financial investment in ECD. A critique on the existing policies that will be given in this study may point out the gaps in the existing funding and investment policies for ECD. This may become the policy makers' point of reference when reviewing these policies.

The Ministry of Education inspectorate may use findings from this study to determine the levels of financial investment in ECD at local levels and put in place incentives that will encourage more private persons to invest in ECD. The determinants of financial investment in ECD established at local level may focus attention of local communities to key issues that have to be addressed in tackling the challenge of investment in ECD. This will help communities to identify alternative sources of funding for ECD services.

NGOs may use findings of this study especially on determinants of financial investment in ECD to build capacity in such areas. Capacity in key determining areas will promote advocacy and consequently more financial

investment in ECD in Uganda. Other ECD institutions may also use the study findings especially the recommendations of best course of action to promote better financial investment in ECD.

Similarly, the ECD managers may use this study finding on the level of financial investment in ECD at different levels, to evaluate themselves to promote better financial investment in ECD. With this knowledge, they may increase investment in ECD to promote better holistic development of children.

1.9 Theoretical and Conceptual Framework

This section presents the theoretical and conceptual frameworks in two major areas as shown below.

1.9.1 Theoretical Framework

This study applies the Social conflict theory modified by Immanuel Maurice Wallenstein in 1987. The theory has its roots in Karl Marx's social conflict theory, which emphasises the assumption that relationship and allocation of resources between societal groups vary according to one's position, privileges or ability with some people favoured over others (Holton, 2008). Agreement tends to appear among those who share similar privileges and conflict with those in another class (Kombo & Tromp, 2006). ECD being a new innovation that needs higher levels of investment must compete favourably with other

interests for the same finances. Conflicts come due to competing interests over the scarce resources (Kombo, & Tromp, 2006) or staunch opposition from groups whose interests are threatened by the proposed change (Rigney, 2008).

The theory also suggests that determinants for investment in any given area include perceived benefits of the investment and availability of resources (Kombo & Tromp. 2006) or policy prioritisation (Rigney, 2008). In the case of Uganda, ECD is considered as one of the most important areas of human and national development and for achieving EFA goals (MoES, 2007). The theory helped to explain why an area considered to be very important for national development was attracting the current level of investment and the determinants for such investment.

1.9.2 Conceptual Framework

The outcomes of well funded ECD include among others higher school retention and better academic performance of children at a later stage. This is only possible if determinants that are more associated with investment in ECD at different levels are identified and addressed. The conceptual framework shows that the independent variables in this study are policy and contextual determinants. The independent variables have a mutually influencing relationship in that policy determinants play an important role in influencing the contextual determinants and vice versa. This is because the frequency of use of the available policies will determine how stakeholders should invest in

ECD. The contextual determinants also influence policy determinants in that the context may influence policy makers to amend some policies to improve investment in ECD.

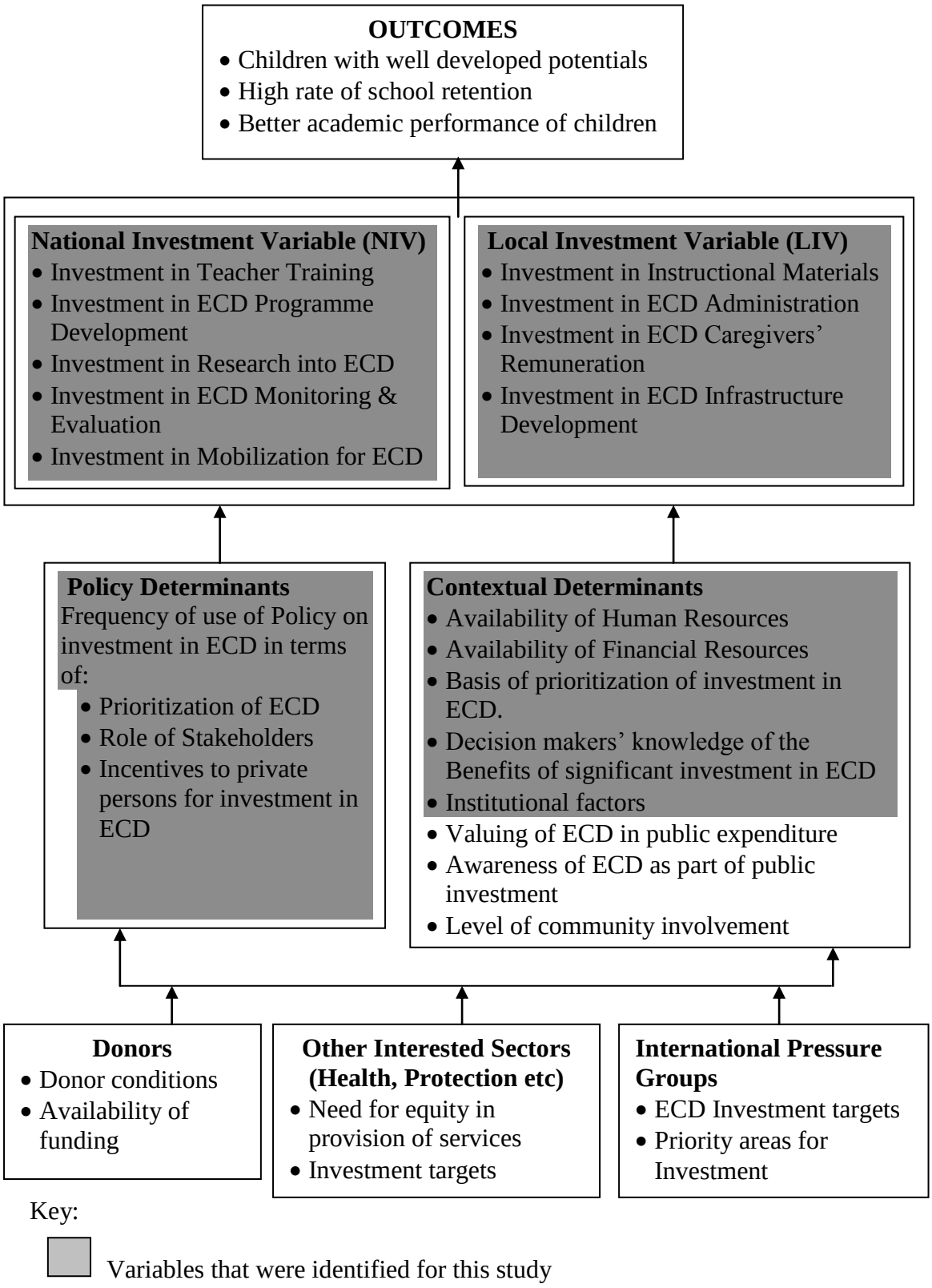
Policy determinants influence investment in ECD at both national and local levels. At the national level, the policy lays down proportions of public resources that are to be invested in different sectors. The policy also determines key priority areas for investment in case funds are limited. At the local level, policy determinants influence public financial investment in ECD in that it provides guidelines on how local authorities should invest the available resources. It also provides a framework for partnership and involvement of other stakeholders in investing in ECD.

Contextual determinants also influence investment in ECD at the national and local levels. At the national level, prevailing conditions like knowledge of benefits of significant investment in ECD to the country can change the proportion of public investment in ECD. The availability of funds and competent human resource may affect the level of public investment in ECD even if there was a policy or good will. Likewise, contextual factors influence participation of different stakeholders in investment in ECD.

Financial investments in ECD at national and local levels are the dependent variables. At the local level, financial investment must be in key education sector ECD related activities that include instructional materials,

infrastructure, administration, caregiver remuneration and infrastructure development. At the national level, the critical areas for public investment in ECD include: teacher training, programme development, monitoring and evaluation, advocacy and research into ECD as shown in Figure 1.1.

***Figure 1.1*: Determinants of Investment in Early Child Development**



1.10 Operational Definition of Terms

Actual Investment in ECD refers to funds that were remitted and received by different government departments for use in different ECD activities. In this study, actual investment is the funds that were used for given ECD activities.

Contextual Determinants (CD) refers to all those factors within the background, circumstances, situations or perspectives in the environment at the time when investment decisions for ECD are being made at either local or national levels. The factors considered as contextual determinants in this study include availability of human and financial resources, basis for investing public funds, institutional factors and knowledge of the benefits of significant investment in ECD to the nation.

Early Childhood Development (ECD) refers to all programmes and services that are publicly funded and provided to children in Uganda. The specific ECD programmes and services considered in this study are those limited to the education sector and include pre-primary education and lower primary education (Primary 1-3).

ECD administration refers to all those materials and services that are procured and delivered to ECD centres for administrative purposes using public funds through the education sector. Some of these materials and services include class records, text books, non text book materials, play materials, lesson preparation materials, stationery, sanitary materials, security,

compound maintenance materials and equipment.

Infrastructure development is all forms of structural investment made at ECD centre using public funds. Some of them include purchase of school land, construction of classroom or latrines, and initiation of income generating projects like poultry keeping in the school.

Investment is the commitment of resources in the form of ECD programmes, services, human and material resources in order to gain profitable returns in future in terms of significant output from better future adults.

Local Investment is the district based investment level. Total local investment refers to the sum total of all public funds that have been invested into different ECD activities in the education sector only at the district level in the FY 2008/2009.

National Investment in this study refers to the investment that is made at the MoES headquarters for ECD activities. It includes the sum total of all public funds that were invested into different ECD activities in different departments and divisions of MoES in the FY 2008/2009.

Policy Determinant (PD) is the legal frameworks and guidelines that are used to influence how public funds are invested into ECD. In this study, policy determinants include frequency of use of policy guidelines that prioritize

investment in ECD, frequency of use of guidelines that specify roles of different stakeholders in financial investment in ECD, and frequency of use of policy guidelines that provide for incentives that government offers private persons who decide to invest in ECD.

Proportion of Investment in this study refers to the proportions of the education expenditure that is publicly funded and is invested in ECD activities in a given district or department.

Public Investment in ECD refers to investment that is made by government through relevant structures at different level for different ECD activities, programmes and services within the education sector. These funds come from taxes generated from the public or international donors that are channeled through government structures to be invested in specific ECD activities.

Recommended Level of Investment in ECD refers to the proportion of the education expenditure that has been recommended by ECD specialists, researchers and economists as the minimum proportion of investment that can ensure quality ECD at a given level.

CHAPTER TWO

LITERATURE REVIEW

2.0 Introduction

This chapter focuses on review of literature basing on the following themes: Perspectives of ECD, investment in ECD, trends and patterns of investment in ECD, determinants of investment in ECD and public investment in ECD in Uganda.

2.1 Perspectives of Early Childhood Development

Early Childhood Development (ECD) is one of the contemporary areas attracting greater attention world wide from different governments, donors and agencies. This interest has been partly contributed by recent research discoveries of benefits that accrue to society and nations that significantly invest in ECD (Choi, 2002). Interested institutions and agencies have various perspectives to ECD depending on their field and interests. These diverse but overlapping perspectives range in focus from child care; child health and nutrition; to child protection or stimulation (Caldwell, 1989).

The first perspective recognises ECD as Early Childhood Development (ECD), which to them is an umbrella term for a variety of interventions with young children and their carers or families. It also includes such services as health and nutrition, childcare, education and parent support (Penn, 2004). Investments are therefore directed towards these activities because they are

seen as interventions which address the needs of young children and help to strengthen the contexts in which they are embedded (Evans, 1997). This perspective is supported by the World Bank and the Association for the Development of Education in Africa (ADEA). ADEA was formed to promote ECD in Africa after it was noted that ECD was not gaining the attention and urgency it deserved from many African countries. ADEA also created the Working Group on Early Childhood Development (WGECD) in 1997 with UNICEF as the lead agency to coordinate its activities (ADEA, 2005).

The second perspective is Early Childhood Education and Care (ECEC) that is supported by Organization of Economic Corporation for Development (OECD). This organization was established in 1961 as an umbrella organization for governments of countries that are committed to democracy and market economy from around the world (OECD, 2008). ECEC supports all arrangements for care and education of children from birth to compulsory school age. This support is given regardless of programme setting, funding or operating hours. It also considers related concerns such as family support, gender equality, health, lifelong learning, transition, employment and social integration policies, addressing the field's multiple dimensions (Haddad, 2002).

The third perspective is that of Early Childhood Care and Education (ECCE). ECCE recognizes ECD as a wide range of programmes, all aimed at the physical, cognitive and social development of children before they enter

primary school. It also supports children's survival, growth, development and learning in formal, informal and non-formal settings (UNESCO, 2006). This perspective is supported by UNESCO, one of the UN agencies promoting Education For All (EFA). Within the framework of EFA, ECD is referred to as pre-primary education (UNESCO, 2006).

The fourth perspective is Early Childhood Care and Development (ECCD). To them, ECCD focuses on a rights based approach to the promotion of ECD in ensuring survival, protection, development and participation (Meltzer, 2008). This perspective is supported by the Consultative Group on Early Childhood Care and Development (CGECCD) and UNICEF. The consultative group was established in 1984 as a global network of researchers, service providers, international agencies and foundations that have an interest in early childhood and want to contribute towards its promotion (Meltzer, 2008).

Analysis of all these perspectives of ECD shows that although they have different names that include ECDE, ECCD, ECEC, or pre-primary education, they focus on similar ideas for child development. Throughout the world, services to young children and their carers are offered under these diverse perspectives. For example, in the case of USA and Australia, ECEC is commonly used, in UNICEF supported areas, ECCD is used, while most African countries like Kenya, and Tanzania ECD is used.

In Uganda, these ECD terminologies are used interchangeably. This is because there are many institutions and international agencies that have a bearing to the fore mentioned groups that are investing in ECD in the education sector. It is therefore common to find ECD being referred to in one institution as ECCD, while in another institution next door, ECEC or ECCE is used depending on the funding institution. It should be noted that although UNICEF has been key in introducing and promoting ECD activities in Uganda, the World Bank perspective of ECD is widely used. Therefore in this study, for the purpose of clarity, the World Bank perspective of ECD was used.

2.2 Investment in Early Childhood Development

Whereas the private sector greatly supports investment in ECD, governments play a leading role in regulation and supervision to make the services offered more inclusive (Bennett, 2007). In order to have an efficient and effective ECD in the education sector, investment must fund all arrangements for care and education of children from birth to compulsory school age. It should also encompass related concerns such as family support, protection of rights, gender equality, health, lifelong learning, transition, employment and social integration policies, while addressing the field's multiple dimensions (Haddad, 2002). To help ensure long-term programme sustainability, national investments should include recurrent expenditures for programme services, coordination, and expansion; continuous training, monitoring and evaluation systems (Vargas-Barón, 2008).

In encouraging investment in ECD, different types of resources are usually invested to facilitate different ECD programmes. These resources that include financial, human and time resources have to be invested by government and its partners at different levels. Financial resources include money that institutions get as government grants, contributions from communities or local authorities, donations and fees levied on users (McREL, 2003). Human resources include management staff, administrative staff, regular staff, support staff, consultants and resource persons (Walter, 2001). Time is also another important resource that needs to be invested well (Miles and Darling-Hammond, 1998). For the case of this study, the major focus was on financial investment as it is the major driving force behind other resources.

Public investment in ECD in many parts of the world is in a number of complementary ways. Kamerman (2006) found that ECD programmes were publicly funded and privately delivered as in the Netherlands and Germany or publicly funded and delivered as in the Nordic countries and Canada (Hertzman, 2000). In some countries such as Brazil as well as most of Africa, investment includes a combination of publicly-funded and delivered, publicly-funded and privately delivered, and privately funded and delivered programs (Belfield, 2006; Vargas-Baron, 2008).

Mechanisms of funding also vary from country to country. For example, in France, investment in ECD is shared among the national government (36%),

departments (47%) and local governments (17%) (Neuman & Peer, 2002). In the United States, the federal government provides around 60% of the public funding for ECD programmes, and state and local governments contribute the rest (Belfield, 2006). In Sweden, public funding for ECD is primarily the responsibility of the municipalities which fund 60% of the budgets (Gunnarsson, Korpi & Nordenstam, 1999).

2.2.1 Benefits of Significant Investment in Early Childhood Development

Several economists including Rob Grunewald and Art Rolnick, both of the Federal Reserve Bank of Minneapolis, and Nobel Prize winner Professor James Heckman have argued that returns on investment in ECD far exceeds the return on most other projects funded as economic development (Calman & Tarr-Whelan, 2005; Grunewald & Rolnick, 2003). This means that money invested in ECD is more cost effective than money spent later to compensate for earlier disadvantages in several sectors (Heckman & Masterov, 2004). Significant investment in ECD, therefore, is investment in human capital which breeds economic success for the overall economy (Rolnick & Grunewald, 2003). At the macro level, investment in ECD pays back 87% in terms of higher efficiency in primary education (Jaramillo & Mingat, 2006). Likewise, data from the High/Scope Perry Project in the United States suggests that the returns on a preschool investment can be as high as sevenfold (Schweinhart, Barnes & Weikart, 1993).

In terms of education, it has been noted that significant investment in ECD results into greater social cohesion (Young, 2000), better academic performance of students (Evans, Myers & Ilfeld, 2000), increased capacity of children to adopt new technologies (Reynolds, 2001), and active participation in democratic processes by citizens (Michigan Department of Education, 2002). Failure by any nation to invest in ECD will lead to continued human wastage in the form of failed development, grade repetition and stunted growth of children (Evans et al., 2000). Given what we know about the importance of significant investment in ECD, there is need by governments to step up efforts to increase investments in children (Lombardi, 2008).

2.2.2 Internationally Recommended Proportions of Investment in Early Childhood Development

Generally, many national and international funding targets exist for sectors of health, or education (Eilor, 2004). These targets have helped countries and entire regions to increase funding support for key programme initiatives. However, no international investment targets have been agreed upon for ECD (Vargas-Barón, 2008). This has therefore, created variations in investment in ECD among different nations. Take the case of Central and Eastern Europe that invest up to 0.5% of their GNP on ECD as compared with 0.4% in North America and Western Europe and 0.2% in Latin America (UNESCO, 2006). In sub-Saharan Africa, Seychelles spends up to 9% of her total education budget on ECD, while South Africa invests 1% (Biersteker, Streak, & Gwele, 2008). Within the East African region, Kenya spends 2.6% (UNESCO, 2007).

The variation in investment in ECD is a concern for many people. There are proposals of placing the target for investment of 20% of the education budget to ECD (Kamerman, 2000). Others want to see at least 60% of the education budget given to ECD (Delors, Mufti, Amagi, Carneiro, Chung, Geremek, Gorham, Kornhauser, Manley, Padrón Quero, Savané, Singh, Stavenhagen, Suhr, & Nanzhao, 1996).

Different bodies have also recommended to various nations a level of investment which they consider useful to provide quality ECD. In 1996, the European Commission Network on Childcare recommended to European countries an investment level of at least 20% of the public education budgets of EU states (Bennett, 1996; Kamerman, 2000). The recent view by ECD working group suggests that between 14-20% of the education budget should be considered by individual governments as the target for investment in ECD (Vargas-Barón, 2008).

It should be noted that increasing investment in ECD at this stage should be done gradually and not rushed (Vargas-Barón, 2008). Learning from the investment levels in ECD in developed countries, it could be inferred that a national goal for funding ECD of 14% of the education budget would be advisable, while progressively, moving to invest up to 20% of the education budgets into early childhood and parent education, with the goal of investing up to 25% (Vargas-Barón, 2008).

Increasing the level of investment in ECD may not be easy in countries that have competing needs. It is therefore recommended that individual countries can first design a comprehensive policy on early childhood development and education (Wandega, 2008), then later, either conduct careful cost per unit of service studies to have a reliable basis for projecting potential future costs (Myers 2008), or do cost simulations that fit policy options to decisions (Brandon, 2008; Leon & Sian, 2008; Ravens & Aggio, 2008).

Cost simulation on ECD that was done in East African countries including Uganda at the local level, within the Madrasa programme found that a unit cost ranging from US $6 to US $15 per child per month or US$ 180 per child per year is needed (Issa & Evans, 2008). This figure can be used as a starting point for further decision into investment in ECD at the local level.

2.3 Patterns in Public Investment in Early Childhood Development

Investment in ECD world wide before 1990 was very low because of lack of information on benefits of significant investment in ECD. There was also no significant pressure on governments and agencies to invest in ECD (Pence, 2006). The major break-through for investment in ECD came in 1996 after the World Bank publication of Mary Eming Young's research (Young, 1996, cited in Pence, 2004) on brain development in early childhood and the need to invest in the future. This report and a series of other researches sparked off flow of loans for ECD in various parts of the world (Pence, 2004).

The coming of the Jomtien Declaration and the UN Convention on the Rights of the Child later helped to put considerable pressure on signatories to adopt a broader definition of attention to children and significantly increase investment in ECD (Evans, Myers & Ilfeld, 2000). Later, several international ECD conferences were held in different parts of the world to give prominence to ECD and it attracted UN agencies who joined international donors like the Bernard van Leer Foundation who had made significant contributions to ECD as early as the 1970s (Pence, 2004). Currently, the World Bank is the top international donor, lending nearly one billion dollars in support of ECD projects (Evans, Myers & Ilfeld, 2000). The ECD portfolio of the World Bank in Africa grew more than 10-fold since 1997, for a combined total lending estimated at US$125 million during the period from 1997 through 2005, increasing from one ECD project in the early 1990s to about 12 operations today in Eritrea, Kenya, Nigeria, and Uganda (Garcia, 2005).

Even with the prominence that ECD has got in recent years, public investment in ECD in African countries still has a major challenge of lack of adequate resources (Pence, 2004). In a bid to help this situation, investment in ECD has been mostly by the World Bank and UN agencies that work through government structures. This arrangement is helping many African governments to start making commitments through policy to invest more in ECD as in the case of Senegal, South Africa, Kenya and Burundi (Vargas-Baron, 2005). Countries whose lessons have been useful for others in terms of

investment in ECD include Namibia, where Cabinet approval of the ECD Policy was followed within two years by guidelines for programs and a strong training of trainers program to reach all districts so as to work cooperatively with related Ministries (Namibia Resource Consultants, 2001). The other is the case of the ECD policy in Ghana that took 11 years to be approved (Boakye, Adamu-Issah & Etse, 2001), while in Mauritius, the policy was easily approved and it embarked on advocacy and capacity building to promote ECD (Bassant & Moti, 2000).

In order to help ECD benefit further from public investment, countries like Uganda, Ghana and Zambia are aligning ECD policies with national and sector development policies focussed on broad poverty eradication programmes as a strategic means of leveraging resources and promoting a more holistic and inter-sector approach (Aidoo, 2005). These countries have also made progress in formulating multi-sector policies as in the case of Kenya and Uganda (Pence, 2004). For example in Kenya, there has been considerable progress in establishing a policy framework for mobilizing communities and parents and providing community support grants to support marginalized/vulnerable communities in collaboration with other partners (Ministry of Education, Science and Technology, 2004).

At the community level, current investment in ECD per child in North America and Western Europe is at US$ 9,500, while in Luxembourg, it is at US$9,953 per child (UNESCO, 2007). In Asia and Latin America, Cambodia,

spends $30, Lao PDR $29, and Bangladesh $36 (UNESCO, 2007). In the Arab states, 12.5% per capita is spent on each child annually, with Kuwait and other rich countries exceeding US $2000. Some poor Arab states like Yemen, however, spend only about $36 on each child (Ravens & Aggio, 2008).

In Saharan Africa, Sudan spends less than US $70, Egypt spends US $145 and Morocco US $190. Algeria spends $235 and Senegal $46 (UNESCO, 2007). In South Africa, expenditure of R12.58 for under 3years and R90 per day for 4-5 year old is reported (Biersteker, Streak, and Gwele, 2008). These studies show that when per-pupil spending is less than US$300 a year and largely absorbed by teacher salaries, the consequences are registered in classrooms with leaking roofs, no books and no chairs (Fredriksen, 2007). A little more investment would transform the life of the poor tremendously, for example transfer amounting to US$15 per month or US$180 annually increases school enrolment from 75% to 85% and reduces child labour by 17% (Oosterbeek et al., 2008; Schady & Aranjo, 2006). This therefore means that a minimum of US$ 180 or US$15 per month would guarantee some degree of quality ECD for children (Oosterbeek et al., 2008; Schady & Aranjo, 2006).

2.4 Determinants of Investment in Early Childhood Development

The proportion of the education sector expenditure that is invested in ECD in any country is dependent on different determinants (Vargas-Baron, 2008). Policy and contextual determinants have been identified as influential in

determining proportions of investment in ECD in different countries (UNESCO, 2006). These determinants are reviewed here to provide lessons and insights in the process of identifying those that are unique to Uganda. The first part reviews literature on policy determinants, while the second part reviews literature on contextual determinants for investment in ECD.

2.4.1 Policy Determinants for Investment in ECD

Before 1990 young children, especially from birth to 5 years, were nearly invisible in most African policy documents, except in the sector of health and nutrition (Pence, 2004). The international impetus given to children and ECD in 1990 in the World Declaration on Education for All (UNESCO, 1990) stimulated official action in Sub-Saharan Africa (Aidoo, 2008). According to the *Concise Oxford English Dictionary* (1990), a policy is "a course or principle of action adopted or proposed by a government, business, party, or an individual." At the national level, a policy represents a philosophy or guiding principles, goals, and objectives of the government with respect to key issues of the country and its citizens, to which it will commit resources in a strategic course of action to be taken at different levels in different areas of development (Aidoo, 2008).

Investment policies may be local policies or international frameworks that guide investment in ECD (UNESCO, 2005). International frameworks like the Convention on the Rights of the Child (CRC) (1989) mandated state parties to

provide for the rights and protection of all children in all aspects, thus recognizing investment in ECD as a way of providing for the rights and protection of children. This is because ECD services are by far basic rights of children (Evans et al., 2000). This commitment is geared towards fulfilling the Education For All (EFA) targets and Millennium Development Goals (MDGs).

The presence of an investment policy for critical sectors like ECD has been identified in other countries as an important determinant for public investment in a given sector (Vargas-Baron, 2008). In those countries frequent use of the investment policy ensures that adequate investment is guaranteed for priority sectors (Miles & Darling-Hammond, 1998). It is however, noted that investment policy must be followed by detailed investment policy guidelines to ensure that institutions invest sufficient resources to fully implement priority goals before moving on to others (Trimble, 2002). These policy guidelines should usually be user friendly and streamline how funds are invested in all critical areas like ECD that need long term public investment (Vargas-Baron, 2008). The guideline should also be flexible to allow local leaders to make investment decision as they see fit especially in areas that need urgent attention (Klein, Medrich & Perez-Ferreiro, 1996; Odden & Archibald, 2000). In the end the investment guidelines help local implementers to understand and interpret the policy to ensure effective financial investment at the local level (McREL, 2003).

Some African countries as in the case of Morocco have put in place and are using a policy that provides for incentives to encourage communities to invest in ECD (Choi, 2004). The frequent use of this policy increases the potential for successful implementation of ECD programmes and brings children's issues forward for public debates (Addison, 2006). This determinant is however, focused on private investment and not public investment. It has also been noted that public-private partnership investment in ECD has to be handled carefully to ensure that public funds are regularly invested in ECD for all children to benefit as in the case of Australia (Press & Hayes, 2000), New Zealand (Padmore, 2002) and Kenya (Ministry of Education, Science and Technology, 2004).

Use of policy that identifies and takes care of the role of different stakeholders and partners in funding ECD priority areas not covered by government expenditure is crucial in investment in ECD (UNESCO, 2004). Policies that promote partnership in investment in ECD must determine the proportion of contribution to ECD and the role of each stakeholder in the partnership as in the case of Germany (Meier, 2008) and in Chile (Vargas-Baron, 2008). This policy will also provide a framework for ECD international aid support (Vargas-Baron, 2008). A good example of this is Kenya where the frequent use of this policy by public officials has helped in providing community support grants to marginalized/vulnerable communities in collaboration with other partners (Ministry of Education, Science and Technology, 2004). Other examples are also in countries like Chile, Brazil and South Africa (Lombardi,

2008). Whereas the above examples are useful in guiding this study on how crucial stakeholders can be involved in investment in ECD, they are tilted towards private investment in ECD which is not the focus of this study.

2.4.2 Contextual Determinants for Investment in ECD

Contextual determinants are those circumstances or situations present when investment decisions are being made (Vargas-Baron, 2008). In the context of ECD, the nature and range of services required is used for determining level of investment (UNESCO, 2006). It nature however, changes from one country to another, for example, in the case of New Zealand, investment is determined by participation rates (Podmore, 2002), while in Australia, the number of children who are to benefit are considered (Press & Hayes, 2000). It has also been noted that in poor countries that tend to have higher numbers of children that need to be supported, help is given based on the numbers of affected children (Barnett, 1997). In Kenya for example, it is determined by enrolment and proportion of the most needy in the area (Kenyan Ministry of Education, Science & Technology, 2004). In the case of World Bank supported ECD projects, the determinants for investment include the availability of early childhood development services, health and nutrition status, school enrolment, drop-out rates, and income levels of the people (Balachander, 2000). While the above examples focus on useful contextual determinants for public investment in ECD, most of them show determinants in a multi-sector context and not specific to education sector.

Knowledge of the benefits of significant investment in ECD to the nation in many African countries determines how they invest in ECD (Kamerman, 2006). Limited knowledge results into the unwillingness of many policy makers to invest more resources to ECD (Vargas-Baron & Sian, 2008). Inadequate knowledge also makes leaders to fail to focus attention to the needs of children (Lusk & O'gara 2002) and have a low political vision or will to invest in ECD (Jamieson, 2007). Knowledge of the benefits of significant investment in ECD on the other hand would ensure that even with limited resources, investment on disadvantaged communities would be prioritised as in the case of Vietnam (Choi, 2005).

Availability of competent human resource has been found to be critical for policy development and investment in ECD (Garcia, Pence, & Evans, 2008). Experiences of ECD policy making in the sub- Saharan Africa region reveal that capacity for ECD can be a major challenge, as illustrated by cases in Burkina Faso, Mauritania, Namibia, and Senegal (Torkington, 2001; Vargas-Barón, 2004). Competent human resource has to be part of the participatory ECD policy-planning processes that includes rigorous investment planning in full collaboration with other stakeholders (Vargas-Barón, 2004). Also, sector experts require capacity building to appreciate and apply new ECD concepts (Torkington, 2001; Vargas-Barón 2004). Investment in ECD has been found to be related to trained practitioners, streamlined training and career structure (Biersteker, Ngaruiya, Sebatane, & Gudyanga, 2008; Boakye, Etse, Adamu-Issah, Moti, Matjila, & Shikwambi, 2008). Likewise, development of an ECD

policy in Namibia depended on competent internal and external expertise (Pence, 2004; Torkington, 2001).

Institutional factors have been seen as a contextual determinant for investment in ECD (World Bank, 2007). These factors range from influence exerted by individuals in the institutions, nature of relationships that exist between different institutions and interest being pursued by different institutions. If an institution decides to invest public funds in a given project, these factors tend to interfere with the selection of beneficiaries, monitoring and payment systems (Schubert & Huijbregts, 2006). Institutional factors like competition for control of a particular ECD project by different government agencies may bring stalemate in investment in a given service or affect the horizontal allocation of per capita intergovernmental grants (Jamieson, 2007). This stalemate results from the fact that the final incidence of grants is not always according to what is stated in the investment formula, but by other intervening institutional factors (Boex & Martinez-Vazquez, 2005). While this information on institutional stalemates in investment give clues on institutional differences across sectors, it falls short of specifying such conditions that can cause a stalemate within a specific sector that has an overall goal to be achieved.

Studies by Pence (2004) have also identified availability of funds as a contextual determinant for investment in ECD. Funds can be mobilised to generate seed money for ECD projects like the one spearheaded the Bernard van Leer Foundation in Kenya's Preschool Education Project or The World

Bank that supported policy development and implementation in Kenya, Uganda, Egypt and Eritrea (UNESCO, 2006). It can also be through community support grants or endowment programmes like the Madrasa endowment programme in Kenya and Tanzania (Issa & Evans, 2008). Funds for ECD can also be mobilised through partnership with international organizations, aid agencies or businesses that see education as a critical part of economic vitality of the community, and that supporting schools is an investment rather than a donation (Wall & Sellers, 2002). While these studies focus on availability of funds in the context of aid and private support, it does not specifically focus on public investment which is the focus of this study.

2.5 Public Investment in Early Childhood Development in Uganda

Uganda's education sector suffered from 1971-1985 due to political instability at that time. The instability made investment in the education sector decline from 3.4 percent to 1.4 percent of the national budget (Eilor, 2004). The physical structures, instructional materials and human resource were virtually non-existent in most schools. The area of ECD was almost not catered for in any way (Obua-Otoa, 1996). It was only in 1987 when the Education Policy Review Commission (EPRC) was commissioned by the government to chart a way forward for education that hope was revived. The recommendations of the commission were refined by government culminating into the Government White Paper on Education (GWPE) of 1992. The white paper became the basis for public investment in the education sector (MoES, 1992).

Public investment in the education sector is guided by the Poverty Eradication Action Plan (PEAP) goals and objectives. PEAP is propelled by four goals, the fourth of which is to provide actions that directly enhance the quality of life of the poor. In this goal, the first objective is promoting education, vocational training and literacy (PEAP, 1997). PEAP has successfully been the overall planning framework in Uganda, and sectors have geared their investment and activities increasingly towards its targets (MoFPED, 2003).

In line with PEAP, in the MoES, the Education Strategic Investment Plan (ESIP) was developed from the Sector-Wide Approach (SWAP) to address education constrains while focusing on poverty levels as a determinant for investment. ESIP has served as a framework for the implementation of a sector wide approach to education development as well as a shift from project support to general or earmarked budget support (MoFPED, 2001). Under this review, a division for Pre-primary under the department of Pre-primary and Primary Education was created in the MoES (MoES, 2007). ESIP provides guidance to the MoES to plan according to the stated investment priorities in accordance with PEAP investment strategies. In this case, if ECD is one of the identified investment priorities, then MoES would be expected to include it in their investment plans in Mid Term Budget Framework (MTBF).

The Medium Term Budget Framework (MTBF) is prepared by the Education Sector Working Group (ESWG) which is comprised of representatives from the central government, education sub-sector representatives, Education

Funding Agencies Group (EFAG), NGOs and other stakeholders. It is this group that invests finances in the Medium Term Expenditure Framework (MTEF) in accordance with ESIP priorities, recommendations of the Education Sector Reviews (ESRs) and in consonance with the budgetary ceilings as defined by the MoFPED. It also originates the Budget Framework Paper (BFP) to be incorporated into the National Budget Framework Paper (NBFP) by MoFPED.

The Education Act (2008) is also used to determine areas of investment in ECD. In this act, the government, in the area of ECD, undertakes the role of providing the curriculum, guidelines on minimum standards for school buildings, equipment and other relevant facilities for pre-primary institutions through its relevant agencies. It also undertakes the role of providing the curriculum for teacher training for pre-primary institutions and ensures that the teachers who teach in pre-primary institutions have the necessary qualifications. It also licenses, registers and regularly inspects all pre-primary institutions (MoES, 2008).

Besides the Education Act, there is also an ECD policy in Uganda. The ECD policy of 2007 identifies the Ministry of Education and Sports as the lead Agency at national level that oversees the implementation of ECD activities. This coordination is done through the Department of Pre-primary and Primary Education under the overall coordination of the Director of Education. In the districts, the departments of education work with other departments to enable

each department participate fully in the delivery of services to children aged 0-8 years. The Department of Education at the District level also guides, supervises, monitors and ensures that basic requirements and minimum standards are maintained in ECD institutions. The day-to-day management of ECD Centers remains under the private sector, communities or individual proprietors (MoES, 2007). As far as government commitment to investment in ECD is concerned, the ECD policy (2007) specifies that the initiation and implementation of ECD programs shall continue to be the responsibility of the private sector for children below 6 years. The Ministry on her part caters for the development and dissemination of policy and policy guidelines, curriculum and ECD teacher education training. It also undertakes to invest in advocacy, community mobilization, monitoring, evaluation and research for quality assurance (MoES, 2007b).

At the districts, the district planners make three-year rolling development plans incorporating investment plans from the sub-counties. These plans are sent to MoES for a review to see if they have been made as expected. Likewise the local governments produce work plans which are submitted to MoES for approval. This is done to make sure that they are compliant with the broad national policy objectives, set guidelines and set expectations of various development partners. When all these are done, the plans are submitted to MoFPED who incorporate them into the overall national investment plan (Eilor, 2004). The whole process is overseen by Education Funding Agency Group (EFAG), a group comprising of all donors supporting the sector.

2.5.1 Components and Levels of Investment in Early Childhood Development in Uganda

The ECD policy (2007) specifies that ECD is a cross cutting issue and as such investment and implementation of ECD activities is rights based and follow a multi sectoral approach. For example, protection services are provided by the Ministry of Local Government (MoLG), Ministry of Internal Affairs (MoIA) and Ministry of Gender, Labour and Social Development (MoGLSD). The survival services are provided by the Ministry of Health (MoH), Ministry of Lands, Water and Mineral Development and Ministry of Agriculture. The MoES provides the participation and development services.

Within the departments, implementation of some ECD activities is in form of projects. For example, under the MoES, ECD projects that are directly funded by development partners include: Uganda's Nutrition and Early Child Development Project - Counting on Communication and Community Health Initiative for Long term Development supported by the World Bank (Cabanero-Verzosa, 2005). There are also UNICEF supported programmes like Basic Education Child Care and Adolescent Development (BECCAD), Child Friendly Basic Education and Learning Programme (CFBEL) (Bitamazire, 2005), and Breakthrough To Literacy (BTL). Others include Water, Sanitation and Hygiene (WASH) programme (Okuni, 2008) and Integrated Early Childhood Programme (IECD) (Norma, 2003) among others. MoES only has the role of supervising implementation following the agreed guidelines.

2.5.2 Patterns and Proportions of Investment in Early Childhood Development in Uganda

The bulk of investment in ECD in Uganda is by the private sector. There are however, specific areas of investment that the government has earmarked as her investment areas. These include ECD curriculum development, ECD teacher education curriculum guidelines, quality assurance and registration (ECD Policy, 2007). Investments in these areas are mainly supported by development partners. These partners provide funds for investment in ECD as either budget support funding or project support. For example, the World Bank prefer budget support modality funding while others like UNICEF and CCF prefer project supported funding (Eilor, 2004).

Direct investment and inclusion of ECD in the ministry budget is yet to be done, as it had not been done in the previous years. According to the MoES sector budget framework paper of 2009, there were no allocations for ECD in 2007/08 and 2008/09. Discussions are however, going on to have allocations for ECD of UGX 2,402bn (0.28% of the education budget) in 2009/10 national budget. There is also a proposal to invest 1,994bn in 2010/11 and 2,294bn in 2011/12 representing 0.22% and 0.22% respectively of the education budget under quality and standards for ECD (MoES, 2009).

In the case where the funding is project specific, and targeting specific goals or objectives, MoES only takes into account the donor conditionality and therefore cannot divert the funds to other priority areas (Eilor, 2004). It has

also been seen in MoES where development partners provide direct project or programme support funding covering specific activities for the MoES to implement (Eilor, 2004). These projects form the bulk of investment in ECD in Uganda.

In summary, trends in investment in ECD in Uganda are not easy to monitor. This is because different partners and government invest in either projects or specific activities as individuals. Sometimes, the investment involved may not be made public thus making it difficult to establish the trends. A documentation of all investments in ECD for a particular year is therefore needed to help understand the trends and levels in a particular year. This study hopes to achieve this for the financial year 2008/09.

2.5.3 Determinants of Investment in Early Childhood Development in Uganda.

Determinants of investment in ECD in this section are reviewed in two parts. The first part reviews literature on policy determinants of financial investment to ECD at national level and local level. The second part reviews literature that focuses on contextual determinants of financial investment in ECD at national and local level.

2.5.3.1 Policy Determinants for Investment in ECD in Uganda

In Uganda, the ECD policy was approved in 2007. The approved ECD policy

portrays ECD as a multi-sector process and calls for adoption of an expanded vision of a policy framework in which ownership, execution and management is shared by all stakeholders. According to MoES (2007), the ECD policy mandates government to invest in ECD policy guidelines development and dissemination, curriculum for children and ECD teacher education. It also pledges to invest in assessment and qualification framework, advocacy, community mobilization, monitoring, evaluation and research for quality assurance (MoES) (2007). The policy however, does not suggest the proportion of the education expenditure that has to be invested in ECD at either local or national levels.

While studies conducted in other parts of the world have identified specific levels of public investment in ECD (Belfield, 2006; Kaga, 2005; Neuman & Peer, 2002; Vargas-Barón, 2006) that has helped their countries focus more investment in ECD, in Uganda, the level of investment in ECD at either local or national levels are still not known. Most of the available studies focus on general sector financial investment where ECD is included under primary education (Mushemeza, 2005) and not specific levels of investment in ECD at either national or local levels.

Other studies that tried to focus closer to policy determinants for investment in ECD like that of MoES (2007) have only focused on the need to prioritize investment in ECD provisions and services, while others dwelt on strategies for ECD policy development (Bakehena, Katigo-Kaheeru & Muheirwe, 2005;

Kajubi, 1987). These studies however, did not identify specific determinants that need to be addressed to improve public investment in ECD at either local or national levels.

2.5.3.2 Contextual Determinants for Investment in ECD in Uganda

In Uganda, MoFPED (2003) noted that the contextual determinants for investment in the area of poverty alleviation for budget support funding, is the Poverty Reduction Strategy Paper (PRSP) conditionality (Eilor, 2004). These determinants are however, not specific to ECD as most investment in ECD are donor funded. Studies conducted in Uganda that were close to identifying contextual determinants for investment in ECD were done by Baume et al. (2003) and another by Kajubi (1987). These studies identified policy and communication as important determinants for private investment in ECD at the local level. The study did not focus on the determinants of public investment at the national level. A study by Muheirwe (2004) shows a lack of awareness of the people of the importance of ECD and not of significant investment in ECD. Whether this factor can be one of the important determinants of investment in ECD, is yet to be seen.

2.6 Summary of Reviewed Literature

The literature reviewed identified investment in ECD as multi-sectoral. It also indicated that most investments so far for ECD is supported by development partners as projects although governments also provide a sizeable amount of

funding for it. Trends indicate a positive increase in investment in ECD with governments in developed countries making more commitment to invest in different ECD programmes than governments in third world countries. In Uganda, the current level of investment in ECD is still not known as the structures are still being put in place. In the review different determinants for financial investment in ECD both at national and local levels in other countries were identified. Some of the determinants were either policy or contextually related. The review also shows that specific policy and contextual determinants that are related to investment in ECD in Uganda have not yet been documented. Without all this information, it is therefore, not practical to think that determinants from other countries and regions whose contextual and political environments are not related to Uganda can be generalized to it. A study of proportion of the education expenditure invested in ECD at national and local levels in Uganda and their determinants is therefore warranted.

CHAPTER THREE

METHODOLOGY

3.0 Introduction

This chapter focuses on the methodology, which was used to carry out this study. It includes the research design, variables, location of the study, target population and samples of the study, sampling procedure, and instruments for data collection and also highlights the methods of data collection, data processing and data analysis.

3.1 Research Design

Investment in ECD was not manipulated because it had already been made based on determinants that the researcher has no control over. This made Ex Post Facto design the most appropriate for this study (Best, 1981; Diem, 2002). In using the Ex Post Facto design, the researcher used intact groups of policy makers at local and national levels to provide information on investment in ECD.

3.2 Variables

Policy and contextual determinants are the two independent variables, while total public investments in ECD at local and national level are the dependent variables that were used. The independent variables were measured in the following ways:

3.2.1 Policy Determinants Variables (PDV)

Policy determinants variables refer to a group of policy related variables that have been identified as having some relationship with financial investment in ECD. The four policy determinant variables include:

Prioritizing Financial Investment in ECD (PFI) which refers to the frequency of use of investment policy guidelines that gives investment priority to ECD in the education sector. The PFI was measured by establishing the frequency of use of this investment policy guideline when making investment decisions in ECD.

Roles of Stakeholders in Investment in ECD (RSI) refers to frequency of use of investment policy guidelines that identifies different stakeholders and their roles in investment in ECD in the education sector. The RSI was measured by establishing the frequency of use of this investment policy guideline when making investment decisions in ECD.

Policy to Provide Incentives for Investment in ECD (PII) refers to the frequency of use of the policy that provides for incentives for investment in ECD in the education sector. The PII was measured by establishing the frequency of use of this investment policy guideline when making investment decisions in ECD.

Total Policy Determinant Score (TPDS) refers to the sum total of scores for all the three policy determinant variables. This total score was used for establishing relations between the overall policy determinants and national or local level investment.

3.2.2 Contextual Determinants Variables (CDV)

Contextual Determinants Variable (CDV) refers to a group of variables that are available in the context of investment in ECD in the education sector. The six contextual variables include:

Availability of Human Resources (AHR) refers to presence of qualified ECD staff in different departments to represent ECD interests and make investment decisions for ECD in the education sector.

Availability of Financial Resources (AFR) refers to availability of funds in a given department that can be invested in ECD. This could be direct transfers from government or project funds remitted by development partners to the education sector.

Basis for Prioritization of Investment in ECD in an area (BPI) refers to a factor that is taken into consideration when investment decisions are being made in ECD in the education sector.

Knowledge of Benefits of Investment in ECD (KBI) refers to how knowledgeable the persons responsible for making investment decisions in ECD are on the benefits of significant investment in ECD to individuals, families and the nation.

Institutional Factors for Investment in ECD (IFI) refers to those factors within different institutions or departments in the education sector that play significant roles in influencing selection of beneficiaries and proportions that are to be invested in different areas. These factors may range from influence peddling by leaders, personal conflicts among staff, or difference in prioritization of needs by institutions.

Total Contextual Determinant Score (TCDS) refers to the sum total of scores from all the five contextual determinants. This total contextual determinant score was used to establish relations between overall contextual determinant and national or local level investment.

3.2.3 National Level Investment Variable (NIV)

National Investment Variable (NIV) refers to public investment in ECD activities in different departments at the Ministry of Education and Sports headquarters. The variables used included: Investment in ECD Teacher Training (ETT); Investment in ECD Programmes (EP); Investment in ECD Research (IER); Investment in ECD Monitoring and Evaluation (EME) and Investment in ECD Community Mobilization (ECM). The sum total of investment in ECD activities from all departments in MoES in the FY 2008/2009 was added to form the National Investment Variable (NIV) score.

3.2.4 Local Level Investment Variable (LIV)

Local Investment Variable (LIV) refers to public investment in different ECD related activities in the selected districts. The variables used included: Investment in ECD Instructional Materials (IIM); Investment in ECD Administration (IEA); Investment in ECD Caregivers Remuneration (ECR), and Investment in ECD Infrastructure Development (EID). The sum total of funds invested in these areas in each district in the FY 2008/2009 was considered as the Local Investment Variable (LIV) score.

3.3 Location of the Study

This study was conducted in all the four regions of Uganda to make the findings representative of the whole country. The central region is more affluent due to location of the capital city and commercial districts within it. The region also enjoys relative political stability and security than any other region. The northern region has for the last 22 years been involved in war. Most middle and upper socio-economic class people have fled from it, while those who have remained there are very poor and are barely surviving. Eastern region has been affected by floods, drought and cattle rustling. All these have run down many infrastructures, displaced populations and made provision of ECD service a challenge. The western region is more peaceful. The region is fertile and has the potential for establishment of many ECD centres (See appendix K for location of the regions).

From these regions, a list of districts with their enrolment of children in ECD was compiled from the Annual National School Census (2008). From this list, the districts that had the highest enrolment of children in ECD were separated from those that had low enrolment. From each of the two groups, five districts were randomly selected. This brought the total of districts selected from each region to 10. Five districts therefore represented those with low enrolment in ECD while the other five represented those districts with high enrolment. The selected districts are shown in Table 3.1.

Table 3. 1: Selection of Districts Considered for the Study

Region	Districts	ECD Enrolment	Region	District	ECD Enrolment
Eastern	*Amuria	41,542	**Western**	Bulisa	13,085
	Budaka	32,339		*Bundibudyo	36,165
	Bududa	31,852		*Hoima	53,122
	Bugiri	87,057		*Kabarole	56,635
	*Bukedea	26,822		Kamwenge	52,769
	Busia	53,290		Kibaale	89,434
	Butaleja	42,719		*Kiboga	38,575
	*Iganga	98,092		*Kyenjojo	72,673
	*Jinja	50,631		Masindi	63,867
	*Kaberamaido	34,344		*Bushenyi	126,618
	Kaliro	33,090		*Ibanda	38,802
	Kamuli	105,558		Isingiro	62,059
	Katakwi	25,706		Kabale	87,850
	*Kumi	56,774		Kanungu	38,717
	Manafwa	56,579		*Kasese	102,583
	*Mayuge	65,325		Kiruhura	44,707
	*Mbale	59,856		Kisoro	48,956
	Namutumba	39,541		*Mbarara	62,324
	*Palisa	80,299		*Ntungamo	75,943
	Sironko	58,243		Rukungiri	48,742
	*Soroti	77,941			
	Tororo	75,368			
Northern	*Abim	14,335	**Central**	Kalangala	2,676
	Adjumani	22,901		*Kampala	90,782
	*Amolatar	19,308		*Kayunga	58,463
	Amuru	31,714		*Luweero	74,429
	*Apac	78,246		Lyantonde	11,449
	*Arua	118,893		*Masaka	135,409
	*Dokolo	25,101		*Mityana	37,215
	*Gulu	52,817		*Mpigi	74,715
	Kaabong	32,618		Mubende	71,298
	*Kitgum	58,657		*Mukono	120,959
	*Koboko	39,438		Nakaseke	28,987
	Kotido	10,805		*Nakasongola	27,979
	*Lira	111,243		Rakai	69,456
	Maracha Terego	96,745		*Sembabule	51,052
	Moyo	18,382		*Wakiso	96,545
	Nebbi	105,088			
	*Oyam	28,540			

*The districts with * are the ones that were involved in the study*
Source: Annual National School Census 2008.

3.4 Target Population

The target population of this study was public officers who are in charge of public investment in ECD at either national or local level. At the national

level, policy makers in the Ministry of Education and Sports were included in the sample. These included the Commissioner for Pre-primary and Primary Education, the Commissioner for Teacher Education, the Senior Education Officer for Pre-Primary Education, the chief Inspector of Schools (ECD), Head of ECD in National Curriculum Development Centre (NCDC), and the Education officer (UNICEF). At the local level, this population comprised of District Education Officers and District ECD focal point persons in the selected districts.

3.5 Sample Size and Sampling Techniques

This section presents the sample size that was used in this study and later the sampling techniques employed as shown below.

3.5.1 Sample Size

A total of 90 respondents were sampled for this study from an estimated total number of 174 ECD policy makers in Uganda. This number of sample, which is considered representative of the population, is derived from the table of determining the sample size from a population by Krejcie and Morgan (1970). The summary of respondents selected is shown in Table 3.2.

Table 3. 2: Respondents Selected for the Study

Category	Population	Sample	%
District Education Officers	77	40	52.0
ECD District focal point persons	77	40	52.0
ECD Policy Makers	20	10	50.0
Total	**174**	**90**	**51.7**

Table 3.2 shows that 52 percent of the District Education Officers and district ECD focal point persons were the respondents in this study, while 50.0 percent of the ECD policy makers were included in the study. These percentages of 52% and 50% were chosen because Gay (1981) proposed that a sample size of 10 to 30% of the total population is adequate for a study in descriptive research. At the time this study was being conducted, there were 77 functional districts in Uganda. From the 77 districts, 40 districts were purposively selected based on the number of children in ECD centres in them. In each district, specific persons representing the district as its DEO and ECD focal point persons were targeted.

3.5.2 Sampling Techniques

At the national level, a list of all the departments in MoES was first made. From this list, all the departments were visited to identify persons responsible for public investment in ECD. All those persons who were involved in investment in ECD were purposively selected to participate in the study. Purposive sampling technique was used in this study because specific respondents were being selected based on a given purpose (Diem, 2002).

At the local level, a total of 10 districts from each region were sampled using stratified and later random sampling techniques. The districts were listed according to the enrolment of children in ECD based on the National School Census (2008). The list was then split into two groups comprising of those with high enrolment and those with low enrolment. Five districts each were later randomly selected from the group of districts with the highest enrolment and those districts with low enrolment. From each of the selected districts, purposive sampling of 10 District Education Officers and 10 ECD focal point persons was done.

3.6.0 Instruments

Various instruments were used to capture data from various sources. The questionnaire was the major instrument used for data collection. Three questionnaires were used in this study. They were for ECD policy makers, District Education Officers (DEOs) and another for District ECD Focal Point persons.

The questionnaire for ECD policy makers had four sections and a total of 66 items. Section A had three items looking for demographic information. Section B had seven items on public investment in ECD in MoES headquarters. Section C contained 15 items on policy determinants for investment in ECD at the national level. Section D had 41 items on contextual determinants for investment in ECD at the national level. This section had

more items than other sections because the section had more sub variables than the rest (See Appendix A).

The questionnaire for District Education Officers had a total of 62 items in the four sections. Section A contained three items that solicited for demographic information. Section B contained three items on local level investment in ECD. Section C contained 15 items that solicited for policy determinants for investment in ECD. Section D contained 41 items on contextual determinants for investment in ECD at the local level (See Appendix B).

The questionnaire for district ECD focal point officers had a total of 64 items in the four sections. Section A contained three items that solicited demographic information. Section B contained five items on local level investment in ECD. Section C contained 15 items that solicited for policy determinants for investment in ECD. Section D contained 41 items on contextual determinants for investment in ECD at the local level (See Appendix C).

Items in the questionnaires were of different types including: Items requiring Yes or No responses, items requiring true or false responses, frequency of use items and Likert scale items. Table 3.3 shows the scores assigned to various responses to these items.

Table 3. 3: Item Scoring

Category		**Response**	**Score**
True / False		True	2
		False	1
Yes /No		Yes	2
		No	1
Frequency of Use		Always	5
		Frequently	4
		Sometimes	3
		Rarely	2
		Never	1
Likert Scale	Positive Statements	Strongly Agree	5
		Agree	4
		Not Sure	3
		Disagree	2
		Strongly Disagree	1
	Negative Statements	Strongly Agree	1
		Agree	2
		Not Sure	3
		Disagree	4
		Strongly Disagree	5

Table 3.3 shows that there are four categories of responses that were used in the instruments. It also shows that the Likert scale scoring was in two ways. All positive items responses were scored in such a way that strongly agree had the highest score, while strongly disagree had the lowest score. For all the negative items, the reverse of the positive scoring was used. The score used for specific hypotheses testing was obtained after totaling all the item scores for the items in each sub-section in Section D.

Document analysis guide was used to obtain data related to public investment in ECD at different levels. In this guide, statements that focus the researcher on what to look for in the documents were stated. The documents analyzed

included Education Sector Ministerial Policy statements, Education Sector Performance Reports, and UNICEF district ECD work plans.

3.7 Pilot Study

A total of 12 districts were selected for the pilot study. Three districts were randomly sampled from each of the four regions. One district focal point person was purposively sampled for the pilot study from each selected district. These districts were later not included in the final study to avoid contaminating the results. The same respondents were given the instruments to fill and other copies of the same instruments were given to them to fill again after one week in order to have a set for test retest analysis.

3.7.1 Validity of the Questionnaire

The content validity of the questionnaire was established by conducting item analysis. This was done with the assistance of seven people who are competent in research methodology. The persons identified vague items and modified them. Finally the content validity of the instruments was computed for each of the sections using the formula adopted from Amin (2005).

$$\text{CVI} = \frac{\text{Number of items rated as relevant}}{\text{Total number of items in the questionnaire}}$$

The results of the analysis are shown in Table 3.4 below.

Table 3. 4: Content Validity Results for the Questionnaires

Questionnaire	Section A	Section B	Section C	Section D	Average
Policy Makers	1.0	.90	.80	.94	.91
Education Officers	1.0	.81	.80	.94	.89
Focal Point Persons	1.0	.79	.80	.94	.88

Table 3.4 shows that the lowest validity was .79. This means that all sections in the instruments were valid. This is because a validity index of above .70 is usually acceptable (Amin, 2005).

3.7.2 Reliability of the Questionnaires

The reliability of the content in the questionnaires was assessed using the Test-Retest method after a pilot study. Pearson Product Moment Correlation Coefficient in the computer SPSS program was used to calculate the reliability (See Appendices E and F). The test-retest results is shown in Table 3.5

Table 3. 5: Test-Retest Correlation Coefficients for the Questionnaires

Sections of the Questionnaire	Policy Makers Questionnaire	Focal Point Persons Questionnaire
Prioritisation of ECD	.908	.964
Roles of stakeholders	.956	.913
Incentives for investment	1.000	1.000
Human resource	.825	.831
Financial resource	.893	.898
Basis for prioritization	.791	.845
Benefits of investment in ECD	.913	.948
Institutional factors	.881	.852

Table 3.5 shows that all the sections of the instrument were reliable after the second administration of test. The second administration of tests was done

after some adjustments had been made on the questionnaire following identification of errors in them after the first administration of tests.

It was also important to ensure that there was internal consistency of the items. This was done to determine the extent to which the content of the questionnaire was consistent in eliciting the same responses when administered at different times to the same group (Amin, 2005). Cronbach's Alpha Coefficient was used to compute the internal consistency of the instrument for the second administration (See Appendices G and H). The result is shown in Table 3.6.

Table 3. 6: Cronbach's Alpha Coefficients for Internal Consistency of Sections

Sections of the Questionnaire	Policy Makers Questionnaire	Focal Point Persons Questionnaire
Prioritisation of ECD	.951	.981
Roles of stakeholders	.975	.951
Incentives for investment	1.000	1.000
Human resource	.891	.903
Financial resource	.943	.945
Basis for prioritization	.833	.916
Benefits of investment in ECD	.957	.930
Institutional factors	.931	.920

Table 3.6 shows internal reliability for each section for both instruments. The alpha coefficients of the scales were ranging from .833 – 1.00. This shows that they had a better internal consistency after the second administration. Osborne and Waters (2002) noted that most authors assume that reliability estimates (Cronbach alphas) of .7-.8 are acceptable, while Osborne, Christensen, and

Gunter (2001) reported that the average alpha reported in top Educational Psychology Journals was .83.

3.8 Data Collection Procedures

In the Ministry of Education and Sports, the researcher made appointments with all ECD policy makers responsible for public investment in ECD. This was done to identify the time they would be free and use the appointment time as scheduled accordingly to meet them. The researcher explained the purpose of the study to the policy makers and assured them of confidentiality. He provided them with questionnaires and all the respondents returned all the questionnaires properly filled. The respondents were all thanked for their participation.

In the districts, the researcher first went to the District Education Officer to get an appointment. After fixing the appointments, the researcher went back at the slated time to see the officer. The officers were provided with the questionnaires which they filled and returned at a later date. The researcher then visited the District ECD Focal Point persons.

While with the District ECD Focal Point persons, the researcher asked them to fill the questionnaire after assuring them of confidentiality. After finishing with each of the districts, the researcher proceeded to the next one. The same approach was used to collect data in all the selected districts.

After collecting information from the respondents, a documentary analysis was conducted. The following documents were analyzed: Education sector ministerial policy statement, ECD statistical abstract, UNICEF district annual work reports, ECD policy dissemination reports, Community sensitization on ECD reports, ECD caregiver training programme reports, MoES ECD survey reports, ECD Quality assurance reports.

3.9 Data Analysis

Descriptive and statistical analyses were used to analyze data collected in this study. In the case of descriptive analysis, qualitative information was first summarized thematically into tables with their frequencies and percentages given. For the case of objective 1, that needed descriptive analysis, specific research questions 1and 2 shown below were used:

RQ1 *What proportion of the education expenditure is invested in ECD in Uganda at the national level?*

RQ2 *What proportion of the education expenditure is invested in ECD in Uganda at the local level?*

The means of the percentages of investment at local and national levels were used in the descriptive analysis for research questions 1 and 2 to see if there was a difference between investments in ECD in Uganda compared to the internationally recommended levels of investment in ECD.

In the case of statistical analysis, the following specific hypotheses were tested: Specific statistical hypotheses Ho1-4 were tested. These hypotheses were establishing relationships between Total Policy Determinants (TPD) scores and Total Contextual Determinants (TCD) scores with National Investment Variable (NIV) and Local Investment Variable (LIV). These hypotheses included:

Ho1. There is no significant relationship between TPD and NIV at p= .05 level of significance.

Ho2. There is no significant relationship between TPD and LIV at p= .05 level of significance.

Ho3. There is no significant relationship between TCD and NIV at p= .05 level of significance.

Ho4. There is no significant relationship between TCD and LIV at p=.05 level of significance.

The non-parametric Spearman Rank Correlation Coefficients (rho) was used to test null hypotheses 1 and 3 that were not meeting the requirements for use of a parametric test. For null hypotheses 2 and 4, Pearson Product Moment Correlation Coefficient was used to establish the relationship between the criterion (Total Investment in ECD) and the predictor variable (determinants) (Amin, 2005). Pearson's Product Moment Correlation Coefficient was used to analyze data that met Pearson's (r) assumptions. These assumptions emphasize that the distribution of both variables approximates the normal distribution and is not skewed in either the positive or the negative direction (Cann, 2009). The

variables should also have evidence of linear relationship between x and y, have continuous random variables and that x and y must be independent of each other (Lohninger, 2009).

In order to establish the predictor variable that contributed most to investment in ECD at local and national levels, a Simple Linear Regression Analysis was used. Armitage, Berry, and Matthews (2002) explain a Simple Linear Regression Analysis as a method used to examine the relationship between one dependent variable Y and one or more independent variables Xi so as to identify the variable that has a better predictive relationship with the dependent variable. Linear Regression Analysis was used to establish the prediction strength for investment in ECD at the local level. In the regression, a backward method technique of entering data was used in order to help establish the best predictor for public investment in ECD at local or national level (Thomas & Nelson, 1996). The following specific statistical hypothesis Ho5 and Ho6 were used.

Ho5. Specific contextual and policy determinants scores have no significant predictive values for determining investment in ECD at the national level at p=.05 level of significance.

Ho6. Specific contextual and policy determinants scores have no significant predictive values for determining investment in ECD at the local level at p= .05 level of significance.

3.10 Ethical Considerations

Several ethical considerations were made in this study. A letter allowing the researcher to conduct research was obtained from Kenyatta University School of Graduate Studies (Appendix L). A research permit was also obtained from Uganda National Council of Science and Technology (Appendix M). The respondents' personal information was kept confidential. Use of informed consent before involving the respondents in the study and requesting respondents to kindly participate in the study was done. Only those who gave consent to participate in the study were involved in the study. Lastly, when the research is finalized, the findings will be made available to the respondents and other interested stakeholders as a way of giving them a feed back.

CHAPTER FOUR

DATA ANALYSIS, RESULTS AND DISCUSSION

4.0 Introduction

This chapter presents data analysis, results and discussion. This study aimed at: Establishing the proportion of the education expenditure that was invested in ECD at national and local levels in financial year 2008/09; Assessing the relationship between policy determinants and the investment in ECD; Establishing the relationship between contextual determinants and investment in ECD and Investigating the extent to which specific individual contextual and policy determinants predict investment in ECD at local and national levels.

The findings are presented in three sections according to research objectives. These include the demographic information of respondents, presentation of descriptive results by objectives, inferential analysis and then discussion of findings for each objective. The computer Statistical Package for Social Sciences (SPSS) was used to facilitate the analysis.

4.1.0 Demographic Information

The gender of the respondents and the professional qualification of public officers in charge of investment in ECD at both national and local levels are presented.

4.1.1 Gender of the Respondents

The gender of the public officers involved in investment in ECD at both local and national levels was established as summarized in Figure 4.1 below.

Figure 4. 1: Gender of Respondents

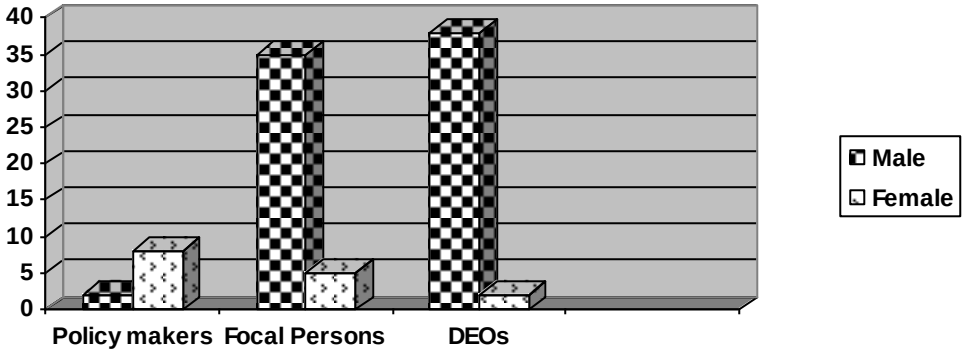


Figure 4.1 shows that there were more males than females among the DEOs and focal point persons. However, among the policy makers, there were more females than males. In general however, 83.3% of the respondents were male and 16.7% female. This means that there were more males than females in the study. The imbalance in gender at the level of investment decision making can be a crucial factor in the way resources are allocated.

4.1.2 Professional Qualifications of the Respondents

The professional ECD related qualification of the respondents was as shown in Figure 4.2 below.

Figure 4. 2: Professional Qualifications of Respondents

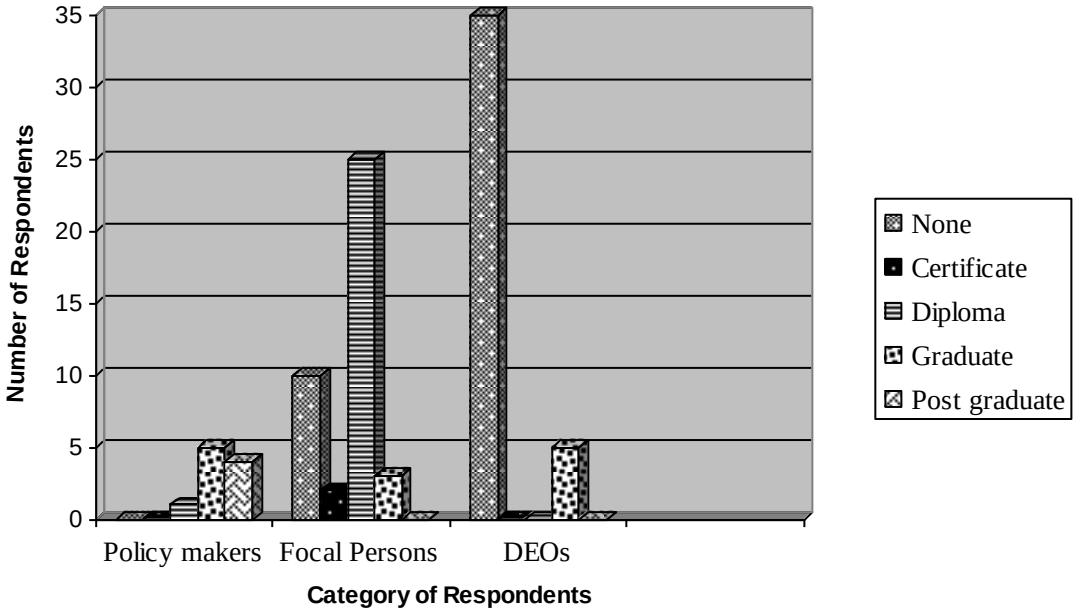


Figure 4.2 above shows that most of the DEO respondents had no professional qualification in ECD. It also shows that most of the focal point persons had a diploma professional qualification in ECD. The largest number of policy makers had graduate professional qualifications in ECD. The conclusion made from Figure 4.2 is that most of the respondents and those officials who are in-charge of investment in ECD had low professional qualification in ECD, especially at the local level. It is therefore possible that at some point they may make investment decision for ECD from an uninformed point of view.

4.2 Objective 1: To Establish the Proportion of the Education Sector Expenditure Invested in ECD at National and Local Levels in the Financial Year 2008/2009

It should be noted that investment in ECD in Uganda is at both national and local levels. In order to establish the proportion of the education sector expenditure that is invested in ECD at the national and local levels, document analysis of expenditures in different divisions that had activities in ECD in MoES was done. At the national level, investment is by MoES headquarters for purposes of policy, programming and quality and standard control. At the local level, investment is by individual districts that spend on ECD related services like implementation, monitoring, advocacy and support supervision of ECD caregivers.

4.2.1 Proportion of the Education Sector Expenditure Invested in ECD at National Level

In order to establish the level of financial investment in ECD at the national level, expenditures on ECD from different departments and divisions in the MoES in FY 2008/2009 were reviewed. The expenditures on ECD activities were identified and later worked out as a proportion of the national level (MoES) expenditure for the two categories of ECD as summarized in Table 4.1 below.

Table 4. 1: Investment in ECD at the National Level in FY 2008/2009

Category of ECD	Proportion of the National Level Education Expenditure Invested in ECD in Percentage
Pre-primary	0.20
Primary 1-3	7.74
Overall ECD at the National Level	7.94

Source: Summary of Data from field 2009

Table 4.1above shows that overall at the national level, 7.94% of MoES budget was spent on ECD. In the category of Primary 1-3, 7.74% was invested in ECD, while 0.20% was invested in ECD pre-primary.

Data from Table 4.1 above was established by looking at the summary of financial investments in different sectors at the national level from the National Budget Framework Paper for 2009/10 (See appendix I). It was established that the education sector was allocated 15.4% of the national budget. This allocation was the second largest allocation of national budget after works and transport sectors. This implies that the education sector is one of the key priority areas in the investment structure in Uganda.

4.2.2 MoES Investment in ECD in Different Departments in FY 2008/09

Within MoES, there are several departments that have investments in ECD activities. These departments include the Department of Pre-Primary and Primary Education and the Department of Quality and Standards. These departments are further divided into divisions. The divisions in the

Department of Pre-primary and Primary Education included the Division of Pre-Primary Education, the Division of Primary Education and the National Curriculum Development Centre. In the Department of Quality and Standards, there were two divisions that had ECD activities. These included the Directorate of Education Standards, and Teacher Education Division, that houses Kyambogo University. The expenditures in these departments related to ECD in the financial year 2008/2009 are shown in Table 4.2.

Table 4. 2: Division Expenditures on ECD in MoES for FY 2008/2009

Division with ECD activities	**Department Expenditure in Millions UShs.**	**Actual Investment spent on ECD in Millions UShs.**	**% of Investment in ECD**
Pre-Primary Educ.	200	82	41.00
Primary Education	22,025	17,119	77.72
NCDC	4,000	2,700	67.50
Secondary Education	138,523	0	0
Special Needs, G/C	717	0	0
Higher Education	3,703	0	0
Skills Development	40,391	0	0
Teacher Education	4,666	85	1.82
DES	4,259	120	2.82
Kyambogo University	15,630	124	0.79
Relocation of Shimoni	9,039	0	0
P.E & Sports	1,790	0	0
Policy, Planning	9,583	0	0
Total	**254,526**	**20,230**	**7.94**

**Shaded departments are those that have investment in ECD related activities*
Source: Ministerial policy statement on MoES (2008/09), MoES Financial Report 2009, NCDC Performance Report (2009), DES Annual Report (2008).

Table 4.2 shows that in the financial year 2008/2009, MoES spent 7.94% of the total budgeted education expenditure on ECD related activities. Major

investments were in the divisions of primary, pre-primary and NCDC. Other departments like skills development, special needs, guidance and counseling, policy and planning had no investment in ECD.

In order to establish the specific activities in which investment was done as far as ECD was concerned, division work plans were reviewed. Summary of the investment in these activities are shown in Table 4.3.

Table 4. 3: Expenditure on Different ECD Activities in the MoES for FY 2008/2009

Divisions	**Activity**	**Investment in P1-3 in Millions UShs.**	**Investment in PPE In Millions UShs.**
Pre Primary Education	ECD Policy dissemination	0	35
	Monitoring of ECD	0	14
	Training of ECD tutors	0	15
	ECD Com. strategy	0	16
	ECD working group	0	2
Primary Education	Printing P.3 thematic books	17,119	0
Dir. Of Ed Standards	Finalizing ECD competences	0	120
National Curriculum Development Centre	Devt ECD caregivers' guide	0	50
	Devt of ECD resource books	0	50
	Devt of P.3 curriculum	600	0
	Roll out of P.3 curriculum	2,000	0
Teacher Education (MoES)	Validation of ECD teacher training institutions	0	75
	Staff development	0	10
Kyambogo University	Development of the ECD Training framework	0	95
	Sponsorship of ECD students	0	21
	ECD staff development	0	8
Total		**19,719**	**511**

**PPE means Pre-Primary Education; **P1-3 means Primary class 1-3*
Source: Ministerial policy statement on MoES (2008/09), MoES Financial Report 2009, NCDC Performance Report (2009), DES Annual Report (2008).

Table 4.3 shows that in the financial year 2008/2009, from the total education expenditure of UShs. 254,526 million, 7.74% (UShs. 19,719 million) was invested in ECD Primary 1-3, while 0.20% (UShs. 511 million) was invested in ECD pre-primary. The largest investment in ECD was for the procurement of P.3 thematic curriculum books, development of the P.2 curriculum and orienting teachers on the use of the new thematic curriculum as it was being rolled out.

4.2.3 Education Sector Investment in ECD in FY 2008/09 at the Local Level

Financial investment in ECD at the local level is based at the district in two ways. The first one, which is entirely by government, is for lower primary (Primary 1-3), while the other is Pre-Primary which is currently being supported by UNICEF through The Right of All Children to Education (TRACE) Project.

UNICEF only supports ECD in some districts. Specifically, UNICEF is targeting only those districts that it considers disadvantaged according to their parameters in terms of ECD. In the districts, the Community Development Officers (CDOs) make ECD budgets and submit these to UNICEF for approval and funding. The rest of the districts do not have any other specific funding for Pre-Primary from government as specified by the ECD Policy (2007) and Education Act (2008).

The amount of money that was spent on pre-primary was divided by the number of children in ECD who were supposed to have benefited from the investments as shown in National Annual Schools Census 2008 to determine the amount spent on each child per year. For the case of children in the Primary 1-3, the figure used by government to remit funds to districts was used. The overall level of investment in ECD was established by working out the average of the levels of investment at pre-primary and Primary 1-3. The summary of all this is as in Table 4.4.

Table 4. 4: Overall Investment in ECD at the Local Level

Category of ECD	**Proportion of the District Education Budget Invested in Percentage**	**Expenditure on Each Child per year**		
		UGX.	**KShs.**	**US$**
Pre-primary	0.09	3,091	124	1.55
Primary 1-3	25.63	5,000	200	2.50
Overall ECD at Local Level	25.72	4,046	162	2.02

Source: Summary of Data from field 2009

Table 4.4 above shows that overall at the local level, 25.72% of the district education expenditure is on ECD which translates into US$ 2.02 per child per year. In the category of Primary 1-3, US$ 2.50 is spent on each child per year while US$ 1.55 is spent on each child annually in ECD pre-primary. From this finding, it can be seen that the level of investment in ECD at the local level is 25.72% of the district education budget or US$ 2.02 on each child annually.

The summary for the overall total expenditure on ECD in the selected districts, the actual funds received for the financial year 2008/9 by respective districts

was established. The UPE capitation grant is given 9 times in year according to the enrollment figures submitted by each district. The total actual investment in ECD activities at the local level is obtained by adding the money invested in Pre-primary and Primary 1-3 in each district. The money for Primary 1-3 is obtained by multiplying the total enrollment of children in a given district by UGX 5,000 for each child and later by nine months in which the funds are remitted to the districts. In the schools, only 75% of the funds instead of 100% is remitted to the schools to cater for the fluctuating enrolment. Table 4.5 below shows the enrolment of children in ECD in each district as established in the Annual school census (2008). The table also shows the amount invested in ECD at pre-primary (UNICEF funding to ECD) and Primary 1-3 (government capitation grant for lower primary) in comparison to the total district education budget as shown in Table 4.5 below.

Table 4. 5: Public Expenditure on ECD in Selected Districts in the FY 2008/09

No	District	ECD PPE Enrolment	ECD P1-3 Enrolment	Total Education Investment at all levels in millions Ushs.	Actual Capitation grant for P1-3 in Millions UShs	Actual Funding to Pre-primary in Millions UShs	Total Actual Investment in PPE & P1-3 in Millions Ushs
1	Abim	2,842	11,600	2,399	392	25	417
2	Amolatar	3,179	18,000	2,590	608	9	617
3	Amuria	120	40,400	3,895	1,364	7	1,370
4	Apac	2,842	74,600	9,234	2,518	10	2,528
5	Arua	3,476	110,400	9,760	3,726	0	3,726
6	Bukedea	176	26,600	2,704	898	0	898
7	Bundibugyo	1,345	32,400	3,381	1,094	14	1,108
8	Bushenyi	2,750	103,400	19,513	3,490	0	3,490
9	Dokolo	192	23,400	2,938	790	39	829
10	Gulu	1,977	49,800	4,219	1,681	23	1,704
11	Hoima	612	46,600	6,601	1,573	0	1,573
12	Ibanda	422	28,200	5,017	952	0	952
13	Iganga	16	92,000	12,436	3,105	0	3,105
14	Jinja	702	40,800	6,929	1,377	0	1,377
15	Kabarole	1,368	52,400	5,989	1,769	18	1,787
16	Kaberamaido	4,021	33,000	2,725	1,114	2	1,116
17	Kampala	17,600	22,400	12,556	756	0	756
18	Kamuli	455	97,000	10,142	3,274	0	3,274
19	Kasese	2,385	82,600	11,121	2,788	22	2,810
20	Katakwi	2,841	23,000	2,575	776	2	778
21	Kayunga	1,067	50,400	7,139	1,701	0	1,701
22	Kibaale	3,238	72,800	6,576	2,457	0	2,457
23	Kiboga	81	33,800	4,380	1,141	0	1,141
24	Kitgum	2,140	54,800	5,053	1,850	0	1,850
25	Koboko	839	37,400	2,684	1,262	0	1,262
26	Kumi	585	55,800	6,478	1,883	0	1,883
27	Kyenjojo	15	65,400	5,899	2,207	16	2,223
28	Lira	5,102	104,800	11,081	3,537	20	3,557
29	Manafwa	274	53,600	6,991	1,809	0	1,809
30	Mayuge	1,256	62,200	5,394	2,099	0	2,099
31	Mbale	1,974	54,800	6,294	1,850	0	1,850
32	Mbarara	1,092	46,600	7,423	1,573	0	1,573
33	Mityana	96	27,000	5,327	911	0	911
34	Mpigi	5,084	68,800	10,486	2,322	0	2,322
35	Mukono	1,375	88,200	16,607	2,977	0	2,977
36	Ntungamo	288	60,400	9,091	2,039	0	2,039
37	Oyam	589	52,000	6,628	1,755	24	1,779
38	Pallisa	940	76,800	7,807	2,592	0	2,592
39	Soroti	1,980	62,400	7,555	2,106	23	2,129
40	Wakiso	4,820	50,800	12,383	1,715	0	1,715
Total		**82,156**	**2,187,400**	**288,000**	**73,825**	**254**	**74,079**

Source: GOU-UNICEF Country programme 2009; MoES (2008) Annual School census; MoES (2008) USE/BTVET Head count 2008; MoFPED (2009) 2009 January Releases to Local Governments for wage, non wage and development; TRACE Supported District Annual work plan 2008/2009.

Table 4.5 shows that Gulu district invested 4.9% of the total education budget on ECD (UGX 1,704million) which is the highest percentage invested in ECD, while Kampala district had the least public investment of 0.7% (UGX 756million) of the total education expenditure in ECD. Arua district invested the largest amount of money on ECD (UGX 3,726 million) while Abim district invested the least amount of money (UGX 417 million) on ECD.

4.2.4 ECD Activities Invested in During FY 2008/09 at the Local Level

ECD funds that are invested in each district are for specific activities that vary from district to district. From the 40 selected districts, 13 of them had funds allocated for ECD pre-primary activities. The remaining 27 districts did not have any funds for pre-primary. The 13 districts that had the funds for pre-primary were part of the 26 UNICEF supported districts under the TRACE Project for ECD activities. The data indicated that 57.1% of the pre-primary expenditure was on sensitization of ECD proprietors and stakeholders on their roles in managing ECD centres. In the same expenditure, 28.6% was for dissemination of ECD policy and guidelines to district officials and other stakeholders.

In the case of expenditure on ECD Primary 1-3, government provides funds with specific spending plan that follow specific activities in particular proportions. These include: Instructional materials 35%, co-curricular activities 20%, management 15%, and administration 10%. The remaining

20% of the funds is left to the digression of the school administration to spend as they see fit depending on the school needs (MoES, 2009).

4.2.5 Discussion

These finding show that the level of investment in ECD at the national level in the Ministry of Education and Sports which is the lead agency for ECD in the country was 7.94% in the financial year 2008/2009. In this expenditure, 7.74% went to ECD Primary 1-3, while 0.20% went to ECD pre-primary. This expenditure still falls short of the internationally recommended 20% of the education expenditure as suggested by the Consultative Group on ECD (2007). The Quality and standards body that is supposed to ensure quality provision of ECD services spent only 1.14% of their expenditure on ECD. Kyambogo University, the only public university that has ECD activities had the least expenditure of 0.79% on ECD. This implies that although ECD is considered as one of the priority areas of investment in the education sector, the actual resources spent on it show the contrary. Investment of 7.94 is still far below the expected targets of between 14-20% of the education investment as recommended by the Consultative Group on ECD (Vargas-Barón, 2008).

The bulk of the investment in 2008/2009 financial year has been on curriculum development and policy dissemination. This is in line with the government commitment to improving the quality of ECD teacher training and teaching as stipulated in the ECD policy (2007). It should be noted that most

of this funding was by The Right of All Children to Education (TRACE) which shows its understanding of the importance of significant investment in ECD. This finding is in line with that of Jaramillo and Mingat (2006) who found that at the macro level, investment in ECD pays itself back for 87% in terms of higher efficiency in primary education.

At the national (MoES) level, the funding for ECD Pre-primary is still very low compared to ECD Primary 1-3. The total expenditure for it was only 0.20% of the total education expenditure as compared to 7.74% invested in ECD Primary 1-3. This kind of investment does not show cognizance of the fact that more money is supposed to be spent at the lower levels to lay a better foundation for the future. This finding in part agrees with that of Vargas-Barón and Sian (2008) who found that part of the challenge in convincing decision makers to expand investments in young children and parenting is that some observers continue to assert that the return on investment in early childhood services is long-term.

It was established that the level of investment in ECD at the local level is 25.72% of the total district education expenditure. From the selected districts, investment in pre-primary was equal to 0.09% of the total district education expenditure as compared to ECD Primary 1-3 that got up to 25.63% of the total district education expenditure. This percentage falls short of the internationally proposed World target of between 14-20% of the education budget to be invested in ECD (Vargas-Barón, 2008).

It was also established that at the local level an equivalent of US$ 2.02 was being invested annually for each child for ECD services. This investment in ECD, by international standards is low and may not guarantee quality ECD service for children. A little more investment would transform the life of the poor tremendously, for example transfer amounting to US$15 per month or US$ 180 annually increases school enrolment from 75% to 85% and reduces child labour by 17% (Oosterbeek et al., 2008; Schady & Aranjo, 2006).

Investment in ECD pre-primary at the local level has been done by TRACE. This funding is however not being given to all the districts of Uganda due to lack of funds. It is important for government to invest more in ECD to cater for the larger majority of the poor. This is because although funding ECD can be a very expensive venture, doing it can have very high returns to a nation (Rolnick & Grunewald, 2003).

In the study, it was noted that funds meant for ECD are channeled through primary education sector. This means that at some point, the funds for ECD may be spent on primary education in a given year and not necessarily benefit ECD, which was the intended target. This finding is in line with that of Haddad (2002) who found that in some countries like Brazil, reduced investment in ECD was as a result of placing ECD under another sector where it invariably must compete with other levels of education.

4.2.6 Summary

In the financial year 2008/2009, investment in ECD was 7.94% of the total education expenditure at the national level and 25.72% at the local level. From these expenditures, an equivalent of US$ 2.02 was being invested in each child per year at the local level. Investment in ECD in MoES is for the development and dissemination of policy and policy guidelines, curriculum and ECD teacher education training. It also undertakes to invest in advocacy, community mobilization, monitoring, evaluation and research for quality assurance. The rest is left to the private sector.

4.3 Objective 2: To Establish the Relationship between Policy Determinants and the Level of Investment in ECD

This objective was set to establish the relationship between policy determinants and investment in ECD in Uganda. Policy determinants variables included: Prioritization of Financial Investment (PFI), Roles of Stakeholders in Investment (RSI), Policy to provide Incentives for Investment (PII) and Total Policy Determinants Score (TPDS). The respondents were asked how often they used the policy determinants for investment in ECD in their daily work in the last six months. The respondents from both local and national levels were given a number of responses from which to choose. The mean and standard deviation obtained from scores were then used to understand the frequency of use of the policy. The expected responses were designed in the Likert's scale with five points. The responses were scored as follows: Never (1), Rarely (2), Sometimes (3), Frequently (4), and Always (5). The specific

frequency of use of the policy determinants at local and national levels was calculated. The result is summarized in Table 4.6.

Table 4. 6: Frequency of Use of Specific Policy Determinants for Investment in ECD at Local and National Level

Frequency of Use of policy	**Proportion of Officers using each policy**					
	Policy on Prioritization		**Policy on Roles of Stakeholders**		**Policy on Incentives**	
	National	**Local**	**National**	**Local**	**National**	**Local**
Never	-	40.0%	-	5.0%	80.0%	96.3%
Rarely	10.0%	21.3%	20.0%	37.5%	20.0%	2.5%
Sometimes	40.0%	18.8%	10.0%	31.3%	-	1.3%
Frequently	30.0%	10.0%	70.0%	21.3%	-	-
Always	20.0%	10.0%	-	5.0%	-	-
Overall frequency of Mean use	**3.60**	**2.29**	**4.30**	**2.84**	**1.20**	**1.05**
SD	1.35	1.37	1.25	0.99	0.42	0.27
Variance	0.93	1.83	1.57	0.97	0.18	7.34

Table 4.6 shows that the policy prioritizing investment in ECD is used "sometimes" at the national level (3.60), while at the local level, the decision makers "rarely" use the policy that prioritizes investment in ECD (2.29). This finding suggests that at the national level, the decision makers use the policy prioritizing investment in ECD to make investment decisions to ECD more than at the local level. The major reason given by the respondents for rarely using the policy was that the government had directed that more emphasis be put on primary education thus making it difficult to invest in ECD regularly.

Table 4.6 also shows that the policy that details roles of stakeholders in investment in ECD are used "frequently" at the national level (4.30), while at

the local level, it is rarely used (2.84). This implies that at the national level, the decision makers frequently used the policy more than at the local level. The major reason given by the respondents as to why the policy that details the roles of stakeholders in ECD was being rarely used was that the guideline is still being disseminated. Many of them are not yet well versed with it. Some of them were also still waiting for funding to implement the guideline. At the national level however, it was being used frequently because it is a requirement by the funding agency.

Table 4.6 also shows that the policy that provides for incentives for investment in ECD is "never" used at both national (1.20) and local levels (1.05). This implies that at both national and local levels, the decision makers never use the policy to provide incentives for investment in ECD to make investment decisions for ECD in the country. The major reason given by the respondents for not using the policy was that its guidelines had not yet been developed.

4.3.1 Relationship between Policy Determinants and Investment in ECD at National Level

In order to establish if a statistically significant relationship existed between the Total Policy Determinants Score (TPDS) and National Investment Variable (NIVS) in ECD the following hypothesis was tested.

Ho1. There is no significant relationship between TPD scores and NIV score at p=.05 level of significance.

This hypothesis was set to test whether a significant relationship existed between the overall policy determinants and investment in ECD at the national level. The data used in the analysis include the sum total of scores of the three policy determinant variables (PFI, RSI, PII). The response from each respondent was directly matched to the actual amount of funds invested in ECD in his/her division or department in the FY 2008/09. From this pair of data, a Spearman Rank Correlation Coefficients (rho) was used to test this particular null hypothesis. The result is summarized in Table 4.7 below.

Table 4. 7. Correlation between TPD and NIV Scores

Correlations

			TPD Score	Investment
Spearman's rho	TPD Score	Correlation Coefficient	1.000	.861**
		Sig. (2-tailed)	.	.001
		N	10	10
	Investment	Correlation Coefficient	.861**	1.000
		Sig. (2-tailed)	.001	.
		N	10	10

**. Correlation is significant at the .01 level (2-tailed).

Table 4.7 above shows a correlation coefficient of rho= .861; p = .001. This correlation shows a very strong positive and statistically significant relationship between policy determinants and actual investment in ECD at the national level. This means that the relationship between the two variables is not just by chance. The null hypothesis which proposed that there was no statistically significant relationship between TPD scores and NIV scores was therefore rejected. It was therefore concluded that a statistically significant relationship exists between overall policy determinants and investment in ECD at the national level.

4.3.2 Relationship between Policy Determinants and Investment in ECD at the Local Level

In order to establish if a statistically significant relationship existed between the Total Policy Determinants (TPD) and Local Investment Variable (LIV) in ECD at the local level, the following hypothesis was tested.

Ho2. There is no significant relationship between TPD scores and LIV scores at p= .05 level of significance.

This hypothesis was set to test whether a significant relation existed between the total policy determinants and level of investment in ECD at the local level. The data used in the analysis include the sum total of scores from the three policy determinant variables scores. The scores from each respondent were directly matched to the actual amount of funds invested in ECD in his/her division in the FY 2008/09. From this pair of data, a Pearson Product Moment Correlation Coefficient (r) was used to test the null hypothesis since the data met Pearson's (r) assumptions. The result is summarized in Table 4.8.

Table 4. 8: Correlation between TPD and LIV Scores

Correlations

		TPD Score	Actual Funds Invested in Millions UShs.
TPD Score	Pearson Correlation	1.000	-.132
	Sig. (2-tailed)	.	.242
	N	80	80
Actual Funds Invested in Millions UShs.	Pearson Correlation	-.132	1.000
	Sig. (2-tailed)	.242	.
	N	80	80

Table 4.8 shows a correlation coefficient of r = -.132; p = .242. This correlation shows a very weak negative and statistically not significant relationship between TPD score and LIV score. This means that the relationship between the two variables if any is by chance. The null hypothesis which proposed that there was no statistically significant relationship between TPD scores and LIV was therefore retained. It was therefore concluded that a statistically significant relationship does not exist between total policy determinants and investment in ECD at the local level.

4.3.3 Discussion

In this study, it was found that there is statistically significant relationship between total policy determinants and investment in ECD at the national level. This finding strengthens the notion that policy determinants are crucial in specifying investment levels and how investments have to be done by different levels of government and stakeholders (Padmore, 2002; Press & Hayes, 2000; Vargas-Baron, 2008). It should be noted that in Uganda, for any investment of public resources to be made, there must be a policy to guide the implementers. Investment in Uganda is done following the PEAP policy. PEAP has successfully been the overall planning framework in Uganda, and sectors have geared their resource allocations and activities increasingly towards its targets (MoFPED, 2003). In PEAP, the first objective of the fourth goal where ECD falls is promoting education, vocational training and literacy (PEAP, 1997).

In this study, it was found that the policies on roles of stakeholders and those prioritizing investment in ECD were being largely utilized at the national level as also found by Eilor (2004). This is because MoES as a lead ministry for ECD was working with many stakeholders to help invest in national ECD programmes and it paid off. This finding supports that of Bennett (2007) who found that whereas the private sector and individuals can greatly support investment in ECD, governments must play a leading role in regulating and supervising the implementation of the same. It was however, noted that at the national level, some of the decision makers were not frequently using the policy detailing the roles of different stakeholders in investment in ECD. This way of "sometimes" using the policy may reflect a weak understanding of the importance of investment in ECD, and as Pence (2004) puts it, "in many African countries, the fabric for ECD support is precariously thin and the social and governmental structures fragile…pg 20".

In this study, it was established that there was no significant relationship between the policy determinants and investment in ECD at the local level. The policy makers were actually investing public funds into ECD using general policy guidelines that are not specific to ECD. One of such policies is the UPE policy, which specifies that allocation of capitation grants to school shall depend on the population of children in the school. In some cases however, there are too few children in a given school for the allocation to make any sense. So what is done in this case is to put aside the policy and allocate a flat rate of 100,000UShs to each school regardless of the enrollment per month of

the school term. Schools that have higher enrollment will then have to claim more funds depending on the extra enrolment (MoES, 2009).

At the local level, many reasons were advanced for rarely using the policy to prioritize investment in ECD. One of them was that there was no budget line for ECD pre-primary in the education sector at district level. They only had UPE guideline which had specific items on which the money received was to be invested. Others however, used this as an excuse to shelf ECD activities since it was an added responsibility with no particular appointment position in the staff establishment and is seen as issues for the private sector. This finding suggests that policy makers at the local level are not very keen to invest in ECD, because they expect families other than government to pay for it. This belief is worsened by the fact that families in poor communities do not have the resources to pay for ECD services, either in cash or kind, and centres that rely on fees tend to exclude children from poor families (Biersteker, Streak, & Gwele, 2008).

4.4.0 Objective 3: To Establish the Relationship between Contextual Determinants and Investment in ECD.

This objective was set to establish the relationship between contextual determinants and investment in ECD at both national and local levels in Uganda. The contextual determinant variable is made of five variables which include: Availability of Human Resource variable (AHR), Availability of Financial Resource variable (AFR), Basis for Prioritization of Investment

(BPI), Knowledge of Benefits of significant Investment in ECD (KBI), and Institutional Factors influencing Investment in ECD (IFI).

4.4.1 Availability of Human Resource

In the case of Availability of Human Resource variable (AHR), the respondents were given three questions that seek to establish the availability of ECD staff in their departments. The first question was on staff orientation, the second was staff qualification and the third was on the number of ECD staff in their departments. The aggregate score from the three questions represented the availability AHR score. The expected responses were designed in the Likert five point scale. The responses are scored as follows: Always available (5), Frequently available (4), Sometimes available (3), Rarely available (2) and Never available (1). The highest total score that can be got from the instrument is 17, while the lowest possible score is 4. The total sores can be interpreted as follows: Between 15-17 means human resource is always available, 12-14 frequently available, 9-11 sometimes available, 6-8 rarely available and below 5 is never available. The total scores from the administered instruments were recorded and overall means, variance and standard deviation used to understand the availability of human resource for ECD in different departments at the national and local levels as shown in Table 4.9.

Table 4. 9: Availability of Human Resource for ECD at Local and National levels

Level	N	Mean	Std. Dev.	Variance
National	10	11.20	3.39	11.51
Local	80	9.93	4.36	19.04

Source: Summary of Data from field 2009

Table 4.9 shows that at the national level, the mean score for availability of human resource for ECD activities is 11.20, while at the local level, it is 9.98. Both scores are in the range represented by "sometimes available" in the instrument score interpretation. This implies that both at the national and local level, human resources for ECD activities are available "sometimes". The respondents were asked to give reasons why they thought human resource for ECD in their departments were "sometimes available". At the national level, 100% of the respondents and 73.7% of the respondents at the local level believe that human resource for ECD was available sometimes in their departments due to shortage of professionally trained ECD staff. This finding suggests that ECD divisions are still understaffed in many departments in Uganda both at local and national level.

4.4.2 Availability of Financial Resource

In the case of Availability of Financial Resource (AFR) variable, the respondents were given five questions that sought to establish the availability of financial resources for ECD in their departments. The aggregate score from

the six questions represented the Availability of Financial Resource (AFR) score. The expected responses were designed in the form of yes and no. The total score that can be got from the instrument is 12 and the lowest is 6. The sores can be interpreted as follows: Between 11-12 means financial resource is always available, 9-10 sometimes available, 7-8 rarely available, and 6 below is never available. The total scores from the administered instruments were recorded and overall means, variance and standard deviation used to understand the availability of finance resource for ECD in different departments at local and national levels as shown in Table 4.10 below.

Table 4. 10: Availability of Finance Resource for ECD at Local and National Level

Level	N	Mean	Std. Dev.	Variance
National	10	7.50	1.58	2.50
Local	80	9.44	2.19	4.80

Source: Summary of Data from field 2009

Table 4.10 shows the availability of finance resource for ECD at local and national levels. The average mean score shows that finance resource for ECD is rarely available (7.50) at the national level, while at the local level, the average mean score for availability of finance resource for ECD is 9.44. This finding suggests that funds for ECD at the national level are rarely available, while at the local level the funds are sometimes available.

At the national level, the respondents pointed out that financial resources for ECD was rarely available because funding depended on approval of work plan

by funding agencies. At the local level, the respondents noted that the major reason for not regularly funding ECD was that ECD pre-primary was not part of the district funded activities.

4.4.3 Basis for Prioritizing Investment in ECD

In the case of Basis for Prioritization of Investment (BPI) variable, the expected responses that were used were presented in five categories and scored as follows: Number of children in the area (5); Number of disadvantaged children (4), Gender of children (3); political influence (2) and Nothing (1). The scores from the administered instruments were recorded and means, variance and standard deviation used to understand the basis of prioritization of investment in ECD in different departments at local and national levels. The result is summarized in Table 4.11 below.

Table 4. 11: Basis of Prioritization of Investment in ECD at Local and National levels

Level	N	Mean	Std. Dev.	Variance
National	10	4.60	1.26	1.60
Local	80	4.33	1.20	1.43

Source: Summary of Data from field 2009

Table 4.11 above shows that the number of children in the area is the major basis for prioritization of investment in ECD in departments (4.60) at the national level, while at the local level, the basis is "the number of disadvantaged children" (4.33). This implies that at the national level,

investment of financial resources in ECD is based on the number of children in a given area, while at the local level, it is based on the number of disadvantaged children.

The respondents were asked to identify other factors they base on when prioritizing investment in ECD in their departments. At the national level, the respondents pointed out that the major determinant was guidelines as given by the funding agency, while at the local level, 79% of the respondents said that the factor considered for investment in ECD was the population of targeted children in the area and other conditions as given by the funding agency.

4.4.4 Decision Makers' Knowledge of Benefits of Significant Investment in ECD

In the case of decision makers' Knowledge of Benefits of significant Investment in ECD (KBI) variable, the expected responses that were used to establish this level of knowledge were designed as True and False. The responses are scored as follows: False (1) and True (2). The interpretation of the scores is based on four levels. Scores between 15 and16 is considered very knowledgeable, 13-14 is knowledgeable, 11-12 somehow knowledgeable 10 and below is not knowledgeable. From the responses, the average mean, variance and standard deviation were got and used to understand the level of decision makers' knowledge of the benefits of significant investment in ECD in different departments at local and national levels was also calculated. The result is summarized in Table 4.12 below.

Table 4. 12: Level of Knowledge of Benefits of Significant Investment in ECD

Level	N	Mean	Std. Dev.	Variance
National	10	15.20	1.32	1.73
Local	80	13.21	2.49	6.24

Source: Summary of Data from field 2009

Table 4.12 above shows that ECD decision makers are very knowledgeable about the benefits of significant investment in ECD (15.20) at the national level, while at the local level they are knowledgeable (13.21). It can also be seen that at the national level, the responses are more homogenous with a standard deviation of 1.73, while at the local level they are more heterogeneous with a standard deviation of 6.24. This implies that the responses at the national level are more consistent than for those at the local level.

4.4.5 Benefits of Significant Investment in ECD

The respondents were also asked to name some of the benefits of significant investment in ECD. Up to 57.8% of the respondents believed that investment in ECD lays a firm foundation for children. This implies that the respondents know that if they invested more in ECD, they would be laying a firm foundation for children and provide an opportunity for them to have a good start in life. The benefits they see are, however, linked to children and not well connected to national economic benefits.

4.4.6 Institutional Factors Influencing Investment in ECD

In the case of Institutional Factors influencing Investment in ECD (IFI) variable, the responses were designed in the Likert five point scale of Strongly agree, Agree, Not sure, Disagree and Strongly disagree. The responses were scored as follows: Strongly agree (5), Agree (4), Not sure (3), Disagree (2) and Strongly disagree (1). The interpretation of the scores is based on four levels. From this instrument, the highest possible score is 40, and the lowest is eight. Scores between 30 and 40 is considered very significant contribution, 20-29 is significant contribution, 10-19 somehow significant contribution, and below 10 is no contribution. From the responses, the average mean, variance and standard deviation were obtained and used to understand the level of political contribution to investment in ECD in different departments at local and national levels. The result is summarized in Table 4.13.

Table 4. 13: Institutional Factors Contribution to Investment in ECD

Level	n	Mean	Std. Dev.	Variance
National	10	38.90	1.79	3.21
Local	80	28.47	9.10	8.22

Source: Summary of Data from field

Table 4.13 shows the contribution of institutional factors to investment in ECD at local and national levels. The average mean score shows that institutional factors contribution to investment in ECD is very significant (38.90) at the national level, while at the local level, its contribution to the level of investment in ECD is significant. This finding suggests that institutional factors played very significant roles more at the national level

than at the local level. It can also be seen that at the national level, the responses are homogenous with a standard deviation of 3.21, while at the local level they are heterogeneous with a standard deviation of 9.10. This implies that results for the national level are more trusted than those at the local level.

The respondents were asked to name some of the reasons why they thought institutional factors contributed significantly to investment in ECD. Up to 46.7% of the respondents pointed out that different institutions and departments have their own investment priorities they focus on that may not be related to ECD. Another 27.8% noted that some leaders in other institutions demanded for kick backs for them to include ECD in their investment plans. This implies that institutions have a strong influence on how public investment in ECD is done.

4.4.7 Relationship between Contextual Determinants and Investment in ECD at National Level

In order to establish if a statistically significant relationship existed between the Total Contextual Determinants (TPD) and National Investment Variable (NIV) in ECD at the national level, the following hypothesis was tested.

Ho3. There is no significant relationship between TCD scores and NIV scores at p= .05 level of significance.

This hypothesis was set to test whether a significant relationship existed between the total contextual determinants and investment in ECD at the

national level. The data used in the analysis include the total sum of scores of the five contextual determinants variables. The responses from each respondent were directly matched to the actual amount of funds invested in ECD in his/her division or department in the FY 2008/09. From this pair of data, a Spearman Rank Correlation Coefficient (rho) was used to test the null hypothesis. The result is summarized in Table 4.14 below.

Table 4. 14: Correlation between TCD Score and NIV Scores

Correlations

			TCD Score	Investment
Spearman's rho	TCD Score	Correlation Coefficient	1.000	.844**
		Sig. (2-tailed)	.	.002
		N	10	10
	Investment	Correlation Coefficient	.844**	1.000
		Sig. (2-tailed)	.002	.
		N	10	10

**. Correlation is significant at the .01 level (2-tailed).

Table 4.14 shows a correlation coefficient of rho = .844; p = .002. This correlation shows a very strong positive and statistically significant relationship between contextual determinants and actual investment in ECD at the national level. This means that the relationship between the two variables is not just by chance. The null hypothesis which proposed that there was no statistically significant relationship between contextual determinants and actual investment in ECD at the national level was therefore rejected. It was therefore concluded that a statistically significant relationship exists between contextual determinants and actual investment in ECD at the national level.

4.4.8 Relationship between Contextual Determinants and Investment in ECD at Local Level

In order to establish if a statistically significant relationship existed between the Total Contextual Determinants (TCD) and Local Investment Variable (LIV) in ECD at the local level, the following hypothesis was tested.

Ho4. There is no significant relationship between TCD scores and LIV scores at p=.05 level of significance.

This hypothesis was set to test whether a significant relationship existed between the total contextual determinants and investment in ECD at the local level. The data used in the analysis is the total sum of scores of the five contextual determinants variables. These scores are continuous and meet Pearson Product Moment Correlation Coefficient (r) assumption. The response from each respondent was directly matched to the actual amount of funds invested in ECD in his/her division or department in the FY 2008/09. From this pair of data, a Pearson Product Moment Correlation Coefficient (r) was used to test the null hypothesis. The result is summarized in Table 4.15.

Table 4. 15: Correlation between TCD Scores and LIV Scores

Correlations

		TCD Score	Actual Funds Invested in Millions UShs.
TCD Score	Pearson Correlation	1.000	.597**
	Sig. (2-tailed)	.	.000
	N	80	80
Actual Funds Invested in Millions UShs.	Pearson Correlation	.597**	1.000
	Sig. (2-tailed)	.000	.
	N	80	80

**. Correlation is significant at the 0.01 level (2-tailed).

Table 4.15 shows a correlation coefficient of r = .597; p < .001. This correlation shows a positive moderate and statistically significant relationship between TCD and LIV scores. This means that the relationship between the two variables is not by chance. The null hypothesis which proposed that there was no statistically significant relationship between TCD scores and LIV scores was therefore rejected. It was therefore concluded that a statistically significant relationship does exist between TCD and LIV scores.

4.4.9 Discussion

In this study, it was established that there is a statistically significant relationship between total contextual determinants and investment in ECD. This is because the context formed the basis upon which investment decisions are made. This finding is in line with that of Ensalaco and Majka (2005), who found that contextual determinants put ECD as another area that must compete with others for resources.

In this study, it was found that the human resource for ECD at the national level was sometimes available. In the case when human resource that is qualified in ECD are not available, it will be difficult for those who have less knowledge about ECD to support investment in it even if good policies have been put in place. This finding is in line with that of Penn (2008) who found that in South Africa, although there was legislation that required annual checks on ECD centres receiving subsidies, the support and monitoring was almost

non-existent due to lack of man power. Likewise, Streak (2008) pointed out that there was considerable evidence suggesting that much of the money allocated to ECD at provincial level in some countries like South Africa remained unspent or redirected to other areas.

It was also found that financial resources for ECD were sometimes available. This finding suggests that funds to be invested in ECD were not always available even if there was a policy that allows such investments to be made. This finding is in line with that of Lombardi (2008), who found that investments in services for children continue to be limited and uncoordinated across various ministries, making it difficult to assess how much funding is specifically focused on children.

The basis for prioritization of investment in ECD at the national level as established in this study was the number of children in an area. This number is what dictates how much is to be invested per district for ECD services. Similarly, at the local level, the basis for prioritization of investment in ECD is the number of disadvantaged children in the area. This finding is in line with that of Penn (2008), who found that in South Africa, the government has instituted a system of per capita grants for children from low-income households to attend formal settings. Likewise, MoES (2009) pointed out that allocation of financial resources to districts is based on the enrolment of children in each district as is established by the annual school census.

In this study, it was established that there is a statistically significant relationship between contextual determinants and investment in ECD at the local level. This is because the context formed the basis upon which investment decisions are made. This finding is in line with that of Ensalaco and Majka (2005) who found that contextual determinants put ECD as another area that must compete with others for resources.

In this study, it was found that human resource for ECD was sometimes available at the local level. This implies that human resource for ECD was not adequate and as such it may be difficult for those who have less knowledge about ECD to support investment in it even if good policies were put in place. This finding is in line with that of Penn (2008) who found that in South Africa, although there was legislation that required annual checks on ECD centres receiving subsidies, the support and monitoring was almost non-existent, due to lack of man power. Likewise, Streak (2008) pointed out that much of the money allocated to ECD at provincial level in some countries like South Africa remained unspent or redirected to other areas.

It was also found that finance resource for ECD were sometimes available. This finding suggests that the policies are inadequate in ensuring continued availability of funds to be invested in ECD. This finding is in line with that of Lombardi (2008), who found that investments in services for children continue to be limited and uncoordinated across various ministries, making it difficult to assess how much funding is specifically focused on children.

It was also found that ECD decision makers were knowledgeable about the benefits of significant investment in ECD to children and did not directly relate to economic benefits to the nation. This finding suggests that some of them were not knowledgeable about benefits of significant investment in ECD to the nation. This made some of them to probably under look investment in some ECD programmes. This is because limited knowledge of decision makers often results into unwillingness of many policy makers to invest more resources to ECD (Vargas-Baron and Sian, 2008). So, even as states and communities worked to expand and support their local economy, the economic importance of quality early care and education can be overlooked (Calman & Tarr-Whelan, 2005).

The study also found that there was a perception that institutional factors contributed significantly to the proportion of public investment made towards ECD both at national and local levels. This finding suggests that conditions within institutions and between institutions that are responsible for public investment in ECD contribute to the proportion of funds invested in ECD. This is because individuals within the institutions and differences of interest between institutions play significant roles in influencing level of investment. This finding is in line with that of Schubert and Huijbregts (2006) who found that political interference existed in the selection of beneficiaries, monitoring and payment systems of programmes.

4.5 Objective 4: To Investigate the Extent to Which Specific Contextual and Policy Determinants Contribute to Investment in ECD

This objective aimed at identifying the best predictor for investment in ECD in Uganda and the extent to which specific policy and contextual determinants contributed to investment in ECD. The policy determinants had three variables which included: Frequency of use of policy Prioritizing Financial Investment in ECD (PFI); Frequency of use of policy on Roles of Stakeholders in Investment (RSI) and Frequency of use of Policy to provide Incentives for Investment in ECD (PII). The contextual determinants had five variables which include: Availability of Human Resource (AHR); Availability of Financial Resource (AFR); Basis for Prioritization of Investment in ECD (BPI); Knowledge of Benefits of significant Investment in ECD (KBI), and Institutional Factors contribution to Investment in ECD (IFI).

In order to establish the variables that can be used in the regression analysis to get the best predictor for investment in ECD, a Spearman's Rank Correlation Coefficient (rho) was calculated. This was done to identify those variables that had statistically significant relationships with investment in ECD. The results are summarized in Table 4.16 below.

Table 4. 16: Significant Variables for Investment in ECD at the National Level

Correlations

			Investment	Priority	Roles	Incentives	Human Resource	Financial Resource	Basis of Investment	Knowledge of Benefits	Institutional factors
Spearman's rho	Investment	Correlation Coefficient	1.000	.692*	.751*	.175	.808**	.741*	.291	.571	-.477
		Sig. (2-tailed)	.	.027	.012	.629	.005	.014	.415	.085	.163
		N	10	10	10	10	10	10	10	10	10
	Priority	Correlation Coefficient	.692*	1.000	.251	.183	.630	.820**	.548	.518	-.051
		Sig. (2-tailed)	.027	.	.483	.614	.051	.004	.101	.125	.889
		N	10	10	10	10	10	10	10	10	10
	Roles	Correlation Coefficient	.751*	.251	1.000	.323	.804**	.370	-.215	.369	-.417
		Sig. (2-tailed)	.012	.483	.	.363	.005	.293	.551	.295	.231
		N	10	10	10	10	10	10	10	10	10
	Incentives	Correlation Coefficient	.175	.183	.323	1.000	.267	.000	.167	.394	.323
		Sig. (2-tailed)	.629	.614	.363	.	.456	1.000	.645	.260	.363
		N	10	10	10	10	10	10	10	10	10
	Human Resource	Correlation Coefficient	.808**	.630	.804**	.267	1.000	.675*	-.059	.564	-.207
		Sig. (2-tailed)	.005	.051	.005	.456	.	.032	.871	.090	.567
		N	10	10	10	10	10	10	10	10	10
	Financial Resource	Correlation Coefficient	.741*	.820**	.370	.000	.675*	1.000	.418	.310	-.462
		Sig. (2-tailed)	.014	.004	.293	1.000	.032	.	.230	.383	.179
		N	10	10	10	10	10	10	10	10	10
	Basis of Investment	Correlation Coefficient	.291	.548	-.215	.167	-.059	.418	1.000	.262	-.215
		Sig. (2-tailed)	.415	.101	.551	.645	.871	.230	.	.464	.551
		N	10	10	10	10	10	10	10	10	10
	Knowledge of Benefits	Correlation Coefficient	.571	.518	.369	.394	.564	.310	.262	1.000	.004
		Sig. (2-tailed)	.085	.125	.295	.260	.090	.383	.464	.	.991
		N	10	10	10	10	10	10	10	10	10
	Institutional factors	Correlation Coefficient	-.477	-.051	-.417	.323	-.207	-.462	-.215	.004	1.000
		Sig. (2-tailed)	.163	.889	.231	.363	.567	.179	.551	.991	.
		N	10	10	10	10	10	10	10	10	10

*. Correlation is significant at the .05 level (2-tailed).

**. Correlation is significant at the .01 level (2-tailed).

Table 4.16 shows the variables that have statistically significant relationships with investment in ECD at the national level. These variables include two policy determinant variables PFI (r = .692, p = .027), RSI (r = .751, p = .012) and two contextual variable AHR (r = .806, p = .005) and AFR (r=.741, p = .014). The rest of the remaining contextual and policy determinant variables identified in this study did not have statistically significant relationship with investment in ECD at the national level.

In order to establish the variables that can be used in the prediction model at the local level, a Pearson (r) Coefficient was calculated. This was done to identify those variables that were significantly related to investment in ECD at

the local level. The results are summarized in Table 4.17 below.

Table 4. 17: Significant Variables for Investment in ECD at the Local Level

Correlations

		Investment.	Priority	Roles of stake	Incentives	Human Resource	Financial Resource	Basis of Investment	Knowledge of Benefits	Institutional factors
Investment.	Pearson Correlation	1.000	-.081	-.124	-.088	.267*	.552**	.417**	.753**	.388**
	Sig. (2-tailed)	.	.476	.273	.438	.017	.000	.000	.000	.000
	N	80	80	80	80	80	80	80	80	80
Priority	Pearson Correlation	-.081	1.000	.292**	.098	.411**	.119	-.222*	-.075	-.030
	Sig. (2-tailed)	.476	.	.009	.385	.000	.292	.047	.511	.793
	N	80	80	80	80	80	80	80	80	80
Roles of stake	Pearson Correlation	-.124	.292**	1.000	.268*	.077	-.078	-.040	-.083	.000
	Sig. (2-tailed)	.273	.009	.	.016	.497	.492	.722	.462	.998
	N	80	80	80	80	80	80	80	80	80
Incentives	Pearson Correlation	-.088	.098	.268*	1.000	.003	.048	.105	.003	.083
	Sig. (2-tailed)	.438	.385	.016	.	.981	.673	.353	.980	.467
	N	80	80	80	80	80	80	80	80	80
Human Resource	Pearson Correlation	.267*	.411**	.077	.003	1.000	.299**	.072	.259*	.147
	Sig. (2-tailed)	.017	.000	.497	.981	.	.007	.528	.020	.194
	N	80	80	80	80	80	80	80	80	80
Financial Resource	Pearson Correlation	.552**	.119	-.078	.048	.299**	1.000	.422**	.567**	.406**
	Sig. (2-tailed)	.000	.292	.492	.673	.007	.	.000	.000	.000
	N	80	80	80	80	80	80	80	80	80
Basis of Investment	Pearson Correlation	.417**	-.222*	-.040	.105	.072	.422**	1.000	.386**	.382**
	Sig. (2-tailed)	.000	.047	.722	.353	.528	.000	.	.000	.000
	N	80	80	80	80	80	80	80	80	80
Knowledge of Benefits	Pearson Correlation	.753**	-.075	-.083	.003	.259*	.567**	.386**	1.000	.399**
	Sig. (2-tailed)	.000	.511	.462	.980	.020	.000	.000	.	.000
	N	80	80	80	80	80	80	80	80	80
Institutional factors	Pearson Correlation	.388**	-.030	.000	.083	.147	.406**	.382**	.399**	1.000
	Sig. (2-tailed)	.000	.793	.998	.467	.194	.000	.000	.000	.
	N	80	80	80	80	80	80	80	80	80

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Table 4.17 shows the variables that have statistically significant relationships with investment in ECD at the local level. These variables include only contextual variable AHR ($r = .267$, $p = .017$), AFR ($r = .552$, $p < .001$), BPI ($r = .417$, $p < .001$), KBI ($r = .753$, $p < .001$), and IFI ($r = .388$, $p < .001$). The rest of the policy determinant variables considered in this study did not have statistically significant relationship with investment in ECD at the local level.

4.5.1 Extent to which Specific Policy and Contextual Variable Predicted Investment in ECD at the National Level

In order to establish the extent to which policy and contextual determinants

predicted investment in ECD at the national level, the following null hypothesis was employed.

Ho5. Specific contextual and policy determinants variable scores have no significant predictive values for determining NIV at p=.05 level of significance.

In order to establish the extent to which specific policy and contextual determinants variable scores predicted NIVS, a Simple Regression Analysis was done using specific policy and contextual determinant variable scores that had been found to have statistically significant correlation with NIVS. The result is summarized in Table 4.18.

Table 4. 18: Regression Analysis Coefficient Results for Determinants with NIVS

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	-2376.655	10609.976		-.224	.832	-29650.466	24897.157
	Priority	-757.950	3280.759	-.157	-.231	.826	-9191.409	7675.509
	Roles	-90.177	1947.607	-.024	-.046	.965	-5096.659	4916.305
	Human Resource	866.280	1181.236	.629	.733	.496	-2170.183	3902.743
	Financial Resource	-293.160	1766.390	-.099	-.166	.875	-4833.811	4247.490
2	(Constant)	-2610.138	8523.515		-.306	.770	-23466.429	18246.153
	Priority	-713.206	2862.649	-.147	-.249	.812	-7717.855	6291.444
	Human Resource	835.726	894.545	.607	.934	.386	-1353.148	3024.600
	Financial Resource	-289.580	1611.286	-.098	-.180	.863	-4232.254	3653.094
3	(Constant)	-3560.199	6206.832		-.574	.584	-18237.025	11116.628
	Priority	-824.277	2594.752	-.170	-.318	.760	-6959.890	5311.335
	Human Resource	762.339	738.849	.553	1.032	.336	-984.761	2509.439
4	(Constant)	-4495.865	5147.308		-.873	.408	-16365.578	7373.848
	Human Resource	580.934	441.703	.422	1.315	.225	-437.634	1599.503
5	(Constant)	2010.600	1478.225		1.360	.207	-1333.378	5354.578

a. Dependent Variable: Investment

Table 4.18 shows that availability of human resource (AHR) variable (in step 4 in the table) is the best predictor for investment in ECD at the national level.

In the prediction equation, if AHR variable score is increased by one point, it is predicted to increase investment in ECD by UShs 580.934 million. However, if the variable is held constant, investment in ECD would reduce by UShs 4,495.865 million as shown by the negative figure.

The extent to which the AHR variable scores contribute to investment in ECD at the national level was established in the regression as shown in the regression model summary in Table 4.19.

Table 4. 19: Regression Model Summary for AHR Variable and NIV Scores

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.441[a]	.194	-.451	5629.9311
2	.440[b]	.194	-.209	5140.5021
3	.435[c]	.189	-.042	4771.9728
4	.422[d]	.178	.075	4495.8325
5	.000[e]	.000	.000	4674.5588

a. Predictors: (Constant), Financial Resource, Roles, Priority, Human Resource

b. Predictors: (Constant), Financial Resource, Priority, Human Resource

c. Predictors: (Constant), Priority, Human Resource

d. Predictors: (Constant), Human Resource

e. Predictor: (constant)

Table 4.19 shows that R^2 =.075. This means that Availability of Human Resource (AHR) variable scores contributed 7.5% to investment in ECD at the national level. It can therefore be concluded that the extent to which AHR variable scores contributed to investment in ECD at the national level is 7.5%. The other 92.5% is contributed by other determinant variables that remain to

be established.

4.5.2 Extent to which Specific Policy and Contextual Variable Predicted Investment in ECD at the Local Level

Likewise, in order to establish the extent to which overall policy and contextual determinants predict actual investment in ECD at the local level, the following null hypothesis was employed.

Ho6. Specific contextual and policy determinants scores have no significant predictive values for determining LIV at p=.05 level of significance.

In order to establish the extent to which specific policy and contextual determinants predict investment in ECD at the local level, a Simple Regression Analysis was used. Specific contextual determinant variables that had been found to have significant relations with investment in ECD was used in a stepwise regression analysis. The result for the regression analysis is summarized in Table 4.20

Table 4. 20: Regression Analysis Results for Determinants with LIV

Coefficients[a]

Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.	95% Confidence Interval for B	
		B	Std. Error	Beta			Lower Bound	Upper Bound
1	(Constant)	-164.490	37.696		-4.364	.000	-239.536	-89.443
	Knowledge of Benefits	28.365	2.804	.753	10.116	.000	22.783	33.948
2	(Constant)	-187.146	38.483		-4.863	.000	-263.775	-110.516
	Knowledge of Benefits	24.425	3.334	.649	7.325	.000	17.785	31.064
	Financial Resource	7.917	3.801	.184	2.083	.041	.349	15.486

a. Dependent Variable: Investment.

Table 4.20 shows that Knowledge of Benefits of Investment in ECD (KBI) variable scores is the best predictor for investment in ECD at the local level. In the prediction equation, KBI is predicted to increase investment in ECD by UGX 28.365 million if it increases by one point. However, if KBI is held constant, investment in ECD would reduce by UGX 164.490 million.

The extent to which Knowledge of Benefits of Investment in ECD (KBI) variable contributed to investment in ECD at the local level was also established as shown in the regression model summarized in Table 4.21.

Table 4. 21: Regression Model Summary

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.753[a]	.567	.562	62.2820
2	.768[b]	.591	.580	60.9904

a. Predictors: (Constant), Knowledge of Benefits

b. Predictors: (Constant), Knowledge of Benefits, Financial Resource

Table 4.21 shows that $R^2 = .562$. This means that the Knowledge of Benefits of Investment in ECD (KBI) variable scores contributed 56.2% to investment in ECD. It can therefore be concluded that the levels of local policy makers' Knowledge of Benefits of Investment in ECD contributes 56.2% to investment in ECD at the local level in Uganda. The other 43.8% is contributed by other

variables that have to be established.

4.5.3 Discussion

This study found that the best predictor of investment in ECD in Uganda at national level was Availability of Human Resource (AHR) variable. This finding suggests that having adequate staff that is knowledgeable on the benefits of significant investment in ECD encourages more public investment in ECD. This is because human resource plays a significant role in lobbying for investment in a given sector, and how it is to be done (Choi, 2003; Choi, 2004; Colletta & Reinhold, 1997). ECD being a recent phenomenon in Uganda, it has to compete with other equally important sectors for limited public resources. This is because the context affects how support, investment and monitoring of ECD is done even when human resource and good policies are in place (Penn, 2008).

It was also found from this study that the AHR variable scores contributed 7.5% to investment in ECD at the national level in Uganda. This means that while this determinant variable had significant contributions to investment in ECD in Uganda at the national level, 92.5% of the influence was coming from other determinants variables that need to be investigated. This is because there are many determinants at local or national levels that have a relationship with investment in any sector (Trimble, 2002). It should be noted that the predictive values here are weak and as such the prediction is as far as the identified

variables were concerned. More studies need to be carried out here to establish better predictors for investment at the national level in Uganda.

In this study, it was found that a specific contextual variable (KBI) was the best predictor for investment in ECD at the local level. This implies that policy makers that are ignorant of the benefits of significant investment in ECD may not be creative in situations where there are scarce resources or appreciate new innovations to invest in ECD. Likewise, sector experts require capacity building to appreciate and apply new ECD concepts (Torkington, 2001).

Although Knowledge of Benefits of Investment in ECD (KBI) contributed 56.2% to investment in ECD at local level in Uganda, it was also found that 43.8% of the influence was coming from other determinants variables. This means that there are still other variables that need to be established and taken care of to promote better and sustainable investment in ECD. This is because there are many determinants at local or national levels that could have significant relationship with investment in any sectors (Trimble, 2002) which need to be investigated.

In summary, both policy and contextual determinants have significant relationships with investment in ECD at national and local levels. Availability of Human Resource predicted better investment in ECD at the national level, while policy makers' Knowledge of Benefits of significant investment in ECD predicted better investment in ECD at the local level. The implication of all

these is discussed further in Chapter 5.

CHAPTER FIVE

SUMMARY, IMPLICATION OF FINDINGS, CONCLUSIONS, RECOMMENDATIONS AND SUGGESTIONS FOR FURTHER STUDIES

5.0 Introduction

This chapter presents the summary of the study findings and the conclusions drawn from them. The chapter also presents recommendations that different stakeholders can adopt to improve investment in ECD. Finally, the chapter has suggestions for further research that other scholars can utilize to improve investment in ECD.

5.1 Summary of Findings and their Implications

The summary of findings and their implication in this study is organized following themes that include:

5.1.1 Level of investment in ECD

Results show that in the FY 2008/2009, 7.94% of the education sector expenditure was invested in ECD at the national level, with 7.74% going to Primary 1-3, and 0.20% to pre-primary. This indicates very low investment in ECD which implies that support of children during their formative stages of life when they need it most will be compromised. Low investment also implies that less attention will be focused on children's education needs in the early years with potential consequence for continued school drop outs, grade repetition and failed development of children's potentials (Evans et al, 2000).

5.1.2 Policy Determinants for Investment in ECD at the National Level

A very strong positive and statistically significant relationship between Total Policy Determinants (TPD) scores and National Investment Variable (NIV) in ECD at the national level implies that policy related interventions are more effective in encouraging more investment in ECD if applied at the national level than at the local level. This means that any policy related intervention to bolster investment in ECD should primarily target national level decision makers and not those at the local level. Local level decision makers base their decisions on investment policy guidelines from the national level, which currently is the major area of weakness in financing of ECD.

5.1.3 Contextual Determinants for Investment in ECD at National and Local Levels

Strong and statistically more significant relationships between Total Contextual Determinants (TCD) score and Investment Variable (IV) at the local level implies that contextual determinants are more related to investment in ECD at local than at national levels. This means that contextually related interventions need to be done at the local level. These could include enhancing local leaders' knowledge on benefits of significant investment in ECD.

5.1.4 Specific Policy Determinant for Investment in ECD at National Level

A strong relationship between frequency of use of policy that specifies roles of different stakeholders and investment in ECD at the national level implies that

those who have the policy are able to know what they are supposed to do and guide others to invest appropriately in ECD. For example development partners can align their activities with the policy to ensure smooth implementation. Different government departments can also use the policy to direct their actions as required of them.

5.1.5 Predictors for Investment in ECD at National and Local Levels

Availability of Human Resource (AHR) being the best predictor for investment in ECD at national level implies that when you have a large number of people who are competent in ECD, a critical mass of specialists is achieved which increases a stronger likelihood of encouraging or attracting more investment into ECD. This is because availability of knowledgeable staff promotes more debate into children's issues, thus attracting more attention and funding for ECD.

Knowledge of Benefits of Investment in ECD (KBI) being the best predictor variable for investment in ECD at the local level implies that decision makers who are more knowledgeable on the benefits of significant investment in ECD are more likely to invest more into ECD. Since there is low investment in ECD at the lower level, it implies that local leaders are less knowledgeable on the benefits of significant investment in ECD.

Whereas the Availability of Human Resources variable and Knowledge of Benefits of Investment in ECD emerged as better predictors for investment in

ECD at national and local levels respectively, it is important to note that contributions coming from other determinants also need to be investigated. This is because there are many determinants at local or national levels that form basis for investment in any sectors (Trimble, 2002). So other studies have to be conducted to establish those other determinant to improve investment in ECD in Uganda.

5.1.6 Prediction of Investment in ECD

Leaving Knowledge of Benefits of Investment in ECD (KBI) constant at the local level reduces investment in ECD by UGX 164.490 million annually. All these imply that every year, there will be continued decline in investment in ECD to levels that will not have any meaningful influence on children's development.

5.2 Conclusion

Investment in ECD in Uganda both at national and local levels is generally lower than the internationally recommended investment targets for ECD to influence any meaningful development of children. Investment in ECD Pre-Primary that is supposed to be larger is even much smaller than that of ECD Primary 1-3. Investment in Pre-primary is also not being done in all districts yet all need it.

Based on the predictors of investment in ECD at the local level, investment in ECD may continue going down if little is done to improve the current status of the determinants that are more related to investment in ECD. The specific predictors at the national level are different from those at the local level, suggesting that interventions for national level have to be different from local level interventions.

If the trend of investment in ECD continues on the decline as it is predicted, we are likely to see more grade repetition of children in the primary schools, increased drop out rates, failed development of children and low attainment of both EFA and MDGs. As a result of less investment in ECD, this study also further predicts continued decline in quality of life of children, low quality of skilled persons, less job creations and general reduced income per capita. Thus, interventions to increase investment are necessary.

5.3 Recommendations

The following are recommendations that different stakeholders should adopt to help improve investment in ECD in Uganda.

5.3.1 Ministry of Education and Sports

The results show that there is still a very low level of investment in ECD at both local and national level in Uganda to adequately provide quality ECD. It is therefore recommended that MoES should urgently lobby government and

development partners to increase their share of funding for ECD so as to move near the recommended mark of 20% of the education budget at the national level and 50% for local level (Kamerman, 2000). It should be noted that increasing investment in ECD at this stage should be done gradually and not rushed as there are other competing needs (Vargas-Barón, 2008). Learning from other countries, it is therefore recommended that Uganda can first design a comprehensive policy on early childhood development and education (Wandega, 2008), then later, either conduct careful cost per unit of service studies to have a reliable basis for projecting potential future costs (Myers 2008), or do cost simulations that fit policy options to decisions (Brandon, 2008; Leon & Sian, 2008; Ravens & Aggio, 2008). Initiatives can also be made to widen the scope of potential persons who can invest into ECD especially local communities and the private sector to support given ECD programmes.

In FY 2008/09, investment in ECD pre-primary was only 0.20% of the education expenditure as compared to ECD Primary 1-3 which took up to 7.74% of the expenditure at the national level. ECD was allocated these funds after primary had taken its share. In some cases, these funds are all used up in the primary division and very little reaches the pre-primary division. It is therefore recommended that MoES should start allocating funds to ECD directly by creating a separate budget line for ECD. Providing a separate budget line for ECD will also ensure that funds to be invested in ECD will be used for ECD activities and not lost in other activities not related to ECD. It will also ensure that ECD priorities will be met since the funds for it will be available whenever

budget releases are made. Having a separate budget line for ECD will also go along way in proving that government recognizes ECD as very important for national economic and social development.

Although the findings indicated that 7.94% of the education expenditure at the national level within the education sector in FY 2008/09 was on ECD, it should be noted that most of it was a development expenditure which is a one time off investment. Subsequent years will therefore find less investment for ECD as compared to other countries in the region. It is therefore recommended that MoES guarantees continued funding for ECD activities at all levels as a commitment to achieve the MDG and EFA goals by entrenching ECD in recurrent expenditures for programme services, coordination, and expansion; continuous pre- and in-service training systems; and monitoring and evaluation to ensure long-term programme sustainability.

It was found that in Uganda, there was no established unit cost per child in ECD pre-primary. It is therefore recommended that MoES establishes a meaningful unit cost per child to provide quality ECD service to children by conducting a careful unit cost per child study that will help it to have a reliable basis for projecting potential future costs.

Public investment in ECD at the national level depends on policy. In the case of Uganda, there is no policy guideline to clarify what percentage of a specific expenditure has to be invested in ECD at different levels. It is therefore

recommended that MoES meets relevant stakeholders and decide percentages of education expenditures that should be invested in ECD at national and local levels. For example, a percentage of local revenues at the parish level can be used to support ECD in that parish. We could also may be invest 5% of ground rent premium to ECD or better still 40% of funds invested in Primary school to ECD at the local level.

At the moment, private investment in ECD is still low as compared to other levels of education. There are also still no incentives set by government to encourage private investment in ECD. It is therefore recommended that MoES being the lead institution for ECD in the country should develop a policy guideline that will help it to provide incentives to private persons who invest in ECD to motivate them. For example they could be given tax waivers on ECD materials, or reduce income tax for ECD institutions.

At the local level, over 90% of the decision makers responsible for investment in ECD had no qualification in ECD. This means that the actual mass of knowledgeable persons in ECD who can support investment in it is missing. It is therefore recommended that MoES develops a training programme that will be used by selected institutions to orient policy makers on the importance of ECD and benefits of significant investment in ECD for national economic development. This may help them to make better investment decisions for ECD in their respective areas of jurisdiction.

5.3.2 District Leaders

The study established that there was under investment in ECD pre-primary at the local level, which threatens the quality of ECD at the grassroots. It is therefore recommended that the local leaders immediately start investing in ECD by integrating ECD into their district development plans. For example, the vote of the vice chairperson in charge of children's affairs can be significantly increased to benefit ECD.

It was found that most of the local leaders had no training in ECD. Most of them were using general knowledge to manage ECD. It is therefore recommended that local leaders take more interest in getting more information about ECD by enrolling for different ECD refresher courses that will be prepared for them from time to time. This will help them appreciate the benefits of significant investment in ECD and be stronger advocates for investment in ECD in different local forums.

At the local level, there is still no incentive given to private persons to encourage investment in ECD. It is therefore recommended that local leaders identify some manageable incentives and make it available to private persons to encourage them invest in ECD. Local leaders can also pass bylaws as done in health or security sectors to generate revenues for ECD services.

5.3.3 ECD Focal Point Persons

In some districts, ECD focal point persons were available but had not made any action plans for ECD that could be supported by investors or development partners. It is therefore recommended that new focal point persons approach DEOs or other focal point persons from neighboring districts to be mentored on how to develop action plans and sourcing for funding for ECD. This is because it is their action plans that will be used by the Ministry of Education and Sports and UNICEF to decide what is to be invested in ECD in a particular year.

5.4 Suggestions for Further Research

This study established some research gaps that can be filled by other researchers. First and foremost, this study established that the combined contribution of the total contextual determinants to the level of investment in ECD in Uganda at the national level was 7.5% and 56.2% at the local level. Other factors yet to be established by other studies contributed the remaining 92.5% at the national level and 43.8% at the local level. This therefore means that there are other important determinants that must be established in order to enhance investment in ECD. This presents a gap for other interested researchers to start from.

This study was conducted in selected districts of Uganda and the findings generalized to other parts of the country. There is need for another study to be

carried out in those other districts that were not the focus of this study to get a better national picture of investment in ECD.

This study was based on investment in ECD in the perspective of decision makers at local and national level within the Education sector. It did not focus on other important decision makers from other sectors who are part of the decision making process and yet are not in the field of Education. It is therefore important for another study to be carried out focusing on these people as well like policy makers in the Ministry of Finance, Ministry of Gender, Labour and Social Development. They may also need to work with ECD related NGOs that invest finances in ECD centres and institutions.

The study established that the more the decision makers used the ECD policy, the less they invested in ECD and vice versa. There is need to conduct research to establish the gaps or contradictions in the Uganda ECD policy that might contribute to its not facilitating better investment in ECD as it was envisaged during its development.

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Appendix A: Questionnaire for ECD National Level Policy Makers

Dear Respondent,

We are carrying out a survey on determinant of public investment in ECD. You have been chosen as one of those persons who have got very important information that will lead to the success of this study. Please be assured that the information you give will be treated as confidential.

Please tick (√) the alternative that best explains your position.

Section A: Demographic Information

1. What is your gender?
   ☐ Male ☐ Female

2. Designation _____

3. What is your level of Education in the field of Early Childhood Development?

☐ Certificate ☐ Diploma ☐ Degree ☐ Masters Degree ☐ None

Section B: National Level Investment in Early Childhood Development

4. What is the allocation of finances in your institution to different sectors?

Budget Sections	**Amount Ear marked**	**As a % of Total Budget**
Institution Budget		
Early Childhood Budget		

5. What is the contribution of different financers to ECD budget in your institution?

Financer	**Amount Contributed**	**As a % of Total Budget**
Government		
International agencies		
Local NGOs		
Others specify		

6. Which of these areas of teacher development is regularly funded in your institution?

Area	**Response (Tick)**
Teacher training	
Sponsorship of ECD personnel for further training	
Continuous professional development training	
Refresher courses in ECD innovations	
Others	

7. Which of these areas of ECD programme development is regularly funded?

Area	**Response (Tick)**
Teacher curriculum development	
ECD curricula development	
Instructional materials development	
Support of establishment of ECD centres	
Others	

8. Which of these areas of research in ECD is regularly funded in your institution?

Area	**Response (Tick)**
Policy development research	
Instructional strategies research	
International conferences papers	
Programme development research	
Others	

9. Which of these areas of ECD monitoring is regularly funded in your institution?

Area	**Response (Tick)**
Support supervision and evaluation	
Monitoring of training	
Support to assessment in ECD	
Support to training institutions	
Others	

10. Which of these areas of ECD mobilization is regularly funded in your institution?

Area	**Response (Tick)**
Community sensitization on ECD	
Community mobilization to initiate ECD programmes	
Advocacy for ECD	
Others	

Section C: Reasons for Use/non use of Policy guidelines on Investment in ECD

Prioritizing of ECD

For the next set of questions, please tick the alternative that best explains your position

1. Do you use the policy that prioritises investment in ECD?
   ☐ Yes ☐ No
2. If No, why don't you use it?
   ☐ Not facilitated to use it ☐ Not trained to use it
   ☐ Not Authorised to use it ☐ Not my mandate to use it ☐ Not available
3. Give reasons for your answer above
   _____
4. If Yes, how often have you used it in the last six months in making investment decisions?
   ☐ Never ☐ Rarely ☐ Sometimes ☐ Frequently ☐ Always
5. Give reasons for your answer above
   _____
   _____

Role of Stakeholders

For the next set of questions, please tick the alternative that best explains your position

6. Do you use the policy guidelines that specify the roles of stakeholders in investment in ECD?
   ☐ Yes ☐ No
7. If No, why don't you use it?
   ☐ Not facilitated to use it ☐ Not trained to use it
   ☐ Not Authorised to use it ☐ Not my mandate to use it
   ☐ Not available

8. Give reasons for your answer above

_____

_____

9. If Yes, how often have you used it in the last six months in making investment decisions?

☐ Never ☐ Rarely ☐ Sometimes ☐ Frequently ☐ Always

10. Give reasons for your answer above

_____

_____

Incentives for investment in ECD

11. Do you use the policy guidelines that specify incentives given to private persons as a reward for their investment in ECD?

☐ Yes ☐ No

12. If No, why don't you use it?

☐ Not facilitated to use it ☐ Not trained to use it

☐ Not Authorised to use it ☐ Not my mandate to use it

☐ Not available

13. Give reasons for your answer above

_____

_____

14. If Yes, how often have you used it in the last six months in making investment decisions?

☐ Never ☐ Rarely ☐ Sometimes ☐ Frequently ☐ Always

15. Give reasons for your answer above

_____

_____

Section D: Contextual Determinants for Investment in Early Childhood Development

Availability of Human Resources

For the next set of questions, please tick the alternative that best explains your position

16. Does your department have staff establishment for ECD?

☐ Yes ☐ No

17. Are the staff that are meant to perform ECD activities available in your department?

☐ Always available ☐ Frequently available

☐ Sometimes available ☐ Rarely available

☐ Never available

18. Are Staff with training in ECD available in your department?

☐ Always available ☐ Frequently available

☐ Sometimes available ☐ Rarely available

☐ Never available

19. Are there staff with adequate qualification in ECD to manage ECD activities?

☐ Always available ☐ Frequently available

☐ Sometimes available ☐ Rarely available

☐ Never available

20. Give reasons for your answer above

_____

_____

Availability of Financial Resources

21. Are funds allocated to ECD in your department?

☐ Yes ☐ No

22. If No, give reasons for your answer

23. If funds are allocated, are they available for ECD activities when needed

☐ Yes ☐ No

24. Give reasons for your answer above

_____

_____

25. Are Structures to help implement ECD activities established in your department?

☐ Yes ☐ No

26. Are Structures that support ECD that were established operational in your department?

☐ Yes ☐ No

27. Is adequate time allocated for ECD activities in your department?

☐ Yes ☐ No

28. Is there available time to carry out all ECD activities?

☐ Yes ☐ No

29. Give reasons for your answer above

_____

_____

Basis for Prioritization of Investment

Please indicate whether true or false for the next set of items.

1. Do you have something you base on when investing public funds in ECD in your area?

☐ Yes ☐ No

2. Which of the following is used as a basis for investment in ECD in your area?

☐ Number of children in the area

☐ Number of disadvantaged children

☐ Gender of children

☐ Political influence

☐ Nothing

3. What other basis are used to prioritize investment in ECD in your area?

_____

_____

4. Give reasons for your answer above

_____

_____

Benefits of Significant Investment in ECD

Please indicate whether true or false for the next set of items.

5. ECD offers a good opportunity for children to avoid developmental problems in later life.

☐ True ☐ False

6. Most development of intelligence in the life of children occur before the age of seven

☐ True ☐ False

7. Successful participation of a child in society as an adult depends on the degree of foundation laid during the early years

☐ True ☐ False

8. Give reasons for your answer above

_____

9. Children who have gone through good ECD programmes are less likely to drop out of school

☐ True ☐ False

10. Children who have gone through good ECD programmes are more likely to contribute better economically to the society

☐ True ☐ False

11. Moral and social values in adults take shape in the pre-school years

☐ True ☐ False

12. Poverty and inequalities in society can only be addressed by timely and significant investment in Early childhood Development

☐ True ☐ False

13. Give reasons for your answer in above

_____

_____

14. Timely investment in ECD is the best way forward to have a better nation in future

☐ True ☐ False

15. Give reasons for your answer above

_____

_____

Institutional Factors

For the next set of questions, please tick the alternative that best explains your position

30. Our department always leads others in investment in ECD?

☐ Strongly agree ☐ Agree ☐ Not sure ☐ Disagree ☐ Strongly disagree

31. Give reasons for your answer above

_____

_____

32. We always have good working relationship with donor agencies and development partners who provide funds to be invested in ECD

☐ Strongly agree ☐ Agree ☐ Not sure ☐ Disagree

☐ Strongly disagree

33. Local politicians greatly contribute investment in ECD in our area

☐ Strongly agree ☐ Agree ☐ Not sure ☐ Disagree

☐ Strongly disagree

34. ECD is really not yet a priority area for investment in our department

☐ Strongly agree ☐ Agree ☐ Not sure ☐ Disagree
☐ Strongly disagree

35. Give reasons for your answer above

_____

_____

36. Some institutions have a tendency of hijacking the role of our department in investment in ECD

☐ Strongly agree ☐ Agree ☐ Not sure ☐ Disagree
☐ Strongly disagree

37. Our department should be considered senior in making decisions about ECD investment

☐ Strongly agree ☐ Agree ☐ Not sure ☐ Disagree
☐ Strongly disagree

38. Departments with little knowledge of ECD always want to pioneer in ECD investment

☐ Strongly agree ☐ Agree ☐ Not sure ☐ Disagree
☐ Strongly disagree

39. Give reasons for your answer above

_____

_____

40. Our investment in ECD depends on decisions from other institutions, departments or agencies

☐ Strongly agree ☐ Agree ☐ Not sure ☐ Disagree ☐ Strongly disagree

41. Give reasons for your answer above

_____

_____

Thank you very much for your cooperation.

Appendix B: Questionnaire for District Education Officers

Dear Respondent,

We are carrying out a survey on determinant of public investment in ECD. You have been chosen as one of those persons who have got very important information that will lead to the success of this study. Please be assured that the information you give will be treated as confidential.

Please tick (√) the alternative that best explains your position.

Section A: Demographic Information

1. What is your gender?
   ☐ Male ☐ Female
2. Designation_____ District_____

3. What is your level of Education in the field of ECD?
   ☐ Certificate ☐ Diploma ☐ Degree ☐ Masters Degree ☐ None

Section B: Local Level Investment in Early Childhood Development

4. What is the allocation of finances in your institution to different sectors?

Budget Sections	**Amount Ear marked**	**As a Percentage of Total Budget**
Education Budget		
Primary School Budget		
Early Childhood Development Budget		

5. What is the contribution of different financers to ECD budget in your institution?

Financer	**Amount Contributed**	**As a Percentage of Total Budget**
Government		
International donor agencies e.g UNICEF		
NGOs		
Parents		
Individuals		
Others		

6. Which of the following ECD areas is regularly funded in your district?

Activity	**Tick**
Caregivers' professional development	
ECD supervision and monitoring	
Community mobilization and sensitization for ECD	
ECD instructional materials	
ECD administration	
ECD caregivers' remuneration	
ECD infrastructure development	
Growth promotion and monitoring	

Section C: Reasons for Use/non-use of Policy guidelines on resource allocation in ECD

Prioritizing of ECD

For the next set of questions, please tick the alternative that best explains your position

1. Do you use the policy that prioritises investment in ECD?
   ☐ Yes ☐ No

2. If No, why don't you use it?

   ☐ Not facilitated to use it ☐ Not trained to use it

   ☐ Not Authorised to use it ☐ Not my mandate to use it

   ☐ Not available

3. Give reasons for your answer above

   _____

   _____

4. If Yes, how often have you used it in the last six months in making investment decisions?

   ☐ Never ☐ Rarely ☐ Sometimes ☐ Frequently ☐ Always

5. Give reasons for your answer above

   _____

   _____

Role of Stakeholders

For the next set of questions, please tick the alternative that best explains your position

1. Do you use the policy that specifies the role of stakeholders in investment in ECD?
   ☐ Yes ☐ No

2. If No, why don't you use it?

   ☐ Not facilitated to use it ☐ Not trained to use it

   ☐ Not Authorised to use it ☐ Not my mandate to use it

   ☐ Not available

3. Give reasons for your answer above

   _____

   _____

4. If Yes, how often have you used it in the last six months in making investment decisions?
   ☐ Never ☐ Rarely ☐ Sometimes ☐ Frequently ☐ Always

5. Give reasons for your answer above

   _____

   _____

Incentives for investment in ECD

1. Do you use the policy that specifies incentives to reward private persons for their investment in ECD?
   ☐ Yes ☐ No

2. If No, why don't you use it?

   ☐ Not facilitated to use it ☐ Not trained to use it

   ☐ Not Authorised to use it ☐ Not my mandate to use it

   ☐ Not available

3. Give reasons for your answer above

   _____

   _____

4. If Yes, how often have you used it in the last six months in making investment decisions?
   ☐ Never ☐ Rarely ☐ Sometimes ☐ Frequently ☐ Always

5. Give reasons for your answer above
   _____
   _____

Section D: Contextual Determinants for Investment in Early Childhood Development

Availability of Human Resources

For the next set of questions, please tick the alternative that best explains your position

1. Does your department have staff establishment for ECD?
   ☐ Yes ☐ No

2. Are the staff that are meant to perform ECD activities available in your department?
   ☐ Always available ☐ Frequently available
   ☐ Sometimes available ☐ Rarely available
   ☐ Never available

3. Are Staff with training in ECD available in your department?
   ☐ Always available ☐ Frequently available
   ☐ Sometimes available ☐ Rarely available
   ☐ Never available

4. Are there staff with adequate qualification in ECD to manage ECD activities?
   ` ☐ Always available ☐ Frequently available
   ☐ Sometimes available ☐ Rarely available
   ☐ Never available

5. Give reasons for your answer above

_____

_____

Availability of Financial Resources

42. Are funds allocated to ECD in your department?

☐ Yes ☐ No

43. If No, give reasons for your answer

_____

_____

44. If funds are allocated, are they available for ECD activities when needed

☐ Yes ☐ No

45. Give reasons for your answer above

_____

_____

46. Are Structures to help implement ECD activities established in your department?

☐ Yes ☐ No

47. Are Structures that support ECD that were established operational in your department?

☐ Yes ☐ No

48. Is adequate time allocated for ECD activities in your department?

☐ Yes ☐ No

49. Is there available time to carry out all ECD activities?

☐ Yes ☐ No

50. Give reasons for your answer above

_____

_____

Basis for Prioritization of Investment

Please indicate whether true or false for the next set of items.

16. Do you have something you base on when investing public funds in ECD in your area?

    ☐ Yes ☐ No

17. Which of the following is used as a basis for investment in ECD in your area?

    ☐ Number of children in the area

    ☐ Number of disadvantaged children

    ☐ Gender of children

    ☐ Political influence

    ☐ Nothing

18. What other basis are used to prioritize investment in ECD in your area?

    _____

    _____

19. Give reasons for your answer above

_____

_____

Benefits of Significant Investment in ECD

Please indicate whether true or false for the next set of items.

20. ECD offers a good opportunity for children to avoid developmental problems in later life.

    ☐ True ☐ False

21. Most development of intelligence in the life of children occur before the age of seven

    ☐ True ☐ False

22. Successful participation of a child in society as an adult depends on the degree of foundation laid during the early years

☐ True ☐ False

23. Give reasons for your answer above

_____

_____

24. Children who have gone through good ECD programmes are less likely to drop out of school

☐ True ☐ False

25. Children who have gone through good ECD programmes are more likely to contribute better economically to the society

☐ True ☐ False

26. Moral and social values in adults take shape in the pre-school years

☐ True ☐ False

27. Poverty and inequalities in society can only be addressed by timely and significant investment in Early childhood Development

☐ True ☐ False

28. Give reasons for your answer in above

_____

_____

29. Timely investment in ECD is the best way forward to have a better nation in future

☐ True ☐ False

30. Give reasons for your answer above

_____

_____

Institutional Factors

For the next set of questions, please tick the alternative that best explains your position

1. Our department always leads others in investment in ECD?

☐ Strongly agree ☐ Agree ☐ Not sure ☐ Disagree

☐ Strongly disagree

2. Give reasons for your answer above

_____

_____

3. We always have good working relationship with donor agencies and development partners who provide funds to be invested in ECD

☐ Strongly agree ☐ Agree ☐ Not sure ☐ Disagree

☐ Strongly disagree

4. Local politicians greatly contribute investment in ECD in our area

☐ Strongly agree ☐ Agree ☐ Not sure ☐ Disagree

☐ Strongly disagree

5. ECD is really not yet a priority area for investment in our department

☐ Strongly agree ☐ Agree ☐ Not sure ☐ Disagree

☐ Strongly disagree

6. Give reasons for your answer above

_____

_____

7. Some institutions have a tendency of hijacking the role of our department in investment in ECD

☐ Strongly agree ☐ Agree ☐ Not sure ☐ Disagree

☐ Strongly disagree

8. Our department should be considered senior in making decisions about ECD investment

☐ Strongly agree ☐ Agree ☐ Not sure ☐ Disagree

☐ Strongly disagree

9. Departments with little knowledge of ECD always want to pioneer in ECD investment

☐ Strongly agree ☐ Agree ☐ Not sure ☐ Disagree
☐ Strongly disagree

10. Give reasons for your answer above

_____

_____

11. Our investment in ECD depends on decisions from other institutions, departments or agencies

☐ Strongly agree ☐ Agree ☐ Not sure ☐ Disagree
☐ Strongly disagree

12. Give reasons for your answer above

_____

_____

Thank you very much for your cooperation.

Appendix C: Questionnaire for Early Childhood Development Focal Point Persons.

Dear Respondent,

We are carrying out a survey on determinant of public investment in ECD. You have been chosen as one of those persons who have got very important information that will lead to the success of this study. Please be assured that the information you give will be treated as confidential.

Please tick (√) the alternative that best explains your position.

Section A: Demographic Information

1. What is your gender?
   ☐ Male ☐ Female

2. Designation
   _____District_____

3. What is your level of Education in the field of Early Childhood Development?

   ☐ Certificate ☐ Diploma ☐ Degree ☐ Masters Degree ☐ None

Section B: Local Level Investment in Early Childhood Development

4. What is the estimated total financial allocation to ECD services as a proportion of the education budget in your district?

As a % of Total Budget	**Tick**
Less that 0.5%	
Between 0.5 – 1%	
Between 1 – 2.5%	
Between 2.6 – 5%	
Between 6– 10%	
Above 11%	

5. Which areas of ECD are regularly financed in your district?

Area	**Tick**	**Source of Funds**
Caregivers' professional development		
ECD supervision and monitoring		
Community mobilization and sensitization for ECD		
ECD instructional materials		
ECD administration		
ECD caregivers' remuneration		
ECD infrastructure development		
Growth promotion and monitoring		

6. Which of these areas of teacher development is regularly funded in your district?

Area	**Response (Tick)**
Sponsorship of ECD personnel for further training	
ECD seminars/ workshops	
Refresher courses in ECD	
Others	

7. Which of these areas of ECD monitoring is regularly funded in your institution?

Area	**Response (Tick)**
Support supervision and evaluation	
Monitoring of training	
Support to assessment in ECD	
School inspection	
Others	

8. Which of these areas of ECD mobilization is regularly funded in your institution?

Area	**Response (Tick)**
Community sensitization on ECD	
Community mobilization to initiate ECD programmes	
Advocacy for ECD	
Others	

Section C: Reasons for Use/non use of Policy guidelines on resource allocation in ECD

Prioritizing of ECD

For the next set of questions, please tick the alternative that best explains your position

1. Do you use the policy that prioritises investment in ECD?
☐ Yes ☐ No

2. If No, why don't you use it?

☐ Not facilitated to use it ☐ Not trained to use it

☐ Not Authorised to use it ☐ Not my mandate to use it

☐ Not available

3. Give reasons for your answer above

_____

_____

4. If Yes, how often have you used it in the last six months in making investment decisions?

☐ Never ☐ Rarely ☐ Sometimes ☐ Frequently ☐ Always

5. Give reasons for your answer above

_____

_____

Role of Stakeholders

For the next set of questions, please tick the alternative that best explains your position

1. Do you use the policy that specifies the role of stakeholders in investment in ECD?
☐ Yes ☐ No

2. If No, why don't you use it?

☐ Not facilitated to use it ☐ Not trained to use it

☐ Not Authorised to use it ☐ Not my mandate to use it

☐ Not available

3. Give reasons for your answer above

_____

_____

4. If Yes, how often have you used it in the last six months in making investment decisions?

☐ Never ☐ Rarely ☐ Sometimes ☐ Frequently ☐ Always

5. Give reasons for your answer above

_____

_____

Incentives for investment in ECD

1. Do you use the policy that specifies incentives to reward private persons for their investment in ECD?

☐ Yes ☐ No

2. If No, why don't you use it?

☐ Not facilitated to use it ☐ Not trained to use it

☐ Not Authorised to use it ☐ Not my mandate to use it

☐ Not available

3. Give reasons for your answer above

_____

_____

4. If Yes, how often have you used it in the last six months in making investment decisions?

☐ Never ☐ Rarely ☐ Sometimes ☐ Frequently ☐ Always

5. Give reasons for your answer above

_____

_____

Section D: Contextual Determinants for Investment in Early Childhood Development

Availability of Human Resources

For the next set of questions, please tick the alternative that best explains your position

1. Does your department have staff establishment for ECD?

   ☐ Yes ☐ No

2. Are the staff that are meant to perform ECD activities available in your department?

   ☐ Always available ☐ Frequently available

   ☐ Sometimes available ☐ Rarely available

   ☐ Never available

3. Are Staff with training in ECD available in your department?

   ☐ Always available ☐ Frequently available

   ☐ Sometimes available ☐ Rarely available

   ☐ Never available

4. Are there staff with adequate qualification in ECD to manage ECD activities?

   ☐ Always available ☐ Frequently available

   ☐ Sometimes available ☐ Rarely available

   ☐ Never available

5. Give reasons for your answer above

   _____

   _____

Availability of Financial Resources

51. Are funds allocated to ECD in your department?

☐ Yes ☐ No

52. If No, give reasons for your answer

_____

_____

53. If funds are allocated, are they available for ECD activities when needed

☐ Yes ☐ No

54. Give reasons for your answer above

_____

_____

55. Are Structures to help implement ECD activities established in your department?

☐ Yes ☐ No

56. Are Structures that support ECD that were established operational in your department?

☐ Yes ☐ No

57. Is adequate time allocated for ECD activities in your department?

☐ Yes ☐ No

58. Is there available time to carry out all ECD activities?

☐ Yes ☐ No

59. Give reasons for your answer above

_____

_____

Basis for Prioritization of Investment

Please indicate whether true or false for the next set of items.

31. Do you have something you base on when investing public funds in ECD in your area?

☐ Yes ☐ No

32. Which of the following is used as a basis for investment in ECD in your area?

☐ Number of children in the area

☐ Number of disadvantaged children

☐ Gender of children

☐ Political influence

☐ Nothing

33. What other basis are used to prioritize investment in ECD in your area?

_____
_____

34. Give reasons for your answer above

_____
_____

Benefits of Significant Investment in ECD

Please indicate whether true or false for the next set of items.

35. ECD offers a good opportunity for children to avoid developmental problems in later life.

☐ True ☐ False

36. Most development of intelligence in the life of children occur before the age of seven

☐ True ☐ False

37. Successful participation of a child in society as an adult depends on the degree of foundation laid during the early years

☐ True ☐ False

38. Give reasons for your answer above

_____

_____

39. Children who have gone through good ECD programmes are less likely to drop out of school

☐ True ☐ False

40. Children who have gone through good ECD programmes are more likely to contribute better economically to the society

☐ True ☐ False

41. Moral and social values in adults take shape in the pre-school years

☐ True ☐ False

42. Poverty and inequalities in society can only be addressed by timely and significant investment in Early childhood Development

☐ True ☐ False

43. Give reasons for your answer in above

_____

_____

44. Timely investment in ECD is the best way forward to have a better nation in future

☐ True ☐ False

45. Give reasons for your answer above

_____

_____

Institutional Factors

For the next set of questions, please tick the alternative that best explains your position

1. Our department always leads others in investment in ECD?

☐ Strongly agree ☐ Agree ☐ Not sure ☐ Disagree

☐ Strongly disagree

2. Give reasons for your answer above

_____

_____

3. We always have good working relationship with donor agencies and development partners who provide funds to be invested in ECD

☐ Strongly agree ☐ Agree ☐ Not sure ☐ Disagree

☐ Strongly disagree

4. Local politicians greatly contribute investment in ECD in our area

☐ Strongly agree ☐ Agree ☐ Not sure ☐ Disagree

☐ Strongly disagree

5. ECD is really not yet a priority area for investment in our department

☐ Strongly agree ☐ Agree ☐ Not sure ☐ Disagree
☐ Strongly disagree

6. Give reasons for your answer above

_____

_____

7. Some institutions have a tendency of hijacking the role of our department in investment in ECD

☐ Strongly agree ☐ Agree ☐ Not sure ☐ Disagree ☐ Strongly disagree

8. Our department should be considered senior in making decisions about ECD investment

☐ Strongly agree ☐ Agree ☐ Not sure ☐ Disagree ☐ Strongly disagree

9. Departments with little knowledge of ECD always want to pioneer in ECD investment

☐ Strongly agree ☐ Agree ☐ Not sure ☐ Disagree ☐ Strongly disagree

10. Give reasons for your answer above

_____

_____

11. Our investment in ECD depends on decisions from other institutions, departments or agencies

☐ Strongly agree ☐ Agree ☐ Not sure ☐ Disagree ☐ Strongly disagree

12. Give reasons for your answer above

_____

_____

Thank you very much for your cooperation.

Appendix D: Documentary Analysis Guide

This documentary analysis guide will be used by the researcher to collect data to complement the research findings. The main focus of the analysis includes:

- What policies are in place at national level to guarantee adequate investment in ECD?
- What policies are in place at local level to guarantee adequate investment in ECD?
- What percentage of district annual budget is allocated to ECD?
- What percentage of the national education budget is ECD allocated?
- What key factors are considered when investing in ECD?

Appendix E: Test Retest Pearson Corr. for Policy Makers' Questionnaire

Correlations

		Priority test1	Priority test2	Roles test1	Roles Test2	Incentives test1	Incentives Test2	HR Test1	HR Test2	Finance Test1	Finance Test2	Basis Test1	Basis Test2	Benefits test1	Benefits Test2	Inst.Factor Test1	Inst.Factor Test2
Priority test1	Pearson Correlation	1.000	.908*	.584	.629	-.221	-.221	-.624	-.494	-.200	-.546	-.140	.221	.725	.552	-.191	-.019
	Sig. (2-tailed)	.	.012	.223	.181	.674	.674	.185	.319	.704	.262	.792	.674	.103	.256	.717	.972
	N	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Priority test2	Pearson Correlation	.908*	1.000	.359	.333	-.316	-.316	-.454	-.401	.015	-.361	.000	.316	.581	.316	.000	.236
	Sig. (2-tailed)	.012	.	.485	.519	.541	.541	.366	.431	.977	.482	1.000	.541	.226	.541	1.000	.653
	N	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Roles test1	Pearson Correlation	.584	.359	1.000	.956**	-.094	-.094	-.973**	-.845*	-.759	-.827*	.120	.094	.943**	.945**	-.779	-.715
	Sig. (2-tailed)	.223	.485	.	.003	.859	.859	.001	.034	.080	.042	.822	.859	.005	.004	.068	.110
	N	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Roles Test2	Pearson Correlation	.629	.333	.956**	1.000	.000	.000	-.934**	-.696	-.666	-.722	.000	.000	.914*	.949**	-.673	-.707
	Sig. (2-tailed)	.181	.519	.003	.	1.000	1.000	.006	.124	.148	.105	1.000	1.000	.011	.004	.143	.116
	N	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Incentives test1	Pearson Correlation	-.221	-.316	-.094	.000	1.000	1.000**	.042	-.067	-.343	-.024	-.791	-1.000**	-.131	-.250	-.333	-.516
	Sig. (2-tailed)	.674	.541	.859	1.000	.	.000	.937	.900	.506	.964	.061	.000	.804	.633	.520	.295
	N	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Incentives Test2	Pearson Correlation	-.221	-.316	-.094	.000	1.000**	1.000	.042	-.067	-.343	-.024	-.791	-1.000**	-.131	-.250	-.333	-.516
	Sig. (2-tailed)	.674	.541	.859	1.000	.000	.	.937	.900	.506	.964	.061	.000	.804	.633	.520	.295
	N	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
HR Test1	Pearson Correlation	-.624	-.454	-.973**	-.934**	.042	.042	1.000	.825*	.680	.742	-.133	-.042	-.986**	-.928**	.718	.689
	Sig. (2-tailed)	.185	.366	.001	.006	.937	.937	.	.043	.137	.091	.801	.937	.000	.008	.108	.130
	N	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
HR Test2	Pearson Correlation	-.494	-.401	-.845*	-.696	-.067	-.067	.825*	1.000	.881*	.940**	.084	.067	-.780	-.634	.901*	.660
	Sig. (2-tailed)	.319	.431	.034	.124	.900	.900	.043	.	.020	.005	.874	.900	.067	.176	.014	.154
	N	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Finance Test1	Pearson Correlation	-.200	.015	-.759	-.666	-.343	-.343	.680	.881*	1.000	.893*	.294	.343	-.573	-.539	.994**	.863*
	Sig. (2-tailed)	.704	.977	.080	.148	.506	.506	.137	.020	.	.017	.571	.506	.235	.270	.000	.027
	N	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Finance Test2	Pearson Correlation	-.546	-.361	-.827*	-.722	-.024	-.024	.742	.940**	.893*	1.000	.211	.024	-.700	-.618	.876*	.605
	Sig. (2-tailed)	.262	.482	.042	.105	.964	.964	.091	.005	.017	.	.689	.964	.122	.191	.022	.203
	N	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Basis Test1	Pearson Correlation	-.140	.000	.120	.000	-.791	-.791	-.133	.084	.294	.211	1.000	.791	.166	.316	.231	.217
	Sig. (2-tailed)	.792	1.000	.822	1.000	.061	.061	.801	.874	.571	.689	.	.061	.753	.541	.659	.679
	N	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Basis Test2	Pearson Correlation	.221	.316	.094	.000	-1.000**	-1.000**	-.042	.067	.343	.024	.791	1.000	.131	.250	.333	.516
	Sig. (2-tailed)	.674	.541	.859	1.000	.000	.000	.937	.900	.506	.964	.061	.	.804	.633	.520	.295
	N	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Benefits test1	Pearson Correlation	.725	.581	.943**	.914*	-.131	-.131	-.986**	-.780	-.573	-.700	.166	.131	1.000	.919**	-.611	-.564
	Sig. (2-tailed)	.103	.226	.005	.011	.804	.804	.000	.067	.235	.122	.753	.804	.	.010	.197	.243
	N	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Benefits Test2	Pearson Correlation	.552	.316	.945**	.949**	-.250	-.250	-.928**	-.634	-.539	-.618	.316	.250	.919**	1.000	-.565	-.602
	Sig. (2-tailed)	.256	.541	.004	.004	.633	.633	.008	.176	.270	.191	.541	.633	.010	.	.242	.206
	N	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Inst.Factor Test1	Pearson Correlation	-.191	.000	-.779	-.673	-.333	-.333	.718	.901*	.994**	.876*	.231	.333	-.611	-.565	1.000	.881*
	Sig. (2-tailed)	.717	1.000	.068	.143	.520	.520	.108	.014	.000	.022	.659	.520	.197	.242	.	.021
	N	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6
Inst.Factor Test2	Pearson Correlation	-.019	.236	-.715	-.707	-.516	-.516	.689	.660	.863*	.605	.217	.516	-.564	-.602	.881*	1.000
	Sig. (2-tailed)	.972	.653	.110	.116	.295	.295	.130	.154	.027	.203	.679	.295	.243	.206	.021	.
	N	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6	6

*. Correlation is significant at the 0.05 level (2-tailed).

**. Correlation is significant at the 0.01 level (2-tailed).

Appendix F: Test Retest Pearson's Corr. for Focal Persons' Questionnaire

Correlations

		Priority 1	Priority 2	Roles 1	Roles 2	Incentives 1	Incentives 2	HR 1	HR 2	FR 1	FR2	Basis 1	Basis 2	Benefits 1	Benefits 2	Inst. Factor 1	Inst. Factor 2
Priority 1	Pearson Correlation	1.000	.964**	.568	.650*	.000	.000	-.201	-.059	-.356	-.349	.333	.338	.678*	.814**	-.510	-.369
	Sig. (2-tailed)	.	.000	.054	.022	1.000	1.000	.531	.856	.257	.266	.290	.282	.015	.001	.091	.238
	N	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Priority 2	Pearson Correlation	.964**	1.000	.495	.556	.024	.024	-.299	-.149	-.337	-.370	.241	.258	.612*	.746**	-.468	-.311
	Sig. (2-tailed)	.000	.	.102	.060	.940	.940	.346	.644	.284	.236	.451	.418	.034	.005	.125	.325
	N	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Roles 1	Pearson Correlation	.568	.495	1.000	.913**	-.098	-.098	-.489	-.401	-.467	-.525	.487	.439	.330	.408	-.309	-.278
	Sig. (2-tailed)	.054	.102	.	.000	.762	.762	.107	.196	.126	.080	.109	.154	.295	.188	.329	.382
	N	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Roles 2	Pearson Correlation	.650*	.556	.913**	1.000	-.261	-.261	-.348	-.127	-.499	-.477	.577*	.439	.440	.480	-.456	-.290
	Sig. (2-tailed)	.022	.060	.000	.	.412	.412	.267	.693	.099	.117	.049	.153	.152	.114	.136	.360
	N	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Incentives 1	Pearson Correlation	.000	.024	-.098	-.261	1.000	1.000**	.030	-.293	-.388	-.338	-.302	.255	.241	.279	-.148	-.288
	Sig. (2-tailed)	1.000	.940	.762	.412	.	.000	.926	.356	.213	.283	.341	.424	.451	.380	.645	.364
	N	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Incentives 2	Pearson Correlation	.000	.024	-.098	-.261	1.000**	1.000	.030	-.293	-.388	-.338	-.302	.255	.241	.279	-.148	-.288
	Sig. (2-tailed)	1.000	.940	.762	.412	.000	.	.926	.356	.213	.283	.341	.424	.451	.380	.645	.364
	N	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
HR 1	Pearson Correlation	-.201	-.299	-.489	-.348	.030	.030	1.000	.831**	.088	.260	-.168	-.153	.358	.190	.323	.426
	Sig. (2-tailed)	.531	.346	.107	.267	.926	.926	.	.001	.784	.414	.603	.635	.254	.555	.306	.167
	N	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
HR 2	Pearson Correlation	-.059	-.149	-.401	-.127	-.293	-.293	.831**	1.000	.263	.456	.088	-.075	.382	.219	.169	.339
	Sig. (2-tailed)	.856	.644	.196	.693	.356	.356	.001	.	.409	.137	.785	.818	.220	.495	.599	.281
	N	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
FR 1	Pearson Correlation	-.356	-.337	-.467	-.499	-.388	-.388	.088	.263	1.000	.898**	-.068	-.286	-.448	-.418	.432	.368
	Sig. (2-tailed)	.257	.284	.126	.099	.213	.213	.784	.409	.	.000	.834	.367	.145	.176	.160	.239
	N	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
FR2	Pearson Correlation	-.349	-.370	-.525	-.477	-.338	-.338	.260	.456	.898**	1.000	.129	-.059	-.220	-.260	.275	.197
	Sig. (2-tailed)	.266	.236	.080	.117	.283	.283	.414	.137	.000	.	.690	.855	.492	.414	.386	.540
	N	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Basis 1	Pearson Correlation	.333	.241	.487	.577*	-.302	-.302	-.168	.088	-.068	.129	1.000	.845**	.363	.259	-.662*	-.553
	Sig. (2-tailed)	.290	.451	.109	.049	.341	.341	.603	.785	.834	.690	.	.001	.246	.416	.019	.062
	N	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Basis 2	Pearson Correlation	.338	.258	.439	.439	.255	.255	-.153	-.075	-.286	-.059	.845**	1.000	.503	.419	-.755**	-.723**
	Sig. (2-tailed)	.282	.418	.154	.153	.424	.424	.635	.818	.367	.855	.001	.	.095	.175	.005	.008
	N	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Benefits 1	Pearson Correlation	.678*	.612*	.330	.440	.241	.241	.358	.382	-.448	-.220	.363	.503	1.000	.948**	-.351	-.211
	Sig. (2-tailed)	.015	.034	.295	.152	.451	.451	.254	.220	.145	.492	.246	.095	.	.000	.263	.511
	N	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Benefits 2	Pearson Correlation	.814**	.746**	.408	.480	.279	.279	.190	.219	-.418	-.260	.259	.419	.948**	1.000	-.351	-.262
	Sig. (2-tailed)	.001	.005	.188	.114	.380	.380	.555	.495	.176	.414	.416	.175	.000	.	.263	.410
	N	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Inst. Factor 1	Pearson Correlation	-.510	-.468	-.309	-.456	-.148	-.148	.323	.169	.432	.275	-.662*	-.755**	-.351	-.351	1.000	.852**
	Sig. (2-tailed)	.091	.125	.329	.136	.645	.645	.306	.599	.160	.386	.019	.005	.263	.263	.	.000
	N	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12
Inst. Factor 2	Pearson Correlation	-.369	-.311	-.278	-.290	-.288	-.288	.426	.339	.368	.197	-.553	-.723**	-.211	-.262	.852**	1.000
	Sig. (2-tailed)	.238	.325	.382	.360	.364	.364	.167	.281	.239	.540	.062	.008	.511	.410	.000	.
	N	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12	12

**. Correlation is significant at the 0.01 level (2-tailed).

*. Correlation is significant at the 0.05 level (2-tailed).

Appendix G: Cronbach's Alpha Coefficients for Internal Consistency of Sections of Policy Makers' Questionnaire

****** Method 1 (space saver) will be used for this analysis ******

R E L I A B I L I T Y A N A L Y S I S - S C A L E (A L P H A)

Reliability Coefficients for policy makers' priority for investment

N of Cases = 6.0 N of Items = 2

Alpha = .9512

****** Method 1 (space saver) will be used for this analysis ******

R E L I A B I L I T Y A N A L Y S I S - S C A L E (A L P H A)

Reliability Coefficients for policy makers' roles

N of Cases = 6.0 N of Items = 2

Alpha = .9746

****** Method 1 (space saver) will be used for this analysis ******

R E L I A B I L I T Y A N A L Y S I S - S C A L E (A L P H A)

Reliability Coefficients for policy makers' incentives

N of Cases = 6.0 N of Items = 2

Alpha = 1.0000

****** Method 1 (space saver) will be used for this analysis ******

R E L I A B I L I T Y A N A L Y S I S - S C A L E (A L P H A)

Reliability Coefficients for policy makers' human resource

N of Cases = 6.0 N of Items = 2

Alpha = .8906

****** Method 1 (space saver) will be used for this analysis ******

R E L I A B I L I T Y A N A L Y S I S - S C A L E (A L P H A)

Reliability Coefficients for policy makers' Financial resource

N of Cases = 6.0 N of Items = 2

Alpha = .9431

****** Method 1 (space saver) will be used for this analysis ******

R E L I A B I L I T Y A N A L Y S I S - S C A L E (A L P H A)
Reliability Coefficients for policy makers' basis for investment

N of Cases = 6.0 N of Items = 2

Alpha = .8333
****** Method 1 (space saver) will be used for this analysis ******

R E L I A B I L I T Y A N A L Y S I S - S C A L E (A L P H A)
Reliability Coefficients for policy makers' knowledge of benefits

N of Cases = 6.0 N of Items = 2

Alpha = .9573
****** Method 1 (space saver) will be used for this analysis ******

R E L I A B I L I T Y A N A L Y S I S - S C A L E (A L P H A)
Reliability Coefficients for policy makers' inst. factors

N of Cases = 6.0 N of Items = 2

Alpha = .9310

Appendix H: Cronbach's Alpha Coefficients for Internal Consistency of Sections of Focal Point Persons' Questionnaire

****** Method 1 (space saver) will be used for this analysis ******

R E L I A B I L I T Y A N A L Y S I S - S C A L E (A L P H A)

Reliability Coefficients for focal point persons for priority for investment

N of Cases = 12.0 N of Items = 2

Alpha = .9813

****** Method 1 (space saver) will be used for this analysis ******

R E L I A B I L I T Y A N A L Y S I S - S C A L E (A L P H A)

Reliability Coefficients for focal point persons for roles of stakeholders

N of Cases = 12.0 N of Items = 2

Alpha = .9512

****** Method 1 (space saver) will be used for this analysis ******

R E L I A B I L I T Y A N A L Y S I S - S C A L E (A L P H A)

Reliability Coefficients for focal point persons for incentives for investment

N of Cases = 12.0 N of Items = 2

Alpha = 1.0000

****** Method 1 (space saver) will be used for this analysis ******

R E L I A B I L I T Y A N A L Y S I S - S C A L E (A L P H A)

Reliability Coefficients for focal point persons for human resource

N of Cases = 12.0 N of Items = 2

Alpha = .9035

****** Method 1 (space saver) will be used for this analysis ******

R E L I A B I L I T Y A N A L Y S I S - S C A L E (A L P H A)

Reliability Coefficients for focal point persons for Finance Resource

N of Cases = 12.0 N of Items = 2

Alpha = .9448

****** Method 1 (space saver) will be used for this analysis ******

R E L I A B I L I T Y A N A L Y S I S - S C A L E (A L P H A)

Reliability Coefficients for focal point persons for basis for investment

N of Cases = 12.0 N of Items = 2

Alpha = .9160

****** Method 1 (space saver) will be used for this analysis ******

R E L I A B I L I T Y A N A L Y S I S - S C A L E (A L P H A)

Reliability Coefficients for focal point persons benefits of investment

N of Cases = 12.0 N of Items = 2

Alpha = .9298

****** Method 1 (space saver) will be used for this analysis ******

R E L I A B I L I T Y A N A L Y S I S - S C A L E (A L P H A)

Reliability Coefficients for focal point persons Institutional factors

N of Cases = 12.0 N of Items = 2

Alpha = .9200

Appendix I: Uganda National Budget Allocation Values for 2008/9

Sector	Funds Allocated in Millions UShs.	% of National Allocation
Security	477.24	8.1
Works and Transport	1083.73	18.5
Agriculture	223.22	3.8
Education	899.34	15.4
Health	628.46	10.7
Water and Environment	150.28	2.6
Justice/Law And Order	280.42	4.8
Accountability	417.60	7.1
Energy and Mineral Development	461.25	7.9
Tourism, Trade And Industry	30.99	0.5
Lands, Housing And Urban Dev't	12.33	0.2
Social Development	24.07	0.4
ICT	6.50	0.1
Public Sector Management	535.35	9.1
Public Administration	136.26	2.3
Legislature	112.57	1.9
Interest Payments Due	379.05	6.5
Grand Total	**5,858.67**	**100**

Source: National Budget Framework Paper 2009/10

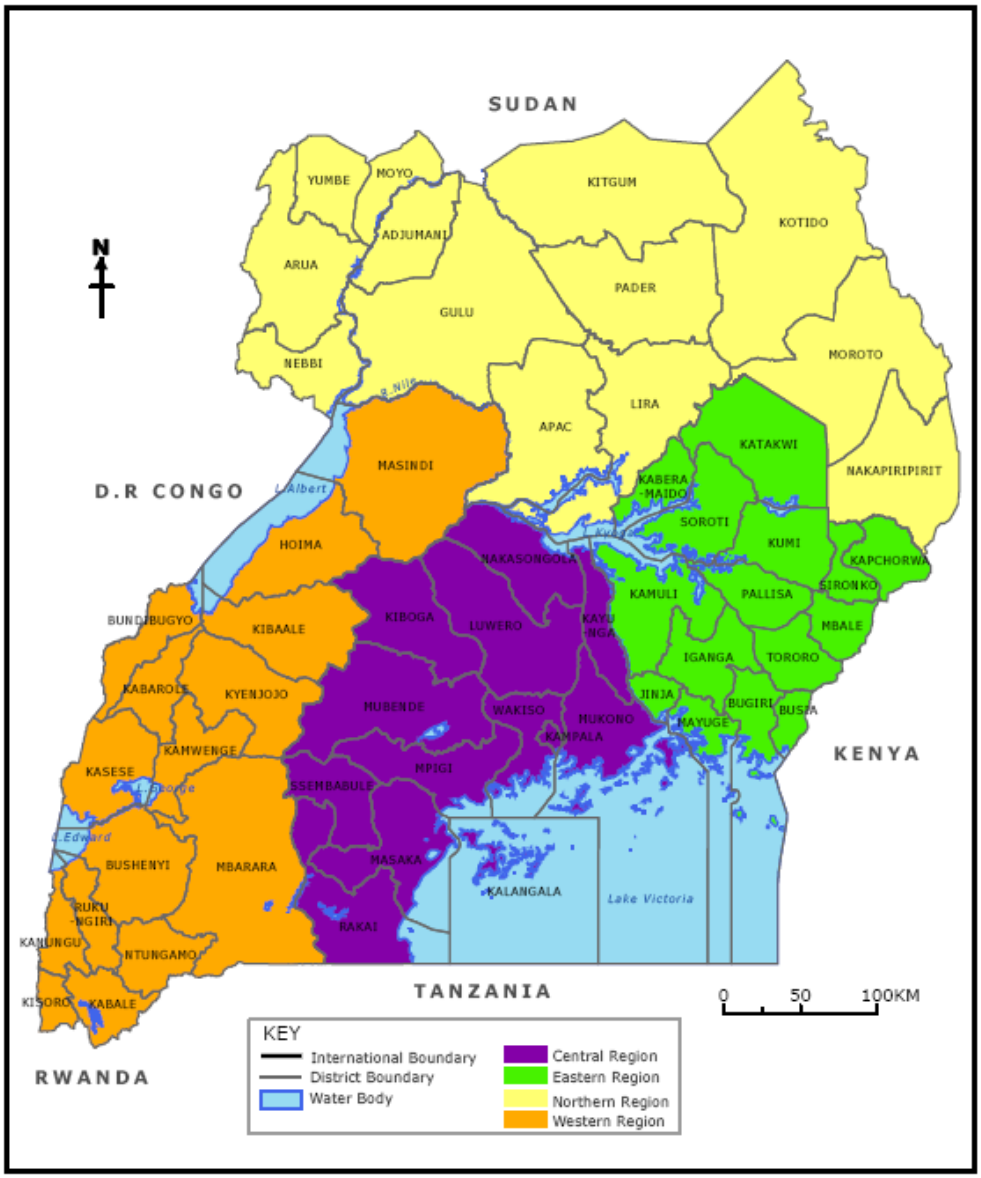
Appendix J: Summary of Investments in the Education Sector 2008/2009

Budget Votes	Budget in Billions UShs.	Percentage of Education Budget
MoES	238.9	26.5
Busitema University	8.33	0.9
Education Service Commission	3.17	0.4
Makerere University	59.25	6.6
Mbarara University	7.55	0.8
Makerere Business School	6.05	0.7
Kyambogo University	15.63	1.7
Uganda Management Institute	0.43	0.1
Gulu University	6.94	0.8
District Primary School	417.03	46.4
District Secondary School	117.70	13.1
District Tertiary	18.35	2.0
Total	**899.33**	**100**

Source: MoES Ministerial Policy statement 2009/2010

The budget votes that had investment in ECD have been shaded.

Appendix K: Map of Uganda Showing the Four Regions in which the study was conducted



Appendix L: Letter of Research Proposal Approval

KENYATTA UNIVERSITY
GRADUATE SCHOOL

E-mail: kubps@yahoo.com
dean-graduate@ku.ac.ke
Website: www.ku.ac.ke

P.O. Box 43844, 00100
NAIROBI, KENYA
Tel. 810901 Ext. 57530

Internal Memo

FROM: Dean, Graduate School **DATE:** 15th October, 2009

TO: **Mr. Ejuu Godfrey**
C/o Early Childhood Studies Department

REF: E83/11170/06

REF: **APPROVAL OF RESEARCH PROPOSAL**

This is to inform you that the Graduate School Board at its meeting of 5th October, 2009 approved your research proposal for the Ph.D degree.

Thank you.

GEOFFREY K. KORIR
FOR: DEAN, GRADUATE SCHOOL

c.c. Chairman, Early Childhood Studies Department

Supervisors:

1. Dr. Barbara G. Koech
   C/o Early Childhood Studies Department
2. Dr. Maureen Mweru
   Department of Early Childhood Studies
3. Dr. Gladwell Wambiri
   C/o Early Childhood Studies Department

GKK/bkk

Appendix M: Research Permit

Uganda National Council For Science and Technology

(Established by Act of Parliament of the Republic of Uganda)

UNCST

Your Ref:.....

Our Ref:.....SS.2316 *Date:*.....23/03/2010..

Mr. Godfrey Ejuu
C/O Department of Teacher Education and Development Studies
Kyambogo University
P.O Box 1
Kyambogo

Dear Mr. Ejuu,

RE: RESEARCH PROJECT, "DETERMINANTS OF PUBLIC INVESTMENT IN EARLY CHILDHOOD DEVELOPMENT AT NATIONAL AND LOCAL LEVELS IN UGANDA"

This is to inform you that the Uganda National Council for Science and Technology (UNCST) approved the above research proposal on **February 18, 2010.** The approval will expire on **February 18, 2011.** If it is necessary to continue with the research beyond the expiry date, a request for continuation should be made in writing to the Executive Secretary, UNCST.

Any problems of a serious nature related to the execution of your research project should be brought to the attention of the UNCST, and any changes to the research protocol should not be implemented without UNCST's approval except when necessary to eliminate apparent immediate hazards to the research participant(s).

This letter also serves as proof of UNCST approval and as a reminder for you to submit to UNCST timely progress reports and a final report on completion of the research project.

Yours sincerely,

Leah Nawegulo
for: Executive Secretary
UGANDA NATIONAL COUNCIL FOR SCIENCE AND TECHNOLOGY

LOCATION/CORRESPONDENCE

Plot 3/5/7, Nasser Road
P.O. Box 6884
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COMMUNICATION

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