

Early Childhood Education and the Development of Behaviour at Nursery Level in Rwanda

¹Nabanoba Eva, ²Mukamazimpaka Marie Claire

^{1,2}Mount Kenya University

DOI: <https://doi.org/10.5281/zenodo.7104983>

Published Date: 22-September-2022

Abstract: The effects of early childhood education on the development of behaviour at Nursery levels in Rwanda as a social safety to a bright future, has not been popular in developing countries as part of the skills developed in achieving a holistic child. The specific objectives which guide this study were: to evaluate the extent to which the teachers are involved in the implementation of early childhood education at nursery level in Gasabo District, to examine the relationship between teachers involvement in the implementation of early childhood education and behaviour development at nursery level in Rwanda in Gasabo District in Rwanda. The significance of this study will be provision of general knowledge towards the effect of early childhood education on the development of behavior at nursery level in Gasabo District in Rwanda. This study used correlation research design in order to determine the effect of early childhood education on behavior development in nursery levels in Rwanda. The population sample size was 92 respondents. Questionnaires and guided interview were used as data collection instruments where descriptive statistics and regression analysis were used for quantitative data analysis, Karl Pearson correlation coefficient was used to establish relationship between variables while regression analysis was used to check the effect of early childhood education on behaviour development. The findings have shown that 69.78 percent from early childhood education teachers that teachers' involvement in the educational goal setting is effective towards the implementation of early childhood education. The researcher revealed that there is a significance high degree of positive correlation between teachers' involvement in Early Childhood Education implementation and behaviour development at nursery level where Pearson coefficient of correlation states the correlation (r) of 0.580 with the p-value=0.000<0.01. The researcher recommended that the ministry of education and educational stakeholders should provide early childhood education facilities.

Keywords: Early Childhood education, Behaviour Development.

1. INTRODUCTION

The chapter is subdivided into subtitles which include the background of the study where the researcher indicated the knowledge that summarizes the key concepts of the study. Additionally, the chapter presents the problem which informed this study and associated objectives, the importance of this study and its scope and limitations.

1.1 Background of the Study

Early experiences shape the future life and therefore needs to be well understood by parents when upbringing their children. The knowledge about the importance of the early childhood education in shaping children's future by parents is great step in the positive direction.

Lewis (2019) expressed that early childhood education encompasses an education programs and strategies which serves children of age between birth and eight years. It is a critical stage in the history of human life and should be given much focus. ECE is an immerse process in the realm of life at home, school environments, and day-care facilities purposely aimed at an all compassing personal development, where a child's early years of life experiences enhances development of the child hence millions of connections are built in the child's brain early childhood education has been noted to influence the development of a child in early years and plays critical role in shaping future life (Currie and Rossin-Slater, 2014). Shonkoff, (2012) stated that there is an increasing agreement between scholars and professionals on the criticality of early schooling years to a child's development.

One of the advantages enjoyed by children exposed to ECE is that their chance of repeating class is minimal. Additionally, the probability of dropping out of school is very low for a child who has passed through ECE. Moreover, the child is also less likely to be enrolled for special needs classes if he or she has passed through ECE. Lastly ECE results into higher scores in tests, the completion rate is also high and they rarely find themselves into criminal activities. (Ozanus, 2017; Luci, 2021)

According to Laying-the-Foundation-Rwanda (2013), ECD enables children to be exposed to diverse and rich experiences in their education which improves their development and social and intellectual skills. Therefore, according to the ECD policy (2011), the government of Rwanda through its Seven -Year program (2010-2017) focused on the initiative of starting ECD centres in every sector for a better foundation of all children despite their background in the fulfilment of the Education for All goals (EFA). International research through the Sustainable Development goals (SDG) (2015) in the global development agenda recognised that every child had the right to a satisfactory physical, mental, spiritual, moral, and social development as a foundation for a better future.

Psychology perceives behaviour as the way an organism reacts to environment. According to behaviourists, behaviours are born out of experience and regardless of a person's background, he or she can be trained to adopt a particular behaviour under favourable conditions. Behaviour as observed by researchers like (Pavlov, Skinner, Watson, etc) may be modified according to positive or negative reinforcement from the organ's environment according to self-directed intentions. Kendra (2019) states that reinforcement motivates young children to feel good about themselves, hence understand why definite behaviours are preferable and worthy of praise in different dimensions. According to Garner (2005), the behaviour of adults encompassing a child's environment as research findings on children's persona development; reveals that a child's most intense impact towards their behaviour development is connected to the adults and peers around them for they imitate what they see and hear. In this case the behaviour development referred to embodies the emotional, cognitive, social, moral, and physical development; as it appears that early child growth and development and its ultimate behaviour are highly shaped by its exposure to the external environment that early childhood education is managed and administered by both its parents (informal education) and formally by the teachers.

In Africa a number of researchers have studied the influence of ECE on pupils in various nursery and school set ups(Ajay, 2008; Aliya,2017, Smith, 2013) In Rwanda, like most of the Sub-Saharan countries ECE is seen as the boost to the completion of Primary education reducing dropouts and repetition rates. International research has demonstrated that access to quality ECD services improves children's performances in school and contributes substantially to improving internal effectiveness throughout the school cycle. According to Meisinger (2016), early childhood behaviours always have a connection between home and school, making things more difficult, hence the prediction of serious behavioural and academic problems later in life. Behaviour development embedded well in early childhood education is a great investment with a turnover that can see the socio-economic development of Rwanda to focused and honest future leaders. The Rwanda ECD policy, with the EFA, MDG, AND SDGs can come out with great success if the two areas are well integrated in all dimensions on the development of the Rwandan child without limits of who they are and their background.

1.2 Problem of statement

The government of Rwanda has made an effort to promote ECE in the country by abiding to the international policies regarding Early Childhood Development (ECD), "The early years are a key concept to core components that include behaviour, attitude and knowledge of their future" and formulating a National Early Childhood Policy as a guiding document for the implementation of ECE nationwide, hence postulating the parents to have responsibility in ensuring their children enjoy the rights of early childhood education hence behaviour development," early years are crucial, so a child's social-emotional development should be able influence their behaviour" (Save the children- Rwanda, 2014)

Currently in Rwanda the ECE program is facing some challenges of being well implemented as well as having a limited number of ECD homes and centres especially in rural areas that meet expected standards, low children enrolment, and other inefficiencies. "The early childhood centres are still few, and their capacity is still limited," (All Africa Stories, 2021). According to, (Alexis, 2019), There is an inadequacy of ECD homes, the classrooms are over populated, untrained ECE teachers and care givers, hence their number is still low.

However, ECE teachers' qualifications, teaching approaches, and development trainings, their relationship to the young ones, the way they organise and decorate early year environments creates positive developments in the class atmosphere hence child behaviours. According to Sylva et al (2010) the teacher-child relationship brings about the most positive way of child behaviour development as there is close observation to every activity done.

There are different consequences that can be encountered due to the weakness of having enough ECD centres to influence behaviour development during the early years, and these include; aggression, antisocial behaviours, low esteem, violence, and high crime rates. The solution to this, is the government of Rwanda to come up with well-established ECD centres, having trained/qualified personnel, well equipped ECE classrooms and resources that align with enriched behavioural skills towards a holistic child.

This study aims to evaluate the best way through which early childhood education can develop behaviour during the early years of a child in nursery levels, and to establish the role of ECE teachers on developing morals and values at nursery level.

1.3 Specific objectives

- i. To evaluate the extent to which teachers are involved in the implementation of early childhood education at nursery level in Gasabo district in Rwanda
- ii. To examine the relationship between teachers involvement in the implementation of early childhood education and behaviour development at nursery level in Rwanda in Gasabo district in Rwanda.

1.4 Research Questions

- i. At what extent are teachers involved in the implementation of early childhood education at nursery level in Gasabo district in Rwanda?
- ii. What is the relationship between teachers' involvement in the implementation of early childhood education and behaviour development at nursery level in Gasabo district in Rwanda?

1.5 Significance of the Study

This study will play an important role in different fields of behaviour development in early childhood education in a nursery child and lay a standard in the development of a better future education plans for early childhood education. The study will give directors and head-teachers guidelines and source information on how to integrate different strategies in ECE for behaviour development skills to lay a firm foundation of the child's future; basing on facts done by ECE teachers using child study and observation, and have a point of reference in making various conclusions on plans made. Teachers in the ECE program will benefit from this study as they go further into professional development to get more enlighten on how to apply new strategies to align with the resources with the child's well-being, ability, and interest. This study will guide parents, teachers and the community on ways of how to develop a better ECE curriculum in relationship with early childhood education and behaviour development during the early years of children, and motivate them to succeed in throughout their period in school.

2. LITERATURE REVIEW

2.1 Introduction

The focal point of this literature is mostly on the development of behaviour in a child during their early years through ECE, and its significant modality in their future and the economy of the country at large. The chapter airs effect of early childhood education on behaviour development in nursery children in different fields.

2.2 Early Childhood Education Concept

According to Rahul (2021), the early education concept generally typically appeals to the pre-primary learning period where parents are fascinated about their children joining kindergarten, day-care, or preschool programs. Presently parents feel that initially their children should start school, for its more beneficial than starting later on in life. Parents today are lucky, as they have number of options to take up other than the normal preschool which includes; the Montessori, Reggio Emilia, and Waldorf programs.

Javed (2021) states that early childhood education is part of a social setting with two firm basics; the most common one being the inclusion of women into the world of employment and their logical desire to entrust the care of their children, into the hands of care givers or early childhood educators, yet the importance of early education aligns with the first basic stages of human development. As children socially interact, there is a focus on approaches that hang on different series of specific formal education like; behavior development, hygiene, art and craft, physical education, socialization, in addition to informal education elements that are essential to the emotions of early childhood teachers with the young children. Teachers are also trained to integrate their teaching with other activities such as music, game pedagogies and literacy techniques for better and whole development.

According to WHO & UNICEF (2012), early childhood education runs from birth to eight years and is characterized by comprehensive brain development in the life of human being. It is a critical growth and development stage hence needs much care. This period is the determinant of the future success of a child. During the early years there is development in a child's brain that happens swiftly and creates great opportunities of learning and intellectual development.

Early childhood education forms the core base for child's future learning success and stands firm on the six early childhood concepts which include; adaptation, temperament, socialization, emotional development, and metaphors (Lynch, 2019). Early childhood policy mirrors child's development as a basic foundational concept. Development of a child is a firm foundational concept for early childhood policy and practice, hence the focal point to realize children's rights. Articles 6 and 32 of UNCRC recognizes development in early years as significant right and as child's protection against abuse (Wood head, 2005). Children need to feel loved and secure in school settings which if it is vice-versa they will take up the experiences of abuse to others into their future.

The first years of a child (0 – 6) have a great effect towards their ability to socialize and empathize with peers, collaborate, develop patience, and other important skills (Lynch 2017). Children Learn to problem solve, seek help, follow instructions and directions hence show affection to others in their development in early years. All these fundamental skills are developed using different approaches through interactions with parents and caregivers. If appropriate skills are not developed in a child's early years, the child will be likely to struggle with their intellectual, emotional and social development.

It is very important that a parent gets to understand the various behavior stages for proper upbringing of the child through behavior shaping. This understanding will enable the parent to be considerate when dealing with a child since he or she have a deep understanding if behavior changes and what comes out of it hence able to control accordingly which is healthy for child's upbringing (Lorina, 2014). Childhood emotional, physical and social mistreatment, hence sexual abuse by caregivers both at school and home are equally the cause of and associated with the development of substance use behaviors(in the early years of several children (Alvarez-Alonso,2016) Child neglect in both school and home environments cause lack of self-esteem leading to the children acquiring confidence through drugs.

2.3 Learning Context in Early Childhood Education

The first and second year of child's life span is based on expansion of their knowledge and creation to understand who they are. There central relationship within the learning context has the strongest influence on their growth and behaviour development. It is during this period that they develop the ability to contrast with determination their relationship with other people. If there is any insecure relationship within the learning context then the child is affected later physically, mentally, behavioural, and their education too (APPG, 2015). Parents play a major role during these two years by being part of the child's process of learning. It is with these people around them that develops confidence and boldness to explore their world (Save the children, 2016)

Certification is one of the early childhood teachers' requirements that identifies their knowledge and understanding of ways to educate learners from 2- 5 years. Teachers of ECE must possess required skills in the way changes in development process take place during the early years. According to Matthew, Susanne, Christopher, and Wong (2017) teachers in ECE should be able to develop and manage behaviour which can only be obtained by positive reinforcement method. The certification of teachers can include Bachelor's degree, diplomas or certificates with the foundation reading text and criminal history background.

According to the IOM & NRC (2015), ECE teachers apply approaches aligning with children's ability & interest as they are also sensitive to children's needs, never harsh, and are always engaged with them. Quality ECE and behaviour development for the young ones' learning and growth depends on the ECE teachers' certification and qualification (Barnette, *et al.*, 2015; IOM & NRC, 2015). There is need for early childhood educators to be experienced in classroom management. One of the popular methods in behaviour management in children is positive reinforcement (Manning *et al.*, 2017).

2.4 Learning and developing behaviour through play

Learning through play is the focus of Early Childhood Education as it meets the PILES (Physical, Intellectual, Language, Emotions and Social) of children. Learning through play binds together children's life span at home, school, and the world, as they do it over and over again (Susan, 2019) The curiosity and imagination of children will stimulate learning where there is no restriction. Play learning enhances cognitive development in the child and it facilitates early collaboration among children. Thus, a child learns more efficiently and acquires knowledge through various activities including role play, art, and social games (Sandra, 2014)

Play is one of the majors in emotional, cognitive and social development in children during their early years. When playing, children conduct themselves as though they old enough and during play they progress in all aspects of development (Berk, 1994). As children age, their way of play also changes. The more they gather and work with others day to day begins to last long, showing more cooperation, and love with a variety of peers at the same time sharing responsibilities. Berk (1994) adds that the more a child gains social experience, the more intellectual capacity development as well as an intense capability to have affection for others.

Early Childhood Education teachers and caregivers needs to enhance children's development by adopting different play types daily and giving them responsibilities such as helping to give a hand in classroom chores, which develops leadership, and communication skills. In order to develop better children with healthy mental connections from their foundation, children need responsive, passionate rich interaction with their parents, and care givers with a combination of sufficient nutrition in a positive creative learning environment based on play; spacious, appropriate supervision, cultural awareness, and well trained teachers who possess suitable knowledge on Early Years Foundation. (CDC, 2016)

2.5 Scope for personality development in Early Childhood Education

This framework focuses on promoting quality early childhood education which enhances behaviour development in Nursery schools. Early Childhood Care and Education (ECCE) is a facet of several elements including care and health, nutrition and play and learning in an enabling environment. Noxious childhood experiences like inappropriate parental care and conflicts between parent and child negatively affects child's personality development and extensively creates a life style full of malice and distrust (Arpad, 2018). Early Childhood Education forms a good foundation for a child's future development and greatly contributes to early childhood development.

What a child experiences in their early years is what will always shape their individual maturity hence later help them to fit in their future environments as they develop their personality (Bjerklund, 2015). The difficult situations a child faces in their early years leads to a personality breakdown and disorder; hence the negative influences imposed on the interpersonal competence, socio-cognitive, and emotional functions of the child (Bjerklund, 2015, de Baca *et al.*, 2016, Jonason *et al.*, 2017). According to Williams (2018) Feud Sigmund's theory of personality development emphasizes that personality is acquired and well developed in early years' period and can be successfully shaped. A child's development goes through different conflicts both in the biological and social contexts. These environments and their internal conflicts are what enhance development and ultimately lead to full mature personality.

2.6 Empirical Literature

On reviewing other researchers' ideas on effect of early childhood education on behaviour development among Nursery school children, a positive effect is widely reported; Aksoy, (2020) researched and found out that knowing how to terminate formidable behaviours and develop good behaviour in children starting from the preschool period plays an important role in the children's life and future. He used the discipline approach based on behaviour change as well as the effective communicational approach which focuses on reminding children the morals continuously and consistently without going beyond the borders.

Bennet, (2021) carried the same research in United States of America and discovered that heightening a child's experience during early child care requires all stakeholders, and policy makers working together to address all challenges that affect behaviour development. The researcher found out that in early childhood environments, more attention and focus should be put on only the appropriate pedagogies that can reinforce good behaviour that aligns with the well-being and involvement of young children. Bennet used the observation approach with inter-rater reliability which was checked rigorously in an established master code.

Rhule, (2015), conducted study in Western Cape, South Africa aiming at determining the influence of teachers' involvement in early childhood education on pupils' behaviour. The researcher revealed that an excellent foundation at an early childhood level is very significant towards the prevention of children's later estrangement and reduces the high personal and societal costs of delinquency. However, the researcher did not show how well early childhood education can help in behaviour development.

In Miesinger's (2016) conducted research in Kenya entitled stakeholders' involvement and pupils 'behaviour development in nursery schools. The researcher revealed that a child's environment can have a large impact on their behaviour development. The researcher also found out that when a young child displays problem behaviours, it is important to intervene early by making positive changes to their environment, and mental health concerns. Hence he stated that criminal behaviour, and substance abuse, are serious problems that are results of negative early year's experiences. He used the observation approach through different activities around the environments.

2.7 Critical Review and research gap identification

Meier and Marais (2007) looked at stakeholders as pillars to cooperate and prevent any hindrance regarding any barriers against children learning and development, hence collaborate on all school programs that work along with teaching/learning situations, setting goals and policies, finding solutions to problems that would hinder enrolments, implement, monitor and evaluate the set goals as well as inspire and maintain trust between home, school, and the community. Although the researcher shows the gap in this study, there is no proof of the collaboration of stakeholders and their alignment with the school programs to prevent barriers against enrolment of children in early childhood education.

Ancheita (2005), states that Children learn through exploring and investigating of their environment. Any child's learning environment should be motivating, exciting and suitable for learning resource use. Children behaviour and ultimate development is affected by the physical environment characteristics. Here the researcher indicates the gap between the learning situation and the learning environment; but the study lacks the connection between behaviour development and the learning situation. Smolleck and Duffy (2017) found out that, classroom environments are the root cause of most of the common behaviours, especially the desire for attention, communication, and interactions. The researcher refers this to either positive or negative instructional approaches that do not engage the child, and lack of desirable consistent structures, policies and routines by teachers and other stakeholders. The researcher shows the gap in the study he shows proof of the approaches to be used by teachers in the encouragement of behaviour acquisition in children.

Gonzalez, (2015) conducted study in Rwanda for demonstrating how different stakeholders contribute to the children's behaviour in early childhood education. The researcher revealed that the participation of parents to the teaching/learning process has been studied as a good factor that contributes a lot in building characters in young children that leads to both pupils' discipline and academic achievement. This specific study will try to fill this gap where the researcher will highlight how parents can be involved in education of their children so that students' behaviour can be improved in nursery schools. Therefore, this study is an attempt to fill this gap.

2.8 Behaviourism Theory

The theory marks the basics of the theoretical framework that show the aspects of human behaviour. According to McLeod (2017), Behaviourism is a theory of learning that states behaviour is adapted through man's interaction with the environment. The influential men behind the Behaviourism theory include psychologists John.B.Watson and B.F. Skinner who advanced the concepts of classical and operant conditioning.

The theory marks the basics

According to Watson (1913) behaviour can be measured, trained and changed, hence it is acquired through conditioning basing on one's interaction with the environment. Children's behaviour development is basically connected to their early childhood interaction within their school settings through observations, and training for better and skilled futures.

2.9 Eric Erickson Psycho-social development theory in early years

He believed that the personality of a human being develops in a series of stages. Kendra (2021) states that the theory focuses on the impact social experiences across a child's life style plays an important role and sense of competence that motivates behaviour development and growth in their early years. During the child's early years they learn behaviours of cooperation that bring about initiative to explore different areas with a purpose.

3. RESEARCH METHODOLOGY

3.1 Introduction

The chapter describes methodology of this research spanning from research design, data population and sampling methods, data collection and tools. It also contains data analysis techniques ethical consideration.

3.2 Research design

A research design is a plan that is used to bring-about answers to the research problems (McCombes, 2019). To evaluate the development of behaviour in Nursery levels in Gasabo district in Rwanda, this study will be carried by using two research designs including descriptive and correlation designs. Descriptive survey design helped the researcher in both objective one and objective two to analyse the level of behaviour development in nursery children while the correlation design was used to examine the relationship of early childhood education and behaviour development.

3.3 Sample size determination

Sampling is a process of taking a sample from the targeted population of the study (McLeod, 2019) Sample is the portion of the population that forms part of study. Sample size focused on 120 people as the study population and sample size will be found using the Solvin Formula (Stephanie, 2020). The formula gives the sample size (n) given population size as (N); the accepted error value as (e). The formulae's confidence assumed level is 95% while the maximum variance is (p=0.05).

The formulae to be used is $n = N \div (1 + Ne^2)$. or $(n = \frac{N}{1 + N(e^2)})$ the resulting value of n was equal to the sample size to be used. E will specify the desired level of precision $e = 1$

$$P = 0.95 \quad N = 120 \quad e = 1 - 0.95 = 0.05$$

$$\text{Therefore, } n = \frac{N}{1 + N(e^2)}$$

$$\text{So, } n = \frac{120}{1 + 120(0.05)^2} = 92$$

N: Total population under the study will be 120 and n: sample was 92.

Table 3.1: Population and proportioned sample size

| Participants | Target population | Sample size |
|---------------|-------------------|-------------|
| Head teachers | 20 | 15 |
| ECE teachers | 100 | 77 |
| Total | 120 | 92 |

Source: Researcher (2021)

Basing on the aim of this research, the researcher selected the population of the research in such way that 20 Head teachers and 100 early childhood teachers were grouped again into strata for summoning the effective and efficient data of the study. The head teachers, plus the early childhood teachers were selected in determination of sample size irrespective to the nursery centres that were involved in the study.

3.4 Sampling technique

The Probability sampling technique was utilised in this research and the researcher used stratified random sampling technique in which that the decided population was grouped into strata. The researcher also used proportionate method in order to get the representative of each stratum. The researcher used purposive method for selecting Gasabo district among three districts that make up Kigali city. This study population was grouped in two strata

3.5 Research Data Collection instruments

The instruments that were used in this study are interview guides, direct observation and questionnaires. These instruments were grouped into two sections, means section A and B. In both questionnaires and interview guide, their section A included background information of respondents, section B of the questionnaire enclosed closed ended questions and they were given to early childhood teachers in Gasabo District in order to collect the data needed that are related to the effect of early childhood education on behaviour development in nursery levels. The interview guide was given to early childhood heads in order to get qualitative data that will be the additional to the quantitative data gained from the given questionnaires that helped the researcher to discover how early childhood education affect behaviour development at nursery level in Rwanda.

3.6 Reliability and validity

Validity and reliability are two concepts in research that evaluate quality. They specify the appropriateness of research instrument in measurement. Reliability largely focuses on consistency of measuring instrument while validity focus on accuracy of measure (Fiona M. July, 2019). Reliability looks at how consistently a method measures something. It shows the degree to which the scores of an instrument can be trusted (Crossman, 2019). When the instruments used well, the measurement was free from errors and provide consistency results under constant conditions. The ascertained of the reliability was done due to questionnaire where the researcher conducted a pilot study within 20 respondents including teachers and head teachers from five schools which were not sampled so as to find out ambiguous items in the instruments like numbering and grammatical errors of the instruments. and check for the Cronbach Alpha, the researcher has found that the instruments are reliable since the value of Cronbach Alpha is 72.3 percent which is greater than 70 percent.

3.7 Data analysis

Data gathered through different data collection methods, were analysed both quantitatively and qualitatively. The data analysis is mainly descriptive in nature involving tabulation; charts and simple mathematical measures such as percentages was used (Creswell *et al.*, 2018). The quantitative data collective data method was used in this study for analysis by using descriptive statistics such as frequencies, mean, percentage as well as standard deviation and Karl Pearson correlation coefficient. Qualitative data collection data method from the guided interview was analysed using thematic method where data obtained from respondents were grouped into similar themes. The research used Karl Pearson coefficient in order to find out the correlation between early childhood education as independent variable and behaviour development as dependent variable while regression analysis was used to check the effect of early childhood education on behaviour development.

4. RESEARCH FINDINGS AND DISCUSSIONS

In this section the researcher presented, interpreted and discussed the research findings in line with the set specific objectives of this study which are to evaluate the extent to which teachers are involved in the implementation of early childhood education at nursery level in Gasabo District, in Rwanda, and to examine the relationship between teachers' involvement in early childhood education and behaviour development at nursery level in Gasabo District.

4.1 The teachers involved in the implementation of ECE at nursery level

During this study, the questionnaires were distributed to get the findings from teachers of nursery schools.

Table 4.1: Perception of teachers' involvement in the implementation of ECE

| Statements | SD | | D | | N | | A | | SA | | Mean | Std |
|---|------|------|------|------|------|------|------|------|------|------|------|------|
| | Freq | % | Freq | % | Freq | % | Freq | % | Freq | % | | |
| Adequate educational background. | 14 | 18 | 4 | 4.5 | 5 | 6.5 | 23 | 30.4 | 31 | 39.6 | 2.66 | 1.28 |
| Teachers participate for organized trainings. | 7 | 9.3 | 10 | 12.8 | 4 | 5 | 27 | 35.1 | 29 | 37 | 2.93 | 1.46 |
| The school environment has well efficient play resources. | 12 | 15.1 | 9 | 11.2 | 3 | 2.7 | 34 | 43.7 | 19 | 24.3 | 3.72 | 1.54 |
| This school has sufficient teaching and learning resources. | 4 | 5 | 13 | 16.2 | 4 | 4.8 | 26 | 32.9 | 30 | 38.1 | 2.87 | 1.48 |
| The Nursery has qualified ECE teachers who have passion for work. | 3 | 2.4 | 6 | 7.6 | 17 | 22.1 | 23 | 29.3 | 28 | 35.7 | 2.79 | 1.52 |
| Children are handled according to their abilities. | 2 | 1.6 | 16 | 21.5 | 2 | 1.6 | 34 | 44.4 | 23 | 29 | 3.83 | 1.26 |
| The school gives regular feedback about children's progress. | 11 | 14.2 | 8 | 9.8 | 5 | 4 | 23 | 31.3 | 30 | 37.7 | 3.78 | 0.70 |

Source: Field data (2022).

The table 4.2 indicates the perception provided by teachers teaching in nursery schools related to the extent to which the teachers are involved in the implementation of ECE in early years, where 73.4 percent of ECE teachers agreed Children are handled according to their abilities and is able to meet their basic needs socially, emotionally intellectually and physically, that align with the resources and approaches at 3.83 of mean ,72.1 percent of ECE teachers agreed that they participate in organized trainings to upgrade to the teachers teaching skills on top of their qualifications at 2.93 of mean,71 percent of ECE teachers agreed that their school has sufficient teaching and learning resources that align with the ability and the interests of the children at 2.87 of mean,70 percent of teachers agreed that they have an adequate educational background at 2.66 of mean ,69 percent of teachers agreed that their school gives regular feedback about children's progress. at 0.70 of meanwhile 68 percent of ECE teachers agreed that their school environment has well organized play resources at 3.72 of mean as well as 65 percent of ECE teachers agreed that Nursery schools have qualified ECE teachers who have passion for children and use appropriate approaches during the teaching/ learning situation at 2.79 of mean.

Basing on the perception of different respondents to the extent to which the teachers are involved in the implementation of ECE in early years, the researcher made comparative interpretation where it was shown that respondents have the same perception on the extent to which the teachers are involved in the implementation of ECE at nursery level but different magnitude. Head teachers were also interviewed on the extent to which the teachers are involved in the implementation of ECE at nursery level and emphasized that Children are handled according to their abilities and is able to meet their basic needs socially, emotionally intellectually and physically, that align with the resources and approaches.

4.2 Correlation between ECE and behaviour development at nursery level

The third objective of this study was to examining the relationship between teachers' involvement in ECE implementation and behaviour development at nursery level in Rwanda. Thus, the findings revealed how Early Childhood Education correlated to behaviour development at nursery level specifically.

Table 4.3: Correlation between teachers' involvement in ECE implementation

| Correlations | | Students' cooperation | Involvement of teachers in educational goal setting |
|---|---------------------|-----------------------|---|
| Students' cooperation | Pearson Correlation | 1 | .580** |
| | Sig. (2-tailed) | | .000 |
| | N | 126 | 126 |
| Involvement of teachers in educational goal setting | Pearson Correlation | .580** | 1 |
| | Sig. (2-tailed) | .000 | |
| | N | 126 | 126 |

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

The study investigated the relationship between teachers' involvement in Early Childhood Education implementation and behaviour development at nursery level where the results in the table 4.4, revealed that there is a significance high degree of positive correlation between teachers involvement in Early Childhood Education implementation and behaviour development at nursery level where Pearson coefficient of correlation states the correlation (r) of 0.580 with the p -value=0.000<0.01. This means that teachers' involvement in Early Childhood Education implementation provides enough evidence that promote behaviour development at nursery level. As stated in interview, it was shown that the effective implementation of Early Childhood Education leads to behaviour development at nursery level.

4.3 The influence of early childhood education on behaviour development

The third specific objective of this research was to examining the relationship between teachers' involvement in ECE implementation and behaviour development at nursery level in Rwanda in Gasabo district.

Table 4.4: The R square of early childhood education and behaviour development

| R | R Square | Adjusted R Square | Std. Error of the Estimate | Change Statistics | | | Sig. Change | F |
|-------------------|----------|-------------------|----------------------------|-------------------|----------|-----|-------------|------|
| | | | | R Square Change | F Change | df1 | | |
| .790 ^a | .752 | .711 | .07750 | .152 | 7.301 | 3 | 77 | .000 |

Source: Field (2021) a. Predictors: (Constant),

Teachers are involved in educational goal setting, nursery teachers are qualified, most teachers use role play in their teaching and teachers meeting with parents and the community at large brings great ideas on developing good values.

The table 4.4, indicates the influence of early childhood education on pupils' behaviour development in nursery level which is indicated by the high rate of pupils' cooperation. Where the findings presented that there is a high degree of positive correlation (r) of 0.58 and R square of 0.752. It means that early childhood education influence pupils' behaviour development at 75.2 percent.

Table 4.5: Coefficients of early childhood education on pupils' behaviour development

| Model | | Unstandardized Coefficients | | Standardized Coefficients | | | 95.0% Confidence Interval for B | |
|-------|---|-----------------------------|------------|---------------------------|--------|------|---------------------------------|-------------|
| | | B | Std. Error | Beta | T | Sig. | Lower Bound | Upper Bound |
| 1 | (Constant) | 1.392 | .552 | | 2.511 | .013 | .298 | 2.485 |
| | Teachers are involved in educational goal setting | .386 | .070 | .360 | 5.543 | .000 | .248 | .523 |
| | Nursery teachers are qualified | -.280 | .097 | -.277 | -2.904 | .004 | -.471 | -.090 |
| | Most teachers use role play in their teaching | .012 | .094 | .012 | .132 | .896 | -.173 | .198 |
| | Teachers meeting with parents and the community | .462 | .078 | .363 | 5.899 | .000 | .308 | .617 |

Source: Field data (2022), a. Dependent Variable: Students' cooperation is experienced in this school.

The table 4.5, shows the contribution of each indicator in the influence of early childhood education on pupils' behaviour development. It was found that teachers' meeting with parents and the community at large brings great ideas on developing good values and teachers' involved in educational goal setting contribute much in the influence of pupils' behaviour development while use of role play by teachers in their teaching contributes less. This shows that role play approach is not being used well in nursery schools which leads to low behaviour development. The findings from the respondents indicated that there is enough evidence that the regression equation was well indicated due to the fact that there was a significant influence of teachers' meeting with parents and the community at large brings great ideas on developing good values and teachers' involved in educational goal setting on pupils' behaviour development which was $p=0.000<0.05$. Conclusion was drawn that there is greater effective teachers' meeting with parents and the community at large brings great ideas on developing good values on pupils' behaviour development. Thus, we are 95 percent confident

that the slope of the actual regression line is somewhere between 30.8 percent and 61.7 percent. This is followed by the teachers' involved in educational goal setting with significance level of $p=0.000 < 0.05$ and the regression line is somewhere between 24.8 percent and 52.3 percent as shown in the table 4.7. Table 4.7 also revealed that the contribution of nursery teachers' qualification on pupils' behaviour development is also significant as p value is equal to $0.004 < 0.05$ and the regression line is somewhere between -47.1 percent and -9.0 percent while the influence of use of role play by teachers in their teaching is not significant as p value is equal to $0.896 > 0.05$ and the regression line is somewhere between -17.3 percent and 19.8 percent as revealed in table 4.7. According to Massoni (2018), early childhood education plays crucial role in the influence of pupils' behaviour development such as morals, courtesy and cooperation.

5. SUMMARIES, CONCLUSIONS AND RECOMMENDATIONS

This study is entitled early childhood education and the development of behaviour at nursery level in Gasabo District in Rwanda. This study was conducted with the general objective of investigating the effect of early childhood education on behaviour development at nursery level in Gasabo district in Rwanda.

Thus, this general objective was achieved basing of three specific objectives which were to evaluate the extent to which are teachers involved in the implementation of early childhood education at nursery level in Gasabo district, in Rwanda, and to examine the relationship between teachers' involvement in the implementation of early childhood education and behaviour development at nursery level in Rwanda in Gasabo district.

5.1 Conclusions

To answer the indicated research questions which were mentioned basing on the three specific research objectives, the conclusion was drawn regarding to the analysis of the findings presented in chapter four. The first research question of this research that was presented, was "at which extent teachers are involved in the implementation of ECE at nursery level in Gasabo district in Rwanda?" "Teachers' involvement in educational goal setting, teachers' qualifications and teaching approaches as well as resources. Basing on the second research question of this study which was "what is the relationship between the teachers' involvement in early childhood education implementation and behaviour development at nursery level in Gasabo district in Rwanda?" "it was concluded that effective implementation of early childhood education influences pupils' behaviour development somewhere between 30.8 percent and 61.7 percent.

5.2 Recommendations

Basing on the findings of this study and the presented conclusion, the following recommendations were addressed to ministry of education, educational stakeholders, teachers, and head teachers, in addition to parents.

Ministry of education should provide early childhood education facilities specifically in nursery schools in order to improve pupils' behaviour development. Educational stakeholders should make effective relationship with nursery schools with the purpose of enhancing pupils' behaviour development.

School head teachers as school managers should follow up the implementation of early childhood education daily so that pupils' behaviour development in nursery level can be improved through developing pupils' morals, courtesy and cooperation.

REFERENCES

- [1] Alice K.Y., & David Kolb (2016). *Experimental Learning Theory Bibliography*
- [2] Anne B. Smith, PhD (2014) *achievement-outcomes early childhood education New Zealand*
- [3] Arpad C., & Bela Birkas (2018). *Personality development and fast life strategies: Medical School, Institute of Behavioural Sciences, University of Pecs, Hungary.*
- [4] Ashley Crossman *meaning of reliability in sociology Updated July 22, 2019* Volume 1-5 (1971 – 2016). Cleveland, OH: *Experience Based Learning Systems, Inc.*
- [5] Atherton F and Nutbrown C (2007) *Understanding Schemas and Young Children*, SAGE
- [6] Barret, W.S., Carlan, M.E, Squires, J.H, Clarke Brown., & Horowitz M. (2015). *The State of Pre-school (2014); State Preschool Year Book*. New Brunswick, NJ; *National Institute for Early Education Research*

- [7] Berk, L. (1994). *Vygotsky's Theory: The importance of make-believe play*. *Young Children*, 50(1), 30-38. Retrieved from <http://www.jstor.org/stable/42728322>
- [8] Bijou, S.W, & Baci, D.M (1978) *Behaviour analysis of child development*. Englewood Cliff: NJ
- [9] Bjorklund D .F (2015). *Developing adaptations*.*DEV.Rev.*38, 13- 35.
- [10] Casanave C.R. & Li .Y. (2015). *Novices' Struggle with Conceptual and Theoretical Framing in Writing Dissertations and Papers for Publication*.3 (2), 104-119
- [11] Catholic Relief Services (CRS), Lesotho (2012). *Ngoana Eo Ke Oa Mang? A teacher resource guide*. CRS, Lesotho
- [12] Centre on the Developing Child at Harvard University (2016). *Building the Brains 'Air Traffic Control System'. How Early Experiences Shape the Development of Executive Functions*. Working Paper No.11
- [13] Chan W. L (2016). *The discrepancy between teachers' and practices. A study Kindergarten teachers Hong Kong*. *Teacher Development*, 20(3), 417- 433.
- [14] Chang L., & Lu H.J (2018). *Resources and extrinsic risk in defining fast life histories of rural. Chinese left-behind children-Evol.Hum.Behav.*39, 59-66. China
- [15] Creswell, J.W. and Creswell, J.D. (2018) *Research Design: Qualitative, Quantitative, and Mixed Methods Approaches*. Sage, Los Angeles.
- [16] David Kolb A. (2015). *Experience as the Source of Learning and Development*. Upper Saddle River, NJ: Pearson Education 2nd edition
- [17] de Baca T.C & Wahl R.A (2016). *Adversity adaptive calibration and health: the case of disadvantaged families; Adapt. Hum.Behav.Physiol.*2, 93-115
- [18] Dean, Joshua T. and Seema Jayachandran. (2019) "Attending kindergarten improves cognitive but not socioemotional development in India," Working Paper
- [19] Fiona M. (2019). *Reliability and Validity*
- [20] Firehiwot T. (2016). *Policy and Practice of Preschool Education in Addis Ababa, Gulel Sub- city Government and Non- Government Preschools*: Addis Ababa University. Unpublished ma Thesis, Google Scholar
- [21] Garner, M, Featherstone. S, Hardy, M (2005) *Including Children with Behaviour and Attention Difficulties in the Early Years Foundation Stage*, Black Publishers Ltd, London
- [22] Glenn A, Cousins J and Helps A (2004) *Behaviour in the Early Years*, David Fulton
- [23] Guterson, David. (1992): *Family matters: Why home-schooling makes sense*. New York: Harcourt Brace and Company, 1992. Print.
- [24] History of Early Childhood education: Comenius, Froebel, Montessori (2016).
- [25] Holt, John. (1995) *How children learn*. New York: Addison-Wesley Publishing Company.
- [26] Institute of Educational Research. Addis Ababa University (2014) Google Scholar *A unifying foundation*. Washington, DC: National Academy of Sciences.
- [27] Isbell, R., & Exelby, B. (2001). *Early learning environments that work*. Beltsville, MD: Gryphon House, Inc.
- [28] Jennie Lindon (2006) *Care and caring matter: young children learning through care*, London: Early Education
- [29] Kendra Cherry (2019); *social and emotional development in early childhood*
- [30] Kimberly H. (2015). *Department of Child and Adolescent Psychiatry*, New York University. New York, NY. Luci Chang (2021). *Early Childhood Care and Education. Why A Strong Foundations Important?*
- [31] Kohn, Alfie. *Punished by rewards (1993): The trouble with gold stars, incentive plans, A's, bribes and other bribes*. Boston: NY, Houghton Mifflin Company, 1993. Print.

- [32] Kolleen Bouchane (2018) *Global Education Monitoring Report* .gemreport@unesco.org
- [33] Lenaerts K. & Vandenbroeck M. (2018). *Education Policy Teaching*. ISBN 978 – 92-79- 700 90-3 Europe EENEE (European Lori A. Smolleck Department of Education, Bucknell University, USA, E-mail: lsmollec@bucknell.edu
- [34] Lori A. Smolleck Department of Education, Bucknell University, USA, E-mail: lsmollec@bucknell.edu
- [35] Lorina (2014) stages of behaviour <https://aussiechildcarenetwork.com.au/articles/child-behaviour/stages-of-behaviour>
- [36] Luci Chang (2021). *Early Childhood Care and Education. Why A Strong Foundation Is Important?*
- [37] Manning, Garvis,S. , Fleming, Wong T.W.G. (2017). *The relationship between Teacher qualification and the quality of the early childhood care and learning Environment*. Campbell Systematic Reviews
- [38] Matthew Lynch (2019) *early childhood concepts that lay a firm foundation for future learning.*)
- [39] Matthew S. (2017). *8 Ways to Plan the Perfect Learning Environment in Early Years*.
- [40] McLeod S.A. (2018). McLeod, S. A. (2018, August 05). *Lev Vygotsky*. Simply Psychology. <https://www.simplypsychology.org/vygotsky.html>
- [41] McLeod S.A. (2018). McLeod, S. A. (2018, August 05). *Lev Vygotsky*. Simply Psychology. <https://www.simplypsychology.org/vygotsky.html>
- [42] McLeod, S. A. (2016). *Bandura - social learning theory*. Simply Psychology. <https://www.simplypsychology.org/bandura.html>
- [43] McLeod, S. A. (2017). *Behaviourist approach*. Simply Psychology. <https://www.simplypsychology.org/behaviorism.html>
- [44] McLeod, S. A. (2019). *Sampling methods*. Simply Psychology. <https://www.simplypsychology.org/sampling.html>
- [45] McTavish, A (2007) *Feelings and Behaviour, A creative approach, Early Education*
- [46] Melhush E. & Gardiner S. (2017). *Study of Early Childhood Education and Development (SEED): Study of Quality of Early Years Prov* England DFE-RR706. London: DIE
- [47] Miriam Margarita Garcia Ancheita 2(005), *Impact of learning environment on a child's behaviour University of Florida, USA*
- [48] Morris, E.K (1998), Mechanism, contextualise, and the Behaviour analysis of development. *Mexican Journal of Behaviour Analysis*, 24; 97-110
- [49] Mwamwenda T. (2014). *Early Childhood Education in Africa, Vol.5 Nelson Mandel metropolitan University. Mediterranean Journal of Social Sciences MCSER. Publishing, Rome-Italy No.20*
- [50] NAEYC (2018). *Developmentally Appropriate Practices (DAP)*
- [51] NAEYC (2019). *Advancing Equity in Early Childhood Education*. Washington, DC; NAEYC.
- [52] National Strategies (2010) *Inclusion Development Programme, Supporting Children with Behavioural, Emotional and Social Difficulties, Guidance for practitioners in the EYFS*
- [53] NECDP (2013) National social and behaviour change communication strategy for integrated early childhood development nutrition and wash 2018-2024 http://www.rwandafda.gov.rw/web/fileadmin/national_social_and_behaviour_change_communication_strategy_for_integrated_eecd_nutrition_and_wash_2018-2024.
- [54] Newton H.G., Clark I. A & Chanen A. (2015). *Personality Disorder across Life Course* Lancet 385, 727-734
- [55] NSCDC (2018). *Understanding Motivation; Building the Brain Architecture that supports*
- [56] P. Scott Ozanus (2017). *Task Force on Early Childhood Early Childhood as the Foundation for Tomorrow's Workforce*.

- [57] Parker. & Thomas.B.S. (2019). *Learning through Play at school; A study of playful Integrated Pedagogies that foster children's Holistic Skills Development* LEGO Foundation..
- [58] Paul.J.Lavrakas (2008) *Encyclopaedia of survey research methods*
- [59] Pierce, David W., and Carl D. Cheney (2004). *Preventing behaviour problems in early childhood education classrooms through environmental organization. Education and Treatment of Children 13(4), 274-287*
- [60] *Prentice Hall*
- [61] Radhika Kapur (2018). *Early Childhood Education*. University of Delhi. India
- [62] Rahel G. (2014). *Quality of early childhood Care: The case of selected government ECCE centres in Bole and Kirkos sub-cities of Addis Ababa*. Ethiopia Institute of Educational Research. Addis Ababa University (2014) Google Scholar
- [63] Rahul (2021) *Understanding the concept of early childhood education*
- [64] Ravitch S.M & Riggan M. (2016). *Reason and Rigor: How Conceptual Frameworks Guide Research, 2nd Ed.* Thousand Oaks, CA: Sage
- [65] Reliability and Validity Published by Alvin Nicolas at August 16th, 2021, Revised On August 27, 2021
- [66] Save the Children. (2016). *Early language development and children's primary school attainment in English and maths*. Save the Children. London
- [67] Sayeh Yousefi, 9th Jul 2016 *Early childhood development and challenging behaviours (Novak Djokovick Foundation Stephan Ellen, 2020 Slovins formula sampling techniques*
- [68] Sylva, K., Melhuish, E., Sammons, P., Siraj-Blatchford, I. & Taggart, B. (Eds.), (2010). *Early Childhood Matters: Evidence from the Effective Preschool and Primary Education project*. London: Rutledge
- [69] UKEssays (2018). *Early Childhood Stage Critical Phase of Human Development Psychology Essay*.
- [70] UKEssays (2018). *Target Population and Sampling Psychology Essay*
- [71] Vinney, Cynthia. (2021). *The Montessori Method and Sensitive Periods for Learning*. Retrieved from <https://www.thoughtco.com/montessori-method-4774801>
- [72] WHO & UNICEF (2012). *Early childhood development and disability. Malta, Italy: WHO Library cataloguing in-Publication Data* http://apps.who.int/iris/bitstream/10665/75355/1/9789241504065_eng.pdf
- [73] William Nicholas (2021) *Research Methods London UK*
- [74] Woodhead, M. (2005) *Early childhood development: A question of rights? International Journal of Early Childhood 37: 79-98*.