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Relationship Between Quality of Teacher-pupil Interaction and Primary School Readiness in Preschool Pupils in Nairobi County, Kenya

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Abstract
A lot of attention and emphasis has lately been placed on the development and education of young children. One of the specific areas of concern is on the quality of experiences that young children are exposed to at the early learning centres. This research paper sought to examine the relationship between the quality of teacher-pupil interaction and primary school readiness in preschool pupils in Nairobi County. The sample comprised 156 preschool pupils and 39 teachers in 39 preschools. The Pearson product-moment correlation statistics was used to examine this relationship. The findings indicate that there is a significant and positive relationship between the quality of positive-relationship dimension of teacher-pupil interaction and primary school readiness. A significant but negative relationship was found between the quality of harshness and detachment dimensions of teacher-pupil interaction and primary school readiness. A weak correlation that is not significant was found between the quality of permissiveness dimension of teacher-pupil interaction and primary school readiness. The researchers recommend that only trained and qualified teachers who are more likely to be aware of the desirable styles of teacher-pupil interaction should be deployed in early learning centres. Those already working should be given in-service training to enable them keep abreast of the best pedagogic practices.
Keywords: Teacher-pupil interaction, Primary school readiness

1. Introduction

In the last few decades the world has gained increased understanding of how young children develop and learn. This has in turn led to greater emphasis being laid on the education of young children the world over. Besides the increased understanding of how young children develop and learn, several other factors have also contributed to the greater emphasis on and subsequent growth in Early Childhood Education (ECE).

One of these factors is fundamental changes in the economy, family life, public awareness and public support. Due to a rise in the cost of living, an increasing number of women have entered the workforce. This number has also further been pushed up by the desire for personal and professional development. This situation has created the need for structured child care services outside the home. Family life has also changed in other fundamental ways so as to create demand for early childhood care. For instance, there has been a steady increase in the number of single mothers across all societies worldwide. Some of these single-parent families have resulted from divorce and teen pregnancies. In addition, an increasing number of women are deliberately choosing to become single parents. Increased mobility of many of today's families has also led to growth in ECE. Rapid urbanization and work demands have seen many families move away from relatives and extended family, who would otherwise provide support with childcare.

Besides family and economic factors, a growing recognition and acknowledgement of the benefits of ECE has contributed to its growth. There has been extensive discussion and research on the benefits of ECE. In a 1991 study Warash, and cited in a review by Crosser (2005), effects of ECE experience on children not at risk of failure were studied. The results indicated that children with ECE experience outperformed those without in mathematics, reading, academic-self esteem, and confidence in their capabilities. These effects were long-term, evident years after the ECE experience itself (Crosser, 2005). These experiences are normally provided within the context of a preschool, which is an institution for 3-6-year-old children preparing them for formal primary school education. After a review of literature on benefits of ECE, Morrison (2007) concludes that the increased demand for ECE services is partly due to the increased recognition of the crucial importance of experiences during the earliest years of life. Essa (1999) has also found evidence of the benefits of ECE.

Another factor that has brought ECE into the public consciousness and influenced its growth is international meetings and conventions. Among the most significant of these is the 1990 Education For All (EFA) Conference held in Jomtien, Thailand. This conference passed a resolution recognizing the importance of ECE. Article 5 of the conference declaration emphasized that learning begins at birth (Kabiru & Njenga, 2009). Consequently, this conference recommended that programmes for young children be expanded to cover the period from birth to eight years.

At the UN Millennium Summit in 2000, world leaders approved the Millennium Development Goals (MDGs), which were a summary of goals agreed in international conferences and summits in the 1990s. Of the eight goals to be achieved by 2015, five had something to do with young children's health, nutrition, and

education, including ensuring that all children have a chance to complete primary school. In 2000, the Dakar Framework of action took place to review progress made by countries with regard to EFA since 1990. The international community expressed a commitment to ensuring that that the basic learning needs of children, youth and adults are met within a generation and maintained thereafter.

Kenya, being a member of the global community of nations, has also experienced a push to the fore front of public awareness of the agenda of ECE. The factors responsible for this are more or less the same factors that have advanced the cause of ECE globally. This push in the agenda of ECE has resulted in massive growth in the sector globally as well as locally in Kenya.

Organised and formal ECE in Kenya emerged in the 1940s. Taking the form of preschools, it initially targeted children of the European settlers in the then British Colony. The preschools were modeled in the line of those in Britain, and offered basic academic and subject knowledge alongside religious education. They were mainly located in urban areas, and were known as infant school, kindergarten or nursery school, depending on the philosophy of the founder. These preschools were expected to prepare children for formal schooling. Since then, there has been a massive expansion in the number of preschools, pupil enrolment as well as the number of teachers, driven by the factors alluded to earlier. By December 1986, Kenya had 12,192 ECE centres with a pupil enrolment of 657,688 (Eshiwani, 1993). At that time Nairobi had 190 ECE centres with 8,800 pupils. According to the *2009 Kenya Population and Housing Census Report* the ECE enrolment for Nairobi had risen to 155,936 in 561 pre-primary centres (KNBS, 2012). As at January 2015 Nairobi County had 1135 registered preschools (Nairobi City County Government, 2015).

With this kind of growth in ECE, the concern for quality was inevitable. A lot of attention has thus been directed to ensuring that quality of ECE services is not compromised. This concern has been given added credence by research findings that have shown the importance of providing not just ECE, but one of high quality. According to research findings, providing ECE is not enough. The ECE needs to be of high quality so as to confer the expected benefits to recipients. In a review of studies investigating the link between quality of ECE and children's development, Galinsky (1991) concludes that the evidence is resoundingly uniform. The evidence is that quality of ECE has a strong effect on children's development. One of the studies reviewed by Galinsky (1991) is one by Howes (1990), which reports that children who entered low quality child care as infants were least task-oriented and considerate of others at kindergarten, they had the most difficulty with peers at preschool, and were distractible, extroverted and hostile at kindergarten. A 1991 study by the National Institute of Child Health and Human Development (NICHD), and cited by Santrock (2008), found that when the quality of childcare experience was high, children performed better on cognitive and language tasks, were more cooperative with mothers during play, showed more positive and skilled interaction with peers and had fewer behavior problems. Morrison (2007) has also reviewed studies that examined the link between quality of ECE and child outcomes. He noted that research indicates that children who attend good-quality ECE, even at very young ages, demonstrate positive outcomes, and children who attend poor-quality ECE show negative effects. Children who experience high-quality, stable ECE and care engage in more complex play, demonstrate more secure attachments to adults and other children, and score higher on measures of thinking ability and language development. Morrison (2007) also found that high-quality early education and care can predict academic success, adjustment to school, and reduced behaviour problems for children in first grade.

Crosser (2005) has also reviewed studies that examined the influence of quality of childcare on child outcomes. In one of these reviewed studies (Peisner-Feinberg et al., 2001), the study sought to examine any long effects of childcare quality on child's cognitive and social skills. The findings indicate that children who attended high-quality preschool benefited in the long term. For example, children who were placed in higher-quality centres, compared to those placed in lower-quality centres, were better at understanding spoken language, had better mathematical skills, demonstrated fewer behaviour problems, were more sociable and had better cognitive and attention skills when they were in second grade.

These strands of positive outcomes combine to produce primary school readiness. Primary school readiness has several dimensions or domains to it. These dimensions are cognitive development, language development, social development, emotional development, and physical and motor development. School readiness is such a critical issue that according to UNICEF, by ensuring that we achieve school readiness, we also help to realize Millennium Development Goals two and three: Achieving universal primary education, and promoting gender equality and empowering women (UNICEF, 2011). Millennium Development Goals have since been replaced with Sustainable Development Goals. Primary school readiness refers to that stage of a child's cognitive, emotional, social and physical development when the child is able to take part successfully in primary school class one or grade one instruction without overtaxing himself or herself. According to Janus (2007) school readiness is a concept that focuses on a child's ability to meet the demands of school tasks such as being comfortable exploring and asking questions; being able to hold a pencil and run on the playground; listening to a teacher; playing and working with other children; and remembering and following rules. Children who have these and other similar abilities are ready to benefit from educational activities provided in school. Janus (2007)

also points out that school readiness is a key measure of children's outcomes in their early years. UNESCO also points out that preparedness for formal schooling is an important outcome of ECE (UNESCO, 2007).

Preschool should basically be play in a structured environment, where activities undertaken include promotion of children getting along with others and experimenting with new material under the supervision of qualified preschool teachers. Children attending preschool also have a chance to develop their language and talking skills; listen to stories; experiment and play with soil, clay, sand, paper, etc. These help prepare children for the purpose of learning. The children are also prepared in the psychological processes of learning which include memory, organizational skills, social interactions, experimentation of new, more advanced paper/pencil tasks, good knowledge of the alphabet and an understanding of the concept of reading. The concept of school readiness is therefore based on the assumption that all children need to possess a predetermined set of capabilities before they enter school. The term primary school readiness is used in this paper to denote that the readiness is for entry to grade one of elementary or primary school.

Research has shown that children who enrol in school when school-ready are expected to achieve more academically. On the other hand, children who do less well on readiness tests are, later on, more likely to repeat a class and to drop out of school (Brooks-Gunn, Klebanov & Duncan, 1996). Additionally, children who are not ready for school are more likely to have difficulty in school (Raver, 2002, cited by Okeng'o, 2007), are more likely to be rejected by their peers, which leads to low self-esteem (Cairns, Cairns & Neckerman, 1989, in Okeng'o, 2007). Mishra (2008) adds that late mastery of basic cognitive skills provides a weaker foundation for further learning. Morris (1993) also observes that success or failure in the early years schooling can exert a life-long influence on self-image.

In ECE practice today, the emphasis locally and globally is on child programmes that are holistic, integrated, child-centred and child-friendly. These areas of emphasis are at the heart of the concern with quality in ECE. Various parameters have been used as measures of quality in ECE. These parameters include the number of children in a group; qualification of teachers, which includes personal characteristics and professional qualifications; teacher-pupil interaction; professional growth experience for staff; physical environment of the centre, which includes buildings, amount of space, activity areas, and outdoor activity; equipment, which includes developmentally-appropriate equipment, blocks, and art and dramatic play materials; use of space; and use of time which includes a schedule (Read, Gardner & Mahler, 1993).

This paper focused on teacher-pupil interaction as a measure of quality of ECE. The nature of teacher-pupil interaction is critical as it sets the tone for almost all the experiences that a child has at preschool. The nature of this interaction is assessed by observing the teacher and pupils interact in their naturalistic setting and determining the level of positive relationship, harshness, detachment, and permissiveness. Dimensions of the teacher-pupil interaction include the teaching relationship, disciplinary relationship, and stability of relationships. Specifically, the teacher-pupil interaction is broken into four dimensions, namely positive relationship, harshness, detachment, and permissiveness. Teacher-pupil interaction is one of the most crucial elements of early learning quality. Adequate and wonderful physical facilities would not be of much use if the teacher-pupil interaction is not nurturant and wholesome. Ina addition, a typical day at preschool revolves around the teacher-pupil interaction.

Several studies on the influence of teacher-pupil interaction on child outcomes have been carried out. Galinsky (1991) has reviewed some of these studies. One of these reviewed studies is Philips, McCartney and Scarr (1987). This study found that when children are talked to, asked questions, and encouraged to express themselves, their social development is enhanced and they are more likely to be considerate. The children in the study were also rated more intelligent and task-oriented. Other reviewed studies indicate that children are more likely to develop self-control and to become more compliant, cooperative and considerate of others if reasoning is used; if the teacher-caregiver explains how the child's behavior affects others; and if problem solving skills are taught. In another reviewed study, Vandell and Powers (1983) indicated that in higher quality programmes, children had many more positive interactions with staff than in lower quality programmes. Finkelstein (1982) showed that when teacher-caregivers are trained in behaviour management techniques, the frequency of the children's display of aggression is lowered. Preschools or programmes of lower quality are more likely to have staff who do not have the knowledge and understanding to deal effectively with young children's normal assertions of power and prowess.

Several other studies to determine the benefits of a positive teacher-pupil interaction style have been carried out. Morrison (2007) has reviewed some of these studies. In this review, Morrison (2007) found that positive, supportive relationships, which are important in during the earliest years of life, appear essential not only for cognitive development but also for healthy emotional development and social attachment (Bowlby, 1969; Stern, 1985). Crosser (2005) has also reviewed studies on teacher-pupil interaction. Cross (2005) found that when teachers are supportive of the children, engage with children and their activities, and interact positively with children, the emotional climate of the classroom includes more smiling and laughing than in classrooms where teachers ignore or interact minimally with children (Hestenes, Kontos, & Bryan, 1993). The closeness of teacher-

child relationship in preschool was reported to be a strong predictor of later social skills (Peisner-Feinberg et al, 2001). Research indicates that when children have positive early relationships with alternate caregivers, they may be learning a pattern of behaviour that serves them well as they establish later relationships with other authority figures. Daly, Byers and Taylor (2006) reviewed a study by Gottman (1997) on how parents dealt with emotional behaviour within the family. This research identified four different parenting styles of approach. These styles of approach are: One, a critical approach – characterized by parents actively criticizing children for showing negative emotions; two, a dismissive approach – characterized by parents ignoring or trivializing children's negative emotions; three, a laissez-faire approach – characterized by parents accepting children's negative emotions but failing to provide guidance and support; and, four, a supportive approach – characterized by parents accepting children's negative emotions, acknowledging them and demonstrating understanding. Although these approaches were unearthed using parents, they can be applied to anyone caring for or dealing with children, including preschool teachers. Parents and care-givers who take an active role in supporting negative feelings through emotional coaching enable children to understand and control their own feelings and to develop empathy with others. Daly, Byers and Taylor (2006) also found that research indicates that children who experience emotional coaching are physically healthier, do better academically, are more able to sustain relationships, have fewer behaviour problems, and are less violent. The parenting styles of approach identified by Gottman (1997) are similar to those identified by Baumrind (1971, 1996, in Santrock, 2011). Baumrind (1971, 1996), a leading authority on parenting, identified four parenting styles: Authoritarian, authoritative, neglectful, and indulgent. These styles correspond to those identified by Gottman (1997). Several other studies have found support for Baumrind's (1971, 1996) view as reported by Chen (2009, in Santrock, 2011).

Mwaura (2009) found positive teacher-child interaction to be positively and modestly correlated with the quality of the teaching/learning environment, while negative styles of interactions were negatively correlated with the quality of the pedagogic ecology. In a series of studies from infancy through third grade by Howes and Richie (2002) and cited by Santrock (2011), it was found that positive teacher-pupil relationships were linked to a number of positive child outcomes. Santrock (2011) also cites another study by Thomson and Goodman (2009) which found that children who have a warm, positive relationship with their teachers have a more positive attitude toward school, are more enthusiastic about learning and achieve more in school. Research findings from a longitudinal study in New Zealand (Wylie, 1998, in Siraj-Blatchford, 2004) indicate that by age 6 children gained higher or lower educational outcomes depending on factors such as the quality of staff interactions with the child.

It is clear that the type of teacher-pupil interaction at preschool has a major bearing on child outcomes in all the areas that constitute school readiness. These areas include language development, cognitive development, and socio-emotional development. Teacher-pupil interaction has also been shown to have immediate as well as long-term influence in preschool pupils.

2. Objectives

(i) To investigate the relationship between the quality of Positive Relationship dimension of teacher-pupil interaction and primary school readiness in preschool pupils in Nairobi County.
(ii) To investigate the relationship between the quality of Harshness dimension of teacher-pupil interaction and primary school readiness in preschool pupils in Nairobi County.
(iii) To investigate the relationship between the quality of Detachment dimension of teacher-pupil interaction and primary school readiness in preschool pupils in Nairobi County.
(iv) To investigate the relationship between the quality of Permissiveness dimension of teacher-pupil interaction and primary school readiness in preschool pupils in Nairobi County.

3. Methodology

The target population for this study was pupils enrolled in their final year of preschool in Nairobi County and their teachers. These pupils are typically aged 5 or 6 years, although there are some who enrol late for one reason or another, and are consequently older than 6. The sample comprised 156 pupils in 39 preschools and 39 preschool teachers.

Two research instruments were used in the study. These were the Primary School Readiness Test and the Teacher-Pupil Interaction Rating Scale. The Primary School Readiness Test was administered to individual pupils and was used to measure school readiness. It consists of six sub-scales, each measuring a different dimension of school readiness. These sub-scales are cognitive dimension, language dimension, social-emotional dimension, physical and motor dimension, adaptive dimension, and approaches to learning dimension. The items in the first five dimensions require the pupil to perform a specific task. They are then rated on their ability to perform the task as follows: Yes/Able=3; Some ability=2; No/Unable=1. For the last sub-scale, the researcher, with the assistance of the preschool teacher, rated each pupil on various attributes that relate to approaches to learning. They were rated on how much they displayed the said attribute as follows: Never=1; Sometimes=2;

Often=3.

The second research instrument was the Teacher-pupil Interaction Rating Scale. This instrument was used to assess the quality of the teacher-pupil interaction at the preschool. It comprises of 26 items, each of which is rated a 3-point scale: Never=1; Sometimes=2; Very much=3. Each item is rated to indicate how much each is true or characteristic of the preschool teacher. The items make up four sub-scales which measure positive relationship (warmth, level of enthusiasm and developmental appropriateness of the interaction); harshness (hostile, threatening, harshly critical behaviour); detachment (extent of non-involvement, non-interest); and, permissiveness (tolerance of misbehaviour in and out classroom).

4. Findings and Results

4.1. Demographic data on study participants

The study had two groups of participants, namely the pupils and their preschool teachers. Some demographic characteristics about the participants are presented below.

Table 1. Highest educational qualification of preschool teachers

Highest educational qualification	Frequency	Percentage
Form 4/KCSE	2	5.13
Certificate	12	30.77
Diploma	21	53.84
Degree	4	10.26
Total	**39**	**100.00**

Academic qualification of preschool teachers is related to and can have implications on quality of ECE and consequently might affect school readiness. Zigler, Styfco and Gilman (1993), in Driscol and Nagel (2002) found that the biggest threat to quality in early education is found in staffing, and that the quality of a programme is related directly to the quality of the staff. Bredekamp (1989) in Galinsky (1991) indicates that experiences with the US National Association for the Education of Young Children (NAEYC)'s accreditation system shows that developmentally appropriate activities and practices at preschool are more likely to take place if teachers have a combination of formal education and training in early education. Finkelstein (1982) in Galinsky (1991) found that when teacher-caregivers have training in behaviour management techniques, the frequency of children's aggressive incidents is lowered. The Effective Provision of Preschool Education (EPPE) study in the United Kingdom identified particular indicators of quality, one of which is having practitioners who possess the knowledge on how children learn and an understanding of the early-years curriculum (Bruce, 2010).

A big percentage of the preschool teachers sampled have educational qualification of a minimum of certificate. This indicates a good quality on that indicator, but since there exists an abundant supply of trained preschool teachers, those without professional training should not be handling pupils.

Table 2. Age of preschool teachers

Age (years)	Frequency	Percentage
21 – 25	4	10.8
26 – 30	7	18.9
31 – 35	4	10.8
36 – 40	8	21.6
41 – 45	7	18.9
46 – 50	5	13.5
51 – 55	2	5.4
Total	**37**	**100.0**

The ages of two respondents could not be ascertained. The age of preschool teachers can have implications on quality of the teacher-pupil interaction, and also on the kind of activities that the teacher proposes for the pupils. According to Morrison (2007), there are four dimensions to being a highly-qualified professional. These are educational attainment, professional practice, public presentation, and personal characteristics. The personal characteristics dimension comprises qualities such as being energetic and in good mental and physical health.

The majority of the teachers (94.6%) are aged 50 and below. Preschool pupils are very energetic and active, and it would take a toll on the teachers themselves if they are not energetic themselves and in good physical health. Having many teachers aged 50 and younger therefore means there is a workforce that is equipped to cope with the very high levels of activity typically expected of preschool pupils, which is in turn expected to bode well for quality and consequently school readiness.

Table 3. Length of teaching experience of preschool teachers

Length of teaching experience (years)	Overall		At current preschool	
	Frequency	Percentage	Frequency	Percentage
Less than 2	0	0	4	10.3
2 – 4	6	15.4	17	43.6
5 – 7	7	17.9	4	10.3
8 – 10	3	7.7	7	17.9
11 – 13	1	2.6	1	2.6
14 – 16	11	28.2	4	10.3
17 – 19	2	5.1	1	2.6
20 – 22	3	7.7	1	2.6
23 – 25	5	12.8	0	0
26 – 28	1	2.6	0	0
Total	**39**	**100.0**	**39**	**100.0**

Overall 33 of the 39 teachers (84.5%) had a teaching experience of 5 years and more. This shows a fairly well experienced group of teachers. This may have an influence an influence on quality of ECE and may be related to school readiness as many years of experience ordinarily produces a highly skilled practitioner. Read et al. (1993) observes that learning to teach seems to occur in developmental levels just as children go through stages of development. Read et al (1993) cite Katz (1972) who has proposed one way to look at developmental stages that teachers of young children may experience.

The first stage may be one of survival, in which teachers may be surprised at the disconnect between their high hopes and the realities of day-to-day work with children. Next is consolidation, when the teachers pull together what they have learned and look forward to gaining more skills in working with individual children. Then may come renewal, when teachers begin to look for ideas about new materials, procedures, and approaches. Teachers reach a stage of greater maturity after several years. They feel free to develop their own ideas and to become more creative in teaching. They become more concerned about the philosophy underlying the practice of ECE. The longer a teacher has worked, the higher the likelihood of their reaching this stage of maturity. In ECE where all areas of development are interrelated, and children are learning something at any given point in time, creativity in teaching becomes a very effective strategy. Teachers with many years of teaching experience are therefore expected to be excellent with young children, enhancing quality of ECE and subsequently school readiness.

Table 4. Gender of preschool teachers

Gender	Frequency	Percentage
Male	1	2.6
Female	38	97.4
Total	**39**	**100.0**

Nearly all the teachers who were handling the pupils in their final year of preschool were female. Indeed, of the 39 schools in the study, only one had a male teacher. This scenario is, however, not unique to Nairobi or even the country. It appears to be a global phenomenon. For instance, national figures in the United Kingdom indicate that only 2.8% of nursery teachers are male, while the proportion of male childminders is 1% (Department of Education and Skills (DfES), 2002, in Clough & Nutbrown, 2007).

Clough and Nutbrown (2007) reviewed a study by Cook (2005) which sought to establish the reasons for the low number of men in the early childhood workforce. In the review Cook (2005) found four main reasons that are often advanced to explain the overwhelming underrepresentation of men in the early childhood workforce. These are: (i) Career issues which include pay, status and employment conditions (ii) Gender-biased attitudes where a career in early childhood workforce is seem as an extension of mothering (iii) Fear of discrimination from family, employers, colleagues and parents (iv) Fear of false allegations of child abuse. Cook (2005) demonstrated that a bigger number of females wanted to work with children, and that males and females saw careers involving young children as being a natural choice for women. Young males would rather follow a different career as they find children stressful and annoying. Males feel they do not have the patience to work with young children and they believe that young children prefer the company of women.

Having more female teachers in preschools might confer certain advantages that come from their being the more natural choice for working with children and their natural ability to handle young children. The young children, however, need role models of both genders. This is important for appropriate gender identification and gender role development in the pupils. More and more children today are growing up in single-parent homes. More often than not the single parent is the mother. Such children would therefore benefit immensely from a close relationship with a significant male figure of authority such as a teacher. Absence of or low number of male teachers at preschool might therefore have some implication on quality of ECE.

Table 5. Age of the pupils

Age	Frequency	Percentage
4 years	11	7.3
5 years	84	55.6
6 years	38	25.2
7 years	12	7.9
Older than 7 years	6	4.0
Total	**151**	**100.0**

The ages of five pupils could not be ascertained and so were not indicated. The ideal and prescribed age of pupils in their final year of preschool is 5 years. The ECD Service Standard Guidelines for Kenya (Republic of Kenya, 2006) prescribes that all children shall be eligible for admission to standard 1 after their sixth birthday, or if their birthday falls within the first term (January – March). More than half of the sampled pupils (55.6%) fell in the prescribed age.

The age of the pupils can affect quality of ECE as well as school readiness. Some evidence shows that a narrow age range in a group may heighten competitiveness among children and offer less chance for the learning that come from being with children who are both younger and older (Read et al., 1993). This means that this sample group of pupils taken as a whole offers a more enriched environment for learning with the wider age range.

On the other hand, as noted by Read, et al. (1993), teachers may find it easier to provide opportunities adapted to each child's needs when the age range is within a year. This implies that a wide age range becomes a drawback because it becomes difficult to cater for individual differences. However, chronological age is not the only measure of maturity. The range in levels of development is large in any group, whatever the age range. In a family type or mixed age group the younger children have the opportunity to learn through watching and playing with older children. The older children, in turn, may gain from assisting and playing with the younger ones. Cooperative play appears to occur more easily. The mixed age group requires the guidance of a skilful teacher at times to prevent the younger children from continually taking passive roles and to prevent the older children from interfering with the play of younger children. Patterns of relating to siblings at home may be repeated at school.

In ECE practice today there has emerged the issue of trickle-down curriculum. This is where the preschool curriculum is taking on an academic look and resembling class one curriculum more and more. Crosser (2005) observes that when curriculum is a poor fit for younger children, the older ones seem to be more academically successful because they are better able to meet the increased expectations. Mishra (2008) also observes that late acquisition of basic cognitive skills impacts negatively on learning in future. Late school enrolment is a common occurrence in developing nations. In sub-saharan Africa, about 20-40% of class one pupils are two or more years older than the prescribed age (Mishra, 2008). Enrolment at class one while being overage is actually common in many developing nations of the world. Many factors contribute to this, including children's participation in family economic activities and difficulty of walking to distant schools. This can however have a negative influence on school readiness.

Table 6. Gender of the pupils

Gender	Frequency	Percentage
Male	79	50.6
Female	77	49.4
Total	**156**	**100.0**

The near-parity in representation between the two genders was by design. Appropriate sampling techniques were used to obtain equal or very nearly equal numbers of male and female pupils. Not much can be said about the demographic characteristic of pupil gender and its implication on quality of ECE. Gender can however have implications on school readiness.

According to the cognitive developmental theory of gender initially developed by Kohlberg (1966) elaborated by Santrock (1994), gender typing in children occurs when children essentially organize their world based on their consistent self-perception as male or female. This will happen after the children form a concept of gender. This suggests that gender typing can have a great influence on the choice of activities that children opt to engage in, and this could have implications on school readiness. Gender differences can consequently have an influence on school readiness in the pupils by affecting certain aspects that contribute to readiness.

4.2. Relationship between teacher-pupil interaction and primary school readiness

The quality of the teacher-pupil interaction was assessed at four sub-scales measuring four dimensions of the interaction. These dimensions are positive relationship, harshness, detachment and permissiveness. A high aggregate score or mean score for the positive relationship sub-scale denotes a good, positive or desirable style

of interaction, which connotes good quality ECE. A high aggregate score or mean score on the harshness, detachment and permissiveness sub-scales, on the other hand, indicates a bad, negative or undesirable style of interaction, which implies low quality ECE. Getting one overall score for this instrument would therefore not be logical. Consequently, the scores for the teacher-pupil interaction were obtained separately for each of the four sub-scales, and then each correlated in turns with primary school readiness. This enabled an exploration of the relationship between the teacher-pupil interaction and school readiness. The results of these correlations using the Pearson product-moment correlation statistical analysis are presented in this section.

4.2.1. Relationship between quality of positive-relationship dimension of teacher-pupil interaction and school readiness

A Pearson product-moment correlation analysis was carried out to examine the relationship between quality of the positive-relationship dimension of teacher-pupil interaction and school readiness. The results of that analysis are presented in Table 7.

Table 7. Pearson product-moment correlations for positive-relationship with school readiness

		Teacher-pupil interaction: Positive-relationship
School readiness	Pearson Correlation	.522**
	Sig. (2-tailed)	.001
	N	39

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

The Pearson correlation coefficient is $r = 0.522$. This correlation is significant at the 0.01 level. This indicates that there is significant positive correlation between quality of the positive-relationship dimension of the teacher-pupil interaction and primary school readiness. There exists, therefore, a positive relationship between the positive-relationship dimension of teacher-pupil interaction and primary school readiness in preschool pupils in Nairobi County. The finding of positive relationship between the positive-relationship dimension of the teacher-pupil interaction and primary school readiness is logical since positive-relationship is a good and desirable style of interaction. This finding is also consistent with findings of similar studies. One of these is a study by Howes and Richie (2002), cited by Santrock (2011). Howes and Richie (2002) linked positive teacher-child relationships to several positive child outcomes. Over time experts have attempted to come up with a personality profile of a good teacher. This task is however made difficult by the complex nature of education and learning, personality and individual differences (Sadker & Sadker, 1991, in Santrock, 1994). Nonetheless, some teacher traits are associated with positive pupil outcomes more than others. Among these are enthusiasm, warmth, and awareness of individual differences (Gage, 1965, in Santrock, 1994).

Goodenow (1993, in Santrock, 1994) observes that children's achievement is greatly influenced by teacher's support. Bowlby (1969) and Stern (1985) are cited by Morrison (2007) as reporting that supportive and positive relationships during a child's earlier years of life positively influences social attachment, cognitive development and also healthy emotional development. Crosser (2005) has also reviewed studies on teacher-pupil interactions and found similar results. One of these studies reports that when teachers support children properly, engage with them and their activities more positively, more instances of laughing and smiling were recorded in the classrooms as compared to classrooms where teachers ignored or had minimal interaction with the pupils (Hestenes, Kantos & Bryan, 1993). How close the teacher-pupil relationship is at preschool was also shown to be a very good predictor of the child's later social skills (Peisner-Feinberg et al., 2001, in Crosser, 2005).

Cameron, Connor and Morrison (2005) in Landry and Cooper (2014) found that good interactions between children and adults at preschool fosters more positive gains on several outcomes related to school readiness. Mashburn et al. (2008) in Landry and Cooper (2014) also report that sensitive teachers who create a positive climate in the classroom help enhance pupil performance in standardized tests of literacy skills in class one, while Bryant et al. (2002) in Landry and Cooper (2014) report that the same teacher traits can help predict the pupils' engagement in the classroom across all classes.

The positive-relationship dimension of the teacher-pupil interaction therefore has a relationship with school readiness.

4.2.2. Relationship between quality of harshness dimension of teacher-pupil interaction and school readiness

A Pearson product-moment correlation analysis was carried out to examine the relationship between quality of the harshness dimension of teacher-pupil interaction and school readiness. The results of that analysis are presented in Table 8.

Table 8. Pearson product-moment correlations for harshness with school readiness

		Teacher-pupil interaction: Harshness
School readiness	Pearson Correlation	-.454**
	Sig. (2-tailed)	.004
	N	39

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

The Pearson correlation coefficient for harshness and primary school readiness was found to be r = -0.454. This correlation is significant at the 0.01 level. There is a significant relationship between quality of harshness dimension of the teacher-pupil interaction and primary school readiness in preschool pupils in Nairobi County. Harshness is a negative or undesirable pattern of interaction. The finding of an inverse relationship indicated by negative value of the correlation coefficient between it and school readiness is therefore logical and expected. When the teacher's harshness is high it would be expected to impact negatively on child outcomes.

As harshness is an undesirable style of interaction, this finding is therefore consistent with the findings of numerous other studies that have found a positive relationship between positive, desirable styles of interaction and positive child outcomes. For instance, Howes and Richie (2002) in Santrock (2011) have linked positive teacher-child interactions to positive child outcomes.

Research indicates that the disciplinary techniques parents and teachers use have an impact on children's subsequent development. Daly et al. (2006) reported that research shows that children who receive emotional support and coaching do better academically and are better at sustaining friendships as compared to children who are actively criticized by caregivers. Sylva eta al (2003) report that big level of child development noted in the most effective settings were correlated with behaviour policies where teachers support pupils in being assertive and teacher-pupil interactions that involve open-ended questions that expand the child's thinking. It is clear that this pattern of interaction cannot occur in a classroom where the teacher is harsh to the pupils. Pupils are more likely to develop self-control, be considerate of others, become more compliant and cooperative if reasoning is used, and if the effect of the child's behaviour on others is explained, and if the child is taught problem-solving skills (Galinsky, 1991). High levels of harshness would prevent this from occurring.

4.2.3. Relationship between quality of detachment dimension of teacher-pupil interaction and school readiness

A Pearson product-moment correlation analysis was carried out to examine the relationship between quality of the detachment dimension of teacher-pupil interaction and school readiness. The results of that analysis are presented in Table 9.

Table 9. Pearson product-moment correlations for detachment with school readiness

		Teacher-pupil interaction: Detachment
School readiness	Pearson Correlation	-.509**
	Sig. (2-tailed)	.001
	N	39

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

The Pearson correlation coefficient for detachment and school readiness was found to be r = -0.509. This correlation is significant at the 0.01 level. There is a significant relationship between quality of detachment dimension of teacher-pupil interaction and primary school readiness in preschool pupils in Nairobi County. Detachment also connotes a negative, undesirable style of interacting between a teacher and a pupil. A detached teacher is neither warm nor demanding, and is not likely to pick important warning signs from pupils who may be having academic or behaviour problems because they do not connect with the children. An inverse relationship between detachment and school readiness indicated by the negative correlation coefficient is therefore expected and logical. This implies that this finding is also in agreement with that by Howes and Richie (2002) who reported a link between positive interactions and positive child outcomes.

Whitebook, Howes and Phillips (1990) in Galinsky (1991) report that children in settings where they were likely to be engaged in aimless wandering performed more poorly on tests of both social development and language development, which are essential areas for later achievement. Aimless wandering by pupils could result from the teacher being detached from the children.

4.2.4. Relationship between quality of permissiveness dimension of teacher-pupil interaction and school readiness

A Pearson product-moment correlation analysis was carried out to examine the relationship between quality of the permissiveness dimension of teacher-pupil interaction and school readiness. The results of that analysis are presented in Table 10.

Table 10. Pearson product-moment correlations for permissiveness with school readiness

		Teacher-pupil interaction: Permissiveness
School readiness	Pearson Correlation	.055
	Sig. (2-tailed)	.740
	N	39

The Pearson correlation coefficient for permissiveness and school readiness was found to be $r = 0.055$. This correlation is not significant at the 0.01 level. There is no significant relationship between quality of permissiveness dimension of teacher-pupil interaction and primary school readiness in preschool pupils in Nairobi County. The correlation coefficient obtained is close to zero, suggesting a weak or no relationship between permissiveness dimension of teacher-pupil interaction and primary school readiness.

While it is alright to permit children a degree of freedom to explore and experiment, too much permissiveness is counterproductive. Permissiveness is in reality a negative and undesirable style of interaction between a preschool teacher and pupils. The logical expectation, therefore, is that permissiveness will be negatively correlated with positive child outcomes. Research findings indicate that permissiveness in the classroom has been associated with negative outcomes such as low cognitive and emotional empathy development (Aunola et.al., 2000, in Wikispaces Classroom), as well as low academic achievement and school involvement and higher rates of aggression (Meteyer & Jenkins, 2009, in Wikispaces Classroom). The finding of a positive relationship between quality of permissiveness and school readiness therefore seems to contradict the findings of other studies which found a positive relationship between positive interaction styles and positive outcomes. Such studies include Howes and Richie (2002).

This discrepancy can be attributed to the ambivalent nature of permissiveness as exercised by a teacher. Permissiveness has the potential to be both a desirable and an undesirable pattern of interaction, the subtle distinction arising out of degree or intention. It is a tough balancing act for a teacher handling dozens of pupils to allow them a degree of freedom to explore and experiment and at the same time set limits to ensure disruptive behaviours are not permitted. As Phelan (2005) points, a permissive teacher is warm and supportive, since he or she would like to be helpful. Warmth and support are good traits, but such teachers are poor at setting limits for children. Teachers may therefore be displaying behaviours of permissiveness that fall on all points of a continuum, giving rise to the said ambiguousness in determination and a correlation coefficient very close to zero.

5. Discussion

This research paper set out to investigate the relationship between the quality of teacher-pupil interaction and primary school readiness in preschool pupils in Nairobi County. The teacher-pupil interaction was examined under four dimensions: Positive relationship, harshness, detachment and permissiveness. The results indicate a positive and significant relationship between the quality of each of positive-relationship dimension, harshness dimension, and detachment dimension and primary school readiness. This implies that those three dimensions of teacher-pupil interaction have far reaching implications on child outcomes at preschool. This points to the need to have teachers adopt proper styles of interacting with their pupils. These are styles that will foster good growth and learning in the pupils. Excellent and first class physical facilities at preschool will not amount to much if the teacher-pupil interaction is not conducive to good and proper pupil growth, development and learning. These findings provide evidence of the teacher's central role in the life and learning of the preschool pupils.

The permissiveness dimension of teacher-pupil interaction was found to have a relationship with school readiness that was not statistically significant. The correlation coefficient was also very low. As alluded to earlier, this could be due to an ambiguity around permissiveness, making it difficult for the teacher to be certain of how much or less to permit in the classroom.

6. Conclusion

It has been established by the findings of this research paper that the teacher-pupil interaction is strongly related to child outcomes as measured by school readiness in preschool pupils. School readiness at preschool is crucial for later schooling and development. It is therefore important to ensure that teacher-pupil interaction is of the positive and desired kind. This can be done by requiring only trained teachers to handle preschool pupils, and giving these teachers continuous in-service training on good pedagogic practices. This way they will be aware of the good interaction styles that need to be enhanced and also the negative ones that need to be eliminated. Good and desirable child outcomes will thus be assured or enhanced.

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