*THE INTERNATIONAL JOURNAL OF HUMANITIES & SOCIAL STUDIES*

# Instructional Strategies Used by Teachers in Public Early Childhood Education Centers in Uasin Gishu County, Kenya

**Bitok Esther Chepkorir**
Ph.D Student, Moi University, Kenya

***Abstract:***
*The purpose of the study was to establish the instructional strategies used by teachers in public early childhood education centers in Kenya. The study was underpinned by Albert Bandura's Social Learning Theory (SLT). The study adopted descriptive survey research design. The study targeted 2330 ECDE teacher in the 775 public ECDE centers in Uasin Gishu County. To sample size was 341ECDE teachers selected 120 ECDE centers. This study adopted a stratified and simple random sampling technique to select respondents. Participants were interviewed and provided with structured questionnaires. Results were analysed using descriptive statistics and presented using tables and charts. ECD teachers were using integrated technology strategy, cooperative learning structures in their classrooms, differentiated instruction in their classroom and incorporated play activities in their instruction. ECD teachers employed goal setting, cross-curriculum teaching and class-wide peer tutoring and assessment instruction as their instruction strategy. The using of developmentally appropriate practices reduces learning gaps, increases achievement for all children, and allows students to share and engage in the learning process.*
*In addition to instilling in students the flexibility to readily adapt to changing technologies, teachers must foster learning environments that encourage critical thinking, creativity, problem-solving, communication, collaboration, global awareness, and social responsibility. For these reasons, instructional strategies (integrated technology, cooperative learning structures, differentiated instruction, play activities, goal setting, cross-curriculum teaching, class wide peer tutorial, assessment for learning) play a critical role in facilitating the learning process. County education office should step up their oversight on early childhood education. This will ensure the students are enlightened through exposure to the right instructional strategies, and that three main domains of learning are assessed appropriately.*

***Keywords:*** *Instructional, strategies, public, early childhood education*

## 1. Introduction

Early childhood development education (ECDE) refers to a comprehensive approach to policies and programmes for children from birth to eight years of age with the active participation of their parents and caregivers (Smith, 2000). Early Childhood serves the critical role of preparing young children for subsequent levels of Education. The need for a holistic development of children is appreciated all over the world. A child is endowed with some powers that enable him to construct and develop his personality. Bruce (2012) defines Early Childhood Education (ECE) as a domain of education theory which relates to the teaching of young children (formally and informally) up until the age of about eight. This age bracket presents crucial opportunities for the development of a child's academic, behavioral, and social competencies (Roopnarine and Johnson, 2013). These skills have been shown to be essential for later school success thus highlighting the importance of ECE in stimulating child development and improved chances of doing well in later schooling and in the labour market (Wortham and Hardin, 2015).

Globally, education is a fundamental human right (United Nations Convention for Rights of Children (UNCRC, 2000). Unprecedented attention has been focused on literacy among children (Early Childhood Technical Assistance Center, 2012). Jomtien World Conference on Education for all (EFA) of 1990 and Dakar Conferences (2000) under scored the importance of instructional resources in ECE for the purposes of improving children's learning. In the second half of the twentieth century, the early education system in the United States grew substantially. This trend allowed the majority of American children to have access to some form of early childhood education (Roopnarine and Johnson, 2013). Head Start programs are funded by the federal Department of Health and Human Services (Roopnarine and Johnson, 2013).

Teaching is acknowledged as a "complex activity that requires a myriad of knowledge, skills and capabilities" (Loughran, 2013). In Europe, pre-schools were created to provide humanitarian services related to health and welfare to children from poor families and those affected by war and slum conditions (Jay, 2012). However, though created for the poor,

the middle class hijacked pre-school education by taking their children to these pre-schools in most countries except in France and Belgium. As a result, the provision to the poor diminished, thus affecting access to ECE negatively. This change of focus also affected the curriculum with a shift from concern for welfare to that of health, education and creative expression based on the Frobel an idea of play (Austin, 2010).

Play activities have been attested to involve children's total self, encapsulating their mental, physical, social and emotional status (Samuelsson and Carlsson, 2008). Play has also been shown to instigate social, cognitive, psychomotor and emotional development in any child (Hughes, 2009, Vygotsky, 2004). Additionally, researchers have found a strong link between play and learning for young children, especially in the areas of problem solving, language acquisition, literacy, numeracy and social, physical, and emotional skills (Hirsh-Pasek and Golinkoff, 2003, Welsh, Nix *et al.,* 2010). The challenge thus lies in the integration of the various play activities and play resources to achieve a holistic development of the children encompassing all three-learning domain; cognitive, affective and psychomotor.

The Government of Kenya recognizes that early childhood development and education interventions are significant to the social and economic development of the country as they provide children with a fairer and better start in life. The Kenya government has come up with the Session Paper No. 1 of the Ministry of Education (2005) which acknowledges the attainment of EFA by 2015 as a major goal commitment of the National Following promulgation of the constitution in 2010, ECDE in Kenya was devolved to the County level where service delivery is managed and funded in particular in ECD and TVET (Cheserek and Mugalavai, 2012). The Kenyan government in an endeavor to embrace the NAEYC and NAECS guidelines formulated an assessment tool called Kenya School Readiness Assessment Tool (KSRAT) (Mochama, 2015). Through the newly established tool, ECDE children would be gauged using their chronological age and development. Assessment for learning is successful when it is embedded in teaching and learning. Regrettably, many ECDE centers in Kenya are still focused on assessment of learning summative rather than assessment for learning.

A study carried out by Offenheiser, Holcombe (2008) revealed that inadequate teaching and learning resources, lack of properly ventilated classrooms, furniture suitable for children, kitchen, safe clean water, playground, toilets and play material have a negative effect on the implementation of ECDE programmes. Similar views have been posed by a study carried out by International Association for the Education of Young Children, (2011). This implies that teachers do not have adequate teaching and learning resources to enable them to implement ECDE curriculum effectively. The management of ECD in the county level is not currently well-spelt out. Much still needs to be done to further improve quality in service delivery and the rapid scaling-up of Kenya's ECD programme especially in the current devolved system. It is on the basis of the prevailing circumstances that the study endeavors to investigate the instructional and assessment strategies used in early childhood and education centers in Uasin Gishu County, Kenya.

## 2. Literature Review

### *2.1. Instructional Strategies Used in Early Childhood Education*

The teaching strategies or methods used in implementing the curriculum are the arranged interactions of people and materials planned and used by teachers. They include the teacher role, teaching styles, and instructional techniques (Siraj-Blatchford, 1998). The third aspect of pedagogy, which might be thought of as cognitive socialization, refers to the role that teachers in early childhood settings play, through their expectations, their teaching strategies, their curricular emphases, in promoting the repertoire of cognitive and affective characteristics and skills that the young child needs to move down the path from natal culture to school culture to the culture of the larger society.

The spectrum of education programs provided for preschool children reflects diverse philosophical beliefs and related approaches to pedagogy. They range from those in which children engage primarily in play or self-initiated activities, to those in which children sit in chairs and passively receive direct instruction. In practice, most programs combine elements of both direct instruction and free play. Constructivists, for example, take a position between the extremes. They suggest that development results from a complex interaction between children and their environments (Dewey, 1976; Piaget, 1970). Education is child-centered, but the adult takes responsibility for placing the child in environmental circumstances that will provoke active construction of new understandings.

The ideal form of education, in this view, involves neither instruction nor laissez-faire free play, but rather the adult's assumption of the responsibility to provide environmental food for thought—that is, circumstances appropriate to the child's current cognitive state that facilitate his or her natural propensity to develop and learn (Copple *et al*., 1979; Hohmann *et al*., 1979). These and other programs based on constructivist theory place a strong emphasis on children's construction of ideas and ways of thinking through social interaction.

Sociocultural theory places primacy on cognitive activity occurring through social interaction with more knowledgeable peers and adults who provide support as a child explores new understandings, knowledge and skills, a disposition toward learning, and insight about himself or herself as a learner (Dewey, 1976; Vygotsky, 1978, 1986). Pedagogy is not ultimately about free play, instruction, or placing the child in carefully chosen stimulating environments; the critical factor is a high degree of direct adult engagement and guidance in the process of construction (Bodrova and Leong, 1996). Vygotsky (1978) and Rogoff (1990) provide a description of this learning process. Its central feature requires addressing children within their zone of proximal development, the zone within which a child can actively participate in learning under

the guidance of more knowledgeable peers or adults, who structure the learning so as to guide the child through tasks that are just beyond current capability.

Over the past decade there has been an exponential increase in the research of how young children learn and how early experiences promote achievement. As a result of the new body of evidence, there has been a fundamental shift in the way curriculum; instruction and professional development are understood during the early childhood stage. Closing the all-inclusive achievement gap in early childhood stage depends greatly on providing ECE teachers with the professional development and support system that can help them more effectively promote early literacy and early reckoning in the context of physical, emotional, social and spiritual nurture fit classrooms.

The National Association for the Education of Young Children (NAEYC), a leading national organization dedicated to improving the quality of education and care in early childhood in conjunction with the National Association of Early Childhood Specialists in State Departments of Education (NAECS/SDE) contend that successful early childhood learning occurs when both teachers and children are actively engaged (Neuman, Copple, *et al.,* 2001). The challenge for teachers is to help children to think, explore, experiment, talk about concepts and practice new skills (Connors, 2016). This pedagogical approach requires far more than simply transmitting facts to the children and emphasizes opportunities that foster higher-order skills. Optimally, early literacy teaching strategies should enable teachers explicitly and systematically help children develop a conceptual knowledge base that underlies the meaning of words rather than only focusing on letters and sounds.

2.1.1. Play as a Teaching Strategy

Play as a pedagogical tool has not been extensively researched (Howes and Smith, 1995). There are two likely reasons for this: first, play often has been viewed as noneducational and not related to intentional teaching (Hall, 1991). Second, play is difficult to define (Fein, 1977); thus, much of the research is labeled for attributes of the playing process, such as social interaction, symbolic representation (literacy), role rehearsals, fantasy, enactments, and motor/perceptual coordination, rather than under the generic term "play." It is assumed that underlying children's involvement in these activities is an intrinsic motivation to derive personal pleasure and satisfaction from their chosen activities— to play. Howes and Smith (1995) found play and positive social interactions with teachers predicted more complex cognitive activities in child care centers. When adults, either mothers or teachers, play with children, the children manifest more complex combinations of pretend and are able to demonstrate distancing and decontextualization more readily (O'Reilly and Bornstein, 1993; Howes and Matheson, 1992).

Play fosters the use of symbols and symbolic representations (Piaget, 1962; Sigel, 1993). Young children's recall with toys is better after participating in play. In an experimental study of 4-and 5-year-olds' recall memory, children were asked to either "play" with a set of toys or to "remember" the toys (Newman, 1990). In the "remember" session, the children tended to study the toys, rehearsing, sorting, etc., and their language focused on naming the toys. In the "play" session, the children tended to play with the toys both functionally and representationally, and their language focused on elaboration about the toys (e.g., "I'm squeezing the lemon") (Newman, 1990:249). The children had better recall in the "play" condition. Play can provide an important opportunity for children to practice self-regulation in a variety of dimensions. It often takes place with other children and involves the teacher's provisions of an appropriate physical context and time for play. In this context, with support for the child's working within their zone of proximal development, the child is participating in what Vygotsky (1977) terms "director's play." Where play is repetitive and stereotypical, the practitioner needs to find ways of stimulating new interests and ideas. Such interventions may be especially important for children with special educational needs who have the same rights to an appropriate curriculum that helps them to learn through well-planned play (Drifte, 2002; Macintyre, 2001). The processes involved in playing and learning appear to contribute to building children's brain architecture: rehearsal and practice may lead towards pruning and editing existing connections in the brain, as well as making new connections.

In play children develop exploratory as well as explanatory drives: they actively look for patterns, test hypotheses and seek explanations, leading to increased complexity in thinking, learning and understanding (Gopnik *et al.,* 1999). These cognitive processes are socially and culturally situated and, through the subject disciplines, can become increasingly refined. For example, exploration and discovery are the building blocks of science: looking for patterns and relationships is fundamental to mathematics; imagination and empathy can lead to developing an informed historical imagination; technology and the creative arts involve planning skills as well as imagination, flexibility and spontaneity.

Children can be encouraged to develop playful orientations to learning (playing with ideas, rules, relationships, materials) within and beyond the subject disciplines.There are three levels that can be used to understand the relationships between play, learning and development. First, at a broad level, play is seen as contributing to the holistic development of the child, including the three domains of development-cognitive, affective and psycho-motor. Macintyre (2001) describes how play-based activities contribute to children's learning in each of these domains, and integrate learning across the domains. She provides skills-based observational checklists and a developmental record to enable practitioners to track children's learning and identifies areas of difficulty.

2.1.2. Using Computers to Support Curriculum and Pedagogy

Computers are increasingly a part of preschoolers' lives. Toward the end of the 1980s, only a fourth of licensed preschools had computers. The vast majority now have one or more computers. Unfortunately, computer access is not

equitable across society. Children attending poor and high-minority schools have less access to most types of technology (Coley *et al*., 1997). Younger and older preschoolers do not differ substantially in the way they use computers (Beeson and Williams, 1985; Essa, 1987), although 3-year-olds take longer to acclimate to the key-board than 5-year-olds (Sivin *et al*., 1985). Those that are most interested in using computers do exhibit higher levels of cognitive maturity (e.g., vocabulary development, more organized and abstract forms of free play). They do not differ from less interested peers in creativity, estimates of social maturity, or social-cognitive ability (Hoover and Austin, 1986; Johnson, 1985).

Today's children are born in the age of the Information and Communications Technology (ICT) and thus, to connect with these kids, teachers must learn to speak their language and become conversant with the technology that comes so naturally to the young. According to Keengwe and Onchwari (2009), integrating technology means tapping into students' interests and strengthening their technical skills, all while providing all-round learning opportunities (Keengwe and Onchwari, 2009). Furthermore, it refers to the different ways that technology tools can be used to support learners as they construct their own knowledge through completion of creative activities that enhance meaningful learning (Henniger, 2012). The integration of educational technology into ECE classroom instruction to enhance children's learning is of increasing interest to stakeholders such as policymakers, administrators, educators, students, and parents (Keengwe, 2007). Over the past decade, educators have been under pressure to reform ECE schooling through technology. About 90% of all children today especially in developed countries have used a computer (DeBell, 2005).

There is evidence to substantiate the positive effects of technology use on cognitive and social learning and development of children. In three different studies, children demonstrated increased levels of spoken communication and cooperation during computer use (Haugland, 2000, Henniger, 2012, Maynard, 2010). Additionally, children shared leadership roles on the computer, and initiated interactions more frequently. In face of these values, today's ECE classroom teachers must be prepared to provide technology-supported learning opportunities for their students …being prepared to use technology and knowing how that technology can support student learning must be integral skills in every teacher's professional repertoire.

The basic educational approach is finding the mathematics in, and developing mathematics from, children's activity to help them extend and mathematize their everyday activities. Computers help even young children think about thinking, as early proponents suggested (Papert, 1980). In one study, preschoolers who used computers scored higher on measures of metacognition (Fletcher-Flinn and Suddendorf, 1996). They were more able to keep in mind a number of different mental states simultaneously and had more sophisticated theories of mind than those who did not use computers. In summary, across several subject matter areas, computers can positively affect how children learn and think, as well as their metacognitive skills. When selecting and using software, teachers should remember that while drill-and-practice software can increase basic skills and knowledge, other approaches prove more valuable in developing higher-level concepts and thinking skills.

2.1.3. Class Wide Peer Tutoring (CWPT)

Class Wide Peer Tutoring (CWPT) is a time tested, research proven, effective program that enhances the acquisition of academic skills. The traditional CWPT program is a systematic and fun instructional strategy that actively engages an entire classroom of students at the same time. CWPT is a comprehensive procedure that is based on reciprocal peer tutoring and group reinforcement to accelerate the process of learning and practicing basic academic skills. The CWPT program can help all students by doubling and in some cases tripling the amount of time students are involved with and can directly practice the learning task that is being taught. CWPT has been proven effective and is commonly listed as one of the "best practices" in education.

Class Wide Peer Tutoring (CWPT) is an instructional strategy designed to effectively teach specific information to young children with a variety of skill levels. It was first developed at the Juniper Gardens Children's Project (JGCP) in Kansas City, by collaborations of researchers and teachers who were seeking to find a successful instructional method for integrating children with special needs into general education settings. In CWPT, children work together to learn a specific set of information (Mitchell, 2014). Class Wide Peer Tutoring uses a combination of instructional components that include partner pairing, systematic content coverage, immediate error correction, frequent testing, team competition and point earning (Ali, Anwer, *et al.,* 2015).

Every child in the classroom is involved in the learning process with CWPT, which allows them to practice basic skills in a systematic and fun way (Kamps, Greenwood, *et al.,* 2008). CWPT is conducted in a way that encourages positive student interaction by using partner pairing and peer tutoring. In CWPT, children are taught by peers who are trained to present a weekly set of information where they can provide immediate feedback for correct and incorrect responses. Daily lessons allow each partner to take the role of both the tutor and the tutee (Maheady and Gard, 2010). CWPT uses immediate-response feedback, error correction, and a specific tutoring technique that benefits both the tutor and tutee. When structured correctly, CWPT allows teachers to actively engage all students in the classroom, while simultaneously monitoring process through daily and/or weekly assessments (Greenwood, Arreaga-Mayer, *et al.,* 2001). CWPT has been proven effective with students from ECE to high school levels, and has been used in both general and special education classroom settings. CWPT has also been used to teach health and safety information to children and also in improving academic, linguistic, and social competence of learners (Maheady and Gard, 2010). Studies on the effectiveness of CWPT have demonstrated an increase in reading skills, social skills, spelling and vocabulary skills on students in ECE centers in developed countries (Maheady, Mallette, *et al.,* 2006).

Implementing an effective health education program may be accomplished through incorporating and adapting classwide peer tutoring (CWPT) procedures (Delquadri, Greenwood, Stretton, & Hail, 1983; Greenwood & Delquadri, 1995). CWPT is a highly structured instructional procedure that incorporates high levels of practice within the content to be taught. As a teaching strategy, CWPT has proven to be effective for increasing academic achievement and improving the dassroom behaviors of students with disabilities across a variety of subjects (e.g., spelling, math, social studies, and reading) and grade levels (Kamps, Barbetta, Leonard, & Deiquadri, 1994; Otis-Wilborn, 1984; Sideridis, 1995; Utley, Mortweet, & Greenwood, 1997).

2.1.4. Scaffolding as a Teaching Strategy

The support provided to a child to go just beyond current capability into "the zone of proximal development" (Vygotsky, 1962) is referred to as *scaffolding:* an image that suggests a support to help one work where one could not reach if unsupported. The adult provides just enough but not too much support, matching the amount of support to the skill level the child displays, providing more support if the child falters and decreasing support just enough to challenge the child to move ahead. Ideally, teachers structure content learning so that experiences are within the children's current range of competence yet challenging to further development.

Peers are important to learning that involves such activities as projects, block building, cooperative learning, and any activity that requires the joint involvement of children. Children's performance on a number of cognitive tasks has been found to improve as a result of social interaction with more advanced peers (Murray, 1982; Perret-Clermont *et al*., 1991; Roazzi and Bryant, 1998). Roazzi and Bryant (1998) examined children's performance on a simple, inferential task (about numbers) and found that children who had interacted with more competent peers improved in task performance when posttested 3 days after the interaction and then again 3 weeks later. They also found that children who interacted with peers at their same level of competence did not improve in performance.

Scaffolding as a teaching technique need not imply a particular pedagogical approach; indeed, it can encompass multiple approaches. Teachers might simply invite children to engage in a learning activity when they have an initial high level of competence (Wood *et al*., 1978) and might provide direct instruction when a child is less competent in regard to the new learning. The teaching method employed may change as a child learns a particular skill or concept. Below we elaborate on two types of teaching behavior, child-initiated instruction and teacher-initiated, direct instruction. Most examples of research selected to explain these approaches focus on language development; however, the teaching strategies presented are applicable to other content areas, such as social skills development, emergent reading and writing, and mathematics and science.

2.1.5. Cooperative Learning Structures

Cooperative Learning, sometimes called small-group learning, is an instructional strategy in which small groups of students work together on a common task. The task can be as simple as solving a multi-step math problem together, or as complex as developing a design for a new kind of school. In some cases, each group member is individually accountable for part of the task; in other cases, group members work together without formal role assignments. Cooperative learning is a technique that allows students to learn from each other and gain important interpersonal skills. Cooperative learning is an organized and structured way to use small groups to enhance student learning and interdependence. Students are given a task, better known as an assignment, and they work together to accomplish this task. Each individual has responsibilities and is held accountable for aiding in the completion of the assignment; therefore, success is dependent on the work of everyone in the group. In addition to learning from each other, students also learn how to work as part of a team and have others depend on them.

Teacher-centered instruction has had its day. Effective teachers are increasingly using a student-centered approach. Trawick-Smith (2013) explains that cooperative learning sparks engagement in classrooms by encouraging interaction among the students themselves. The teacher, rather than calling on one student at a time, allows children to discuss class materials with buddies or in groups, thus maximizing the level of participation. The students work just as hard as the teachers. No longer has a one-man show, the teacher's role becomes that of a facilitator instead. This, in turn, leads to higher achievement, while promoting both team and class building. Among the many cooperative learning instructional approaches, only two are recommended for early childhood education.

Many of the structures can fulfill a number of aims simultaneously, depending on how the teacher uses them. Structures can be mixed and matched, and adapted to the particular student group. Some of these strategies include; timed pair share, folded value line, corners, team statements; blackboard share, draw a gambit, paraphrase passport; rally robin and many other structures can be found in Kagan and Kagan (1994) and Sharan (1994). Laura Candler also developed Cooperative Learning Resources featuring a variety of activity sheets and black line masters for teachers, useful for accountability during cooperative learning. Some of these strategies include; team interview, mix-freeze-pair, think-pair-share, showdown, line ups, teammates consult, jigsaw and mix-n-match (Candler and Kagan, 1995).

2.1.6. Differentiated Instruction (DI)

Differentiated instruction is an approach that enables instructors to plan strategically to meet the needs of every learner. The approach encompasses planning and delivery of instruction, classroom management techniques, and expectations of learners' performance that take into consideration the diversity and varied levels of readiness, interests, and learning profiles of learners. Differentiated instruction is an approach that enables instructors to plan strategically to meet the needs of every learner. It is rooted in the belief that there is variability among any group of learners and that instructors should adjust instruction accordingly (Tomlinson, 1999, 2001, 2003). The approach encompasses the planning and delivery of instruction, classroom management techniques, and expectations of learners' performance that take into consideration the diversity and varied levels of readiness, interests, and learning profiles of the learners.

Differentiation is a way of teaching; it's not a program or package of worksheets. It asks teachers to know their students well so they can provide each one with experiences and tasks that will improve learning. As Carol Ann Tomlinson has said, differentiation means giving students multiple options for taking in information (1999). Differentiating instruction means that you observe and understand the differences and similarities among students and use this information to plan instruction. Differentiation is a student-centered instructional approach where teachers study and assess their students' learning needs and adapt instruction accordingly. Individualized instruction means meeting the needs of individual learners as they move along their learning journey. This does not mean a 'one-to-one' teacher/student ratio, but rather a way of viewing each student as a unique human being with distinct and specific learning needs. Through differentiation, teachers are able to attend to individual students' differences in readiness, interest, and their overall learning profile, which results in the ability to connect more effectively with each student.

Differentiated instruction is a philosophy of teaching and learning that recognizes and responds to student differences in readiness, interests, and learner profiles (Gettinger and Stoiber, 2012). Teachers who practice differentiated instruction plan, teach, and arrange the classroom environment to accommodate each child's unique needs and interests. Teachers who successfully differentiate instruction are sensitive to the developmental differences among children (Tomlinson, 2013); they regularly monitor student progress in order to modify instruction and meet each student's needs.

There are three main learning styles under differentiated instruction: visual, auditory and kinesthetic (Gregory and Chapman, 2012). Cognitive Learning Styles of Children describe the individual characteristics of these learners as well as the types of activities in which they best thrive, with the caveat that it is only learning styles being described, to be distinguished from cognitive styles (holistic, analytic, field-dependent, etc.). Teachers can also differentiate by matching assignments to readiness levels, offering appropriate intervention or extension activities as required (Heacox, 2012).

Allowing children to select activities based on areas of interest is another great way to differentiate. Offering choices is an excellent motivator for kids. Small-group work is one of the most effective ways to meet the needs of diverse learners in large class settings. Differentiation Central offers insightful information, as well as a short video of educator, author and speaker Carol Ann Tomlinson sharing her experiences and views about classroom differentiation. The cornerstone of differentiated instruction and effective teaching is the use of valid and reliable assessments (Tomlinson and McTighe, 2006). Assessment data inform teachers about what students know and what they need to learn. This knowledge allows teachers to understand the variability within their classrooms and to plan targeted instruction for various groups. In addition to using assessment instruments, teachers should assess students informally through observations and monitoring of day-to-day teaching and individual activities of the classroom (Heacox, 2012). Teachers who assess their students regularly are readily able to alter instruction and vary grouping patterns to meet children's changing needs.

2.1.7. Goal Setting

Involving children in the goal-setting process is an excellent way to encourage them to take ownership of their learning (Rodd, 2012). In the early stages, goal setting needs to be done in a very clear and simplistic way – for example, frequent two-way conversations with children about their progress in specific areas. Teachers can further facilitate goal setting through the use of organizers, anchor charts and similar aids (Henniger, 2012). Free Printable Behavior Charts provides models of personal charts for early learners. Teaching and Tapas shares a class's goal charts geared specifically towards reading and writing. For instance, K-5 Math Teaching Resources shows a selection of goal charts for math instruction (Van de Walle, Karp, *et al.,* 2007). In general, helping children reach their goals calls for teachers to provide specific, frequent feedback as well as ample time for self-reflection.

2.1.8. Cross-Curriculum Teaching

The world beyond the classroom is cross-curricular. Cross-curricular teaching and learning has a long history. Plato referred to the importance of linking emotional, practical and intellectual skills, combining music and movement, drama and literature, philosophy and politics. The educational luminaries of the Enlightenment, like Comenius, Rousseau, Froebel, Pestalozzi, each in their way championed cross-curricular approaches. These ideas were developed in the late nineteenth and twentieth centuries by progressives like Steiner, Dewey, Montessori and Isaacs. Like Hadow (1931), Plowden (1967) and the Education Reform Act of 1988 before them, the latest primary education reports recognise that the combined skills and disciplines of a number of subjects are used in solving real-life problems. Today many teachers continue to see cross-

curricular approaches as motivating, enjoyable and capable of building relevance and meaning into a curriculum sometimes seen as narrowed (NFER 2011; Robinson and Aronica 2010; Wrigley *et al*. 2012).

Educationalists have begun to recognize the mass of connections children make to life beyond curriculum and classroom (Austin 2007, Barnes 2015; Fumoto *et al*. 2012; Scoffham 2013; Wrigley *et al*., 2012; Wyse and Dowson 2009). We are reminded of the often-overriding significance of the inner priorities of children in their attitude to learning (for example Abbs 2003; Hicks 2006). Others ask us to listen to 'pupil voice' (Cheminais 2008, Desailly 2012; Ruddock and McIntyre 2007) or consider education's role in the intellectual, social and psychological health of young people (Clift and Camic 2015; DH 2005; UNICEF 2007; WHO 2008). Despite the unsurprising nature of the above preoccupations, few features centrally in the curricula of our schools. Indeed, in the new national curriculum (DfE 2013) 'issues' like sustainability, global warming, and poverty are omitted from the primary curriculum.

Abbs (2003) reminds us learning cannot be conferred on the child, it has to be accepted by them. Learning has to be made an existential experience; it has to have personal meaning to be deeply rooted. Meaningful or 'powerful' experiences are possible in and out of the classroom and are significant starting points for learning, as are opportunities to put learning into practice (Perkins 2010). Cross-curricular learning recognises these multiple viewpoints and seeks to build more knowledgeable, lasting and transferable understandings of the world around us.Cross-curricular learning promotes authenticity in teaching and learning. Using the powerful personal experiences described, teacher and class can quickly enter the world of 'real world learning' (Lucas *et al*. 2013). Authentic learning experiences involve adult and child learners together. Full teacher participation in the learning process does more than motivate children. Through the mirror neurons the quizzical looks on teachers' faces provoke deeper enquiry in children as they mirror their teachers' curiosity. The process of learning alongside children also generates high degrees of sustained job satisfaction and increased awareness of personal creativity (Barnes 2013a; Barnes and Shirley 2007; Cremin *et al*. 2009).

A pedagogy and teacher development programme that works towards genuine co-learning contributes significantly to the resilience of teachers and their capacity to give more to their roles (Barnes 2013b). Effective pedagogy demands teachers who see themselves as flourishing people. Successful cross-curricular activities need enthusiasm and commitment on the part of the teacher. Teachers might start by considering how they may become enthusiastic learners in their own right. They may share staff development that frequently exposes them to real, relevant, positive and life-changing experiences themselves. Staff who share creative and cultural experiences and who feel they are developing their own creativity are more capable of sustaining a fulfilling life in education (Barnes 2013b). As a result of meaningful professional development, teachers may be better able to plan a series of powerful experiences to span the year for each class, and those experiences must also be potentially life-changing.

The 'teaching for understanding' approach is founded upon providing plentiful opportunities for children to put their learning into practice in authentic situations. In asking children to apply their new knowledge and skills to real and engaging challenges the successful pedagogue helps ensure the existential, meaningful and satisfying conditions required for deep learning. In planning both feedback and a yardstick for progression the teacher uses their experience and knowledge to make assessment part of a pleasurable and enriching learning journey. The teacher will teach the required skills or knowledge and then give children a chance (independently or in groups) to use their new learning to solve a problem, create a product, presentation, collection, exhibition, performance or composition. This is both an assessment opportunity for teachers and children and a chance to understand the usefulness of the new learning.

2.1.9. Assessment for Learning

Implementation of curricula, lesson planning, interactions and instruction are informed by on-going assessment of children's progress towards early learning and development standards and kindergarten readiness goals. Professional development and continuous improvement of instructional practice occurs through embedded routines of peer-to-peer technical assistance that incorporates discussion of data (children's progress, learning environments, and teacher-child interactions), examination of practice, and collaboration to improve teaching and learning (Early Childhood Technical Assistance Center (ECTAC), 2000). Assessment for learning and development refers to the formative assessment that takes place in order for decisions to be made to inform the next learning stage (Earl, 2003). The formative assessment process the early childhood teachers gather evidence of children' learning based on; what they write, draw, make, say and do. It will further show the child's strength, abilities and interests. Early childhood professionals then use this information to design effective programs for children that are responsive and evidence based (Hattie, 2009). Moreover, assessment is not a one-way process whereby children learn and early childhood professionals assess, but is a dynamic process through which professionals and children learn, analyze and adapt (Kosulin & Falik, 1995).

Gulbe (2005) posits that children learn and demonstrate their learning in many ways, therefore they should be observed using a variety of tools and approaches in a variety of contexts. Sattler (1998) argues that assessment for learning and development needs to take place continually in more than one activity or sitting in order to generate a more accurate picture of each child's abilities. Tullo (2003), advocates for continual and holistic assessment which allows early childhood professionals to explore and assess the many aspects of children's learning and development in different context, environments, and relationships across all outcome areas. This should be documented regularly and inferences from the data collected from a range of settings using a range of assessment tools. Hence assessment should be dynamic and ongoing.

*2.2. Theoretical Framework*

The study was underpinned by Albert Bandura's Social Learning Theory (SLT). This theory came into existence in the 1960s and it was later developed into the Social Cognitive Theory (SCT) in 1986. The SCT posits that learning occurs in a social context with a dynamic and reciprocal interaction of the person, environment, and behaviour. Social-learning theory (Rotter, 1954) postulates that, "the theory is social in nature because it stresses the fact that the major basic modes of behaving are learned in social situations and are inextricably fused with needs requiring for their satisfaction the mediation of other person" (p. 84). It is through these theoretical frame works; affective knowledge can well be practiced by appreciating oneself values while adapting and accommodating different views of others.

Kabiru and Njenga (2009) points out that, children learn in their environment as they interact and observe those living in that same environment (Kabiru and Njenga, 2009). The unique feature of SCT is the emphasis on social influence and its emphasis on external and internal social reinforcement. The SCT considers the unique way in which individuals acquire and maintain behaviour, while also considering the social environment in which individuals perform the behaviour. The theory takes into account a person's past experiences, which factor into whether behavioral action will occur. These past experiences influences reinforcements, expectations, and expectancies, all of which shape whether a person will engage in a specific behaviour and the reasons why a person engages in that behaviour.

The goal of SCT is to explain how people regulate their behaviour through control and reinforcement to achieve goal-directed behaviour that can be maintained over time. With the implementation of external and internal factors, people regulate their behaviour from a combination of both cognitive processes and environmental manipulation. The theory presents four factors that affect observation learning and these are: attention, retention, production and motivation. If past reinforcements have led someone to pay attention to a model, then future reinforcements would selectively engage in a behaviour that was observed and finally repeat it over and over.

The Social Cognitive Theory is particularly relevant to this study because if learners are presented with any social environment, which in this study is friendly learning environment, they would analyze it then model by paying attention to those aspects that provide the friendliness. When the school, which forms the learning environment is safe, caters for all categories of learners, is gender-responsive, is health providing and has a community that supports its activities, the learners will deem it conducive for their learning. These aspects make the children motivated and are therefore likely to develop affection for the school and all other service providers in school leading to better retention. This in turn leads to the achievement of the third millennium goal which is advocating for Education for All.

Jean Piaget's (1973) theory of learning shows that knowledge is a construct of interaction between heredity and interaction. According to Piaget, a child's thinking develops in a particular sequence, thus, learning is an active process. As the child develops and constantly interacts with the world around him or her, knowledge is invented and re-invented. This means that a learner should be allowed to do his or her own learning. In this theory an emphasis is put on three dimensions namely; social participation, authentic tasks in which learning is embedded and tools to support learning. Students come to a learning situation with a variety of knowledge that exists within the student and is developed as individuals interact with their peers, teachers, and the environment.

**3. Research Methodology**

In order to meet the aims and objectives of the study, a descriptive research design was adopted. Descriptive study can provide information about the naturally occurring status, behavior, attitudes and/or other characteristics of a particular group. In this design, the characteristics used to describe the situations or populations in a study are usually some kind of categorical scheme also known as descriptive categories. In this study, the descriptive research design was opted for since the researcher seeks to determine the status of instructional strategies, assessment approaches and teaching/learning resources in public early childhood education centers in Uasin Gishu County in Kenya.

Research paradigm is a combination of two ideas that are related to the nature of world and the function of researcher. It helps researcher to conduct the study in an effective manner (Johnson and Christensen, 2008). The methodology of this research shares its philosophical foundation with the positivist philosophical paradigm. The positivist paradigm arose from the philosophy identified as logical positivism and is based on rigid rules of logic and measurement, truth, absolute principles and prediction (Ponterotto, 2005). The positivist philosophy argues that there is one objective reality. Therefore, as a consequence, valid research is demonstrated only by the degree of proof that can be corresponded to the phenomena that study results stand for (Krauss, 2005). In this study, such rigid qualities of a good early childhood education program lend themselves more to the quality academic aspects such as availability of sufficient teaching and learning resources, application of effective instructional strategies, competent trainers and use of effective teaching and learning resources as incorporated into this study.

The research was conducted in Uasin Gishu County. This county is one of the 47 counties of Kenya, located in the former Rift Valley Province. The city of Eldoret (capital and largest town in the county) is the county's administrative and commercial centre. It is a cosmopolitan county, covering an area of 3345.2 square kilometers. Uasin Gishu County has three main regions namely Eldoret North, Eldoret South and Eldoret East, which are further subdivided into six constituencies - Soy, Turbo, Kapseret, Kesses Ainabkoi and Moiben. Uasin Gishu County is home to 894,179 people as per the 2009 National Statistics, representing 50% male and 50% female. It is largely a cosmopolitan region, with the Nandi people of indigenous

Kalenjin communities having the highest settlement. Uasin Gishu County boasts of over 775 early childhood centers, 770 primary schools, 158 secondary schools and about 15 tertiary institutions.

The target populations for this study were all the head teachers and teachers in all the public ECDE centers in Uasin Gishu County. The county has 775 public ECDE centers with 775 head teachers and 2330 teachers who were form the target population of this study. The children in the ECDE centers were not included in the study population because they can't provide information about the teaching strategies used in the centers including different classroom assessment strategies. A sample is part of the target population that has been procedurally selected to represent it (Desu, 2012). Out of the 2330 ECDE teacher in the 775 public ECDE centers in Uasin Gishu County, the researcher used Krejcie and Morgan (1970) standard sample determination formula to determine the sample size as follows:

n= N1+N(e)2

Where n is the sample size, N is the population size, and e is the level of precision. Thus, using this formula, the sample size will be determined as follows:

n= 23301+2330 (0.05)2

n= 23306.825

n=341

Thus, from a target population of 2330 ECDE teachers, using the Krejcie and Morgan (1970) standard formula, the sample size at confidence level of 95% were 341 teachers. Out of all the 775 public ECDE centers in Uasin Gishu County, the study sampled 20 centers from each of the six administrative divisions. Thus, the total number of centers to be involved in the study was 120.

Sampling is the process by which researchers select a proportion of the target population, to represent the entire unit (Polit and Beck, 2013). The study utilized a five-step procedure for drawing a sample (Churchill and Lacobucci, 2002). This study adopted a stratified sampling technique to select the 20 public ECDE centers from each of the six administrative divisions in Uasin Gishu County. To sample the ECDE teachers, the study used systematic random sampling technique to select 341 teachers out of all the teachers in the selected 120 ECDE centers. All the 120 head-teachers of the 120 selected ECDE centers were included in the study sample.

A research instrument is a tool used to collect data from the researcher's respondent (Matthews and Ross, 2014). It is designed to measure knowledge attitude, feelings and/or skills of interest in a research. The researcher used a mixed method approach to collect data from the respondents. In this case, data collection was done using a combination of questionnaires, interviews and checklists. Two set of questionnaires were designed; a questionnaire for the ECDE teachers and a questionnaire for the ECDE center head-teachers. The study used a structured checklist to record data on the availability of teaching and learning resources in the centers. The checklist amassed information on the status of the outdoor play environment.

Validity is the extent to which an instrument measures what it is supposed to measure and performs as it is designed to perform (Golafshani, 2003). Face validity basically checks that the questionnaire seems to measure the concept being tested (LoBiondo-Wood and Haber, 2014) and this was assessed by getting friends to test-run the instrument to see if the questions are relevant, clear and unambiguous (Rubin and Rubin, 2011). A content validity test checks that there are enough relevant questions covering all aspects being studied and that irrelevant questions are not asked. The test is based on judgment as no objective methods exist. A panel of experts was used to evaluate the content validity of questionnaire. For construct validity, the questionnaires conformed to the theoretical expectations which have been indicated in the theoretical framework.

Reliability of a questionnaire refers to its ability to yield the same data when it is re-administered under the same conditions but it is difficult to obtain a replication of data when you are dealing with people (Cirignotta, Mondini, *et al.,* 2002). To ascertain the reliability of the questionnaire, it was subjected to Cronbach's Alpha test. Krauss, (2005) asserts that a value of 0.7 and above is high enough to ascertain that the instrument is reliable enough and having a good internal consistency. During the study the Cronbach's Alpha coefficient was 0.744 and indicated the instrument was reliable. The questionnaires were pre-tested by administering it to 20 ECDE teachers in two ECDE centres in neighboring Nandi County. These centers were purposively selected for the study. The data collected were used to estimate the reliability of the instrument. Pilot test also enabled the researcher to curb some issues which may have arisen in the actual research. The pilot study was conducted in the same manner as the main study.

Before data collection, the researcher first sought permission from National Council of Science, Research and Innovation (NACOSTI). The researcher also pre-visited the 120-sampled early childhood education centers to seek permission for data collection from the school principals. The researcher gave the respondents sufficient time to accurately fill in the copies of the questionnaire the required information after which the documents were collected for data extraction and analysis. Principal's interviews were also conducted after they fill the questionnaire.

The data collected were coded and entered in a computer for analysis using the Statistical Package for Social Sciences (SPSS). In this case, frequency distribution and measures of central tendency including mean as well as measure of dispersion including percentages, range and standard deviation were used. Data was also presented using tables, pie charts and graphs. Qualitative data from the interviews were recorded and analyzed thematically through non-parametric analysis. The results were then being interpreted by attaching significance to the themes and the patterns observed. Alternative explanations were also considered by looking at the differences in responses recorded in data collection.

**4. Results**

It was prudent for this study to investigate instructional strategies used in ECDE in Uasin Gishu County. For effective teachers, assessment and instruction are inseparable. Cox (2015) contends that planning, teaching and assessing are interwoven together to create an experience by which the student finds success in learning the objectives set forth by the standards.

*4.1. Instructional Strategies Used by ECDE Teachers in Uasin Gishu County*

The ECD teachers were asked to identify the instructional strategies they used in ECDE teaching and the findings were varied as summarized in table 1. At least 65(19.1%) of the ECD teachers were using integrated technology strategy for learning. This agrees with Keengwe and Onchwari (2009), that integrating technology means tapping into students' interests and strengthening their technical skills, all while providing all-round learning opportunities. To connect with these kids, teachers must learn to speak their language and become conversant with the technology that comes so naturally to the young.

| | Frequency | Percent | Cumulative Percent |
|---|---|---|---|
| Integrated Technology (IT) | 65 | 19.1 | 19.1 |
| Cooperative Learning Structures | 70 | 20.5 | 39.6 |
| Differentiated Instruction | 39 | 11.4 | 51.0 |
| Play Activities | 105 | 30.8 | 81.8 |
| Goal Setting | 27 | 7.9 | 89.7 |
| Cross-curriculum teaching | 24 | 7.0 | 96.8 |
| Class wide peer tutorial | 5 | 1.5 | 98.2 |
| Assessment for Learning | 6 | 1.8 | 100.0 |
| Total | 341 | 100.0 | |

*Table 1: Instructional strategies used by ECDE teachers in Uasin Gishu County*

Integrating technology means tapping into students' interests and strengthening their technical skills, all while providing enriching learning opportunities. This concurs with Keengwe (2007) that the integration of educational technology into ECE classroom instruction to enhance children's learning is of increasing interest to stakeholders such as policymakers, administrators, educators, students, and parents. As with any new development, many teachers, eager to keep up with the latest fashion, simply go through the motions of integrating technology. However, if they are to succeed with it, they need more than the motions – they need a deep understanding of the tools available, as well as meaningful reflection about how to use them to enhance learning.

Also 70(20.5%) of the ECD teachers used cooperative learning structures in their classrooms. This agrees with Trawick-Smith (2013) that cooperative learning sparks engagement in classrooms by encouraging interaction among the students themselves. The teacher, rather than calling on one student at a time, allows children to discuss class materials with buddies or in groups, thus maximizing the level of participation. The students work just as hard as the teachers. No longer is teaching a one-man show, the teacher's role becomes that of a facilitator instead. This, in turn, leads to higher achievement, while promoting both team and class building. This concurs with Laura Candler (1995) that a variety of activity sheets and black line masters for teachers, useful for accountability during cooperative learning.

From the study, 39(11.4%) of the ECD teachers utilized differentiated instruction in their classroom. This indicated that the teachers can tailor learning experiences to differentiate among the individual needs of students in the classroom. This agrees with Heacox, (2012) that teachers can also differentiate by matching assignments to readiness levels, offering appropriate intervention or extension activities as required. Allowing children to select activities based on areas of interest is another great way to differentiate. Offering choices is an excellent motivator for kids. Small-group work was one of the most effective ways to meet the needs of diverse learners in large class settings. This agrees with Heacox (2012) that using assessment instruments, teachers should assess students informally through observations and monitoring of day-to-day teaching and individual activities of the classroom.

During the study 105 (30.8%) of the ECD teachers incorporated play activities in their instruction. Through this type of self-exploratory play, objects and materials become real world manipulatives where they can develop their own sense of the world and their learning styles. The individual areas children can choose from allow them to converse, pretend, and explore their physical environment which benefits all areas of literacy instruction (Beaty, 2009). This teaching strategy is called free play which sparks curiosity, allowing children to practice not only fine and gross motor skills, but also oral language, and even achieve mastery in many areas.

Educators often express concern that children's play is sometimes repetitive but a closer examination may reveal subtle changes in play themes and patterns as children revise and extend what has previously been played at and played with. This agrees with Drifte, (2002) & Macintyre, (2001) that play is repetitive and stereotypical, the practitioner needs to find ways of stimulating new interests and ideas. Such interventions may be especially important for children with special educational needs who have the same rights to an appropriate curriculum that helps them to learn through well-planned play.

From the findings 27(7.9%) ECD teachers employed goal setting as their instruction strategy. This agrees with Rodd, (2012) that teachers were involving children in the goal-setting process as an excellent way to encourage them to take ownership of their learning. This agrees with Henniger, (2012) that teachers can further facilitate goal setting through the use of organizers, anchor charts and similar aids. The goal setting was done in a very clear and simplistic way using two-way conversations with children about their progress in specific areas. Teachers facilitate goal setting through the use of organizers, anchor charts and similar aids.

From the study 24(7%) used cross-curriculum teaching as their instruction strategy. The teaching multiple subjects simultaneously can help students go much deeper in learning concepts and skills. This agrees with Kelly, (2013) that Cross-curricular instructional strategy integrates content and skills from multiple content areas into one cohesive learning experience. Naturally, this approach asks more from the teacher. It can be easy to blend math, science, or social studies content with reading or writing. However, it is more challenging to combine all the subjects at once. The teachers don't simply tell students what they should know, but instead they engage children in exploring and uncovering the information in a more meaningful way in which all the subjects come into play together. This agrees with Wang, Kinzie, *et al.,* (2010) that educators play an active role throughout the process by establishing a culture where ideas are respectfully challenged, tested, redefined and viewed as improvable, moving children from a position of wondering to a position of enacted understanding and further questioning.

From the study 5(1.5%) engaged in class-wide peer tutoring as their instruction strategy. Class wide Peer Tutoring is a teaching strategy in which the class as a whole is divided into pairs, or small groups no larger than five. This agrees with Mitchell, (2014) that CWPT enabled children work together to learn a specific set of information. The tutoring happens during regular class time, and is led by the students. The groups should include students with different ability levels. Each student should have the opportunity to be both the tutor. The teachers are in charge of what information is being reviewed in the groups. This agrees with Maheady and Gard, (2010) that children are taught by peers who are trained to present a weekly set of information where they can provide immediate feedback for correct and incorrect responses. During the tutoring, a peer explains the work, asks the questions, and provides the feedback to the peer(s) while the teacher monitors the class. This strategy is for reviewing materials or practicing a skill. It should not be used for introducing new content.

From the study at least 6(1.8%) of the teachers used assessment instruction strategy matching student's needs. The low percentage of teachers using summative assessments was attributed to the fact that the teaching strategy don't always give a clear picture of what a student knows. This agrees with Glazzard *et al.,* (2010) that effective assessment involves children having the time to express their opinions of what is recorded about their learning. Teachers may monitor how the children are learning as they teach, using observations, questioning strategies, class discussions, exit tickets, learning logs, peer assessments, self-assessments, and slate work, among other methods. This concurs with Gulbe (2005) that children learn and demonstrate their learning in many ways, therefore they should be observed using a variety of tools and approaches in a variety of contexts. Teachers can gauge the progress of individuals, groups, or the whole class and they can adjust the process by supporting or challenging students as needed. This agrees with Tullo (2003), who advocates for continual and holistic assessment which allows early childhood professionals to explore many aspects of children's learning and development in different context, environments, and relationships across all outcome areas.

Implementing developmentally appropriate practices into classroom literacy instruction means meeting the students at the developmental stage they are currently and enabling them to reach goals that are set for them. Developmentally appropriate practices reduce learning gaps, increases achievement for all children, and allows students to share and engage in the learning process while they solve their own problems as they learn new information (Compple & Bredekamp, 2009). Developmentally appropriate practices are proven in research to help children succeed.

*4.2. Alternative Assessment Forms*

The ECD teachers were requested to establish if they have other alternative assessment forms and 284(83%) responded in the affirmative and only 57(17%) reported being unaware of instructional strategies as shown in Figure 1.

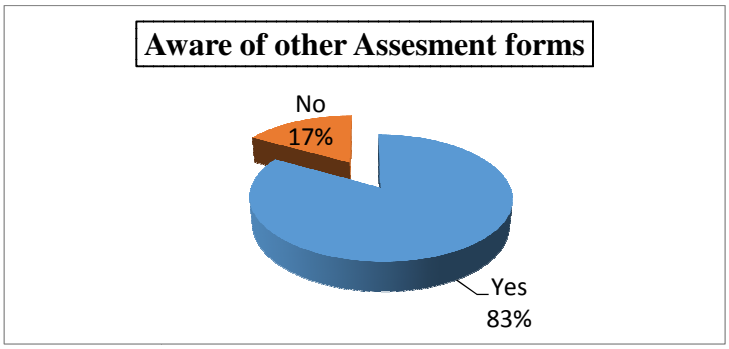


*Figure 1: Alternative Assessment Forms*

Every day, teachers encounter problems, obstacles, and constructs that hinder them from incorporating teaching strategies into the classroom setting (Goldstein, 2008). Administrative support and allowing teachers to not only teach mandates, but allow them to teach the way they know is best for young children through the use of developmentally appropriate practices and teaching strategies allows teachers to teach children and differentiate instruction to best fit each child. It will also allow teachers to communicate their thoughts and needs about what types of professional development would benefit their classroom practices and students. Aspiring teacher candidates, administrators, and teachers will all benefit from this study by administrators better understanding how they can be supportive, teachers can share, and support one another through obstacles they are facing, and teacher candidates will better understand what they will face as they enter the teaching profession.

It's no secret that the face of education has changed dramatically over the past ten years or so. Teachers across the country are working hard to equip children with the skills needed for success in the 21st century world. In addition to instilling in students the flexibility to readily adapt to changing technologies, teachers must foster learning environments that encourage critical thinking, creativity, problem-solving, communication, collaboration, global awareness, and social responsibility.

**5. Conclusion**

ECD teachers were using integrated technology strategy, cooperative learning structures in their classrooms, differentiated instruction in their classroom and incorporated play activities in their instruction. ECD teachers employed goal setting, cross-curriculum teaching and class-wide peer tutoring and assessment instruction as their instruction strategy. The using of developmentally appropriate practices reduces learning gaps, increases achievement for all children, and allows students to share and engage in the learning process.

In addition to instilling in students the flexibility to readily adapt to changing technologies, teachers must foster learning environments that encourage critical thinking, creativity, problem-solving, communication, collaboration, global awareness, and social responsibility. For these reasons, instructional strategies (integrated technology, cooperative learning structures, differentiated instruction, play activities, goal setting, cross-curriculum teaching, class wide peer tutorial, assessment for learning) play a critical role in facilitating the learning process.

**6. Recommendation**

- Continuous training and constant evaluation of ECDE teachers in Uasin Gishu County with a special focus on instructional strategies and encapsulation of the three domains of learning in all the ECDE centres.
- County education office should step up their oversight on early childhood education. This will ensure the students are enlightened through exposure to the right instructional strategies, and that three main domains of learning are assessed appropriately.
- There was disharmony between knowledge of and use of instructional strategies since most of the teachers reported being aware of classroom instructional strategies, yet only a fraction of them utilized such strategies in their teaching process. Greater scrutiny of the instructional process by the preschool administrators and regulatory agencies to ensure that all preschoolers are exposed to variety instructional strategies so as to accommodate the learning differences among children.

**7. References**


i. Abbs, P. (2003). *Against the Flow.* London: Routledge.
ii. Ali, N., M. Anwer and J. Abbas. (2015). Impact of Peer Tutoring on Learning of Students. *Journal for Studies in Management and Planning*, 1(3): 61-66.
iii. Austin, G.R. (2013). *Early childhood education: An international perspective*. Academic Press.
iv. Austin, R. (2007) Letting the Outside In. Stoke-on-Trent: Trentham Books.
v. Barnes J. and Shirley, I. (2007) 'Strangely familiar: cross curricular and creative thinking in teacher education', *Improving Schools*, 10 (2): 162–79.
vi. Barnes, J. (2013a) 'What sustains a fulfilling life in education?', *Journal of Education and Training Studies,* 1 (2): 74–88.
vii. Barnes, J. (2013b) 'What Sustains a Life in Education?' Unpublished PhD thesis, Canterbury Christ Church University.
viii. Barnes, J. (2015). *Cross-Curricular Learning* 3–14, 3rd edn. London: Sage.
ix. Beeson, B.S., and R.A. Williams 1985 The effects of gender and age on preschool children's choice of the computer as a child-selected activity. *Journal of the American Society for Information Science* 36:339–341.
x. Bodrova, E., and D.J. Leong (1996) *Tools of the Mind: The Vygotskian Approach to Early Childhood Education.* Columbus, OH: Merrill.
xi. Cheminais, R. (2008) Engaging Pupil Voice to Ensure That Every Child Matters: A Practical Guide. London: Fulton
xii. Cheserek, G.J. and V.K. Mugalavai. (2012). Challenges and reforms facing Kenyan education system in the 21st century: integrating the principles of vision 2030 and Constitution 2010. *Journal of Emerging Trends in Educational Research and Policy Studies*, 3(4): 471-478.

xiii. Churchill, G.A. and D. Lacobucci. (2002). *Marketing research 8th ed. Florida*: Harcourt College Publishers.

xiv. Cirignotta, F., S. Mondini, A. Santoro, G. Ferrari, R. Gerardi and G. Buzzi. (2002). Reliability of a questionnaire screening restless legs syndrome in patients on chronic dialysis. *American Journal of Kidney Diseases*, 40(2): 302-306.

xv. Clift, S. and Camic, P. (2015) (Eds) Oxford Textbook of Creative Arts health and wellbeing; *International perspectives in practice, policy and research*, Oxford: Oxford University Press.

xvi. Coley, R.J., J. Cradler, and P.K. Engel 1997 *Computers and Classrooms: The Status of Technology in U.S. Schools.* Princeton, NJ: Educational Testing Service.

*xvii.* Copple, C, I. Sigel, and R. Saunders(1979).*Educating the Young Thinker: Classroom Strategies for Cognitive Growth.* New York: Van Nostrand

xviii. Cremin, T., Barnes, J. and Scoffham, S. (2009) Creative Teaching for Tomorrow. Deal: Future Creative.

xix. DeBell, M. (2005). Rates of Computer and Internet Use by Children in Nursery School and Students in Kindergarten through Twelfth Grade: 2003. Issue Brief. NCES 2005-111. *National Center for Education Statistics*.

xx. Delquadri, J., Greenwood, C. R., Stretton, K., & Hall, R. V. (1983). The peer tutoring game: A classroom procedure for increasing opportunity to respond and spelling performance. Education and Treatment of Children. 6, 225-239.

xxi. Desailly, J. (2012). *Creativity in the Primary Classroom*. London: Sage.

xxii. Dewey, J. (1976). The child and the curriculum. Pp. 273–291 in *John Dewey: The Middle Works, 1899–1924. Volume 2:1902–1903,* J.A. Boydston, ed. Carnbondale, IL: Southern Illinois University Press.

xxiii. DfE (Department for Education) (2013). *The National Curriculum in England:* Primary Curriculum. London: DfE.

xxiv. DH (Department of Health) (2005). *The Healthy Schools Standard Guide for Schools.* London: Crown.

xxv. Drifte, C. (2002) *Early Learning Goals for Children with Special Educational Needs:* Learning Through Play, London, David Fulton.

xxvi. ECTAC (2012). Early Literacy Report. The Early Childhood Technical Assistance Center, Department of education, *University of Carolina, North Carolina, USA*.

xxvii. Essa, E.L. (1987). The effect of a computer on preschool children's activities. *Early Childhood Research Quarterly* 2:377–382.

xxviii. Fein, G.G. (1977). Play and the acquisition of symbols. In *Current Topics in Early Education,*L. Katz, ed. Norwood, NJ: Ablex.

xxix. Fletcher-Flinn, C.M., and T.Suddendorf (1996). Do computers affect "the mind"? *Journal of Educational Computing Research* 15(2):97–112.

xxx. Fumoto, H., Robson, S., Greenfield, S. and Hargreaves, D. (2012) Young Children's Creative Thinking. London: Sage.

xxxi. Gettinger, M. and K.C. Stoiber. (2012). Curriculum-based early literacy assessment and differentiated instruction with high-risk preschoolers. *Reading Psychology*, 33(1-2): 11-46.

xxxii. Golafshani, N. (2003). Understanding reliability and validity in qualitative research. *The qualitative report*, 8(4): 597-606.

xxxiii. Gopnik, A.; A. Meltzoff; and P. K. Kuhl. (1999). *The Scientist in the Crib: Minds, Brains, and How Children Learn.* New York: William Morrow.

xxxiv. Greenwood, C. R., & Delquadri, J. (1995). Classwide peer tutoring and the prevention of school failure. Preventing School Failure. 39(4), 21-25.

xxxv. Greenwood, C.R., C. Arreaga-Mayer, C.A. Utley, K.M. Gavin and B.J. Terry. (2001). Classwide peer tutoring learning management system applications with elementary-level english language learners. *Remedial and Special Education*, 22(1): 34-47.

xxxvi. Gregory, G.H. and C. Chapman. (2012). *Differentiated instructional strategies: One size doesn't fit all*. Corwin Press.

xxxvii. Hadow Report (1931) The Primary School. Report of the Consultative Committee. London: HMSO.

xxxviii. Hall, N. (1991). Play and the emergence of literacy. In *Play and Early Literacy Development,* J.F.Christie, ed. Albany, NY: State University of New York Press.

xxxix. Hattie, J. (2008). *Visible Learning*. London: Routledge.

xl. Haugland, S.W. (2000). Computers and young children. Champagne, IL: *ERIC Clearinghouse on Elementary and Early Childhood Education*

xli. Heacox, D. (2012). *Differentiating instruction in the regular classroom: How to reach and teach all learners* (Updated anniversary edition). Free Spirit Publishing.

xlii. Henniger, M.L. (2012). *Teaching young children: An introduction*. Pearson Higher Ed.

xliii. Hicks, D. (2006). Lessons for the Future: The *Missing Dimension in Education.* London: Routledge.

xliv. Hirsh-Pasek, K. and R.M. Golinkoff. (2003). Einstein never used flash cards: *How our children really learn--and why they need to play more and memorize less*. Rodale.

xlv. Hohmann, M., B.Barnet, and D.P.Weikart (1979). *Young Children in Action: A Manual for Preschool Educators.* Ypsilanti, MI: High/Scope Press.

xlvi. Hoover and Austin, 1986; Johnson, 1985).

xlvii. Howes, C., and C.C.Matheson (1992). Sequences in the development of competent play with peers: Social and social pretend play. *Developmental Psychology* 28(5):961–974.

xlviii. Howes, C., and E.Smith (1995). Relations among child care quality, teacher behavior, children's play activities, emotional security, and cognitive activity in child care. *Early Childhood Research Quarterly* 10(4):381–404.

xlix. Hughes, F.P. (2009). *Children, play, and development*. Sage.

l. Johnson, B. and L. Christensen. (2008). Educational research: *Quantitative, qualitative, and mixed approaches*. Sage.

li. Kabiru, M. and A. Njenga. (2009). Foundation of Early Childhood Development and Education and Curriculum Development. Nairobi: *Focus Publishers*.

lii. Kagan, J. (1994). Three pleasing ideas. *American Psychologist* 51:901–908.

liii. Kamps, D., Barbetta, P., Leonard, B., & Delquadri, J. (1994). Classwide peer tutoring: An integration strategy to improve reading skills and promote peer interactions among students with autism and general education peers. Journal of Applied Behavior Analysis, 27, 49-61.

liv. Kamps, D.M., C. Greenwood, C. Arreaga-Mayer, M.B. Veerkamp, C. Utley, Y. Tapia, *et al.,*. (2008). The efficacy of class wide peer tutoring in middle schools. *Education and Treatment of Children*, 31(2): 119-152.

lv. Keengwe, J. (2007). Faculty integration of technology into instruction and students' perceptions of computer technology to improve student learning. *Journal of Information Technology Education: Research*, 6(1): 169-180.

lvi. Keengwe, J. and G. Onchwari. (2009). Technology and early childhood education: A technology integration professional development model for practicing teachers. *Early Childhood Education Journal*, 37(3): 209-218.

lvii. Krauss, S.E. (2005). Research paradigms and meaning making: A primer. *The qualitative report,* 10(4): 758-770.

lviii. Krejcie, V and Morgan, W (1970). Determining Sample Size for Research Activities. *Educational and psychological measurement*. 30.p. 607-610.

lix. LoBiondo-Wood, G. and J. Haber. (2014). Nursing research: Methods and critical appraisal for evidence-based practice. *Elsevier Health Sciences*.

lx. Loughran, J. (2013). Pedagogy: Making sense of the complex relationship between teaching and learning. *Curriculum inquiry*, 43(1): 118-141.

lxi. Lucas, B., Claxton, G. and Spencer, E. (2013) Expansive Education: Teachers Learners for the Real World. Maidenhead: Open University Press.

lxii. Macintyre, C. (2001) *Enhancing Learning Through Play: A Developmental Perspective in Early Years* Settings, London, David Fulton.

lxiii. Maheady, L. and J. Gard. (2010). Classwide peer tutoring: Practice, theory, research, and personal narrative. *Intervention in School and Clinic*, 46(2): 71-78.

lxiv. Maheady, L., B. Mallette and G.F. Harper. (2006). Four classwide peer tutoring models: Similarities, differences, and implications for research and practice. *Reading & Writing Quarterly*, 22(1): 65-89.

lxv. Matthews, B. and L. Ross. (2014). *Research methods*. Pearson Higher Ed.

lxvi. Maynard, R. (2010). Computers and Young Children. *Canadian Children*, 35(1).

lxvii. Ministry of Education (2005), *Quality Education for Development, Universal Primary Education (UPE) by 2005 and Education For All (EFA) by 2015* http://www.education.go.ke/2011 64

lxviii. Mitchell, D. (2014). What really works in special and inclusive education: Using evidence-based teaching strategies. Routledge.

lxix. Mochama, F. (2015). *Nursery Children to Sit National Exams.* Retrieved January 31, 2016, from http://www.kenyans.co.ke/news/nursery-children-sit-national-exams.

lxx. Murray, F.B. (1982) Teaching through social conflict. *Contemporary Educational Psychology.* 7(3) Jul:257–271.

lxxi. Neuman, S.B., C. Copple and S. Bredekamp. (2001). National Association for the Education of Young Children. Learning to Read and Write: *Developmentally Appropriate Practices for Young Children*.

lxxii. Newman, L.S. 1990 Intentional and unintentional memory in young children: Remembering vs. playing. *Journal of Experimental Child Psychology* 50:243–258.

lxxiii. NFER (2011) ,Was it right to abandon the creative curriculum?', www.nfer.ac.uk/nfer/ PRE_PDF_Files/11_44_06.pdf (accessed 23 September 2014).

lxxiv. O'Reilly, A.W., and M.H.Bornstein 1993 Caregiver-child interaction in play. *New Directions for Child Development* 59:55–66.

lxxv. Offenheiser, R. & S. Holcombe (2003). Challenges and opportunities in implementing a rights-based approach to development: an Oxfam America perspective. *Nonprofit and Voluntary Sector Quarterly* 32(2): 268

lxxvi. Otis-Wilborn, A. K. (1984). The evaluation of the effects of four reading instructional procedures on the achievement of hearing-impaired children. Unpublished doctoral dissertation, University of Kansas, Lawrence, KS.

lxxvii. Papert, S. (1980). *Mindstorms: Computers, Children, and Powerful Ideas.* New York: Basic Books.

lxxviii. Perkins, D. (2010). Making Learning Whole. San Francisco: Jossey Bass.

lxxix. Perret-Clermont, A., J.Perret, and N.Bell (1991). The social construction of meaning and cognitive activity in elementary school children. Pp. 41–62 in *Perspectives on Socially Shared Cognition.* L.B.Resnick and J.M.Levine, et al., eds. Washington, DC: American Psychological Association.

lxxx. Piaget, J (1973) "Piaget's theory" In Mussen, P.H. (Ed) Handbook of Child Psychology(4th Ed) Kessen, W. (Ed), History, *Theory and Methods 1: 103-128. John Wiley.*

lxxxi. Piaget, J. (1962). *Play, Dreams, and Imitation in Childhood.C.*Gattegno and F.M.Hodgson, transls. New York: Norton. [Original work published in 1945]

lxxxii. Plowden Report (1967). Children and their Primary Schools. Report of the Central Advisory Council for Education (England). London: HMSO.

lxxxiii. Polit, D.F. and C.T. Beck. (2013). *Essentials of nursing research: Appraising evidence for nursing practice*. Lippincott Williams & Wilkins.

lxxxiv. Ponterotto, J.G. (2005). Qualitative research in counseling psychology: A primer on research paradigms and philosophy of science. Journal of counseling psychology, 52(2), 126.

lxxxv. Roazzi, A. and P.Bryant 1998 The effects of symmetrical and asymmetrical social interaction on children's logical inferences. *British Journal of Developmental Psychology* 16(2) Jun:175–181.

lxxxvi. Robinson, K. and Aronica, L. (2010) *The Element: How Finding Your Passion Changes Everything.* London: Allan Lane.

lxxxvii. Rodd, J. (2012). Leadership in early childhood. McGraw-Hill Education (UK).

lxxxviii. Rogoff, B. (1990). *Apprenticeship in Thinking: Cognitive Development in Social Context.* New York: Oxford University Press.

lxxxix. Rogoff, B., and P. Chavajay. (1995). "What's Become of Research on the Cultural Basis of Cognitive Development?" *American Psychologist,* Vol. 50, No. 10, 859–77.

xc. Roopnarine, J. and J.E. Johnson. (2013). Approaches to early childhood education. Merrill/Prentice Hall.

xci. Rotter, J. B. (1954).*Social learning and critical psychology.* New York: Prentice-Hall

xcii. Rubin, H.J. and I.S. Rubin. (2011). *Qualitative interviewing*: The art of hearing data. Sage.

xciii. Ruddock, J. and McIntyre, D. (2007) Improving Learning through Consulting Pupils. London: Routledge.

xciv. Samuelsson, I.P. and M.A. Carlsson. (2008). The playing learning child: Towards a pedagogy of early childhood. *Scandinavian Journal of Educational Research*, 52(6): 623-641.

xcv. Scoffham, S. (ed.) (2013) Teaching Geography Creatively. London: Routledge.

xcvi. Sigel, I.E. (1993). Educating the young thinker: A distancing model of preschool education. Pp. 237–252 in *Approaches to Early Childhood Education,* J.L. Roopnarine and J.E.Johnson, eds. Columbus, OH: Merrill/Macmillan.

xcvii. Siraj-Blatchford, I., ed. (1998) *A Curriculum Development Handbook for Early Childhood Educators.* Staffordshire, U.K.: Trentham Books Limited.

xcviii. Sivin, J.P., P.C.Lee, and A.M.Vollmer (1985). Introductory computer experiences with commercially-available software: Differences between three-year-olds and five-year-olds. *Paper presented at the April 1985 meeting of the American Educational Research Association in Chicago*.

xcix. Smith JT (2000). Early Childhood Development: A Multicultural Perspective. 2nd Edition. Ohio: Prentice Hall.

c. Tomlinson, C.A. (2014). Differentiated classroom: Responding to the needs of all learners. Ascd.

ci. Tomlinson, C.A. (2013). Differentiated instruction. Fundamentals of gifted education: Considering multiple perspectives, 287-301.

cii. Tomlinson, C.A. and J. McTighe. (2006). Integrating differentiated instruction & understanding by design: Connecting content and kids. ASCD.

ciii. Trawick-Smith, J. (2013). Early childhood development: A multicultural perspective. Pearson Higher Ed.

civ. UNCRC (2000). Every child has the right to an education, to be healthy, to grow up safe and to be heard. *Save Every child has the right to an education, to be healthy, to grow up safe and to be heard the Children Fund, London, England.*

cv. UNICEF (2007) 'Child poverty in perspective: an overview of child well-being in rich countries', Innocenti Report Card 7, 359(1449): 1367–77.

cvi. Utley, C. A, Mortweet, S. L., Greenwood, C. R. (1997). Peer-mediated instruction and interventions. Focus on Exceptional Children, 29 (5), 1-23.

cvii. Van de Walle, Karp, *et al.,* 2007).

cviii. Vygotsky, L. S. (1978). *Mind in Society: The Development of Higher Psychological Processes.* Cambridge, MA: Harvard University Press.

cix. Vygotsky, L.S. (1962). *Thought and Language.* Cambridge, MA: MIT Press.
cx. Vygotsky, L.S. (2004). Imagination and creativity in childhood. Journal of Russian and east European psychology, 42(1): 7-97.
cxi. WHO (World Health Organisation) (2008) Inequalities in Young People's Health. Available at: www.euro.who.int/__data/assets/pdf_file/0005/53852/E91416.pdf (accessed 23 September 2014).
cxii. Wood, D.J., H.A.Wood, and D.J.Middleton (1978). An experimental evaluation of four face-to-face teaching strategies. *International Journal of Behavioral Development* 1:131–147.
cxiii. Wortham, S. C. and Hardin, B. J. (2015). *Assessment in Early Childhood Education, 7th Edition*. University of Texas at San Antonio, Emerita.Published by Pearson
cxiv. Wrigley, T., Thomson, P. and Lingard, B. (2012) Changing Schools: Alternative Ways to Make a World of Difference. London: Routledge.