Teacher Perception on the Three Domains of Learning in Uasin Gishu County, Kenya

Dr. Esther Chepkorir Bitok

Kisii University, Kenya

Email: estherbitok@kisiiuniversity.ac.ke/ estherbitok2006@gmail.com

Abstract: The domains of learning have been categorized as cognitive domain (knowledge), psychomotor domain (skills) and affective domain (attitudes). This categorization is best explained by the Taxonomy of Learning Domains formulated by Benjamin Bloom in 1956. The purpose of the study was to establish the extent to which the three domains of learning considered in assessing children in public early childhood education centres in Kenya. The study targeted early child development education (ECDE) teachers in Uasin-Gishu County, Kenya. A self-administered questionnaire was administered to collect information from the respondents. A sample size of 341 respondents was used for analysis representing a response rate of 94.6%. The results were analyzed using descriptive statistics and presented using tables and charts. The study findings established that the preschool teachers were aware of the three domains of learning. However, majority of them were unable to state a specific learning domain, suggesting that preschool teachers in Uasin-Gishu County governments may not be fully familiar with learning domains. Hence a continuous training and constant evaluation of ECDE teachers should be done on a regular basis using the three domains of learning.

Keywords: Domains, Learning, Cognitive, Affective, Psychomotor, Early Childhood Education Centers

How to reference this article (APA):

Bitok, E. (2020). Teacher perception on the three domains of learning in Uasin Gishu County, Kenya. *Journal of Research Innovation and Implications in Education, 4*(4), 25 – 36.

1. Introduction

The last two decades of infancy research have seen dramatic changes in the way developmental psychologists characterize the earliest stages of cognitive development. The infant, once regarded as an organism driven mainly by simple sensorimotor schemes, is now seen as possessing sophisticated cognitive skills and even sophisticated concepts that guide knowledge acquisition" (Madole and Oakes 1999). "What we see in the crib is the greatest mind that has ever existed, the most powerful learning machine in the universe" (Gopnik, Meltzoff, and Kuhl 1999). The term cognitive development refers to

the process of growth and change in intellectual/mental abilities such as thinking, reasoning and understanding. It includes the acquisition and consolidation of knowledge. Infants draw on social-emotional, language, motor, and perceptual experiences and abilities for cognitive development. They are attuned to relationships between features of objects, actions, and the physical environment. But they are particularly attuned to people.

However, the parents, family members, friends, teachers, and caregivers play a vital role in supporting the cognitive development of infants by providing the healthy interpersonal or social-emotional context in which cognitive development unfolds. Caring, responsive

adults provide the base from which infants can fully engage in behaviors and interactions that promote learning. Such adults also serve as a prime source of imitation. Therefore, 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). Early childhood is referred usually to the age of normal schooling years in most nations. Babies and toddlers need positive early learning experiences to help their intellectual, social and emotional development and this lays the foundation for later school successes.

Bloom's Taxonomy may be the most recognized framework in all of education. Categorizing learning objectives into cognitive, affective, and psychomotor domains appeared to be common sense at the time the construct was created, and the domains both thrived and evolved over decades with many applications and revisions. Benjamin Bloom and four of his colleagues met over a period of years during the late 1940s and early 1950s as a group of educational psychologists seeking to create a framework of learning objectives as a basis for designing curricula, tests, and research. In 1973, several other psychologists, including Bloom, also published a book on the affective domain, though an effort explicating the psychomotor domain was never published. Their work initially focused on the cognitive domain, perhaps because many at the time believed it too difficult to define, l*et al*one assess, the affective domain (Martin &Reigeluth, 1992). Over the next several decades, most educators would also focus here, as the cognitive domain served as the foundation for most of traditional education. In Bloom's Taxonomy, the cognitive domain reflects knowledge, the psychomotor domain reflects skills, and the affective domain reflects attitudes.

Although educators and researchers recognize the value and importance of the affective domain to student success (Furst, 1981; Griffith & Nguyen, 2006; Martin &Reigeluth, 1992), it is the least applied and least understood of the taxonomy trilogy. Knowledge and skills are easier to understand and apply in the educational process; the affective domain reflects the world of feelings, values, appreciation, motivation, and attitudes—factors much more difficult to understand and assess. Teachers should attempt to construct more holistic lessons by using all 3 domains in constructing learning tasks. This diversity helps to create more well-rounded learning experiences and meets a number of learning styles and learning modalities. Using more diversity in delivering lessons also helps students create more neural networks and pathways thus aiding recall. This study therefore, examines the Bloom's taxonomy of learning dimensions during teaching and learning transaction.

In order to practice justice following the Bloom's taxonomy of learning, a student is expected to be assessed on three dimensions namely; the cognitive, affective and psychomotor domains. Although cognitive domain features broadly in summative testing, affective and psychomotor dimensions have an enormous contribution towards better learning outcomes. The practice of dwelling too much on cognitive assessment leaves a vacuum in students' character excellence. As a result, violence and all sorts of vices in schools are rampant nowadays and it appears schools' leaderships have failed to address the root causes of such mannerism.

2. Literature Review

Learning is everywhere. We can learn mental skills, develop our attitudes and acquire new physical skills as we perform the activities of our daily living activities. Therefore, learning is not an event but a process. Learning can generally be categorized into three domains: cognitive, affective, and psychomotor. Within each domain are multiple levels of learning that progress from more basic, surface-level learning to more complex, deeper-level learning. It is interesting to note that while the cognitive taxonomy was described in 1956, and the affective in 1964, the psychomotor domain were not fully described until the 1970s. The three domains of learning and all teachers should know about them and use them to construct lessons. These domains are cognitive (thinking), affective (emotion/feeling), and psychomotor (physical/kinesthetic). Each domain has a taxonomy associated with it. One way of considering knowledge in school curricula is to identify the learning domains represented as cognitive, affective, and psychomotor (Sowell, 1996). Domains are areas of learning that share a common characteristic in shaping a learner becoming more useful in the society.

The cognitive domain is associated with intellectual functions; the affective domain with emotions, attitudes, and values; and the psychomotor domain with physical activities (Bloom, 1956). Unfortunately, the case has been contrary to reality as Prince (1998) observes that curriculum workers have shifted their thinking about affective learning and have given it less priority it

deserves to help achieve cognitive skills. He continues observing that though affective and psychomotor taxonomies are used less frequently, they continue to provide valuable information about attitudes and motor skills as learning outcome. Lickona (1993), a developmental psychologist suggested that the crisis in the nation's youth culture was due to factors such as a decline of family and disturbing trends in a mass media programs. The work of Krathwohl (1964) was considered to be the first, but Bloom also worked on developing Krathwohl (1964) work. Krathwohl's involvement in the development of the cognitive domain becomes important when you look at the authors of 21st centaury revisions to this taxonomy.

2.1 Cognitive Domain

The cognitive domain contains learning skills predominantly related to mental (thinking) processes. The cognitive domain is the one where the student's cognitive activities are structured. Starting with the knowledge level and ending with the evaluation level of Bloom's taxonomy, this domain is used to analyze the lab experience of the student (Hambrick, 2001). The learning processes in the cognitive domain that include a hierarchy of skills involving processing information, constructing understanding, applying knowledge, solving problems, and conducting research. There are six levels of cognitive complexity: knowledge, comprehension, application, analysis, synthesis, evaluation. Bloom's taxonomy focused on describing levels of attainments rather than process skills, and did not substantially address the manner in which the learner proceeds from one level to the next. The cognitive domain includes skill clusters that organize a complete, concise, and complementary listing of the learning skills most critical for each process (Bloom's Taxonomy of Learning, 2001).

While this taxonomy provides the basis for cognitive development it has a tendency to be somewhat static in nature. Cannon and Feinstein (2005) took a more dynamic look at these objectives. In their paper, they described the cognitive domain as a cognitive process where differences were located primarily in the lower-level objectives, which tended to be knowledge-oriented, being related to the process by which they are accomplished. Therefore, rather than speaking of knowledge, we speak of remembering knowledge and instead of speaking of comprehension; we speak of understanding, which is how we comprehend. The cultural context is important to young children's cognitive development. There is substantial variation in how intelligence is defined within different cultures (Sternberg and Grigorenko 2004). As a result, different aspects of cognitive functioning or cognitive

performance may be more highly valued in some cultural contexts than in others.

2.2 Affective Domain

In 1956 Bloom and his associates came up with a taxonomy which could be used to classify cognitive learning outcomes in conjunction with the use of affective and psychomotor dimensions. The affective domain is the one that describes the attitudes of the student toward the subject matter, education, and lab activities. This domain is very important in setting the ground rules for the lab environment. It greatly affects the student performance and education without being clearly visible (Leonard, 1997). However, the version was improved by the study done by Krathwohl& Anderson, (2000) to qualify the affective domain as one of the most important dimensions in learning. Old as it may be, the theory has been so useful in classroom teaching and learning interactions. However, for the last two decades, there has been a paradigm shift where most school curriculums reflect scantly or not at all on the integration of the affective domain in their undertakings.

According to Sowell (2005) affective learning include infrequently in curricular. In addition the affective dimensions of learning are feelings, emotions, and self-esteem. Caine and Caine (1991) note: "We do not simply learn. What we learn is influenced and organized by emotions and mind sets based on expectancy, personal biases and prejudices, degree of self-esteem, and the need for social interaction (Emotions) operate on many levels, somewhat like the weather. The affective domain contains learning skills that are predominantly related to emotional (affective) processes. The learning processes in the affective domain include being open to experience, engaging in life, cultivating values, managing oneself, and developing oneself. Within each of these general process areas are several "clusters" of specific learning skills that can be improved by means of constructive intervention and assessment. According to Rosenfield (1988), emotions have an important connection to memory; they help to store information and also trigger its recall. The affective learning is often contrasted with cognitive learning, which is associated with synthesis, evaluation, and comprehension of knowledge or information. However it has gained momentum as a topic of continuing study and discussion in the literature and therefore provides a test bed of measurement in and of itself, but also for new assessment tools like student response systems.

The relationship between the affective domain and learning is central to every part of the learning and evolution process. There are two points of consideration here: 1) threshold of consciousness, where the awareness of the stimulus initiates the learning process, and 2)

threshold of evaluation, where the willingness to respond is the basis for psychomotor responses without which any evaluation of the learning process can take place. It provides the bridge between the stimulus and the cognitive and psychomotor aspects of an individual's personality (Eiss, et.al., 1969) or the sum total of their values and beliefs and the extent to which they show them (by-products of the "credibility gap". The question is posed by the research whether a human being even does thinking without feeling, acting without thinking. The objectives and corresponding behaviors and evaluation materials differ in complexity but at other levels of complexity this objective becomes part of another objective such as the ability to apply the principles" (psychomotor connotations). It seems very clear, therefore, that each person responds as a "total organism" or "whole being" whenever they do respond (Krathwohl, et.al., 1964). In general, educators seem to desire to achieve the higher levels of affective goals in learners, including satisfaction in response and developing a system of values (Eiss, et.al., 1969).

2.3 The Psychomotor or Kinesthetic Domain

The psychomotor domain is especially important in the lab work. It describes the coordination between the student's brain and body. Obviously, this is an important domain in relation to the lab environment (Simpson, 1966). The psychomotor domain includes physical movement, coordination, and use of the motor-skill areas. Development of these skills requires practice and is measured in terms of speed, precision, distance, procedures, or techniques in execution. Psychomotor objectives are those specific to discreet physical functions, reflex actions and interpretive movements. Traditionally, these types of objectives are concerned with the physically encoding of information, with movement and/or with activities where the gross and fine muscles are used for expressing or interpreting information or concepts. This area also refers to natural, autonomic responses or reflexes. It is interesting to note that while the cognitive taxonomy was described in 1956, and the affective in 1964, the psychomotor domain were not fully described until the 1970s. This is the least studied of Bloom's taxonomies. Nonetheless, the psychomotor domain has drawn some interest since it is the one dimen-sion that can simultaneously activate high-intensity learn-ing environments in such a way to result in improved be-havioral skill acquisition of executive skills (Giambatista & Hoover, 2009) this could be obtained either through immer-sion by active participation or vicariously.

The original model was proposed for classifying movement behaviors unique to the psychomotor domain and has been designed specifically to aid educators and curriculum developers to clarify and categorize relevant

movement experiences for children (Harrow, 1972). Since appropriate skill and use thereof can be shown through action and in some cases in a do or die situation in business the importance of knowing that movement is the key to life and exists in all areas of life. When one per-forms purposeful movement (there is known value and with emotion), they are coordinating the cognitive, affective, and psychomotor domains (Harrow, 1972). Furthermore since movement is incorporated in all life, and is pre-requisite, it becomes a difficult task to isolate behaviors unique to the psychomotor domain because observable behavior is modifies by the affective self. Therefore, we act as we feel or believe. Again, we need to consider the issue of vicarious (learning by observing) vs. non-vicarious (learning by doing) and its effects on the psychomotor domain.

In general, being able to establish and maintain a steady position has consistently been found to be related to shooting performance, and expert shooters have found to be much steadier. Consistency in hitting the target is determined by the extent to which these factors can be maintained before, during, and immediately firing a round (Chung, et.al., 2009). The relationship is that a person can become more proficient at a (management) skill the more they practice and know about the skill. The same could be said if one improved one's focus (affective). Psychomotor skills are important in implementation, and hence the importance of "behavioral immersion" in increasing the impact of experiential learning in "whole-person" learning in executive skill acquisition. This then lends to asking the question of how to accomplish the learning person involvement, through the whole person, required to complete the learning cycle from cognition awareness to successful skill demonstration (Giambatista, et.al., 2009).

2.4 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. According to 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.

3. Methodology

3.1 Research Design

The study used a descriptive design since it focused on provide information about the naturally occurring status, behavior, attitudes and/or other characteristics of a particular group on Teachers' Perception on Cognitive, Affective and Psychomotor: The Three Domains of Learning in Uasin-Gishu County, Kenya.

3.2 Population and Sample Size

The research was conducted in Uasin-Gishu County. The county is one of the 47 counties of Kenya. The target population was 3105 head teachers and teachers in all the 775 public ECDE centers in Uasin-Gishu County. Taro Yamane (1973) sample size formula and modified by Kent (2008) was used to select a sample size of 341 teachers

$$n = N/{1 + N_e^2}$$

Where:
n = Sample size
N = Population size
e = the error of Sampling
This study allowed the error of sampling on 0.05. Thus, sample size was as follows:

$$341 = 3105/1 + 3105(0.05)^2$$

Out of the 775 public ECDE centers in Uasin-Gishu County, the study sampled 20 centers from each of the six administrative divisions (sub-county administrative). Therefore 120 ECDE centers were selected using simple random sampling. The 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 241 teachers from the 120 centers. In addition, all the head teachers in the selected 120 ECDE centers were purposively selected.

3.3 Data Collection Instruments, Processing and Analysis

The study adopted a mixed method approach to collect data from the respondents. Data collection was done using a combination of questionnaires, interviews and checklists. The questionnaires were pre-tested by administering it to 20 ECDE teachers in two ECDE centers in neighboring Nandi County. The data collected were used to estimate the reliability of the instrument. The Pilot test was to enable the researcher to curb unnecessary items which could have issues in the actual research. The data collected were coded and entered in SPSS V20 for data analysis. Descriptive statistics was done to identify characteristics of demographic data of respondents. Face validity was assessed by getting friends and students in the department of early childhood education to test-run the instrument to see if the questions were relevant, clear and unambiguous in line with the recommendation of Rubin and Rubin, (2011).

Further content validity was done by the help of panel of experts (lecturers in the department of early childhood education) to evaluate the content validity of questionnaire and the questionnaires conformed to the theoretical expectations which have been indicated in the theoretical framework.

4. Results and Discussion

The objective was to establish the extent to which the three domains of learning (cognitive, affective and psychomotor) considered in assessing the student in public early childhood education centers in Kenya. This was achieved by establishing the perception of teachers on the cognitive, affective and psychomotor domain of learning public early childhood education centers in Kenya. The study finding reveled that out of 361 questionnaires distributed to the respondents; Only 341 questionnaires were filled and completed accurately and were used for analysis with a response rate of approximately 94.00%. The response rate was, therefore, accepted as adequately sufficient for the intended purpose (Oso & Onen, 2005).

Table1: Study Response Rate

Category	No of Respondent	Percentage
Sample Size	361	100.00
Response	341	93.54
Non-Response	020	6.46

Source: Survey Data (2018)

4.1 Level of Awareness of Three Domains of Learning

The response question was whether the ECDE teachers were aware of the three domains of learning. The result is presented in figure 1 below. Out of 341 respondents, majority of ECDE teachers responded in the affirmative that they were aware of the domains of learning (n=303, 89%) while the rest of the respondent (n=38, 11%) being unaware of three domains of learning as shown in Figure 1. Knowledge on the three domains of learning is vital for any teacher to deliver effectively and ensure the pupils perform better in their academic results.
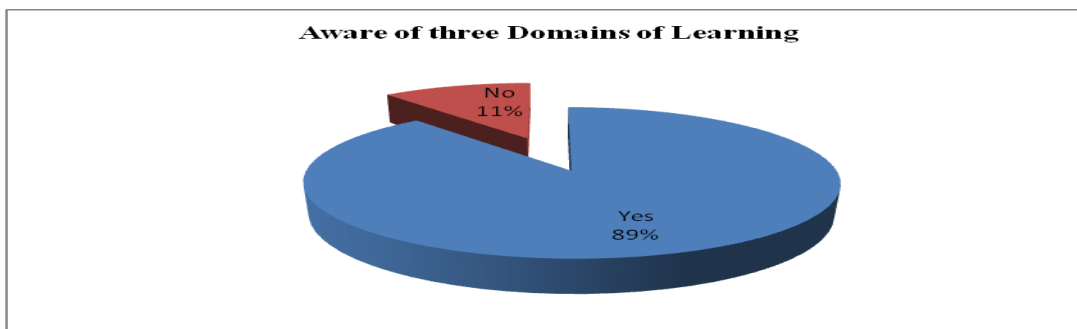
Figure 1: Aware of Three Domains of Learning

4.2 Teachers Rating on Usage of Cognitive Domains of Assessment

The study sought to establish the ratings of teachers on the cognitive domain of assessment by ECDE teachers. The ECDE teachers were requested to rate their cognitive approaches including the educating the pupils on the ability to specify ideas, compare facts, make decisions and criticize ideas. This was important in order to assess how the teachers perceived the cognitive learning approach during instructional process as summarized in Table 2. The response on the perception of ECDE teachers about cognitive approach of learning in ECE centers showed that majority of the teachers agreed that teachers teach pupils on the ability to specify facts (n=168, 49.6%), while those who agreed (n=98, 28.7%). Further (n=45, 13.2%) strongly disagree, while (n=22, 6.5%) disagree and only (n=1, 2.1%) of teachers were undecided. These findings indicate that the teachers teach children on the ability to specify facts or ideas about different educational phenomenon. Most of the ECDE teachers agreed that they thought pupils rephrasing or summarizing in the class room (n=156, 45.7%), while those who strongly agreed, with on the same where

30

(n=94, 27.6%), which was an indication that rephrasing and summarizing was widely used in assessment by the ECDE teachers. However the teachers who strongly disagree and disagree on the use rephrasing and summarizing as an assessment tool was (n=28, 8.2%) and (n=23, 6.7%) respectively. While (n=40, 11.7%) of teachers were undecided or not aware. Therefore the finding indicates that the teachers teach children on ability to rephrase summarize or isolate events or ideas.

Further on the study finding indicated that majority of the teachers were in agreement that they teach pupils to consider and weigh options (n=149, 43.7%), while those who strongly agreed (n=79, 23.2%). However there were those who strongly disagree on teach pupils to consider and weigh options (n=70, 20.5%), while (n=18, 5.3%) disagree and only (n=25, 7.3%) of teachers were undecided or not sure if they thought pupils to consider and weigh options. This finding indicates that more three quarter of the teachers teach children on the ability to consider and weigh all facts of a given situation.

Table 2: ECDE teachers utilization of cognitive approaches in assessment

Teachers teach students on…					
N=341	SA	A	U	D	SD
Specifying facts	98(28.7)	169(49.6)	7(2.1)	22(6.5)	45(13.2)
Rephrasing	94(27.6)	156(45.7)	40(11.7)	23(6.7)	28(8.2)
Consider and weigh option					
	79(23.2)	149(43.7)	25(7.3)	18(5.3)	70(20.5)
Make decisions	90(26.4)	89(26.1)	65(19.1)	31(9.1)	66(19.4)
SA= Strongly Agree**, A**= Agree**, U**= Undecided**, D**= Disagree**, SD**= Strongly Disagree**,** All percentage are reported in parentheses.					

Source: Research Data, 2018

In addition majority of the teachers strongly agreed and agreed that they tested the ability of the preschoolers to make decision, pass judgment and criticize situation (n=90, 26.4%) and (n=89, 26.1%) respectively, while those who strongly disagreed and disagreed on allowing the using preschoolers to make decision, pass judgment and criticize situation where (n=66, 19.4%) and (n=31, 9.1%) and only (n=65, 19.1%) of teachers were undecided. This finding indicates that the teachers taught on the ability to make decision, pass judgment, assess, criticize, and/or defend a view. If a teacher is convinced that a child is not good in the any of the three domains, it is likely that the child will become fearful and end up lacking the enthusiasm to generate new ideas to add to that which is being taught in the classroom.

4.3 Inclusion of Affective Domain in Assessment

The study sought to establish the rating of teacher's utilization of the affective domain of learning. The ECDE teachers were requested to rate their utilization of the affective domains during classroom instruction. This was important in order to assess how the teachers perceived the affective domain during instructional process. The affective domain rated included: learning considers pupil's characteristics such as ability to show positive values and attitudes naturally; ability to add new

ideas or values to what they have learnt in class; the ability to reject or accept ideas naturally and ability to make decisions and pass judgment among others. Similarly, just like the cognitive domain of learning, mixed perceptions were observed as far as affective learning is concerned. The response variable of the study was Inclusion of affective domain in assessment. The result is presented in Table 3 below.

The result indicate that most of the respondent agreed that they teach pupils on the ability to specify facts (n=140, 41.1%), while those who strongly agreed that they teach pupils on the ability to specify facts (n=63, 18.5%), hence a majority were in agreement. However there were those who strongly disagree (n=72, 21.1%) and (n=21, 6.2%) disagree. Beside those who agreed and disagreed some of the teachers were undecided (n=45, 13.2%). This finding indicates that students' values, attitudes or ideas have not become characteristics of the learner in such a way that they act on them naturally. Similarly most of the teachers agreed that students do not add new ideas or values, and possibly lack the ability to isolate or compare a number of events or ideals (n=111, 32.6%), while those who strongly agreed that students do not add new ideas or values, and possibly lack the ability to isolate (n=52, 15.2%).

Further the study findings established that (n=50, 14.2%) strongly disagree that students do not add new ideas or

values, and possibly lack the ability to isolate, while (n=35, 10.3%) disagreed. However, some of the teachers were undecided (n=93, 27.3%). From the finding we cannot compressively deduce the teacher's positions in regard to the statement that students do not add new ideas or values, and possibly lack the ability to isolate or compare a number of events or ideals.

Table 3: Inclusion of Affective Approach in ECDE Assessment

	SA	A	U	D	SD
Students values	63(18.5)	140(41.1)	45(13.2)	21(6.2)	72(21.1)
Students do not add new ideas	52(15.2)	111(32.6)	93(27.3)	35(10.3)	50(14.7)
Students have ability to consider	73(21.4)	114(33.4)	71(20.8)	23(6.7)	60(17.6)
Have ability to make decision	82(24.0)	124(36.4)	61(17.9)	32(9.4)	42(12.3)

SA= Strongly Agree, **A**= Agree, **U**= Undecided, **D**= Disagree, **SD**= Strongly Disagree, All percentage are reported in parentheses.

Source: Research Data, (2018)

Furthermore majority of the teachers agreed that students have the ability to reject or accept ideas (n=114, 33.4%), while those who strongly agreed (n=73, 21.4%). In addition there were those who strongly disagree (n=60, 17.6%), similarly the teachers who disagreed (n=32, 9.4%), beside that some of the teachers were undecided on the matter (n=71, 20.8%). This finding indicates that students have the ability to reject or accept ideas and weigh all facts of a given situation. Finally most of the teachers strongly agreed that their teaching gave the pupils the ability make decisions and pass judgment (n=82, 24%), while those who agreed (n=124, 36.4%). However, those who strongly disagreed (n=42, 12.3%), while those who disagreed (n=32, 9.4%).

Beside those who agreed and disagreed some of the teachers were undecided (n=61, 17.9%). This finding indicates that their teaching gave the pupils the ability make decisions and pass judgment. As a protagonist, the child is understood as having an innate desire to discover, learn, and make sense of the world (Hewett, 2001). In a nutshell from the findings the students' values, attitudes or ideas have not become characteristics of the learner in such a way that they act on them naturally. The teachers believe that students do not add new ideas or values, and possibly lack the ability to isolate or compare a number of events or ideals. This implies that majority of the teachers supposed that in their learning, students do not add new ideas or values and lack the ability to isolate or compare events or ideas. Students have the ability to reject or accept ideas and were able to add new ideas to their learning. The teaching gave the pupils the ability make decisions and pass judgment. ECDE teachers are mostly focused on training pupils on the ability to reject or accept ideas as well as to make decision and pass

judgments through affective domain of learning approach (Li, 2012).

4.4 Assessment of Psychomotor Domain of learning

The study sought to establish the perception of teachers on psychomotor domain in assessment using descriptive statistics. The ECDE teachers were requested to rate their psychomotor domain during classroom assessment. This was important in order to assess how the teachers handled the psychomotor domain during assessment process. The psychomotor domain encompasses discreet physical functions, reflex actions and interpretive movements. ECDE teachers were asked if students engage in playful learning tasks and whether their school had diverse psychomotor learning tools as shown in Table 4 overleaf.

The descriptive statistics for Psychomotor Domain of learning are presented in Table 4 below. It is evidence from the results that majority of the teachers strongly agreed that students engage in playful learning tasks (n=194, 56.9%), while those who agreed that student engage in playful learning tasks (n=71, 20.8%), In addition there were those who strongly disagree (n=25, 7.3%), similarly the teachers who disagreed (n=27, 7.9%), beside that some of the teachers were undecided on students engagement in playful learning tasks (n=71, 20.8%). Similarly, most of the teachers agreed that schools have diverse psychomotor tools (n=130, 38.1%), while those teachers who strongly agreed (n=113, 33.1%). However, some of the teachers strongly disagreed that schools have diverse psychomotor tools (n=33, 9.7%) and (n=14, 4.1%) disagreed.

Table 4: Rating of ECDE teachers on psychomotor approach of learning in ECE centers in Uasin-Gishu County

N= 341	SA	A	U	D	SD
Students engage in playful learning tasks	194(56.9)	71(20.8)	24(7.0)	27(7.9)	25(7.3)
The school have a diverse psychomotor tools	113(33.1)	130(38.1)	51(15.0)	14(4.1)	33(9.7)

SA= Strongly Agree, **A**= Agree, **U**= Undecided, **D**= Disagree, **SD**= Strongly Disagree, All frequency percentages are reported in parentheses.

Source: Research Data, 2018

Beside those who agreed and disagreed some of the teachers were undecided (n=51, 15%). This finding indicates that schools have diverse psychomotor tools. This suggests that students engage in playful learning tasks and schools had diverse psychomotor learning tools. It's only after a child has had an opportunity observe and approximate a new skill, and practice it with the help of more capable peers, that they eventually incorporate it into their own cognitive constructs (Mallory *et al.,* 1994).

From the results students engage in playful learning tasks and schools had diverse psychomotor learning tools. It's only after a child has had an opportunity observe and approximate a new skill, and practice it with the help of more capable peers, that they eventually incorporate it into their own cognitive constructs (Mallory *et al.,*. 1994).

5.Conclusion and Recommendations

5.1   Conclusion

On learning domains, a significant number of ECDE teachers reported being aware of the three main domains of learning, that is cognitive, affective and psychomotor. Majority of the teachers were unable to specify or cite a specific domain of learning, an indication that in most ECDE teachers in Uasin-Gishu are not fully acquainted with learning domains. Most teachers concurred that they should educate students on the ability to specify facts or ideas about different educational phenomenon; ability to rephrase, summarize, isolate and compare number of events, and the ability to consider and weigh all facts given.

The psychomotor domain encompasses discreet physical functions, reflex actions and interpretive movements. Two main activities i.e. engagement on playful learning activities and access to diverse but unspecified

psychomotor learning tools were the main psychomotor approaches used by the teachers in ECDE centres in Uasin-Gishu County. Results indicated that >70% of the preschool teachers surveyed have favorable perception of the two activities. The study did not explore other available psychomotor learning approaches that could be important in improving service delivery in ECDE centres in Uasin-Gishu County.

A significant number of preschool teachers reported being aware of the three domains of learning, majority of them were unable to state a specific learning domain, suggesting that preschool teachers in Uasin-Gishu County may not be fully familiar with learning domains. However, their perceptions of the different aspects of each domain were such that some teachers agreed that they would use them during classroom instruction, some disagreed, and others were undecided altogether.

5.2   Recommendations

i.   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.
ii.   It is important for teachers to understand that assessment of learning should be used primarily for assessing what the learner has learned and must be conducted as frequent as possible.

Reference

Austin, G.R. (2013). *Early childhood education: An international perspective*. Academic Press.

Baher, Andriessen, &Jarvela (2013).Affective learning together: *Social and emotional dimensions of collaborative learning* (2nded. P.139). New York: Routledge.

Bloom, B. S. (Ed). (1956).Taxonomy of educational objectives: *Handbook I: Cognitive domain*. New York: Mckay

Caine, R.N., & Caine, G. (1991).Making connections: Teaching and the human brain. Alexandria, VA: *Association for Supervision and Curriculum Development*.

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.

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

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.

Combs, A.W. (1982).Affective education or none at all.*Educational leadership,* 39(7), 495-497.
Desu, M.M. (2012). Sample size methodology.*Elsevier*.

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

Furst, E. J. (1981). Bloom's taxonomy of educational objectives for the cognitive domain: Philosophical and educational issues. *Review of Educational Research*, *51*(4), 441-453.

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

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

Griffith, K. G., & Nguyen, A. D. (2006). Are educators prepared to affect the affective domain? In *National forum of teacher education journal*, 16(3), 2005-2006.

Hammer, D. M. (1991). *Defying common sense: Epistemological beliefs in an introductory* physics course (Unpublished doctoral thesis), University of California, Berkeley.

Harms, T., R.M. Clifford and D. Cryer.(2014). *Early childhood environment rating scale*.Teachers College Press.

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.

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

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

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

Krathwohl, D. R & Anderson, L. W. (2000). *A Taxonomy for Learning, Teaching, and Assessing: A Revision of Bloom's Taxonomy of Educational Objectives:*Allyn& Bacon

Krathwohl, D.R., Bloom, B.S., Masia, B.B. (1964*). Taxonomy of Educational Objectives, the Classification of Educational Goals. Handbook II: Affective Domain.* New York: David McKay Co., Inc.

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

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

Lickona, T. (1993) .The return of character education.*Educational leadership* 51(3), 6-11

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

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

Madole, K., and L. Oakes. (1999). "Making Sense of Infant Categorization: Stable Processes and Changing Representations," *Developmental Review,* Vol. 19, No. 2, 263–96.

Martin, B. L., &Reigeluth, C. M. (1992). Affective education and the affective domain: Implications for instructional-design theories and models. In C. M. Reigeluth (Ed.), *Instructional-design theories and models: A new paradigm of instructional theory (Vol. II)* (pp. 485-511). Hillsdale, NJ: Lawrence Erlbaum Associates.

McLachlan, C., M. Fleer and S. Edwards. (2013). *Early Childhood Curriculum: Planning, Assessment, and Implementation*. Cambridge University Press.

Mindes, G. and L.A. Jung. (2014). *Assessing young children*. Pearson Higher Ed.

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.

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.

National Research Council and Institute of Medicine. (2000). *From Neurons to Neighborhoods: The Science of Early Childhood Development.*Committee on Integrating the Science of Early Childhood Development.Edited by J. Shonkoff and D. Phillips. Washington, DC: National Academies Press.

O'Donnell, A. M., Reeve, J., & Smith, J. K. (2009).*Educational Psychology*: Reflection for action (2nded.). USA: John Wiley & sons.

Ornstein, A. C., &Hunkins, F. P. (2009). Curriculum: Foundations, Principles, and Issues. New York: Pearson Education.

Piaget, J. (1962). *Play, Dreams, and Imitation in Childhood.C.*Gattegno and F.M.Hodgson,

transls. New York: Norton. [Original work published in 1945]

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

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.

Prince, E. A. (1998).Instructional systems design and the affective domain. *Educational Technology* 38(6), 17-28.

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.

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

Rosenfield, I. (1988). *The invention of memory*. New York: Basic Books.

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

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.

Sarah, M. (2013).*The Benefits of Dramatic Play in Early Childhood Development.*NigeriaSmith JT (2000). Early Childhood Development: A Multicultural Perspective. 2nd Edition. Ohio: Prentice Hall.

Sowell, E. J. (2005).Curriculum: *An integrative introduction*. New Jersey: Prentice-Hall.

Sternberg, R. J., and E. L. Grigorenko. (2004). "Why We Need to Explore Development in Its Cultural Context," *Merrill-Palmer Quarterly,* Vol. 50, No. 3, 369–86.

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.*

Vygotsky, L.S. (2004). Imagination and creativity in childhood. Journal of Russian and east European psychology, 42(1): 7-97.

Welsh, J.A., R.L. Nix, C. Blair, K.L. Bierman and K.E. Nelson. (2010). The development of cognitive skills and gains in academic school readiness for children from low-income families. *Journal of educational psychology*, 102(1): 43.

Whitehurst, G., and C. Lonigan.(1998). "Child Development and Emergent Literacy," *Child Development,* Vol. 69, No. 3, 848–72.

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.

Wortham, S.C. (2013). Assessment in Early Childhood Education: Pearson New International Edition. Pearson Higher Ed.