International Journal of Novel Research in Education and Learning Vol. 4, Issue 2, pp: (41-60), Month: March – April 2017, Available at: <u>www.noveltyjournals.com</u>

# PRE-SCHOOL TEACHERS' ATTITUDES TOWARDS METHODS OF IDENTIFICATION OF GIFTED AND TALENTED PRE-SCHOOLERS IN NYAKACH SUB-COUNTY, KENYA

### <sup>1</sup>AMOKE OKONGO JULIUS, <sup>2</sup>DR ONDITI MARY, <sup>3</sup>DR MWEBI BENARD

<sup>1, 2, 3</sup> JARAMOGI OGINGA ODINGA UNIVERSITY OF SCIENCE AND TECHNOLOGY

Abstract: The purpose of this study was to explore pre-school teachers' attitudes towards identification of gifted and talented preschoolers. Objectives were to: find out attitude of preschool teachers on objective method of identification of Gifted and Talented (GT) preschoolers; determine the attitude of preschool teachers on subjective method of identification of GT preschoolers. The study used multiple intelligence theory. Concurrent triangulation design within the mixed methods approach was employed. The target populations were 315 Head teachers, 315 preschool lead teachers and 945 preschool teachers. Stratified random sampling technique was used to generate a sample of 32 head teachers, 32 lead preschool teachers and 95 teachers. Questionnaires, semi structured interview schedule and observation schedule were used to collect data. Validity was enhanced by expert judgment of Supervisors. Test retest method was used to establish reliability of instruments. Qualitative data was analyzed using thematic analysis while quantitative data was analyzed using descriptive with help SPSS version 22. On the Objective methods used in identifying GT learners, the study established that grade tests and aptitude tests were the most commonly used with an average score of 4.48 and 4.4 on the likert scale. On the subjective methods used in identifying GT learners the study found out that teacher and self nominations were the most commonly used with average score of 4.16 and 3.67 respectively on the likerk scale. Most schools employed more than one identification method. This study therefore recommended that GT learners in preschools be identified as early as possible so as to allow early identification and early intervention. It was suggested that a study on the suitability of the placement programs for the gifted and talented learners at the preschool level in Kenya be done to expound the understanding of the present study.

Keywords: Attitudes, gifted and talented pre-schoolers, methods of identification, pre-school teachers.

#### 1. INTRODUCTION

To find a satisfactory insight of giftedness, it is necessary to understand its origins in the history of mankind. Gagne (2009) and Van (2005) observed that the field of gifted education continued to evolve mainly in response to the changing needs especially after the Soviet Union's launch of Sputnik in the late 1950s. Further legislative efforts by many governments in the early 1970s also brought the plight of gifted learners back into the spotlight. Later the definition of giftedness and talentedness was expanded to include various aspects of intelligence and many more.

Vol. 4, Issue 2, pp: (41-60), Month: March – April 2017, Available at: www.noveltyjournals.com

Renzulii (2002) defined the gifted and talented as, "Pupils enrolled in public schools who give evidence of high performance capability in intellectual, creative, artistic, leadership, or specific academic areas and who need services or activities not ordinarily provided in a regular school program in order to fully develop such capabilities". Experts in gifted and talented education note numerous qualities which are characteristic of such students. According to Renzulli's three-ring conception, gifted students possess above average intelligence, creativity, and task commitment.

Therefore Giftedness is not determined by intelligence alone but also with other aspects like high creativity. More specifically, gifted and talented learners are commonly described as quick to learn, curious, investigative, observant, good at problem-solving, creative, non- conforming, passionate, independent, and self-critical. In addition, they often have an advanced vocabulary, a good memory, an advanced sense of humor, and the ability to elaborate on, synthesize, and evaluate ideas (Kessler, 2000). Van (2005) included other aspects of giftedness and talentedness as evidence of high performance capability in areas such as intellectual, creative, specific academic or leadership ability or in the performing and visual arts.

Davis and Rimm (2004) in their study in America pointed out that attitude of teachers towards gifted students are significant consideration when developing gifted education programs because they are key participants in that process, since they can directly influence those differences in their classrooms and in everyday communication with GT learners. Therefore, knowing the teachers' attitudes provides us with the ability to understand their behavior and to predict their success in identification of learners who are gifted and talented.

In the quest to provide satisfactory answers on identification of the gifted and talented, Troxclair (2013), noted that early studies of gifted children and adults were largely subjective and further explained that in Europe, soldiers were identified and promoted by their seniors on the basis of their skills to fight which was seen as a great talent. Plato also identified and labeled gifted men and women on the basis of intellectual abilities and was in favour of identifying the most able youths so that they could receive a differentiated kind of education and show their leadership qualities (Drains, 2008). According to Al–Makhalid (2012), Saudi Arabia had principles of contemporary gifted education that accepted a multiple-talent conception of giftedness, valuing literacy ability, leadership, imagination, reading speed, reasoning and other talent. Therefore such students were identified through intelligence tests and were placed under acceleration programs.

In America, identification of the gifted and talented was available to all children exhibiting characteristics of giftedness and talentedness and specific arrangements were made for them to achieve full potential. They were allowed to complete their studies more rapidly in comparison to other children. In this system the child was promoted to second semester of second grade only after passing the first semester of first grade. This system was only open for bright children and they were taught by special tutors (Renzulli, 2002). They later established a National Research Center on the gifted and talented to nurture the gifts and talents in all the students already placed in various programs. Even within South Africa, percentages of the child population identified as gifted by teachers varied between 5% and 10% across the country (Posavec, 2008). Teachers were seen to be reliable in identification than the parents whose choices were weighed down by cultural stereotypes (Laungani, 2007).

In Kenya, SNE has mainly catered for four categories of children for a long time; those with hearing impairments, mental handicaps, visual impairments and physical handicaps. However, learners who are gifted and talented have been left behind without any form of procedure of identification and placement programs to address their needs. This wastage is pointed out by Koech, Maneno, Njoroge, Runo and Ngasike (2001) report to UNICEF where it showed that there is a prevalence of 3.75% gifted and talented children in every society and therefore Nyakach sub county which has an enrolment of 10,479 enrolled preschool children has a wastage of 393 gifted and talented learners

NACECE (1999) recognizes the importance of early identification. It points out that good foundation laid in early years of the child has far reaching benefits not only to the individual child but also to the society. It observes that priority is for the state to work with households and communities to build an infrastructure through which the basic growth needs of children could be met and hence empower the preschool teachers to be able to identify the GT. Kamunge report (1988) stated that gifted and talented children to be identified early enough and be provided with special programs that will accelerate the development of their special gifts and talents. He proposed that the 15 national secondary schools would become centres for excellence. In May 2011, the government proposed to increase these centres of excellence to 45 by upgrading 30 provincial schools (Barasa, 2011). It was an attempt to create centres that could nurture gifts and talents in

#### Vol. 4, Issue 2, pp: (41-60), Month: March – April 2017, Available at: www.noveltyjournals.com

secondary school and not preschool. However these national centres of excellence were turned to ordinary schools as there were no proper policies to guide the schools as well as the teachers on identification issues. Students were admitted without identification thereby watering down the noble idea of having schools meant for learners who are gifted and talented. Koech report (1999) supports the above sentiments by saying that the ministry responsible for education should design appropriate educational programmes to facilitate learning for gifted and talented children. However, the report says that if this is to be done, then teachers' attitudes have to be taken into account during identification and consequently placement of the gifted and talented learners.

Kenya is yet to develop a comprehensive program to address the issue of gifted and talented preschool education. There is a need for the government to develop a policy on education provision for gifted and talented preschoolers that would address the issues of Identification, curriculum, intervention measures and teacher attitudes. The National education system has been characterized by lack of systems and facilities that respond to the needs of the gifted and talented. A conference held in 2010 in Kenya on the subject of giftedness made recommendations to the government to establish a council on gifted education (Republic of Kenya, 2010). To date this council is yet to be formed. It is due to this background that the current study will investigate preschool teacher's attitudes towards methods of identification of GT preschoolers in Nyakach sub county, Kenya.

#### **1.1 Statement of the problem:**

Effective identification of learners who are gifted and talented has continued to be an issue because the gifted are not catered for individually. Gifted and talented learners sit in class rooms bored and frustrated, they are left out and are not really benefiting from an equal educational opportunity as their peers, and their full potential is not fully tapped. Gifted children by nature are highly inquisitive beings who should become high achievers as a result of their curiosity, experimentation, discoveries, and organization. Gifted children are likely to be under-achievers as a result of not properly identified early enough for quick and timely intervention. In Nyakach sub county learners who are GT are not effectively identified and catered for and as a result get wasted in life. When these talents and gifts are not identified early enough, nurturing them later in life becomes more difficult. Therefore it means the society loses potential human resource.

Historically, little interest has been shown in the identification and service provisions of individuals who qualified as gifted and talented. The failure to identify preschool students has resulted in many of these individuals not reaching their full potential and therefore becomes gifted and talented underachievers. No programme has been put in place to identify the unique characteristics or needs of those who have been identified as gifted and talented. Therefore the study investigated preschool teachers' attitudes towards methods of identification of the gifted and talented learners in pre-schools in Nyakach Sub County.

#### **1.2 Purpose of the study:**

The purpose of this study was to investigate preschool teacher's attitudes towards methods of identification of gifted and talented preschoolers in Nyakach sub county Kenya.

#### 1.3 Objectives of the study:

The specific objectives of this study were to:

- a) Find out the attitude of preschool teachers on objective methods of identification of the gifted and talented preschoolers.
- b) Determine the attitude of preschool teachers on the subjective methods of identifying the gifted and talented preschoolers.

#### **1.4 Research questions:**

The research questions that guided this study were:

- a) What is the attitude of preschool teachers on the objective methods of identifying the gifted and talented preschoolers?
- b) What is the attitude of preschool teachers on the subjective methods of identifying the gifted and talented preschoolers?

Vol. 4, Issue 2, pp: (41-60), Month: March – April 2017, Available at: www.noveltyjournals.com

#### **1.5 Assumptions of the study:**

This research had the following assumptions:

- i) That the gifted and talented learners in preschool are like any other learner who requires basic needs of care, attention, guidance and counseling and education.
- ii) That giftedness and talentedness can be identified in pre-school.
- iii) That preschool teacher is able to identify the gifted and talented preschool learners.
- iv) That preschool teacher is able to give correct intervention to gifted and talented learners.

#### **1.6 Significance of the study:**

This study was significant because the findings of the study may influence policy formulation as far as the education and the identification of gifted and talented preschoolers is concerned. It may also give guidelines on the identification methods, intervention strategies and placement programs for the gifted and talented thus making the learners reach their full potential. Results of this study may be useful to the ministry of education, National center for early childhood education, teachers and curriculum developers with skills and knowledge of planning IEP of instruction for gifted and talented learners. It may create substantial awareness to a number of people, teachers, peers and parents in the school and home environment to understand the characteristics of the gifted and talented learner. Lastly, it may help teachers adopt the programs that may suit the needs of learners who are gifted and talented

#### **1.7 Theoretical Framework of the Study:**

The study was based on multiple intelligence theory proposed by Gardner (1983). Gardner defined intelligence as one's ability to seek out and decipher problems and create valuable products in one's culture. Gardner proposed eight types of intelligences consisting of visual/spatial, verbal/linguistic, musical, logical/mathematics, kinesthetic, interpersonal, intrapersonal, and naturalistic intelligence. Gardner's theory suggested that teachers who use MI theory are able to identify GT learners and develop innovative teaching strategies that reach all students with learning exceptionalities. The MI theory is widely adapted in all areas of education and is popular because it allows educators to create educational programs that will help GT learners use their innate potentials to grow academically (Hassan et al., 2011). Using MI, preschool teachers are able to identify GT learners in a flexible manner and, at the same time, provide opportunities that allow students to use their dominant strengths and intelligences.

In support of Gardner's MI theory, Sulaiman and Sulaiman (2010) claimed that all learners have varied strengths and weaknesses, even though they may differ widely in cognition. Learners vary in how quickly they grasp complex classroom materials. Some learners have difficulty understanding basic concepts and skills, whereas others find them less challenging and easier. By increasing awareness for learners about the different ways in which they learn as well as how they prefer to learn, preschool teachers can help learners in metacognitive abilities so that they are motivated to learn. Sulaiman and Sulaiman (2010) seemed to suggest that students can become higher achievers when their education settings allow them to use their undiscovered intelligences, subsequently, the students' individuality and learning experience becomes more pleasant. Although Gardner's MI theory is widely supported and continues to significantly influence the teaching-learning instructional process, there are critics of the theory. Maftoon and Sarem (2012) argued that the MI theory was not grounded in empirical research and cannot provide enough proof to identify and classify all human intellectual faculties. For this reason, some educators were unwilling to accept Gardner's MI theory, citing that there was not enough empirical evidence to support the concept of intelligence.

This theory is relevant to the study in many ways that it helps, teachers to have knowledge of student intelligences and know how to implement and apply identification methodologies, fosters the inclusion of a wide range of practices that allow teachers to perceive and help GT learners to develop their learning strengths. Another relevance is that teachers who are knowledgeable about MI theory are able to identify the intelligence profile of the GT learners, able to prepare the appropriate activities for the individual profiles, increase learners confidence and enthusiasm for learning and also to determine teachers' attitudes towards the GT.

Vol. 4, Issue 2, pp: (41-60), Month: March – April 2017, Available at: www.noveltyjournals.com

#### **1.8 Scope of the study:**

This study was limited to one specific area of special need that is the gifted and talented children between the ages 0-6 years in Nyakach sub county preschools. The topic was on preschool teacher's attitudes towards methods of identification of gifted and talented preschoolers. The research design that was used here was concurrent triangulation design.

#### 2. REVIEW OF RELATED LITERATURE

#### 2.1 Attitude of preschool teachers' on objective methods of identification of the gifted and talented learners:

Teachers execute teaching and play very important role in instructional designs, teaching activities and classroom management. Wang (2007) in his study in America suggested that an excellent preschool teacher should be equipped with emotional stability, professional literacy, love, and must provide a free and an orderly environment. It is therefore necessary to consider perception, personal traits and values of teachers in order to provide an optimal learning environment.

An effective identification method is one that can nominate possible gifted and talented children and confirms preschoolers' needs, which lead to quality prevalence and subsequent monitoring of their learning outcomes. DECS (2011) stated that the identification process in Australia uses information from a variety of sources and that there are a number of factors to consider in designing an identification method. It says that the identification method must be inclusive, flexible, continuous and must utilize information from a variety of sources. DECS (2011) argued that there is no single method which teachers can be certain will allow gifted and talented learners to be identified and suggested the use of multiple assessments.

Flick (2006) who did a study in Britain observed that a teacher with positive attitude contribute to classroom conditions in which learning is optimized for gifted students. McCoach and Siegle (2007) in their study in USA mentioned that teacher attitude and perception influence identification methodologies, teaching strategies and program placement for gifted learners. In addition, Lassig (2009) in his study in Turkey supported the above sentiments and added that teacher perception has not only influencing power over teacher performance but also shapes the way teachers interpret the emotional and academic needs of regular and gifted students in their classroom. Thus, the positive attitude of the teacher towards the methodology shows an acceptance of the method and an understanding of its use. Curtis (2005) in his research study in USA mentioned that gifted students need a school environment that is positive for easier identification of learners' gifts and talents. Lens and Rand (2002) from Britain also noted that academic achievement of gifted students requires support from teachers in order to allow the learners develop their full potential and avoid under achievement.

Bohner and Wänke (2002) in their research in Britain pointed out that negative teacher attitudes towards identification methods may make learners non-achievers and can result in discriminatory behaviour towards gifted students. A study done in Ghana by Daniels (2007) suggested that teachers tend to evoke attitudes in their students that are similar to their own; if a teacher's attitude is not favorable to gifted students, a subtle negative transfer takes place, and vice versa. Teacher attitude towards gifted students is also important because it has a direct effect on educational programmes for gifted students. Davis and Rimm (2004) who did a study in Canada mentioned that teacher attitude is significant when developing gifted identification methods because their attitude appears to significantly influence gifted students and their educational programmes. Tait and Purdie (2000) who did a research in South Africa suggested that defining teacher perception yields implications for the interconnected relationships among the attitude of students, the attitude of teachers and the attitudes of the community.

Objective assessment tools often used to identify gifted and talented learners are: intelligence tests, achievement tests, aptitude tests and grade tests. Heward (2006) in his study in Nigeria pointed out that teachers have rated the individual intelligence test as the best method of identification and have advised to use more than one means of evaluation. They advise balancing IQ test results against other documentation criteria such as creativity tests, behavior rating scales, samples of artwork or creative writing or other material from parents or teachers

A study in Uganda pointed out that a teacher without experience or training in the objective methods of identification often sees a gifted and talented learner as a discipline or behaviour problem (Knopper 2005). The study further reported that trained teachers of gifted and talented learners tend to be sympathetic towards them and provide appropriate objective assessment tool for proper identification. Because of its complexities and logistics involved in the objective methods, untrained teachers may not use them properly to identify the gifted and talented learners. Their attitudes may pose severe problem to the general and upward morbidity of the gifted and talented learner.

Vol. 4, Issue 2, pp: (41-60), Month: March – April 2017, Available at: www.noveltyjournals.com

Kamugisha et al (2005) in evaluating various methods of identifying gifted and talented children in Kenya found that teachers are unable to identify the gifted and talented learner using aptitude tests, more so the ones that have no training and have negative attitudes in gifted education because they feel that the method will be a challenge to them. This was later criticized by Kamau (2005) who postulated that teachers are not poor identifiers and are able to recognize intellectual potential in children using achievement tests, cognitive ability tests and aptitude tests.

Barasa (2011) found that preschool teachers fail to use intelligence tests and take chronological age into account and tend to select older learners as being bright. Koech et al (2001) in their report found out that, teachers oppose the idea of using achievement tests for identifying the gifted and talented learners because of their belief that they are too shallow to function well. Koech et al (2001) reacting to teachers' attitudes said that early identification is successful if the teacher is aware of the needs of gifted and talented learners and has a positive attitude to the methods used as well as the child's placement. Intelligence test is not widely used because there is none developed for Kenyan situation and therefore preschools will always strive to use any better method that suits their need in the school.

Although these early researches were done on identification methods of gifted and talented learners, there is no documented research found on preschool teachers' attitudes towards the identification methods and classroom provision for these learners. This study will however focus on the preschool teacher's perception towards the objective identification methodology. Another gap that this study will try to fill is that whereas the early studies only talked about the importance of early identification and failed to focus it to preschool, this study will focus on the importance of preschool teachers' attitude. A study done by Koech et al (2001) used only questionnaire as a research tool thereby not including interview schedule, observation as well as checklist. This study will use them so as to get in-depth information.

#### 2.2 Attitude of preschool teachers' on subjective methods of identification of the gifted and talented learners:

Current educational theory and practice in gifted education support the use of multiple criteria in the identification process (Lewis and Milton, 2005). While objective assessment procedures such as achievement, ability or aptitude testing are still regarded as essential elements in the identification of academically gifted and talented students, particularly those who may not be easily recognized as gifted by teachers or peers, most researchers advocate the inclusion of teacher, parent, peer and self-nomination. This balance of objective and subjective identification procedures ensures that individuals who work closely with the gifted students have the opportunity to provide valuable input.

Eyre (2001) mentioned that even though development of gifted education in the United Kingdom has addressed certain issues, the issues regarding identification of gifted and talented pupils is still of most concern for schools. In addition Coleman (2003) who did a study in USA supported the above sentiments by saying that the lack of agreement on assessment methods, design and implications across the world has also resulted in distinguishing conceptions of gifted and talented identification, thus, defining giftedness, program goals and curriculum offerings and provision of services should be an early consideration in developing an identification system. Identification of gifted and talented students should take place as early as possible because early identification will allow early intervention to enhance gifted and talented pupils' potential as well as minimize the chances of missing a gifted and talented pupil who is identified later (DECS, 2011; Hodge and Kemp, 2006).

Silverman (2007) in his research in Colorado pointed out that giftedness can be identified as early as age three. His study revealed that the most appropriate time to test children for giftedness is between four and six years after which children may reach the limits of the test and that socialization effects as they grow may lead to some gifted and talented learners hide their ability. According to a study done in India by Sharma (2006), subjective tools such as teacher nominations, observation, parent nomination, and self-nomination, peer nomination can be used to find learners who demonstrate characteristics gifted and talentedness. Posavec (2008) in his study in Croatia revealed that teachers who uses subjective methods of teacher nomination tend to give more preference for the male learner as more superior to the female ones and would be nominated to the gifted and talented intervention programmes. The report revealed that teachers gave more attention to male learners and the quality of that attention was higher than that received by females and therefore this additional attention translates into male receiving special nomination into gifted programs.

Maitra (2000) in his study in Malaysia observed that teachers have no trust in parental nomination because it might miss to identify some gifted and talented learners especially those who have a tendency to be creative, imaginative, curious or penetrating, nominating those who do well in academics. He also pointed out that learners nominated as gifted by parents

Vol. 4, Issue 2, pp: (41-60), Month: March – April 2017, Available at: www.noveltyjournals.com

are likely to be high achieving conformists who often become bored in school but learn to use the system to get by with as little effort as possible. A study done by Litster (2004) in Canada found that parents who have received no awareness on the characteristics of gifted children, tended to over-estimate the ability of children who are verbally articulative and cooperative.

Turnbull (2007) in his study in the USA revealed that teachers advocated for peer nomination to be used in later childhood or adolescence, as opposed to using it in preschool. The study revealed that preschoolers have difficulty in making objective judgments about the abilities of their classmates, and discriminating between many of the concepts that peer nomination may address and should not be used with children younger than 4 years. This is because in the first two years of school it is not practicable to ask preschoolers to categorize their age-peers by talent area, or to quantify their levels of ability. This is the reason why teachers felt that peer nomination may not be appropriate as an identification tool for the gifted and talented preschoolers.

In a study done in the Chad, Munro (2005) observed that gifted and talented preschoolers are unable to nominate themselves for inclusion in gifted programs. A research done in Tanzania by Hodge and Kemp (2006) showed that adolescents tend to socially reject intellectually gifted students while teachers participating in a large scale attitudinal study stated that they preferred to teach average ability students rather than gifted students. It is understandable that gifted and talented preschoolers in such socio-educational environments might be reluctant to request special assistance in developing their talents. Teachers also felt that preschoolers cannot be allowed to identify themselves as gifted and talented because they lack knowledge about themselves.

Kamunge (1988) report in Kenya observed that teachers felt that holders of university degrees are the ones that can identify and teach the gifted and talented. This is because extensive training in gifted education can significantly increase teacher effectiveness during nomination as was proposed by Maria Montessori. Koech et al, (2001) and Ndurumo (1993) in their studies in Kenya added that teachers prefer parental nomination as a method to identify preschoolers because parents of gifted children recognize their children's developmental precocity in the very early years. A report for National Conference on Gifted and Talented Persons in Kenya, 2010 (GOK 2010) pointed out that those who are gifted and talented in athletics and football are often identified by overseas talent scouts and offered scholarships in Kenya as opposed to those who are talented in other fields such as music, art, sciences and other creative learning areas.

These early researches only dwelt with intelligence as a method of defining gifted and talented. This research will broaden the view of giftedness to include other aspects of giftedness like creativity, leadership ability, art and music. Ndurumo (1993) only looked at the problems teachers face when identifying the gifted and talented learners but did not focus on the attitudes of teachers towards the subjective method of identification. This research will however will fill the gap on the teachers' attitudes towards subjective identification of the gifted and talented learners. The study also failed to discuss that training in the education of the gifted and talented learners. This study will focus on literature on the importance of training of teachers in identification of GT.

#### 3. RESEARCH METHODOLOGY

#### 3.1 Research design:

The study employed Concurrent triangulation design of the mixed methods Approach. Creswell (2009) says that concurrent triangulation is a research design that combines both qualitative and quantitative methods to gather data for an overall interpretation that looks at a variety of different factors. The reason for selecting this design was because it will allow the researcher to identify aspects of a phenomenon more accurately by approaching it from different vantage points using different methods and techniques (Tromp and Kombo, 2006), According to Creswell (2009) "opinion is not directly observable but must be inferred from answers made by the respondents". This design made the research trustworthy, stronger and complementary.

#### 3.2 Area of study:

The study was carried out in ECD centres in Nyakach Sub County. It is one of the sub counties in Kisumu County. The sub county was chosen for this study because of lack of programs for learners who have shown great potential and its minimal study on the gifted and talented learners. According to Independent Electoral and Boundaries Commission

Vol. 4, Issue 2, pp: (41-60), Month: March – April 2017, Available at: www.noveltyjournals.com

(IEBC), it has an area of 357.30 Sq. Km. it borders Kericho Sub County to the east, Homa-Bay Sub County to the west and Nyando Sub County to the North. It is located in western Kenya region along the shores of Lake Victoria, the second largest fresh-water lake in the world. It lies between latitude 0000' (the equator) and 0025' south, and between longitude 34045' east and 35021' east.

The study area has a small shoreline to the southwest where it touches Lake Victoria. The lowest altitude is same as the surface level of Lake Victoria, which is 1,134m above the sea level and has an elevation of 1578 meters above sea level at the highest point. The total population is 133,041 as of 2009 census (Republic of Kenya 2009). It has 315 ECD centers. Nyakach Sub County has Sondu Miriu power generation plant that boost in generating power to the national grid. It is divided into lower Nyakach and upper Nyakach. Nyabondo plateau is found in upper Nyakach. The economic activities of this area are fishing which is mainly done by people living along the lake, Miriu River and the artificial Lake created by the Sondu Miriu power plant. Agricultural and brick making activities are done especially in upper Nyakach. Most people are also involved in trade especially those that are near Katito, Sondu, and Kolweny. There is also quarrying in upper Nyakach near Onywongo on Kisumu-Kisii highway.

#### 3.3 Target Population:

A target population can be defined as a group of people that the researcher wants to draw a conclusion about once the research study is finished (Fraenkel & Wallen, 2000). There are 315 ECD centres in Nyakach Sub County. The study had 315 Head teachers, 315 Preschool lead teachers, 945 preschool teachers. (Kisumu County Education Network, 2015).

#### 3.4 Sample size, sample and sampling techniques:

Onwuegbuzie and Jiao (2006) defined sampling as choosing a subset of individuals from a statistical population to estimate characteristics of a whole population. It is considered an important stage to determine the quality of the results. Polit and Hungler (2013) defined a sample as a sub-section of the population, which is selected to participate in a study. Cohen et al (2007) adds that social research quality is based on rightness of methodology, instrumentation and sampling technique. Collins, Orodho (2005) postulates that, a good representative sample of 20% of the entire population can be enough where the population is small and 10% where the population is large.

#### 3.4.1 Sampling technique:

32 schools were picked through simple random sampling using the basket method.. The researcher assigned numbers serially to each school then all the numbers were placed in a container and thoroughly mixed. Then the blind-folded researcher picked the numbers one at a time until the researcher got the 32 schools required. Mugenda and Mugenda (2003) assert that simple random sampling is used when the information required can be obtained from a specific source. Head teachers, preschool lead teachers, teachers, were picked through stratified random sampling technique. Head teachers, lead teachers and teachers occurred in strata form therefore stratified random sampling technique was used to pick a sample out of this. The sample size was worked out using Orodho (2005) suggestion that a good representative sample of 10% is fine when the population is large. To get each individual in the sample, simple random sampling by way of *basket method* was employed.

GROUP	TARGET POPULATON	SAMPLE
Head teachers	315	32
Lead teachers	315	32
ECD Teachers	945	95

Table 3.1: Population	and Sample	Size
-----------------------	------------	------

Source; Kisumu County Education Network (2015)

#### 3.4.2 Sample size:

The sample size was 32 schools, 32 Head teachers, 32 preschool lead teachers and 95 preschool teachers.

#### 3.5 Instrumentation:

The data collection was done using several instruments to complement each other.

Vol. 4, Issue 2, pp: (41-60), Month: March – April 2017, Available at: www.noveltyjournals.com

#### 3.5.1 Questionnaires:

A questionnaire was used as one form of data gathering technique. This was because it is possible to give similar or standardized questions to the respondents (Flick, 2006). It also makes it possible to reach distant respondents by either posting them or delivering them personally. O'Leary (2010) contends that by using questionnaires researchers can guarantee anonymity to the subjects and hence encouraging them to give honest answers.

#### 3.5.1.1 Questionnaires for Preschool Lead teachers:

Questionnaires were given to preschool lead teachers (QFPLT). The questions were mainly closed and open-ended type. There were a total of 19 items for part A and Likert attitude measuring scale for part B. It measured latent constructs, that is, characteristics of people such as attitudes, feelings, perceptions and opinions. Latent constructs are generally thought of as unobservable individual characteristics that are believed to exist and cause variations in behavior. The 22 item 5-point Likert type questions was an adaptation of 22 items entitled "A scale to measure attitudes toward disabled persons" developed by Yuker (1960). The response was rated as follows; strongly agree 5, agree 4, undecided 3, disagree 2, strongly disagree 1. Depending on the respondents view, the respondent was supposed to tick an appropriate box. The questionnaires were administered by the researcher together with one research assistant.

#### **3.5.1.2 Questionnaires for teachers:**

Questionnaires were given to preschool teachers (QFT). The questions were mainly closed and open-ended type. There were a total of 19 items for part A and Likert attitude measuring scale for part B. It measured latent constructs, that is, characteristics of people such as attitudes, feelings, perceptions and opinions. Latent constructs are generally thought of as unobservable individual characteristics that are believed to exist and cause variations in behavior. The 22 item 5-point Likert type questions was an adaptation of 22 items entitled "A scale to measure attitudes toward disabled persons" developed by Yuker (1960). The response was rated as follows; strongly agree 5, agree 4, undecided 3, disagree 2, strongly disagree 1. Depending on the respondents view, the respondent is supposed to tick an appropriate box. The questionnaires were administered by the researcher together with one research assistant.

#### 3.5.2. Interview schedule:

This instrument was given to 32 Head teachers. Interview schedules are advantageous in that according to Creswel (2009) they help attain the highest response rate of any mixed method approach and it allows extensive in-depth questioning about complex issues. A study carried by Flick (2006,) also asserts that the purpose of interview "is to reveal existing knowledge in a way that can be expressed in the form of answers and so become accessible to interpretation." Head teachers In-depth interview (HTII) was used to enable them express themselves freely. A total of 9 questions were conducted physically by the researcher. Each session took about one hour with the interviewee. The researcher sought the consent of the interviewees to accept the use of a voice recorder as well as taking notes during the interview.

#### 3.6. Procedure for collecting data:

The researcher sought permission to do the study from the director Board of postgraduate studies JOOUST and thereafter got a permit from NACOSTI. After getting the permit the researcher went to the Nyakach Sub County Education Office to seek permission to conduct research. The researcher then visited all the sampled schools two weeks before the study to ensure that the respondents were made aware of the intended study. This was done to seek their consent, explain the purpose of study and the relevance of their participation. The researcher prepared a letter of consent which was signed by the respondents and the interviewees accepting or rejecting to take part in the research. After establishing the convenient date of data collection the participants were assured of administering of the instruments on that day. After administering of the instruments the researcher collected the information for transcription but with the knowledge and authorization of the respondents.

#### **3.7. Validity of research Instruments:**

Validity according to Mugenda and Mugenda (2003) is the accuracy and meaningfulness of inferences which are based on research results. Validity was determined by the supervisors looking at the questions in the questionnaire and interview and check if they answered the research questions and addresses the objectives of the study. Recommendations from supervisors were considered so as to improve the instruments.

Vol. 4, Issue 2, pp: (41-60), Month: March – April 2017, Available at: www.noveltyjournals.com

#### **3.8 Reliability of instruments:**

Reliability is the measure of how consistent results from a test are (Kombo and Tromp, 2003). It is a question of whether if a test is administered to a subject twice you are likely to get the same score on the second administration as you did in the first one. In this study the test retest method was used to establish the reliability of instruments. Reliability of interview schedule was enhanced by having it standardized and doing trustworthiness of qualitative data. The interviewers were trained on the interview process and how to avoid biases. The instruments were administered twice to the same group of respondents within a span of two weeks in between.

#### 3.9 Data Analysis:

The researcher employed both qualitative and quantitative approaches to analyze data. Qualitative data was analyzed using thematic analysis. The study used the principle of thematic analysis. Braun and Clarke (2006) defined thematic analysis as a method of analyzing and identifying patterns, themes within data. Qualitative data reinforced quantitative data. It also employed all the steps of thematic analysis. Braun and Clarke (2013) stated the steps as familiarizing self with data, generating initial codes, searching for themes, reviewing themes, defining and naming themes and lastly producing the report. In addition interviews were reported in verbatim, transcribed and coded according to various themes, categories as they emerge.

Quantitative data was analyzed using descriptive statistics. The statistical package for social sciences (SPSS) version 22 was used to analyze quantitative data which was presented in form of frequency distribution tables and bar graphs. It enabled the researcher to meaningfully describe the distribution of scores or measurements using a few statistics or indices. The collected data was processed before being analyzed. Mistakes in it were corrected. Unclear responses were dealt with as well as contradicting data responding to same item. Data was also organized descriptively into themes, coded and presented in narrative form and citations. This gave the researcher an easy way to discuss the findings and draw conclusions.

#### 4. RESULTS AND DISCUSSION OF THE STUDY

### 4.1 Results and discussion of the study on preschool teachers' attitude towards objective method of identification of gifted and talented preschoolers:

The first question responded to was: What is the attitude of preschool teachers on the objective methods of identifying the gifted and talented preschoolers? This results and discussion was responded to by 27 preschool lead teachers and 83 ECD teachers. The PSLT and the teachers were given a questionnaire which was divided into two parts; Part A was general questions touching on the objective one while part B was a likert scale which was given to get the attitude of preschool teachers on the objective methods of identifying the gifted and talented preschoolers.



Figure 4.1: Objective Methods used in identifying Gifted and Talented pupils

Vol. 4, Issue 2, pp: (41-60), Month: March – April 2017, Available at: www.noveltyjournals.com

In the questionnaire, the study sought to establish which objective methods were used by respondents who were involved in this study in identifying gifted students. From the findings, 71% of the total respondents used intelligent tests, 64% of the total respondents used achievement tests, 54% of the total respondents used aptitude tests and 78% of the total respondents used grade tests. Even though most schools used more than one objective method intelligence tests were the most common. This indicated that teachers have a positive attitude towards objective methods of identifying the GT learners and therefore may use them well during identification process. This finding concurred with the findings of Heward (2006) which said that teachers have rated grade and intelligence tests as the best method of identification method and advised the use of more than one means of evaluation. The findings also differed with the findings of Koech et al (2001) which reported that teachers oppose the idea of using achievement tests for identifying the GT learners because they are too shallow to function. The findings also differed with the findings of Kamugisha et al (2005) which said that teachers are unable to identify the GT learners using aptitude tests more so the ones that have no training and have negative attitude towards gifted education

 Table 4.1: Preschool lead teachers' scores on attitude scale towards objective methods of identification of gifted and talented learners (n-27)

STATEMENT	S.A	A	U	D	SD	TOTAL F.	TOTAL SCORE	AVERAGE SCORE	% SCORE
Usage of intelligence test	16	9	0	2	1	27	116	4.2	84
Usage of achievement test	17	6	1	2	1	27	117	4.3	86
Usage of aptitude test	14	11	1	1	0	27	119	4.4	88
Usage of grade test	16	5	1	4	1	27	112	4.1	82

The study sought to establish the attitude of respondents towards the usage of objective methods in identification of the gifted and talented preschoolers. The responses were captured in the Table 4.1 using a five point likert scale where SA=5, strongly agree, A=4 agree, UD=3, undecided, D=2, disagree and SD=1, strongly disagree..

Findings show that the PSLT scored an average of 4.2 (84%). This means that they strongly agreed that they were satisfied about the usage of intelligence tests as selection criteria of gifted and talented pupils in their pre schools. They reiterated that intelligence tests provide useful information to teachers if used correctly. Furthermore, most intelligence tests do not measure just one thing; instead, they are made up of a number of component subtests, in which people are asked to perform different cognitive tasks.

The PSLT scored 4.3 (86%) on the achievement tests an indication that they strongly agreed that they were satisfied with the usage of achievement tests as selection criteria of gifted and talented pupils in their preschool. On the use of aptitude tests, the PSLT scored 4.4(88%) an indication that they agreed with the use of aptitude tests as selection criteria of gifted and talented pupils in their pre schools. The PSLT scored 4.1(82%) on the statement use of grade tests which indicated that they strongly agreed that they were satisfied about the usage of grade tests as selection criteria of gifted and talented pupils in their pre schools.

In general the attitude of the PSLT towards the usage of objective methods in identification of the gifted and talented learners was very positive as shown by an average score of 4.25. However those who were positive stress that these objective methods should not be used alone but rather be used together to bring accuracy in identification. Therefore teachers were able to use these methods optimally for the benefit of GT learners. This finding concurred with the findings of Flick (2006) which said that teachers with positive attitude contribute to classroom conditions in which learning is optimized for GT learners.

Table 4.2: Teachers' scores on attitude scale towards objective methods of identification of gifted and talented learners (n-83)

STATEMENT	S.A	Α	U	D	SD	TOTAL FREQ.	TOTAL SCORE	AVERAGE SCORE	% SCORE
Usage of intelligence test	47	30	1	4	1	83	357	4.30	86
Usage of achievement test	45	32	0	05	1	83	364	4.39	87.8
Usage of aptitude test	42	35	0	4	2	83	360	4.33	86.6
Usage of grade test	53	24	1	3	2	83	372	4.48	89.6

Vol. 4, Issue 2, pp: (41-60), Month: March – April 2017, Available at: www.noveltyjournals.com

The study sought to establish the attitude of respondents towards the usage of objective methods in identification of the gifted and talented preschoolers. The responses were captured in the Table 4.2 using a five point likert scale where SA=5, strongly agree, A=4, agree, UD=3, undecided, D= 2, disagree and SD= 1, strongly disagree. The findings indicated that the attitude was very positive (V.P) with average score equivalent to 4.38.

Teachers scored an average of 4.30 (86%). This means that they agreed and were satisfied about the usage of intelligence tests as selection criteria of gifted and talented pupils in their pre schools. They reiterated that intelligence tests provide useful information to teachers if used correctly. Furthermore, most intelligence tests do not measure just one thing; instead, they are made up of a number of component subtests, in which people are asked to perform different cognitive tasks.

The teachers scored 4.39 (87.8%) on use of achievement tests, an indication that they strongly agreed and were satisfied with the usage of achievement tests as selection criteria of gifted and talented pupils in their preschool. On use of aptitude tests, teachers scored 4.33(86.6%) an indication that teachers agreed with the usage of aptitude tests as selection criteria of gifted and talented pupils in their pre schools. The teachers also scored 4.48(89.6%) which indicated that they strongly agreed that they were satisfied about the usage of grade tests as selection criteria of gifted and talented pupils in their pre schools.

In general the attitude of the teachers towards the usage of objective methods in identification of the gifted and talented learners was very positive as shown by an average score of 4.38. However those who were very positive stress that these objective methods should not be used alone but rather be used together to bring accuracy in identification. Therefore teachers were able to use these methods optimally for the benefit of GT learners. This finding concurred with the findings of Flick (2006) which said that teachers with positive attitude contribute to classroom conditions in which learning is optimized for GT learners.

The head teachers preferred using objective methods in identifying the gifted and talented pre-schoolers to subjective methods. They attributed this due to the fact that they believed objective methods were less biased as compared to subjective methods. Most of them preferred the usage of grade tests and Achievement tests.

One head teacher said; "Grade test ndiyo Msuri saidi. Mmmh... will give you ile correct ability mtoto and therefore one can identify the child appropriate" (Grade test is the best, because it will give you the ability of a child and hence help a teacher identify the child appropriately) HT 4.

Similarly in an interview with another head teacher, he said that;

"Even though we may not have intelligence test designed for Kenyas situation, hi shule yetu tumejaribu kuadapt instruments to suit our case in the school. It works for us." (Even though we may not have intelligence test designed for Kenyan situation, our school has adapted an instrument to suit it. It works for us in the school). HT 23.

Another head teacher was very sensational during the interview and said that

"I do like aptitude tests for various reasons. I will also note that I have taken an official aptitude test. To me, I see them as a way to show all of human capability and accomplishments to a single number." HT 17

When probed to give her attitude on the achievement test, she said that;

'I completely believe that a teacher can Identify Yule mtoto mwerevu kutumia hiyo test. These tests should be graded on a change in the past year, instead of taking the test based on his baseline intelligence." ('I completely believe that a teacher can Identify a GT learner using achievement test. These tests should be graded on a change in the past year, instead of taking the test based on his baseline intelligence.). This finding disagreed with the findings of Lewis and Milton (2005) which advocated for the inclusion of parents, teachers, peers and self nomination so as to have a balanced valuable impact during nomination.

### 4.2 Results and discussion on preschool teachers' attitude towards subjective method of identification of gifted and talented preschoolers.

The second question responded to was: What is the attitude of preschool teachers on the subjective methods of identifying the gifted and talented preschoolers?

Vol. 4, Issue 2, pp: (41-60), Month: March – April 2017, Available at: www.noveltyjournals.com

This results and discussion was responded to by 27 preschool lead teachers and 83 ECD teachers. The PSLT and the teachers were given a questionnaire which was divided into two parts; Part A was general questions touching on the objective two while part B was a likert scale which was given to get the attitude of preschool teachers on the subjective methods of identifying the gifted and talented preschoolers.



Figure 4.2: Subjective Methods used in identifying Gifted and Talented pupils

In the questionnaire, the study sought to establish which subjective methods were used by respondents who were involved in this study in identifying gifted students. From the findings, 74% of the total respondents used teacher nomination, 57% of the total respondents used parent nomination, 47% of the total respondents used peer nomination, 41% of the total respondents used self nomination and 61% of the total respondents used observation. This is because teachers had prior training on the GT education and were accurate in assessing the gifts and talents for learners. Teacher nomination was most common subjective method used among the five methods. However, most schools employed more than one subjective identification method. This finding was in tandem with the findings of Posavec (2008) which said that teacher nomination tend to give accurate predictions on GT identification and is commonly used for identification. The study differed with the findings of Maitra (2000) which said that teachers have no trust on parental nomination because they might miss to identify GT learners especially those who are creative, curious and imaginative.

 Table 4.3: Preschool lead teachers' scores on attitude scale towards subjective methods of identification of gifted and talented learners (n-27)

STATEMENT	S.A	A	U	D	SD	TOTAL FREQ.	TOTAL SCORE	AVERAGE SCORE	% SCORE
Usage of teacher nomination	7	11	1	8	0	27	98	3.63	72.6
Usage of parent nomination	6	13	0	6	2	27	96	3.56	71.2
Usage of self nomination	8	10	2	6	1	27	99	3.67	73.4
Usage of peer nomination	4	14	0	7	2	27	92	3.40	68
Usage of observation	8	8	4	6	1	27	97	3.59	71.8

In the likert scale the study sought to establish the attitude of PSLT towards the usage of objective methods in identification of the gifted and talented preschoolers. The responses were captured in the table 4.3 using a five point likert scale where SA=5, strongly agree, A=4, agree, UD=3, undecided, D=2, disagree and SD=1, strongly disagree.

Vol. 4, Issue 2, pp: (41-60), Month: March – April 2017, Available at: www.noveltyjournals.com

The PSLT scored 3.63(72.6%) on use of nominations as selection criteria. This indicated that they agreed and were satisfied about the use of teacher nominations as selection criteria of gifted and talented pupils in their pre schools. The results from the study also showed that, some PSLT scored 3.56(71.2%) on the statement use of parent nomination as selection criteria. This showed that agreed and were satisfied with the use of parent nomination as selection criteria of gifted and talented pupils in their preschools. Usage of self-nomination as selection criteria of gifted and talented pupils in their preschools. Usage of self-nomination as selection criteria of gifted and talented pupils in the preschools scored 3.67(73.4%), which indicated that PSLT agreed with its usage. The study also established that PSLT scored 3.40(68%) on the statement use of peer nomination. This revealed that they agreed and were satisfied with the use of peer nomination as selection criteria of gifted and talented pupils in the use of observation as a criteria. The implication of this was that they agreed and were satisfied on the use of observation as selection criteria of gifted and talented pupils in their primary schools.

This generally showed that the attitude of PSLT towards the usage of subjective methods in identification of the gifted and talented learners was positive as indicated by average score of 3.57. PSLT own attitudes towards subjective methods of identifying the GT learners vary greatly. This variation in attitude towards subjective methods may affect teachers during identification. This finding concurred with the finding of Sharma (2006) which postulated that teachers use various subjective tools which can be used to find learners who demonstrate characteristics of GT and hence variation in usage.

Table 4.4: Teachers' scores on attitude scale towards subjective methods of identification of gifted and talented learners. (n-83)

STATEMENT	S.A	A	U	D	SD	TOTAL FREQ.	TOTAL SCORE	AVERAGE SCORE	% SCORE
Usage of teacher nomination	31	43	0	09	0	83	345	4.16	83.2
Usage of parent nomination	25	45	1	10	1	83	333	4.01	80.2
Usage of self nomination	15	57	1	10	0	83	326	3.93	78.6
Usage of peer nomination	27	40	0	11	5	83	322	3.88	77.6
Usage of observation	28	37	3	13	2	83	325	3.92	78.4

The study sought to establish the attitude of teachers towards the usage of subjective methods in identification of the gifted and talented pre-schoolers. The responses were captured in the table 4.4 using a five point likert scale where SA=5, strongly agree, A=4, agree, UD=3, undecided, D=2, disagree and SD=1, strongly disagree.

The teachers scored 4.16(83.2%) on the statement teacher nominations an indication that they agreed and were satisfied on the use of teacher nominations as selection criteria of gifted and talented pupils in their pre schools; scored 4.01(80.2%) on the statement parent nomination which indicated that they agreed and were satisfied with the use of parent nomination as selection criteria of gifted and talented pupils in their preschools; they scored 3.93(78.6%), on the statement use of self-nomination as selection criteria of gifted and talented pupils in the preschools; they scored 3.93(78.6%), on the statement agreed with its use ;teachers scored 3.88(77.6%) which showed that they agreed and satisfied with the usage of peer nomination as selection criteria of gifted and talented pupils in the preschools; teachers scored 3.92(78.4%) on the statement use of observation as a selection criteria. This revealed that they agreed and were satisfied on the use of observation as selection criteria of gifted and talented pupils in their preschools.

Generally, the overall attitude of the teachers on the use of subjective methods was that the attitude was positive (P) with mean score equivalent to 3.98. Teachers own attitudes towards subjective methods of identifying the GT learners varied greatly. This variation in attitude towards subjective methods may affect teachers during identification. This finding concurred with the finding of Sharma (2006) which postulated that teachers use various subjective tools which can be used to find learners who demonstrate characteristics of GT and hence variation in usage.

The head teachers preferred the use of teacher nomination to others like parental, self and peer nomination. When interviewed, one head teacher said that "Tiche ndiyo anaweza chagua mtoto mwerevu juu yeye ni mtaalamu mkuu. Amefundishwa hiyo job" (The teacher is fit for identifying the GT because he/she is a professional and also trained to do so.) HT 8

Vol. 4, Issue 2, pp: (41-60), Month: March – April 2017, Available at: www.noveltyjournals.com

Another head teacher said that;

'Naeza sema kwamba watoto kwa watoto ndiyo wamejuana kwa vitendo na kwa uwezo wao. Wanaweza jua ni nani ako na uwezo zaidi kuliko wengine kwa darasa juu wamekaa pamoja na kujua uwezo wa mwingine' (It should be taken into account that the nomination made by peers can be more accurate if they are made in any learning environment. Classmates are the peers in the learning environment; therefore, they have the chance to observe and note their classmates' intellectual capability and academic performance.)HT 11.

In another interview with another head teacher about parental nomination, he pointed out that;

'Msasi ndiyo anawesa kujua ability ya mtoto. Amekaa nay eye kutoka utotoni na kwamba ametasama vile mtoto amekua, sile vitu anawesa fanya tofauti na wengine na kama ako na special abilities that can allow the child to be designated gifted and talented' (The parent is better placed to know the ability of the child because he lives with the child and knows those things the child can do better than others, special abilities that can allow the child to be designated gifted and talented) HT 2.

When probed further to say something on self nomination, he said that;

"Self-nominations of students results in high proportions of candidates who do not meet psychometric criteria for high giftedness"

#### 5. SUMMARY OF FINDINGS, CONCLUSIONS AND RECOMMENDATIONS

#### 5.1 Summary of the study:

## 5.1.1 Findings on the attitude of preschool teachers on objective methods of identification of the gifted and talented preschoolers:

On the objective methods used in identifying gifted and talented learners the study established that grade tests were the most commonly used though closely followed by intelligence tests, achievement and aptitude tests. However it was also discovered that most schools employed more than one objective method in identifying the gifted and talented learners at the same time. On the rating of the attitude of the teachers towards the usage of these objective identification methods, the outcome indicated that the attitude was very positive. Most of the respondents were very much satisfied with various objective methods applied.

## 5.1.2 Findings on the attitude of preschool teachers on subjective methods of identification of the gifted and talented preschoolers:

On the subjective methods used in identifying gifted and talented learners the findings indicated that teacher nomination was the most commonly used. The study also highlighted that most schools employed more than one subjective method in identifying the gifted and talented learners at the same time. On the rating of the attitude of the teachers towards the usage of these subjective identification methods, the outcome indicated that the attitude was positive though not as much. This was so because most of these methods can be so biased since they depend on the identifiers opinion. The methods have no common ground and each identifier was left to use his/her discretion when doing the identification.

#### **5.2 Conclusions:**

In conclusion, the first objective was to find out the attitude of preschool teachers on the objective methods of identifying the gifted and talented preschoolers in Nyakach Sub County. Based on the findings the study concluded that teachers were positive towards the objective methods of identification of the gifted and talented learners. The study also concluded that teachers prefer the use of scientific methods of identifying the gifted and talented than any other method.. However the study noted that many school adapted the identification tools to suit their school needs.

In the second objective, the study also sought to determine the attitude of preschool teachers on the subjective methods of identifying the gifted and talented preschoolers. On this objective the study concluded that teachers had a positive attitude towards the usage of subjective methods of identifying the gifted and talented. However the agreement was not that strong as compared to the objective methods. This conclusion was arrived at based on the fact that subjective methods did not have a standardized criterion that can be used uniformly in schools and therefore presented a lot of biasness.

Vol. 4, Issue 2, pp: (41-60), Month: March – April 2017, Available at: www.noveltyjournals.com

#### 5.3 Recommendations:

Based on the discussion and key findings of the study, the following recommendations were made.

- i. It was recommended that as a first step, the Ministry of Education need to work together with all those who are involved in educating gifted learners to determine a solid gifted policy that considers the latest international developments in theory, procedures to follow in assessing gifted learners needs and standardized identification tools that can be used by every Kenyan school.
- ii. It was also recommended that gifted learners in preschools be identified as early as possible because early identification will allow early intervention and proper placement in various program so that they may develop their full potential.
- iii. The study further recommended that head teachers must be certain that every preschool teacher involved in gifted education has accurate knowledge about the gifted and gifted education, as well as the skills needed to meet the special educational needs of gifted students, the ability to use myriad intervention strategies to meet the needs of GT learners.
- iv. Lastly, It was recommended that various schools should continuously involve their teachers in the designing and improving of various strategies and approaches of dealing with the gifted and talented learners.

#### 5.4 Suggestions for further study:

The following possible topics have been suggested for expounding the understanding of the present topic:

- i) A study on the perception of primary teachers towards the education of gifted and talented learners in primary schools in Kenya would expound the understanding of the present study
- ii) A study on the suitability of the placement programs for the gifted and talented learners at the preschool level in Kenya would expound the understanding of the present study.
- iii) A study on the role of intervention strategies on the academic development of the gifted and talented learners.

#### REFERENCES

- [1] Arika .E. (2009). Neglected Groups of Gifted and Talented Persons, Nairobi, KISE
- [2] Bohner, G., & Wänke, M. (2002). Attitudes and attitude change. East Sussex, Psychology Press.
- [3] Borg, W. R., & Gall, M. D. (2003). *Educational Research: An Introduction* (Fifth ed.).New York: Longman.
- [4] Braun, V. & Clarke, V. (2013) Successful qualitative research: A practical guide for Beginners London: Sage.
- [5] Brody, L. and J. Stanley. (2004) Youths who reason exceptionally well mathematically and or verbally. In *Conceptions of Giftedness* ed. R. Sternberg and J. Davidson, 20-37. New York: Cambridge University Press.
- [6] Chessman, A. M. (2010). *Teacher Attitudes and Effective Teaching Practices for Gifted Students at Stage 6.* New York: Macmillan.
- [7] Colangelo, N., & Davis, G. A. (Eds). (2003). *Handbook of gifted education* (3<sup>rd</sup> ed.). Boston: Pearson Education.
- [8] Coleman, M. (2003). The identification of students who are gifted. Washington D.C, McGrraw-Hill INC.
- [9] Collins, K. M. T., Onwuegbuzie, A. J., & Jiao, Q. G. (2006). *Prevalence of mixed methods sampling designs in social science research*. Evaluation and Research in Education, *19*, 83-101
- [10] Curtis, J. (2005). *Pre-service teachers' attitudes toward gifted students and gifted education*. PHD dissertation: USA. Columbia University.
- [11] Creswell, J. W. (2009). *Research Design: Qualitative, quantitative and Mixed Method approaches.* Thousand Oaks, CA: Sage.
- [12] Cohen, L., Manion, L., & Morrison, K. (2007). Research methods in education (6th ed.). London: Routledge.

Vol. 4, Issue 2, pp: (41-60), Month: March – April 2017, Available at: www.noveltyjournals.com

- [13] Davis, G., & Rimm, S. (2004). *Education of the gifted and talented* (5th ed.). Needham Heights, MA: Allyn & Bacon.
- [14] Daniel, L. (2007). Research summary: Heterogeneous grouping. National Middle School Association Research Summary.
- [15] Drain, D. (2008). Teachers' Attitudes and Practices toward Differentiating for Gifted Learnersin K-5 General Education Classrooms.PHD dissertation: Columbia University.
- [16] Department for Education and Children's Services. DECS. (2011). Gifted Children and Students Policy. Frydenburg, E., & O'Mullane, A. (2000). Nurturing talent in the Australian context: A reflective approach. Roeper Review, 22 (2), 78-85.
- [17] De Vaus, D. A. (2002). Surveys in social research. London: Routledge.
- [18] Eyre, D. 2001. An effective primary school for the gifted. In *Curriculum Provision for the Gifted and Talented in the primary school: English, Maths and ICT* ed D. Eyre and L. McClure, 1-27 London: David Fulton.
- [19] Feldhusen, J. 2003. The nature of giftedness and talent and the pursuit of creative achievement and expertise. *The Journal of the National Association of Gifted Children*, 7, no. 1: 3-5.
- [20] Feldman, R. S. (1985). Social psychology: Theories research, and applications. New York: McGraw-Hill Book Company.
- [21] Fraenkel, J. R. & Wallen, N. E. (2003). How to design and evaluate research in education. 5<sup>th</sup> ed. New York: McGraw-Hill.
- [22] Flick, U. (2006). An introduction to qualitative research. London: Sage Gross,
- [23] M.U.M. (2009).Issues in the cognitive development of exceptionally and profoundly gifted individuals. In K.A. Heller, Monks, F.J. and Passow. A. H. (Eds), International handbook of research and development of giftedness and talent (2<sup>nd</sup>edition). Armsterdam: Elsevier.
- [24] Fuller B (2011). Cross-national Differences in Educational Achievement Inequality. Washington D.C: World Bank.
- [25] Gagne, F. (2000). Understanding the complex choreography of talent development through DMGT –based analysis. In Heller, K.A., Monks, F.J., Sternberg, R. & Subotnik, R.F. (Eds.), International handbook of giftedness and talent. (2nd ed). Amsterdam: Elsevier.
- [26] Gagné, F. (2009). Building gifts into talents: Detailed overview of the DMGT 2.0. In B. MacFarlane, & T. Stambaught (Eds.), Leading change in gifted education: The festschriftof Dr Joyce VanTassel-Baska.Waco, TX: Prufrock Press.
- [27] Gallagher, J. J. (2003). Issues and challenges in the education of gifted students. In N. Colangelo & G. A. Davis (Eds.), Handbook of gifted education (3<sup>rd</sup> ed.) (pp. 11-23). Boston: Pearson Education.
- [28] Gardner, H. (1999). Intelligence reframed: Multiple intelligences for the 21stcentury. Gardner,
- [29] H. (1999). Intelligence reframed: Multiple intelligences for the 21st century. New York, NY: Basic Books
- [30] Gray, E., Ali, A. S., & Favaro, P. (2009). *Gifted education program review* (Unpublished document). Mississauga, Ontario: Peel District School Board.
- [31] Gorman, S. (2007). *Managing research ethics: A head-on collision?* In A. Campbell, And S. Groundwater-Smith (Eds.), *An ethical approach to practitioner research* (pp. 8-23). Abingdon: Routledge.
- [32] Government of Kenya. (2010). Report for national conference on gifted and talented persons in Kenya. Nairobi.
- [33] Harrison, C. A. (2003). *Giftedness in early childhood: The search for complexity and connection*. (Unpublished EdD dissertation). University of Western Sydney, Australia.

Vol. 4, Issue 2, pp: (41-60), Month: March – April 2017, Available at: www.noveltyjournals.com

- [34] Hassan, A., Sulaiman, T., & Baki, R. (2011). Philosophical approach in applying multiple intelligence in teaching and learning as viewed by Malaysian school teachers. *International Journal of Business & Social Science*, 2(16), 205–210. Retrieved from Business Source Complete database. (Accession No. 66328369)
- [35] Heward, WL. (2006). *Exceptional Children; An Introduction to Special Education* (8th ed.). New Jersey: Merill Prentice Hall.
- [36] Hodge, K. Kemp, C. (2006). Recognition of giftedness in the early years of school: Perspectives of teachers, parents, and children. Journal for the Education of the Gifted, 30 (2), 164-204.
- [37] Johnson, R. B., & Christensen, L. (2008). *Educational research: Quantitative, qualitative, and mixed approaches.* Thousand Oaks, CA: Sage Publications
- [38] Kamau, R.W (2005). A study of measures used in the identification of Gifted and Talented Children in three Districts of Kenya. PHD Dissertation; Kenyatta University.
- [39] Kamugisha, R. tanui, S. Koros, M. ondieki, D, simiyu, D. (2005). *education system in Kenya:* is there any need for critical review of the system? *Journal of Educational Planning*, 23(2): 134-145
- [40] Kamunge report. (1988). *Report of the Presidential working party on education and manpower training for the next decade and beyond:* Nairobi: Government printers.
- [41] Karanja, M. (1997). A comparative study of self-concept among exceptional children in integrated and special schools in Nairobi, Kiambu, and Muranga districts. (*Unpublished*). *Masters thesis. Moi University*.
- [42] Kisumu County Education Network (2014). The status of basic education in Kisumu county. Kisumu. K-CEN
- [43] Koech, B.G. Njoroge, M. Maneno, Runo, Ngasike. (2001). Rapid assessment of the basic education and training needs for children with disabilities with special emphasis on the girl child. (Unpublished). Draft final report to UNICEF.
- [44] Koech report, (1999). *Report on totally integrated quality education and training in Kenya:* Nairobi, Government printers.
- [45] Kombo, D.K&Tromp, D.L (2006) Proposal and Thesis Writing. Nairobi, Paulines Publications Africa.
- [46] Knopper, D., & Fertig, C. (2005). *Differentiation for gifted children: It's all about trust*. Illinois Association for Gifted Children's Journal, 6-8.
- [47] Kothari, C. K. (2004). *Research Methodology: Methods and Techniques*. New Delhi. New age international publishers.
- [48] Laungani, P.D. (2007). Understanding Cross-Cultural Psychology. London. Thousand Oaks: Sage.
- [49] Litster, K. M. (2004). The self-concepts of gifted and non-gifted students: A metaanalysis (Unpublished). Master's dissertation. University of Victoria.
- [50] Lens, W., & Rand, P. (2002). Motivation and cognition: Their role in the development of Giftedness. In K. A. Heller,
   F. J. Monks, R. J. Sternberg, & R.F. Subotik (Eds.), International handbook of giftedness and talent. Oxford: Elsevier
- [51] Lassig, C. J. (2009). *Teachers' attitudes towards the gifted: the importance of development and school culture*. Australasian Journal of Gifted Education, 18(2), 32-42.
- [52] Lewis, E., & Milton, M. (2005). Attitudes of teachers before and after professional development. *The Australasian* Journal of Gifted Education, 14(1), 5-14. 177 Croatian Journal of Education, Vol.17; Sp.Ed.No.1/2015, pages: 165-178
- [53] Maftoon, P., & Sarem, S. (2012). The realization of Gardner's multiple intelligences (MI) theory in second language acquisition (SLA). *Journal of Language Teaching & Research*, *3*(6), 1233–1241. doi:10.4304/jltr.3.6.1233-1241
- [54] Maio, G. R., & Olson, J. M. (2000). Why we evaluate: Functions of attitudes. New Jersey: Erlbaum.

Vol. 4, Issue 2, pp: (41-60), Month: March – April 2017, Available at: <u>www.noveltyjournals.com</u>

- [55] Maitra, K. (2000). *Identification of the gifted: Some methodological issues*. Gifted Education International, 14, 296-301.
- [56] Marland, S.P (1972). *Education of gifted and talented*. Report to the congress of the U.S commissioner of education. Washington DC, U.S government printing press.
- [57] McCoach, D. B., & Siegle, D. (2007). *What Predicts Teachers' Attitudes Toward the Gifted*. Gifted Child Quarterly, 5(3), 246-255.
- [58] Merriam, S. B. (2001). Qualitative research and case study applications in education. San Francisco: Jossey-Bass.
- [59] Mertens, D. M. (2010). *Research and evaluation in education and psychology:Integrating diversity with quantitative, qualitative, and mixed methods* (3<sup>rd</sup>ed.). Thousand Oaks, CA: Sage
- [60] Mugenda,A&Mugenda O.(2003)Research Methods: Qualitative Approaches .Nairobi, African Centre for Technology Studies.
- [61] Munro, J. (2005). Building the capacity for professional learning: A key component of the knowledge of effective school leaders in the Twenty-first Century. Research report commissioned and published by National College for School Leadership, in Nottingham, UK.
- [62] NACECE (1997) guidelines for early childhood and development in Kenya. Nairobi: KIE.
- [63] Ndurumo, M.M. (1993). Exceptional children. Nairobi: Longman.
- [64] O'Leary, Z. (2010). The essential guide to doing your research project (3<sup>rd</sup>ed.). London: Sage
- [65] Orodho, A, J. (2003). Essential of Education and Social Science Research Methods. Nairobi .Mosoal Publisher,
- [66] Polit, D.F. and Hungler, B.P. 2013. *Essentials of Nursing Research: Methods, Appraisal, and Utilization* (8th Edition ed.). Philadelphia: Wolters Kluwer/Lippincott Williams and Wilkins
- [67] Posavec, T. (2008). *Stavovi učitelja prema darovitosti i darovitim učenicima u Varaždinskojžupaniji* (Unpublished) master's thesis. Učiteljski fakultet, Zagreb.
- [68] Renzulli, J. 2005. *The three-ring conception of giftedness: A developmental model forcreative productivity*. In *Conceptions of Giftedness* ed R.J. Sternberg and J. E. Davidson, 246-279. Cambridge: Cambridge University press.
- [69] Saunders, M., Lewis, P. & Thornhill, A. (2012) "Research Methods for Business Students"6<sup>th</sup> edition, Pearson Education Limited
- [70] Sharma, S. (2006). Education of the Gifted. New Delhi; Shipra Publications.
- [71] Silverman, L. K. (2007). *What we have learned about gifted children: 1979-2007*. Denver, CO: Gifted Development Centre.
- [72] Sulaiman, T. Hassan, A., & Yi, H. Y. (2011). An analysis of teaching styles in primary and secondary school teachers based on the theory of multiple intelligences. *Journal of Social Sciences*, 7, 428–435. (Accession No. 67068401)
- [73] Suntrock, K. (2014). A Dynamic Theory of Personality, McGraw-Hill, New York.
- [74] Terman, L.M., and Cox, CM. (1926). *Genetic studies of genius: The early mental traits of 300 geniuses*.Vol.2. Stanford, C.A: Stanford University Press.
- [75] Terman, L.M., and Oden, M.H. (1925). *Genetic studies of genius: Mental and Physical traits of a 1,000 gifted children.* Vol1. Stanford, C.A: Stanford University Press.
- [76] Terman, L.M. and Oden, M.H. (1947) *Genetic Studies of genius: The gifted child grows up.* Vol.4 Stanford, C.A.: Stanford University Press.

Vol. 4, Issue 2, pp: (41-60), Month: March – April 2017, Available at: www.noveltyjournals.com

- [77] Terman, L.M., and Oden, M.H. (1959). *Genetic Studies of genius: The gifted group at mid-life*. Vol. 5 Stanford, C.A: Stanford University Press.
- [78] Turnbull, A. Turnbull, R. &Wehmeyer, M.L. (2007). *Exceptional Lives: Special Education inToday's Schools* (8<sup>th</sup> ed). New Jersey: Merill Prentice Hall.
- [79] Yuker. H. E. (1960). A scale to measure attitudes toward disabled persons. New York: Albertson.
- [80] Troxclair, D. A. (2013). Pre-service Teacher Attitudes Toward Giftedness. Roeper Review, 35,58-64.
- [81] Tait, K., & Purdie, N. (2000). Attitudes toward disability: Teacher education for inclusive environments in an Australian university. International Journal of Disability, Development and Education, 47 (1), 25-38.
- [82] Van Tassel-Baska, J. (2003). *Curriculum: Planning and instructional design for gifted learners*. Denver, CO: Love.
- [83] Wang, S. F. (2007). Network Support System of Gifted Education. Gifted Education, 102, 20-28
- [84] Watts, G. (2006). Teacher *attitudes to the acceleration of the gifted: a case study from New Zealand*. Gifted and Talented, 10(1), 11-19.