

IDENTIFICATION OF GIFTED AND TALENTED LEARNERS WITH HEARING IMPAIRMENT IN INCLUSIVE EDUCATION PROGRAMMES IN KENYA.

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ABSTRACT

International and national policy documents support the provision of education for gifted and talented learners with hearing impairment in inclusive education programmes. The study investigated the identification of gifted and talented learners with hearing impairment in inclusive education programmes in Kenya. Qualitative and quantitative research utilizing concurrent triangulation study design focused on respondents' experiences on identification process of gifted and talented learners with hearing impairment in inclusive education programmes in Kenya. Interview, questionnaires, focus group discussion and observation checklists were used to collect data from purposely selected respondents which included 1 Principal 28 teachers and 208 learners of a technical institution in Kenya, 1 National Council for Persons with Disabilities officer, 3 Educational Assessment and Research Center officers and 2 Quality Assurance and Standards officers in Siaya County, Kenya. The major findings of the study were that learners with hearing impairment volunteered themselves or were identified by their peers as gifted and talented, others were identified by their teachers when they were exposed to variety of activities in and outside the classrooms and workshops. There was also disconnect between Special Needs Education Policy and practice, and between various stakeholders. The conclusion drawn was that Kenya used informal identification tools such as self, peer, parent/caregiver or teachers nomination. Standardized identification tools could not be used in Kenya to identify gifted and talented learners with hearing impairment in inclusive education programme because they were culturally biased, which is against the principle of the United Nations Conventions on the Rights of the Child that Kenya ratified and has entrenched in its laws and policies. There is need for Kenya Institute of Curriculum Development to develop a standardized identification tool for gifted and talented learners with hearing impairment.

Key Words: Special Needs Education, Inclusive Education, Gifted and Talented and Hearing Impairment and Identification.

Background of the Study

Access to education is recognized as a basic human right both in the United Nations Declaration on Human Rights and the UN Convention on the Rights of the Child (King & McGrath, 2002). In a developing country such as Kenya, inclusive education for gifted and talented learners with hearing impairment must incorporate an attempt to identify those groups that have been unable to benefit from the current structures of education and factors that have led to that situation. Article 26 of the Universal Declaration of Human Rights UNESCO (1994) states that everyone has a right to education, which shall be free and compulsory. All are entitled to all rights without discriminations.

Smith (2004) observes that, special needs education (SNE) has evolved from neglect, private tuition, institutionalization, separation, normalization to inclusion. Smith argues that evolution was an indication that the society had noticed the abilities of persons with disabilities and special needs to access opportunities learning institutions. Kopetz and Ifimu (2008) argue that SNE is also viewed as an academic delivery system focused primarily on enhancing students with special educational needs to learn in the modified environment and/or to learn with individualized accommodations. According to Fish (1995), historical development of special needs education in United States of America began with the first school for the learners with hearing impairment which was opened at Connecticut in 1871 by Thomas Hopkins Gallaudet.

Minton (1988), posits that education of the gifted and talented dates back to 1868. The field of gifted and talented education continued to evolve mainly in response to the changing needs of the society, especially after the Soviet Union's successful launch of the space capsule, Sputnik I. Milton further argues that USA felt challenged by the Soviet Union. Taylor and Kokot, (2000) observe that before 1994, South Africa was the only sub-Saharan country in which significant development in gifted and talented education were noted.

Government of Kenya (2003), PWD Act 2003, part 3 article 18 states that "No person or learning institution shall deny admission to a person with special needs and disabilities to any course of study by any reason if the person has the ability to acquire substantial learning in that course." The Education Act Cap 211 of Kenya states that nobody shall be refused admission to or excluded from school. The Education Pillar in the vision 2030, aims at developing key programmes for inclusive education. However, some teachers are yet to embrace inclusive

education. Omoke (2011) observes that teachers who are against inclusive education give reasons such as, students with disabilities would be disruptive to their classes or demand too much attention, inadequate staffing, training, lack of appropriate curriculum, inadequate support services, stress and increased workload.

Government of Kenya (1988) Kamunge Report states that every society has its specially gifted and talented children who need special needs education to develop their special intellectual, creative, artistic or other talents to maximum level possible. The report recommended that there is need to identify the gifted and talented and to develop special programmes for them in specific schools which are deliberately identified and established for them.

Purpose of the Study.

To establish the identification of gifted and talented learners with hearing impairment in inclusive education programmes in Kenya.

Theoretical Framework

This study was informed by the doctrine that children's rights are human rights and that they are equal to other human beings (Alanen, 2010). Children with disabilities have undeniably and consistently occupied the role of 'others' in schools (LaNear & Frattura, 2009). As a result Critical Theory which was (Fuchs, 2011) an approach that studied society in a dialectical way by analyzing political, economic, domination, exploitation and ideologies informed this study.

Social justice was the way in which different societies perceived and responded to differences in human beings which could be demonstrated through provision of access to opportunities such as identification of gifted and talented learners with hearing impairment either in institutions or in the wider community. The natural understanding was that because gifted and talented learners who were hearing impaired in inclusive education programmes were human beings, they were entitled to all rights that human beings enjoyed. In regard to education, According to Kincheloe and McLaren (2008), a criticalist was a researcher whose work sought to critique certain oppressive aspects of a culture. The assumption was that certain groups of people in the society were more

privileged than others for various reasons. Prasad (2005) argued that critical theory should seek to empower individuals, which is possible with identification of gifted and talented learners with hearing impairment to benefit from inclusive education programmes.

By establishing access to opportunities for gifted and talented learners with hearing impairment in inclusive education programmes in Kenya, this research study was intended to identify such learners to benefit. Agger (2006) argued that social justice was a key factor in modern debates within special needs education. Gale (2000) maintained that a recognitive approach was concerned with rethinking social arrangements that were thought to be just. This could lead to a perspective of social justice that put value in positive regard for group differences and democratic processes founded on group representations.

Young and Quibell (2000) observe that people should be rewarded (recognized) according to the contribution they made in the society. The gifted and talented learners with hearing impairment in inclusive education programmes can only be rewarded if identified. The argument was that justice was about people receiving what they deserved in terms of input and output. In terms of education, Gale (2000) argued that entitlements were usually discussed in terms of academic merit where students were ranked and rewarded according to their academic performances. This view could not favour education of gifted and talented learners with hearing impairment who excelled in both curricular and co-curricular activities.

LITERATURE REVIEW

Identification of Gifted and Talented Learners with Hearing Impairment.

Warrel (2003) asserts that in the early 20th century, Alfred Binet (1857-1911) developed intelligence tests. Binet and Theodore Simon began developing a series of tests (Binet-Simon) primarily to identify children with intellectual deficits in order to separate them from normally functioning children for placement in special classrooms. Other recognized pioneers of the day included Lewis Terman and Leta Hallingsworth. Terman's studies at Stanford University led to

publishing the Stanford-Binet tests in 1916. Terman's work formed the basis for the modern intelligence tests.

Nielsen (2002) argues that there are considerations for identification of twice exceptionalism in students. One of them is use of multiple data sources for gifted and talented programming identification: intelligence and achievement tests, teacher reports, creativity tests, student interviews, self-referral, portfolio, and family or peer referral. Others include, use of both formal (such as standardized tests) and informal (such as student class work) assessments. It is advisable to be aware that identification is seldom pursued for students whose gifts and disabilities mask one another. As such, there is needed to be vigilant about looking for subtle indicators of exceptionalism in students. Lastly practitioners should utilize culturally sensitive assessment processes to prevent language and cultural differences from creating bias in the identification process. Worrel (2003) argues that for several decades, scholars have commented on the underrepresentation of African American, American Indian, and Hispanic/Latino students in gifted and talented education (GATE) programmes.

Chadwell (2010) observes that although some of the commentaries have merely described the underrepresentation, others have attributed the underrepresentation to assessment practices in part. It has been noted that local cultures affect identification and provision for the gifted and talented individuals. According to Freeman (2010) this is demonstrated in Israel where the government has a division for Gifted Education, which provides gifted education for Jewish and Arab children. There is also the Pinnacle project in Washington which selects highly gifted and talented youngsters to interact with Nobel Prize winners. However, none of the provisions focuses on gifted and talented learners with hearing impairment which was the main concern for the current study.

A study was conducted in America by Erwin and Worrell (2013) whose purpose was to establish assessment practices and underrepresentation of minority students in gifted and talented education in United States of America. Participants consisted of 877 students. They ranged in age from 10 to 19, and 51.2% were female. The participants were from seven racial/ethnic groups that had more than 40 students. Three groups were typically underrepresented in gifted and talented programmes (Ford, 1998). African American (5.1%), Mexican Americans/Chicanos (6.4%), and other Hispanics/Latinos (6.3%). Three groups are among those labeled as model minorities (Kitano & DiJiosia, 2002): Chinese Americans (57.1%), Indian Americans (6.8%), and Korean Americans (7.4%). The seventh group consisted of European Americans (10.8%). As

these numbers indicate, the patterns of over and underrepresentation are in keeping with the literature: all of the Asian American groups are overrepresented, and the other groups are underrepresented, including European Americans in this instance. The study was based on assessment practices and underrepresentation of regular minority group of the gifted and talented while the current study was based on inclusion of the gifted and talented learners with hearing impairment, who are also a minority group, in educational programmes. What is common in the two studies is that they are based on minority groups but the difference is that the study was based on regular learners who are gifted and talented while the current study focuses on gifted and talented learners with hearing impairment.

According to Graham (2009) several scholars have observed that the underrepresentation of minority students in gifted and talented education (GATE) programmes is the result of biased assessment practices. However, an examination of the psychometric properties of scores on cognitive ability, achievement tests, and rating scales do not support these claims. Graham further argues that the underrepresentation of some racial/ethnic groups in GATE programme is another manifestation of the long standing and intractable achievement gap in the United States. Erwin and Worrell (2013) observe that the goal of having more equitable representation of the school population in GATE programmes is laudable. Graham (2009) adds that the disproportionate representation of ethnic/racial minorities is even starker in many urban areas. For example, in San Francisco, African American students comprise 18% of the student population yet account for only 5% of students classified as gifted and talented, whereas European American students account for 14% of the total student population and 25% of students in GATE programmes. Although some of the commentaries have merely described the underrepresentation, others have attributed the underrepresentation to assessment practices in part.

Salanova, Schaufeli, Martiez & Bresó, (2010) observe that although often ignored, it is a well-established finding that the best predictor of current or future academic achievement is previous achievement, especially in the same domain. Salanova *et al* (2010) observe that moreover, this finding has been replicated in longitudinal studies of gifted and talented students. Wai, Lubinski, Benbow, & Steiger, (2010) argue that teachers are often asked to nominate the students in their classrooms who demonstrate, or have the potential to demonstrate, giftedness and talent. However, this request is related to the fallacy of giftedness and talent as a trait or set of

characteristics that are evident and easily identifiable. As teachers have ongoing and multiple opportunities to observe student performance in a variety of situations and are frequently engaged in evaluations of student work products, it might be less subjective to require teachers to nominate the students who are doing the best academic work. Wai *et al* (2010) further argue that understanding academic work can be operationalized in a variety of ways, including regularly getting the highest scores on in-class assignments and tests or on end-of-semester examinations and projects, providing creative or innovative solutions to problems, or demonstrating the capacity for persistence and flexibility when faced with academic challenges.

According to Hemmings and Kay (2009) a gifted and talented referral may be triggered by student performance on the standardized tests administered by the state or federal government or by a parent referral. Pursell (2007) posits that in most cases, the referral results in a more detailed evaluation of a student's capabilities using individually administered instruments. Pursell further argues that there are several individually administered tests of achievement with strong validity evidence that allow educators to get a better understanding of students' strengths in the broad areas of reading, mathematics, and writing (e.g., the Wechsler Individual Achievement Test [Pearson, 2009], the Woodcock Johnson Tests of Achievement [Woodcock, McGrew, & Mather, 2011]). Another set of assessment tools that are often used in the identification process include rating scales specifically developed for identifying gifted and talented students (Worrell & Schaefer, 2004). The standardized identification tools are meant for the regular gifted and talented students while the current study focused on identification tools for gifted and talented students with hearing impairment in the Kenyan situation. In the Kenyan standards for identification, nomination has been commonly used. A learner is nominated as gifted and talented after going through tests, portfolio, rating scale and observation.

To date, only scores on the Gifted Rating Scales (Pfeiffer and Jarosewich, 2003) have shown substantial evidence of diagnostic efficiency and have been examined in several cultural groups. Pfeiffer and Petscher (2008) posit that some of these findings are based on extremely small sample sizes of minority students. Content-related bias refers to whether questions or instructions from tests are unfair for a specific group (or groups). For instance, ethnic minority students may be less familiar with the content of items on a test than their majority peers, may provide incorrect answers that would be considered correct in the context of their culture, or may have simply not been afforded the opportunity to learn the test's content (Reynolds & Carson, 2005).

In one developmental study (Aud, Fox, Kewl and Ramani 2010), in America on the identification process of the gifted and talented, the result clearly demonstrates that complex outcomes such as academic achievement are determined by multiple factors, including socioeconomic status, teacher qualifications and effectiveness, and academic engagement inside and outside of the classroom. There is a considerable amount of information about these variables across racial/ethnic groups. Aud *et al* observed that the percentages of fourth graders—and by extension all students—eligible for free and reduced-price lunch are substantially higher for African Americans (74%), American Indians (68%), and Hispanic Americans (77%) than for Asian Americans (34%) and European Americans (29%), and these data reflects the differences in child poverty in the United States. This study concentrated on identification of regular gifted and talented learners in United States while the current study was based on special learners, the gifted and talented learners with hearing impairment in Kenya. Aud, *et al* add that Asian Americans have the lowest number of absences in school and spend more hours on homework than other groups, resulting in more time engaged with academic materials. More than 50% of African American and Hispanic American students who are employed work more than 20 hours per week, a variable related to lower academic performance.

Higher percentages of African American and Hispanic American students are threatened or injured with weapons on school property than their Asian American and European American peers, and African Americans and Hispanic Americans are more likely to be taught by teachers with lower qualifications (Aud *et al*, 2010). Given these data and their relationship to academic achievement, one can predict with a fair amount of certainty which groups of students are likely to have lower achievement scores, and the patterns that these data predict are the patterns that currently exist. It is assumed that doing well in school is considered acting White. The argument in this study is subjective and it may not favor the minority groups while the current study was be carried out without any feeling that certain ethnic groups in Kenya have more gifted and talented students than others.

Ogbu, (2004) asserts that substantial proportions of students in America choose to disengage from schooling. Ford, Grantham, and Whiting (2008) provided empirical support for the study on identification of gifted and talented students; they reported that African American students in regular and gifted education associated acting White with being achievement oriented and acting Black with poor academic performance. McKown and Weinstein, (2003) have suggested that the negative societal views about African Americans' intellectual capacity results in a stereotype

threat that is activated in testing situations and results in poor performance on the part of this group. McKown and Weinstein suggest that teacher expectation effects may be more potent for students from ethnic minority backgrounds. The results of the study lead to development of assessment tools.

Naglieri and Ford (2003) suggested that assessment tools for identifying gifted and talented students should include nonverbal measures of cognitive ability, performance tasks, multiple indices, and local norms. In support of the nonverbal test option, they reported that minorities and European American samples had similar scores on the Naglieri Nonverbal Ability Test (NNAT), including at the upper end of the distribution which is used to identify students for GATE programmes. However, given that the achievement gap still exists (Aud *et al*, 2010), tests that predict academic performance should reflect this gap, and the absence of a gap raises predictive validity questions about NNAT scores. It is acknowledged that minority students are underrepresented in gifted and talented programmes. However, it is also indicated that the underrepresentation is not an indication of bias, as the measures that are traditionally used are reliable and valid indicators of academic performance. It is highlighted that some of the alternative measures and strategies that have been put forward to address the issue of underrepresentation include variety of tools discussed above, teacher qualification, socio-economic background and use of non-verbal ability tests. Naglieri Nonverbal Ability Test may not be applicable for identification of the gifted and talented learners with hearing impairment in the Kenyan situation because of difference in social and economic background. Kenya requires an identification tool developed with the Kenyan situation in mind and that is why it is necessary to carry out the current study to establish identification process of the gifted and talented learners with hearing impairment so that they benefit from inclusive education programmes in Kenya.

A study carried out in Australia by Wechsler and Naglieri (2006) on standardized identification tools for children of dual exceptionalities such as hearing impaired and gifted and talented found that it can be difficult to identify children of dual exceptionalities as their strengths are masked by disability. Australia has developed standardized tools based on identification tools from other countries referred to as Australian Standardized Edition-Non-Verbal Scale Ability which are commercially available. It can be argued that this is an identification tool which can be adapted to identify gifted and talented learners with hearing impairment. However the tool may not be used in Kenyan situation because it was developed with students in Australia in mind. This made it necessary to establish identification process in Kenya for gifted and talented learners with

hearing impairment so that they may access opportunities in inclusive education programmes in Kenya.

Wallace (2004) carried out a study in Hottingham whose purpose was to explore effective strategies for identifying gifted and talented children who are hearing impaired and those for whom English is an additional language. The study found that identification of gifted and talented learners with hearing impairment requires that instruments be adopted to suit their needs. Action research was adopted as the methodology for this study, it is an enquiry or research designed and conducted by practitioners aimed at improving their own practice and/or the quality of what is offered by their institution. The findings are then disseminated to a wider audience. It was carried out in the naturalistic paradigm of research (Koshy, 2005). According to (Neihart, Reis, Robinson and Moon, 2002), the activities were devised in such a way that the requirement for spoken language was kept to a minimum. It was found that using specially designed activities, it was possible to identify gifted and talented children who are not able to effectively use the oral mode of communication. This was an action research (action research is conducted with the primary intention of solving specific, immediate and concrete problem in a local setting) while the present study is an evaluation research, the systematic process of collecting and analyzing data in order to make decisions.

Another study on the identification process ((Neihart *et al*, 2002) explored the role of Creative Arts in enriching pupils' imagination to enhance the quality of work. Using the principle that an enriched provision creates the right environment for effective identification, the research team designed 'rich' activities for teachers to use for identifying gifted and talented children Neihart, *et al* further assert that children's multiple talents were more evident in music. Alongside the development of musical abilities of all children, the individual needs of some learners predominated, such as the musically talented hearing impaired children. This study was specific to identification of talents while the current study covered identification of gifted and talented learners with hearing impairment.

Wallace, Maker, Cave, and Chandler, (2004), posit that decisions can be made about which students to identify as gifted and talented based on classroom observation, questionnaires, and enrichment projects. Gardner's (1993) multiple intelligence, and Renzulli's (1994) Three Ring Model assert that materials available for making the decisions on identification include a completed behavior checklist for each student with a summary page showing ratings for the students. A study by Koshy, Mitchell, and Williams (2005) in Brunel University, London

showed that young gifted and talented children are frequently ignored in most initiatives in education focusing on their needs in terms of identification and nurturing gifts and talents. The research also set out to identify the gifted and talented learners by making enriched provision in the learning environment, by offering cognitively challenging activities. Koshy *et al*(2005) argue that the study on identification of gifted and talented children, which was carried out within an inner-city London school, aimed to raise the profile of gifted and talented children by employing a range of strategies, which included providing opportunities for children to develop their higher-order thinking skills of analysis, synthesis and evaluation, raising teacher awareness of children's individual interests and involving parents in both identification and celebrating children's gifts and talents. The study was carried out in London, a town in a developed country while the current study was carried out in a developing country, Kenya. It can be argued that findings of studies carried out in developed countries are likely to produce varied results due to socio-economic contexts.

Robinson (2004) carried out a study and found that many teachers feel that it is not always possible to meet the needs of the gifted and talented younger children within the classroom alone, but to apply enrichment which provides children with opportunities for nurturing gifts and talents. Observation of children working on activities provided an effective way of identification of the gifts and talents. It is recommended that there is need for giving time for children to think and create to nurture gifts and talents. The study depended on standardized method of identification process for regular gifted and talented learners while the current study was based on gifted and talented learners with hearing impairment. All the methods in this study are based on cultural background of participants while the current study was not specific to any background. It was common knowledge that identification process may only concentrate on the condition which was most pronounced. This could be demonstrated in the case of gifted and talented learners with hearing impairment in which hearing impairment is more pronounced.

A study in Kenya by Abisai (2014) whose purpose was to identify talents among university students revealed several findings. A major factor that influences students' performance in their sporting careers is the quality and appropriateness of the sport, talent identification and development environment. The research design used in this study was descriptive survey while the current study utilized concurrent triangulation. The target population for the study was regular student-athletes and games tutors in the seven public universities established by Acts of Parliament and fourteen chartered private universities in Kenya while the current study was

based on a population of learners in a technical institution. The population composed of regular learners while the current study was based on learners with special needs, the gifted and talented learners with hearing impairment in inclusive education programmes. Talent identification and development questionnaires examining assets and modes of talent identification and development in universities in Kenya were used to collect data. The current study used questionnaires, interview schedule, observation checklist and focus group discussion which provided more detailed data. The data derived from the subjects was analyzed using descriptive and inferential statistics.

The results of this study indicated that identification of talented student-athletes was based on the observation by the coaches, done during intramural competitions and there was no application of scientific methods in identification process. Additionally, the results revealed that talent identification was hindered by limited financial support, lack of scholarships, absence of talent identification structures and modalities, equipment to facilitate talent identification and knowledgeable coaches on talent identification. In addition to that, the results revealed that there were opportunities for student-athletes to participate in competitions. Furthermore, the results indicated that there were inadequate sport facilities that were not well maintained, equipment, coaches and time for training. Finally, the results of this study indicated that student-athletes were motivated to participate in sport by allowances, passion for the sport, competitive outlets, rewards, sport facilities, desire to improve their performance, gain fitness and trips. These results show that current Kenyan universities environment is inappropriate for talent identification and development of talented student-athletes. For effective identification and development of talented student-athletes to elite level, universities should create programmes for identifying and admitting students with potential to become elite athletes in future and provide appropriate environment to nurture them to elite level. The environment and the facilities used for identification are major factors for talent identification. This study was based on participants from Kenyan Universities while the current study was based on participants from a technical institute. The study was meant to identify talents of regular students while the current study was meant for identification of gifted and talented learners with hearing impairment. The study used questionnaires while the current study used questionnaires, interview schedule, observation checklist and focus group discussions which may provide more detailed data.

METHODOLOGY

Modes of inquiry

The study was based on mixed methods approach, qualitative and quantitative approaches. According to Kothari (2009) assert that quantitative research is based on the measurement of quantity or amount while qualitative research was concerned with qualitative phenomena relating to or involving quality where data were described in words rather than in numerical terms. Creswell (2014) asserted that mixed method approach involved collecting both qualitative and quantitative data, integrating two forms of data using distinct designs that may involve philosophical assumptions and theoretical frameworks. Mixed approach was suitable for the current study because it could provide more detailed information on education of gifted and talented learners who were hearing impaired in inclusive education programme than either approach alone. The instruments meant for the study were inclined more to qualitative data than quantitative data and because of that; qualitative approach was major while quantitative approach became minor. The approach was suitable for this study because it provided the opportunity to collect both qualitative and quantitative data in the same study so it gave the researcher a chance to get a more detailed data on education of gifted and talented learners with hearing impairment in inclusive education programme in Kenya. Kothari (2009) observed that the two approaches supplemented each other in that qualitative approach provided the in-depth explanations while quantitative approach provided the hard data needed to meet required objectives.

According to Kothari (2009) research design is the arrangement of conditions for collection and analysis of data in a manner that aims to combine relevance to the research purpose. The study employed concurrent triangulation design. The design, according to Joffrin (2010), allows the researcher to collect both qualitative and quantitative data concurrently. However, data were analyzed separately but converged during discussion bringing a comprehensive argument which either quantitative or qualitative could be insufficient by itself in discussion. The design was suitable because since data were collected concurrently, it saved time and more detailed information was obtained for better understanding of gifted and talented learners with hearing impairment in inclusive education programmes in Kenya. This design further permitted this study to combine the advantages of quantitative approach such as generalization and giving in-depth information. Quantitative data were majorly collected through questionnaires while qualitative data were collected by the use of interviews, focus group discussion and observation checklist. This study involved the use of questionnaire tools for closed and open ended data.

Interview targeted collection of data from a few respondents in the study through probing. The design allowed the researcher to collect both qualitative and quantitative data which were analyzed and discussed in the same study.

Target Population

Bhatt (2011) defined population as the entire mass of observations, which was the parent group from which a sample was to be formed. According to Orodho (2005); target population is a large population from which a sample population is selected. Specifically the population included 1 Principle, 28 teachers, and 208 learners of the targeted institution, 3 Educational Assessment and Research Center officers, 1 National Council of Persons with Disabilities officer, 2 Quality Assurance and Standards officers in Siaya County. The overall target population was a total of 242 participants.

Sample Size and Sampling Procedure

Sampling, according to Kothari (2009) is the selection of part of an aggregate or totality on the basis of which a judgment or inference about the aggregate or totality is made. The study used purposive sampling. According to William, (2011), purposive sampling is selecting respondents that are believed to have the required characteristics needed for the study. According to Bhatt (2011) purposive sampling is the selection by some arbitrary method because it is known to be representative of the total population. Orodho (2005) argues that purposive sampling is handpicking the cases to be included in the sample on the basis of one's judgment of their typicality. In purposive sampling, the goal is to select cases that are likely to be "information rich" with the respect to purposes of the study. Purposive sampling was found suitable for this study because every learner was admitted based on special abilities to be nurtured which may develop into gifts and talents and their teachers had relevant experience for the study. EARC officers were charged with the responsibility of referring learners to the institution, NCPWD officer advocated for the rights of gifted and talented learners who were hearing impaired and QAS officers were responsible for quality education for the learners. It therefore implied that all the respondents were able to provide the required data.

Research Instruments

The study applied four research instruments, namely; interview schedule, questionnaires, focus group discussion and observation checklist.

Data Analysis Procedure

According to Bhatt (2011), data analysis is studying the tabulated materials in order to determine inherent facts. At this stage raw data was used to provide explanation, understanding and interpretation of phenomenon, people and situations which were being studied. Data obtained from the field in raw form is difficult to interpret (Mugenda and Mugenda, 2003), Such data must be cleaned, coded, key-punched into a computer and analyzed. It is from the results of such analysis, that researchers are able to make sense of the data.

Analysis of Quantitative Data

Kothari (2009) describes quantitative data analysis as those which deal with data in the form of numbers and uses mathematical operations to investigate their properties. Mugenda and Mugenda, (2003) observe that in this approach, the first step in data analysis is to describe or analyze the data using descriptive statistics. The purpose of descriptive statistics was to enable the researchers to meaningfully describe a distribution of scores or measurements using a few indices or statistics. The researcher applied descriptive statistics (Patton, 2002) where measures of central tendencies such as mean, median and mode, where tabulating, graphing were used in describing quantitative data. This study used descriptive statistics where frequencies and percentages were used to summarize quantitative data which were basically from questionnaires.

Analysis of Qualitative Data

Qualitative data analysis ought to pay attention to the ‘spoken word’, context, consistency and contradictions of views, frequency and intensity of comments, their specificity as well as emerging themes and trends. Qualitative data from interviews, focus group discussion and observation were analyzed separately by the use of narrative and thematic analysis. According to University of Manchester (2012), narrative analysis involves analysis of narrative materials ranging from naturally occurring narratives to oral life stories. The study focused on sequence of events during the data collection which involved interview and focus group discussions. Qualitative data were based on data expressed mostly in the form of words, descriptions, accounts, opinions and feelings. Thematic analysis was used to analyze qualitative data in the study. It was performed (William, 2011) through the process of coding in six phases to create

established meaningful patterns. The six steps included becoming familiar with the data, generating initial codes, searching for themes, reviewing themes, defining and naming themes and producing the report.

According to Tashakkori and Tedllie (2003), the model requires that qualitative data and quantitative data were analyzed separately then the data results were compared, that was creating codes and themes qualitatively, then counting the number of times they occur in the text data. Statistical Package for Social Sciences (SPSS) programme computer version 22 was used to analyze quantitative data and presented in graphs, pie-charts, frequency tables and percentages while qualitative data was analyzed according to the themes of the study. Both data were then compared to draw conclusions on the findings of the study.

Findings and Discussion

Identification of Gifted and Talented Learners with Hearing Impairment.

Identification of the gifted and talented learners with hearing impairment in inclusive education programmes in Kenya is an important process which requires participation of all stakeholders. Data were collected using questionnaires, interview schedule, focus group discussion, and observation checklist. The respondents included learners, teachers and the principal of an institution, EARC, NCPWD, QAS officers. The quantitative data are presented in table 4.1 and qualitative data are presented in direct quotes. Both presented data were analyzed then discussed based on the objectives.

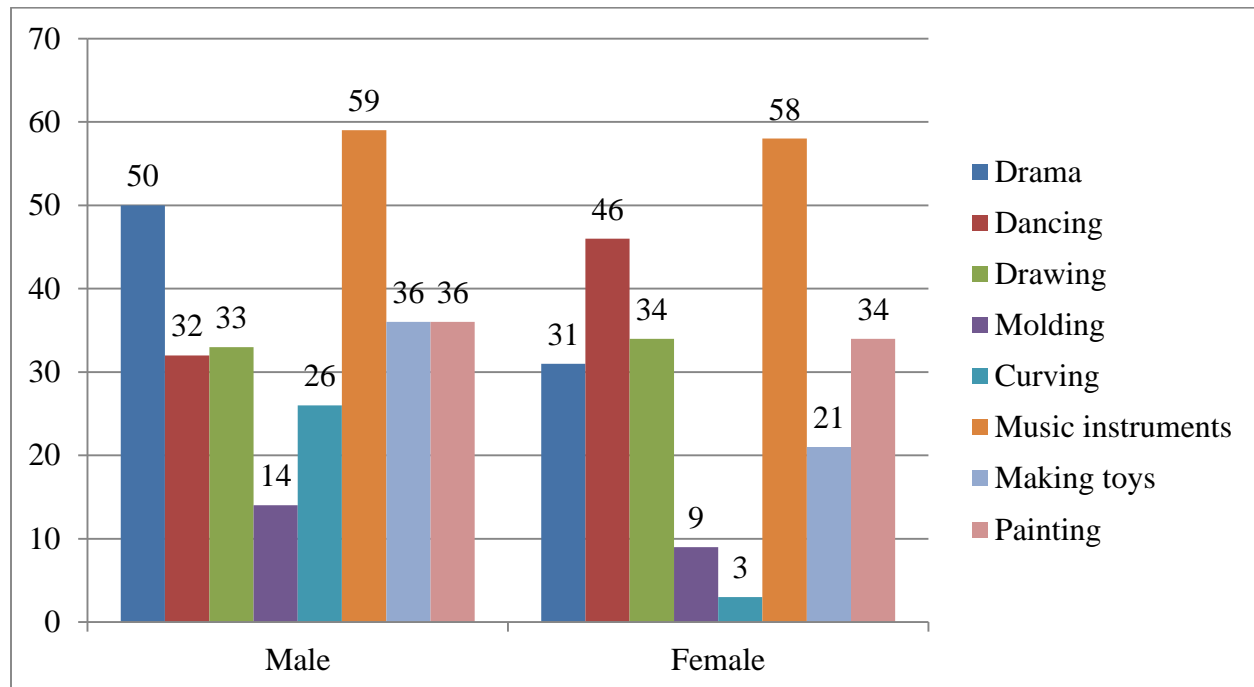
Figure 4.1: Learners skills in Performing and Visual Arts

Figure 4.1 indicates that there was almost the same number of male learners and female learners who were excellent in playing musical instruments. It could help teachers identify gifted and talented learners who were hearing impaired in the institution through self-nomination. The next group of male learners was excellent in drama while female learners were excellent in dancing. The responses shown on figure 4.1 indicate how learners do self or peer nomination for gifted and talented learners with hearing impairment. Using interview schedule for teachers, respondents were asked how they identified gifted and talented learners who were hearing impaired. One of the teachers responded;

Standardized identification tools for gifted and talented learners with hearing impairment are not yet developed in Kenya, so we depend on nomination by self, peers, teachers and parents. These are not as accurate as standardized identification tools for gifted and talented learners with hearing impairment (T4)

Another teacher observed;

We identify gifted and talented learners with hearing impairment through clubs and societies, exposing them variety of activities in the field and exposure to various

projects in the workshops and classrooms and note their areas of excellence (T13)

When asked the same question, the principal gave a different response, suggesting that there was no process of identifying gifted and talented learners. He said;

Most learners come from home with particular courses in mind. These are courses they have discussed with their parents or guardians so they are just give opportunities to register for them.

Educational Assessment and Research Center officer in response to how learners who are gifted and talented were identified directed the role to teachers. This position was shared by the officer from the National Council for Persons with Disabilities and the Quality Assurance and Standards Officer. They said;

The unique characteristics of gifted and talented learners with hearing impairment in inclusive education programme can be used by teachers for identification of gifted and talented learners with hearing impairment in inclusive education programme(EARCO1)

Teachers can identify gifted and talented learners with hearing impairment in inclusive education programme by first exposing learner to various activities from which they choose their areas of interest. Learners can also volunteer themselves to the teacher, and peers can also help the teacher identify them (NCPWDS)

Teachers can identify gifted and talented learners with hearing impairment in inclusive education programme through looking at performance in and outside the classroom and note their areas of excellence. They can also be identified by their peers who always consult them in case of difficulty (QUASO)

Wechsler and Naglier (2006) carried out a study on standardized identification tool for children of dual exceptionalities such as gifted and talented learners with hearing impairment. Their finding was that it can be difficult to identify children of dual exceptionalities as their strengths are masked by disability. It can be argued that use of nomination and standardized identification tools may not be very accurate for identification of learners of dual exceptionalities such as gifted and talented learners with hearing impairment. It is also interesting that the principal of the

school seemed unaware on what it means to identify learners who are gifted and talented. It is interesting because he is in charge of curriculum implementation in the institution. This may be attributed to the fact that he is not trained in Special Needs Education. Another interesting finding was that the EARCs, whose responsibility is to identify and assess learners with special needs seemed to suggest that it was the role of teachers. It was expected that the EARCs were to state the process followed in the identification and assessment of learners with special need but this was not the case. This can lead to poor intervention strategies and consequent poor quality education for learners with hearing impairment who are gifted and talented.

Conclusion

Based on study and research findings, identification of gifted and talented learners who were hearing impaired in inclusive education programmes, varied depending on whether it was done in developed or developing countries. Developed countries generally used standardized identification tools for children of dual exceptionalities. The tools could not be used in developing country such as Kenya to identify gifted and talented learners who were hearing impaired in inclusive education programmes because they were culturally biased, that was, the tools were not developed with the Kenyan background in mind. Kenya therefore needs to develop a standardized identification tool for gifted and talented learners with hearing impairment with Kenyan situation in mind.

Recommendations

Kenya Institute of Curriculum Development should develop a standardized identification tool with Kenyan situation in mind.

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