

Needs Assessment Report on Giftedness and Talentedness in Kenya



**KENYA INSTITUTE OF
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Abstract

The main purpose of this needs assessment survey was to form a basis for development of appropriate functional assessment tools for children who are gifted and talented in Kenya. Persons who are gifted and talented are those who at any educational level are identified as possessing or demonstrating outstanding potential abilities, that give evidence of high-performance in areas such as general intellectual abilities, specific academic aptitude, creative and productive thinking, leadership ability, visual and performing arts and psychomotor abilities (Koech, 1999; Kochung', 2003; Kamau-Kang'ethe, 2004). The main objectives of the survey were to: establish the awareness of persons who are gifted and talented, find out how they are identified, examine the current tools used for functional assessment used for assessing persons who are gifted and talented and evaluate the existing intervention programs for gifted and talented in Kenya. This study utilised a cross-sectional survey design with a mixed method approach for collecting and analyzing both quantitative and qualitative data. The study was carried out in 9 sampled counties in Kenya which included: Nairobi, Kiambu, Kilifi, Kisumu, Kakamega, Turkana, Kericho, Marsabit and Machakos. The counties were selected through purposive sampling to represent the country's social, cultural, and economic diversity. The study targeted learners, teachers, headteachers/principals, education officers, EARC officers (CSO-SNE), coaches, mentors, instructors, directors of programs and deans of curricula and DVC academics of selected institutions in Kenya. Interview schedules, Questionnaires and focus group discussions were used to collect data for this study. Quantitative data was analysed using Statistical Package of Social Sciences (SPSS version 26.0). Content analysis was used to analyse qualitative data where the presence, relationships and meanings of certain themes, concepts or words were quantified and analysed. This study was undertaken in accordance with the prescribed ethical principles of social legal research. Findings of the survey revealed that although people are aware of gifted and talented, they are not aware of all types of gifted and talentedness, as a majority of respondents indicated that they are aware of general intellectual disabilities and very few of them indicated that they know other types. The findings also revealed that there are no formal functional assessment tools because a majority of those who indicated that they have tools, they said that the tools are self-made and thus not universal. It is therefore recommended that members of the public and those in education be sensitized about all types of gifted and talented and there is a need to develop comprehensive, standardized and up-to-date functional assessment tools for identifying gifts and talents.

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1.0 Introduction and Background of the Study

1.1 Background of Study

Persons who are gifted and talented are those who at any educational level are identified as possessing or demonstrating outstanding potential abilities, that give evidence of high-performance in areas such as general intellectual abilities, specific academic aptitude, creative and productive thinking, leadership ability, visual and performing arts and psychomotor abilities (Koech ,1999; Kochung', 2003; Kamau-Kang'ethe, 2004).

Kenya is a signatory to several international commitments on provision of education for all children including those who are gifted and talented. The UN Standard Rules on the Equalization of Opportunities for Persons with Disabilities (1993), UN Convention on the Rights of the Child (1991), Dakar Framework for Action (2000) and The UN convention on the Rights of Persons with Disabilities 2006, emphasises on the development of personality, talents, and creativity, as well as mental and physical abilities to fullest potential. The government of Kenya is committed to implementing actions and practises to enable individuals who are gifted and talented to access quality basic and higher education. The Basic Education Act, 2013 clearly articulates provisions for identification of children who are gifted and talented for purposes of providing education that would harness their potential. Further, the government committed itself to strengthen assessment and identification of giftedness and talentedness as stated in Sessional Paper No. 1 of 2005 and Sessional Paper No. of 2019.

Despite government commitment, the special needs education programme does not currently provide a specialized programme for learners who are gifted and talented. The Government and public have clearly expressed concern for establishment of educational programmes and other related services for gifted and talented individuals (Kamau, 2005). The Basic Education Act 2013 provides for establishment of academic centres or relevant educational institutions to cater for gifted and talented learners. Sessional Paper No. 1 of 2019, recognizes education and training as a right for every Kenyan. This mandates the Government to ensure access to inclusive and equitable quality education and promote lifelong learning opportunities for all. This can be achieved by strengthening functional assessment for early identification, referral and placement.

In view of the above, there is an evident gap in education provision for learners who are gifted and talented as stipulated in various legal frameworks. This situation calls for a proactive approach to address the needs of persons who are gifted and talented in Kenya. It is important to have relevant tools that can be used for functional assessment of persons who are gifted and talented for purposes of appropriate placement and provision of relevant services. Therefore, there is a need to carry out a needs assessment of giftedness and talentedness in Kenya to form a basis for development of appropriate functional assessment tools.

1.2 Justification of the Study

Kenya Vision 2030 calls for a curriculum that develops learners' entrepreneurial skills, competencies and talents. Additionally, Sessional paper no. 1 of 2015 expounds on the need to develop and nurture talents for global competitiveness while Sessional paper no. 14 of 2012 recommended identification and advancement of talents among core curriculum competencies. The Sessional Paper No. 1 of 2019 established that the major challenges inhibiting access and equity in the provision of education and training to learners with special needs and disabilities include inadequate tools and skills for assessment and identification.

The National Education Sector Support Programme (NESSP), (2018-2022) provides for enhancement of early talent identification under competency based primary education, enhancement of Science, Technology, Engineering and Mathematics (STEM), sports and talent in secondary education. The Competency Based Curriculum (CBC) introduces a paradigm shift which focuses more on competencies, flexible opportunities, education and learning. Its mission is to nurture every learner's potential. Sessional paper no. 1 of 2019 observed that the SNE sub-sector has experienced tremendous growth over the years. However, there are issues that need to be addressed for effective implementation of the CBC reforms and one of them is weak functional assessments for learners who are gifted and talented. In this regard, a needs assessment was conducted to establish the current situation regarding provision of educational services to learners who are gifted and talented. Findings of the study forms the basis for development of relevant functional assessment tools for assessing persons who are gifted and talented for purposes of ensuring access to quality education.

1.3 Objectives of the Study

The baseline survey addressed the following objectives.

1. Establish the awareness of persons who are GT in Kenya;
2. Find out how persons who are GT are identified in Kenya;
3. Examine the current tools used for assessing persons who are GT in Kenya;
4. Evaluate the existing intervention programs for GT.

2.0 Literature Review

2.1 Introduction

This chapter presents a review of relevant literature in regard to the objectives of the survey. It covers giftedness and talentedness, identification of persons who are gifted and talented and the current tools used for assessing persons who are gifted and talented. The chapter also covers intervention programmes for learners who are gifted and talented.

2.2 Giftedness and Talentedness

Characteristics commonly associated with persons who are gifted include advanced language and reasoning skills, more aligned conversation and interests, impressive long-term memory, intuitive understanding of concepts, insatiable curiosity, advanced ability to connect disparate ideas and appreciate relationships, rapid learning, and heightened sensitivity (Robinson; & Pfeiffer as cited in Pfeiffer, 2012). Pfeiffer further explains that by high school level, a learner who is gifted notably demonstrates mysterious high potential and a thirst to excel in one or more specific academic domains. A student who is gifted is also likely to benefit from special academic resources and programs, especially if they are aligned with their unique profile of abilities and interests (Pfeiffer, 2012).

Generally, parents, teachers and education stakeholders lack awareness of persons who are gifted and talented. For instance, A study on Teacher Awareness of Gifted Children and Resource Availability showed that regular school teachers had little to average knowledge of the characteristics of giftedness (Mwangasha, Kariuki, & Omulema, 2019).

2.3 Identification of Persons who are Gifted and Talented

Identification of giftedness and talentedness facilitates provision of services that are aligned to the learner's area of strength and needs. A study on social work implications in emerging approaches for children's rights in Kenya pointed out that the identification process is a challenging exercise due to lack of policy guidelines, tools and procedures (Wairere, Mungai & Mungai, 2015). A National Survey on Children with Disability (KISE, 2018), revealed that very few assessment

officers are trained in the area of gifted and talented. This may hamper appropriate identification of learners who are gifted and talented.

Sessional paper number 14 of 2012 on Reforming Education and Training Sector in Kenya proposed that the government should develop and implement a strategy for identification and development of the gifted and talented. Similarly, Sessional Paper No. 1 of 2019 suggested promotion of identification and development of learners who are gifted and talented by strengthening assessment for early identification, placement and referrals for provision of special needs education and training.

2.4 Tools for Assessing Giftedness and Talentedness

Giftedness is a combination of many factors and therefore, it cannot be measured and identified by using only one or two factor tests. Sharma as cited in Sambu, Kamau & Tonu, (2014) suggested the use of a combination of different types of techniques for identification and assessment. Assessment tools regularly used to identify learners as gifted and talented include; intelligence tests, achievement tests, aptitude tests, grades, teacher nominations/observation, parent nomination, self-nomination, peer nomination, extracurricular or leisure activities (Friend; Heward as cited in Sambu et al, 2014). Additionally, portfolios, interviews, and observations can be used for qualitative assessment. Individual intelligence tests, though not widely used, are rated by educators as the best method of identifying learners who are gifted and talented (Heward; Sharma as cited in Sambu et al, 2014). The KICD needs assessment conducted in 2016 observed that functional assessment tools were not available in the country.

The Taskforce report on Enhancing Access, Relevance, Transition, Equity and Quality for Effective Curriculum Reforms Implementation (2020) recommended a systematic, multi-phased process functional assessment that starts with identification of learners who exhibit exceptional giftedness or talents by their parents and teachers. This process requires appropriate and relevant assessment tools. In this regard, the taskforce proposed that a variety of assessment tools be tailored to the needs of individual learner's giftedness and or talents. The key assessment tools in the identification process should therefore be dependent on individual learners' placement and portfolio.

2.5 Intervention Programmes for Gifted and Talented

Findings of the Taskforce report (MoE, 2020) indicate that learners who are gifted and talented have not been adequately catered for with regard to learning and assessment in the 8-4-4 education system. However, the Basic Education Curriculum Framework (BECF) provides accommodations for learners who are gifted and talented through differentiation and acceleration. Sessional paper no 14 of 2012 on Reforming Education and Training Sector in Kenya, proposed that the government employ affirmative action to enable learners who are gifted and talented in basic education to achieve access, equity, quality and relevance in basic education. Accordingly, the Basic Education Act (2013) stresses the right of all children to free and compulsory basic education. Sessional paper no. 2 of 2015 expounds on the need to develop and nurture talents for global competitiveness.

The Ministry of Education National Education Sector Strategic Plan for the Period 2018 - 2022 proposes programmes whereby it seeks to enhance STEM, Sports and Talent in Secondary Education. This should be done by developing guidelines on identification, placement and development of students who are gifted and talented. In addition, establish, equip and staff a National Academy for gifted and talented children. The plan also proposes a programme for talent development and mentorship through mapping of mentor to mentee in respect to talented and gifted in Technical Vocational Education and Training (TVET) and developing a database. This process can only be effectively facilitated by comprehensive functional assessment of the talents identified.

3.0 Methodology

3.1 Introduction

This section presents the proposed study design, location of the study, target population, sample size and sampling procedures. It also describes the study instruments, data collection procedure, pilot study, data analysis, logistical, ethical and community considerations for the study.

3.2 Study Design

This study utilised a cross-sectional survey design with a mixed method approach for collecting and synthesising both quantitative and qualitative data. Concurrent triangulation was used where qualitative and quantitative data were analysed independently while comparing them on a continuous basis.

3.3 Location of the Study

The study was carried out in 9 sampled counties in Kenya. These counties included: Nairobi, Kiambu, Kilifi, Kisumu, Kakamega, Turkana, Kericho, Marsabit and Machakos. The counties were selected through purposive sampling to represent the country's social, cultural, and economic diversity.

3.4 Target Population

The study targeted learners, teachers, headteachers/principals, education officers, EARC officers (CSO-SNE), coaches, mentors, instructors, directors of programs and deans of curricula and DVC academics of selected institutions in Kenya.

3.5 Sampling Procedure and Sample Size

A mix of both simple random, convenient and purposive sampling approaches were deployed depending on the type of respondent being identified. Geographically, eight (8) administrative regions of the country were covered.

3.5.1 Sampling of Counties and Sub-Counties

Rift valley region was divided into north rift and south rift while eastern region was divided into upper eastern and lower eastern. This made a total of 9 sampling regions of clusters from which the samples were drawn. A sample of one county was randomly selected from each of the 10 regions representing 21% of the 47 counties. Stratified sampling was employed in selecting 9 counties for the study, each stratum representing a specific geographical and climatic region of Kenya. This represents 19% of the total number of targeted counties. All the sub-counties of each of the sampled counties were stratified as urban and rural and two sub-counties were randomly sampled to represent the urban and rural settings selected.

3.5.2 Sampling of Institutions

The study drew respondents from primary schools, secondary schools, special schools, international schools, talent academies, TVETs and universities. According to the statistical booklet for basic education by MoE (2019) there were 32,344 primary schools in Kenya where 22,332 were public schools while 10,012 were private primary schools. In addition, there were 10,487 secondary schools in Kenya where 8,999 were public secondary schools while 1,488 were private schools. These statistics indicated that the ratio of primary schools to secondary schools is 3.33 while the ratio of public primary schools to private primary schools is 2.23 and the ratio of public secondary schools to private secondary schools was 6.34.

A total of 16 primary schools, 7 secondary schools, 2 special schools, 1 TVET and 1 EARC were selected from each county with the exception of Nairobi. In Nairobi County, proportional sampling was used in selecting 16 primary schools, 7 secondary schools, 5 special schools, 20 talent academies, 3 universities, 5 EARCS and 1 TVET. In this regard, a total of 144 primary schools, 72 secondary schools, 21 special schools (units), 20 talent academies/incubation centres, 3 universities, 51 EARCS and 9 TVETs were selected. The selection of the universities and talent academies was done purposely.

Table 1.1: Sampling of Primary and Secondary Schools

Category of Regular School	Public	Private	Total
Primary	11	5	16
Secondary	6	2	8

A total of 144 primary schools and 72 secondary schools were selected where data from head teachers, teachers and learners was collected.

3.5.3 Sampling of Heads of Institutions and Teachers

One head of each of the sampled institutions (regular schools, special schools, TVETs and Universities) were sampled including program directors of the selected organisations. Two (male and female) teachers/lecturer/trainers were sampled from each institution based on teaching timetable. Talent managers in charge of identification of learners/trainees who are gifted and talented in talent academies and/or incubation centres were also sampled.

3.5.4 Sampling of Learners

Two learners (male and female) were sampled for interviews from secondary and TVET institutions. The teacher/lecturer/trainer interviewed were requested to nominate one male and one female learner who had demonstrated outstanding abilities in one or more areas such as leadership, academics, sports, etc. Talent managers also nominated two (male and female) individuals with outstanding abilities in certain areas in their talent academies. These individuals will be considered to be most likely ‘gifted and talented’.

Data from learners in primary schools was collected through focus Group Discussions (FGDs). Each FGD had between 6 to 8 learners. For nomination the learners must have demonstrated outstanding abilities in academic or sports. The learners were drawn from Grade 5 and to 8. Four (4) primary schools were purposefully sampled to represent rural and urban characteristics from each county.

3.5.5 Sampling of EARCs

Data was collected from all EARC coordinators across the county including 5 privately managed EARCs.

Table 2: Sample Size Selection

Institutions	Number of Institutions	Respondents	Number of Respondents
Primary schools	144	Heads	144
		Teachers	288
		FGDs	20
Secondary schools	72	Heads	72
		Teachers	144
		Learners	144
TVETs	10	Principal/Heads	10
		Lecturers/Instructors	20
		Students/learners	20
University	3	DVC academics	3
International schools	5	Directors/Heads	5
		Learners/students	10
Talent Academies	18	Talent managers	18
		GT Learners	36
Special schools	20	Heads/Principals	20
		Learners from primary (FGDs)	10
		Learners from secondary	20
Educational Assessment and Resource Centres (EARCs)	52	48 Public EARCs 4 Private EARCs	52
			1,006 +30 FGDs

3.6 Study Instruments

Interview schedules, Questionnaires and focus group discussions were used to collect data for this study. Table 3 presents a summary of research instruments.

Table 3: Research Instruments

Data source	Respondents	Data collection tool
EARCS	EARC Coordinators	Questionnaires
Universities	DVC academics	Questionnaires
Secondary Schools and TVETs	Headteachers/principals/directors	Questionnaires
	Deans of curriculum	Questionnaires
	Teachers	Questionnaires
	Learners/trainees	Questionnaires
Primary Schools	Head teachers	Questionnaires
	Teachers	Questionnaires
	Learners	FGDs
Organizations a) Stadi za Maisha b) Wings to Fly, c) M-pesa Foundation Academy d) Talent Academies e) CEMASTEa	Director of programs GT learners	Questionnaires Questionnaires

3.7 Data Collection Procedure

A manual for data collection was developed with clear guidelines that guided the entire process. Research assistants (RAs) were trained before visiting sampled institutions in the identified

counties. Quantitative data was collected using Computer Assisted Personal Interviews (CAPI) while qualitative data was recorded using voice recorders.

3.8 Data Analysis

Data collected was cleaned and coded for analysis. Quantitative data was analysed using Statistical Package of Social Sciences (SPSS version 26.0). Analysis included running of descriptive and inferential statistics. Content analysis was used to analyse qualitative data where the presence, relationships and meanings of certain themes, concepts or words were quantified and analysed.

3.9 Logistical, Ethical and Community Considerations

Permission to conduct this study was sought from relevant authorities. Research assistants (RAs) were given intensive training on procedures of data collection and research ethics prior to data collection. The training also included the use of CAPI. This study was undertaken in accordance with the prescribed ethical principles of social legal research in terms of participants' informed consent, confidentiality and freedom from deception or betrayal.

4.0 Data Analysis and Interpretation

This section presents results of the needs assessment survey aimed at establishing awareness of persons who are gifted and talented (GT), finding out how persons who are GT are identified, examining the current tools used for assessing persons who are GT and evaluating the existing intervention programs for GT. Results of this survey forms a basis for developing a functional assessment tool for the GT in Kenya.

4.1 Demographic Information

A total of 995 respondents participated in the needs assessment with 43% being female and 57% male. There were 741 heads of institutions and teachers (42% female and 58% male), 182 learners (51% female and 49% male), 30 persons with GT (47% female and 53% male), 28 EARC officers (46% female and 54% male) and 14 coaches and mentors (14% female and 86% male) as shown in Table 4.1. These results show that the majority of survey respondents were male except for learners where there were more females than males.

Table: 4.1. Number of Respondents

Designation	Female	Male	Sample (n)
Heads of Institutions and Teachers	42%	58%	741
Coaches and Mentors	14%	86%	14
EARCs	46%	54%	28
GT Persons	47%	53%	30
Learners	51%	49%	182
Overall	43%	57%	995

The participant age was disaggregated in age brackets. The study shows that 14% of coaches were between 21-30 years old, 36% between 31-40 years old, 21% between 41-50 years old while 29% were above 52 years. As for EARC officers the majority were over 51 years old and only 21% were between 42-50 years. Most of the persons with GT were within the young age bracket at 21 years and below 77% being below the age of 21 years while only 23% were between 21 -30 years. As for the headteacher only 3% were below 21 years of age, 20% were between 20% 33% were between 31-40 and 25% were between 41-50 years and 22% were above 51 years.

Table: 4.2. Age of Respondents

Designation	Below 21	21-30	31-40	41-50	Above 51	Sample (n)
Coaches/Mentors		14%	36%	21%	29%	14
EARCs				29%	71%	28
GT Persons	77%	23%				30

Heads of Institutions/Teachers	0%	21%	33%	25%	21%	741
Total	3%	20%	31%	24%	22%	813

Table 4.3 presents results of the academics of respondents. Results show that the highest qualification of majority of respondents was degree at 41% out of which majority of them (95%) were head teachers/teachers, 4% EARCs and 2% coaches/mentors. The second highest qualification was diploma at 27% while the lowest proportion was CPE/KCPE and PhD each at 1% as presented in Table 4.3. Results show that academic qualifications of teachers and head teachers range across many categories depending on their level of teaching (primary, secondary, TVET and University). Among coaches/mentors, the lowest academic qualification was diploma, the rest were degree and above up to PhD level. These results show that respondents who participated in the needs assessment survey have reasonable academic qualifications to an extent that they could understand the context of the study.

Table 4.3: Academic Qualifications of Respondents

Qualification	Coaches/Mentors	EARCs	HT/Teachers	Sample (n)
A' Level			100%	32 (4%)
CPE/ KCPE			100%	4 (1%)
Degree	2%	4%	95%	322 (41%)
Diploma	2%	2%	96%	210 (27%)
KCSE		2%	98%	151 (19%)
Masters	7%	14%	80%	59 (8%)
PhD	20%		80%	5 (1%)
Total				783 (100%)

4.2. Awareness of persons who are GT in Kenya

All respondents were asked to state whether they are aware of persons who are gifted and talented. A total of 731 (98.7%) heads of institutions and teachers reported that they were aware, while 10 (1.3%) were not aware. In addition, 670 (90.4%) reported having learners/ trainees who are gifted and talented in their institutions and only 71(9.6%) reported not to have such learners.

Those who reported to have learners who are GT revealed that the learners possessed extraordinary potential in general intellectual ability; specific academic aptitude; leadership and psychosocial abilities; creativity and productive thinking and Visual arts. From this finding, it clearly shows that heads of institutions and teachers know that there are learners within their institutions who are gifted and talented. This contradicts a study conducted by Mwangasha, Kariuki and Omulema, (2019) that reported that teachers in regular schools had little to average knowledge of the characteristics of giftedness.

All Coaches/Mentors (14) who participated in the study reported that they are aware of the existence of persons who are gifted and talented. As presented in Table 4.4, some of the gifts and talents cited by coaches/mentors include sports (79%), arts (57%), academics (43%), leadership (36%), music (29%) and drama (7%). These finds show that existing coaching/mentorship of talents and gifts in Kenya has significant focus on sports and arts. Other areas of potential talents and gifts in the 21st century such as software development receive least focus.

Table 4.4: Areas of GT identified and nurtured in Talent Academies

Areas of Gifts and Talents	Number	Percent
Sports (ball games, athletics etc)	11	79%
Arts (visual, performing, sculpture drawing)	8	57%
Academics (specific subjects, general intelligence, software)	6	43%
Leadership	5	36%
Music	4	29%
Drama	1	7%

Similarly, all EARCs (28) who participated in this study reported to be aware of the existence of persons who were gifted and talented. In addition, they were conversant with all types of GT as highlighted in Figure 4.1 which shows that majority of them were aware of those who are gifted and talented in general intellectual abilities (68%), creative and productive thinking (64%), visual arts (57%), specific academic aptitude (50%), psychomotor abilities (46%) and few were aware of those with leadership abilities (21%). These findings suggest that some attributes of giftedness and talentedness such as general intellectual ability are well known to assessors compared to other attributes such as leadership abilities.

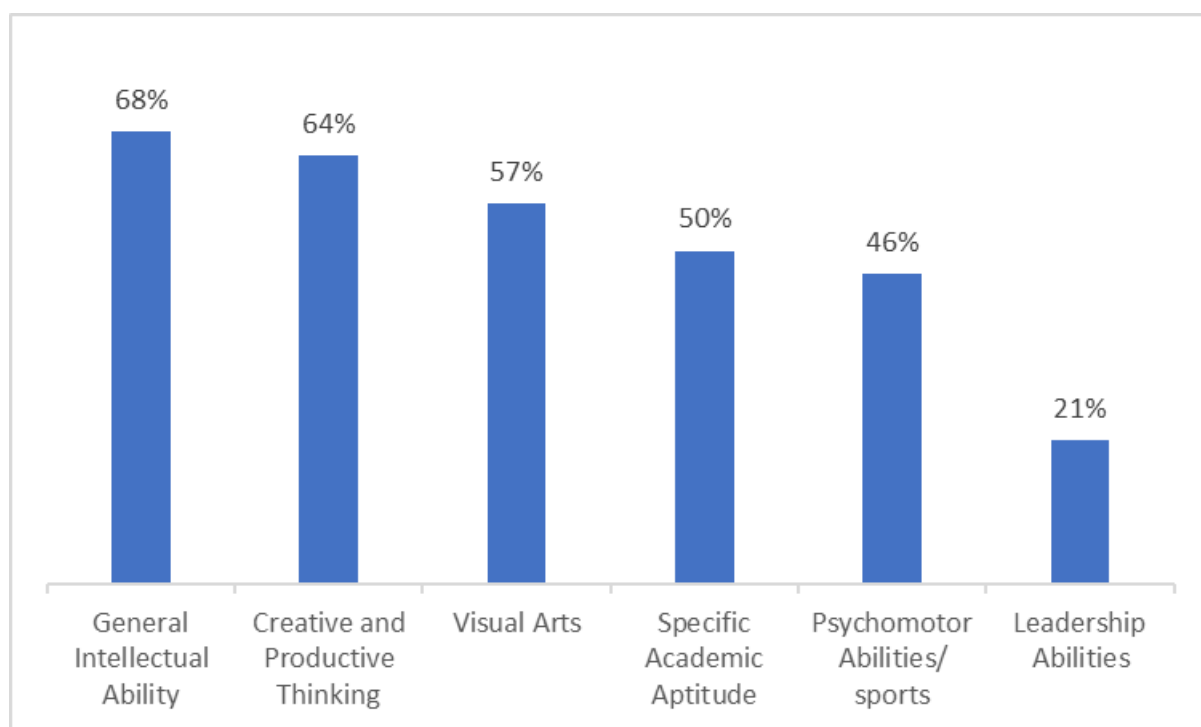


Figure 4.1: Gifts and Talents that EARCs are Aware of

Learners in secondary school and trainees in TVET were asked whether they are aware of schoolmates who are gifted and talented. Among those interviewed, 96.2% reported that they were aware of those who were gifted and talented while only 3.8% reported that they were not aware as shown in Table 4.5. This implies that learners are also aware that some of their peers possess extraordinary abilities.

Table 4.5: Number of learners who are aware of other learners/trainees who are GT

Response	Number	Percent
Aware of GT	175	96.2%
Not aware of GT	7	3.8%
Total	182	100%

Further, learners reported that a majority of their peers (81%) are gifted and talented in games and sports, followed by (71%) academics, (60%) music, (55%) drama, (52%) leadership, (33%) arts and (21%) science as shown in Figure 4.2.

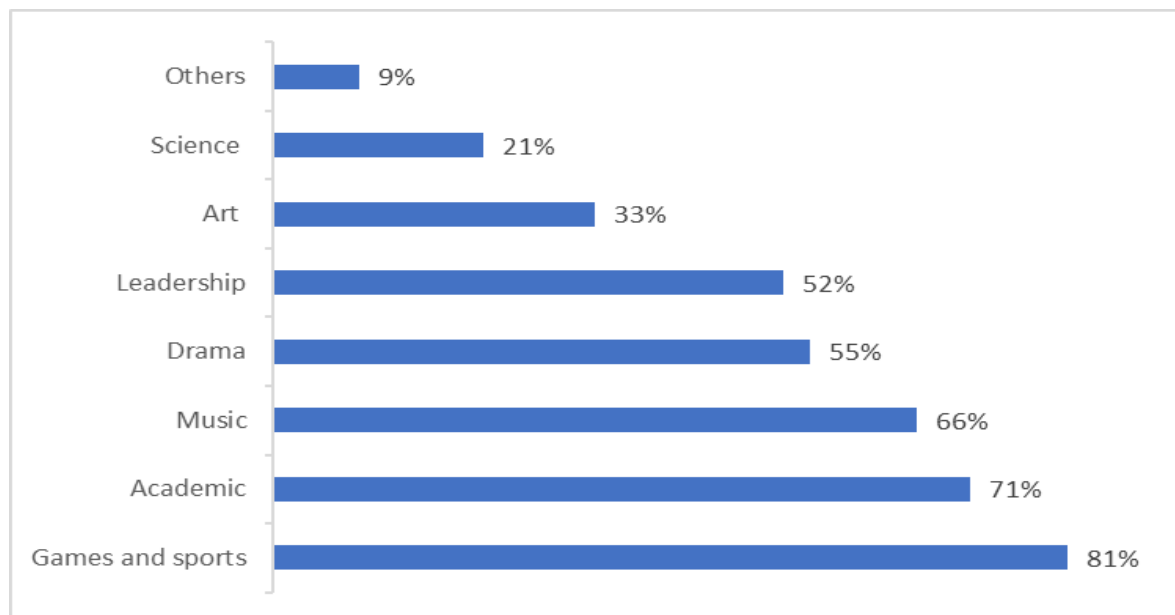


Figure 4.2: Areas Learners are Gifted and Talented in as Reported by Peers

Persons who had been identified as being gifted and talented and placed in specific programs were also interviewed. These programmes were established as independent entities (*e.g. Talent Academies*) while others were established within institutions (*e.g. Innovation Centres*). They were asked to state whether they considered themselves gifted and talented, and in which specific areas. As presented in Table 4.6 all 30 interviewees reported that they considered themselves gifted and talented and they stated their areas of giftedness and talentedness. Results presented in Table 4.6 shows that most of these respondents were aware of some areas of GT such as arts and

academics are more compared to other areas such as leadership, music and dance. These findings show that persons who are gifted and talented are aware of their extraordinary abilities.

Table 4.6: Areas of Gifted and Talentedness Stated by Persons who are GT

Gifts and Talents	Number	Percent
Arts	13	43%
Academics	9	30%
Games	9	30%
Leadership	6	20%
Music and Dance	5	17%

4.3 Identification of Persons who are Gifted and Talented

Heads of institutions and teachers were asked to state the methods that they were using to identify learners who are gifted and talented. A majority (88%) of the respondents used observation followed by (81%) academic assessment, (25%) adjudication (19%) scouting and the least used method was media at (7%) as presented in Figure 4.2. Clearly, there are attempts to use some methods/techniques/processes to identify persons/learners/trainees who are GT. However, most of what is listed can hardly be described as standard practice. These results concur with earlier researches such as Wairere, Mungai and Mungai (2015) who observed that identification of GT is a challenging exercise due to lack of policy guidelines, tools and procedures.

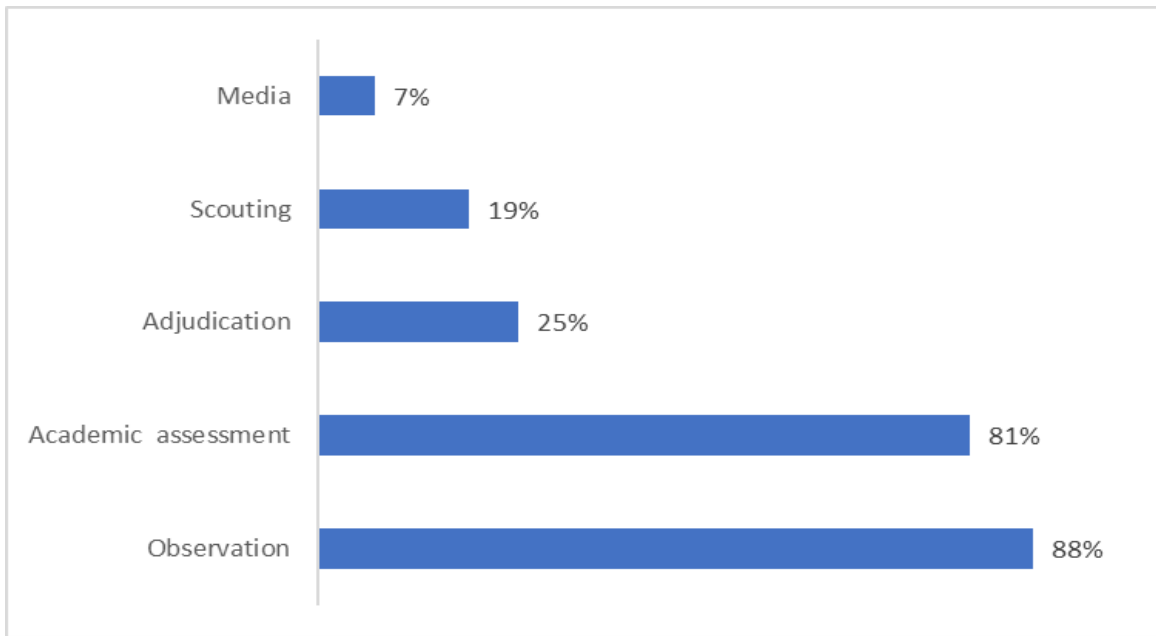


Figure 4.3: Methods used in Identifying Learners who are GT in Institutions

All coaches and mentors gave an overview of the identification criteria they use to identify students and nature, their giftedness and talent. The responses on identification of persons who are GT was similar to how teachers/head teachers go about it. They indicated that they use observation to identify persons who are gifted and talented during sport tournaments, school games, academic and sports camps and day to day activities. In addition, they use assessments that are academic based, skill based and performance based. Some of the gifts/talents that were identified and are being nurtured are ball games (*football, volleyball and basketball*), leadership, art, creative thinking and intellectual activities.

All EARC officers who participated in the survey demonstrated awareness of different areas such as general Intellectual ability, specific academic aptitude, creative and productive thinking and psychomotor abilities/sports. They reported that the common ways of assessing and identifying children who are gifted and talented include observation, class performance, exemplary performance in sports, exemplary leadership qualities, exemplary performance in creative arts. Further, 79% of EARC officers stated that they involve other professionals in the process of assessment. They involve regular teachers, psychologists, occupational therapists, doctors and parents. However, 21% of the EARC officers reported that they do not involve any

professionals. As presented in Figure 4.3, a majority of EARCs (54%) involve teachers in their assessment of GT. This was closely followed by doctors who are involved in assessment by 43% of EARCs. Other professionals involved in assessment of GT include psychologists, occupational therapists and physiotherapists by 25%, 21%, and 14% of EARCs respectively. It was also noted that 18% of EARCs involve parents in assessment of GT.

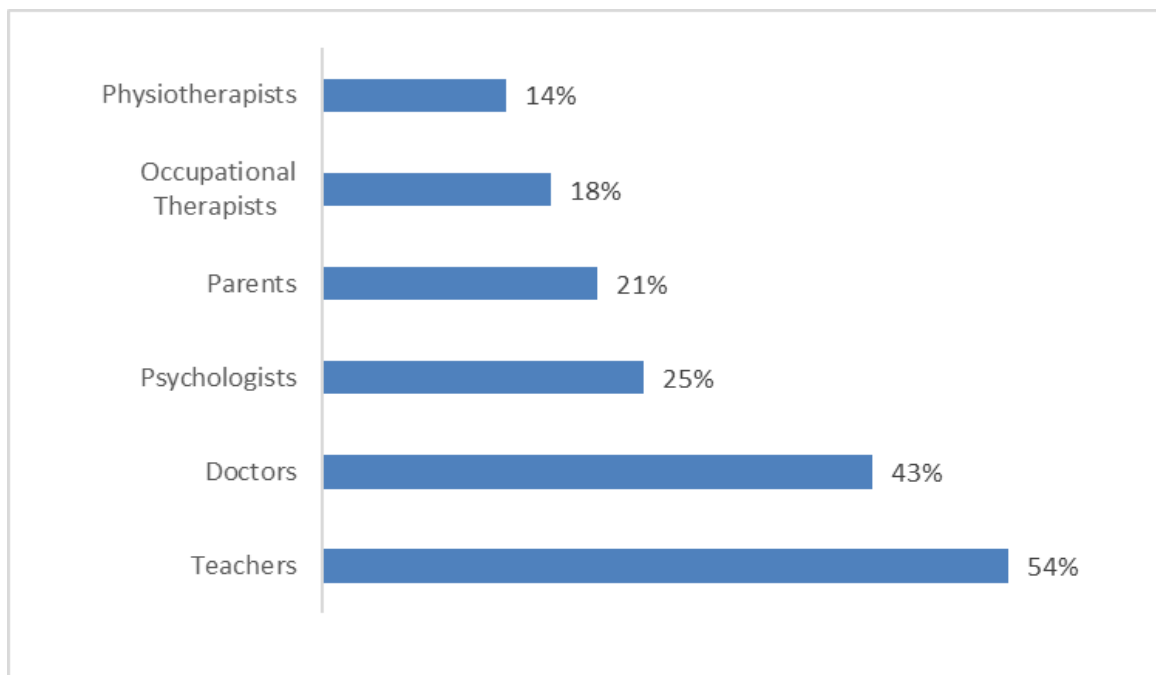


Figure 4.4: Other Professionals involved in assessment of persons who are GT

A total of 30 gifted and talented respondents participated in this study. They revealed that they have excellent capabilities in painting, knitting, debate, football, leadership, music, visual arts and drawing. A Majority (47%) indicated that they had been identified by teachers, followed by (33%) parents/guardians while (10%) reported that they were identified by community and fellow people who are GT. (7%) indicated that they had been identified by coach/mentors and self respectively as shown in Figure 4.5.

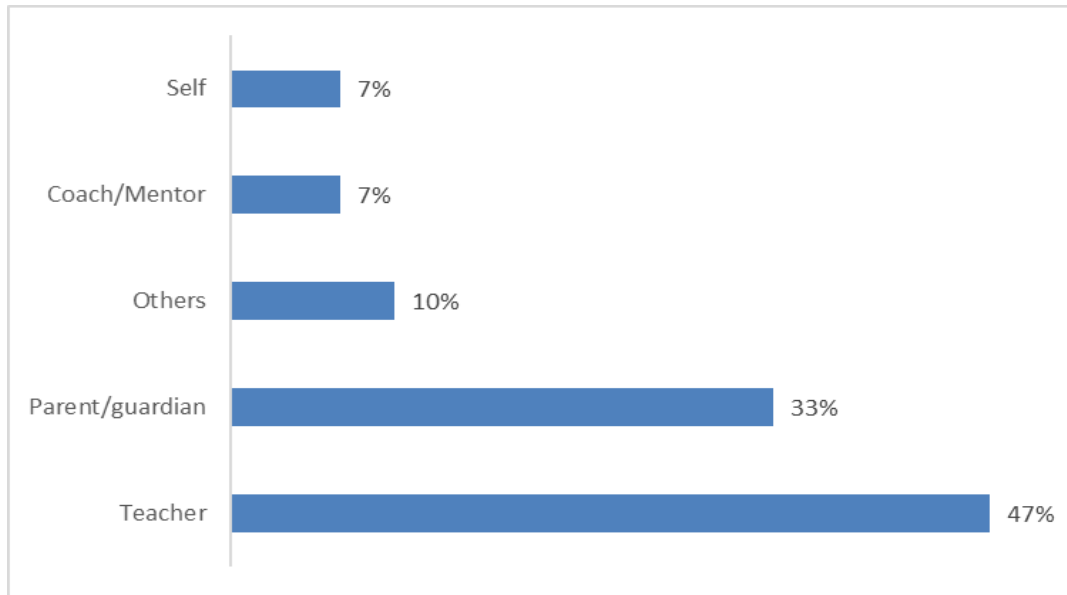


Figure 4.5: Gifted and Talented persons' Indication of who Identified them

4.4 Functional Assessment Tools Used for Assessing Gifts and Talents

Respondents were interviewed about the tools they use in assessing persons/learners/trainees to establish whether they are gifted and talented.

Heads of institutions and teachers/instructors were asked to state whether they had GT assessment tools. Results show that only 18% reported having GT assessment tools while the rest (82%) indicated that they were no GT assessment tools as shown in Figure 4.6. Compared to the proportion of awareness it is clear from these results that most identification of GT is done without structured tools.

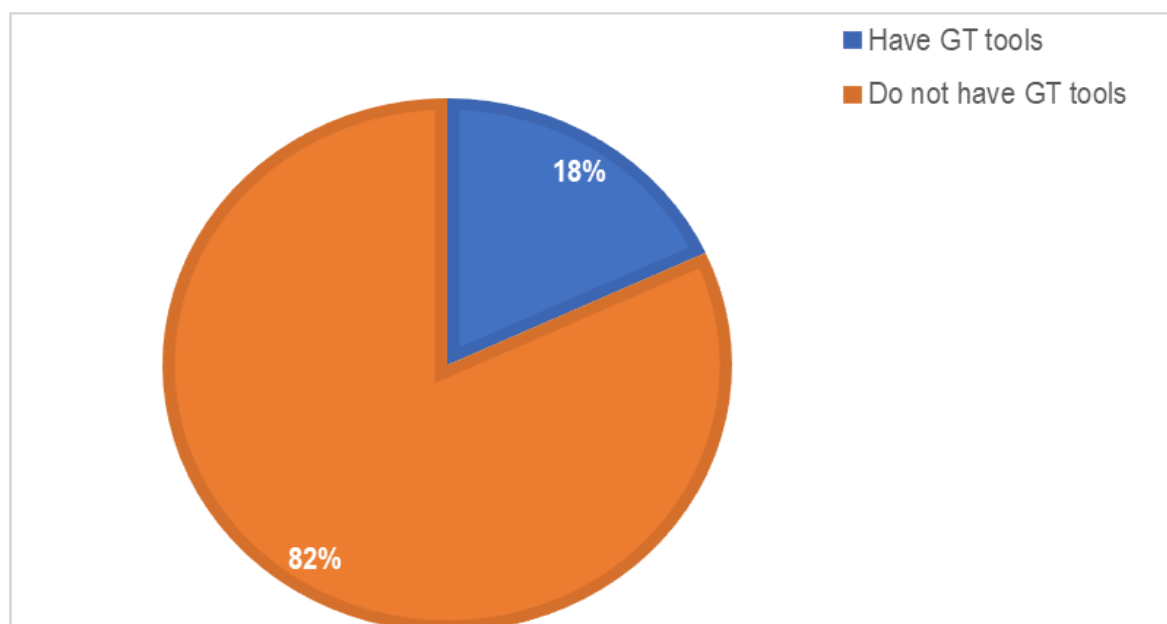


Figure 4.6: Heads of Institutions and teachers who Reported Having Tools for Identifying GT

Heads of Institutions and teachers who reported that they had GT tools were asked to indicate the GT tools they use to identify learners in their school/institution. The table below presents a summary of key tools used by teachers/head teachers to identify GT. Results show that at least 71% rely on examination results, 40% use classroom portfolio, and 37% use observations in CBC classes as shown in Table 4.7. Other tools mentioned include assessment sheets, KNEC tools, outdoor activities, adjudication sheets, questionnaires, panel interviews, reading books and medical reports respectively.

Table 4.7: Tools used by teachers/headteachers to identify GT

	Number	Percent
Exam results	526	71%
Classroom portfolio	296	40%
Observation in CBC classes	274	37%
Assessment sheet	113	15%
Outdoor activities	119	16%
Adjudication sheet	96	13%
Questionnaires	56	8%
Panel interviews	43	6%
Reading books	35	5%
Medical reports	6	1%

Heads of institutions and teachers who reported that they have the tools listed in the table above were asked to indicate whether the tools were effective in identifying GT. Results presented in the Figure 4.7 show that 45% of the heads of institutions and teachers who have tools reported that they are effective while 55% of them said the tools are not effective.

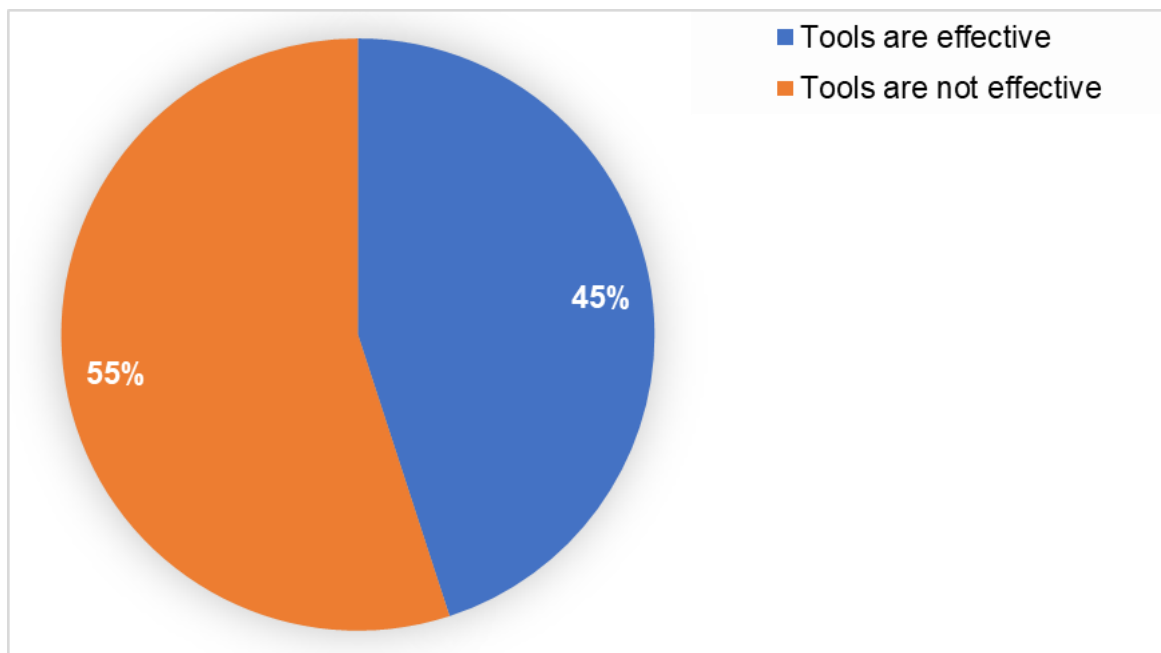


Figure 4.7: Heads of Institutions and teachers who Reported on Effectiveness of GT Tools

Heads of institutions and teachers were asked to indicate the source of the tools they use for assessment. The findings show that 66% of heads of institutions and teachers make their own internal tools/guidelines to help in identifying GT. This implies that such tools/guidelines are potentially not standardized and can only be applicable within the institution. Findings also show that 24% obtain their tools from the ministry of education and 18% from KICD. Other sources reported include KISE, KNEC and the internet. These other sources account for 5% of tools used by heads of institutions and teachers as reported in Figure 4.8.

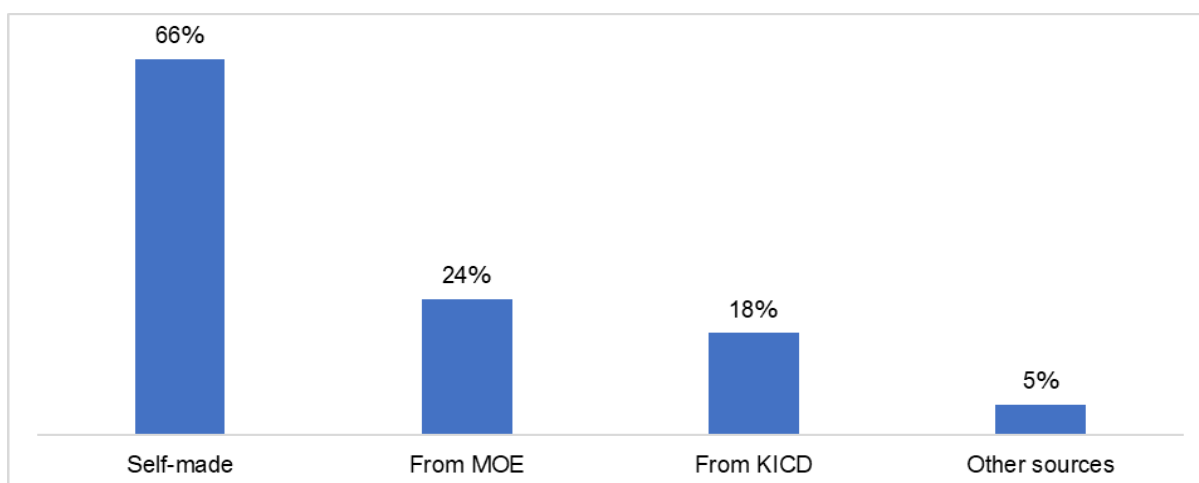


Figure 4.8: Source of GT Tools Used by Heads of Institutions and Teachers

A majority of EARCs (71%) who were interviewed reported that they do not have functional assessment tools for GT, while 29% reported to have the tools. Figure 9.

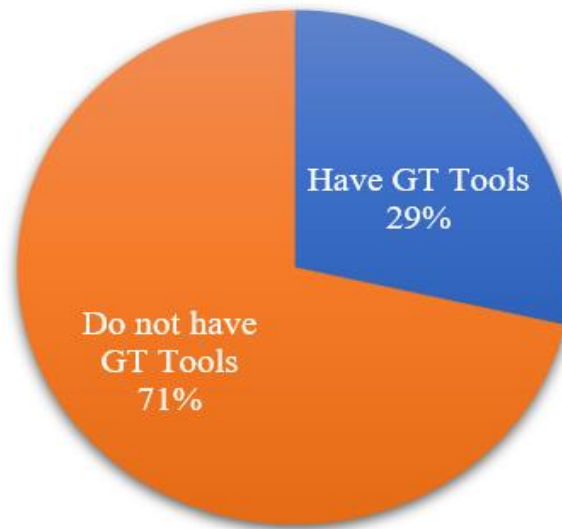


Figure 4.9: Percentage of EARCs who have Functional Assessment Tools for GT

Those who indicated to have assessment tools reported that they use observation, checklists and examination tests in assessing gifted and talentedness. Nonetheless, some respondents indicated that they use GT screening tools, background information from parents and teachers as well as an assessment tool developed by KISE which has no manual for reference. Despite some positive findings, in regard to availability of non-standardised tools. A KICD need assessment conducted in 2016 observed that functional assessment tools were not available in 75% of the schools visited. The Taskforce on Enhancing Access, Relevance, Transition, Equity and Quality for Effective Curriculum Reforms Implementation (2020) recommended the need of appropriate and relevant assessment tools to facilitate a systematic, multi-phased process of functional assessment that starts with identification of learners who exhibit exceptional giftedness or talents by their parents and teachers.

Respondents were asked to state where/how they obtained the GT assessment tools they use. From their responses, 50% of the tools available were developed by individual institutions (EARCs), 25% from KISE and MOE respectively as shown in Figure 4.10.

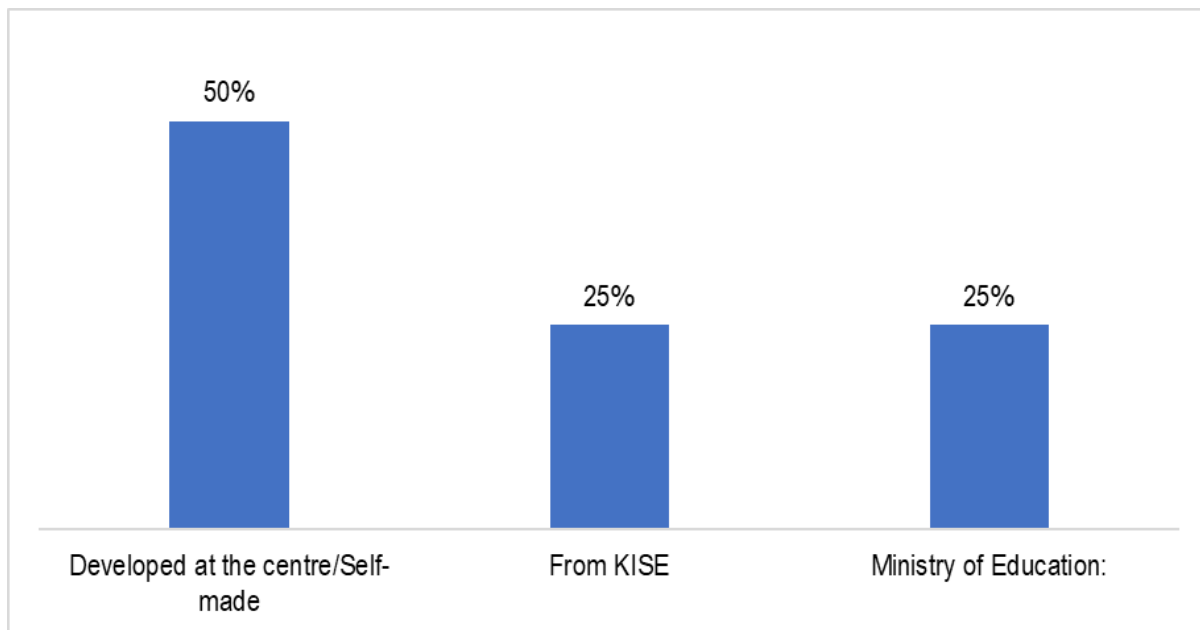


Figure 4.10: Sources of GT assessment Tools in EARS Centres

Respondents were asked to state the areas of GT that the available tools are used to assess. A majority indicated that the tools are used to assess general intellectual ability (75%) followed by specific academic aptitude (63%), psychomotor abilities (sports) (50%), visual art and creative art (38%), performing arts (25%) and leadership abilities (13%) as shown in Figure 4.11.

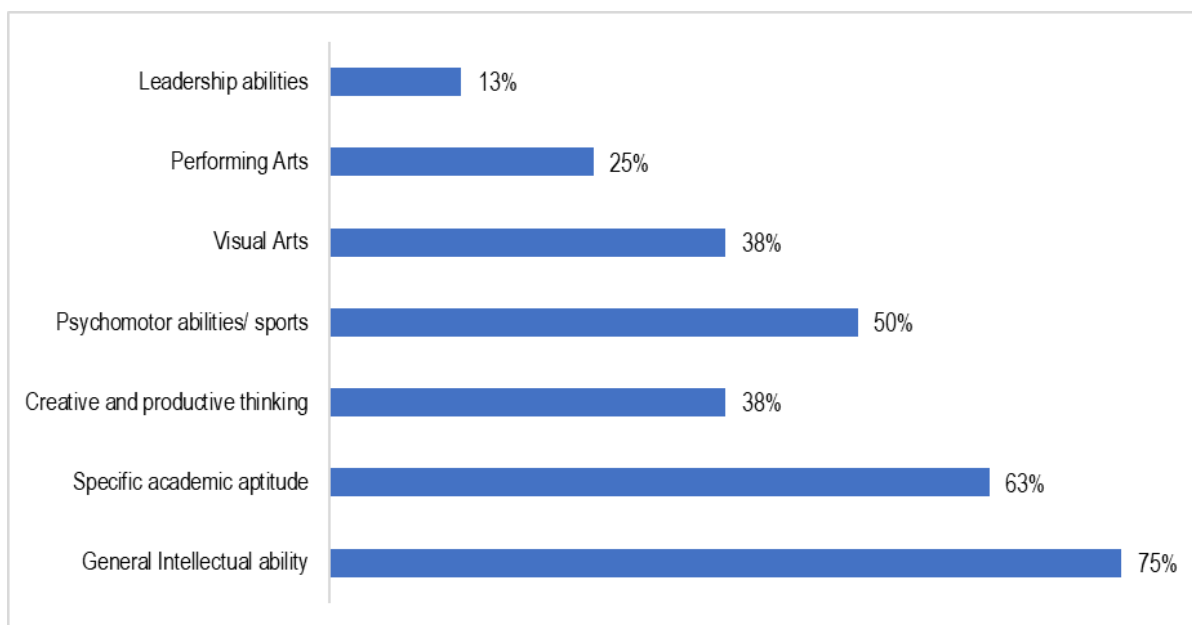


Figure 4.11: Areas that Existing GT Tool Assess

Further, EARCs who said they have assessment tools were also asked to state whether those tools are appropriate for doing proper assessment of GT. Results show that only 21.8% reported that the tools are appropriate, implying that a vast majority of EACRs believed that the tools they had were not appropriate for assessment of GT. At least 88% of EARCs reported that there are many gaps in the existing tools for assessment of GT which include the following:

1. Existing tools do not show how to support GT after identification
2. Existing tools are too general, lacking specific areas of GT
3. The existing tools are too old and need updating
4. Current tools are rigid and do not provide for addition of missing parts
5. Current tools contain exaggerated information
6. Existing tools are too bulky and lack guiding manual

On the other hand, EARCs who said they do not have assessment tools for GT were asked whether there is a need to develop such a tool. Results show that all agreed that there is a need to develop assessment tools for GT.

Coaches and mentors from different talent academies were asked whether they have tools for identifying persons/learners/trainees who are GT. Results show that 36% of them had tools while 64% didn't. When asked where they acquired the tools from, it was evident that existing tools were self-made. This implies that such tools were not standardised and were specific to what they do. For instance, sports academies have developed tools specific to the sports they engage in. It was also observed that what was described as GT tools by most coaches were internal guidelines and operational manuals rather than standard assessment tools. Even with these guidelines in place, 80% of coaches/mentors reported that they experienced difficulties using these tools.

When asked about the challenges they experience in identifying talents, it was interesting to note that rarely did coaches/mentors think of proper tools as a possible challenge. The challenges that were commonly cited by coaches/mentors included:

1. Lack of time to pick a person who is gifted and talented.
2. Learners are not willing to expose their talents/gifts
3. Lack of support from ignorant parents

4. Poor environment to nurture talents and gifts
5. Lack of training materials/facilities and equipment to nurture talents
6. Lack of motivation from those who have been identified as gifted and talented

These findings suggest that whilst there are numerous initiatives to nurture talents and gifts, there is little focus on appropriate tools and methods to identify talents and gifts.

4.5 Intervention Programmes for Gifted and Talented

Out of 741 Heads of Institutions and Teachers interviewed, 398 (54%) reported to be aware of programmes for persons who are gifted and talented in Kenya and 343 (46%) said they were not aware as shown in Figure 4.12.

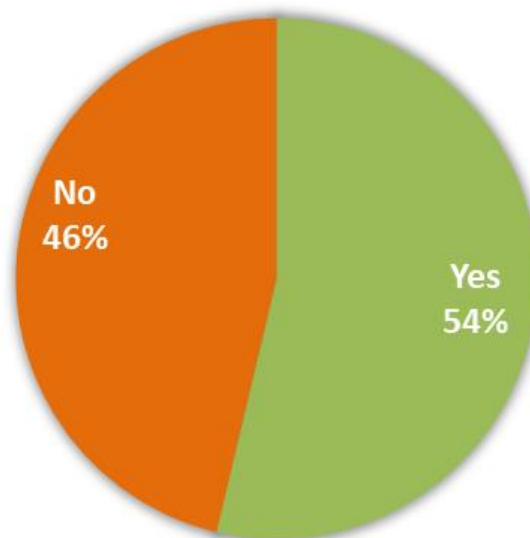


Figure 4.12: Heads of Institutions and Teachers who are Aware of Programmes for Persons who are Gifted and Talented in Kenya

The 54% who stated to be aware of *programmes* for persons who are gifted and talented in Kenya gave Safaricom foundation, M-pesa foundation, KCB Foundation, Wings to Fly by Equity bank among others as examples. A total of 406 (55%) heads of institutions and teachers reported that there are no programmes for supporting persons who are gifted in their various institutions. Only

335 (45%) of the respondents confirmed availability of programs for persons who are Gifted and Talented.

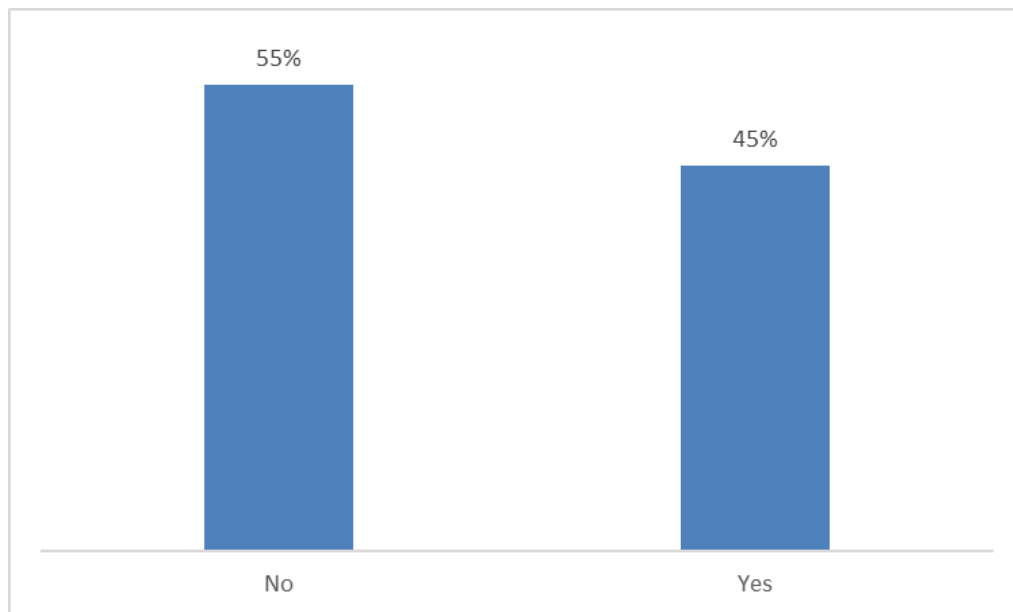


Figure 4.13:

Out of a total of 28 EARC officers who participated in this survey, half of them 14 (50%) reported that they know programs for persons who are gifted and talented in Kenya. They include sports academies, talent academies, Mpesa foundation, wings to fly Equity Bank program, acceleration programs among others. The other half (50%) reported that they do not know of any programs and services for GT as shown in Figure 4.14.

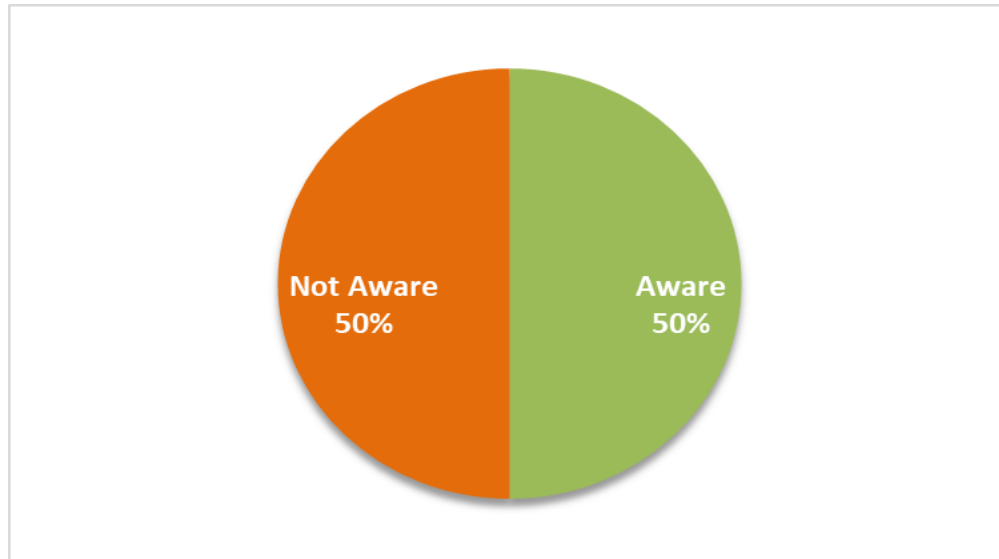


Figure 4.14: EARCs who are Aware of Programmes and Services for Learners who are Gifted and Talented in Kenya

All 14 coaches and mentors were interviewed on how they support persons who are Gifted and Talented to develop and actualize their talents. Their responses are presented in Figure 4.15.

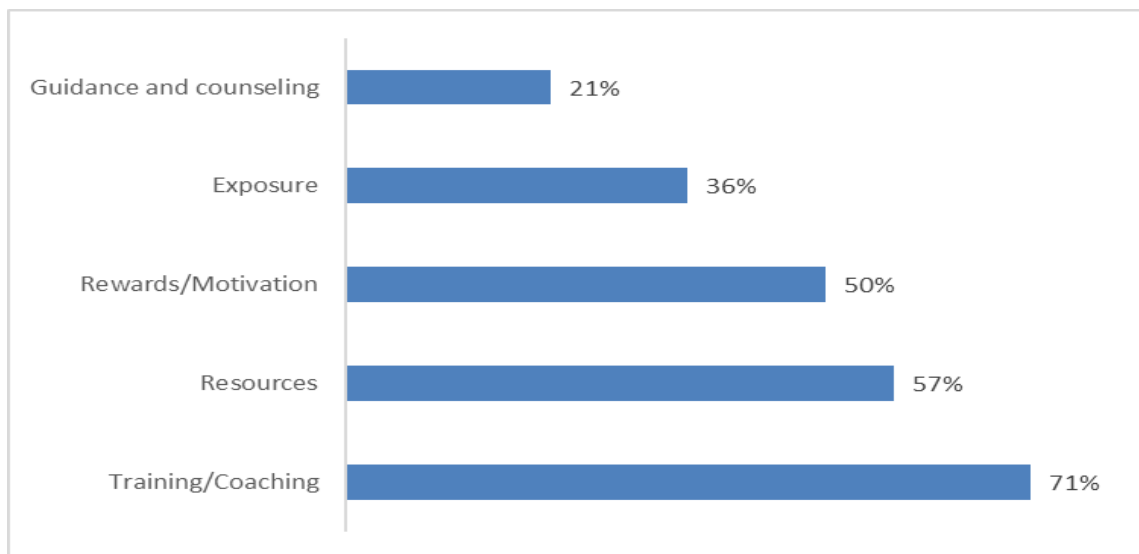


Figure 4.15: Support Services Offered to Persons who are Gifted and Talented by Mentors and Coaches

The coaches/mentors reported that they encounter various challenges when giving support to persons who are gifted and talented. The challenges are presented in Figure 4.16. In addition, they reported that some persons who are Gifted and talented are not responsive and others use drugs. Some learners in school feel that those who are GT are favoured, and there is a tendency to promote other talents and gifts at the expense of others. Further, they reported that there is procrastination from the government (on execution of assessment), negative cultural beliefs, fear/lack of self-esteem, Self-doubts among talented learners and lack of a follow-up programme after transition.

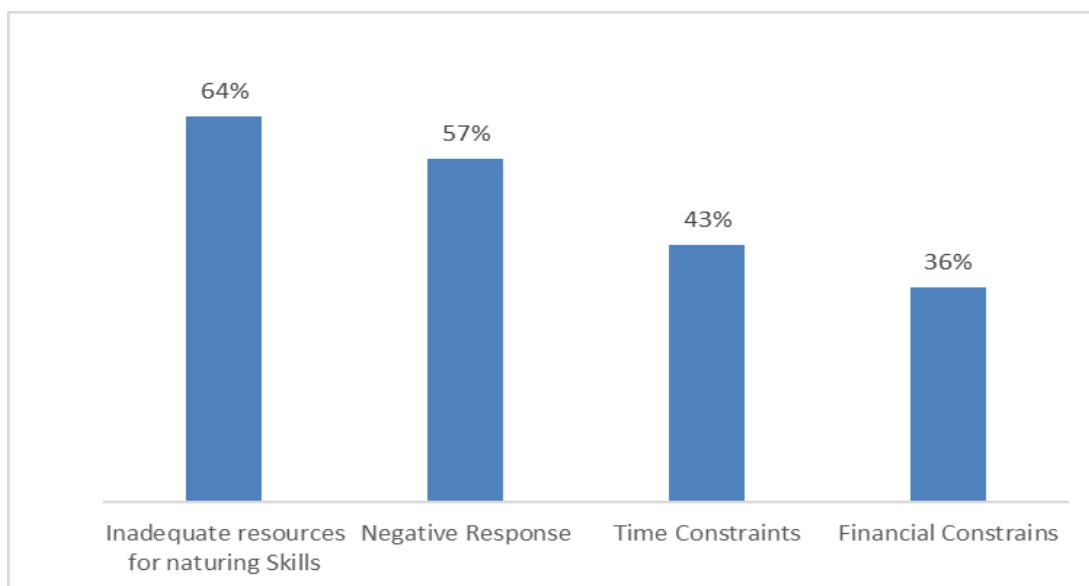


Figure 4.16: Challenges Encountered by Coaches and Mentors when Offering Service in Various Intervention Programmes

A sample of 30 respondents who are Gifted and Talented in various ways were subjected to a series of questions on available programmes meant to nurture and grow their abilities. To start off, Figure.17. indicates that only 17 (57%) of the total sample were aware that there are programmes available to enhance and grow their abilities while the remaining 13 (43%) had no idea that such programmes existed.

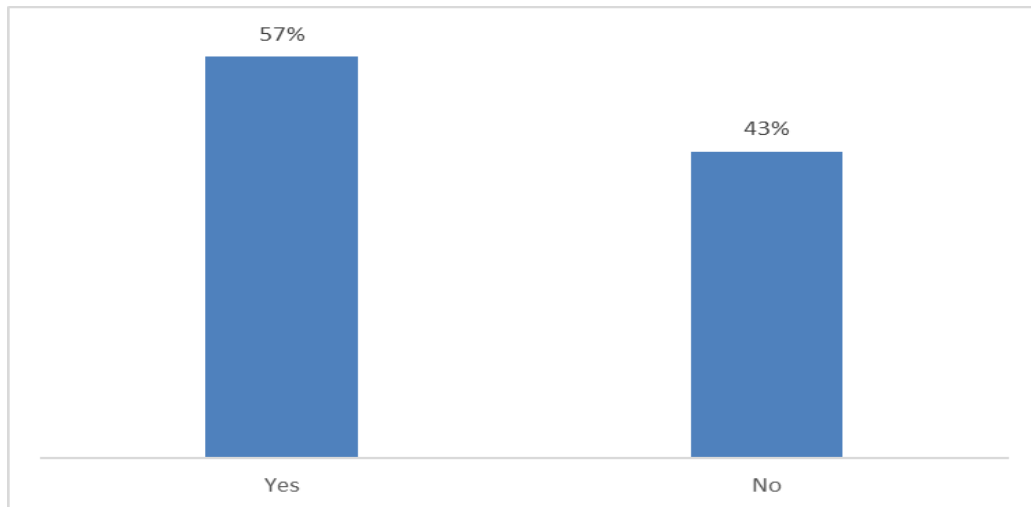


Figure 4.17: Are you aware of any programmes for persons who are GT in Kenya?

Consequently, as illustrated in Figure 4.18 the same sample number of respondents 17 (57%) who knew about programmes available to persons who are Gifted and Talented also stated to belong various programmes such as clubs (dance, art & craft, debate, sports), Drama and poetry programmes, Organisations that run programmes that offer a platform to showcase and grow talents such as ‘Talanta Mtaani’ among others. Out of 30 respondents, 13 (43%) said that they did not belong to any programme.

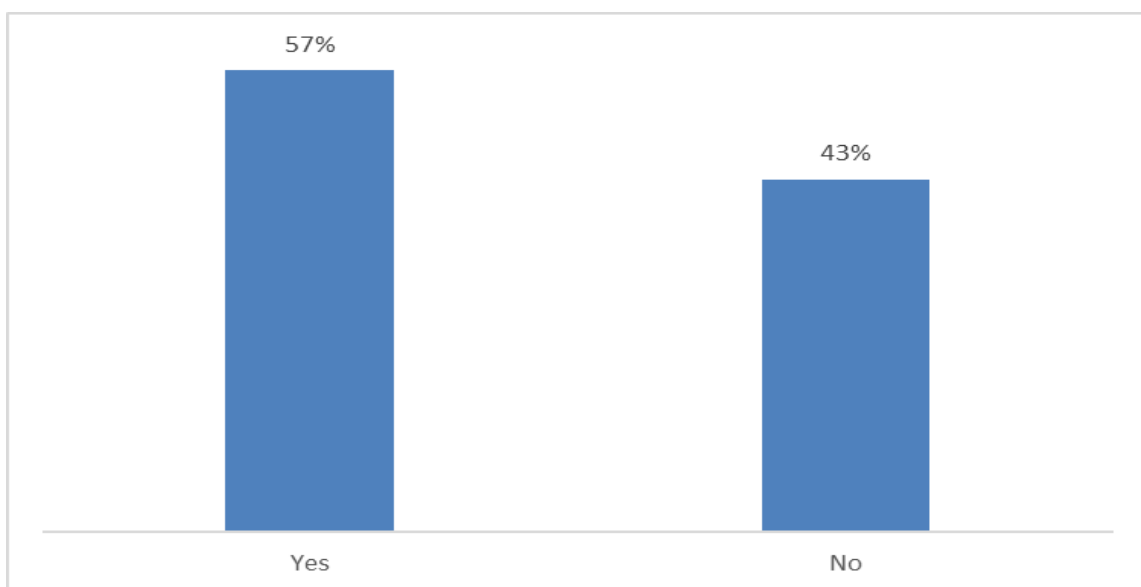


Figure 4.18: Are you in any programme related to your gift and talent?

Challenges in Functional Assessment of GT

- There are no standard and comprehensive GT tools in Kenya and most assessors rely on their knowledge to make decisions. At least 88% of EARCs reported that there are many gaps in the existing functional assessment tools for GT which include:
 - ✓ Do not show how to support GT after identification
 - ✓ They are too general lacking specific areas of GT
 - ✓ They are too old and need updating
 - ✓ They are rigid and do not provide for addition of missing parts
 - ✓ They contain exaggerated information
 - ✓ They are too bulky and lack guiding manual
- Most learners who may be gifted in different areas other than academics are often wasted because they are not identified and provided for.
- Lack of inclusive facilities, equipment and personnel qualified to assess learners who are GT.
- In most cases, parents are not aware of their children's gifts and talents and others lack support in nurturing their children's abilities.
- Large number of learners in classrooms make it difficult for teachers to identify individual learners' unique activities.
- Learners are not willing to expose their talents/gifts
- Lack of support from ignorant parents
- Poor environment to nurture talents and gifts
- Lack of training materials/facilities and equipment to nurture talents
- Lack of motivation from those who have been identified as gifted and talented

5.0 Conclusions and Recommendations

This section presents conclusions and recommendations based on the results of this needs assessment survey. Conclusions are drawn from empirical evaluation of survey objectives; awareness of persons who are GT; how identification of persons who are GT is done; current tools used in identifying persons who are GT and existing intervention programmes for persons who are GT.

Conclusions

There is a high level of awareness on the existence of persons who are Gifted and Talented among the Heads of institutions and teachers, EARC officers, coaches/mentors and learners. There is also a consensus on areas of Gifted and Talented known to them: general intellectual ability; specific academic aptitude; leadership and psychosocial abilities; creativity and productive thinking and Visual arts.

The methods currently used to identify gifts and talents among learners which include: observation, academic assessment, scouting, media exemplary leadership qualities and exemplary performance in creative arts. Other professionals such as doctors, psychologists, occupational therapists and physiotherapists participate in the process of identifying gifts and talents. There is a gap in the identification process of persons who are gifted and talented and hence a serious need to have a common assessment process so as to develop standard assessment practice across the country.

There is a challenge regarding tools available for functional assessment of persons who are GT. The main sources of functional assessment tools currently in use were reported to be KISE, MoE and others are self-made. However, a majority of service providers use examination results (internal & KNEC), classroom portfolio, self-made tests, observation during outdoor activities, adjudication sheets, questionnaires, panel interviews, and medical reports to identify learners who are gifted and talented.

Recommendations

1. It is important for the Ministry of Education to develop a Policy on Gifted and Talented to guide service provision.
2. There is a need to create awareness about the gifted and talented.
3. There is a need to develop comprehensive, standardized and up-to-date functional assessment tools for identifying gifts and talents.
4. There is a need to train functional assessment professionals to assess learners who are gifted and talented for purposes of early identification and intervention.
5. Ministry of Education to equip all EARS Centres and enhance capacity for assessment of the gifted and talented.
6. It is important to use a multidisciplinary approach in functional assessment of learners who are gifted and talented in Kenya.
7. The Ministry of Education to develop a common portal where all GT assessment tools are hosted and automated for assessment of the gifted and talented in the country.
8. There is a need to develop a curriculum and appropriate programmes for the gifted and talented.
9. The government to put in place intervention programmes for all areas of gifted and talented across the education sector.

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Kenya Institute of Special Education
P. O Box 48413-00100, Nairobi Tel: 0724 269505/020-8007977
Email: info@kise.ac.ke, www.kise.ac.ke