



**KENYA INSTITUTE OF CURRICULUM DEVELOPMENT**

**REPORT ON NEEDS ASSESSMENT FOR  
CURRICULUM REFORM IN KENYA  
SPECIAL NEEDS EDUCATION**

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## **FOREWORD**

Kenya implemented the last curriculum reform in 1985, resulting in a shift from the 7-4-2-3 System to the 8-4-4 system. The purpose of this move was to provide a curriculum that would help learners to gain practical skills and competencies to enable them become self-reliant. The curriculum was reformed from one that's geared the learners towards white collar jobs, to a more practical oriented curriculum that would enable gradaunts of the system to generate jobs. An evaluation of the curriculum in 1995 revealed that the curriculum had a heavy workload across the various subjects in primary and secondary education. Established in the Report on "Total Integration of Quality Education and training" of 1999, a needs assessment was set about. The national curriculum for primary secondary education was then reviewed in 2002, followed by Teacher Education Curriculum in 2004.

Education sector in Kenya is guided by the prevailing national goals identified through the establishment of various Education Commissions and situational analyses of the educational needs of the country. Currently, the sector seeks to align education to the Constitution of Kenya and the Kenya Vision 2030 guided by national education policies and international agreements. These include the Sessional paper No 2 of 2015, National Education Sector Plan (NESP), Education for All (EFA), the Sustainable Development Goals (SDGs) specifically Goal 4. A needs assessment was carried out in order to ascertain the fundamental expectations of Kenyans as a basis for designing relevant and quality curricula for the levels of basic and tertiary education.

The needs assessment report provides the foundation on which the Ministry of Education, Science and Technology and policy-makers will reach critical decisions to determine the various societal needs, competencies, learning approaches, reading resources, learning, relevant pathways and assessment mechanisms. The fundamental decisions and choices will drive the education sector reforms that should guide the country to achieving the tenets of the Constitution of Kenya and the Kenya Vision 2030.

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Particular mention goes to the quantitative and qualitative teams who tirelessly worked to examine the information and compile the final story.

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## EXECUTIVE SUMMARY

### Introduction

The Kenya Institute of Curriculum Development (KICD) carried out a needs assessment research in order to determine the underlying expectations of Kenyans as the foundation for reclaiming the present curriculum. The specific objectives were ; Establish desired the **general needs** for curriculum reform ;Determine desired **competencies** for all SNE learners needs ;Determine the **talent** identification and nurturing strategies to be adopted for SNE learners; Establish desired **content/learning areas/pathways** for competency based curriculum for promoting quality, relevant and accessible education in SNE institutions; Identify **resources** suitable for competency based curriculum for learners with special needs; Determine desired **pedagogical approaches** for competency based curriculum for SNE Institutions and Establish formative and summative **assessment** modes for competency based curriculum for SNE Institutions.

Relevant literature was reviewed that operationalised the key concepts, situated the study within the discipline of curriculum studies, reviewed relevant theories and previous research and provided a rationale for the study based on the literature review.

This study applied a mixed methods design which involved both quantitative and qualitative approaches, conceptualised as a survey therefore both questionnaires, observation schedules, interviews, focused group discussions (FGDs) and submitted memoranda were used as data sources. The targeted population was all Special Needs Education (SNE) institutions and EARC. The sample size included 30 head teachers, 10 Principals of secondary teachers, 20 EARC Officers, 6 memoranda and FDGs for learners and parents. The study employed a multi-stage sampling technique, which involved random selection of the quantitative respondents and Purposive sampling of the qualitative respondents. This represented, the sample size at the 5 % level of significance, with an error of **2.5%**. Sampling for the Qualitative phase was done using purposive techniques leading to identification of several participants, institutions and key informants. A total of **2431** participants took part in the study.

The findings on societal needs, Kenyans need the curriculum to be reformed to emphasize peaceful social co-existence, contribute to economic development and to negate social vices such as corruption, tribalism and insecurity to bring unity and cohesiveness. They urged that the curriculum should promote innovation, problem solving skills and self-reliance for improving individual's and national development. The following are highlights of the key findings for every research objective.

## **Competencies**

- i) At the Special Needs Education level, Kenyans suggested competencies such as appropriate adaptive skills, communication skills and vocational skills that enhance employability.
- ii) At the SNE secondary level, Kenyan teachers and principals identified different competencies that were clustered into four 4Cs of the 21<sup>st</sup> century skills. These include: communication, collaboration, critical thinking and creativity.

## **Talents nurturing and development**

Kenyans desire a curriculum that promotes identification and Nurturing of talents at all levels of education. Learners, parents and other stakeholders have strongly argued for talents as important companions and alternatives to academic excellence and also as a key source of employment and national development.

## **Content/ Learning Areas/Pathways**

- i) For Special Needs Education (SNE), the respondents expressed the need for vocational institution for SNE learners who may not excel in academic subjects, e.g. in areas such as beadwork, hairdressing, beauty therapy and agriculture.

## **Pedagogical Approaches**

Kenyans emphasized the need for use of participatory pedagogical approaches, experiments and field trips in order to make learning more real. They also suggested approaches that promote collaborative learning at all levels.

## **Resources**

- i) Parents, learners and other stakeholders emphasized the need for provision of basic resources such as classrooms, course books, toilets, teaching aids and playing, games, music and drama materials that enable learners to play. They also emphasized equal distribution of resources that would facilitate a more practical approach to learning, especially for SNE learners.
- ii) The quantitative data, however, revealed that most of these resources are currently unavailable in the schools. The most affected resources are Art rooms, Music rooms, Technical subject workshops, Home science labs, Biology, chemistry and physics labs; and Libraries.

## **Assessment Modes**

- i) The public proposed a shift in assessment modalities from purely academic to other domains of education.

- ii) Kenyans suggested that assessment should be adapted to suit the needs of the learner with special needs. There is also need to develop different ways of assessing those who are gifted and talented.

### **Contemporary/Emerging Issues**

- i) The majority of respondents affirmed the need to have contemporary/emerging issues addressed by the curriculum. At SNE Primary level, the respondents rated child right the highest, followed by life skills which includes guidance against drug abuse, integrity, security and safety, and hygiene, and the lowest was financial literacy. HIV/Aids, Environmental issues, Technology, gender issues were among the other contemporary issues that were rated by the participants. Overall, there was consistency between the primary school teachers and head teachers and their SNE **secondary** school counterparts.
- ii) Qualitative analysis corroborated the quantitative data by revealing that that Kenyans proposed the need to have the curriculum include appropriate content, pedagogy and resources at all levels to help address the following, emerging issues: Safety and Security, Management of ICT; Unemployment/Poverty Eradication, Patriotism, Tribalism, corruption; Environmental conservation, Alcohol and drug abuse, Sexuality, Early marriages, teenage pregnancies, HIV/Aids; Gender Equity/ issues, Cultic religious practices, radicalization, harmful cultural practices, Creating awareness about disability.

### **Curriculum Structure**

Kenyans proposed a curriculum structure that considers the ages and developmental stages of the Learners at all levels, that allows transition of all pupils from Primary to Secondary, and that offers several pathways to learners after Secondary School

### **Key Recommendations**

The following key recommendations have been conceptualized from the needs assessment research for curriculum reform in Kenya:

1. There is a need to reform the Kenyan Curriculum at all levels from ECDE to University to conform to the Kenyan Constitution 2010, Vision 2030, and other relevant documents. Such curriculum should also take cognizance of recent research in Education nationally, and by reputable bodies such as the World Bank, UNICEF, UNESCO; regional and Global trends and best practices and infuse the 21<sup>st</sup> Century Competencies.

2. Adoption of a competency-based curriculum that specifies age appropriate, desirable, and relevant social, personal and intellectual competencies at all levels of Education.
3. Emphasis on identification and nurturing of all learner talents at all levels, providing for the nurturing of all learners potentials.
4. Packaging of content/learning areas/ pathways that provide for various competencies, abilities, interests and needs learners in diverse contexts. In particular, it is necessary to consider re-introduction of practical subjects that promote self-reliance, creativity, innovation, job creation and national economic development while also promoting national values, cohesion and development. Critical contemporary/emerging issues ought to be incorporated at various levels of the curriculum in appropriate ways. Emphasis should be put in knowledge and use of ICT.
5. Reform of pedagogical approaches should be done at all levels to promote learning through critical thinking, problem solving, participation, experimentation, discovery, exploration, self-assessment and observation. TTCs, TSC, ESQAC need to ensure that teachers must be transformed from “those who impart knowledge to those who facilitate learning”.
6. Alternative assessment is needed for both formative and summative assessments to support the new way of learning, since such competencies cannot be effectively measured by multiple choice or paper-and-pencil tests. A way ought to be found to emphasize formative assessment over summative assessment.
7. The curriculum developers, implementers and evaluators should encourage resource rich environment/stimulating classes to support learning. Adequate Human and financial resources, Material Resources (raw material) and Teaching and learning materials should be availed by all stakeholders to promote implementation of the competency based curriculum. The Government should facilitate the provision of Infrastructure (physical structure, electricity and water supply system) in all schools. Provision should be made at all levels of appropriate ICT resources..
8. The Teacher Education Curriculum ought to be re-oriented to provide a balance between knowledge of appropriate content and pedagogy. Such education should provide for a competitive entry point, sufficient experience in schools and a shift towards the competency based curriculum. Such training should culminate in the award of Diplomas that offers relevant competencies for the teaching profession while also providing a pathway into University Teacher Education.

9. There is a need for incorporation of TVET programs from the Primary and all subsequent levels, also with a pathway up to relevant University Education.
10. There is a need for an educational structure that considers developmental stages of learners, ensures all Kenyan children stay in school up to the age of 18; promotes 100% transition from one level to another, provides for pathways/learning areas and content that offers alternatives according to learners various interests, abilities, needs and contexts.

## **Conclusion**

Overall, it is clear that Kenyans need major reforms on the current curriculum in the entire education sector. While this report gives highlights of the desired reforms, it is important to point out that details, including quantitative and qualitative evidence of the issues summarized in this executive summary are contained in the long report, available at KICD. Shorter reports for the various levels of education - ECDE, Primary, Secondary, Teacher Education and TVET have also been compiled, for use by specific interest groups.

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## **ABBREVIATIONS AND ACRONYMS**

UNESCO	-	United Nations Education Scientific Cultural Organization
NESP	-	National Education Sector Plan
EFA	-	Education for All
MDGs	-	Millennium Development Goals
SDGs	-	Sustainable Development Goals
KICD	-	Kenya Institute of Curriculum Development
EFA	-	Education for All
EAC	-	East African Community
HIV	-	Human immunodeficiency virus
AIDs	-	Acquired immune deficiency syndrome
ICT	-	Information Communications Technology
MoEST	-	Ministry of Education Science and Technology
IBE	-	International Bureau of Education
EARC	-	Education Assessment Resource Centre
KIE	-	Kenya Institute of Education
ESD	-	Education for Sustainable Development
TSC	-	Teachers Service Commission
ESQAC	-	Education Standards Quality Assurance Council
KNEC	-	Kenya National Examination Council

REAR	-	Research Academic Reform
NESP	-	National Education Sector Plan
GOK	-	Government of Kenya
UPE	-	Universal Primary Education
EFA	-	Education for All
SNE	-	Special Needs Education
STI	-	Science, Technology, and Innovation
TIMSS	-	Trends in International Mathematics and Science Survey
SACMEQ	-	Southern and Eastern Africa Consortium for Monitoring Educational Quality
CBE	-	Competence Based Education
SNE	-	Special Needs Education
TTC's	-	Teachers Training Colleges
SPSS	-	Statistical Package for Social Science

## **CHAPTER ONE**

### **BACKGROUND TO THE STUDY**

#### **1.1 Introduction**

This is the report of the Needs Assessment Research for Curriculum Reform in Kenya (NARCK) carried out by the Kenya Institute of Curriculum Development (KICD) between January and March, 2016.

The SNE report for primary and secondary level is divided into 5 Chapters. In brief, it includes a background to the study, a literature review, methodology, findings on SNE secondary in chapter four and Conclusions, implications on curricula reform recommendations in Chapter five.

#### **1.2 Introduction**

Global and national education authorities around the world, through different approaches, are seeking innovative curriculum solutions to improve the quality and relevance of student learning, and to enable their students to apply their learning to the challenges and opportunities they encounter throughout their lives. While knowledge and education are considered among the major factors contributing to the reduction of poverty, sustainable development and economic growth - it is the curriculum that is increasingly viewed as the foundation of educational reforms that are aimed at achieving high quality learning outcomes. Thus, the curriculum represents a conscious and systematic selection of knowledge, skills and values which shape the way teaching and learning processes are organized, by addressing questions related to what students should learn, why, when and how(UNESCO, 2012).

The curriculum is also understood as a political and social agreement that reflects a society's common vision while taking into account local needs, national expectations and global trends. In the last two decades, curriculum reforms have been driven by rapid technological and social changes; the need to address the new challenges of contemporary life; the emergence of a knowledge society that depends on lifelong learning; the growing emphasis on assessment of performance; and the prominence of issues related to equity, quality and inclusion among other factors. In this regard, contemporary curriculum reform and development processes increasingly involve public discussion and consultation with a wide range of stakeholders.

Over the years, education in Kenya is guided by the prevailing national goals identified through the establishment of various Education Commissions and situational analyses of the educational needs of the country. Currently, the sector seeks to align education to the Constitution of Kenya and the Kenya Vision 2030 guided by national education policies and international agreements. These include the Sessional paper No 2 of 2015, National Education Sector Plan (NESP), and Education for All (EFA), the Millennium Development Goals (MDGs) and Sustainable Development Goals. This needs assessment was carried out in order to ascertain the fundamental expectations of Kenyans as the basis for designing relevant and quality curricula for the levels of basic and tertiary education in tandem with the aspirations of the nation.

### **1.3 Context of the study**

The Kenya Institute of Curriculum Development (KICD) is the national curriculum development centre established through the [KICD Act No. 4 of 2013](#) of the laws of Kenya. The Institute's core function is to initiate and conduct research

to inform curriculum policies, review and development. The Institute is charged with the development, evaluation and approval of curricular and curriculum support materials for all levels of education below the university. The Institute also undertakes organizing and conducting professional development programmes for teachers, teacher trainers, quality assurance and standards officers and other officers involved in education and training on curriculum programmes and materials. According to international standards, curricula should be reviewed every five years to ensure relevance by incorporating any upcoming trends and issues that require attention. The last review of the curriculum in Kenya was undertaken in 2002.

During the World Education Forum of Dakar 2000, in Senegal, 164 governments pledged to achieve Education for All (EFA) and the six Millennium Development Goals (MDGS) by 2015. This resolution propelled provision of access to education in many countries with high levels of enrolment being registered at both primary and secondary levels. The number of youth exiting school into the world of work has increased yet scientific and technological progress is making most training obsolete, in no time (World Bank, 2014). Hence, education systems everywhere face serious challenges and dilemmas, in the task of preparing current and future citizens in a rapidly changing world.

The overarching goal for the post 2015 agenda is to ensure equitable and inclusive quality education for all by 2030. Both developed and developing countries are currently at varying levels, devising strategies, developing curriculum and education pathways that enable learners acquire the multi, flexible and diversified competencies for learning for life. In addition, sustainable development demands that every human being acquires the 21st Century skills which include the following:

**Table 1. 1: 21st Century skills**

<b>Learning &amp; Innovation Skills</b>	<b>Information, Media &amp; Technology Skills</b>	<b>Life &amp; Career Skills - [Values &amp; EQ]</b>
<ul style="list-style-type: none"><li>• Critical Thinking &amp; Problem Solving</li><li>• Creativity &amp; Innovation</li><li>• Communication</li><li>• Collaboration</li></ul>	<ul style="list-style-type: none"><li>• Information Literacy</li><li>• Media Literacy</li><li>• ICT (Information, Communications &amp; technology) literacy</li></ul>	<ul style="list-style-type: none"><li>• Flexibility &amp; Adaptability</li><li>• Initiative &amp; Self-Direction</li><li>• Social &amp; Cross-Cultural Skills</li><li>• Productivity &amp; Accountability</li><li>• Leadership &amp; Responsibility</li></ul>

In the last two decades, investment in education in Sub-Saharan Africa has not translated into functional knowledge and skills that can transform individuals and economies in which they live (EFA Global Monitoring Report, 2012). There have been consistent wastage rates reflected in the fact that only 30% of the age cohorts complete junior secondary education while only 12% complete the full secondary cycle (World Bank, 2007). The African Economic Outlook (2012) recognizes the pivotal importance of education and appropriate skills as the prevailing solution to mitigating unemployment and vulnerable employment among the youth. It calls for a review, and reform of curricular to prepare youth for knowledge intensive economies. This can be achieved by making provisions for curricula that intricately balances opportunities to pursue skills acquisition in academics, technical and vocational skills education.

The East African Community (EAC) treaty emphasizes cooperation and integrated investments especially in education and research. It aims at preparing

citizens to operate and collaborate effectively in a globalized economy (EAC, 2013). The states propose to develop harmonized programmes for the primary, secondary and tertiary education cycles. The EAC Partner States anticipate that a common framework will promote equal access to education opportunities, harmonized quality assurance and accreditation systems, whose benefits will include free movement of goods and services and people (EAC, 2014).

In Kenya the last curriculum reform was effected in 1985, which resulted to a shift from the 7-4-2-3 System to the 8-4-4 system. The purpose of this move was to provide a curriculum that would help learners to gain practical skills and competences to enable them become self-reliant. The curriculum was reformed from one that geared the learners towards white collar jobs, to a more practical oriented curriculum that would enable graduates of the system to generate jobs.

Emphasis was laid on practical subjects such as art and craft, woodwork, home science, agriculture and music. An evaluation of the curriculum in 1995 revealed that the curriculum had a heavy workload across the various subjects in primary and secondary education. Based on the Report on “Total Integration of Quality Education and training” of 1999, a needs assessment was undertaken. The findings of the study indicated that the subjects at primary level were too many, the content in each subject for primary and secondary was too much, and there was also repetition of content in various subjects. The national curriculum for primary and secondary education was then reviewed in 2002 to remove the overloads and unnecessary overlaps within and across subjects, and to mainstream emerging issues.

The revision of the curriculum entailed refocusing the goals of education, the primary and secondary education level objectives, and the subjects’ general and

specific objectives. The rationalization of the primary curriculum resulted in some new learning areas. Music, Art and Craft were integrated into one study area called Creative Arts. This incorporated aspects of Drama. Home Science, Agriculture and Science were integrated into one study area called Science- which also includes aspects of technology. Geography, History and Civics (GHC) – a combined course was renamed Social Studies and included environmental education, civic education and aspects of Business Studies. The English syllabus adopted a thematic approach to teach various language skills. The themes were derived from things and situations that learners are likely to interact with. The emerging issues mainstreamed included HIV and AIDS, child labour, environmental conservation and gender issues, among others (KIE, 2002).

Summative evaluation of primary and secondary education in 2009 indicated that the current curriculum content relegates practical skills necessary for economic development to non-examinable subjects, thus, most of the learners exiting the education system at secondary level did not have adequate skills and competences to join the job market. Among the skills gaps identified were agricultural skills, entrepreneurial skills, vocational and technical skills, innovation and creativity and ICT skills as learners opt not to take these subjects. Further, that the cognitive domain, was over emphasized at the expense of affective and psychomotor domains rendering teaching and learning to be exam oriented. It was also indicated that the curriculum did not facilitate adequate acquisition of pre-requisite values such as nationalism and patriotism.

Kenya Vision 2030 is the country's new development blueprint covering the period 2008 to 2030. It aims to transform Kenya into a newly industrializing, "middle-income country providing a high quality life to all its citizens by the year 2030". The Vision places great emphasis on the link between education and the labour market and the need to create entrepreneurial skills and competences.

Specific to education, the Vision envisages a reform in secondary education and modernization of the primary teacher education programmes. This expectation has far reaching implications on all the other levels of education before and after secondary education to ensure smooth transition from one level to the next. As such there will be need to address issues related to quality, service delivery, curriculum, relevance, teacher development and management at all levels as well as trainers in the areas of technology and entrepreneurial skill development.

The Constitution of Kenya 2010 advocates for free and compulsory basic education. It also introduced the national and county governments, which gave rise to changes in the administrative and organizational structures of various offices and services. This had implications in education as this information needed to be incorporated in the curriculum to be tandem with the administration of the county and national governments as well as other fundamental institutions. Effort was made as a mitigating measure, to include some of the information in Social Studies at primary level and history and government at secondary level. However, the wider changes across the subjects have not been effected to date.

The task force on “Re-alignment of education and training to the Constitution of Kenya” was commissioned in 2010 to advice on how education would be reformed to cater for the aspirations of the Kenya Vision 2030, and be realigned to the Constitution of Kenya 2010. The task force report emphasized the need for the following:

- i) Structuring of the curriculum within competence framework that identifies the knowledge, skills, values and attitudes to be incorporated at each level e.g. entrepreneurial skills;
- ii) Addressing local needs by including the study of local knowledge and culture;

- iii) Providing pathways to give equal opportunity to all learners to recognize their talent and achieve their full potential;
- iv) Integrating ICT in the curriculum as a key driver of a knowledge-based economy.

Sessional Paper No. 2 of 2015, “Reforming Education and Training in Kenya”, recognizes that in order to realize the national development goals, relevant and quality education and training is required to meet the human development needs of a rapidly changing and a more diverse economy.

The policy recommends reforming the education and training sector to provide for the development of individual potential in a holistic and integrated manner, while producing individuals who are intellectually, emotionally and physically balanced. It further recommends a competency based curriculum; establishment of a national learning assessment system; early identification and nurturing of talents; introduction of national values, national cohesion and integration in the curriculum; integration of ICT in the education system and introduction of learning pathways that ensure every learner graduates from the education system with competencies that empower them to exploit their full potential (MoEST, 2015). In this regard therefore, the curriculum reform seeks to shift the Kenyan curriculum from a subject-based curriculum to a competence based curriculum. The needs assessment study is a first step in informing the conceptualization of what the curricula for various levels should comprise in order to meet the needs and aspirations of learners and wider Kenyan community.

#### **1.4 Statement of the problem**

World Bank, (2014) report points out that reforms in education must be targeted towards providing broader curriculum areas based on skill-centered approaches, and appropriate knowledge from non-academic sources. Special education has

changed over the years. New teaching methods, changing perspectives, and the emphasis on inclusion have shifted ideas and introduced new concepts for special education teachers and administrators. Technology has helped millions of students with special needs and inclusion has become a major focus among policymakers and educators in developed countries. This implies there is need for reforms across SNE level in most developing countries, Kenya included (UNESCO,2013).

Many advocates of standards-based reform have argued that expectations for students have been too low, especially for students with disabilities and students from minority groups and lower socioeconomic classes. This perception has led to the idea that whatever standards or educational goals are set should be uniformly applied to the vast majority of students and particular attention should be given to historically underperforming groups (IEP, 2012 Finland).

International standards set by International Bureau of Education (IBE) recommend that curricula should be reviewed every five years, thus recognizing the dynamism of development of society, therefore attention should be given to SNE learners needs

These include the inauguration of the Constitution of Kenya, 2010, the Kenya Vision 2030, the East African Protocol and most recently the Sustainable Development Goals (goal 4). All these instruments have implications on the different levels of education and necessitate a more comprehensive alteration of the education sector, thus, the urgent need for an education reform.

The Sessional Paper No. 2 of 2015, “Transforming education and training in Kenya”, have put much emphasis on Science Technology and Innovation. However, in the current system, innovative, vocational and technical skills which

are considered to be important for meeting the demand for skilled labour and the country's goal of industrialization are not well embedded into the curriculum.

The Basic Education Act of 2013, emphasizes “Quality education for all” influencing the shift from a subject-based curriculum to a competence-based curriculum will provide the opportunity to set standards against which student learning can be assessed taking into consideration the individual learner’s interests, abilities and talents. The reform also sought to create different pathways to enable students have an opportunity to pursue different career pathways of their interest.

The needs assessment study provided the basis on which the Ministry of Education Science and Technology and policy-makers will make critical decisions to set the various learning areas as well as the relevant pathways. This will drive the education sector reforms that should lead the country to achieving the tenets of the Constitution of Kenya and the Kenya Vision 2030.

## **1.5 Research Objectives**

The specific objectives of the study were to:

- i) Establish desired the **general needs** for SNE learners in curriculum reform;
  - ii) Determine desired **competencies** for all SNE learners’ needs;
  - iii) Establish the **talent** identification and nurturing strategies to be adopted for SNE learners;
  - iv) Establish desired **content/learning areas/pathways** for competency based curriculum for promoting quality, relevant and accessible education in SNE institutions
1. Identify **resources** suitable for competency based curriculum for learners with special needs.

2. Determine desired **pedagogical approaches** for competency based curriculum for SNE Institutions.
3. Establish formative and summative **assessment** modes for competency based curriculum for SNE Institutions.

### **1.6 Scope of the study**

This study was carried out for the levels of education for which KICD is mandated to develop curriculum. The findings of this report were for special needs education (SNE).

### **1.7 Rationale for the study based on the Context**

The hallmark of relevance of any curriculum to society is the promptness with which the curriculum adapts to changing societal needs. The current the special needs education curriculum was reviewed in 2006. It is, therefore, not in tandem with the current needs and aspirations of the nation as articulated in various policy documents.

The Ministry of Education acknowledges the need to reform the SNE school curriculum with the emphasis shifting from knowledge reproduction to knowledge production and to make ICT central to it. The proposed curriculum reform has to be in tandem with the Constitution of Kenya, Kenya Vision 2030 and the East Africa Community Protocol.

The mandate to reform the curriculum lies with the Kenya Institute of Curriculum Development (KICD). This includes reviewing of learning materials and orientating the serving teachers and other field education officers such as the quality assurance officers, and Education Assessment Resource Centre (EARC) officers. The Institute undertook this needs assessment study in order to ascertain

the actual needs of the various stakeholders and to inform policy decision-making on the various aspects of the reform for learners with special needs.

### **1.8 Summary**

The demand for quality education is leading countries to adapt new curriculum content, pedagogical skills and educational structures that emphasize the importance of producing learners who can take initiative, and contribute to innovation in products and processes. Education should be seen as a basis for development or a means for improving life and this can be in technology, preventing disease, improving governance, agriculture and protecting the environment among others. It should enable people to understand local, regional and global contexts and shape their mindsets and actions in their daily life.

Kenya's transformation into a newly industrialized country is hinged on the provision of a highly qualified human resource. The country, therefore, needs an education system that will foster innovation and facilitate the much needed social, economic and environmental development for sustainability.

## **CHAPTER TWO**

### **REVIEW OF RELATED LITERATURE**

#### **2.1 Introduction**

This chapter presents reviews of discussions of literature on SNE curriculum reform issues that relate to the core aspects of the study. First, a brief on relevant theories in curriculum have been presented followed by a situational review of the study within the field of education and discipline of curriculum studies.

The core aspects of the study have been divided into themes or objectives that have guided the needs assessment survey. These include the general societal needs, competencies, them values and attitudes, learning areas, nurturing of talents, resources, assessment and contemporary and emerging issues.

Students with special educational needs are also accommodated in special schools. There is a wide range of special schools catering for various types and levels of disability, including sensory impairment and physical disability. These special schools cater for students both at primary and post-primary levels.

The literature addressed a wide range of impairments, such as: Autism, deaf-blindness, deafness, developmental delay, emotional disturbance, hearing impairment, intellectual disability, multiple disabilities, orthopedic impairment, and other health impairment include; Specific learning disability, Speech or language impairment, Traumatic brain injury and Visual impairment, including blindness as well as slow and gifted learners

#### **2.2 Definition of Key Concepts**

##### **2.2.0. General overview**

This section describes different understanding by scholars and other authors on meaning of key concepts that have been used in this study. These are not

conclusive but it is an attempt to give meaning to the concept used repeatedly in the study. They are not in any order of priority but they represent the themes or variables in the study.

### **2.2.1. Curriculum**

Curriculum may be described as a social construct (Brady and Kennedy, 1999) that is grounded in the culture of the people. It is also considered extremely important that the content of a curriculum should support holistic student development and should transmit the local culture (UNESCO, 2000; Brady and Kennedy, 1999). It should also fulfill societal needs (Bugotu et al., 1973, 4.04).

To do this, a curriculum must be broadened beyond traditional knowledge-based education to facilitate the development of students' ability to think and act creatively and morally (UNESCO, 2000; Downs Perry, 1994) and to successfully practice competencies (such as problem-solving, decision-making and negotiating) considered necessary for life in the 21<sup>st</sup> century (Dimmock & Walker, 1998; Tien, Ven and Chou, 2003). Furthermore, for a curriculum to do its work successfully, it must be accessible to all students (Brown, 2003) and should support economic and social development. In a broader sense, curriculum can be viewed as a roadmap for achieving socially agreed development and education goals that embeds society's vision, knowledge, skills and values needed to live in and change the society.

As a field of study and a discipline, curriculum has been expounded by Otunga, Odero and Barasa (Eds, 2011) as a dynamic field that continually develops through a process, in a given design and within a given social and Physical context.

All curriculum decisions are defined in a framework that establishes the subjects, the time frame and particular content, teaching learning strategies to be adopted and assessment criteria to be used. Countries around the world organize education along curriculum framework. This defines the perimeters within which the curriculum must be developed. It has Many components; among them are the under pining principles and core values, general objectives, expected learning achievements, guidelines on Teaching and learning process and assessment (UNESCO, 2013). Further the paper opines that it is the framework that provides coherence to the guidelines and national standards that enable and support the development of the school curriculum. This is affirmed by the intentions of the KICD that after the engagement with the stakeholders during needs assessment, a curriculum framework should be developed.

### **2.2.2. Learning areas**

Learning areas refer to content to be taught and learnt. The school curriculum defines learning areas as content to be taught and learned, by whom, when and where (UNESCO- IBE Korea – 2015). The organization and sequencing of curriculum facilitates learning. Within the learning areas, content, teaching and learning experiences, assessment, resources are determined by the goals of education from which general and level objectives are derived.

The process of curriculum development in Kenya though centralized involves many stake holders and responds to a wide range of society requirements. The curriculum seeks to encompass the dynamics of the development of knowledge and various discipline prevailing in the society is engage in periods of profound changes that modify the needs of learners, both for their personal performances and in the labor market as well as for their citizenship (IBE No 15, 2015).

Many advocates of standards-based reform have argued that expectations for students have been too low, especially for students with disabilities and students from minority groups and lower socioeconomic classes. This perception has led to the idea that whatever standards or educational goals are set should be uniformly applied to the vast majority of students and particular attention should be given to historically underperforming groups (IEP, 2012 Finland).

The alternative approach, response to intervention, identifies children who are having difficulties in school in their first or second year after starting school. They then receive additional assistance such as participating in a reading remediation program. The response of the children to this intervention then determines whether they are designated as having a learning disability. Those few who still have trouble may then receive designation and further assistance. Sternberg (1999) has argued that early remediation can greatly reduce the number of children meeting diagnostic criteria for learning disabilities. He has also suggested that the focus on learning disabilities and the provision of accommodations in school fails to acknowledge that people have a range of strengths and weaknesses and places undue emphasis on academics by insisting that students should be supported in this arena and not in music or sports.

A special school is a school catering for students who have special educational needs due to severe learning difficulties, physical disabilities or behavioural problems. Special schools may be specifically designed, staffed and resourced to provide appropriate special education for children with additional needs. Students attending special schools generally do not attend any classes in mainstream schools. For example Johnson (1993) defines disability as a loss or reduction of functional ability of an individual.

### **2.2.3. Competencies**

Competency is a set of defined behaviors that provide a structured guide enabling the identification, evaluation and development of the behaviors in an individual. Some scholars consider "competence" to mean a combination of theoretical and practical knowledge, cognitive skills, values and behavior used to improve performance; or a description of skills, knowledge, attitudes and behaviors required for effective performance of a real-world task or activity (Weddel, 2006). Others define 'Competency' as the ability to choose and use cohesive or integrated combination of knowledge, skills and attitudes with the aim to realize a task in a certain context (Kouwenhoven, 2003).

Competency-based curriculum is therefore a system of curriculum derived from an analysis of a potential or actual role in modern society and that tries to certify student progress on the basis of validated or demonstrated performance in some or all aspects of that role (Edwards et.al, 2009). In essence, competencies encourages a mastery of the relevant content knowledge and of the associated skills; both cognitive and practical and includes also internalization by the learner of the associated values (UNESCO-IBE – 2015). Competency is related to capacity, that is, a person's ability to evaluate information received and make choices based on the same. It is a word used to denote a person's ability to acquire, retain and evaluate information (Drew, Hardman &Hosp, 2008).

Competencies are outcomes that learners should have acquired by the end of their general education in order to succeed in academic, in their self-development, to acquire employment and be successful in their jobs, and inclusion in a knowledge society. Job competencies are not the same as job task. Competencies include all the related knowledge, skills, abilities, and attributes that form a person's job. This set of context-specific qualities is correlated with superior job performance

and can be used as a standard against which to measure job performance as well as to develop, recruit, and hire employees.

Approximately half of the students who have an identified disability spend 80 percent of their school day in general education classrooms (U.S. Department of Education, 2007b). To add to this diversity, approximately 12 percent of students in public schools are labeled as gifted and talented (Friend, 2007). Like their peers with disabilities, gifted and talented students also are integrated into general education classrooms. All of these differences make teaching more interesting and exciting as well as more complex.

That is to say there is a need for supporting the teacher or creating an alternative learning situation for the pupil. In the *Warnock Report* special educational needs are defined to as requiring:

- (i) *the provision of special means of access to the curriculum through special equipment, facilities or resources, modification of the physical environment or special learning techniques;*
- (ii) *the provision of special or modified curriculum;*
- (iii) *particular attention to the social structure and emotional climate in which education takes place. (Warnock Report, 1982)*

#### **2.2.4. Values and attitudes**

Values are the principles and fundamental convictions which act as general guides to behavior, the standards by which particular actions are judged as good or desirable (Halstead, 2000). Other views indicate that values are the ideals that give significance to our lives, reflected through the priorities that we choose and that we act on consistently and repeatedly (Brian, 2004). There is a lot of emphasis on technology, innovation and science as a means of attaining the Vision 2030 goals but little attention has been paid to moral and ethical issues which need to be given equal attention.

Living values provide principles and tools for development of the whole person recognizing that the individual is comprised of the physical, intellectual, social emotional and spiritual dimension. Education is best enhanced by positive values and attitudes. Therefore it is important for the education system and the curriculum in particular to foster values and the teachers to understand and apply values even as they emphasize on a competency based education.

“It is important to note, that the physical placement of students with disabilities in general education classes is not an end in and of itself, but rather a means to an end. The power of inclusion lies in how educators respond to individual differences. While standards-based reform calls for convergence in terms of learning outcomes, inclusion calls for divergence in terms of the strategies used in teaching (Conklin, W., & Frei, S. (2007).

#### **2.2.4 Pedagogy**

These are instructional strategies and techniques of carrying out instruction in the delivery of curriculum content. Instructional approaches that support inclusion in diverse. Differentiated instruction is an example of a supporting instructional approach that embraces the needs of academically diverse populations of students, in particular students who are gifted or who have disabilities. Differentiated instruction involves creating multiple paths to learning for diverse students (Tomlinson, 1999). Instruction can be differentiated in a variety of ways, such as tailoring content to an individual student's needs, modifying instructional methods to address student learning characteristics more appropriately, or adjusting learning products or assignments based on a student's skill and ability levels.

In relation to special education, the curriculum documents mention that Teachers are responsible for adapting the goals and the teaching methods in order to suit the pupils' strengths and weaknesses. Advice is given on how special

Educational needs can be detected in an ordinary classroom (MOE 2000, MOE 2001b).

Conklin, W., & Frei, S. (2007) pointed out that providing greater opportunities for students with disabilities to learn socially appropriate behaviors through interaction with their peers without disabilities. For example, when segregated in separate settings, students who have emotional or behavioral disorders are exposed only to other students who have similar disorders. This practice limits their opportunities to see appropriate behaviors and diminishes their inclination to conform to these behaviors through the dynamics of peer pressure. It is important for SNE learners to be exposed to many pedagogical approaches including ICT and computers.

Kasonde and Moberg (2001) define special education simply as an individually planned, systematically implemented and carefully evaluated instruction to help learners who need extra support in learning.

### **2.2.5 Resources**

This refers to any inputs that are used in the learning environment to effectively achieve the desired outcomes. These could be human, infrastructure, regalia or financial resources. They are also referred to as teaching and learning curriculum support materials. Resources in education include both book and non-book materials and any other learning environment that provides any other learning environment that provides a learning experience to a learner (KIE, 2010).

Resources in education play a very important role in facilitating learning (McAliney, 2009). For effective curriculum implementation, quality physical and human resources are required. Indeed, it is difficult to envisage learning without

resources. Education resources include both book and non-book materials, and any other learning environment that provides a learning experience to a learner. Educational resources are critically important for ensuring wide access to quality education (UNESCO, 2002) and are therefore selected and used to stimulate interest and motivate learning.

### **2.2.6 Assessment**

This is a means of measuring learning outcomes. In the education context, it is the process of ascertaining whether students have attained curriculum goals. Otunga, Odero and Barasa (Eds) (2011: 121) who refers to assessment as evaluation, goes on to define it as ‘all systematic actions that focus on determining whether the curriculum... is performing as designed... and establishing effects of the curriculum on its users’.

The assessing education program has become of great concern among stakeholders in Kenya. The main concern being the lack of a holistic approach to learning since the focus is greatly on learning outcomes in a few learning areas. It fails to capture the whole learning that has taken Place. Saltery (1989) defines education assessment as a term which includes all the processes and products which describe the nature and extent of children learning, its degree of correspondence with the aims and objectives of teaching and its relationship with the environments which are designed to facilitate learning. Assessment is an important component in the teaching and learning process, since it’s the basis of evaluating of the effectiveness of the implementation process of a curriculum. Teachers and learners use various modes of assessment to determine performance as well as identify gaps. The results and feedback from assessment enables teachers, learners, institutions and governments to make decisions on curriculum.

### **2.2.7 Contemporary and Emerging issues**

Crosscutting issues are commonly defined as areas which, by their very nature, have a strong impact psychosocial behavior of learners. These are issues that touch a number of different aspects of the society and affect learners at all levels. These issues are otherwise known as emerging issues, encompasses core-social and human values which manifest themselves in more than one discipline: hence the term cross cutting. Issues that are considered pertinent and hence mainstreamed as study areas in the curriculum include Life Skills Education (LSE), HIV and AIDS Education, Gender, Education, Drugs and substance Abuse (DSA) prevention, Child's Right Education, Child labor prevention, Integrity & Good Governance, Guidance and Counseling Service, Environmental Education and Health Education. Other issues that have been perceived to be pertinent in the recent past are; Peace Education, Values/Moral Education, Disaster Risk Reduction, Education for Sustainable Development (ESD) and National Values as enshrined in the Constitution, to mention but a few.

### **2.2.8 Talents**

The Kenya government acknowledges the need for primary school curriculum to address individual talents of learners. The curriculum tends to cater for talent in traditional academic subjects, by recognizing academic achievement and excluding learners who are talented in sports and performing arts. The curriculum to be developed should be an inclusive curriculum to cater for the talented learners.

Preparing students with and without disabilities for the real world. As adults, students will be exposed to a wide range of human variance, including individuals with disabilities. By providing opportunities for all students to have interactions with students

with disabilities during their educational experience, the groundwork will be laid for these students to embrace all individuals with disabilities throughout their lives

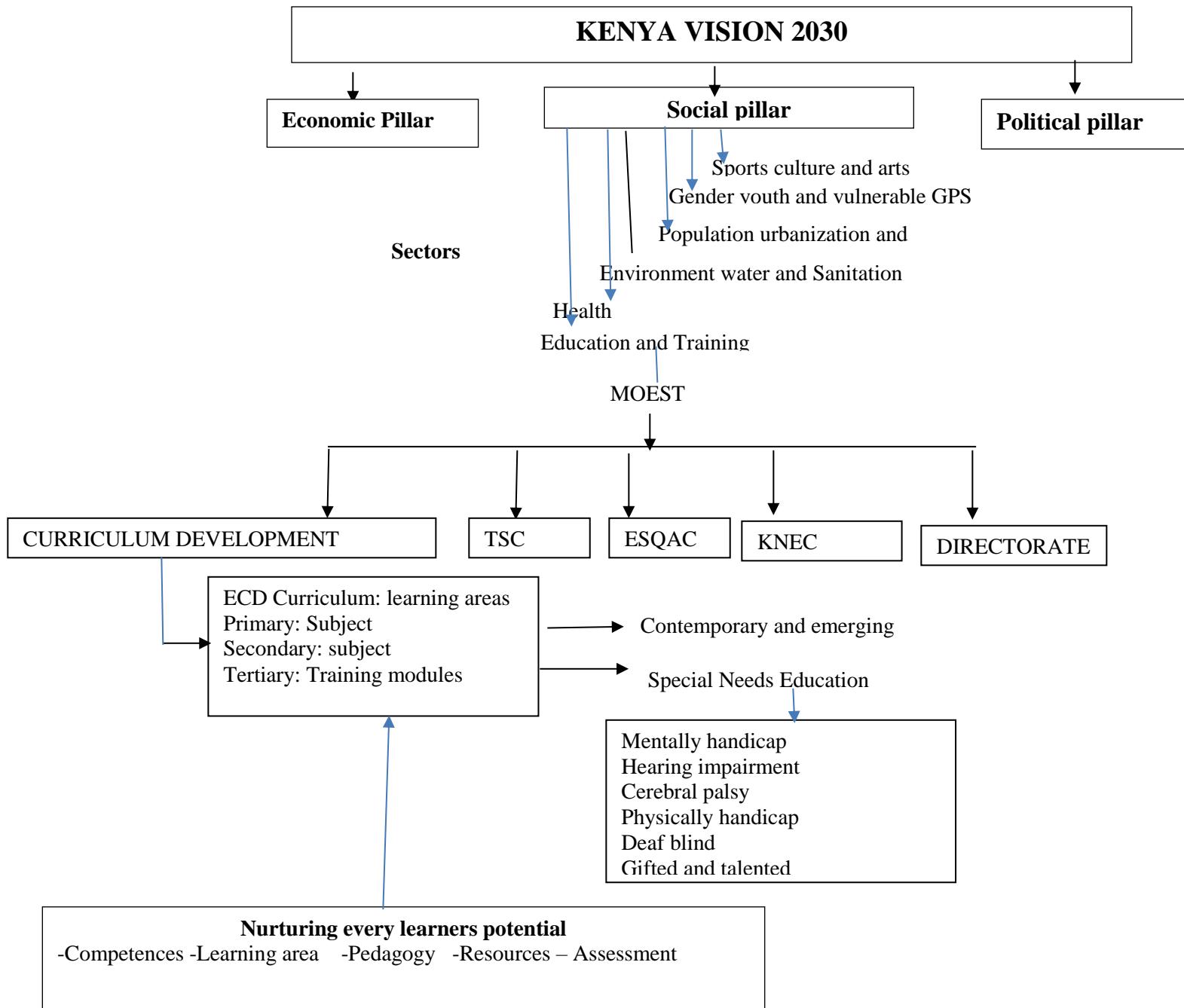
### **2.3 Situating the study within the Field of Education and Curriculum Discipline**

The aspect of curriculum development can be traced to the national aspirations as envisaged in the Vision 2030. The goal of curriculum reforms is to achieve the vision of ‘Nurturing Every Learners Potential’. This seeks to elicit competencies and values, learning areas, pedagogy, resources, assessment and development of talents as will be guided by the curriculum framework for basic education.

For every level of education, contemporary and emerging issues as well as special needs education permeate through as they essentially affect all learners irrespective of level of education. At every level therefore curriculum is developed where learning areas indeed takes cognizance of the contemporary issues as well as learners with special needs.

Curriculum development is nested under the larger umbrella of the MOEST with the other arms of the Ministry, such as the TSC, education Directorates, ESQAC and KNEC. All these work together to fulfill aspirations of the Social Pillar of the Vision 2030 alongside other sectors. Situating the vision of the curriculum reforms to the Kenya Vision 2030 can be exposed illustrated as thus:

**Figure 2.1: Kenya Vision 2030**



## **2.4 Review of Relevant Theories**

### **2.4.0 General overview**

Curriculum theory is an academic discipline devoted to examining and shaping educational curricula. Within the broad field of curriculum studies, it includes both the historical analysis of curriculum and ways of viewing current educational curriculum and policy decisions. There are many different views of curriculum theory (Kliebard, 2004; Schiro, 2007). Kliebard discusses four curriculum groups that he refers to as humanist (or mental disciplinarians), social efficiency, developmentalist (or child study), and social meliorists. On the other hand, Schiro labels the philosophies of these groups as the scholar academic ideology, social efficiency ideology, learner-centered ideology, and social reconstruction ideology.

A common criticism of broad field curriculum is that it lays more emphasis on mental discipline and education. "Mental disciplinarians" and Humanists believe in all students' abilities to develop mental reasoning and that education was not intended for social reform in itself but for the systematic development of reasoning power. Good reasoning power would lead to the betterment of society. Harris described the subjects to be taught as the "five windows" into the soul of the student: "grammar, literature and art, mathematics, geography, and history" and prescribed it in that order to be taught (Kliebard, 2004, p. 15). Some critics view this group as having too much emphasis on the "classics" as determined by the dominant groups in a society.

### **2.4.1 Social meliorism**

This school of thought believes that education is a tool to reform society and create change of the better. The socialization goal was based on the power of the individual's intelligence, and the ability to improve on intelligence through

education. An individual's future was not predetermined by gender, race, socio-economic status, heredity or any other factors. "The corruption and vice in the cities, the inequalities of race and gender, and the abuse of privilege and power could all be addressed by a curriculum that focused directly on those very issues, thereby raising a new generation equipped to deal effectively with those abuses" (Kliebard, 2004, p.24). Some critics contend that this group has goals that are difficult to measure and a product that has slow results.

#### ***2.4.2 John Dewey's curriculum theory***

Dewey felt that the curriculum should ultimately produce students who would be able to deal effectively with the modern world. Therefore, curriculum should not be presented as finished abstractions, but should include the child's preconceptions and should incorporate how the child views his or her own world. Dewey uses four instincts, or impulses, to describe how to characterize children's behavior. The four instincts according to Dewey are social, constructive, expressive, and artistic. Curriculum should build an orderly sense of the world where the child lives. Dewey hoped to use occupations to connect miniature versions of fundamental activities of life classroom activities. The way Dewey hoped to accomplish this goal was to combine subject areas and materials. By doing this, Dewey made connections between subjects and the child's life. Dewey is credited for the development of the progressive schools some of which are still in existence today.

#### ***2.4.3 Social efficiency educators***

Theorists such as Ross, Bobbitt, Gilbreth, Taylor, and Thorndike are Social efficiency educators who sought to design a curriculum that would optimize the "social utility" of each individual in a society. By using education as an efficiency tool, these theorists believed that society could be controlled. Students would be

scientifically evaluated (such as talent identification and testing), and educated towards their predicted role in society. This involved the introduction of vocational and junior high schools to address the curriculum designed around specific life activities that correlate with each student's societal future. The socially efficient curriculum would consist of minute parts or tasks that together formed a bigger concept. This educational view was somewhat derived with the efficiency of factories which could simultaneously produce able factory workers. Critics believe this model has too much emphasis on testing and separating students based on the results of that testing.

#### **2.4.4 Developmentalism**

Developmentalists focus attention to the development of children's emotional and behavioral qualities. One part of this view is using the characteristics of children and youth as the source of the curriculum. Some critics claim this model is at the expense of other relevant factors. One example of an extreme Hall advocated differentiated instruction based on native endowment and even urged separate schools for "dullards" in the elementary grades

2.4.5. Curriculum Reform Theories. There presently exists no comprehensive theory of curriculum reform. Such a theory would differentiate the kinds of reforms, which are possible from those that are not, the kinds of problems, which may be ameliorated or solved by schools from those, which cannot, and the constituencies of groups and strategies of reform which can succeed in introducing and institutionalizing curriculum change from those which cannot. Thus, a theory of curriculum reform would support accurate predictions concerning the degree of success of particular future curriculum change efforts.

A number of authors have offered generalizations concerning those characteristics, which distinguish successful attempts to reform curriculum from unsuccessful ones. After considering a variety of curriculum and programmatic reform efforts from 1840 to the present, David Tyack, Michael Kirst, and Elisabeth Hansot (1979) concluded that those reforms that tended to last "were mostly structural in nature, were easily monitored, and responded to or created new constituencies." They further noted that "reforms calling for new skills or added efforts on the part of existing staff" have not been nearly so successful.

#### ***2.4.5.1 Instructional – Design Theory***

This theory offers explicit guidance towards a new curriculum that explains how to help students learn and develop in the wake of emerging globalization. Learning and development are associated with cognitive, emotional, social, physical and spiritual (Reigeluth, 1996). "Theory One" developed by Perkins, in *Smart Schools* (Perkins, 1992) describes the instructional design theory which offers guidance for fostering cognitive learning as follows: Clear information, in terms of goals, knowledge needed and performance expected; Thoughtful practice, in terms of opportunities for learners to engage in learning actively and reflectively; Informative feedback, in terms of clear and thorough counsel to learners, and; Strong intrinsic or extrinsic motivation.

Instructional design theory is design-oriented because it focuses on the means to attain given goals for learning or development. It is design oriented (or goal oriented) offering guidelines about what methods to use in what situations in curriculum implementation. Its methods are componential, offering varying levels of guidance for educators. The methods are also probabilistic, not always fostering desired results.

Values play an important role in the instructional design theory. They underlay both the goals the curriculum pursues and the methods it offers to attain the goals.

#### ***2.4.5.2 Importance of Instructional Design Theory in Curriculum Reform***

As Pogrow (1996) states, the history of educational reform is one of consistent failure of major reforms to survive and become institutionalized. Caban (1993) refers to historical success of attempted curriculum reform as “pitiful.” Pogrow (1996) further asserts that the single biggest tool in promoting curriculum reform has been advocacy. Research-Academic-Reform (REAR) community corroborates this assertion.

To help educators to improve education, it is imperative that people in the REAR community devote their efforts to generating design theories rather than preferring to “philosophize and preach”. This should also be done in other areas of education government/policy, as well as systemic change in the educational system (Bathany, 1991, Reigeluth&Cartinkle, 1994). Systemic change emphasizes the need to give organizations considerable autonomy to manage themselves with the purview of corporate vision, rather than being directed from above (Ducker, 1989; Hammer & Champy, 1993). This allows corporations to respond much more quickly and appropriately to their customers and clients’ needs.

Globally, there has been fundamental transformations from industrial age to information by customization instead of standardization; team-based organizations instead of bureaucratic organizations; initiatives instead of compliances; networking instead of one – way communication, among others (Osborne & Gaebler, 1992). These fundamental changes in the systems have important implications for curriculum reform. Learners need to be able to think about and solve problems, work in teams, communicate through discussions, take

initiatives and bring diverse perspectives to their learning. In addition, students/pupils need to learn more, yet they have little time available to learn it (Lee & Zemke, 1995). Learners also need to demonstrate an impact of the achievement of national goals of education. The question is, can the Kenyan system of education and training meet those needs by merely changing content? Or do we need to make changes that are more fundamental? To answer these questions, there is need to explore the current paradigm of reforming Education and training.

## **2.5 Review of Relevant Policy Documents**

### **2.5.1 General overview**

Education is the key to well-being and prosperity as it is impossible to attain high levels of economic development and high standard of living without a highly educated workforce. This is why education is well structured and guided by various national and international policy guidelines. Policy documents reviewed include the Vision 2030, the Kenya Constitution, Sessional paper No. 2 of 2015, the Basic Education Act (2013), National Education Sector Plan ( NESP,2015), Kenya Institute of Curriculum Development policy documents, Education for All goals as well as the Sustainable Development Goals, among others.

It is a national priority to align the curriculum to address the aspirations of these policy documents as well as the East African Community protocol. The government is fully committed to achieving its national and international policies in education.

### **2.5.2 Special Needs Education**

Special Needs Education (SNE) is a special component of education in this country. In the Sessional Paper No. 1 of 2005 on a Policy Frame Work for

Education, Training and Research, and the Kenya Education Sector Support Programme 2005-2010, the Government noted that the special education schools and units would continue to cater for the education of learners with special needs in the four traditional areas namely; Mental handicaps, Physical handicaps, Visual impairments and Hearing impairments. This apparently left out other areas of special needs such as Mental handicapped and Cerebral palsy.

The Sessional Paper No.2 of 2015 shows that access and participation of learners with special needs is relatively low in Kenya. Their needs are not specifically addressed thus disadvantaging them. The situation is made worse by emphasis on academic performance and examinations. The learning environment is unfavorable and yet often they are expected to compete for grades as it is for regular students. Even if learners have moderate learning difficulties, integrating or including them in regular schools may be good for their socialization, but not conducive if they are made to compete on an equal platform. Those with severe needs are excluded from school due to inability of regular schools to meet their physical and educational needs.

The absence of reliable data on children with special needs across all levels of education constraints, effective service delivery and planning for special needs education (Republic of Kenya, 2015). Further the EARCs have inadequate specialized equipment and human resource, there is inadequate infrastructure and facilities, and additional costs for learners with disabilities hinder progress in the special needs areas.

The special needs teacher education sector may be lacking sufficient pedagogy to train special needs teachers who are already in service. The MOEST has proposed to develop standards based on acceptable principles that will ensure optimal

delivery of competency based special needs education. The shortage of specialized teacher needs to be addressed.

Constitution of Kenya 2010 in a number of articles has addressed issues that relate to educational of these learners. Article 43 (1) (f) states, “Every person has the right to education. This includes persons with special needs and even those in marginalized areas. Article 53(1) (b) states that every child has the right to free and compulsory basic education. This implies that even those children with special educational needs have a right to an interrupted 12 years of a seamless transition of quality education. Article 54(1) says that persons with disabilities are entitled to access educational institutions and facilities that are compatible with the interests of the person, use the appropriate language and access materials and devices to overcome constraints arising from the disability. The Ministry in charge of Education therefore has a task of ensuring that the curriculum is made suitable for all categories of learners with special needs.

The SNE Policy Framework (2009) in one of the guiding principles states that, education should be based on learner friendly curriculum and responsive learning systems and material. Studies have shown that learners learn better in barrier free and child friendly environment. The implication here is that any educational programme for learners with special needs must be based on the child’s best interest. Persons with Disability Act 2003 section 18 states that “No person or learning institution shall deny admission to a person with disability to any course of study by reason only of such disability to acquire substantial learning in that course. This requires that learning institutions take into account the special needs of persons with disabilities in respect to entry requirements pass marks, curriculum, examinations, auxiliary services, class schedules physical educational requirements and other similar considerations.

### **2.5.3.1 Societal needs**

Every society has certain needs that must be fulfilled in order for it to succeed. Society influences curriculum development because curriculum needs to be relevant to the needs of the society. Consequently, as the needs of the society changes, curriculum also needs to change in order to reflect those changes and make it relevant (Treadaway, 2003).

The societal needs are clearly spelt out in the National Goals of Education. These goals of education are embedded in the Vision 2030 ( Republic of Kenya, 2012)and include: Promote national unity and patriotism; Enhance social, economic, technological & industrial needs for national development; Promote individual development and self-fulfillment; Inculcate sound moral and religious values; Promote social equality and responsibility; Respect for Kenya's rich & varied cultures; Implant international consciousness & positive attitudes towards other nations and; Embrace positive attitudes towards good health and environmental protection (KIE, 2008). The NESP (2015) makes it very clear that the curriculum is expected to empower the citizens with necessary knowledge and competencies to realize the national developmental goals. Further societal aspirations can only be realized through the implementation of a well designed dynamic and responsive or relevant curriculum (Republic of Kenya, 2015). Curriculum is developed based on the identified societal needs and the dynamism of the industry and the job market. Similarly the curriculum reform will be preceded by needs assessment because the society ideally must participate in this process.

Education should prepare workers for the 21<sup>st</sup> century by teaching skills necessary for industry and commerce. Kenya Vision 2030, the country's development blueprint covering the period 2008 to 2030, aims at making Kenya a newly

industrialized, middle income country providing high quality life for all its citizens by the year 2030. The Vision is based on three pillars namely; the economic pillar, the social pillar and the political pillar. The Vision 2030 places great emphasis on the link between education and the labour market, the need to create entrepreneurial skills and competences, and strong public and private sector partnerships. It articulates the development of a middle-income country in which all citizens will: have embraced entrepreneurship, be able to engage in lifelong learning, perform more non-routine tasks, be capable of more complex problem-solving, be able to take more decisions, understand more about what they are working on, require less supervision, assume more responsibility, and as vital tools towards these ends, have better reading, quantitative reasoning and expository skills. This has considerable importance for the kind of education and training system required to deliver the requisite skills, competencies and attitudes. As such there will be need to address issues related to quality, service delivery, curriculum, relevance, teacher development and management at all levels as well as trainers in the areas of technology and entrepreneurial skill development.

The Task Force on Re-alignment of the Education Sector (2012) was mandated to review and align the education, training and research sector in accordance with the Constitution. Among the issues raised in relation to the societal issues in the curriculum were that; there was too much focus on academics and university education, thus looking down upon any other post-secondary education. This had impacted negatively on middle level training which in essence produced the bulk of the human resource required to drive the country towards Vision 2030. What this meant was that the primary, secondary and teacher education curricula did not address the dictates of Vision 2030, the Constitution and regional integration.

The content of the curriculum has increasingly been considered dated with regard to the skills and values needed to operate in the current world full of both uncertainties and opportunities. Furthermore, a relevant curriculum would be required to instill positive values, mould character, moral and spiritual formation of the learners. Aligning the curriculum to address the aspirations of Vision 2030, the Constitution and the East African Community treaty is a priority of the National government (Republic of Kenya, 2012). The content for Basic Education would therefore need to be designed with the view of equipping the learners with relevant knowledge that emphasizes on technology, innovation and entrepreneurship (GOK, 2007). In addition, the learners would have an opportunity to develop their full capacities in order to live and work in dignity, enhance the quality of their lives, make informed decisions and continue with learning as a lifelong engagement.

During the National Conference on Education (2003), it was noted that there was need for the government to achieve Universal Primary Education (UPE) goal by 2015, with the overall goal of attaining Education for All (EFA) by 2015. The attainment of UPE would ensure that all Kenyan children eligible for primary schooling had opportunity to enroll and remain in school to learn and acquire quality education. However, various challenges with respect to access, equity, quality and relevance, continued to constrain the provision of quality education and services. One of the recommendations made was that the MOEST, through KIE, should rationalize the curriculum for primary education to incorporate health and nutrition learning and to place increased emphasis on Physical Education and sports.

Over time, Policy documents have articulated the direction the country needs to take in order to propel its development agenda. According to the recommendations

made in the Sessional paper No. 1 of 2005 on A Policy Framework for Education, Training and Research, a breakthrough towards industrialization can only be achieved through application of technology. It was necessary to give prominence to technical education in all sub-sectors. The introduction of many practical and vocational subjects was meant to prepare students for the world of work

The Kenya Vision 2030 places great emphasis on the link between education and the labor market, the need to create entrepreneurial skills and competences, and the need to strengthen partnerships with the private sector. The curriculum is supposed to develop these skills and competencies. However, The Task Force on the Realignment of the Education Sector to the Constitution noted that the quality of education is not clearly spelled out so that the curriculum delivery can focus on development of specific expected competencies to be assessed. The task force recommended structuring of the curriculum within a skills and competences framework that identifies the knowledge, skills and competences all learners will acquire, and which will provide both vertical and horizontal coherence. The task force recommended some core competencies that should be acquired by learners. These include: Communication skills, Manipulation skills, Social skills, Environmental awareness, Numeracy, Writing, enquiry skills, ICT, talent potentials, Observation skills, Entrepreneurial skills, Ethical skills, Investigative skills among others.

### **2.5.3.2 Competencies**

Over the years, the Kenyan curriculum has been objective based with limited flexibility in terms of content packaging and autonomy for the teacher and learners. Apart from Kenya, the other East African Community (EAC) member countries have adopted competence based curriculum and assessment. The Basic education Act (2013) stipulates policy and guidelines on curricula and points out that among other activities undertaken by KICD on curricula developed, is to

secure the competencies and learning outcomes for the relevant structures and levels under the National Qualifications Framework. Additionally, the Sessional paper No.2 of 2015 has clarified the strategy on the policy on curriculum and assessment by stating that KICD is expected to develop a repertoire of skills and competencies necessary to inform a globally competitive economy. The curriculum policy (2015) points need to have the curriculum spelling out expected competencies at every level. Further, the curriculum should be designed to equip learners with relevant knowledge skills, competencies and values to enable them develop their full potential. This echoes what is also contained in NESP of 2015 which affirms that curriculum developed will be competence based. This will ensure that at each level, desired outcomes are achieved and learners can progress with diverse interests and abilities.

Although these competencies should be addressed in the curriculum, they have implications on the policy makers and the implementers. The school managers need necessary skills and competences to monitor standards and quality of curriculum delivery as well as quality of teaching in their schools. Further teacher trainers at all levels of teacher training education need the necessary skills and competences to impart on their teacher trainees. Additionally, Quality Assurance and Standards officers should have the required skills and competences to add value to the standards and quality of education in the institutions.

The Task force report (2012) recommended core curriculum competencies to be used. These are presented in levels from preprimary to senior secondary and starts with very basic competencies. As learners move from basic to upper primary the foundational competencies get enhanced and firmed up in secondary level.

### **2.5.3.3 Values and attitudes**

Article 10 of the Constitution (GoK, 2010) contains the national values and principles of governance to be upheld by all Kenyans. Education and Training provides the best medium of inculcating these values. The values include Patriotism, national unity, sharing and devolution of power, the rule of law, democracy and participation of the people; Human dignity, equity, social justice, inclusiveness, equality, human rights, nondiscrimination and protection of the marginalized; Good governance, integrity, transparency and accountability; and Sustainable development. In addition, article 11 of the Constitution recognizes culture as the foundation of the nation and as the cumulative civilization of the Kenyan people and nation. Education and training therefore shall: Promote all forms of national and cultural expressions through literature, the arts, traditional celebrations, science, communication, information, mass media, publications, libraries and other cultural heritage; Recognize the role of science and indigenous technologies in the development of the nation; and Promote the intellectual property rights of the people of Kenya.

In addition, the Vision 2030 adds that Kenya's journey towards widespread prosperity involves building a just and cohesive society that enjoys equitable development in a clean and secure environment. Some of the related major issues that need to be addressed within education have to do with living together in a cohesive society, having healthy individuals and education that supports personal growth and development.

### **2.5.3.4 Learning areas in SNE**

Special Education prepares those who are most likely to be dependent's to become self-reliant. In view of this, it is necessary to develop subjects for learners with special needs that would enhance their holistic development. For example,

besides offering academic subjects only to learners with special educational needs there is need to introduce subjects such as social skills, Braille skills for those who are blind and activities of daily living skills.

Council for exceptional children (2009) Says those learners with special educational needs should be taught additional skills that help them mitigate the effect of disability. Hatlem (1996) observes that learners with Visual Impairment should be taught Braille, Social skills, Activities of daily living assistive technology, orientation, and mobility. Subjects offered to learners with special needs should have flexibility. In addition to being taught core subjects that develop literacy, numeracy and values, learners with special needs should be allowed to study subjects of their interest without conforming to prescribed subject groups. Article 55 (a) of the constitution states that, "The state shall take measures, including affirmative action programs, to ensure that the youth access relevant education and training". Wolff; et al. (2002) say that teaching academic subjects alone is not adequate to help children with special needs. The ideal situation would be for learners with special educational needs to study all the topics in the regular curriculum. However, those topics that are not achievable due to the learners' prevailing educational needs, they could be removed, replaced, or modified to suit the learner. This process of modification is referred to as curriculum adaptation Kochung Report (2003).

#### **2.5.3.5 Assessment for SNE**

Assessment is an integral part of curriculum implementation. For learners with special educational needs, there is a need for flexibility in the modes of assessment. There is also need to borrow best practices for assessing learners with special needs. Kochung Report (2003) says that examinations for learners with special needs should be presented in accessible formats and that time allowed should be commensurate with the nature and extent individual needs.

#### **2.5.3.6 Talents**

Every society has its specially gifted persons who need to be given opportunities to develop and exploit them to their full potential. These people need to be identified early in life so that their talents can be nurtured for the benefit of themselves and the society (Kinyua, 2014).

There is no one universal definition of gifted and talented learners. In the United States of America, The No Child Left Behind Act (Elementary and Secondary Education Act, 2002) define Gifted and Talented as children, or youth who give evidence of high achievement capability in areas such as, intellectual, creative, artistic, or leadership capacity, or in specific academic fields, and who need services and activities not ordinarily provided by the school in order to fully develop those capabilities.

In Australia Gifted and talented learners at the School are defined as those who demonstrate or show the potential for a high level of performance in one or more of the following ability areas, when compared to others of similar age, background and experience in one or a combination of the areas such as intellectual; Creative; Artistic; Social; Physical; Spiritual (Department for Education and Children's Services, 1994).

In Korea, Article 2 of the education Act defines a gifted person as one who possesses extraordinary innate abilities or visible talents requiring special education to nurture them'. The Act gives the purpose of gifted education as: 'to promote self-actualization of individuals and have them contribute to the development of society and the nation by scouting for gifted and talented persons and carrying out education suitable for ability and aptitude in accordance with regulations so they can develop innate potential.

In addition, the gifted education is aimed at helping gifted and talented persons acquire expertise, creativity, leadership, morality and self-directed learning attitude in accordance with other legislative provisions which say that all members of a nation shall have right to education according to ability and aptitude to promote self-actualization and contribute to development of society and nation.'

It also notes that the Act expects ability to be manifested through one or more of the following: general intelligence, specific academic aptitude, creative thinking ability, artistic ability, physical talent and 'special talents'.

The Gifted Education Program was first implemented in Singapore in 1984 amid some public concern. It was initiated by the Ministry of Education (MOE) in line with its policy under the New Education System to allow each student to learn at his/her own pace. The MOE has a commitment to ensure that the potential of each pupil is recognized, nurtured and developed. It was recognized that there are pupils who are intellectually gifted and that there should be provisions to meet their needs.

In Kenya, Koech (1999), Kochung', (2003) and Kang'ethe, (2004) defined gifted and talented children as those who at any educational level are identified as possessing demonstrated or potential abilities that give evidence of high performance capabilities in areas such as general intellectual ability, specific academic aptitude, creative and productive thinking, leadership ability, visual and performing arts and psychomotor abilities, while Kinyua (2014) define gifted and talented children as those with outstanding talents, who perform or show the potential of performing at remarkably high levels of accomplishment when compared with others of their age, experience or environment. The Presidential

Working Party on Education and Training for the Next Decade and Beyond (Kamunge Report, 1988) noted that every society Kenya included, has its specially gifted children who need special education to develop their special intellectual, creative, artistic or other talents to the maximum level possible. Accordingly, the committee recommended that such children be identified early and special programmes developed to enable them to realize their full potential in order to enable them to contribute to the society. Special educational programmes for such children should be developed in the interest of national development. The committee proposed the establishment of “Centres of Excellence” as pacemakers for advanced knowledge and technology in order to meet the needs of the society.

According to Kang’ethe and Mugo (2010), from 1964-2005 several gaps existed which showed inconsistency in the implementation of educational policies and programmes. They also noted that children who are Gifted and Talented are not mentioned in most of the Education Policy documents in Kenya. According to them there has been no clear commitment and political strategy targeting gifted and talented persons. During the National Conference on Gifted and Talented Young Persons in Kenya (2010) it was noted that Kenyatta University and Kenya Institute of Special Education (KISE) train teachers for learners who are gifted and talented yet there are no programmes for learners who are gifted and talented in Kenya.

The National Youth Situation Analysis Report of 2009 indicates that majority of Kenya’s population comprises of youth aged between 15 - 29 years. The report further noted that the youth have talents but have no opportunities to exploit or market them. The report recommended the need for resource centres where the youth could spend time to gain useful skills and develop their talents such as sports, music and art. In response to this challenge the Kenya Government

through the Ministry of Youth Affairs and Sports established a pilot National Youth Talent Academy in March 2010 to provide the youth with an opportunity to identify and nurture their talents.

#### **2.5.3.7 Identification methods of learners who are Gifted and talented**

No single method of identification is appropriate for all types of gifted students. Multiple criteria should be used which should include gathering as much information about the learners as possible. Teachers are required to identify learners who are gifted in the whole process of learning. The identification process should be continuous. Schools should also evaluate their systems to ensure that they accommodate learners who are gifted and talented. Progress of the identified learners should be monitored to ensure that, the programme is meeting their educational needs (Kinyua, 2010).

Five key principles of identification are: Defensibility:- procedures should be devised to identify learners in all domains of giftedness and fields of talent; Advocacy:- teachers should use assessments to promote learners' interests and should not expect learners to perform equally well on all measures ; Equity:- there should be equitable procedures for identifying groups who may be disadvantaged by the mainstream identification procedures; Comprehensiveness:- there should be the appropriate use of multiple sources of data; and Pragmatism:- identification needs to be consistent with the level of resources available (Richert, 1991). Apparently, the Kenyan set up does not have a common definition of learners who are gifted and talented. It also what their education should entail and even methods of nurturing the talents.

## **2.6 Rationale of the Study Based on Literature Review**

Apart from the theoretical base, the study is anchored on policy documents and other literature in different contexts. In view of recommendations for major curriculum reforms, the need to undertake curriculum reforms is clear and justifiable; more so because of the need to align it with the current trends, the Constitution and goals and aspirations of the national blue print of the Kenya Vision 2030. As early as 2007, the Kenya Vision 2030 stated that;

*“There is, therefore a need to re-orient education to focus on the changing economic and technological trends, in line with the national aspirations as expressed in the Vision 2030” (GoK, 2007; pg 82)*

The needs assessment survey for the curriculum reforms has been necessitated by gaps identified in the literature including the policy documents. They have all shown the need for the desired reforms in the curriculum but have not stipulated how the competence based curriculum for Kenya should be designed. Some have suggested that the development of competence curriculum cannot be done without sufficient data to contextualize it in education for this country. In essence there has been no research done in this area, a gap which this study seeks to address.

This has been summed up by the Sessional Paper No.2 of 2015 and the National Education Sector Plan (NESP) of 2015 which stipulates that according to National Curriculum Policy Framework, the framework would be reformed using the stipulated curriculum development process; and hence the needs assessment survey, which initiates the process of curriculum development.

Since no research of this magnitude has been done in Kenyan for curriculum reforms, this study will stand out as a baseline that will tease out at this initial

period the variables for monitoring and evaluation of the competence based curriculum as well as the final evaluation of the cycle.

## **CHAPTER THREE**

### **RESEARCH METHODOLOGY**

#### **3.1. Introduction**

In this Chapter, the philosophical paradigm that underpinned this study is explained, the research approach is given, and then Sampling, data generation techniques, data analysis process, trustworthiness and ethical considerations are presented.

#### **3.2. Research Paradigm**

A research paradigm is the philosophical worldview that underpins the research process. It refers to the sets of abstract views about knowledge and the process of creating that knowledge, which provide a foundation for the entire design and what the researcher makes of the findings (Denzin and Lincoln, 2005). It is a researcher (s) belief about the nature of knowledge and how that knowledge is produced and understood (Lichtman, 2014). Broadly, there are three main research paradigms that influence the methodological choices of researchers: the realist-positivist/post positivist, the relativist-interpretivist, and the pragmatist (Richards, 2003; Jwan and Ong'ondo, 2011).

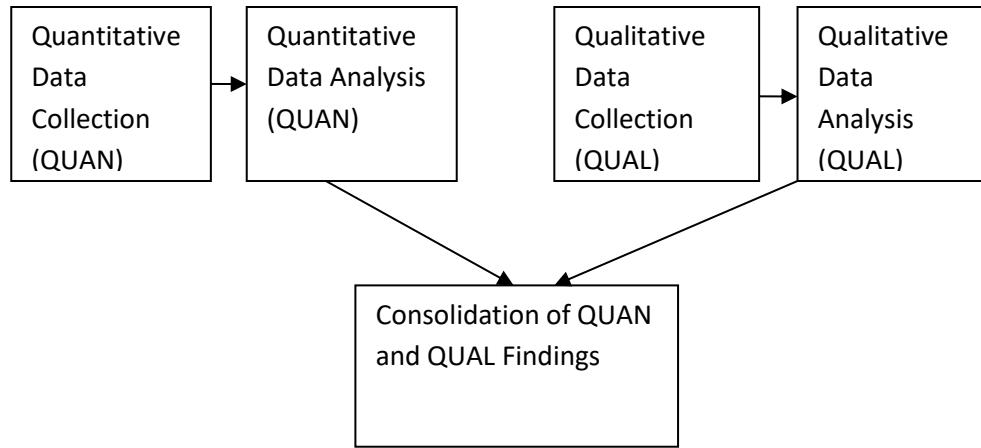
This study adopted the pragmatist research paradigm which draws its tenets from the other paradigms explained above. The subject of this study – Needs assessment for curriculum reform in Kenya - invites both perspectives since it is expected that there are indeed aspects of the Curriculum that would inevitably be universal and standard across the entire republic; while, it is also expected that the curriculum ought to take care of the unique interests of learners at certain levels, regions and with varied interests.

### **3.3. Research Approach**

This study took a mixed approach. This approach uses both quantitative and qualitative methods. Quantitative research is a formal, objective, systematic process in which standardized (usually structured) instruments are used to generate numerical data from participants who are representative of the target population. This study used this approach to describe variables and examine the relationships amongst these variables (Dornyei, 2007; Creswell, 2009). Qualitative research on the other hand explores perspectives, attitudes, behaviors and experiences (Dawson, 2009) and focuses on meaning and understanding. Data is generated using non – structured or semi structured instruments that allow for interaction of the researcher(s) and the respondents in a flexible manner that could generate in-depth data from purposively sampled participants in a naturalistic setting ( Denzin and Lincoln, 2005; Lichtman, 2013; Yin, 2014; Jwan and Ong'ondo, 2011).

There are broadly two research designs within the Mixed Approach – Sequential or Concurrent and the weighting of the Quantitative and Qualitative approaches also varies (Creswell, 2009). In this study, the Concurrent Mixed Approach design was used where both the Quantitative and the Qualitative phases took place at the same time and they were weighted equally as illustrated in **Figure 3.1** below. Creswell (2009) posits that it is more manageable to collect both quantitative and qualitative data at roughly the same time, rather than to revisit the field multiple times for data collection (p.206).

**Figure 3.1: Concurrent Mixed Approach Design**



The research methods that were used to generate both the quantitative and qualitative data as well as the data generation techniques are discussed in the subsequent subsections.

### **3.4. Research Methods**

The term *research method* is defined in this project as the specific strategy adopted by the researchers particularly with regard to the choice of research site, length of time and extent of interaction with the participants. Arguably, the main research methods (both qualitative and quantitative) are Survey, Experimental Research, Case study, Ethnography, Phenomenological, Content Analysis; among others. In this study, given the magnitude and the limited time that was available, one research method was used - the survey - but applied differently in the two approaches, as explained further below.

#### **3.4.1. The Quantitative Survey Method**

A survey is one of the most commonly used research methods used in the quantitative approach (Gay et al, 2009; Johnson and Christensen, 2008). This is

because the survey allows for generation of relatively much from a large number of participants over a relatively short period of time. Consequently, it is the most widely used method in educational research and is useful in needs assessment and establishing views, experiences and attitudes of populations (Cohen et al, 2007).

In this study the needs of learners, teachers and head teachers at ECDE, Primary and Secondary Schools; and Colleges were assessed in terms of the reforms they desire on the Kenyan Curriculum at their levels. As stated in Chapter One, the Survey sought to establish the general needs for curriculum reform, the desired competencies, learning areas, talent nurturing and development strategies, pedagogical approaches, learning resources, assessment and contemporary/emerging issues.

### **3.4.1. The Qualitative Survey Method**

Survey is a method of research traditionally associated with the quantitative approach. This is because, like the name suggests, it is a method that is normally used by researchers seeking general trends, manifestations, attitudes, or relationships (Creswell, 2011). As such, survey (as explained in the previous subsection) usually utilises principles such as representativeness of the target population and probability sampling as a way of ensuring objectivity, reliability and generalizability in the quantitative sense. Accordingly, surveys have tended to use structured questionnaires as the main data generation instrument, among other structured tools such as observation and interview schedules (Bryman, 2008; Kothari, 2005).

In QUAL, what we call the qualitative survey has gained momentum in the last few decades largely because of the increasing use of the mixed approach but also due to the increased access of the internet as a research platform, which has made

it possible to generate qualitative data from large sets of participants within a relatively short time (Hall, 2001, and Driver and Urga, 2004; Kane, 2000). The intention of the researcher doing a qualitative survey would still be able to know general trends, attitudes, practices, etc., but by generating qualitative data in the form of interviews, focused group discussions, memoranda, emails, Facebook and other social media platforms pictures, audio and video recordings.

In this study, the *Survey* aspect was in terms of the spread of participants in all Counties in the Country – Kenya and the fact that the data were generated from a very large number of diverse participants (learners, parents, workers and key informants) over a relatively short period of time. The survey was enhanced through data generated from memoranda, and the social media. Nevertheless, the *Qualitative* tenets of the study were still observed. That is, the researchers still used data generation techniques (see the subsection on data generation techniques) that elicited in-depth data that captured the voices of participants (Given, 205; Stake, 2014).

Arguably, the qualitative survey limits the richness of the data and therefore the extent of potential interpretation because the researchers sacrifice depth for breadth, given the nature of a survey (Stake, 2014). Nevertheless, if designed carefully, it could yield sufficiently in-depth data generated from different sources through multiple platforms in a flexible way (Lichtman, 2013). Therefore, this method provided a powerful tool for amelioration of the common criticism that Qualitative researchers work with very thin samples. Given the potential implications of this study, this method was necessary to make it possible to capture views from the diverse contexts (Creswell, 2012; Yin, 2014).

In the next sub-section, the specific data generation techniques used to generate data within the two approaches are explained.

### **3.5 Sampling**

Sampling is the process of choosing actual data sources from a larger set of possibilities. Sampling consists of two related elements, the population and the sample. The population can be defined as the full set of possible data sources while the sample is selecting specific data sources from that population (Morgan, 2008). In the subsequent section, the research population, Sampling Technique and Sampling procedures are explained.

#### ***3.5.1. Target Population***

The institutions targeted comprised of all Special Needs Education (SNE) primary and secondary schools and EARC Centers (Ministry of Education, 2011). **Table 3.1** shows the distribution of the target population and the actual number of subjects.

**Table 3.1: Target population**

<b>Organization</b>	<b>Units per category</b>	<b>No. of participants</b>	<b>Actual participants</b>
<b>Schools</b>	Primary 1 per county	<b>23</b>	<b>20</b>
	Secondary 1 per county	<b>23</b>	<b>10</b>
<b>Field Officers</b>	1) 1 EARC per county	<b>23</b>	<b>20</b>
<b>Other Organizations</b>			
	1) KISE	<b>3</b>	<b>1</b>
	2) Kenyatta University	<b>2</b>	
	Memorandums	<b>10</b>	<b>5</b>

### **3.5.2. Sampling Technique**

The study employed a multistage multi-stage sampling technique (Mugenda and Mugenda, 2009), which involved random simple random and purposive sampling. The sample size was SNE primary and secondary schools and EARC institutions in Kenya, as stated above (Moe. 2011). In the Quantitative phase, the statistical procedure for sample size determination was given; the researchers calculated the sample size at 56 SNE secondary and main institutions (Survey System, 2012). This represented, the sample size at the 10 % point of significance, with an error of 2.5%.

### **3.5.4. Sampling for the Qualitative Phase**

Sampling was done using purposive techniques leading to recognition of several participants, institutions and key witnesses. A total of participants took part in the study. The participants included primary school pupils, secondary and college students, parents, teachers, heads of school, workers in the informal sector and industry, Education field officers and various stakeholders. The list of participants is presented in **Table 3.2** below.

**Table 3.2: List of participants in the Qualitative Phase**

NAME OF SCHOOL	CODE	COUNTY	CATEGORY	CODE	TOOLS
LIKII SPECIAL SCHOOL	LIK	LAIKIPIA	MH	LAIK	PARENTS FGD
NGARINARO SPECIAL SCHOOL	NGAR	LAIKIPIA	MH	LAIK	PARENTS FGD
OLKALAU SPECIAL SCHOOL	OLK	NYAHURU RU	PH	NYAH	PARENTS FGD LEARNERS FGD
NYABURI INTERGRATED SCHOOL	NYAB	HOMABAY	INTEGRATED	HOMB	LEARNERS FGD PARENTS FGD

NAME OF SCHOOL	CODE	COUNTY	CATEGORY	CODE	TOOLS
KWALE SCHOOL FOR THE DEAF	KWA	KWALE	HI	KWA	LEARNER FGD
NYAGWESO SCHOOL FOR THE DEAF	NYAN	HOMABAY	HI	HB	PARENTS FGD LEARNS FGD
KIBARANI PRIMARY SCHOOL FOR THE DEAF	KIB	KILIFI	HI	KIL	PARENTS FGD
ST ANTHONY SCHOOL FOR THE DEAF	ST.ANT	BUNGOMA	HI	BUN	PARENTS FGD
MUMIAS SCHOOL FOR THE DEAF	MUMI	KAKAMEG A	HI	KAK	LEARNS FGD
KITUI SCHOOL FOR THE DEAF	KIT	KITUI	HI	KIT	LEARNS FGD
KUJA SCHOOL FOR THE DEAF	KUJ	MIGORI	HI	MIG	LEARNS FGD
MUMIAS SEC SCHOOL FOR THE DEAF	SMUMI	KAKAMEG A	HI	KAK	LEARNS FGD
ST BRIDGET MIXED SEC FOR THE DEAF	ST. BRIG	BUSIA	HI	BUS	LEARNS FGD
MACHAKOS SEC SCHOOL FOR THE DEAF	SMACHA	MACHAKO S	HI	MACH	LEARNS FGD
MACHAKOS PRI. FOR THE DEAF.	PPMACH	MACHAKO S	HI	MACH	LEARNS FGD
WEE PRI. FOR THE DEAF	WEE	MAKUENI	HI	MAK	LEARNS
KABARNET SCH. FOR DEAFBLIND	KAB	BARINGO	DB	BAR	PARENTS FGD
ESANIGE SPECIAL SCHOOL	ESAN	NYAMIRA	INTEGRATED	NYAM	LEARNS FGD
ST. THOMAS AQUINAS SPECIAL SCHOOL	AQUIN	KITUI	INTEGRATED	KIT	PARENTS
KWALE SCHOOL FOR THE DEAF	PKWA	KWALE	HI	KWA	STUDENT LEADER
JOYTOWN SCHOOL FOR THE PH	JOY	KIAMBУ	PH	KBU	PARENTS
NGONG TOWNSHIP	NGO	KAJIANDO	MH	KAJI	PARENTS
WAITHAKA SPECIAL SCHOOL	WAITH	NAIROBI	INTEGRATED	NAIR	PARENTS
WAITHAKA	WAITH	NAIROBI	INTEGRATED	NAIR	LEARNS
KAJIANDO BOYS BOARDING	KAJI	KAJIANDO	PH	KAJI	PARENTS
AIC GIRLS SCHOOL	KAJI	KAJIANDO	PH	KAJI	STUDENT LEADER
ONGWENO 1	ON-1		VI		MEMORANDUM
ONGWENO 2	ON-2		VI		MEMORANDUM
JULIET WAITHAKA	JW	NYERI		NYE	MEMORANDUM
VINCENT	VIN				MEMORANDUM
MJOMBA	LCD-EO	NAIROBI		NAI	MEMORANDUM

NAME OF SCHOOL	CODE	COUNTY	CATEGORY	CODE	TOOLS
MASIIKA	MAS	MOMBASA		MOMB	MEMORANDUM
AIC GIRLS SCHOOL	AIC	KAJIANDO	PH	KAJI	STUDENT LEADER
KAJIANDO BOYS BOARDING	KAJIB	KAJIANDO	VI	KAJI	LEARNERS FGD
VSO JITOLEE	VSO	NAIROBI	HI	NAI	MEMORANDUM
Daua			INTEGRATED		FDG for learners
Olkalou			DISABLED		FDG for learners
Reverend Muhoro school		NYERI	MH		FDG for learners FDG for parents
Tumutumu		NYERI	DB		FDG for learners FDG for parents

**Table 3.3: List of participants in the Quantitative Phase indicated in Table 3.3**

SCHOOL	Primary	Secondary
Teachers	<b>164</b>	<b>36</b>
Head teachers	<b>20</b>	-
Principals	<b>10</b>	<b>10</b>
EARC	<b>20</b>	

### 3.5.6 Data Generation Instruments

The Quantitative data were generated using questionnaires and observation schedules. These were administered mainly to SNE primary and secondary schools and also EARC officers. The Qualitative data were generated using In-depth interviews of pupil/student leaders, parents, and head teachers, workers in the industry/informal sector and key informants. Focused group discussions were used to generate data from learners at all these levels except ECDE. In addition memoranda were sought and received from individuals and institutions from across the nation. In total, about 250 memoranda were received. Further qualitative data came from opinions in the print and social media.

### **3.5.7 Pilot Study**

Before actual generation of the data, a piloting of the tools was undertaken in three counties. These counties were randomly sampled. The questionnaires and interview guides were tested for appropriateness of questionable items in terms of language, content, clarity, time taken to administer as well as general administration logistics. In summation, the pilot study was employed to find out whether: (i) the instruments would generate the type of data anticipated and; (ii) the type of data desired could be meaningfully analyzed in relation to the stated evaluation objectives. After the analysis of data collected from the pilot study, ambiguities and unnecessary content in the questionnaires and interview guides were addressed.

### **3.6. Data generation process**

KICD in collaboration with Ministry of Education, State Autonomous Government Agencies such as Kenya Educational Management Institute, Teachers Service Commission, Kenya Institute of Special Education, Universities and CEMASTEA carried out the needs assessment over a period of two weeks from 13<sup>th</sup>January to 30<sup>th</sup> January, 2016. Broadly, the response by the respondents was quite tender. They received and appreciated the fact that their positions were being sought on what needed to be rectified in the Kenyan Curriculum for Schools and Colleges.

**23** teams were dispatched to visit different regions of the country – specifically for schools, Colleges, Churches, the industry, non- formal sectors. In total 120 participated in the research process and covered basically all the Kenyan Counties. In addition, a call was made for memoranda from all Kenyans in the Media and a total of **79** were received. Twenty five (25) teams, each comprising four officers will be dispatched to the counties. Each team will spread over 84

learning institutions. A total of 2100 learning institutions will be visited countrywide. A total number of 7 instruments will be administered. County Education offices will be the entry points into the selected districts. Within the schools, the head teachers will facilitate access to the teachers, learners, parents and SMC members.

Once the organization of the selected respondents is complete, respective data collection instruments will be administered. Using the observation schedule, available physical facilities will be observed to establish their availability, adequacy, and condition and employment level. All the set up and accepted educational research ethical standards will be clung to during the administration of data collection instruments.

### **3.7. Data Analysis**

Data Analysis is the process of systematically applying statistical and/or logical techniques to describe and illustrate, condense and recap, and measure information. In this study quantitative data were analyzed statistically while qualitative data were analyzed thematically, as explained below.

#### **3.7.1 Quantitative data analysis**

The data from questionnaires were analyzed by use of the Statistical Package for Social Sciences (SPSS) software Version 21.0 This software provided general statistical information about the participants investigated and assisted in making inferences about the population (McNeill & Chapman, 2005).

### **3.7.2 Qualitative data analysis**

The process of Qualitative data analysis involved six steps (Creswell, 2003; Jwan & Ong'ondo, 2011). The first step involved only transcribing all the interviews and Focused Group Discussions (FGDs). During the transcription period, all the audio recorded interviews were turned into text material and labeled; they later became the primary data for subsequent analysis. The data were filed appropriately according to levels of education. Data already in script form – mainly from memoranda and print newspapers were also filed appropriately.

The second step was to do a workshop for all the officers involved in the data analysis process using pilot data as dummies. This went on for about a week until the team were confirmed to be consistent in coding process. The team was then divided so that data for different levels (ECDE, Primary, Secondary, Tertiary and Special Needs Education) were analyzed separately but using the pre-determined themes consistent with the research objectives.

Then, each team were involved in first reading the transcripts relevant to their levels to obtain a general sense of the information and to reflect on the data's overall meaning. The third step was coding, which took place in three stages: open, axial and selective described in Creswell (2007) and Braun and Clarke (2006).

### **3.8.1 Validity of the Study**

Validity is the degree to which a tool measures what it is supposed to measure in order to interpret the scores appropriately. The techniques used in validating this study were include content validity and construct validity.

The content validity is the degree to which a tool measures an intended content area. The items must be relevant to the measurement of the intended content. It therefore compares the contents of the tools to the variables being measured. The usual procedure in assessing the content validity of a measure is to use professionals or experts in the particular field. The instrument was given to two groups of experts; one group was requested to assess what concept the instrument is trying to measure. The other group was asked to determine whether the set of items or checklist accurately represents the concept under study. Apart from being tested in schools, the tools were therefore given to a panel of experts and stakeholders for review prior to data collection. They commented on the wording of questions and statements and length of the instruments.

Construct validity is the degree to which a test measures an intended construct, and not an intervening or unrelated variable. It is done to see whether the presumed construct is what is being tested. The instrument must reflect the intended construct. It asks what the tool is measuring and whether the scores have a useful purpose and positive consequences when they are used in practice (Creswell, 2009; Mugenda & Mugenda, 2012). Construct validity was done by comparing the items in the tools with theoretical expectations and hypothesized behaviour to see how well they fit. Clear definition of constructs were operationalized and provided so that the study centers on the correct interpretation of the concepts. Use of mixed method approach also addressed the construct validity of the study.

### **3.8.2 Reliability of the study**

This is extent to which a tool will consistently measure what it purports to measure (Gay et al, 2009). The reliability coefficient was established by using the split half reliability technique which involved the administration of ‘two’ similar tests. Two ‘halves’ of the same test were administered on the same sample. The

data obtained were correlated using the Spearman Brown Prediction formula of  $Npxy /1+(N-I)pxy$ , where pxy is the predicted reliability coefficient for the total test.

At random, scored items were divided into two groups or alternatively, all the odd-numbered items were grouped together and all the even-numbered items together. Each subject's total score was computed and the scores from the two groups of items were correlated. Data with a high split-half reliability was considered to have a high correlation coefficient. The higher the correlation coefficient obtained, the more similar the forms and the higher the reliability (Mugenda & Mugenda, 2012; Craig & Wollack). The internal consistency of the items will be determined from scores obtained. Cronbach's coefficient alpha will be computed to determine how items correlate among themselves.

## **CHAPTER FOUR**

### **SNE PRIMARY FINDINGS AND DISCUSSIONS**

#### **4.1 Introduction**

This chapter presents the findings and discussions on the following themes in line with survey objectives: Societal Needs, competencies, learning Areas, Learning Approaches, Assessment modes, Nurturing talents, Cross Cutting and Learning resources essential for 21<sup>st</sup> Century schools.

Aligning the curriculum to address the aspirations of the Constitution, Vision 2030 and the East African Community treaty should be prioritized. It has been proposed that the content for basic education should be designed with a view of equipping the learners with relevant knowledge that emphasizes on technology, innovation and entrepreneurship (Vision 2030), the development of their full capacity, living and working with dignity, enhancing the quality of their lives, making informed decisions and continuing with learning as a lifelong engagement.

This was re-emphasized in the Task Force recommended major reforms of the curriculum to align it with the Constitution and to ensure that the aspirations of Vision 2030 are met; Structure the curriculum within a skills and competence framework that identifies the knowledge, skills and competences all learners will acquire, and which will provide both vertical and horizontal coherence.

In line with the Education for All (EFA) initiatives, Millennium Development Goals (MDG's), Sustainable Development Goals(SDG), Education for Sustainable Development (ESD), the Constitution of 2010, Sessional paper no 1 of 2015, the realization of Kenya's Vision 2030, of providing a globally competitive quality

education, training and research for development, will be achieved through adoption of pedagogy that emphasizes exploration, collaboration, experimentation, creativity, critical thinking and innovation. This calls for the provision of relevant resources that promote these 21<sup>st</sup> century skills and competencies.

Pertinent and emerging issues are matters that touch a number of different aspects of the society, on general principles such as democracy, human rights, good governance, children's rights, gender equality, population and family life education, poverty alleviation, environment and development, to mention but a few. Cross-cutting issues are commonly defined as topics which, by their very nature, have a strong impact on all operations in a given field and, therefore, must receive special attention hence their inclusion in the intended new curriculum. These issues cut across all the levels of education. Hence they need a lot emphasizes in the future curriculum

The pertinent and emerging issues also make learning meaningful, hence to enable learners develop deep understanding of what they learn, teachers need to use participatory and cooperative teaching methods. Participatory and cooperative teaching methods help learners develop critical thinking, reflect on their own situations and get insights of their own situations.

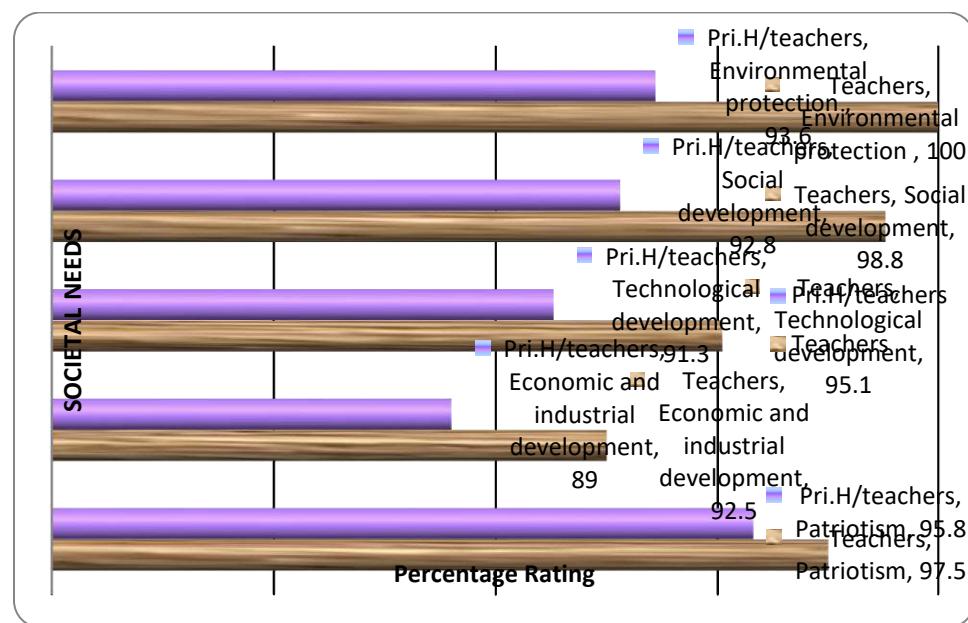
#### **4.1.1 Societal Needs**

It is view of the aforementioned that the study sought the views of the stakeholders in reforming the countries curriculum. The findings with regard to the extent to which various aspects of societal needs should be emphasized were weighted and presented in figures, tables and themes.

Head teachers and teachers from SNE primary schools as well as EARC officers were required to give their responses in regard to the extent to which societal

needs should be emphasized in the curriculum. They were asked to indicate the extent to which the identified societal needs should be emphasized in the school curriculum using a five-pointer Likert scale. They were required to indicate their choices by selecting ‘N=Not at all’, ‘VL=very little extent’, ‘NS=Not sure’, ‘S=some extent’ and ‘G= Great extent’. The responses on each identified societal need were presented in Figure 4.1

**Figure 4.1: Primary schools special needs education teachers and head teachers responses to what extent the primary level curriculum should emphasize societal needs**



**Figure 4.1** indicates the extent to which societal needs should be emphasized in the curriculum. Environmental protection was ranked higher at 100% by head teachers, followed by Social development ranked at 98.8% by teachers, closely followed by technological development at 95.10%, Economic and Industrial development at 92.50%.

Similar sentiments were made by SNE parents, learners, teachers, head teachers and other stakeholders with regard to cohesion, patriotism, economic and technological developments.

Findings from the key informants were in support of the teachers and head teachers' responses on desired societal needs. They indicated that education should enable learners to make informed decisions, and respect human life. Education should further address democracy, equality, self-reliance, patriotism, social, environmental conservation and individual development. The proposed curriculum should address the professional requirement.

In addition it should reflect on religious values, technological changes, conservation and moral values. Moral values should address issues such as corruption, radicalization, anti-ethnic discrimination, religious tolerance, non-violence in conveying demands, tolerance, anti-criminal culture, anti-corruption culture, ethical practices, servant leadership, transparency, communications, etiquette and decorum, accountability, good governance in one-self, family, group as well as in the corporate. Education should prepare one to fit in the global village.

ME: Environmental conservation with use of real life examples and the consequences of environmental pollution when teaching mathematics and science subjects. Life skills and their survival value such as self-awareness and making informed decisions. Respect for human life through learning experiences that expose learners to appreciate life. Values (rationality, sacrifice, individuality, democracy, equality, self-reliance, and patriotism). Key competences should be determined by the market demands and social needs. (CEMASTEA).

The curriculum should incorporate the need for the society to sustain peace, develop law abiding citizens, independent thinkers, creative problem solvers, able to use ICT, solve problems, create wealth and deliver service and serve to instill learners with humanity. It should also instill knowledge, attitudes, skills, patriotism and anti-radicalization,

The curriculum should be; Holistic in nature, ...Respects, reflects, and conforms to the Kenya constitutional affirmation that ours is a God-fearing nation;....., encourages reflection, critical thinking, problem-solving, innovation and creativity in their life situation; ..... (KCCB-RI).

In terms of technological development learners expressed that digital literacy in order to achieve technological development and suggested that schools should be equipped with technological equipment such as computers and laptops and learners taught how to use them. Similarly the parents expressed the view that learners with SNE need laptops and computers to help them widen their knowledge and improve their creativity. Learners also reiterated the importance of using ICT, especially for learners with communication difficulties.

P: Government to teach children how to use Laptops (P-FGD-OLK-SNE-NYAH).This one is very necessary. We find that like deaf, deaf child usually learns from seeing. Seeing the particular things is doing. So these things laptops, computers are introduced in schools like these. We will be giving them some wide knowledge of knowing what they need to cover and will be giving them some wide experience on how to use and interact with the media on different areas so introduction of this computers technologies is very necessary because they are some who are necessary because they are some who are very creative.

Environmental protection ranked at 100% and Patriotism at 97.53%, this was also considered critical by parents, learners and teachers across the country as summarized below:

**PA:** Education can help us in a way, for example, if one is educated and they get into a company, you go and meet different tribes in the company, you are working on this project and another one is working on the other one, at the end of it you produce one good thing. (PA - FGD-LI- LAI)

**PA:** According to what is thinking, if someone has been educated and he/she is a teacher, it's not a must you teach within your area where you are talking the same tongue, you should go somewhere else. When you go there.... for instance, lets say I go to western, the people from western should receive me as one of their own. And if I am at my home area and there are students who have come here from other places, I should not show them they are different from those of my tribe and those of other tribes. I should take them all as one people from one Kenya. (PA - FGD-LI- LAI)

**PA**-Persons with special needs should get jobs like other persons. They should not be discriminated upon. (PA-FGD-KAJ-SNE-KAJ).

KIE (2002), societal considerations are important in guiding the way content of curricula should be designed to inspire and enrich all learners' lives with the knowledge, skills and attitudes most helpful to them and their country. Empirical evidence has it that value education is essential for sustained social and economic development and the realization of human potential. Value education is a powerful force in shaping human beings in any society and plays a vital role in giving the youth, the training necessary to pursue their dreams and aspirations. Further emphasizes, the dreams of youth in a society can only be actualized if the curriculum is guided by the philosophical ideals of a societal aspects like nationalism, patriotism, national unity, economic and industrial development, technological development, social development, international consciousness, respect for all cultures, self-fulfillment, social equality, social responsibility, sound morals, good health, information, communication and technology and environmental protection are given due consideration. It is with the view of the aforementioned that the societal needs should be entrenched in the upcoming competency based curriculum (KIE 2002).

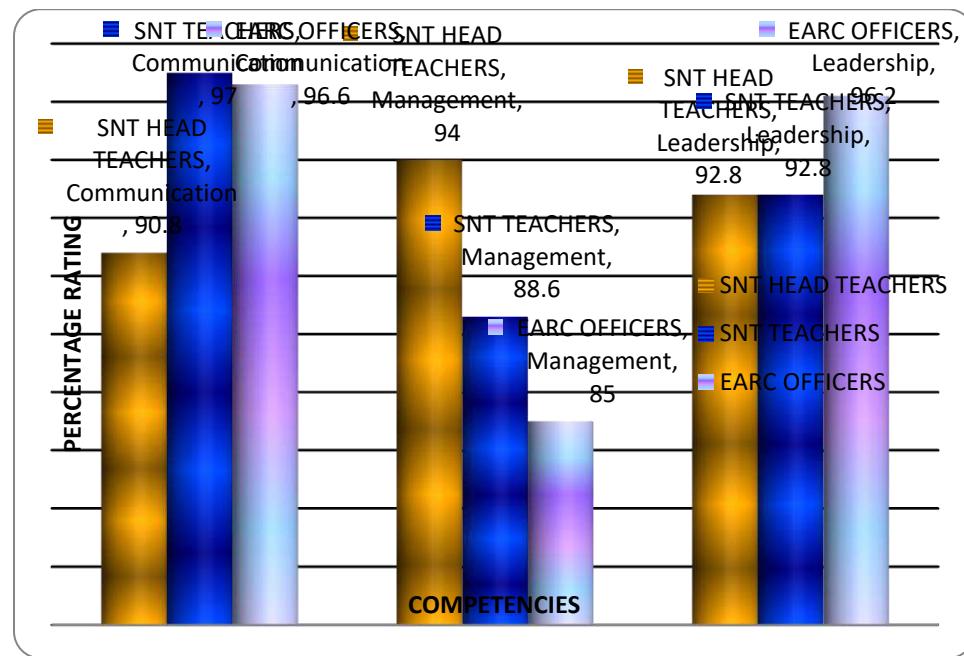
These findings on societal needs are recognized and embedded in (NESP, 2015) which points out those societal needs are considered to be what the people who constitute the population of a country need for their lives to be productive and happy in the local context. Further it indicates that the curriculum is a critical platform for determining the knowledge and skills that future citizens will possess, and hence their capacity to contribute productively to their society.

#### **4.1.2 Competencies**

Head teachers and teachers from SNE primary schools as well as EARC officers were required to give their responses in regard to the extent to which competencies should be emphasized in the curriculum. They were asked to

indicate the extent to which the identified competence should be emphasized in the school curriculum using a five-pointer Likert scale. They were required to indicate their choices by selecting ‘N=Not at all’, ‘VL=very little extent’, ‘NS=Not sure’, ‘S=some extent’ and ‘G= Great extent’. The responses on each identified competence were presented in Figure 4.2

**Figure 4.2: Summary of responses on desired competencies classified under Communication from head teachers, teachers and EARC officers**



**Figure 4.2,** The teachers sampled from primary from Special schools rated above 90% all the competencies such as communication, management and leadership.

This view concurs with the responses of the SNE head teachers whose rating was above 90% on the aspects of communication, management and leadership. These competencies are considered critical path in promoting the acquisition of key competencies to be achieved through curriculum reforms. The Constitution affirms equitable, quality and efficiency in provision of education to all learners

including SNE which seem to be a desire for teachers and head teachers across all levels.

The respondents were of the view that learners with special needs should acquire competencies that will help them be adaptable in the society and be employable. These should be acquiring skills in leadership, communication and problem solving. Similar sentiments on societal needs were well expressed by key informants, parents and learners and presented in various sub-themes.

Not to despise themselves. To be able to do small things for example wearing clothes and taking care of themselves, to understand sign language, to communicate and be able to think and solve their problems (**PA-KIB- P – KIL**)

Hata kuinteract na kucheza na watoto wale wengine, because ni lazima aleewe kama yule mtoto mwininge wa kawaida pamoja na kusoma na kuandika na kusoma computer (**PA-FGD-JOY-SNE-KBU**).

Learners further suggested that education should emphasize values such as obedience, respect, discipline, humility, kindness, politeness, care and hard work. Learners should also be taught good morals and responsibility.

**P:** Lets learners get moral values in school, by having obedience and respect. Pupils to work hard and have discipline. (P-FGD-OLK-SNE-NYAH)

**PA:** Na kupata masomo kwake, kutapromote self-esteem hatakuwa anaijichukia na hata atakuwa example kwa hao wengine, eti huyo alipelekwa shule fulani alipata masomo, kwa hivo disability is not inability. (PA- FGD-JOY-SNE-KBU)

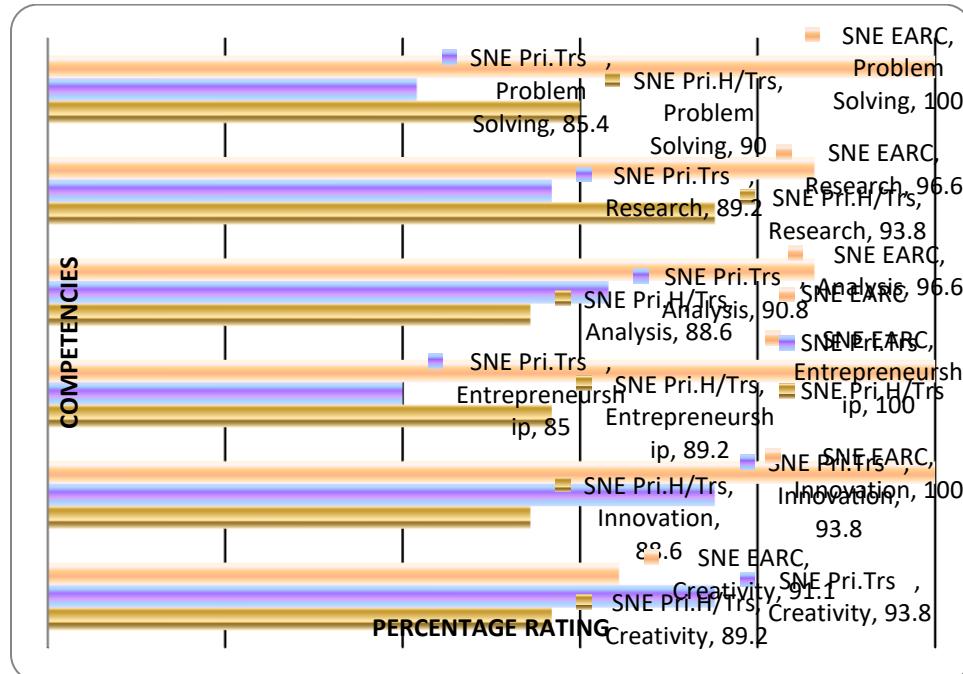
**PA:** ....brought up in their morals and responsibilities despite their disabilities eg identifying when cattle are lost. (PA-FGD-KAJ-SNE-KAJI)

PA: They should be taught how to care for one another and respect others (PA - FGD-LI- LAI)

PA: There is also pride. It is good as parents, we teach our children to be humble. Even if we may be well up, it is good to teach our children humility because pride and arrogance destroy a child so much because they know my family is well up. So that arrogance makes them be disrespected by other people. (PA - FGD-LI- LAI)

PA: My child should be taught good behavior and good morals. (PA - FGD-LI- LAI)

**Figure 4.3: Shows a range of responses on Competencies classified under Creativity, by the Head teachers, teachers and EARC in Public and Private schools**



**Figure 4.3** provides a summary of various respondents' views on the skills, knowledge, attitudes and values that can be achieved through innovation, creativity, entrepreneurship, problem solving analysis and research. The percentage range from the lowest was 89.99% and highest 97.3%. These responses can be closely linked to a study carried out by Rychen D.S. and. Salganik L.H (eds.) (2001) which revealed that a creative person should have divergent thinking, problem solving skills, originality, and ability to see or create new values. Considering the convergence on the need to nurture creativity in the curriculum and the literature encountered, constructs of problem solving, divergent thinking, research and innovation will find their place in the content of the proposed curriculum.

These views were also backed by the views of parents and key informants as presented in the views below.

This creativity given this laptop, computer plus their technology born with will widen up the knowledge of the child such that even if left alone to expand on a particular area, they find it very simple to communicate using this technological material are very essential and needed in school may be a school like these.{PA NYAN P HB]

Vocational skills and ICT will unlock and help to harness of different . They also need to acquire literacy and numeracy skills. The key informants expressed the need for the establishment of computer laboratories and provision of computers so that ICT can be taught successfully.

KI...If we want to say the about the computers, a computers as a resource, computer laboratory is very important in primary level now that we are agreeing that ICT should be taught as a subject. (KI-SCDE-SAM)

**Table 4.1: Primary head teachers, teachers and EARC officers views on SNE Competencies**

<b>Competencies</b>	<i>N=164</i> Pry. SNE Trs(%)	<i>N=20</i> SNE/ H Pri. (%)	<i>N=20</i> SNE EARC (%)
Collaboration	93.8	93.8	100
Interpersonal relationship	94.8	93.4	100
Coordination	93	87.6	100
Planning	93.8	93.8	100
Organizing	92.8	91.4	96.6
Negotiation	89.6	92.2	88
Coaching	84	91.4	93.4
Mentoring	93.6	92.2	100
Networking	91.4	93.8	100
%	91.8	92.2	97.6

The distribution of responses in Table 4.1 : by teachers, head teachers, and EARC Officers who directly interact with learners seem to agree to a great extent that collaboration and interrelated competencies such as interpersonal relationships,

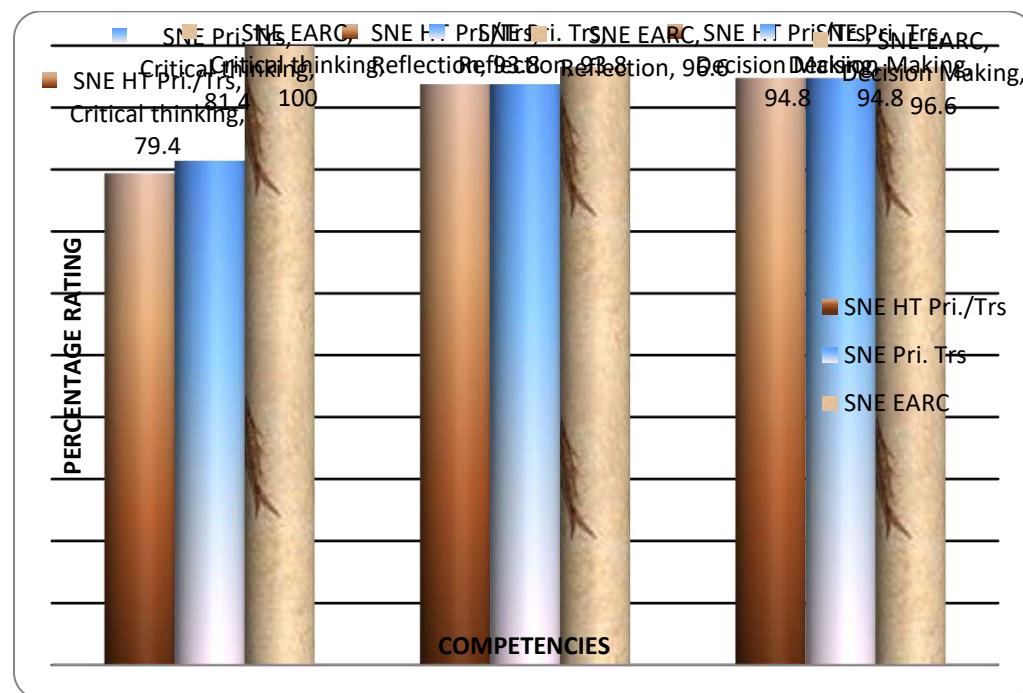
coordination, planning, networking among others should be embedded into the curriculum reforms. These responses are consistent with suggestions made by key informants.

Respondent:... , Soft skills (empathy, emotional intelligence), Collaboration, networking skills, public speaking. Skills to harness local resources for livelihood and relate well with others This may be brought out through exposure of the learner to the existing environment. (ED-AC)

Respondent; ..... Civic education and citizenship have suffered at the expense of theory or intellectual development. (KCCB-RI).

A key conclusion therefore is that collaboration was considered a major desired competence with an overall percentage rating of 90 %.This is critical because if knowledge is learned to support the performance of skills, then learners will satisfactorily excel in aspects of knowledge, skills and values ([Soland et al.](#) 2013, and [Voogt & Roblin](#) 2012).

**Figure 4.4: Analysis of respondents views on desired competencies classified under Critical Thinking**



In Figure 4.4, the results show a strong consensus among different respondents on the aspect of critical thinking, reflection and decision making, presumably learners to develop critical thinking skills and the ability to adapt to new learning situations as they transit from one sub sector of education to another. The EARC Officers ranked highly critical thinking at 100%, followed by reflection and decision making at 96.6% respectively. However SNE teachers and head teachers ranked critical thinking slightly lower at (79.4%, and 81.4%). They rated at bar decision making and reflection at 93.8% and 94.8% competencies.

The high percentage ratings imply that primary learners should be given a strong foundation in the requisite skills for effective transition to the secondary level and other subsequent levels. This observation is in line with a study carried out in Korea by IBE-UNESCO (2012) which found communication to be one of the competence skill recommended for elementary level.

The views were expressed strongly by SNE learners who observed that they need communication, vocational, ICT, entrepreneurship, critical thinking, psychomotor, problem solving, socialization and research skills. They also need to acquire literacy and numeracy skills. This was illustrated in the statement below:

Hata kuinteract na kucheza na watoto wale wengine, because ni lazima aleewe kama yule mtoto mwingine wa kawaida pamoja na kusoma na kuandika na kusoma computer (**PA-FGD-JOY-SNE-KBU**).

These implies that competencies clustered under communication, critical thinking, collaboration and creativity should be emphasized in tandem with the vision 2030 and Sustainable Millennium Development Goals (SMDGs) and critical for development of this country in Science and technology. The envisioned curriculum review will embrace the above skills in its content with the express objectives of producing functional products of our education system. **4.3.3.2 Values and attitudes**

The respondents suggested other values and attitudes for SNE learners that should go hand in hand with the desired 21<sup>st</sup> century competencies.

#### **4.1.3 Values and Attitudes**

Learners felt that education should strive to enhance self-esteem in learners with disabilities who in most cases experience low self-esteem because of the unwarranted stigma associated with disability. Learners further suggested that education should emphasize values such as obedience, respect, discipline, humility, kindness, politeness, care and hard work. Learners should also be taught good morals and responsibility.

**P:** Lets learners get moral values in school, by having obedience and respect. Pupils to work hard and have discipline. (P-FGD-OLK-SNE-NYAH)

The parents and key informants suggested the benefits of instilling values and attitudes among SNE primary learners should be emphasized to a great extent. This was deduced from the statements enlisted:

**PA:** Na kupata masomo kwake, kutapromote self-esteem hatakuwa anaijichukia na hata atakuwa example kwa hao wengine, eti huyo alipelekwa shule fulani alipata masomo, kwa hivo disability is not inability. (PA- FGD-JOY-SNE-KBU)

**PA:** ....brought up in their morals and responsibilities despite their disabilities eg identifying when cattle are lost. (PA-FGD-KAJ-SNE-KAJI)

PA: They should be taught how to care for one another and respect others (PA - FGD-LI- LAI)

PA: Let's add politeness. There are children who can be rude and so it's good to teach a child to be polite. (PA - FGD-LI- LAI)

PA: There is also pride. It is good as parents, we teach our children to be humble. Even if we may be well up, it is good to teach our children humility because pride and arrogance destroy a child so much because they know my family is well up. So that arrogance makes them be disrespected by other people. (PA - FGD-LI- LAI)

PA: My child should be taught good behavior and good morals. (PA - FGD-LI- LAI).

The term **21<sup>st</sup> century skills** refers to a broad set of knowledge, skills, work habits, and character traits that are believed—by educators, school reformers, researchers, employers, and others—to be critically important to success in today’s world, particularly

in collegiate programs and contemporary careers and workplaces. Generally speaking, 21<sup>st</sup> century skills can be applied in all academic subject areas, and in all educational, career, and civic settings throughout a student's life.

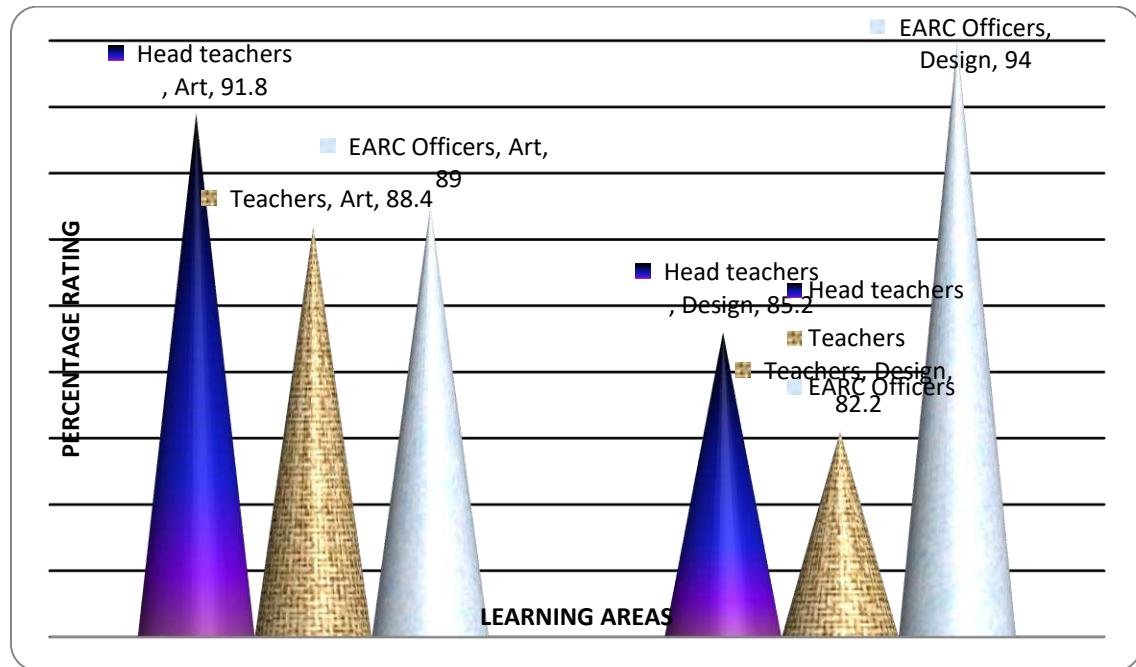
## **4. 2 Learning Areas**

The respondents felt that depending on the different disabilities, there is need to introduce the learners to various skill areas such as Braille and sign language immediately they set to class one. This level should mark the point where these specialized skills are focused so that the learners become proficient in their communication abilities. They further indicated that this level should aim to support learners with special needs and disabilities attain communication, manipulative and analytical skills. Learners should be able to identify what they are good at and be supported to choose a career path as early as possible. Information Technology (IT) competencies should also be attained at this level. At the higher level in Primary education learners should be introduced to particular pre-vocational skills, as this would allow them to attain high level of specialization at subsequent levels.

### **4.2.1 Heads of SNE Institutions, Teachers and EARC Officers Mean Percentage Responses on the extent to which Art and Design should be emphasized in the school curriculum**

Head teachers and teachers from SNE primary schools as well as EARC officers were required to give their responses in regard to the extent to which learning areas should be emphasized in the curriculum. They were asked to indicate the extent to which the identified competence should be emphasized in the school curriculum using a five-point Likert scale. They were required to indicate their choices by selecting 'N=Not at all', 'VL=very little extent', 'NS=Not sure', 'S=some extent' and 'G= Great extent'.

**Figure 4.5: Heads of SNE Institutions, Teachers and EARC Officers Mean Percentage Responses on the extent to which Art and Design should be emphasized in the school curriculum**



The primary school head teachers ranked Art at (91.8%) higher than Design at 85.2% and teachers rated Art at (88.4%) compared to Design at 82.2%. The EARC officers rated Design at 94% much higher than Art rated at 89%. This implies that Art and Design are crucial subjects for SNE learners at primary.

In addition to the above findings, SNE Learners observed that subjects like Art, and Craft would empower them with self-reliance skills as well emphasized that they should continue learning the traditional subjects such as Kiswahili and English.

Learn about earth, planet, drawing, technology computers, moral values and know science. (**P-FGD-OLK-SNE-NYAH**). ..P: We can be surgeons, gynecologist and teach students. . (**P-FGD-OLK-SNE-NYAH**) ... P: It is good to learn home science, art and craft (P- FGD-YAMB-SNE-HOM)

#### 4.2.2 Heads of SNE Institutions, Teachers and EARC Officers Responses on the extent to which Agriculture, technology, vocational and technical subjects should be emphasized in the school curriculum

**Figure 4.6:** : Shows responses on Agriculture, Technology, Vocational and Technical

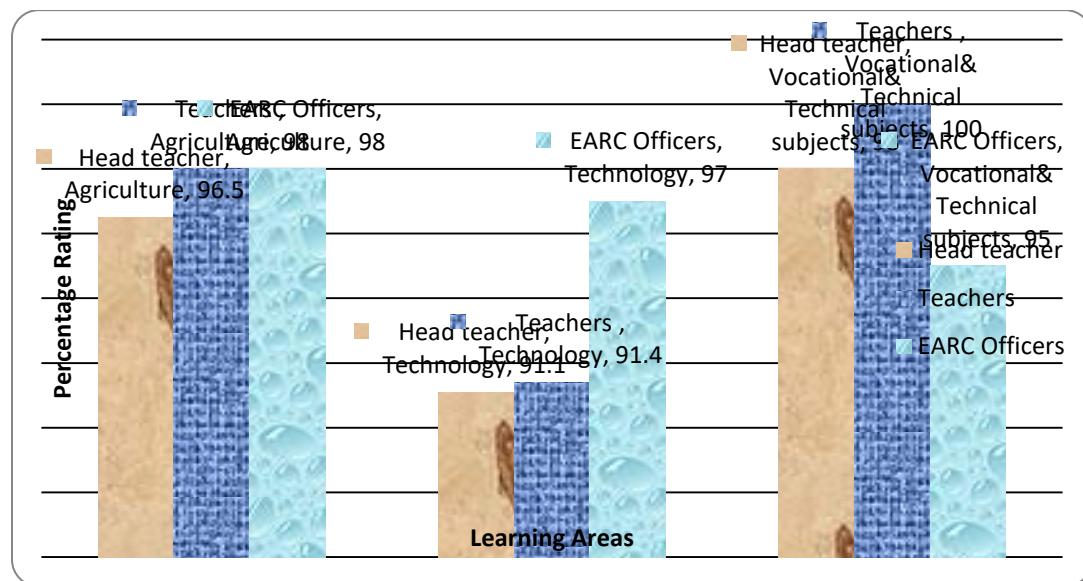


Figure 4.6 Majority of the head teachers (98%), and teachers indicated that vocational and technical subjects should be emphasized in the school curriculum. However, most (97.0%) of the secondary school teachers were in highly in favour of technology while the majority (98.0%) of the EARC officers highly preferred agriculture subject to be emphasized in the school curriculum .

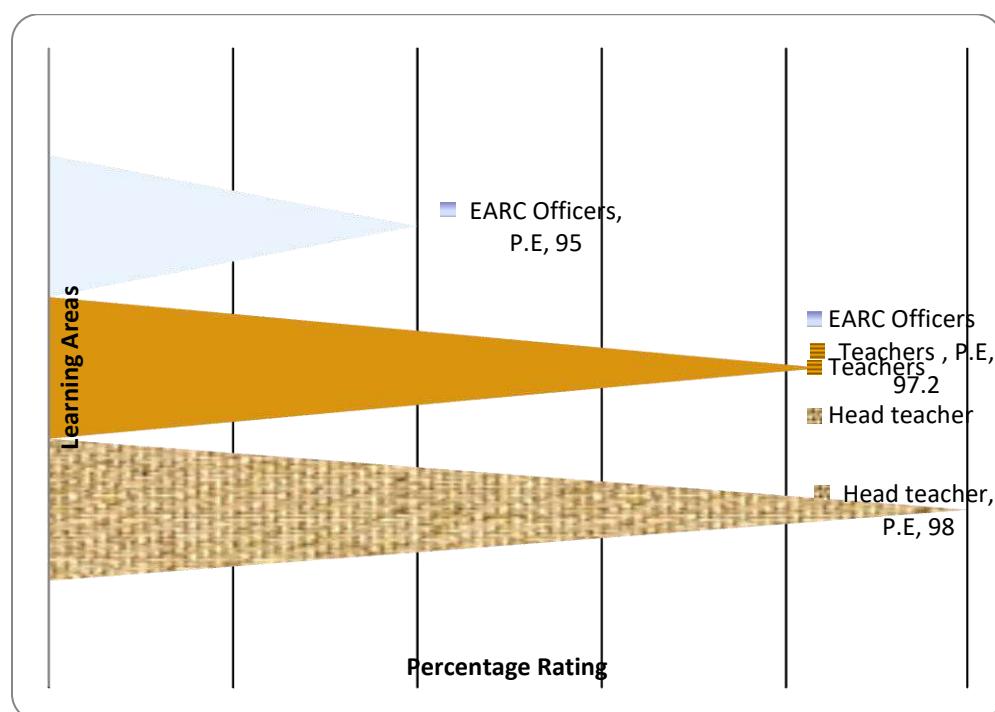
The parents underscored the need to introduce ICT early to learners with disabilities so that they do not rug behind in technology. They also emphasized the need to teach foreign languages such as German and be given career guidance.

**PA:** Hii mambo ya computer, we need to introduce because u find some of these children probably they rely on computers and we need to introduce it early in primary ata kama

serikali inasema iko na hiyo mpango, but they should put more emphasis and start with this special children because sasa ukiangalia, utakuta wakiwa kwa nyumba ,kucheza na gadgets they know very well,vitu kama remote, mobile phones so if introduce computers, they can actually easily adapt. (PA- FGD-JOY-SNE-KBU)

**SL:** .....computer , German, want to know more about other countries. How i will carry myself when i get a job and how i will manage my salary. (SL-INT-KAJ-SNE-KAJI).

**Figure 4.7: Heads teachers, teachers and EARC officers Responses on the extent to which Physical Education subjects should be emphasized in the school curriculum**

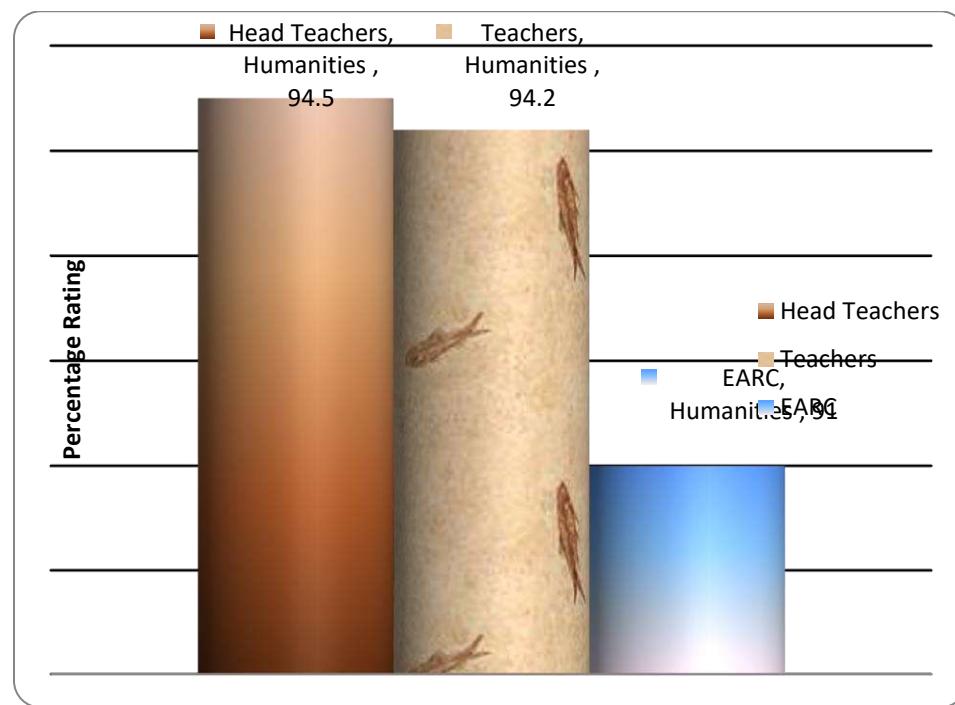


The majority of the primary school head teachers (98%) and teachers (97.2%) indicated that physical education should be emphasized in the school curriculum. (95.0%) of the EARC officers indicated that physical education should be emphasized in the school curriculum.

Monitoring studies carried out by KIE (2004, 2006, and 2007) Reports shows that were apparent that P.E was not taught in many schools as prescribed in the

curriculum yet P.E helps the learners in promoting healthy development and social interaction. This high response rate affirmed that P.E. should be emphasized in the envisaged new curriculum. Studies and life experiences have shown that the P.E. contributes to the physical and emotional well-being of the learners.

#### **4.2.4 Heads teachers, teachers and EARC officers responses on the extent to which Humanities subjects should be emphasized in the school curriculum**



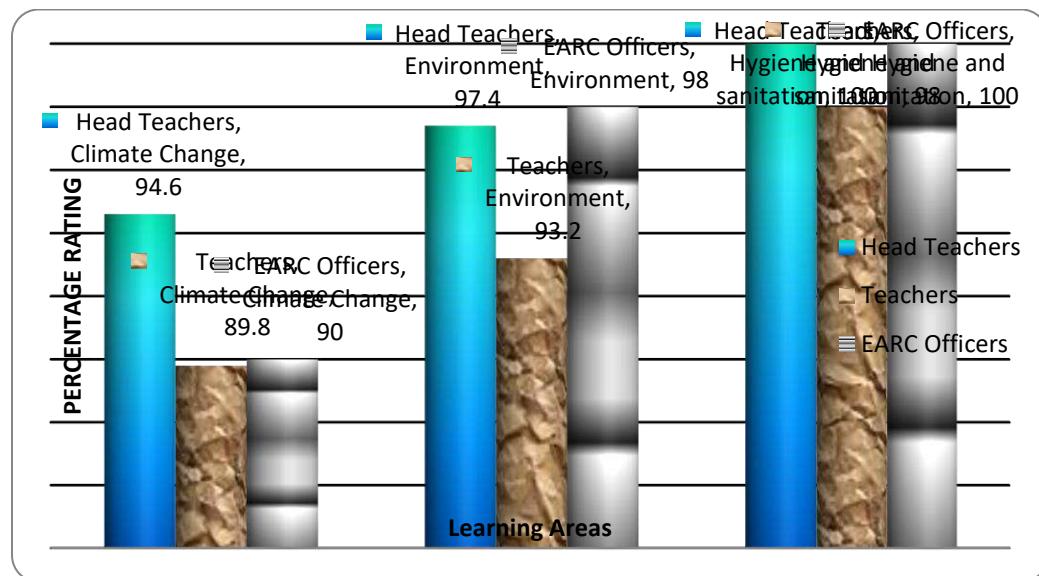
**Figure 4.8: Heads teachers, teachers and EARC officers responses on the extent to which Humanities subjects should be emphasized in the school curriculum**

Summary of responses shows a majority of the primary school head teachers rated humanities subjected at (94.6%) and teachers (94.2%). In addition of EARC officers rated the same subjects at (91%) implies that all respondents were in support of humanities subjects being embedded into the school curriculum.

Similarly, SNE learners and parents that subjects such as geography to prepare for career such as medicine, teaching and astronomy. They should also learn CRE to acquire moral values and computer studies to acquire digital literacy.

Learn about earth, planet, technology computers, moral values and know science. (**P-FGD-OLK-SNE-NYAH**). ...P: We can be surgeons, gynecologist and teach students. . (**P-FGD-OLK-SNE-NYAH**) ... P: It is good to learn history ,and CRE. To promote values and professional like law, political science(P- FGD-YAMB-SNE-HOM).

#### **4.2.5 Heads of SNE Institutions, Teachers and EARC Officers Responses on the extent to which Environment and Climate Changes subjects should be emphasized in the school curriculum.**



**Figure 4.9: Heads of SNE Institutions, Teachers and EARC Officers Responses on the extent to which Environment and Climate Changes subjects should be emphasized in the school curriculum.**

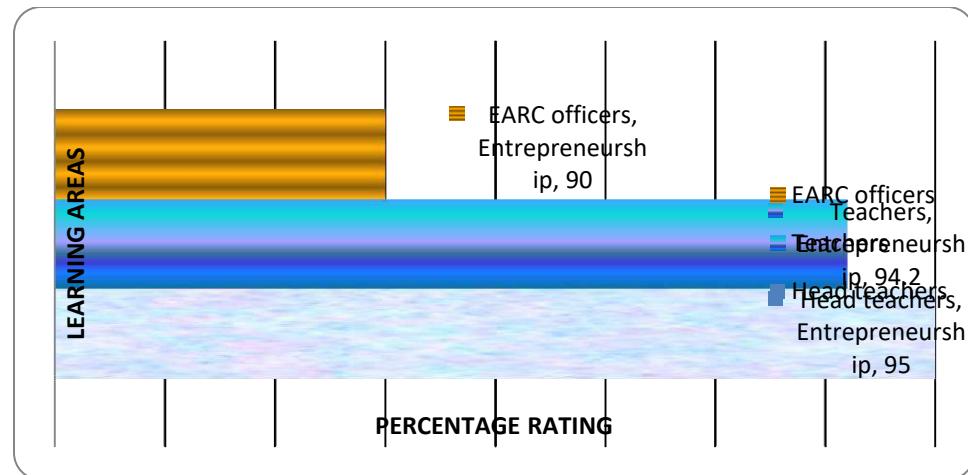
Head teachers, teachers of SNE primary schools and EARC officers ranked highly Hygiene and Sanitation at 100% and 98% respectively. Significantly, the majority of the head teachers (97.3%), teachers (93.7%) and EARC officers (94.4%) indicated that the environment and climate change concepts should be

emphasized in the school curriculum. These sentiments were expressed by key informants as evidenced in the statement below.

Respondent: The main area of focus at this leave is stimulation of the residual sensory inputs. Learners should be guided to explore the environment with a lot of concrete materials for concept formation (OCO-IS).

Furthermore, prominent educationalists parents and industrialists suggested that curriculum should adopt the spiral approach of content where one builds onto the other. In addition, the respondents suggested that the curriculum should incorporate international and regional best practices on assessing, addressing and promoting the emotional and psychological wellbeing of children. Age appropriate health education content should be taught in line with Articles 10, 11 and 24 of the Constitution of Kenya (2010).

#### **4.2.6 The extent to which financial subjects should be emphasized in the school curriculum**



**Figure 4.10: Responses by head teachers, teachers in primary SNE schools and EARC officers**

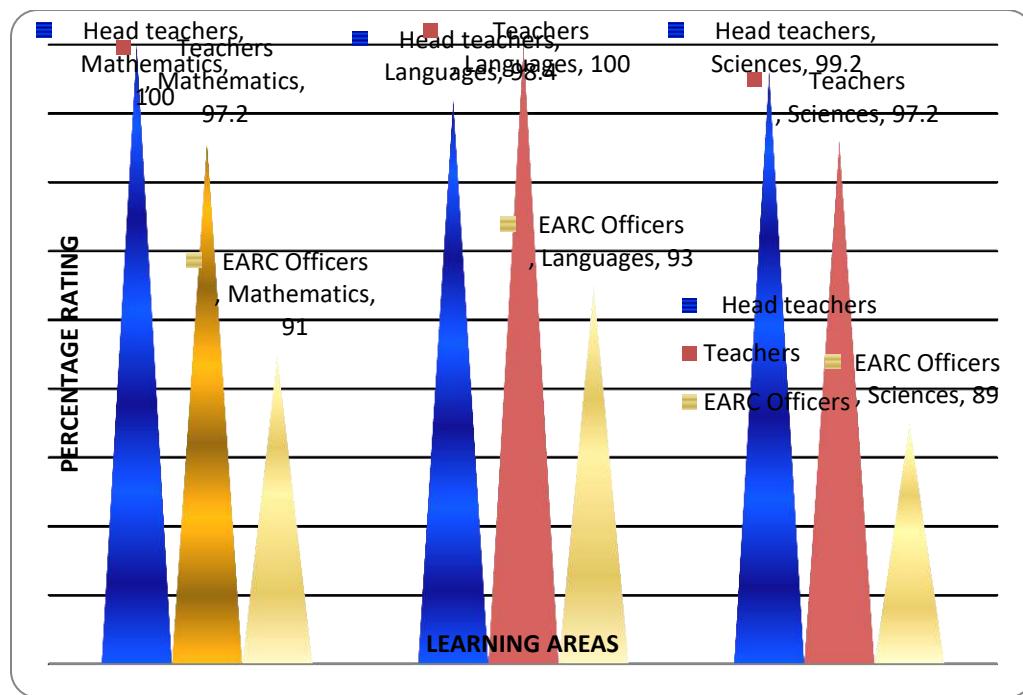
The findings show that head teachers in SNE primary schools rated entrepreneurship at (95%) followed by teachers at (94.2%) and EARC officers

(90%). These high rating shows the value attached to entrepreneurial skills to SNE learners. Universally as the world becomes more businesslike in nature and the economic wellbeing of countries determines the quality of life for its citizens. The parents and key informants shared the same sentiments that establishment of vocational wing for teaching subject like tailoring, computer, farming, cooking and cleaning with emphasis on entrepreneurship aspects or financial literacy will empowers and help especially for learners to live a dignified life for those who may not pursue academic subjects. Such skills would lead to economic empowerment and self-reliance.

They are some few that being handicapped may not enable them to study may be so fast academically and they may be involved in such areas of interest. To me I may request the government to support these people by creating a school like these with vocational department such as that if a child is not fit academically to continue my involve in vocational skills such that if he leaves a place like this with a profession at least this may involve tailoring, computer work {PA NYAN PHB}

**PA:** vocational skills should be given a lot of emphasis as means of nurturing talents and empowering learners who may not be gifted academically (**PA ST.ANT P BUN**).

#### **4.2.7 Responses from Heads of SNE Institutions, Teachers and EARC Officers on the extent to which mathematics, languages and sciences should be emphasized in the school curriculum**



**Figure 4.11: Responses from Heads of SNE Institutions, Teachers and EARC Officers on the extent to which mathematics, languages and sciences should be emphasized in the school curriculum**

Figure 4.11 shows how different subjects were rated and should be emphasized into the SNE curriculum. Head teachers ranked mathematics 100% followed by sciences 99.2% and languages 98.4%, this implies that they considered these subjects as very important and should remain in the primary SNE curriculum.

The teachers on the hand rated languages at 100%, followed by mathematics and the sciences which rated at 97.2% respectively. However, EARC offices rated science related lower at 89%, while languages were ranked at 93% and mathematics at 91%.

These findings are similar to what studies have shown in countries like Singapore and Malaysia with high technological development have put great emphasis on

mathematics and sciences as a foundational requirement for their technological advancement. The Malaysian education system, like others around the world, has emphasized the development of strong content knowledge in subjects such as science, mathematics, and language (Government of Malaysia, 2012).

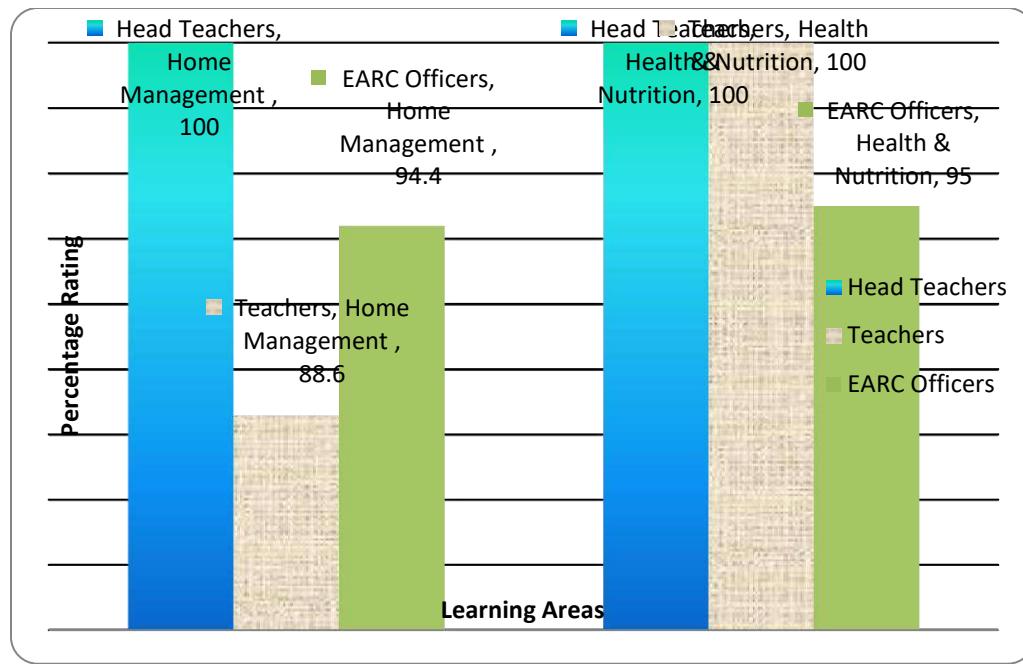
Learners suggested that they should be taught subjects such as science and mathematics to prepare for career such as medicine, teaching and astronomy. They should also learn CRE to acquire moral values and computer studies to acquire digital literacy. In addition, they should learn home science. They also emphasized the need to teach foreign languages such as German and be given career guidance.

**SL:** .....computer , German, want to know more about other countries. How i will carry myself when i get a job and how i will manage my salary. (SL-INT-KAJ-SNE-KAJI)

Learn about earth, planet, technology computers, moral values and know science. (**P-FGD-OLK-SNE-NYAH**). ..P: We can be surgeons, gynecologist and teach students. . (**P-FGD-OLK-SNE-NYAH**) ... P: It is good to learn home science, CRE, art and craft and do English and Kiswahili. (P- FGD-YAMB-SNE-HOM)

Vision 2030 indicates that by 2012 the country should mainstream Science, Technology and Innovation (STI) into the curriculum (RoK, 2007). Studies have also shown that countries like Singapore and Malaysia with high technological development have put great emphasis on mathematics and sciences as a foundational requirement for their technological advancement. The Malaysian education system, like others around the world, has emphasized the development of strong content knowledge in subjects such as sciences, mathematics, and languages (Government of Malaysia, 2012).

#### **4.2.8 Responses on the extent to which Home Science Subjects should be emphasized in the school curriculum**



**Figure 4.12: Heads of SNE Institutions, Teachers and EARC Officers responses on home management, health and nutrition**

The inclusion of health and nutrition as well as home management was rated 100% by head teachers and teachers. The teachers rated home management lower at 88.6% compared to head teachers; EARC officers rated the two subjects at 94.4% and 95% respectively.

The parents underscored the need to teach health subjects to SNE earners because they experience health challenges like other learners. There is this issue to do with morality, like for instance when we talk about sex, we find that the children get to adolescence and there are changes that will occur in their bodies, and these children need to be educated on how to handle the changes. (PA - FGD-LI- LAI).

The big boys and girls should be taught about rape. ... First –Sexuality challenges are a calamity and they need to be addressed urgently. The content on sexuality education should be incorporated in all subjects and all teachers take responsibility in teaching...It is important for sexuality information to be taught from standard 4 to eliminate early pregnancy, School dropout and sexual abuse on social media.(PA ST,ANT P BUN).

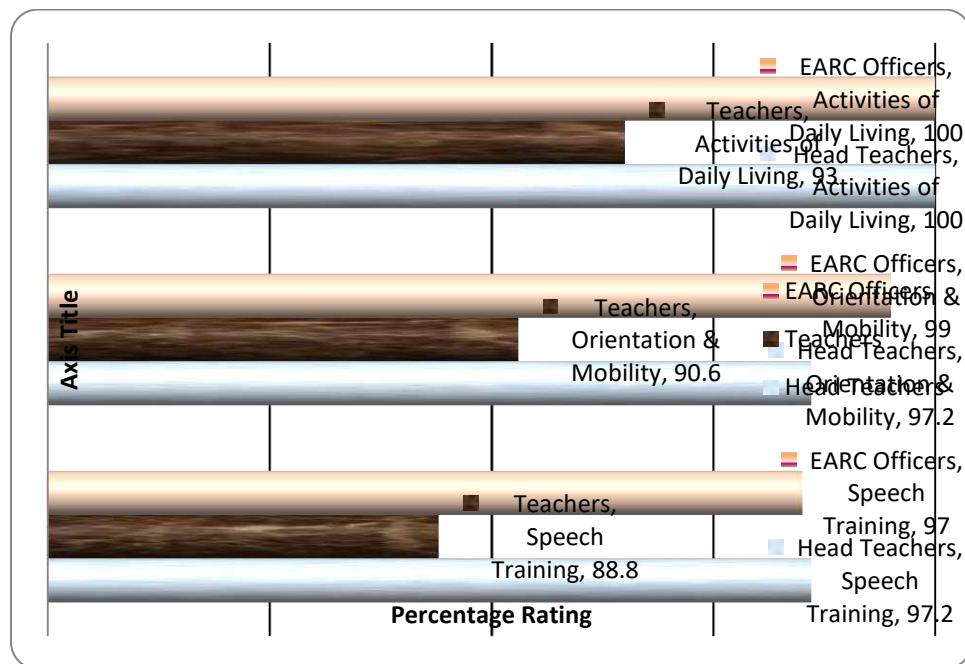
This implies that the curriculum implementers highly support the inclusion of the home science subjects in the envisaged curriculum. These high ratings may be attributed to the fact that these subjects are very important since they define the wellness of the individual as he/she interacts with their environment on a day to day basis.

Parents underscored the use of computers by learners with hearing impairment to make communication easier. They indicated the need for pupils to acquire skills in farming, rearing animals and carpentry for survival even if they don't continue with education. Learners who are deaf also need to learn sign language so that they can communicate well and be equipped with self-care skills so that they can take care of themselves.

#### **4.2.9: The extent to which other Special Needs Areas should be emphasized in the school curriculum**

The heads of schools, teachers and EARC officers rated the extent to which other special needs areas should be emphasized in the school curriculum.

**Figure 4.13: Heads of SNE Institutions, Teachers and EARC Officers Mean Percentage Responses on the extent to which other Special Needs Areas should be emphasized in the school curriculum**



EARC officers and head teachers highly rated the Inclusion of activities of daily living as a learning area in the envisaged curriculum the EARC officers at 100% followed by teachers at 93%. The EARC officers also rated orientation, mobility and speech training at 99% and 97% respectively. Overall, these respective learning areas were considered critical for learners with special needs, hence should be envisaged into the school curriculum.

The learner is suggested that they should learn computer skills to boast their mobility and understanding.

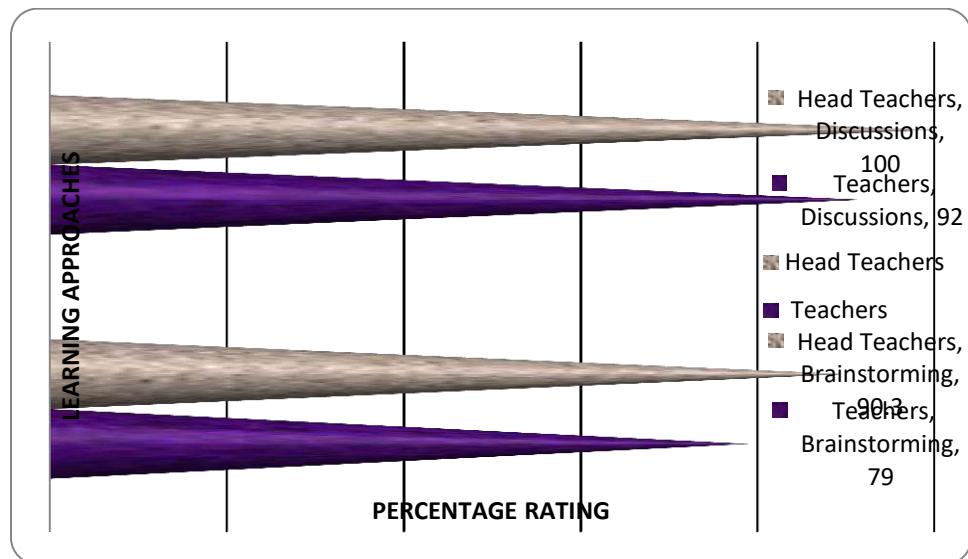
When we talk about computer, teachers should bring them to class room o that students can see them and able to sit and have hands on be able to switch them on so that they learn bit by bit, learn how to type too. The teachers must explain to us how we should learn these computer skills. It should not just like playing with buttons all the time, but we want to learn so that in the future we have all this computer skills so that in the future we are computer literate. (**PP KIB P KIL**)

### **4.3. Learning approaches**

The curriculum reform should align the intended curriculum with the constitution of Kenya. Section 54 of the Constitution of Kenya requires that people with disability have the right to access educational institutions and facilities for persons with disabilities that are integrated into society to the extent compatible with the interests of the person. To align the curriculum to this dictate of the Kenyan constitution, survey deliberately sampled some special needs schools and sought opinions on various aspects including that of learning approaches. Data was collected from both primary and secondary school special schools. A total of 164 SNE primary school teachers and 20 SNE primary school head teachers were involved in this survey.

Head teachers and teachers from SNE primary schools as well as EARC officers were required to give their responses in regard to the extent to which learning Approaches should be emphasized in the curriculum. The learning approaches were classified into five categories, namely; 21st century teaching strategies, Practical methods of teaching, Learner activity based strategies, Experiential learning strategies and lecture methods.

**Figure 4.14: 21st century teaching strategies**



**Figure 4.14** shows head teachers and teacher's discussion approach and brainstorming are relatively highly rated though for primary school SNE teachers the rating is lower at 79.00%. The sampled primary school SNE teachers indicated that the discussion method should be used more than brainstorming when delivering the curriculum of the special needs learners. For the primary school head teachers, brainstorming and discussion are highly preferred as methods of delivering SNE curriculum. Both methods are fit for use in the competence based curriculum going by the high ratings indicated by the respondents.

The respondents expressed the view that Learner centred approaches should be emphasized. Learning should be practical oriented with only 30% of theoretical learning. ICT should be included in learning at all levels.

**R:** Learner centred approaches should be adopted with practical skills 70% and theory 30%. Inclusion of ICTs in learning across the board is crucial. (JWM-IS)

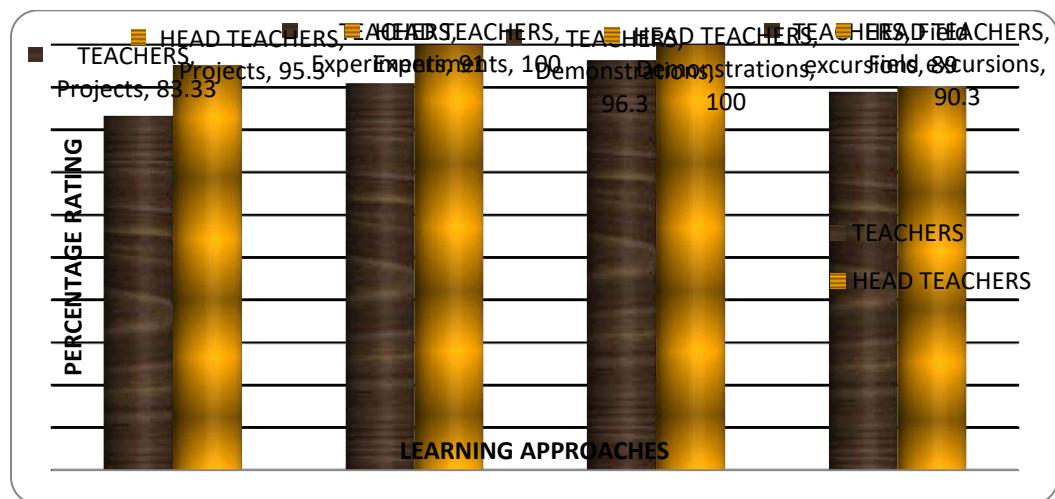
#### **4.3.1 Adapted instructions**

The respondents expressed the need to adapt instructional methods to suit different learners with disability. They underscored the use of assistive technology by learners with special needs to enhance digital literacy.

#### **4.3.2 Practical methods of teaching**

SNE teachers and head teachers responded to a set of items in a questionnaire regarding the extent to which they would want to use practical based methods for learning purposes. Their responses were analyzed and presented in table...

**Figure 4.15: SNE Primary head teachers, teachers and EARC officers responses on the extent to which practical methods of teaching should be emphasized into the curriculum**



Primary school SNE teachers rated use of experiments and demonstrations relatively high at 91.00% and 96.33% respectively as approaches to be used while delivering the adapted primary school SNE curriculum. The head teachers also gave these two approaches very high ratings as compared to projects and field excursions. Learners with special needs should be presented with learning opportunities which are multi-facet so as to complement the senses which might

be affected by their disability. Use of demonstrations and experiments might be appropriate for them given that they involve most of the learners' senses including the auditory, sight, smell and tactile.

The respondents expressed the view that Learner centred approaches should be emphasized. There was a consensus between the primary teachers, head teachers and EARC officers and other respondents who suggested that practical and technology based learning be encouraged to enhance learning and nurture talents.

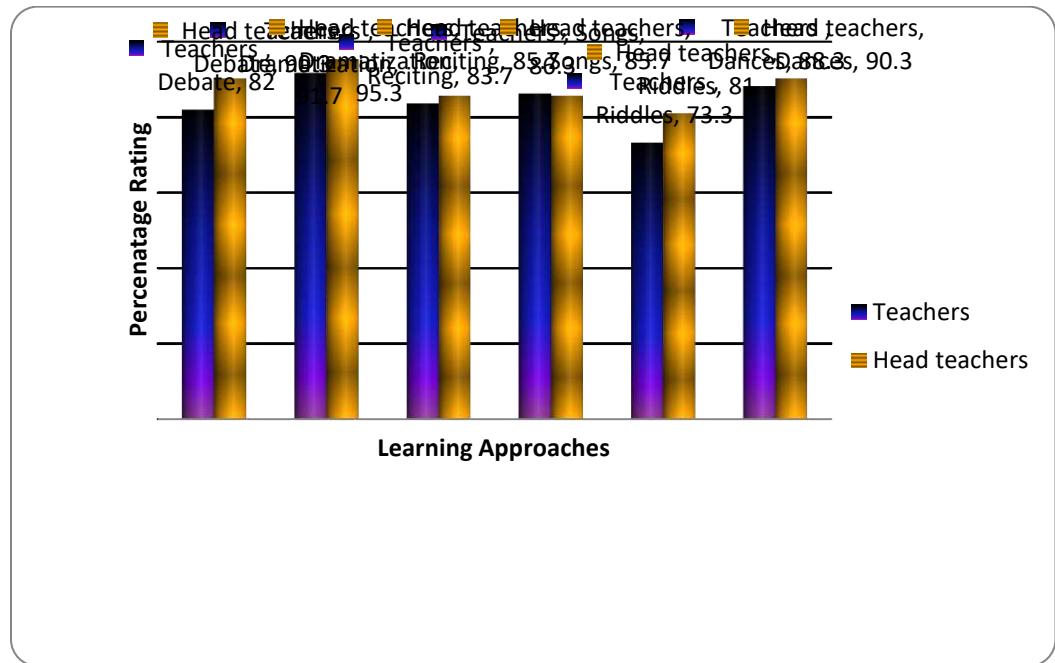
**Respondent:** ... giving them more practical lessons, apart from theory ...and also if they improve technology so that those children...technology I think will also help them develop their talent in more efficient (**CARW-INF-UG**).

**Respondent:** Vile vile hata waleo huwa najaribu kitu lakini ingekuwawakatiuletunaifanya practical ingekuwamzurizaidi. Kwa vile ingesaidia yule mtotokwa vile hiyokituingekuwakwa kichwayangu.

(If those days we had done practicals, it would have been good since it would have helped a learner as the skills would have been learnt very well.) (**BUT-INF-KAL**).

#### **4.3.3 SNE primary teachers and head teachers' responses on the extent to which various learner activity based strategies should be used in delivering the SNE primary school curriculum**

**Figure 4. 16: Shows learning approaches on Learner activity based strategies**



In this cluster of learning approaches, primary school teachers preferred dramatization more as opposed to the other approaches. The heads also rated highly dramatization at 95.3%, followed by debate and dances rated at bar at 90.3% respectively. Both teachers and head teachers rated least riddles at 81% and 73.3%.

The head teachers' and teachers findings were echoed by other respondents who proposed use of learner centered approaches for teaching as they liberate the learner. They posited that good approaches are those that encourage creativity and are interactive in nature.

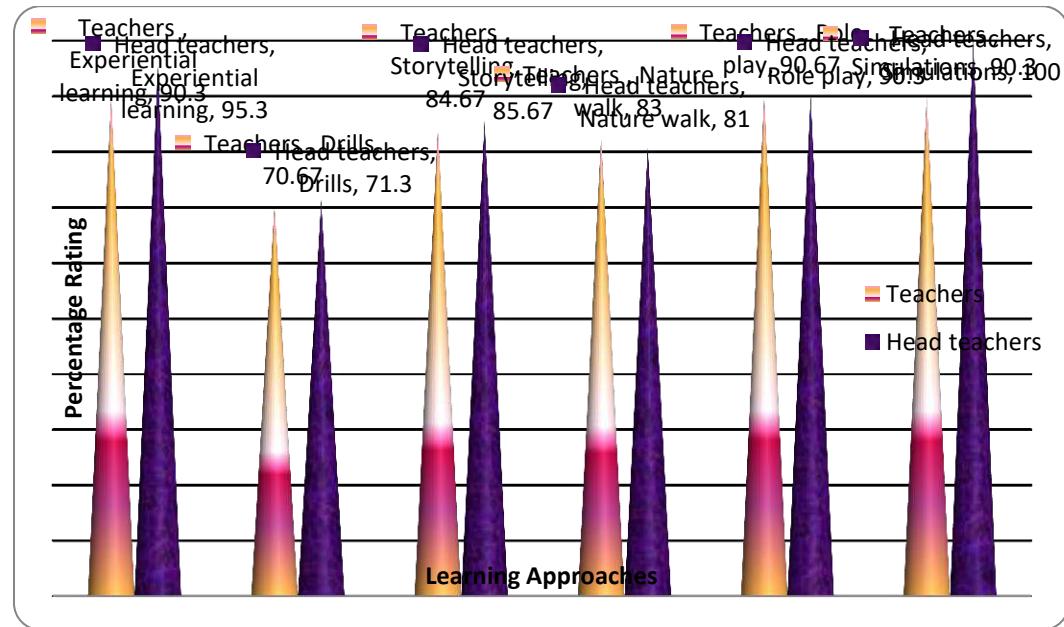
**KI:**I would give a very broad answer and say anything that liberates the learner ..... Approaches that are discursive, dialogic, anything that is interactive, where there is actual interaction not you know for most of our teachers interaction is something like ask a question and the student answers. There is no interaction there..... It calls for creativity on the part of the teacher and it calls for

inventiveness..... Then they also need capacity to some kind of reflexivity (**CEB – DR. CHARLES NYANDIGIRISI - NYAMIRA**)

**KI:** Encourage creativity and activities that they perform. Allow them to participate where they want to. The moment creativity is encouraged in children am telling you they would come with different ideas that you didn't imagine they have at the back of their mind. (**KI-CEB-MIG**).

#### 4.3.4: Experiential learning strategies

**Figure 4.17: Primary school SNE teachers and heads responded to a set of items in a questionnaire regarding the extent to which they would want to use experiential learning approaches of teaching**



SNE primary school teachers gave simulations and experiential learning the same rating of 90.3%. For this category of teachers, role play has the highest rating at 90.67%. It is also evident that use of simulations was highly preferred by the primary school SNE heads with a rating of 100% followed by experiential learning at 95.3%.

Regarding experiential approaches of learning the other respondents suggested that group activities performed at school can help a teacher to group or regroup children according to their talents. This however happens in a conducive environment where the teacher is cordial to them. A hostile environment inhibits children and this makes it difficult for the teacher to understand the learners.

**KI:** But if they are given the freedom for creativity when it is time for example P.E. and there is something you want to gauge give them the freedom, it will come up. Teachers should be in a position to be able to know when to do so that they can gauge well. (**KI-CEB-MIG**).

The respondents proposed diversified way of learning such as peer learning, modeling, use of pictures, role play, demonstrations, debates, projects, field work and practical system to be in schools as some of pedagogical approaches to be used and strengthened at this level

**Industrialist...**more of a practical kind of environment for learning and a diversified way of learning is needed... that's what is lacking currently... identify who is interested in what at an early stage and then help them further thus helping us to explore the potential of the learners in that particular direction. (**MAN-IND-KAK**)

The key informants expressed the need for teachers to be more professional and up to date with current information and make learning fun and learner centered.

**KI...** Lets talk about classroom environment, the teacher is supposed to enter in classroom, I think the structure is very clear, using that scheme of work, lesson plans, but the problem is how to deliver, on structured lessons, and here it comes about because most of the time if the teacher doesn't have the objective to deliver he may not know what is not getting out on the lesson, so the approach should be they normally call it, it can be participatory within the content, where the teachers know what the students have not learnt from the previous lesson, it has to be more of the children enquiring from the teacher, than the teacher enquiring but how does the child enquire if you don't give them the task, and you just talk (**KI-UNESCO-NAI**)

A number of respondents proposed additional pedagogical approaches such as peer learning, demonstrations, modeling, exploratory/discovery methods, Field Studies, songs, dance, recitals Participatory learning and learning through role

play. They however cautioned that children enjoy learning through play and therefore teachers should limit the use of the lecture method.

**KI** :Respondent: Letting children do things their own, I mean like research one I talked about and letting children go and research in their own like get a manila paper go and draw a plant involving children not just from the teacher involving the children (**KI HET NAI**).

**KI:** even within the country for our students and pupils to see for example what is happening at Webuye paper mill, people from Mandera coming to Sony sugar so that they see that the sugar we take can also be made locally from our place and that in itself would even make them embrace Agriculture as a subject. They'd see the value that Agriculture adds to education (**KI-CEB-MIG**).

**KI:** making the children do something and taking them out for field studies and all that, going to this place called arboretum during science lesson I take my kids to arboretum I can tell them look at insects so that when I come to class instead of talking about an insect and a child is getting what insect is they can say this is a grasshopper, it has wings, it has six legs. Children look seeing, when they see they remember (**KI-HET-NAI**).

KI... .We want education that allow students to participate, more students participatory and one of our approach...is lesson plan that student centered, you prepare a lesson plan oriented and they participate more, rather than rushing, lets not just rush to do that but I think how much skills have they developed that every time, every topic we want to develop, and we will be keen in what they have achieved..(KI-CEMASTEA-NAI)

KI .. Student centred approach for ownership and gender responsive approaches are important. Ways such as drama to be used, talking walls, notice boards and trees. Practices in using local environment materials and resources should be considered. Use of songs and play. Use of approaches equivalent to Nyumba KUMI initiative. The textbooks should encourage both gender (pedagogy should be gender sensitive). (KI-FAWE-NAI)

**KI**-The children in their early stages of life should use role plays, songs dance and recitals. (**Ki-NCC-NAI**)

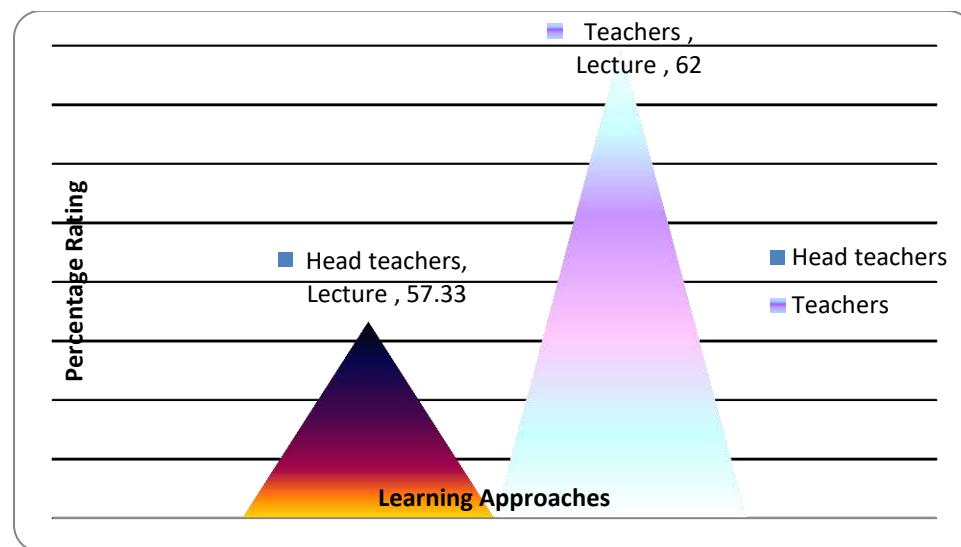
**KI:**Look at our school, the dilapidated broken down, with no play areas and yet children learn more through playing. Look at me playing this is a dice and believe me this is just to teach a bible verse. Why we gonaplayin class what does a child forget that am in class ...time. They will learn so much more from that life as opposed to me standing there and telling them the bible says, you understand?? (**KI CITAM NRB**)

**KI:**Groups work better when students are at school. But individually, homework or takeaway homework will work better. . (**KI-CEB-MIG**).

**KI:**The method of grouping the most bright together and the moderate together would not be the best in class. The best method to teach would be mixing the students in class. Of course. You as a teacher you know Okel is brighter or is the most slow learner. The best is to go and put her/him next to the most bright one so that that one can also assist in their discussion maybe in their home work. . (**KI-CEB-MIG**).

#### 4.3.5 Responses from SNE head teachers and teachers on lecture method.

Figure 4. 18: Responses from SNE head teachers and teachers on lecture



This method was rated relatively low by all respondents at 57.33% and 62% respectively. This implies that this method should be used on very rare occasions while delivering the adapted SNE curriculum.

#### 4.3.6: Use of Individualized Education Program (IEP) and thematic approach

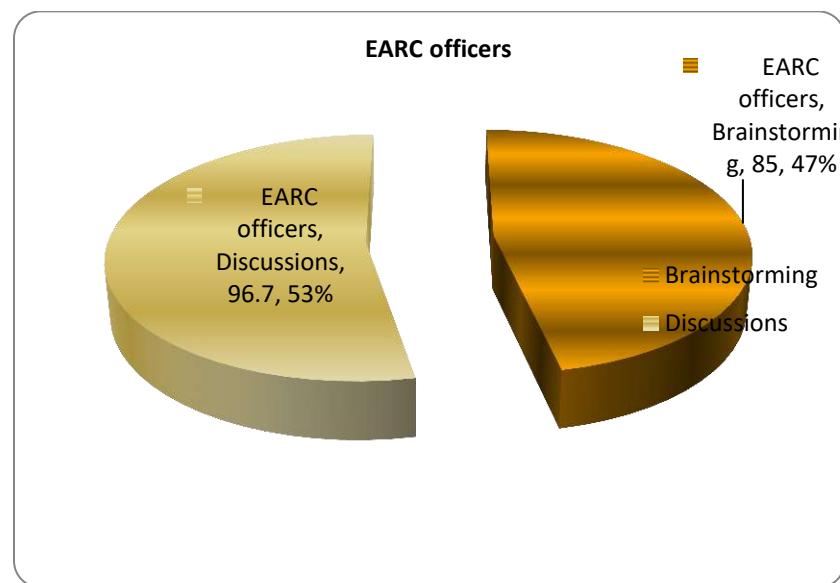
In this approach, the teacher develops a program for the individual learner. The teacher also develops a broad objective of the program, identifies the strengths of the child and the weaknesses. The program focuses on dealing with the weaknesses of the learner. Ratings of the extent of use of IEP for SNE primary and SNE primary heads were relatively high. SNE primary school teachers rated

it at 95.00% and the heads rated it at 95.33%. Primary school teachers rated the use of thematic approach at 85.00% while their heads rated it at 95.33%.

#### **4.3.6.1: Analysis of EARC officers' responses on learning approaches**

EARC officers were required to give their responses in regard to the extent to which learning approaches should be emphasized in the curriculum. They were asked to indicate the extent to which the identified competence should be emphasized in the school curriculum using a five-pointer Likert scale. They were required to indicate their choices by selecting 'N=Not at all', 'VL=very little extent', 'NS=Not sure', 'S=some extent' and 'G= Great extent'. The responses on each identified learning approach were presented in Figures and pie charts

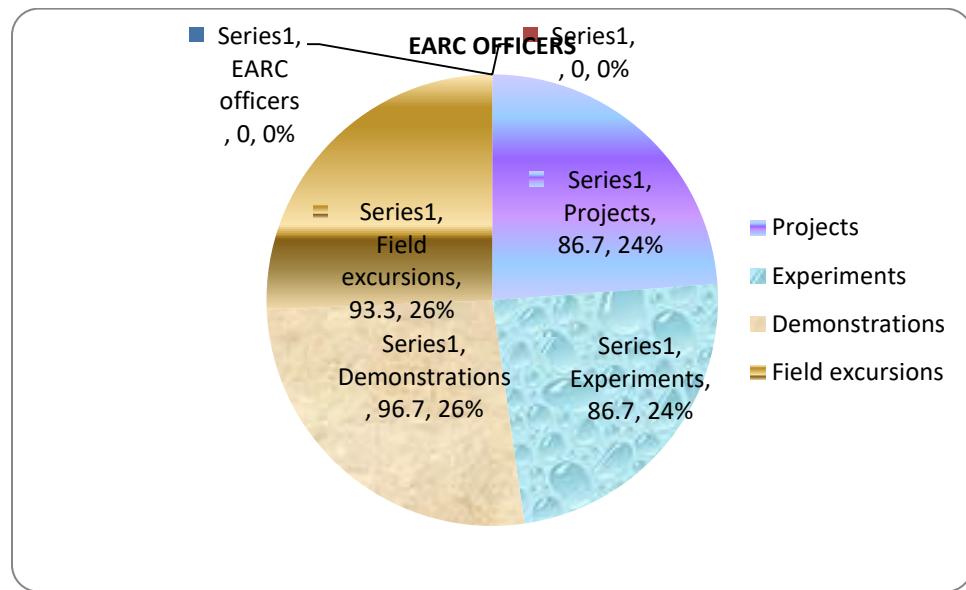
**Figure 4. 19: 21st Century teaching strategies**



From the findings displayed in the two tables, these two methods are highly rated. They should therefore be used while delivering the curriculum.

#### **4.3.6.2 EARC officers' responses on the extent to which various practical based strategies should be used in delivering the curriculum**

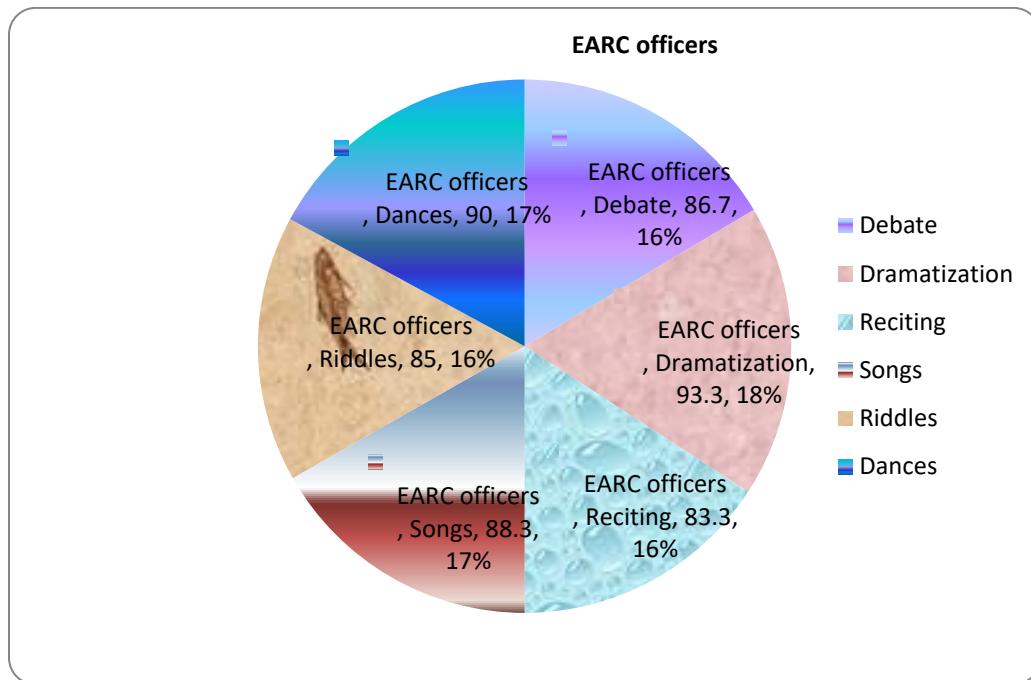
**Figure 4. 20: Practical methods of teaching**



Both EARC officers and CSOs rated demonstrations very highly with a rating of 96.70% and 94.00% respectively while field excursions were rated lowest with 76.60%. Surprisingly, EARC officers rated field excursions the second highest with a percentage rating of 93.30%. Practical approaches at all levels of education should be encouraged for use because they will help learners in attaining the competencies to be stipulated by the competence based curriculum to be designed.

#### **4.3.6.3 EARC officers' responses on the extent to which various learners' activity based strategies should be used in delivering the curriculum**

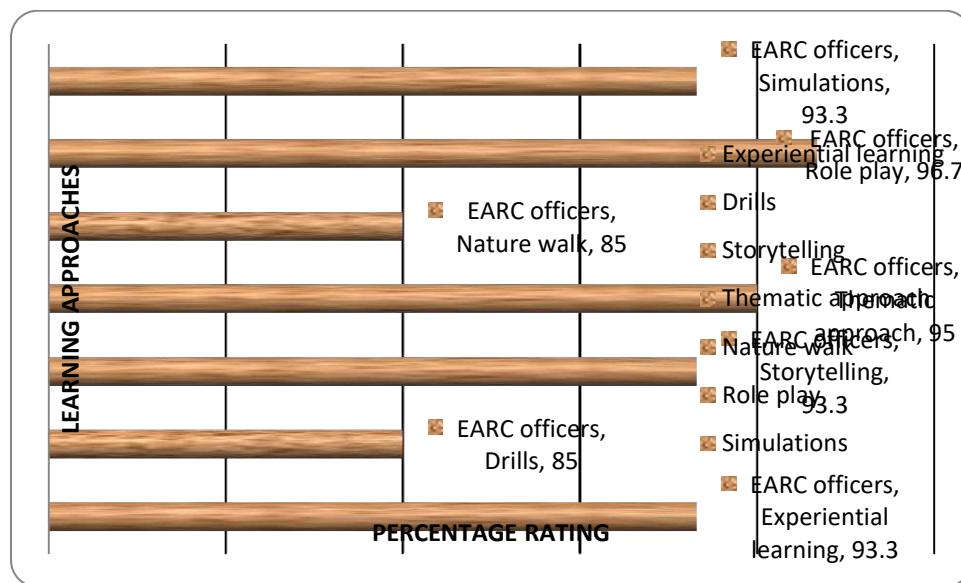
**Figure 4.21: Learners' Activity based strategies**



Learners' activity based methods were comparatively rated higher by EARC officers with an average percentage rating of 87.77% while CSOs preferred the use of this cluster at an average percentage rating of 78.78.

#### **4.3.6.4 EARC officers' responses on the extent to which various experiential learning strategies should be used in delivering the curriculum**

**Figure 4. 22: EARC officers' responses on the extent to which various experiential learning strategies should be used in delivering the curriculum**



Based on the findings in Figure 4.3.5.6 role play was rated highly 96.7% followed by thematic approach 95%, experiential learning, simulations and storytelling all rated at 93.3%.

These learning approaches were highly regarded by learners, parents and key informants especially experiential learning, storytelling and role play. Their inherent benefits in education cannot be over-emphasized. They posited that good approaches are those that encourage creativity and are interactive in nature.

**KI:I** would give a very broad answer and say anything that liberates the learner ..... Approaches that are discussive, dialogic, anything that is interactive, where there is actual interaction not you know for most of our teachers interaction is something like ask a question and the student answers. There is no interaction there..... It calls for creativity on the part of the teacher and it calls for inventiveness..... Then they also need capacity to some kind of reflexivity (**CEB – DR. CHARLES NYANDIGIRISI - NYAMIRA**)

**KI:** Encourage creativity and activities that they perform. Allow them to participate where they want to. The moment creativity is encouraged in children am telling you they would come with different ideas that you didn't imagine they have at the back of their mind. (**KI-CEB-MIG**).

#### **4.3.7 Lecture method**

This method was rated by curriculum support officers and EARC officers at 67.60% and 58.30% respectively. This implies that these two methods should be used sparingly while delivering the curriculum.

#### **4.3.8 IEP approach**

The EARC officers rated this learning approach at 93.30%. It is a good idea to offer individualized attention to learners given that learners are of different abilities and as such, they need individualized attention.

### **4.4 Assessments**

The respondents advocated for comprehensive functional assessment in both health and educational assessments at an early stage so as to ascertain type and severity of disability for proper placement and intervention. To this end, Educational Assessment and Resource Centres (EARCs) are crucial if education for all is to be achieved. They suggested that assessment should be done by a multi-disciplinary team and the officers involved should be trained in special needs education.

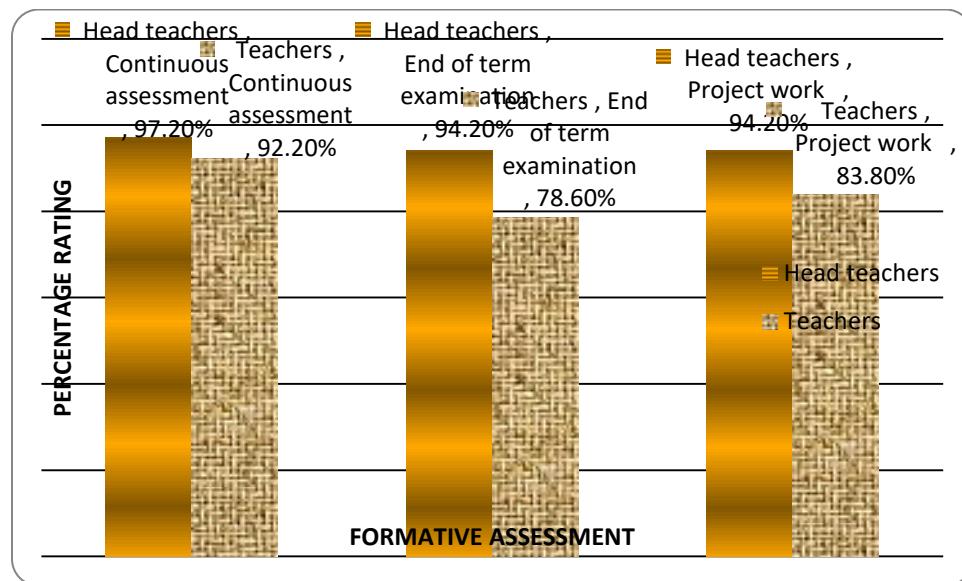
Respondent: Suggestion matrix for addressing adaptation of the curriculum for learners with special needs and modes of assessment suitable for various categories of learners with special needs with regard to Special Needs Education in the curriculum reforms. (**LCD-EO**). See appendix: **LCD-EO**

**R:** On assessment, EARC officers should improve on the following; teachers posted there should be fully trained; there should be necessary facilities; multidisciplinary team needs to be practically facilitated. (**MA-IS**)

**R:** There should be regular, accurate and comprehensive assessments of students with ASD since it is the foundation for effective programs services and professional development. (**MA-IS**)

#### **4.4.1 SNE Primary Head Teachers' and teachers responses on the extent to which Formative of assessment contribute to effective measurement of learners' achievements at Primary level**

**Figure 4.23: Shows responses on Formative Assessment**



A close examination of the responses posted by the SNE Head teachers reveals a high preference for formative rather than summative mode of assessment. Formative assessment received a rating of 95.7% while summative was the least preferred receiving a rating of 89.25%. Continuous assessment was rated highest at 97.2% compared to other forms of assessment. National examination was least preferred and was rated at 80.0 %.

Parents suggested that learners should be assessed continuously during the learning process and records kept to constitute the final grade instead of using summative evaluation. Vocational skills should also be assessed through project work. They

were strongly opposed to KCPE being the sole determinant of promotion of learners to secondary schools. They suggested that continuous assessment marks should constitute the biggest percentage of the marks attained at the end of every level.

**PA:** The internal examinations which include attendance, participation, CATS should contribute to 50% and 50% be left for final national examinations. (**PA ST, ANT P BUN**)

**PA:** In terms of evaluation, when we are evaluating, probably it is up to the method. Evaluation through examination is okay but probably the difference is how it is done because you see now its like you know ukiingia standard one, you will do an exam in standard eight. It is like that is what is determining kuenda form one, you will find that there is a lot of pressure that is put on and geared towards examination that's why there is a lot of cheating because it is like if you failed that one, it is like you have lost in life because the way we assess, we normally put a limit tunasema tunaevaluate october. Suppose it is put in a way that evolution is a kind of continuous or regular such that you are able to monitor the child throughout. Because unaeza queue number one through out, but ikiku final exam, imagine ukigonjeka because you can get sick, you imagine you are been assessed for only that one week, kama ni standard eight ni siku tatu. The eight years you have been in school has been reduced to only three days and those three days you can be feeling not very well then you are condemned. Na ungechukua uone vile huyu mtoto alipata kutoka standard one, two, three uone vile evaluation yote, that is a child unaeza sema aingie form one straight ata bila kufanya huo mtihani because you have already assesed the child. Probably we need to see how we look at it tuje kama tutanza na kuassess either wakiwa standard six upto eight ama seven to eight, yaani we need a bigger period to really assess and say this child amaa ni A student ama ni B student. (**P-FGD-OLK-SNE-NYAH**)

#### **4.4.2 Additional ways for assessing SNE learners**

The respondents suggested that assessment should be adapted to suit the needs of learners with special needs. There is also need to develop different ways of assessing those who are gifted and talented.

To prepare special examinations for special students since even these children are special since they cannot do normal work. Mainly concerning daily living. (**PA-FGD-OLK-SNE-NYAH**)

The learners expressed the view that they needed more time during examinations because some of the concepts in subjects like science were difficult.

More time for exams so that: Some words in science are hard to understand (**PP ST.ANT P BUN**)

More time allocated (extra time) because some people write slowly those with PH may spend a lot of time trying to sit upright. (**PA-KAJB-SNE-KAJ**)

#### ***Assessment by observation***

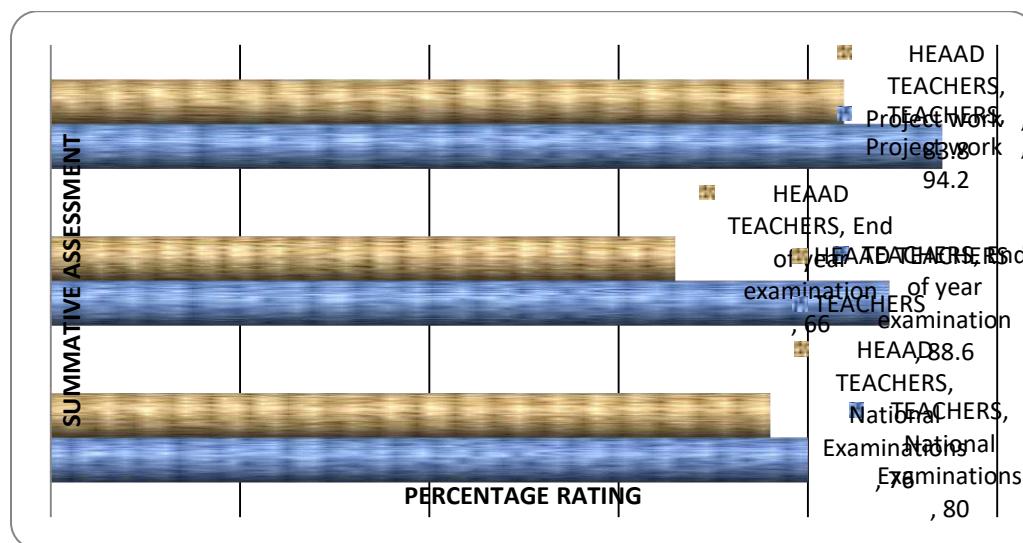
The parents suggested that learners with special needs can be assessed through observation of behavior especially on the way they interact with others and their reaction in the class room

From, we give them, there are times we collect them in halls and we see how a child interact with others at a moment he or she has stayed in school and we compare the period child came from home. We see if there is different position of a child, for a child who has stayed in school I think this one is different. Like a child within the school if compare the child from outside that gap is very big. When you take a child from here now with little knowledge he or she got from here. Let say a student here usually participate in music festival, in drama and such like things. When you sit and see this kind of a child participating in such activity you may not believe such a child. Class work can be assessed like the way you are here now. You go sit with them in a class the teacher is there and just see reaction of child and a teacher. This will show these students understand the teachers or not [**PA NYAN PHB**].

#### **4.4.3 SNE Head Primary Teachers and teachers on Summative Evaluation**

SNE primary Teachers were purposely sampled from the entire country and a questionnaire on assessment modes in the country administered to them. The responses were collected using a five- point Likert Scale. The different forms of assessment were clustered into formative and summative and composite means for each of them calculated. The findings were presented as in the table below:

**Figure 4.24: SNE Teachers' responses on the extent to which summative assessment contribute to effective measurement of learners' achievements at SNE Primary level.**



From the responses of SNE teachers, there is preference for formative assessment 88% as compared summative assessment 76.1%. Continuous assessment was rated highest at 92.2% followed by project work at 83.8% and end of term examination. A national examination was the least preferred form of assessment receiving a rating of 66.00%.

These were inconsistent with parents and most key informants who were strongly opposed to KCPE being the sole determinant of promotion of learners to secondary schools. They noted that KCPE put a lot of pressure on the learners which results to examination cheating. Learners also indicated that they feared KCPE.

**PA:** In terms of evaluaton, when we are evaluating, probably it is upto the method. Evaluation through examination is okay but probably the difference is how it is done because you see now its like you know ukiingia standard one, you will do an exam in standard eight. It is like that is what is deetermining kuenda form one, you will find that there is a lot of pressure that is put on and geared towards examination thats why there is a lot of cheating because it is like if you failed that one, it is like you have lost in life because

the way we assess, we normally put a limit tunasema tunaevaluate october. Suppose it is put in a way that evaluation is a kind of continuous or regular such that you are able to monitor the child through out. Because unaeza kuwa number one through out but ikikuja final exam, imagine ukigonjeka because you can get sick, you imagine you are been assessed for only that one week, kama ni standard eight ni siku tatu. The eight years you have been in school has been reduced to only three days and those three days you can be feeling not very well then you are condemned. Na ungechukua uone vile huyu mtoto alipata kutoka standard one, two, three uone vile evaluation yote, that is a child unaeza sema aingie form one straight ata bila kufanya huo mtihani because you have already assesed the child. Probably we need to see how we look at it tujuje kama tutanza na kuassess either wakiwa standard six upto eight ama seven to eight, yaani we need a bigger period to really assess and say this child amaa ni A student ama ni B student. (P-FGD-OLK-SNE-NYAH)

#### **4.5 Nurturing the learners potential and talents**

**Table 4.2 : Responses by SNE head teachers, teachers and EARC officers Nurturing the Potential and Talents of Learners**

	Head teachers	Teachers	EARC
Special schools for gifted and talented	93.7	100	91.0
Special need classes	93.0	100	87
Games and sports	98.7	100	97.0
Early admissions	86.1	91.4	
Curriculum enrichment	94.3	100	98.0
Cooperative learning, competition among schools and academic conferences	89.4	97.2	85.3
Clubs societies	94.7	97.2	91.0
Accelerated learning and advanced placement	86.5	88.6	82.0
Ability grouping and mentorship programs	95.1	97.2	90.5

Table 4.2 shows that SNE Teachers and head teachers preferred to a great extent the following strategies for tapping the potential and talents of learners. This is evidenced by their responses as follows; games and sports (98.7%), ability grouping and mentorship programs (95.1%), clubs and societies (94.3%), curriculum enrichment (94.3%), special schools for gifted and talented (93.7%) and special needs classes (93.0%).

Cooperative learning, competition among schools and academic conferences (89.4%), accelerated learning and advanced placement (86.5%) and early admission to schools (86.1%) were also preferred to some extent.

The strategies which should feature prominently according to EARC officers were curriculum enrichment (98.0%), games and sports (97.0%), clubs and societies(91.0%), special schools for gifted and talented (91%) and ability grouping and mentorship programs at 90%. The following attributes were also fairly rated by the respondents as follows; early admission to schools at 89.0%, special needs classes 87.0%, cooperative learning, competition among schools and academic conferences (85.3%) and accelerated learning and advanced placement (82%).

This in tandem with observations made by other respondents with regard to nurturing talents among SNE learners were consistent with the teachers, head teachers and EARC officers in various aspects as presented below.

The parents suggested the establishment of vocational wing for teaching subject such as tailoring, computer, farming, cooking and cleaning especially for learners who may not pursue academic subjects. Such skills would enable learners to survive in life after school. They also emphasized the importance of learning practical skills such as art and craft, home science, carpentry, tailoring and agriculture which would enable individuals with disability get self-employment and earn a living. Parents further expressed the need to re-introduce technical institution, establish vocational centres for learners with special needs who may not proceed to secondary school and build talent schools for those who talents.

They are some few that being handicapped may not enable them to study may be so fast academically and they may be involved in such areas of interest. To me I may request the

government to support these people by creating a school like these with vocational department such as that if a child is not fit academically to continue my involve in vocational skills such that if he leaves a place like this with a profession at least this may involve tailoring, computer work **{PA NYAN PHB}**

Vocational skills should be given a lot of emphasis as means of nurturing talents and empowering learners who may not be gifted academically **(PA ST.ANT P BUN)**

PA: Second respondent: Kwa mfano haya masomo tulikuwa tunasoma ya home science, wajua mtu akiwa amesoma home science class four, five, six, seven, eight ata akiwa na shida fulani..ata ile ingine ya art and craft, they used to give us skills juu kama wengine wansasoma class four to eight, badala ya kuenda form one anaanza kujitegemea ye ye mwenyewe. Amepata hizo skills unapata wengine ni carpenters, masons hizo alizitumia akiwa primary wengine wamekuwa musicians. **(PA- FGD-JOY-SNE-KBU)**

I would wish them to be taught anything that involves use of hands. Sometimes children fear work that involves use of hands. You can start with a child when they are still very young. This should be done jointly by the staff in school and parents at home. We should teach them cookery, farming, cleaning. These will make them leave school when they are used to such activities **{PA NYAN P HB}**

Vocational skills should be given a lot of emphasis as means of nurturing talents and empowering learners who may not be gifted academically **(PA ST.ANT P BUN)**

They are some few that being handicapped may not enable them to study may be so fast academically and they may be involved in such areas of interest. To me I may request the government to support these people by creating a school like these with vocational department such as that if a child is not fit academically to continue my involve in vocational skills such that if he leaves a place like this with a profession at least this may involve tailoring, computer work **{PA NYAN PHB}**

Technical secondary schools should be re-introduced and vocational centre for learners with mental handicapped. Institutions that nurture talents should be established and children to be placed according to their talents and potentials **(PA - FGD-NGARI- LAI)**

#### **4.5.1 Talents identification and Development**

Parents and key made suggestions on how talents among learners can be identified, through dancing, singing, playing musical instruments, and reciting poems during competitions and choir practice. Similarly learners pointed out that they possessed talents in singing, drumming, riding, racing, art, sports athletics and dancing which are identified by their teachers during practice and when carrying out various activities.

There are those who can sing and dance also who know how to talk and when you give them poems, they are very good in reciting, so it is good also to note such kind of

children so that we can give them support. And others in acting, you find that he/ she is very good in acting, even if they are unable to speak, they can act it out using signs. (**PA - FGD-LI- LAI**)

P: Teacher tell us to do drumming, riding, racing, singing, making arts dancing. (**P- FGD-OLK-SNE-NYAH**)

#### **4.5.2 How to nurture talents**

Parents pointed out that learner with special needs were talented in different ways and their talents could be identified and nurtured by teachers who are specially trained. They suggested the need to train teachers in talent development and have talent lessons put in the timetable to be learned like other subjects. They noted that talents can also be identified and nurtured in carrier subjects such as physical education, creative arts, performing arts and also through talent search and by participating in music and drama. They were of the opinion that the government should introduce a department for talent search.

Learners on the other hand felt that the government should grant them opportunities to go to other countries in order to develop their talents. They also indicated that role models should be used to train and motivate those talented in different fields. they suggested that talents can be nurtured by availing enough time to practice and rewarding those who do well to motivate them.

The first thing is releasing the child to play with the rest because when the child is alone by him/herself, you cannot notice the talents. But when they are together with the rest in the field, you can notice that your child has some interest in playing with the ball and when you discover that the child has that talent, then you can look for help such a child and especially those who are in the institute, it is easy to note and develop the talent in them because the teachers are there to help them by like taking them for games and you find that the child will shine more on the area of is talent (**PA - FGD-LI- LAI**)

**Informant:** ways of identifying talents include through primary school-teachers; parents to look out for talents in children; churches; talent searches and events such as music and drama. The Ministry of Education should create a department to search for talented children and other individuals. (**JWM-IS**)

If you have skills in football, government should pick you and take you to other countries.  
**(S-SNE MAC)**

The society should also be involved in the education process, the government can get role models to visit schools and inspire students. For example, singers can inspire those talented in singing, hence helping them to further their talents. Tell them what they are supposed to do. **(S-FGD-AQUI-SNE-KIT)**

When students are being given gifts they can also be given gifts to be appreciated or rewarded **(P- FGD-YAMB-SNE-HOM)**

PA: Prepare teachers on teaching, training colleges how to identify these talents and develop them. Also talent to be taken like a subject, therefore it will be put in the timetable  
**(PA-FGD-OLK-SNE-NYAH)**

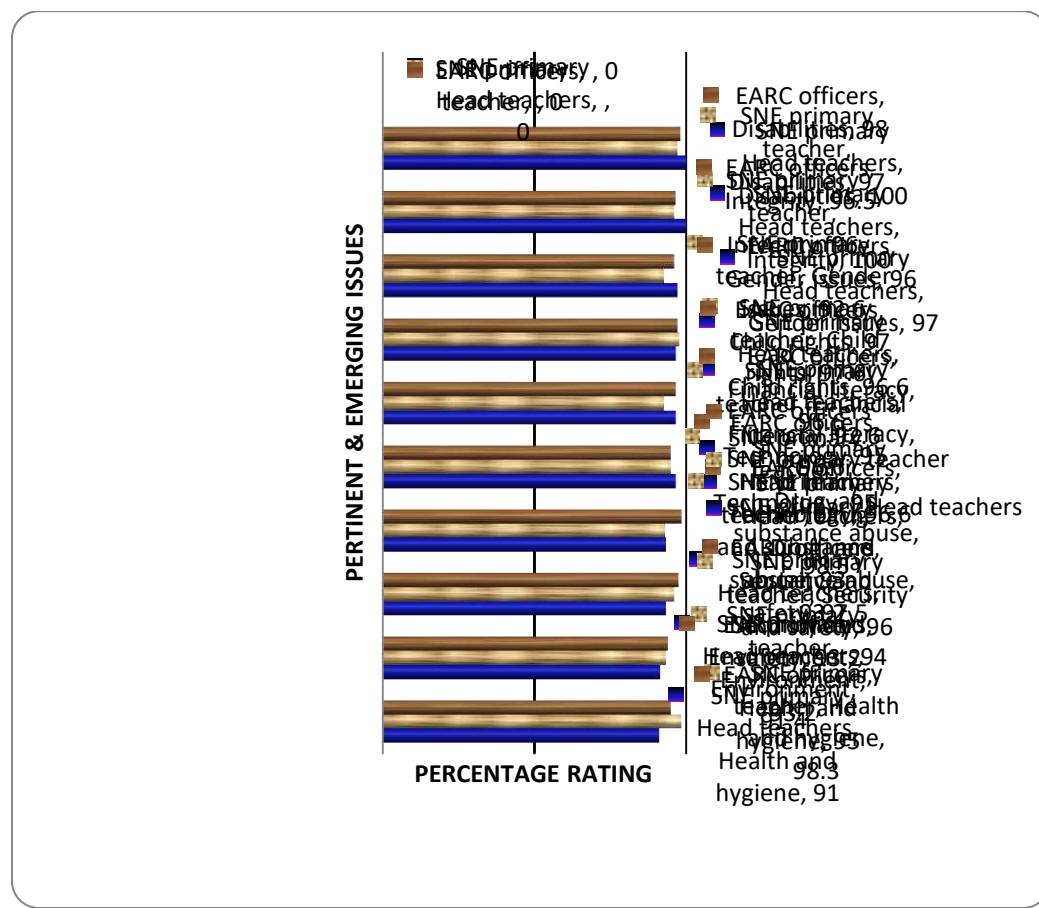
The Kenya Vision 2030 is the country's long -term development blueprint. It aims to create a globally competitive and prosperous country with a high quality of life for all its citizens. The blueprint aspires to transform Kenya into a newly industrializing middle income country by 2030. It supports the development of key training programs to support quantity and quality of talents needed in the key sectors of the economy. This implies, nurturing the potential and talents should be given more weighting in the envisaged new curriculum.

#### **4.6 Pertinent and emerging Issues**

Cross cutting issues are matters that touch a number of different aspects of the society, on general principles such as democracy, human rights, good governance, children's rights, gender equality, population and family life education, poverty alleviation, environment and development, to mention but a few. Crosscutting issues are commonly defined as topics which, by their very nature, have a strong impact on all operations in a given field and, therefore, must receive special attention hence their inclusion in the intended new curriculum. These issues cut across all the levels of education hence they need a lot emphasizes in the future curriculum.

#### 4.6.1 SNE Primary Head teachers, teachers' and EARC officers responses to cross-cutting issues that should be addressed in the curriculum

Figure 4.25: SNE Primary Head teachers, teachers' and EARC officers responses to cross-cutting issues that should be addressed in the curriculum



Over 95 % of teachers of Special Needs Education (SNE) in primary school level affirmed the need to have cross-cutting issues addressed by the curriculum. For individual cross cutting issues to be included in the curriculum, the responses were as follows; integrity at 96% ,drug and substance abuse at 93% ,financial literacy at 92.6% ,security and safety at 96% ,gender issues at 92,6% ,health

education which includes other aspects such as HIV/AIDS, sexuality education, hygiene at 91% ,technology at 95% ,environment which includes climate change at 93.2% ,child rights at 97.6% and disabilities at 97.8% .

Over 95.2% of Head teachers of Special Needs Education (SNE) at primary school level affirmed the need to have cross-cutting issues addressed by the curriculum. For individual cross cutting issues to be included in the curriculum, the responses were as follows; integrity at 100% ,drug and substance abuse at 93.2% ,financial literacy at 96.6% ,security and safety at 93.2% ,gender issues at 97.2% ,health education which includes other aspects such as HIV/AIDS, sexuality education, hygiene at 98.3% ,technology at 95% ,environment which includes climate change at 91.4% ,child rights at 96.6% disabilities at 100%.

#### **4.6.2 Responses by EARC officers on pertinent and emerging Issues with regard to SNE primary learners**

The Education Assessment Resource Centre (EARC) officers are responsible for identifying learners with special needs within their environment. Over 96.4% of EARC officers affirmed the need to have cross-cutting issues addressed by the curriculum. For individual cross cutting issues to be included in the curriculum, the responses were as follows; integrity (96.5%), drug and substance abuse(98.5%), financial literacy(96.6%), security and safety (97.5%),gender issues(96%), health education which includes other aspects such as HIV/AIDS, sexuality education, hygiene 95%), technology(95%), environment which includes climate change (94%) , child rights(97%) disabilities(98%).

Parents expressed the need to teach learner on the importance of living in a clean environment and the dangers of environmental pollution. They also suggested the need to train learners on environmental conservation by planting trees and flowers.

**PA:** Even like dirt and dust, they should not go throwing dirt everywhere, if it something like a dustbin, they be taught how to use it. (PA-FGD-LIK-LAI)

**PA:** Like taking care of where they live, like for instance, if there are flowers they should be taught not to pick them. They should continue planting and taking care of trees. (PA-FGD-LIK-LAI).**PA:** Children should be taught nature study and environment protection (PA-FGD-NGARI- LAI).

Issues related to security, the parents and key informants suggested that there is need to address the issue of terrorism and train learners on disaster management, safety and security. They indicated that learners with special needs lacked skills to avoid risk situations and therefore they need to be taught such skills.

**PA:** Learners should be taught about terrorism and more about disaster management, to have safety and security (**PA-FGD-NGARI- LAI**)

The challenges of insecurity affect the SNE learners most because they don't learn from the environment and they not trained with skills of identifying risks. (**PA ST.ANT P BUN**).

In line with the teachers and head teachers views the parents, learners and key informants expressed their concern on the use of technology inappropriately among learners and suggested that there is need to teach them how to select useful technology and use it in moderation. The learners expressed concern of the negative use of electronic media especially students accessing pornographic materials.

**PA:** I think we first should teach them how to choose that which will help them. For example if we talk about something like a phone, it has a lot of things. They should be taught on how to select something that can help them and that which does not help.....like a phone has a lot of things that can help you. So I think the first step is to know what is helpful and what is not. And also priorities, at this time, what is helpful to me, what must i need for now and what may I wait. (PA-FGD-LIK-LAI).

#### **4.6.3 Responses of SNE head teachers and teachers on other of pertinent and emerging issues**

These aspects were rated as follows: HIV/AIDS, sexuality education, hygiene at 98.3%, technology at 95%, environment which includes climate change at 91.4%,

child rights at 96.6% disabilities at 100%. These issues were significantly addressed by other respondents as presented below.

The parents, key informants and learners felt that there is need to teach learners about HIV and AIDS and other emerging diseases. Parents and learners expressed the need to carry out awareness campaigns to change the attitude of the parents who hide their children with disabilities and discriminate against them by not taking them to school. They reiterated the need to sensitize members of the community on the need to educate learners with special needs so that they can be self-reliant and thus reduce dependence.

There should also be a campaign because you know there are those who believe that because the child is disabled, they should not spend on them. So they should be taught to change the attitude and know that even the disabled are human beings. The same way they are taking the other children to school, those things that they give to the other children, even this disabled deserves the same. The disabled should also be taken to school and be given their rights just like the rest of the children because there are those who think they are wasting their resources catering for the disabled and hence decide to lock them up. They have such kind of mentality and hence its good for such kind of a parent to be educated on that, maybe that parent can even be brought to place like this institution so they can be shown that there are such kind of children like theirs and they will be helped very much so they stop locking up those children and denying them their social interaction making their brain to be disturbed because their work mainly is to sleep and maybe wake up to eat then sleep again, but you see when they are here, they will be jubilant and happy. So the parents should have that awareness that this child is also a human being and they deserve their own right also like the rest of the children. (**PA - FGD-LI- LAI**)

**PA:** So they can stop being dependent wholly, partly they can be dependent because there are those who cannot manage by themselves. But there are those who can do something little for themselves, so we can reduce the cost of taking care of them, and that can only be possible if we inform them; the guardians and everyone at home. Parents don't know that there is a way they can help their children to be productive and help in the society, so first we have to create awareness. (**PA - FGD-LI- LAI**)

Parents and key informants felt that learners need to be taught sexuality education to enlighten them on changes that occur to their bodies during different stages of development and how to avoid immorality during adolescence and sexual

harassment such as rape. Parents also expressed the need for education to address the issue of hygiene during menstruation. They emphasized the need to teach learners with special needs on how to relate with the opposite sex and how to manage their sexual feeling. Parents also felt that one of things that need to be addressed is sexual abuse by other people especially close family members.

There is this issue to do with morality, like for instance when we talk about sex, we find that the children get to adolescence and there are changes that will occur in their bodies, and these children need to be educated on how to handle the changes. (**PA - FGD-LI-LAI**).

The big boys and girls should be taught about rape. ... First –Sexuality challenges are a calamity and they need to be addressed urgently. The content on sexuality education should be incorporated in all subjects and all teachers take responsibility in teaching...It is important for sexuality information to be taught from standard 4 to eliminate early pregnancy, School dropout and sexual abuse on social media. (**PA ST,ANT P BUN**).

Issues of sex and sexuality, these learners experience desires to those of opposite sex, some of the learners get stimulated and sometimes have problems concentrating. The male children sometimes have to be stopped by the teachers from going overboard. When they are sexually stimulated they tell us their desires to explore their surrounding e.g. the way cows behave when they are on heat. These learners have to be guided and constantly supervised to ensure they conform to acceptable behaviors (**PA KAB-SNE BAR**)

The parents suggested that issues of disability mainstreaming should be included in the curriculum. The learners also indicted the need for all people to learn about disability matters because they felt oppressed by parents who did not understand them. They were also being abused by other people who infected them with STIs and the girls got pregnant:

Parent: Some of their parents oppress them when they realize they do not understand. Their parents do not understand sign language. There is discrimination as their parents take others to school before they think about them. Some girls are used for sex and then they are given the sickness some boys abuse them and they become pregnant. Some are cheated with money. (**PP ST. ANT P BUN**).

The learners expressed the view that most of their parents are poor and therefore they need to be supported to learn and become useful people in future who are able to support others.

Because we shall have learnt because some of the parents are poor and these children will be helped to qualify and move to become good people in the future and help others too so that we start learning year after year until we are able to become positive people and support the government (**PP KIB P KIL**)

Respondents cited social challenges such drunkenness, lack of parental love and care, loss of parents, early pregnancy, drug abuse, discrimination of persons with disability, Lack of basic needs and FGM are some of the contemporary social problems affecting learners in school.

Lack of food, orphans made to leave school, some parents discriminate the disabled children, circumcision of girls and early marriages. (**PA-KAJB-SNE-KAJ**)

The learners expressed concern of the negative use of electronic media and peer pressure as responsible for learners accessing pornographic materials and usually interfered greatly with their education and expressed the need to address it in the curriculum.

The mode of communication is sending sms and internet and some are getting pornography (**S ST. BREG S-SNE BUS**)

I want to add more, I think peer pressure is a great challenge to most students in Kenyans, so I think if the government can find a mechanism of minimizing that peer pressure in schools can actually produce good men and women. (**S-FGD-AQUI-SNE-KIT**)

All the above issues need to be addressed at all levels of the curriculum and are supported by various government and international policy documents. For example issues of security are a thorn in the flesh worldwide especially with the advent of radicalization among the youth. Technology is the way of the future in the global village and that is why it has been emphasized in vision 2030. Health and environment have been given a lot weighting in the social pillar of the vision 2030. It is important to note that some 21<sup>st</sup> cross cutting issues like financial literacy were given some weighting by the secondary teachers. Drug and substance abuse is a very big issue worldwide and the youth need to be informed about the vice to make informed decision. That is why the Government has

formed NACADA to coordinate activities of reducing or eradicating the menace. Corruption is cancer in the Kenyan society and the country is rated very highly. The youth need to be informed about the dangers of the vice. The government has reorganized HIV as a disaster which is reducing the youthful and productive population.

To address crosscutting issues and also to make learning meaningful, hence to enable learners develop deep understanding of what they learn, teachers need to use participatory and cooperative teaching methods. Participatory and cooperative teaching methods help learners develop critical thinking, reflect on their own situations and get insights of their own situations.

The survey sort to establish the extent to which various cross cutting issues should be addressed by the future curriculum. Information was sort from teachers, principals, curriculum support officers and Education Assessment resource centre officers (EARC).

The various cross cutting issues were identified from different policy documents such as : Kenya constitution 2010,vision 2030,Education for Sustainable development(ESD),Child Act(2001),Millennium Development Goals(MDG), Sustainable Development Goals (SDG),Sessional paper no 1 of 2015 among others. Each of these documents emphasizes different aspects of the cross cutting issues and education has been identified as the wheel to nurture them among the youth.

The Constitution is the supreme law of Kenya and gives more clarification on the direction education should take in several chapters. Chapter 2 and 6 deals with principles of governance, leadership and integrity; chapter 4 deals with bills of rights which include child rights; part 2 deals with environment; part 3 deals with

specific application of rights like children rights and persons with disabilities; chapter 5 part 2 deals with environment and natural resources; chapter 12 deals with national security. All these are cross cutting issues and if they are not incorporated in the future curriculum, it will out rightly be declared unconstitutional. The other cross cutting issues like technology, health issue and drug abuse are emphasized in the blue print of developing the country to a middle level economy, the Vision 2030.

#### **4.6.4 Additional Needs for SNE Learners as per their category level**

##### **4.6.4.1 Needs for Learners with Hearing Impairment**

###### **Content /learning areas/pathways**

The parents suggested establishment of vocational wing for teaching subject like tailoring, computer, farming, cooking and cleaning especially for learners who may not pursue academic subjects. Such skills would lead to economic empowerment and self-reliance.

They are some few that being handicapped may not enable them to study may be so fast academically and they may be involved in such areas of interest. To me I may request the government to support these people by creating a school like these with vocational department such as that if a child is not fit academically to continue my involve in vocational skills such that if he leaves a place like this with a profession at least this may involve tailoring, computer work **{PA NYAN PHB}**

**PA:** vocational skills should be given a lot of emphasis as means of nurturing talents and empowering learners who may not be gifted academically **(PA ST.ANT P BUN)**

## **4.7 Learning Resources**

The resources are geared towards enhancing learning, teaching and content delivery. Educational resources are the teaching and learning items, structure materials and human resources that assist the teacher to effectively and efficiently deliver content. In recent years there has been a shift among educationists from the traditional teacher-centered learning to student-centered learning. It is has been established that effective instruction is more allied to active participation in the teaching learning process (as in laboratory work) than to passive participation (as during a lecture). This shift in pedagogy calls for use of different strategies to effectively engage learners to acquire requisite knowledge, skills and attitudes.

In line with the Education for All (EFA) initiatives, Millennium Development Goals (MDG's), Sustainable Development Goals(SDG), Education for Sustainable Development (ESD), the Constitution of 2010, Sessional paper no 1 of 2015, the realization of Kenya's Vision 2030, of providing a globally competitive quality education, training and research for development, will be achieved through adoption of pedagogy that emphasizes exploration, collaboration, experimentation, creativity, critical thinking and innovation. This calls for the provision of relevant resources that promote these 21<sup>st</sup> century skills and competencies.

### **4.7.1 Observation schedule on availability of Hearing impaired learners Teaching and Learning resources**

**Table 4.3: Observation schedule of availability of Hearing impaired SNE Teaching and Learning resources**

<b>Hearing impaired</b>	<b>Availability of resources (%)</b>	
	<b>Yes</b>	<b>No</b>
Hearing Aides/ individual hearing aids	50	50
Group hearing aids		100
Loop induction hearing aids		100

Audiometer	25	75
Ear moulds	25	75
Otto scopes		100
Early toileting materials	25	75
Syllabuses	50	50
Curriculum support materials	25	75
Kenya sign language resource materials	20	80
Speech room		100
Speech Training Kit		100
Functional assessment tools	25	75
Sign language interpreters	25	75
Support staff	45	55

For mentally handicapped schools there was acute shortage of learning resources included Tambourines, Speech kits, Swimming pool, Floaters, Vocational workshops, materials, tools, equipment, Daily living skills training materials &equipment, Communication devices, Physiotherapy rooms & equipment and Physiotherapist. These resources are very critical to assist the already disadvantaged SN learners.

### **Tools and equipment, materials and facilities**

The respondents felt that the government needs to equip schools with enough textbooks, library books, computers and other learning tools that adapted to suit the needs of learners with special needs. In addition, learners should be provided with the workshop materials to enable them learn vocational skills practically.

P: Government to give school library books and more text books and adapted tools and materials to learn better. Have good computers (P-FGD-OLK-SNE-NYAH)

### **Infrastructure**

The respondents emphasized the need for building more special schools to cater for many special needs children still waiting to be admitted in the few existing schools. They also suggested that the government should expand the existing special school so that they may admit more learners.

**PA:** Let's say for example, some parents who were saying they would like to take their children to school, but when they come, they are told there are no vacancies for their children, so infrastructure also should be put in place such that there should be enough dormitories and enough classes as well as enough caregivers (PA - FGD-LI- LAI)

Parents suggested that there is need to establish more vocational centres in order to allow for smooth transition of learners from primary level especially those who excel in practical subjects. They should also be provided with vocational skills, facilities and materials.

We expected the learners to progress to the next level but we lack facilities to train the learners in various vocational skills. We have institutions that train and help learners in vocational skills. There are vocational centers such as mumias, aluor, sikri and others. Mumias specializes in tailoring. Jacaranda it caters for the mentally handicapped. We wanted the same replicated here so that we do not have to transfer them to other places but train and mentor them within the same institution because over time, we have been able to gain their confidence and also understand their strengths and weakness (**PA KAB-SNE BAR**)

The learners need vocational training which requires materials and other resources for these learners. (**PA KAB-SNE BAR**)

### **Curriculum support materials**

The parents suggested that there is a need for the government to provide enough funds to develop sign language books and other learning materials in schools because most learners come from poor families and some are not accepted by their own family members. They also felt that laptops, computers and books should have a sign language caption to facilitate communication for learners who are deaf. The learners on the other hand indicated that they should be provided with resources such as Books, Stationery, Library books, and Magazines. They also require better facilities and equipment to enable them learn well and stay in school with some level of comfort

TV/Laptops/computers can be fitted with sign language information to boast acceptance by SNE students. Most books do not contain Sign language but it is necessary that books should have adaptative language. (**PA ST,ANT P BUN**)

**Translator:** give them computers teachers in profession to help us on how to plait, giving us books rubbers stationeries in short geometrical sets books textbooks, story books, school uniform, shoes, sweater, bags, water, food, sleeping facilities, big net to sleep on so that

they don't get bitten by mosquitoes and blankets to sleep on and feel comfortable and happy and they don't feel cold and roofs that don't leak, good chair in class good tables, good windows, get money to get lockable cardboards, (**PP KWA P KWA**)

### **Human resource**

Learners highly recommended that sign language be included in teacher training curriculum. They suggested that ECDE teachers should be trained in SNE and specifically learn sign language to necessitate inclusion of deaf learners at an early stage.

Need for Sign language being taught in other schools especially teachers training colleges to ease communication among learners...Computer literacy be taught in rural public special schools (**S MUMI S-SNE KAK**)

P: or that new comers who are young nursery wanted to give an expert ECDE teacher who are trained in special needs because some there do not know.( **P- NYAN-SNE-HB**)

The learners also indicated that there should be enough teachers who are trained in sign language in order to remove the communication barrier that exist today between the learners who are deaf and some of the teachers. The pupils further suggested that the government should employer trained teachers in SNE for ECDE level because the current ones do not understand the young children who are deaf .

Pupil: or that new comers who are young nursery wanted to give an expert ECDE teacher who are trained in special needs because some there do not know.( **P- NYAN-SNE-HB**)

Learners with hearing impairment expressed their wish not to be integrated in regular primary schools with their peers because the communication barrier which brings negativity and isolation.

P: language will be barrier because they use sign language and facial and they use spoken language will be barrier, hence bringing negativity. (**PP NYAN HB**)

P: language will be barrier because they use sign language and facial and they use spoken language will be barrier, hence bringing negativity. (**PP NYAN HB**)

#### 4.7.2 Mentally Handicapped SNE

**Table 4.4: Observation schedule of availability of Mental Handicapped SNE Teaching and Learning resources**

<b>Mental handicapped area / autism</b>	<b>Resources (%)</b>	
	<b>Yes</b>	<b>No</b>
Syllabuses	42.8	
Curriculum support materials	52.5	37.5
Vocational workshops, materials, tools, equipment	28.6	71.4
Perceptual training materials	35.6	14.4
Daily living skills training materials &equipment	32	68
Adapted seats	32	68
Communication devices	25	75
Musical instruments	71.4	28.6
Audio visual materials and equipment	14.3	85.7
Adapted P.E material and equipment	52.5	37.5
Physiotherapy rooms & equipment	16.7	83.3
Physiotherapist	16.7	83.3
Support staff & specialized teachers	71.4	28.6
Tambourines	28.6	71.4
Speech kits	14.3	85.7
Swimming pool		100
Floater		100

**Table 4.4: Observation schedule by data collector's availability of Teaching and learning resources across SNE schools at primary level.**

The table 4.4 shows the availability Physically Handicapped and Deaf Blind resources. From the tables it can be established that that many of the resources are not available in the SNE schools by 100%. Even the ones which were available were inadequate by over 80%.

The other respondents expressed their feeling and observation with regard to the state of learning resources in mentally handicapped schools. For example parents felt that the government needs to equip schools with enough text books, library books, computers and other learning tools that adapted to suit the needs of learners with special needs. In addition learners should be provided with workshop materials to enable them learner vocational skills practically.

P: Government to give schools library books and more text books and adapted tools and materials to learn better. Have good computers (P-FGD-OLK-SNE-NYAH)

#### *Infrastructure*

The respondents emphasized the need for building more special schools to cater for many special needs children still waiting to be admitted in the few existing schools. They also suggested that the government should expand the existing special school so that they may admit more learners.

**PA:** Let's say for example, some parents who were saying they would like to take their children to school, but when they come, they are told there are no vacancies for their children, so infrastructure also should be put in place such that there should be enough dormitories and enough classes as well as enough caregivers (PA - FGD-LI- LAI)

#### *Curriculum support materials*

The parents suggested that there is need for the government to provide enough funds to develop sign language books and other learning materials in schools because most learners come from poor families and some are not accepted by their own family members. They also felt that laptops, computers and books should have sign language caption to facilitate communication for learners who are deaf. The learners on the other hand indicated that they should be provided with resources such as Books, Stationery, Library books, and Magazines. They also require better facilities and equipment to enable them learn well and stay in school with some level of comfort

TV/Laptops/computers can be fitted with sign language information to boast acceptance by SNE students. Most books do not contain Sign language but it is necessary that books should have adaptative language. (**PA ST,ANT P BUN**)

**Translator:** give them computers teachers in profession to help us on how to plait, giving us books rubbers stationeries in short geometrical sets books textbooks, story books, school uniform, shoes, sweater, bags, water, food, sleeping facilities, big net to sleep on so that they don't get bitten by mosquitoes and blankets to sleep on and feel comfortable and happy and they don't feel cold and roofs that don't leak, good chair in class good tables, good windows, get money to get lockable cardboards, (**PP KWA P KWA**)

### ***Human resource***

Learners highly recommended that sign language be included in teacher training curriculum. They suggested that ECDE teachers should be trained in SNE and specifically learn sign language to necessitate inclusion of deaf learners at an early stage.

Need for Sign language being taught in other schools especially teachers training colleges to ease communication among learners...Computer literacy be taught in rural public special schools (**S MUMI S-SNE KAK**)

P: or that new comers who are young nursery wanted to give an expert ECDE teacher who are trained in special needs because some there do not know.( **P- NYAN-SNE-HB**)

The learners also indicated that there should be enough teachers who are trained in sign language in order to remove the communication barrier that exist today between the learners who are deaf and some of the teachers. The pupils further suggested that the government should employer trained teachers in SNE for ECDE level because the current ones do not understand the young children who are deaf .

Pupil: or that new comers who are young nursery wanted to give an expert ECDE teacher who are trained in special needs because some there do not know.( **P- NYAN-SNE-HB**)

### ***Infrastructure***

Parents suggested that there is need to establish more vocational centres in order to allow for smooth transition of learners from primary level especially those who

excel in practical subjects. They should also be provided with vocational skills, facilities and materials.

We expected the learners to progress to the next level but we lack facilities to train the learners in various vocational skills. We have institutions that train and help learners in vocational skills. There are vocational centers such as mumias, aluor, sikri and others. Mumias specializes in tailoring. Jacaranda it caters for the mentally handicapped. We wanted the same replicated here so that we do not have to transfer them to other places but train and mentor them within the same institution because over time, we have been able to gain their confidence and also understand their strengths and weakness (**PA KAB-SNE BAR**)

The learners need vocational training which requires materials and other resources for these learners. (**PA KAB-SNE BAR**)

### ***Inclusion***

Learners with hearing impairment expressed their wish not to be integrated in regular primary schools with their peers because the communication barrier which brings negativity and isolation.

P: language will be barrier because they use sign language and facial and they use spoken language will be barrier, hence bringing negativity. (**PP NYAN HB**)

P: language will be barrier because they use sign language and facial and they use spoken language will be barrier, hence bringing negativity. (**PP NYAN HB**)

#### **4.7.3 Observation schedule of availability of Physically Handicapped SNE Teaching and Learning resources**

**Table 4.5: Physically Handicapped SNE Resources**

Resources	Availability		Adequacy	
	N0%	YES%	N0%	YES%
Wheels Chairs	26.3	73.7	80.0	20.0
Pen book holder	57.9	42.1	0.0	
Adapted Seats Tables	43.8	56.2	71.4	28.6
Pointers	81.2	18.8	0.0	0.0
Adapted Toilets	68.8	31.2	75.0	25.0
Syllabus Physically handicapped	75.0	25.0	66.7	33.3
Physiotherapy Rooms	56.2	43.8	57.1	42.9
Physiotherapy Equipment	31.2	68.8	56.6	44.4
Physiotherapist	75.0	25.0	70.0	30.0
Swimming pools	75.0	25.0	75.0	25.0
Floater	75.0	25.0	60.0	40.0
Physical Adaptations	100.0	0.0	0.0	0.0
Physical Pathways	100.0	0.0%	0.0	0.0
Grips	37.5	62.5	55.6	44.4
Speech Kit	62.5	37.5	0.0	0.0

The results in Table 4.5 provides a the status of observable teaching and learning resources in schools with Physically Handicapped learners .Extreme unavailable resources were physical adaptations, physical pathways, floaters, physiotherapy equipment among others.

These observations were also echoed by the others respondents as presented below. The respondents felt that the government needs to equip schools with enough text books, library books, computers and other learning tools that adapted to suit the needs of learners with special needs. In addition learners should be provided with workshop materials to enable them learner vocational skills practically.

P: Government to give schools library books and more text books and adapted tools and materials to learn better. Have good computers (P-FGD-OLK-SNE-NYAH)

### *Infrastructure*

The respondents emphasized the need for building more special schools to cater for many special needs children still waiting to be admitted in the few existing schools.

They also suggested that the government should expand the existing special school so that they may admit more learners.

**PA:** Let's say for example, some parents who were saying they would like to take their children to school, but when they come, they are told there are no vacancies for their children, so infrastructure also should be put in place such that there should be enough dormitories and enough classes as well as enough caregivers (PA - FGD-LI- LAI)

### ***Curriculum support materials***

The parents suggested that there is need for the government to provide enough funds to develop sign language books and other learning materials in schools because most learners come from poor families and some are not accepted by their own family members. They also felt that laptops, computers and books should have sign language caption to facilitate communication for learners who are deaf. The learners on the other hand indicated that they should be provided with resources such as Books, Stationery, Library books, and Magazines. They also require better facilities and equipment to enable them learn well and stay in school with some level of comfort

TV/Laptops/computers can be fitted with sign language information to boast acceptance by SNE students. Most books do not contain Sign language but it is necessary that books should have adaptative language. (**PA ST,ANT P BUN**)

**Translator:** give them computers teachers in profession to help us on how to plait, giving us books rubbers stationeries in short geometrical sets books textbooks, story books, school uniform, shoes, sweater, bags, water, food, sleeping facilities, big net to sleep on so that they don't get bitten by mosquitoes and blankets to sleep on and feel comfortable and happy and they don't feel cold and roofs that don't leak, good chair in class good tables, good windows, get money to get lockable cardboards, (**PP KWA P KWA**)

### ***Human resource***

Learners highly recommended that sign language be included in teacher training curriculum. They suggested that ECDE teachers should be trained in SNE and

specifically learn sign language to necessitate inclusion of deaf learners at an early stage.

Need for Sign language being taught in other schools especially teachers training colleges to ease communication among learners...Computer literacy be taught in rural public special schools (**S MUMI S-SNE KAK**)

P: or that new comers who are young nursery wanted to give an expert ECDE teacher who are trained in special needs because some there do not know.( **P- NYAN-SNE-HB**)

The learners also indicated that there should be enough teachers who are trained in sign language in order to remove the communication barrier that exist today between the learners who are deaf and some of the teachers. The pupils further suggested that the government should employer trained teachers in SNE for ECDE level because the current ones do not understand the young children who are deaf.

Pupil: or that new comers who are young nursery wanted to give an expert ECDE teacher who are trained in special needs because some there do not know.( **P- NYAN-SNE-HB**)

### ***Infrastructure***

Parents suggested that there is need to establish more vocational centres in order to allow for smooth transition of learners from primary level especially those who excel in practical subjects. They should also be provided with vocational skills, facilities and materials.

We expected the learners to progress to the next level but we lack facilities to train the learners in various vocational skills. We have institutions that train and help learners in vocational skills. There are vocational centers such as mumias, aluor, sikri and others. Mumias specializes in tailoring. Jacaranda it caters for the mentally handicapped We wanted the same replicated here so that we do not have to transfer them to other places but train and mentor them within the same institution because over time, we have been able to gain their confidence and also understand their strengths and weakness (**PA KAB-SNE BAR**)

The learners need vocational training which requires materials and other resources for these learners. (**PA KAB-SNE BAR**).

### ***Inclusion***

Learners with hearing impairment expressed their wish not to be integrated in regular primary schools with their peers because communication barrier which brings negativity and isolation.

P: language will be barrier because they use sign language and facial and they use speaking language will be barrier hence bringing negativity.(PP NYAN HB)

#### **4.7.4 Observation schedule on availability of Teaching and Learning resources for deaf blind**

**Table 4. 6: Deaf Blind Resources**

Resources	Availability		Adequacy	
	N0 (%)	YES (%)	NO (%)	YES (%)
Braille Machine	71.5	28.5	0.0	0.0
Hearing aids	61.5	38.5	0.0	0.0
Calendar systems c	69.2	30.8	0.0	0.0
Communication boards	100	0.0	100	0.0
Toilet Materials	85.7	14.3	86.7	13.3
Vocational workshops materials tools equipment	100	0.0	100	0.0
Sign language interpreters	88.9	11.1	92.5	7.5
Support Staff	87.5	12.5	90	10
Syllabus Deaf blind	80	20.0	100	0.0
White cane	100	0.0	99	0.1
Optical devices	100	0.0	96.7	3.3
Braille Machine	88.9	11.1	100	0.0

Based on observation in Table 4.6 the learning resources for deaf blind learners were unavailable to a great extent particularly communication boards ,white cane, optical devices, vocational workshop materials by 100% .Some essential equipment and teaching aids like sign language interpreters, support staff, Braille machines among others were not adequate. Similarly sentiments were made by learners, parents, teachers and key informants.

The respondents felt that the government needs to equip schools with enough text books, library books, computers and other learning tools that adapted to suit the

needs of learners with special needs. In addition learners should be provided with workshop materials to enable them learner vocational skills practically.

**P:** Government to give schools library books and more text books and adapted tools and materials to learn better. Have good computers (P-FGD-OLK-SNE-NYAH)

The parents and key informants emphasized the need for building more special schools to cater for many special needs children still waiting to be admitted in the few existing schools. They also suggested that the government should expand the existing special school so that they may admit more learners.

**PA:** Let's say for example, some parents who were saying they would like to take their children to school, but when they come, they are told there are no vacancies for their children, so infrastructure also should be put in place such that there should be enough dormitories and enough classes as well as enough caregivers (PA - FGD-LI- LAI)

The parents suggested that there is a need for the government to provide enough funds to develop sign language books and other learning materials in schools because most learners come from poor families and some are not accepted by their own family members. They also felt that laptops, computers and books should have a sign language caption to facilitate communication for learners who are deaf. The learners on the other hand indicated that they should be provided with resources such as Books, Stationery, Library books, and Magazines. They also require better facilities and equipment to enable them learn well and stay in school with some level of comfort

TV/Laptops/computers can be fitted with sign language information to boast acceptance by SNE students. Most books do not contain Sign language, but it is necessary that books should have adopted language. (**PA ST,ANT P BUN**)

**Translator:** give them computers teachers in profession to help us on how to plait, giving us books rubbers stationeries in short geometrical sets, books textbooks, storybooks, school uniform, shoes, sweater, bags, water, food, sleeping facilities, big net to sleep on so that

they don't get bitten by mosquitoes and blankets to sleep on and feel comfortable and happy and they don't feel cold and roofs that don't leak, good chair in class good tables, good windows, get money to get lockable card boards, (**PP KWA P KWA**)

Learners highly recommended that sign language be included in teacher training curriculum. They suggested that ECDE teachers should be trained in SNE and specifically learn sign language to necessitate inclusion of deaf learners at an early stage.

Need for Sign language being taught in other schools especially teachers training colleges to ease communication among learners...Computer literacy be taught in rural public special schools (**S MUMI S-SNE KAK**)

P: or that newcomers who are young nursery wanted to give an expert ECDE teacher who is trained in special needs because some there do not know. (**P- NYAN-SNE-HB**)

The learners also indicated that there should be enough teachers who are trained in sign language in order to remove the communication barrier that exist today between the learners who are deaf and some of the teachers. The pupils further suggested that the government should employer trained teachers in SNE for ECDE level because the current ones do not understand the young children who are deaf.

Pupil: or that new comers who are young nursery wanted to give an expert ECDE teacher who is trained in special needs because some there do not know. (**P- NYAN-SNE-HB**)

Parents suggested that there is a need to establish more vocational centers in order to allow for smooth transition of learners from primary level, especially those who excel in practical subjects. They should also be provided with vocational skills, facilities and materials.

We expected the learners to progress to the next level, but we lack the facilities to train the learners in various vocational skills. We have institutions that train and help learners in vocational skills. There are vocational centers such as mumias, aluor, sikri and others. Mumias specializes in tailoring. Jacaranda it caters for the mentally handicapped We wanted the same replicated here so that we do not have to transfer them to other places, but train and mentor them within the same institution because over time, we have been able to gain their confidence and also understand their strengths and weakness (**PA KAB-SNE BAR**)

The learners need vocational training which requires materials and other resources for these learners. (**PA KAB-SNE BAR**)

Learners expressed the view that learners with hearing impairment at primary level expressed their desire to be integrated with their peers in regular schools because of communication barriers which brings negativity.

P: language will be barrier because they use sign language and facial and they use speaking language will be barrier hence bringing negativity. (**PP NYAN HB**).

## **CHAPTER FOUR**

### **ANALYSIS AND DISCUSSION OF THE FINDINGS FOR SECONDARY LEVEL**

#### **4.8 Introduction**

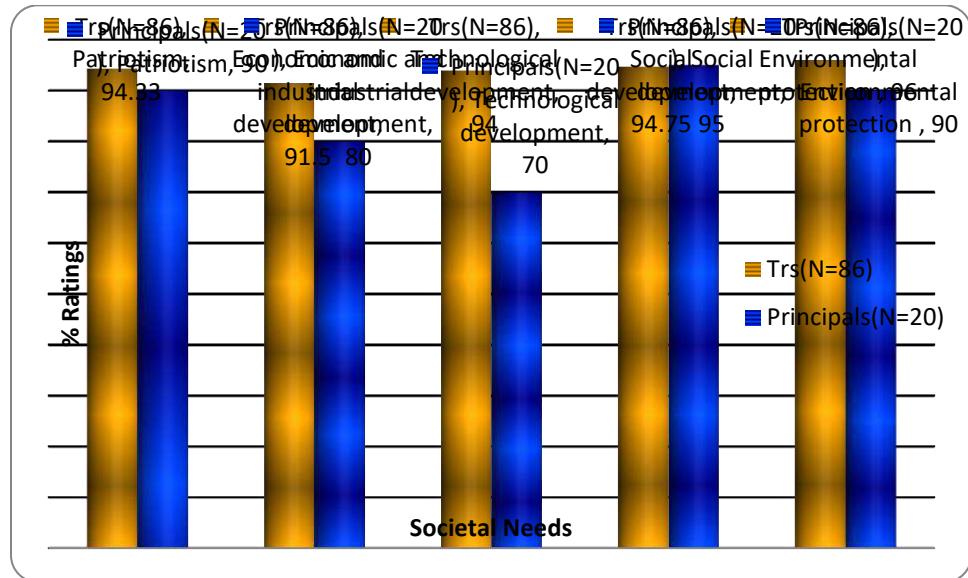
SNE secondary school principals and teachers were required to give their responses in regard to the extent to which societal Needs, competencies, learning areas, learning approaches, nurturing talents, assessment and pertinent and emerging issues should be incorporated into the curriculum. They were asked to indicate the extent to which the identified societal needs should be emphasized in the school curriculum using a five-point Likert scale. They were required to indicate their choices by selecting ‘N=Not at all’, ‘VL=very little extent’, ‘NS=Not sure’, ‘S=some extent’ and ‘G= Great extent’.

#### **4.9 Societal Needs**

SNE secondary school principals and teachers were required to give their responses in regard to the extent to which Societal Nee should be incorporated into the curriculum. They were asked to indicate the extent to which the identified societal needs should be emphasized in the school curriculum using a five-point Likert scale. They were required to indicate their choices by selecting ‘N=Not at all’, ‘VL=very little extent’, ‘NS=Not sure’, ‘S=some extent’ and ‘G= Great extent’. The responses were weighted out of 5 and averages derived. From the weighted averages, percentage mean ratings were further derived. The principals and teachers’ responses on each Societal Need which constituted the average percentage rating are presented in various Figures.

#### 4.9.1. Responses of SNE secondary school principals and teachers on societal needs.

**Figure 4.26: Summary of responses on SNE secondary school principals and teachers on societal needs.**



**SNE Secondary School principals and teachers' responses to the extent the secondary level Curriculum should emphasize Societal Needs.**

Figure 4.26 shows respondents' views with regards to the extent to which societal needs should be emphasized in the curriculum and on average all teachers were in agreement at 94.12% while head teachers were at 85%. The teachers rated environmental protection highest at 96.00%, followed by Social development at 94.75%, Patriotism at 94.33%, technological development at 94.00%, and economic and industrial development at 91.50%. The principals were almost at par with teachers in rating social development, patriotism and environmental protection. This is at par with the findings from other respondents as discussed below;

Parents suggested that education should aim at developing independent individuals who are capable of being self-reliant despite the disability. They pointed out that there is need to carry out awareness campaigns to sensitize members of the community and the need to educate learners with special needs so that they can be self reliant and thus reduce dependency. Similarly learners with special needs expressed the view that education should enable them to get better jobs, in order to reduce poverty, create equity and equality among people, especially those who have experienced prejudice.

**PA:** Unajua sasa akiwa kama hapa, akitoka huko nje atakuwa amejua kujitegemea, hatakuwa anategemea wazazi. Atakuwa na hiyo akili ya kufanya a,b,c,d ya kujitegea ye ye mwenyewe. Atakuwa ameongeza akili hakuwa nazo. (PA- FGD-JOY-SNE-KBU)

**PA:** So they can stop being dependent wholly, partly they can be dependent because there are those who cannot manage by themselves. But there are those who can do something little for themselves, so we can reduce the cost of taking care of them, and that can only be possible if we inform them; the guardians and everyone at home. Parents don't know that there is a way they can help their children to be productive and help in the society, so first we have to create awareness. (PA - FGD-LI- LAI)

S: It helps people to learn more and have better jobs, we can reduce poverty and increase equality, have a better future sometimes the deaf don't have equality, (S ST. BRE S-SNE BUS).

Just like the principals and teachers rated highly social development, the parents and key Informants expressed high regard for social development. Parents and key informants suggested that education should be used to fight discrimination against person with disability especially in job provision. They felt that education should promote social cohesion among people from different ethnic communities and enhance cooperation in order to achieve common goals. In the same vein, learners felt that education should address social vices such as tribalism and corruption and emphasize on respect of law and order so that citizens can have social unity and live peacefully. They further suggested that education should aim at producing individuals who care for other people and respect them, empathize with people with disabilities and help the less fortunate in the society.

**PA:** Education can help us in a way, for example, if one is educated and they get into a company, you go and meet different tribes in the company, you are working on this project and another one is working on the other one, at the end of it you produce one good thing. (PA - FGD-LI- LAI)

**PA:** According to what is thinking, if someone has been educated and he/she is a teacher, it's not a must you teach within your area where you are talking the same tongue, you should go somewhere else. When you go there.... for instance, lets say I go to western, the people from westerns should receive me as one of their own. And if I am in my home area and there are students who have come here from other places, I should not show them they are different from those of my tribe and those of other tribes. I should take them all as one person from one Kenya. (PA - FGD-LI- LAI)

**PA**-Persons with special needs should get jobs like other persons. They should not be discriminated upon. (PA-FGD-KAJ-SNE-KAJ)

So we need a country where there is no tribalism. Which is ready to serve everybody from every corner of the country. So we are saying, if this issue of tribalism reduces even in hospitals, everywhere there is tribalism so please what we can urge the government to check on the issue of tribalism where they are giving posts let them be equally divided them to every tribe so that it can feel represented and it can feel part and parcel of our country which is Kenya. (KIT-S-FGD-AQUI-SNE-KIT)

P: Maintain peace, fight out corruption, maintain law and order, build better schools  
Should love one another everyone must have knowledge (P-FGD-OLK-SNE-NYAH)

P: We can be people who are able to care for others and people who have respect (P-FGD-NYAB-SNE-HOM)

**SL:**..... builds children's home, help disabled children, provides and wheel chairs. (SL-INT-KAJ-SNE-KAJI)

In addition, the Learners suggested that education should prepare learners with special needs to be good leaders who are development oriented and whose aim is to improve the lives of the citizens.

**PA**.... Become leaders, despite disability, show people that you love your country, make people good, help people live together and understand each other. (PA-FGD-KAJ -SNE-KAJ)

S: so my view is that we as Kenyans need good leaders .Leaders in the government who are ready also to assist the citizens in terms of development. In terms of maybe try to make the citizens that they get what they need because they voted for them so the citizens need their votes to be seen in action. (S-FGD-AQUI-SNE-KIT)

The teachers' rated technological development at 94%, which was similar to the feeling of learners who expressed the need to be digitally literate in order to achieve technological development and suggested that schools should be equipped with technological equipment such as computers and laptops and learners taught how to use them. Similarly the parents expressed the view that learners with SNE need laptops and computers to help them widen their knowledge and improve their creativity. Learners also reiterated the importance of using ICT, especially for learners with communication difficulties.

P: Government to teach children how to use Laptops (P-FGD-OLK-SNE-NYAH)  
This one is very necessary. We find that like deaf, deaf child usually learns from seeing. Seeing the particular things is doing. So these things laptops, computers are introduced in schools like these. We will be giving them some wide knowledge of knowing what they need to cover and will be giving them some wider experience on how to use and interact with the media on different areas so the introduction of this computer technology is very necessary because they are some who are necessary because they are some who are very creative. This creativity given this laptop, computer plus their technology born with will widen up the knowledge of the child such that even if left alone to expand on a particular area , they find it very simple to communicate using this technological material are very essential and needed in school may be a school like this. {PA NYAN P HB}

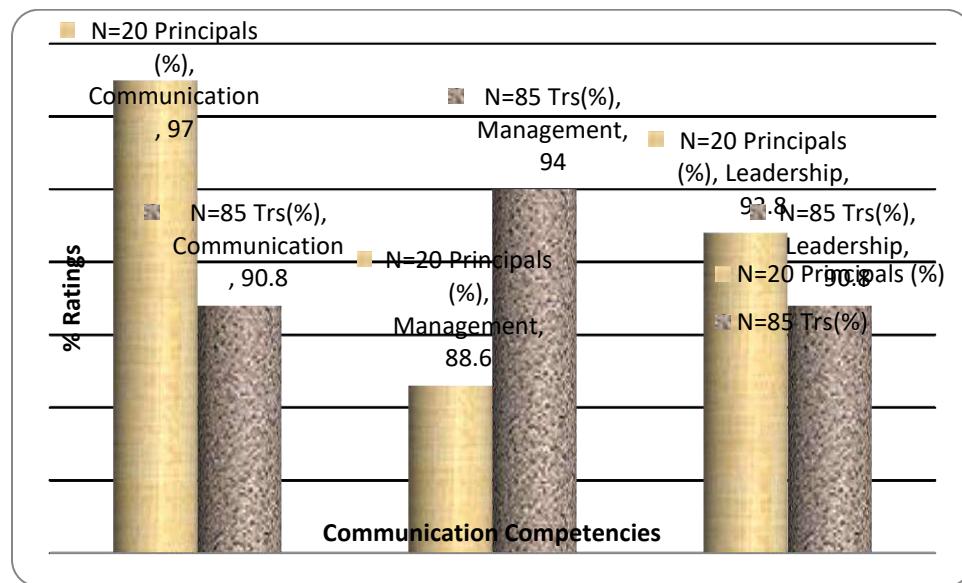
These findings were also affirmed in previous studies have revealed that society influences curriculum development because curriculum should to be relevant to the needs of the society. Consequently, as the needs of the society change, the curriculum should also change in order to reflect those changes and make it relevant (Treadaway, 2003). The societal needs are clearly spelt out in the National Goals of Education which are embedded in the Vision 2030 (Republic of Kenya, 2012): (KIE, 2008). The NESP (2015) makes it very clear that the curriculum is expected to empower the citizens with the necessary knowledge and competencies to realize the national developmental goals. However, there was need to develop and implement a dynamic competence based curriculum that would guide the country to achieve her aspirations as expressed in Kenya Vision 2030. (MoEST, 2015). The identified societal needs should therefore be

emphasized in the school curriculum for learners with special needs at all levels of education.

#### 4.9.2 Special Needs Level Competencies

Summary distribution of responses by SNE secondary Principals and teachers on desired competencies classified under Communication were tabulated and presented as follows:

**Figure 4.27: Responses by SNE secondary Principals and teachers on desired competencies classified under Communication**



**Figure 4.27:** provides findings on knowledge, skills, values and attitudes which should be attained through communication, management and leadership. The responses of SNE teachers and principal at secondary level were 90% on the aspects of communication, management and leadership. These competencies are considered critical part in promoting the acquisition of key competencies to be achieved through curriculum reforms. The Constitution affirms equitable, quality

and efficiency in the provision of education for all learners, including SNE which seem to be a desire for teachers and head teachers across all levels.

These competencies were highly rated as they will enable students to be prepared to face these challenges and seize the opportunities brought about by new forces locally and internationally. Similar studies carried out in Singapore by Soland et al. 2013, and Voogt & Roblin 2012), indicated that the features of their framework for 21<sup>st</sup> C, such as creative and critical thinking, communication and collaboration, social and cultural skills were core values that the Singapore education system hoped to cultivate in all its students.

This is in line with the sentiments expressed by learners, parents, key informants and other stakeholders. For instance the respondents were of the view that learners with special needs should acquire competencies that will help them to be adaptable in the society and be employable. They felt that there was a need for learners to acquire skills in self-care, communication, vocational, ICT, entrepreneurship, critical thinking, psycho-motor, problem solving, socialization and research skills. They also need to acquire literacy and numeracy skills.

Not to despise themselves. To be able to do small things, for example, wearing clothes and taking care of themselves, to understand sign language, to communicate and be able to think and solve their problems (PA-KIB- P – KIL)

**PA:** Hata kuinteract na kucheza na watoto wale wengine, because ni lazima alelewe kama yule mtoto mwengine wa kawaida pamoja na kusoma na kuandika na kusoma computer (PA-FGD-JOY-SNE-KBU)

Teachers and head teacher rated communication, leadership and management competencies averagely above 90%, just like *the* learners felt that education should strive to enhance self-esteem in learners with disabilities who in most cases

experience low self-esteem because of the unwarranted stigma associated with disability. Learners further suggested that education should emphasize values such as obedience, respect, discipline, humility, kindness, politeness, care and hard work. Learners should also be taught good morals and responsibility.

**P:** Lets learners get moral values in school, by having obedience and respect. Pupils to work hard and have discipline. (P-FGD-OLK-SNE-NYAH)

**PA:** Na kupata masomo kwake, kutapromote self-esteem hatakuwa anajichukia na hata atakuwa example kwa hao wengine, eti huyo alipelekwa shule fulani alipata masomo, kwa hivo disability is not inability. (PA- FGD-JOY-SNE-KBU)

**PA:** ..... brought up in their morals and responsibilities despite their disabilities e.g. identifying when cattle are lost. (PA-FGD-KAJ-SNE-KAJI)

PA: They should be taught how to care for one another and respect others (PA - FGD-LI-LAI)

PA: Let's add politeness. There are children who can be rude and so it's good to teach a child to be polite. (PA - FGD-LI- LAI)

PA: There is also pride. It is good as parents, we teach our children to be humble. Even if we may be well up, it is good to teach our children humility because pride and arrogance destroy a child so much because they know my family is well up. So that arrogance makes them be disrespected by other people. (PA - FGD-LI- LAI)

PA: My child should be taught good behavior and good morals. (PA - FGD-LI- LAI)

#### **4.9.3 Special Needs Level competencies of creativity**

Responses of SNE secondary school principals and teacher views competencies classified under Creativity for learners with special need were presented as indicated below.

**Figure 4.28: Shows a range of responses on Competencies classified under Creativity, by the SNE Secondary and teachers from Public and Private schools.**

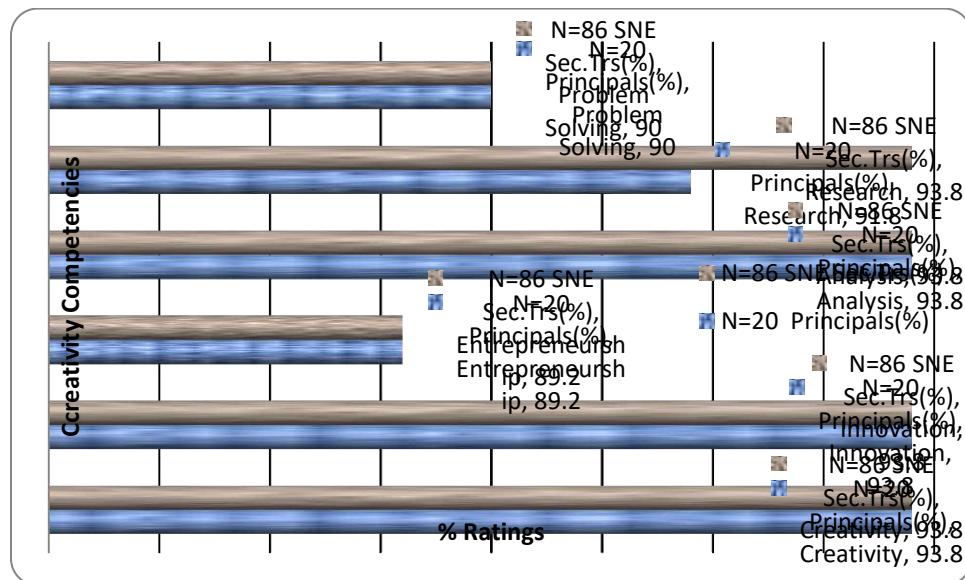


Figure 4.28 provides a summary of various respondents' views on the skills, knowledge, attitudes and values that can be achieved through innovation, creativity, entrepreneurship, problem solving analysis and research. The percentage range from the lowest was 89.2% and highest 93.8%. These responses can be closely linked to a study carried out by Rychen D.S. and. Salganik L.H (eds.) (2001) which revealed that a creative person should have divergent thinking, problem solving skills, originality, and ability to see or create new values. Considering the convergence on the need to nurture creativity in the curriculum and the literature encountered, constructs of problem solving, divergent thinking, research and innovation will find their place in the content of the proposed curriculum.

#### **4.9.4 SNE Competencies on collaboration**

The study sought information from principals and teachers teaching in secondary school with regard to the extent to which collaboration and related competencies

should be emphasized into the curriculum reforms. The analysis of their views were summarized in the figure 4.29.

**Figure 4.29: SNE Secondary Principals and Teachers Responses on Collaboration**

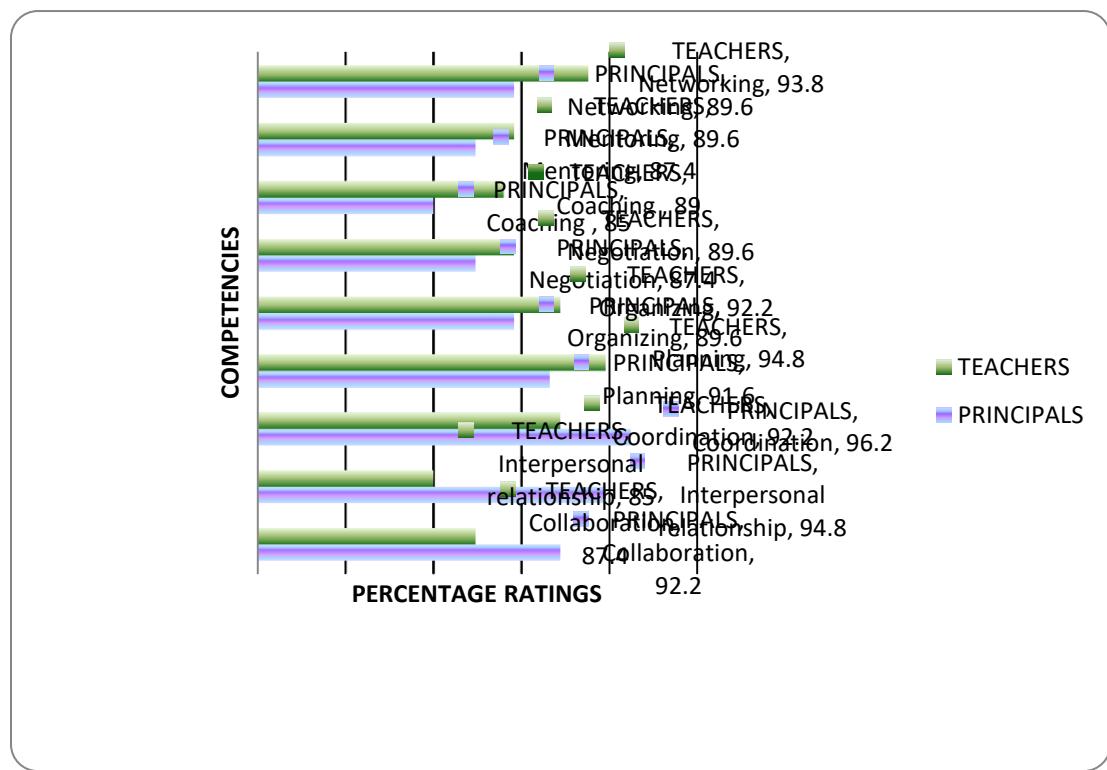


Figure 4.29 depicts that collaboration, coordination, interpersonal relationship and planning should be emphasized more into the curriculum. This critical because if knowledge is learned to support the performance of skills then learners will satisfactorily excel in aspects of knowledge, skills and values (Soland et al. 2013, and Voogt&Roblin, 2012).However, competencies such as networking, organising, coaching and negotiated were rated slightly lower but they are of great significance to learners. Learners further suggested that education should emphasize values such as obedience, respect, discipline, humility, kindness, politeness, care and hard work. Learners should also be taught good morals and responsibility.

**P:** Lets learners get moral values in school, by having obedience and respect. Pupils to work hard and have discipline. (P-FGD-OLK-SNE-NYAH)

**PA:** Na kupata masomo kwake, kutapromote self-esteem hatakuwa anaijichukia na hata atakuwa example kwa hao wengine, eti huyo alipelekwa shule fulani alipata masomo, kwa hivo disability is not inability. (PA- FGD-JOY-SNE-KBU)

**PA:** .....brought up in their morals and responsibilities despite their disabilities eg identifying when cattle are lost. (PA-FGD-KAJ-SNE-KAJI)

PA: They should be taught how to care for one another and respect others (PA - FGD-LI-LAI)

PA: Let's add politeness. There are children who can be rude and so it's good to teach a child to be polite. (PA - FGD-LI- LAI)

PA: There is also pride. It is good as parents, we teach our children to be humble. Even if we may be well up, it is good to teach our children humility because pride and arrogance destroy a child so much because they know my family is well up. So that arrogance makes them be disrespected by other people. (PA - FGD-LI- LAI)

PA: My child should be taught good behavior and good morals. (PA - FGD-LI- LAI)

#### **4.9.5 SNE Competencies on Critical Thinking**

The study sought information from principals and teachers teaching in secondary school with regard to the extent to which critical thinking and related competencies should be emphasized into the curriculum reforms. The analyses of their views were summarized in the figure 4.30.

**Figure 4.30: Analysis of SNE secondary principals and teachers views on desired competencies classified under Critical Thinking**

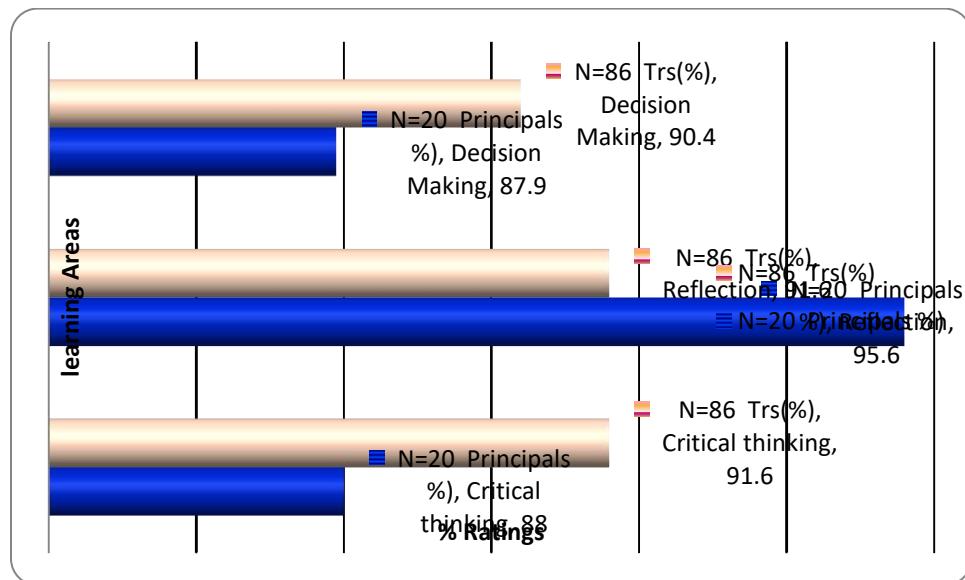


Figure 4.30 shows the overall % rating for critical thinking was 91.6 %.The principals preferred most reflection, followed by critical thinking at 88% and decision making rated at 87.9%,this was slightly different from who considered that all the three competencies were essential and all the percentage ratings were almost at bar. Key evidence show a consensus among on the aspect of critical thinking, reflection and decision making, presumably learners to develop critical thinking skills and the ability to adapt to new learning situations as they transit form one sub sector of education to another.

At the secondary school level the key competencies suggested in the findings include; innovation, creativity, entrepreneurship, problem solving analysis and research. These findings can be closely linked to a study carried out by Rychen D.S. and. Salganik L.H (eds.) (2001) which revealed that a creative person should have divergent thinking, problem solving skills, originality, and ability to see or create new values. Considering the need to nurture every learner's potential,

creativity, problem solving, divergent thinking, research and innovation should find a place in the curriculum. This is supported by the practice in Scotland where the government places significant emphasis on five core and essential skills of communication, numeracy, problem solving, entrepreneurship, information technology and working with others that is, socialization. Scottish government (2009).

The findings indicated that entrepreneurship is a crucial competence for learners with special needs. This is in agreement with The Kenya Vision 2030 which places great emphasis on the link between education and the labour market and emphasizes the need to create entrepreneurial skills and competencies. Curriculum for learners with special needs should address these competencies in order to equip learners with 21<sup>st</sup> century skills.

SNE schools teachers and principals rated above 90% the competencies of communication and leadership. However, principals rated management slightly below 90%. These competencies will enable SNE students to be prepared to face these challenges and seize the opportunities brought about by new forces locally and internationally. Learners further suggested that education should emphasize values such as obedience, respect, discipline, humility, kindness, politeness, care and hard work. Learners should also be taught good morals and responsibility.

**P:** Lets learners get moral values in school, by having obedience and respect. Pupils to work hard and have discipline. (P-FGD-OLK-SNE-NYAH)

**PA:** Na kupata masomo kwake, kutapromote self-esteem hatakuwa anaijichukia na hata atakuwa example kwa hao wengine, eti huyo alipelekwa shule fulani alipata masomo, kwa hivo disability is not inability. (PA- FGD-JOY-SNE-KBU)

**PA:** .....brought up in their morals and responsibilities despite their disabilities eg identifying when cattle are lost. (PA-FGD-KAJ-SNE-KAJI)

PA: They should be taught how to care for one another and respect others (PA - FGD-LI-LAI)

PA: Let's add politeness. There are children who can be rude and so it's good to teach a child to be polite. (PA - FGD-LI- LAI)

PA: There is also pride. It is good as parents we teach our children to be humble. Even if we may be well up, it is good to teach our children humility because pride and arrogance destroys a child so much because they know my family is well up. So that arrogance makes them be disrespected by other people. (PA - FGD-LI- LAI)

PA: My child should be taught good behavior and good morals. (PA - FGD-LI- LAI)

The Constitution puts emphasis on equitable, quality and efficiency in the provision of education for all learners, including SNE which seem to be a desire for teachers and principals across all levels. The respondents were of the view that learners with special needs should acquire competencies that would help them to be adaptable in the society, be employable and enhance their capacity to actively participate in the society. They decried the unnecessary emphasis placed on academic performance and total disregard of acquisition of desired skills, values and attitudes. This is echoed by The Sessional Paper No.2 of 2015 which indicates that access and participation of learners with special needs is relatively low in Kenya. Their needs are not specifically addressed thus disadvantaging them. The situation is made worse by emphasis on academic performance and examinations. MoEST (2015).

#### **4.10 Nurturing the potential and Talents of learners**

SNE secondary school principals and teachers were required to give their responses in regard to the extent to which should nurturing the potential and talents of learners be embedded into the curriculum. They were asked to indicate the extent to which the identified societal needs should be emphasized in the school curriculum using a five-point Likert scale. They were required to indicate their choices by selecting 'N=Not at all', 'VL=very little extent', 'NS=Not sure',

‘S=some extent’ and ‘G= Great extent’. The responses were weighted out of 5 and averages derived. From the weighted averages, percentage mean ratings were further derived. The principals and teachers’ responses on each talent and potential development which constituted the average percentage rating are presented in Table: 4.7 below.

**Table 4.7: Responses on nurturing the potential and Talents of learners according to SNE Secondary teachers and head Teachers**

Strategies	Teachers N =46	Head Teachers N = 10
	%	%
Games and sports	95.0	97.2
Curriculum enrichment	93.4	95.6
Clubs and societies	91.4	95.0
Cooperative learning,		
Competition among schools		
and academic conferences	90.6	94.6
Ability grouping and		
mentorship programs	89.4	93.0
Special schools for G&T	88.2	90.4
Special needs classes	88.2	83.8
Accelerated learning		
and advanced placement	78.2	87.0
Early admissions to school	67.8	75.4
<b>Average percentage</b>	<b>86.9</b>	<b>90.2</b>

The SNE secondary Teachers and head teachers preferred to a great extent games and sports (95% and 97.2%), curriculum enrichment (93.4% and 95.6%), clubs and societies(91.4% and 95.%), cooperative learning, competition among schools and academic conferences(90.6% and 94.6%) as prominent strategies. They also preferred ability grouping and mentorship programs (89.4% and 93%), special schools for gifted and talented 88.2% and 90.4%), special needs classes (88.2%

and 83.8%) and accelerated learning and advanced placement (78.2% and 87.0%). Early admission to schools (67.8%, 75.4%) was least preferred strategy, both the teachers and head teachers.

The other respondents stated that talents should be identified, developed and sustained by all stakeholders as expressed in the statements. Parents suggested that learners possess talents in dancing, singing, playing musical instruments, and reciting poems which can be identified during competitions and choir practice. Similarly learners pointed out that they possessed talents in singing, drumming, riding, racing, art, sports, athletics and dancing, which are identified by their teachers during practice and when carrying out various activities.

PA: There are those who can sing and dance also who know how to talk and when you give them poems, they are very good at reciting, so it is good also to note such kind of children so that we can give them support. And others in acting, you find that he/ she is very good in acting, even if they are unable to speak, they can act it out using signs. (PA - FGD-LI- LAI)

P: Teacher tells us to do the drumming, riding, racing, singing, making arts dancing. (P- FGD-OLK-SNE-NYAH)

#### *How to nurture talents*

Parents pointed out those learners with special needs were talented in different ways and their talents could be identified and nurtured by teachers who are specially trained. They suggested the need to train teachers in talent development and have talent lessons put in the timetable to be learned like other subjects. They noted that talents can also be identified and nurtured in carrier subjects such as physical education, creative arts, performing arts and also through talent search and by participating in music and drama. They were of the opinion that the government should introduce a department for talent search.

Learners on the other hand felt that the government should grant them opportunities to go to other countries in order to develop their talents. They also indicated that role models should be used to train and motivate those talented in different fields. They suggested that talents can be nurtured by availing enough time to practice and rewarding those who do well to motivate them.

PA: The first thing is releasing the child to play with the rest because when the child is alone with him/herself, you cannot notice the talents. But when they are together with the rest in the field, you can notice that your child has some interest in playing with the ball and when you discover that the child has that talent, then you can look for help such a child and especially those who are in the institute, it is easy to note and develop the talent in them because the teachers are there to help them by like taking them for games and you find that the child will shine more on the area of is talent(PA - FGD-LI- LAI)

**Informant:** Ways of identifying talents include through primary schoolteachers; parents to look out for talents in children; churches; talent searches and events such as music and drama. The Ministry of Education should create a department to search for talented children and other individuals. (JWM-IS)

S: If you have skills in football, government should pick you and take you to other countries. (S MACHA S-SNE MACHA)

The society should also be involved in the education process, the government can get role models to visit schools and inspire students. For example, singers can inspire those talented in singing, hence helping them to further their talents. Tell them what they are supposed to do. (S-FGD-AQUI-SNE-KIT)

P: When students are being given gifts they can also be given gifts to be appreciated or rewarded (P- FGD-YAMB-SNE-HOM)

PA: Prepare teachers on teaching, training colleges how to identify these talents and develop them. Also talent to be taken like a subject, therefore it will be put in the timetable (PA-FGD-OLK-SNE-NYAH)

These findings were in line with Sessional paper no. 2 of 2015 which expounds on the need to develop and nurture talents for global competitiveness and the Education Taskforce Report (2015) which mentions identification and advancement of talents among core curriculum competencies. (Republic of Kenya 2015).

This is echoed by Brown (2003) who emphasizes that edifying young people through fostering imagination and creativity, and a prime tool for doing this may be an arts education that includes Art and Music.

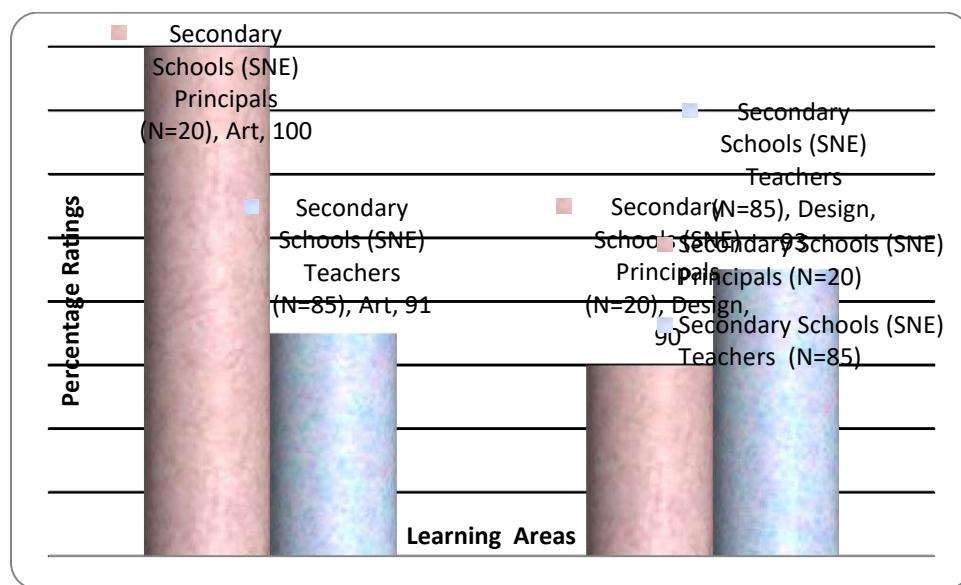
The Curriculum Policy Framework (2016) points out that the current curriculum does not provide a linkage of talents and development of careers, this justifies the need for reformed curricula that would address the aspects of identifying, nurturing and developing talents among learners in tandem with Kenya Vision 2030 which calls for a curriculum that develops learners' entrepreneurial skills, competencies and talents.

#### **4.11 Learning areas**

##### **4.11.1 The extent to which Art and Design should be emphasized in the SNE Secondary school curriculum.**

Learning areas are defined as the content to be taught and learned, from whom, when and where (UNESCO- IBE Korea – 2015).The principals and teachers' responses were expected to rate the extent to which various learning areas were to be emphasized into the curriculum. These responses were tabulated and presented in figures, tables and themes.

**Figure 4.31: Principals, and Teachers Mean Percentage Responses on the extent to which Art and Design should be emphasized in the school curriculum**



**Figure 4.31** shows that the principals and teachers were in agreement with regard to teaching of Art and Design subjects which were rated highly at 100% and 91% respectively.

Learners suggested that at this level they should attain specialization in the areas earlier introduced at primary level. Technical subjects such as agriculture, music and home science should be emphasized, in addition to the traditional subjects such mathematics, biology and language. They further suggested that they should be trained to acquire skills in report writing, innovation, self-motivation and critical thinking. The learners also pointed out that they should not only learn in the class room but also in the field in games and athletics. They expressed the need to be allowed to select subjects that are geared towards their anticipated careers rather than waste time learning subjects that are not related to careers of their choice.

**S:** Biology to become a doctor, Learning how to write, Agriculture, Music, mathematics, Learn more about education; learn about your future life, learning in order to get a job., English so that they can understand and express themselves well, Should learn about school rules, being obedient to boss and people around you, Learners should have focus, respect. (S MACHA S-SNE MACHA)

**S:** .....also on that line of that education I think sometimes maybe in our school and in other schools we think that this curriculum which you are intending to bring in our education system it is a curriculum that is going to benefit students in that maybe like no you find that from form one up to maybe form two you are taking maybe twelve subjects some of which you are not interested in chemistry what we can request the government as students if maybe I am interested in doing medicine I be let do subjects that will lead me into doing medicine than doing other things like you get to do history and maybe at some point it will never assist you in doing medicine. .... (S-FGD-AQUI-SNE-KIT)

#### *Teacher education*

The respondent expressed the view that teacher training should prepare teachers to teach both regular and learners with special needs. Basic sign language and Braille skills should be included in the teacher training curricula at all levels of teacher education. Basic knowledge of adaptations should also be included in the curriculum. Respondents strongly advocated for inclusion of vocational skills in the SNE teacher training.

#### *Vocational pathway*

The parents suggested the establishment of vocational wing for teaching subject such as tailoring, computer, farming, cooking and cleaning especially for learners who may not pursue academic subjects. Such skills would enable learners to survive in life after school. They also emphasized the importance of learning practical skills such as art and craft, home science, carpentry, tailoring and agriculture, which would enable individuals with disabilities get self-employment and earn a living. Parents further expressed the need to re-introduce a technical institution, establish vocational centers for learners with special needs who may not proceed to secondary school and build talent schools for those who talents.

**PA:** They are some few that being handicapped may not enable them to study may be so fast academically and they may be involved in such areas of interest. To me I may request the government to support these people by creating a school like these with vocational department such as that if a child is not fit academically to continue my involve in vocational skills such that if he leaves a place like this with a profession at least this may involve tailoring, computer work {PA NYAN PHB}

**PA:** vocational skills should be given a lot of emphasis as a means of nurturing talents and empowering learners who may not be gifted academically (PA ST.ANT P BUN)

**PA:** Second respondent: Kwa mfano haya masomo tulikuwa tunasoma ya home science, wajua mtu akiwa amesoma home science class four, five, six, seven, eight ata akiwa na shida fulani..ata ile ingine ya art and craft, they used to give us skills juu kama wengine wansasoma class four to eight, badala ya kuenda form one anaanza kujitegemea yeze mwenyewe. Amepata hizo skills unapata wengine ni carpenters, masons hizo alizitumia akiwa primary wengine wamekuwa musicians. (PA- FGD-JOY-SNE-KBU)

**PA:** I would wish them to be taught anything that involves use of hands. Sometimes children fear work that involves use of hands. You can start with a child when they are still very young. This should be done jointly by the staff in school and parents at home. We should teach them cookery, farming, cleaning. These will make them leave school when they are used to such activities {PA NYAN P HB}.

**PA:** vocational skills should be given a lot of emphasis as a means of nurturing talents and empowering learners who may not be gifted academically (PA ST.ANT P BUN).

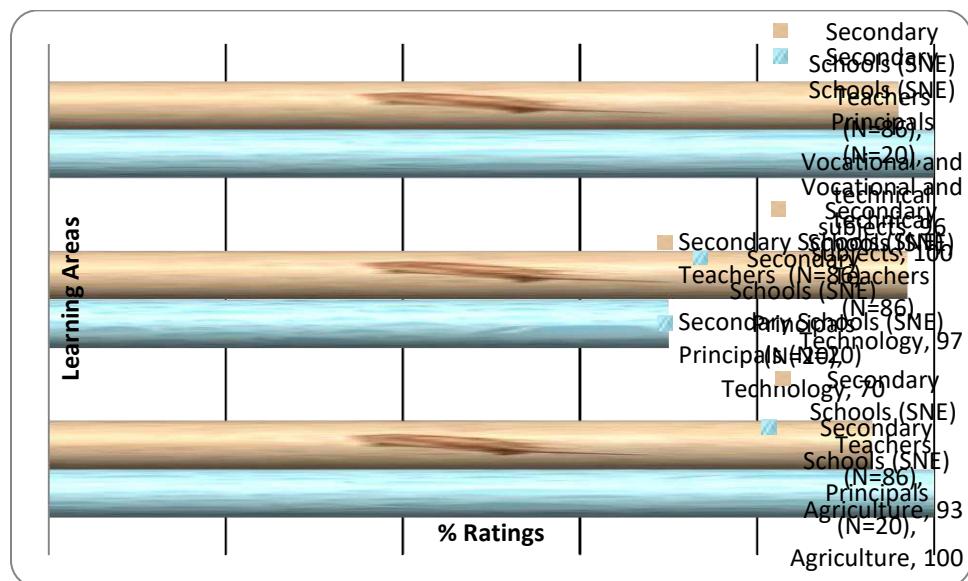
They are some few that being handicapped may not enable them to study may be so fast academically and they may be involved in such areas of interest. To me, I may request the government to support these people by creating a school like these with vocational departments such as that if a child doesn't fit academically to continue my involve in vocational skills such that if he leaves a place like this with a profession at least this may involve tailoring, computer work {PA NYAN PHB}

**PA:** Technical secondary schools should be re-introduced and vocational center for learners with mentally handicapped. Institutions that nurture talents should be established and children to be placed according to their talents and potentials(PA - FGD-NGARI- LAI)

#### **4.11.2 The extent to which Agriculture, technology, vocational and technical subjects should be emphasized in the SNE Secondary school curriculum**

The respondents from secondary schools were required to give their responses in regard to the extent to which should Agriculture, technology, vocational and technical subjects should be emphasized in the SNE Secondary school curriculum as indicated in Figure 4.7.

**Figure 4.32: Principals of SNE Secondary Schools, Teachers and EARC Officers Mean Percentage Responses on the extent to which Agriculture, technology, vocational and technical subjects should be emphasized in the school curriculum**

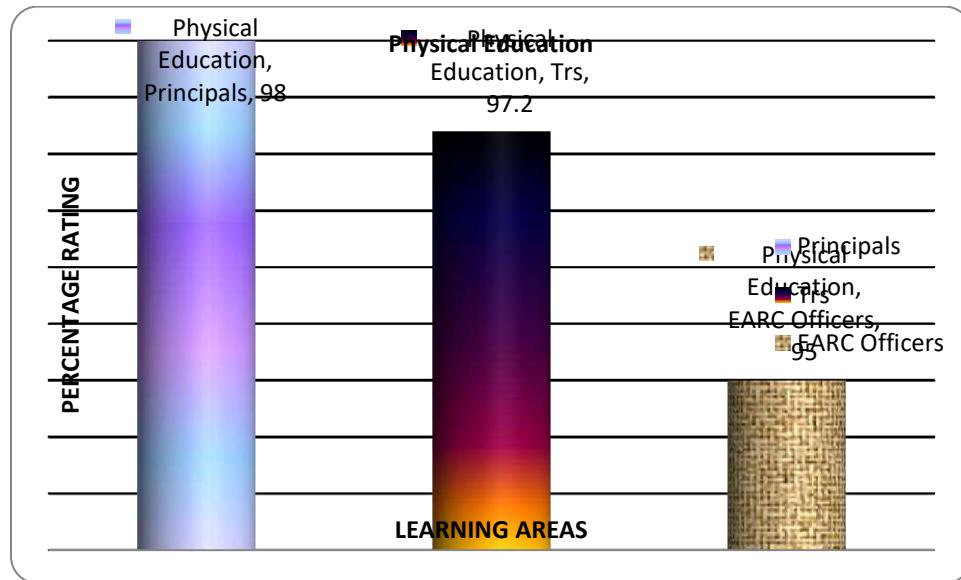


**Figure 4.32:** shows that most principals preferred vocational and technical subjects while (97.0%) of the secondary school teachers were highly in favour of technology. This is important relevant to the attainment of vision 2030 which positions technology as having a critical role in transforming Kenya into a middle level country.

#### **4.11.3 Extent to which Physical Education should be emphasized in the SNE Secondary school curriculum**

Responses on the extent to which Physical Education should be emphasized in the school curriculum were sought from heads of SNE institutions, teachers and EARC Officers. The findings are presented **Figure 4.33**.

**Figure 4.33: Principals of SNE Secondary Schools and Teachers Mean Percentage Responses on the extent to which Physical Education subjects should be emphasized in the school curriculum**



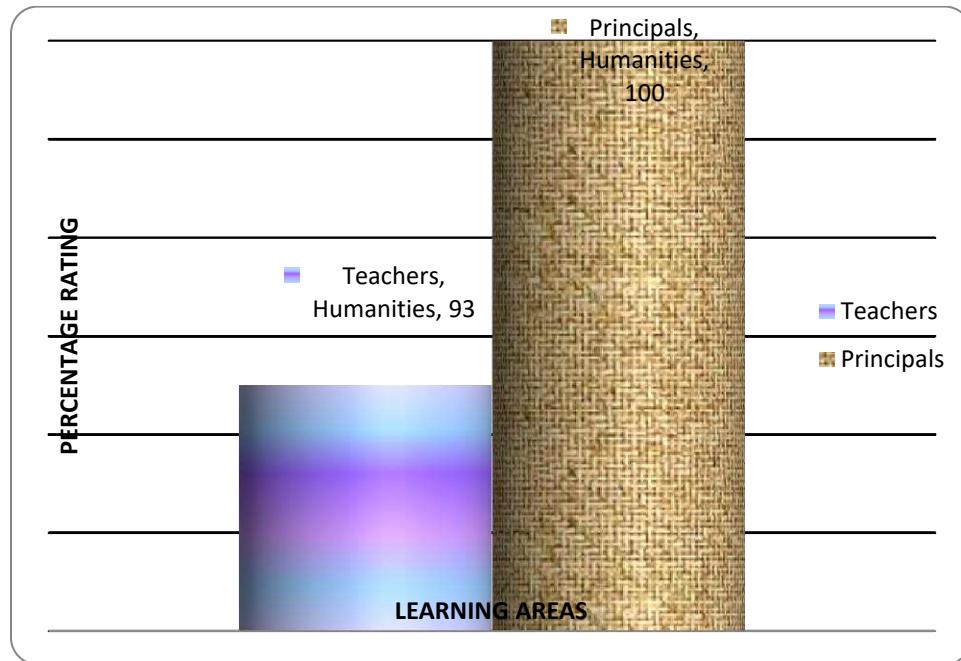
In Figure 4.33, secondary school principals ranked P.E at 98% followed by teachers 97.2% and EARC officers 95%. This implies that all respondents were in agreement that physical education should be emphasized in the school curriculum.

#### **4.11.4 Extent to which Humanities should be emphasized in the SNE Secondary school curriculum**

Responses on the extent to which humanities subjects should be emphasized in the school curriculum were sought from heads of SNE institutions, teachers and EARC Officers. The findings are presented in Figure 4.34.

#### **4.11.5 Principals of SNE Secondary Schools, Teachers and EARC Officers Mean Percentage Responses on the extent to which Humanities subjects should be emphasized in the school curriculum**

**Figure 4.34: Principals of SNE Secondary Schools, Teachers and EARC Officers Mean Percentage Responses on the extent to which Humanities subjects should be emphasized in the school curriculum**



**Figure 4.34** provides rating by secondary school principals rated humanities subjects' at 100% and teachers' rating the same subjects' at 93%. This implies that principals and teachers indicated that Humanities should be emphasized to a great extent.

#### **4.11.6 Extent to which Environment and Climate Change Aspects should be emphasized in the SNE Secondary school curriculum**

Responses on the extent to which Environment and Climate Change Aspects should be emphasized in the school curriculum were sought from heads of SNE institutions, teachers and EARC Officers.

**Figure 4.35: Principals of SNE Secondary Schools, Teachers responses on the extent to which Environment and Climate Changes subjects should be emphasized in the school curriculum**

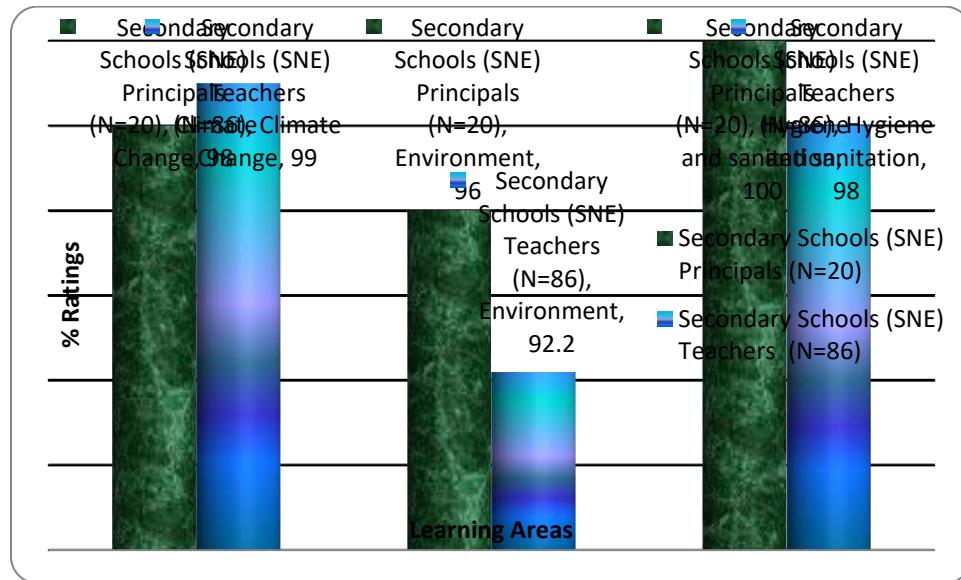
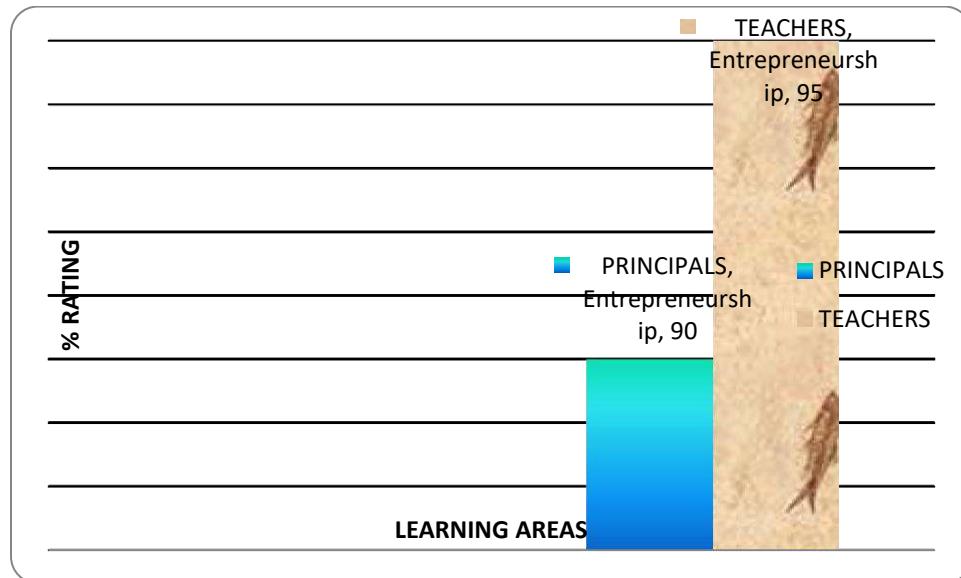


Figure 4.35 shows that the majority of the principals (98.0%), teachers (96.4%) indicated that climate change, environment, hygiene and sanitation should be emphasized in the school curriculum. This indicates that the subjects should be highly emphasized in the envisaged curriculum.

#### **4.11.7 The extent to which Financial Subjects should be emphasized in the SNE Secondary school curriculum.**

Responses on the extent to which Environment and Climate Change Aspects should be emphasized in the school curriculum were sought from heads of SNE institutions, teachers and EARC Officers.

**Figure 4.36: Principals of SNE Secondary Schools and Teachers Mean Percentage Responses on the extent to which financial subjects should be emphasized in the school curriculum**

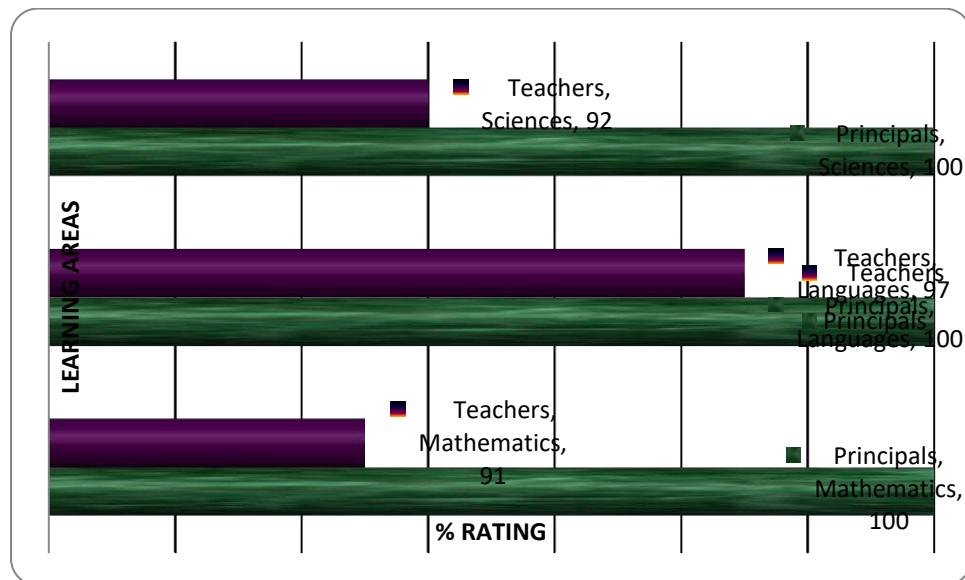


The majority of the SNE secondary school principals (90.0%) and teachers (95.0%) indicated that entrepreneurship subjects should be emphasized in the school curriculum.

#### **4.11.8 The extent to which 21<sup>st</sup> Century subjects should be emphasized in the SNE Secondary school curriculum**

Responses on the extent to which mathematics, languages and science subjects should be emphasized in the school curriculum were sought from heads of SNE institutions and teachers.

**Figure 4.37: Responses from SNE principals and Teachers mathematics, languages and sciences subjects**



In Figure 4.37, all the principals indicated that all the 21<sup>st</sup> century subjects should be emphasized in the school curriculum. The average ratings from the teachers were also high (above 90%) implying that all the respondents were in favour of inclusion of the subjects in school curriculum.

#### **4.11.9 Extent to which Home Science subjects should be emphasized in the SNE Secondary school curriculum**

Responses on the extent to which Home Science subjects should be emphasized in the school curriculum were sought from heads of SNE institutions and teachers.

**Figure 4.38: Principals of SNE Secondary Schools and Teachers responses on the extent to which Home Science Subjects should be emphasized in the school curriculum**

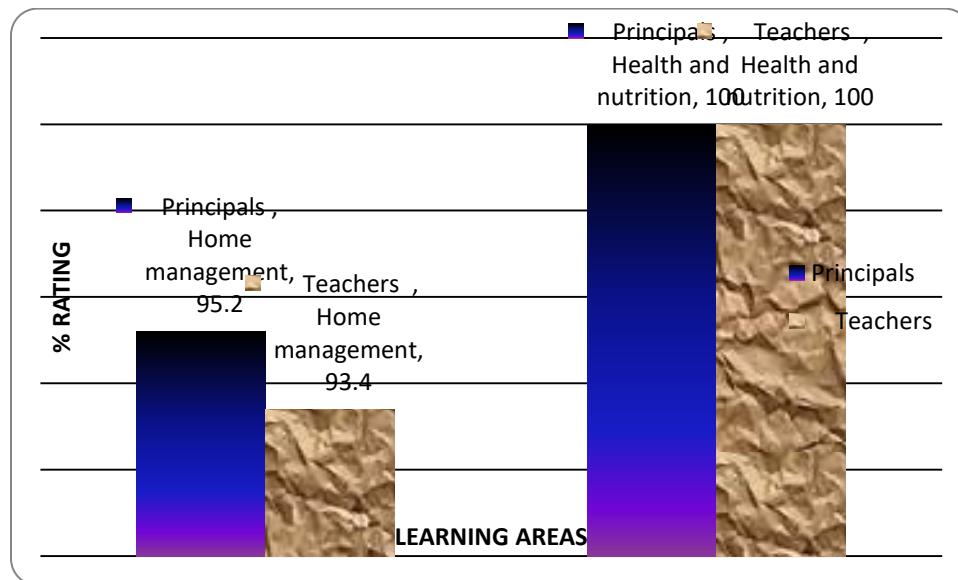


Figure 4.38 shows that all the principals and teachers affirmed the inclusion of home science and health and nutrition into the school curriculum. This implies that the respondents considered these subjects as practical and can empower students after schooling.

#### **4.11.10 Extent to which other Special Needs Areas should be emphasized in the SNE Secondary school curriculum**

The principals, teachers and EARC officers rated the extent to which other special needs areas should be emphasized in the school curriculum.

**Figure 4.39: Principals of SNE Secondary Schools and Teachers Mean Percentage Responses on the extent to which other Special Needs Areas should be emphasized in the school curriculum**

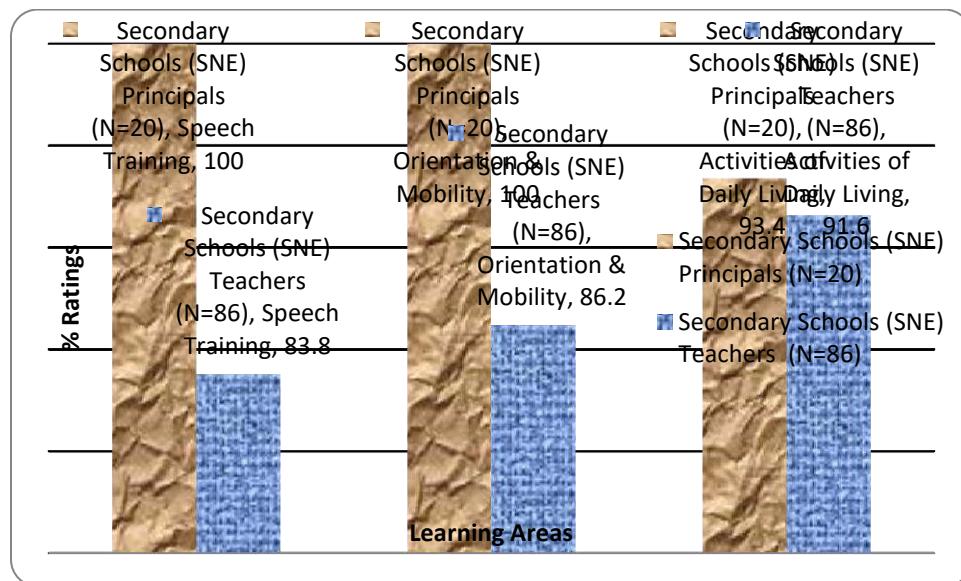


Figure 4.39 All the secondary school principals supported inclusion of speech training and orientation and mobility learning areas in the envisaged curriculum. Overall, the mean rating of the other special learning areas was very high (above 85%) implying that these areas are critical for learners with special needs and thus should be embedded in the envisaged school curriculum. The secondary school principals also rated the extent to which society as learning area should be emphasized in the curriculum and all of them were in support.

The findings showed preference of a flexible curriculum that takes into consideration individual learners' abilities. The Council for exceptional children (2009) points out those learners with special educational needs should be taught additional skills that help them mitigate the effect of disabilities. Persons with Disability Act 2003 section 18 states that "No person or learning institution shall deny admission to a person with disability to any course of study by reason only of such disability to acquire substantial learning in that course." Hatlem (1996)

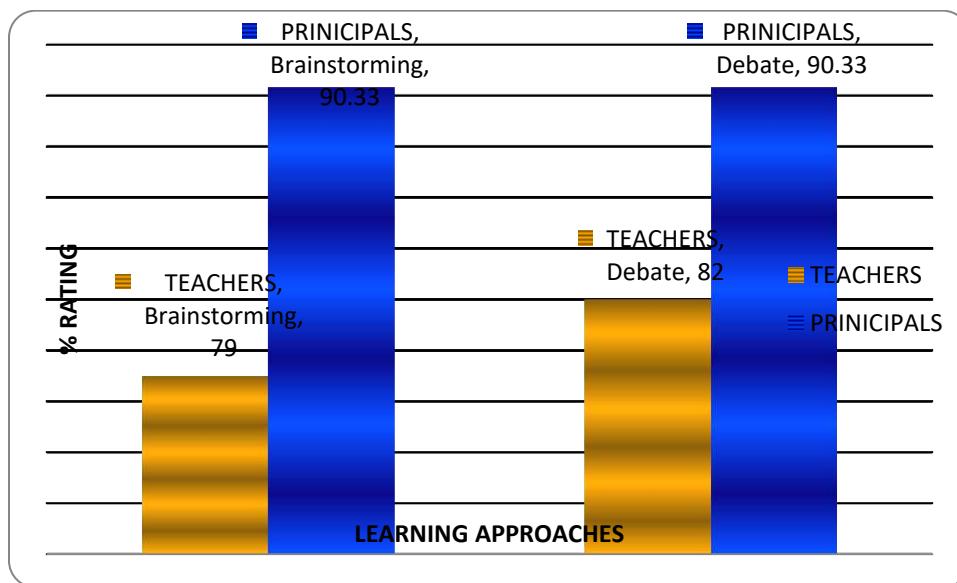
observes that learners with visual impairment should be taught Braille, Social skills, activities of daily living, assistive technology, orientation and mobility. In addition to being taught core subjects that develop literacy, numeracy and values, learners with special needs should be allowed to study subjects of their interest without conforming to prescribed subject groups.

This is enshrined in Article 55 (a) of the constitution which states: “The state shall take measures including affirmative action programmes, to ensure that the youth access relevant education and training.” Wolff; et al. (2002) further says that teaching academic subjects alone is not adequate to help children with special needs. The ideal situation would be for learners with special educational needs to study all content in the learning areas in the regular curriculum. However, some of this content may not be achievable due to the learners’ prevailing educational needs. Such content could be removed, replaced, or modified to suit the learner. This process of modification is referred to as curriculum adaptation Kochung Report (2003).

#### **4.12 Learning approaches**

Learning approaches are instructional strategies and techniques of carrying out instructions in the delivery of curriculum content. In the course of this study, 85 secondary school teachers and 20 secondary school principals in special schools were randomly sampled to give their responses with regard to the extent to which various learning approaches should be embedded into the curriculum.

**Figure 4.40: Analysis of SNE secondary teachers and principals' responses on learning Approaches**



**Figure 4.40** From both groups, discussion approach is rated very highly at 100% and 96.00% by SNE secondary school principals and SNE secondary school teachers respectively. SNE principals rated brainstorming lower at 77.67%. The discussion approach is fit for use in competence based curriculum going by the high ratings indicated by the respondents.

#### 4.12.1 Practical methods of teaching

SNE teachers and principals at secondary school level responded to a set of items in a questionnaire regarding the extent to which they would want to use practical based methods for learning purposes.

The respondents expressed the view that Learner centered approaches should be emphasized. Learning should be practical oriented with only 30% of theoretical learning. ICT should be included in learning at all levels.

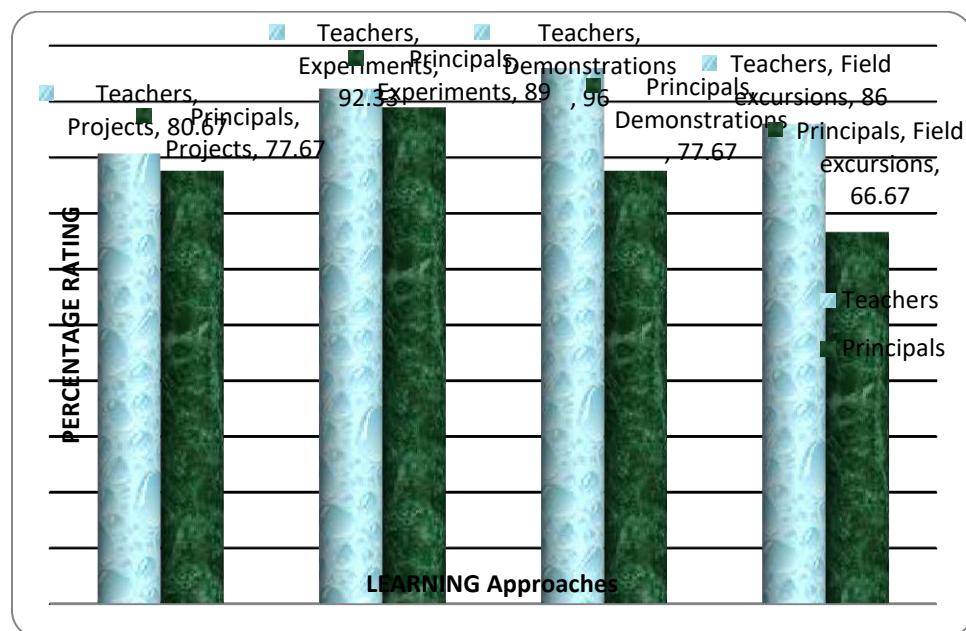
**R:** Learner centered approaches should be adopted with practical skills 70% and theory 30%. Inclusion of ICTs in learning across the board is crucial. (JWM-IS)

#### *Adapted instructions*

The respondents expressed the need to adapt instructional methods to suit different learners with disability. They underscored the use of assistive technology by learners with special needs to enhance digital literacy.

#### **4.12.2 SNE teachers and SNE principals' responses on practical methods of teaching**

**Figure 4.41: SNE teachers and SNE principals' responses on practical methods of teaching**

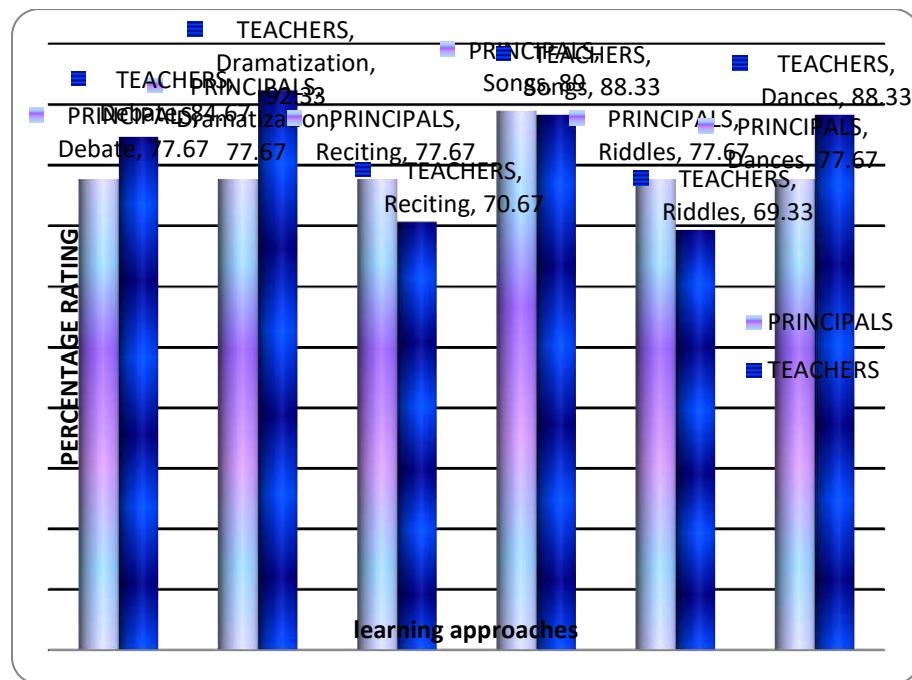


**Figure 4.41** secondary school SNE principals and teachers rated use of experiments and demonstrations very highly both at 92.33% and 96.00% as approaches to be used while delivering the adapted secondary school SNE

curriculum. SNE secondary school principals gave experiments the highest rating (89.00%) among the other approaches in this cluster. Learners with special needs have their specific learning styles just like any other learner. We have auditory, visual, tactile and kinaesthetic learners and all styles of learning should be catered for while instructing the different categories of learners with special needs.

#### 4.12.3 Learner activity based strategies

**Figure 4.42: SNE secondary school teachers and principals' responses on the extent to which various learner activity based strategies should be used in delivering the SNE secondary school curriculum**



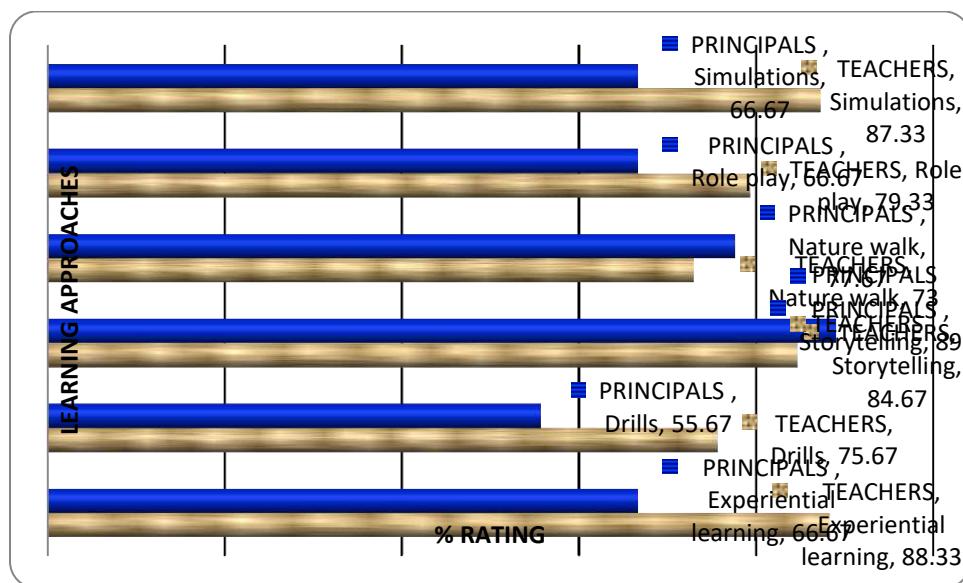
In Figure 4.42, secondary school SNE teachers preferred dramatization more as opposed to the other approaches with a rating of 92.33%. Secondary school principals also rated songs the highest with a percentage rating of 89.00% while

for the other approaches i.e. debate, dramatization, reciting, riddles and dances, they gave a rating of 77.67% to each.

#### 4.12.4 Experiential Learning Strategies

Secondary school SNE teachers and principals responded to a set of items in a questionnaire regarding the extent to which they would want to use experiential learning approaches of teaching.

**Figure 4.43: SNE teachers and SNE principals' responses on experiential learning strategies**



From the findings displayed in Figure 4.43, secondary school teachers gave experiential learning the highest rating of 88.33% followed by simulations with a rating of 87.33%. It is also evident that storytelling is highly preferred by the secondary school SNE head teachers with a rating of 89.00% followed by nature walk at 77.67%.

#### 4.12.5 Lecture Method of teaching

Secondary school SNE teachers and principals responded to a set of items in a questionnaire regarding the extent to which they would want to use.

**Figure 4.44: Responses on Lecture Method of teaching**

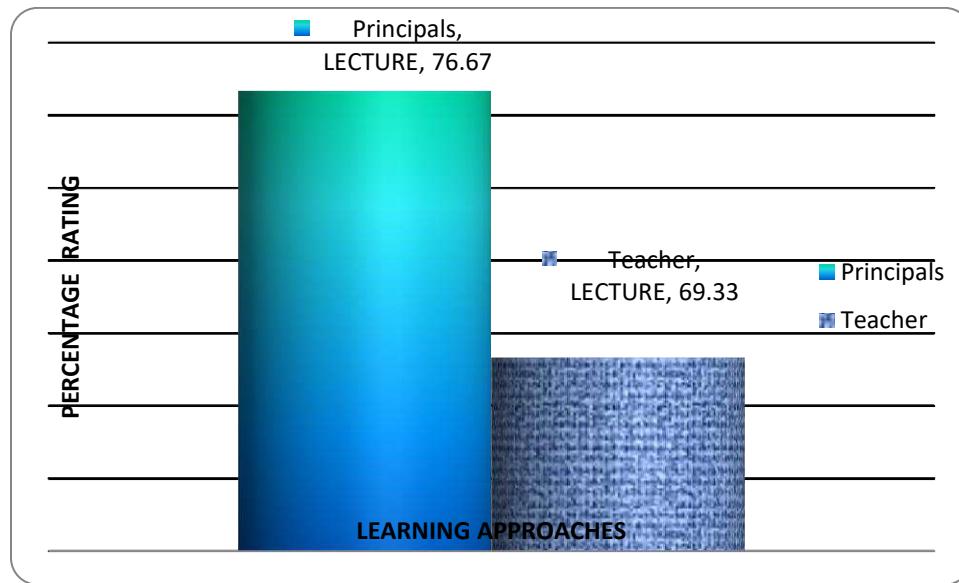


Figure 4.44 shows responses by principals and teachers on Lecture Method of teaching shows the lowest preference which implies that this method would be useful in enhancing desired competencies.

#### 4.13 Learning Resources

The data collectors observed the availability of resources that will assist the nurturing of SNE learner potentials. The availability of learning resources was key to other variable in the observation schedule that condition, adequacy and utilization. The observers rated in percentage the availability or none availability of the resources to be used to assist the hearing impaired and **Mental handicapped** learners in the learning process.

**Figure 4.45: Observation schedule of availability of Hearing impaired SNE Teaching and Learning resources**

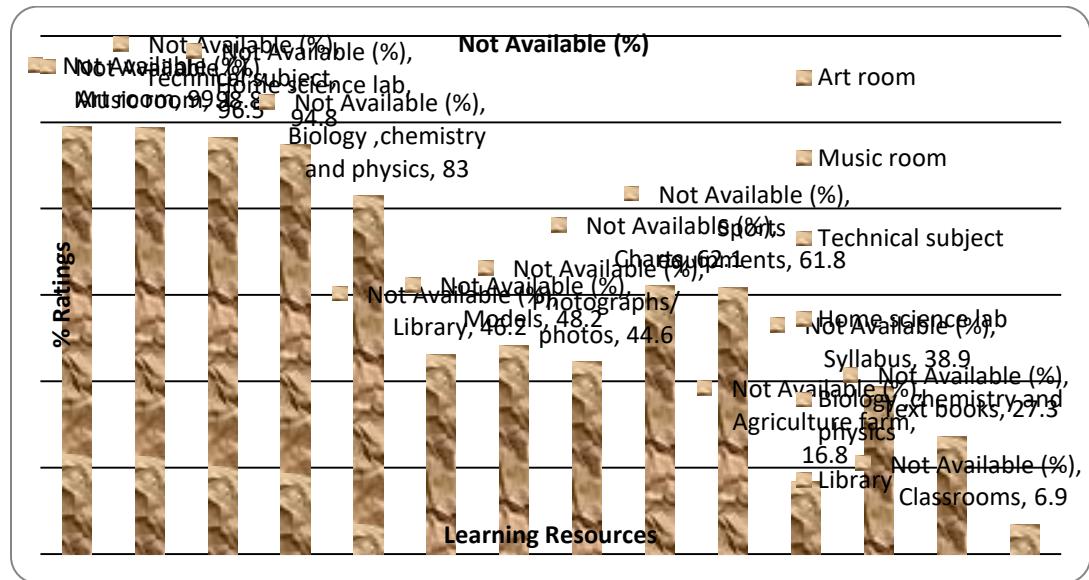


Figure 4.45 shows availability of Hearing impaired SNE Teaching and learning resources such speech room, early toileting materials, loop induction hearing among others were not available at tall in SNE schools. Most of the resources available were inadequate by a margin of 75% across the country. It was also difficult to determine adequacy and utilization where no resources could because they were physically not available.

**Table 4. 8: Observation schedule of availability of Mental Handicapped SNE Teaching and Learning resources**

Learning resources	Yes	No
Physical Adaptations	5.8	94.2
Physical Pathways	22.5	87.5
Pointers	28.6	71.4
Syllabus Mentally handicapped	25.6	74.4
Physiotherapist	32	68
Swimming pools	12	88
Floater	15	85
Adapted Toilets	1.4	98.6
Speech Kit	4.3	95.7
Pen book holder	62.5	37.5
Physiotherapy Rooms	5.7	93.3
Adapted Seats Tables	6.7	83.3
Grips	1.4	98.6
Physiotherapy Equipment	8.6	91.4
Floater	0	100

In Table 4.8, for mentally handicapped schools there was acute shortages of teaching and learning resources, these included Tambourines, Speech kits, Swimming pool, Floater, Vocational workshops, materials, tools, equipment, Daily living skills training materials & equipment, Communication devices, Physiotherapy rooms & equipment and Physiotherapist. These resources are very critical to assist the already disadvantaged SN learners.

#### **4.13.1 Observation schedule by data collectors' availability of Teaching and learning resources across SNE schools at secondary level**

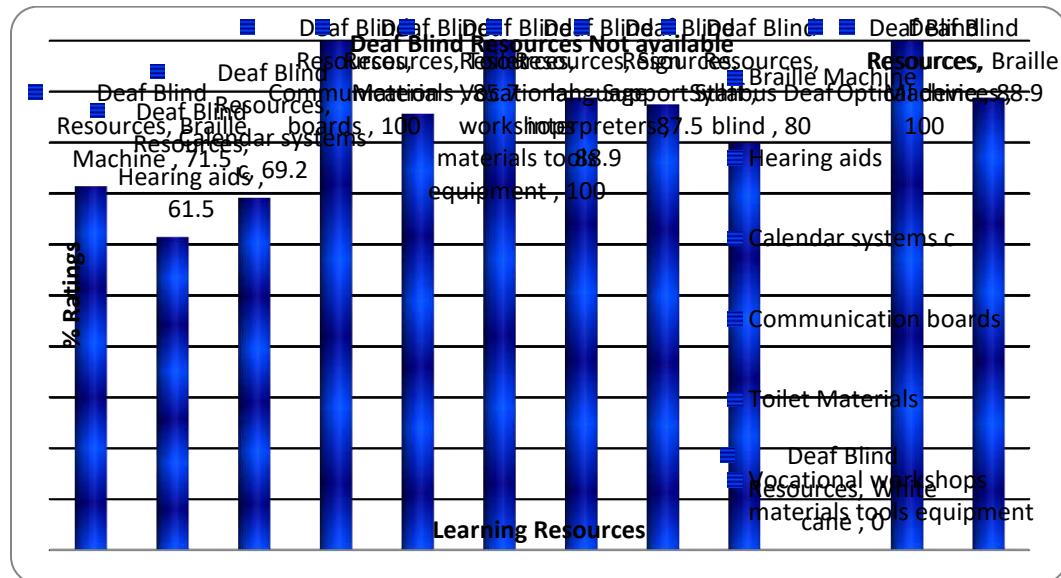
**Table 4.9: Physically Handicapped SNE Resources observed**

Learning resources	Yes	No
Physical Adaptations	0	100
Physical Pathways	0	100
Pointers	18.8	81.2
Syllabus Physically handicapped	25	75
Physiotherapist	25	75
Swimming pools	25	75
Floaters	25	75
Adapted Toilets	21.2	78.8
Speech Kit	37.5	62.5
Pen book holder	42.1	57.9
Physiotherapy Rooms	43.8	56.2
Adapted Seats Tables	56.3	43.8
Grips	42.5	57.5
Physiotherapy Equipment	38.8	61.2

Based on the findings in **Table 4.9**, physical adaptations, physical pathways, pointers, syllabuses were not available to a great extent, ranging between 100% to 75%, though they are very essential to physically handicapped learners.

#### **4.13.2 Observation schedule by data collectors' availability of Teaching and learning resources across SNE schools at secondary level for Deaf Blind learners**

**Figure 4.46: Availability of resources for Deaf Blind learners**



From Figure 4.46 the observers recorded that optical machine, white cane, sign language interpreters, communication boards, Braille machines were among the requisite learning resources lacking in SNE schools for deaf blind.

#### *Tools and equipment, materials and facilities*

Learners felt that the government needs to equip schools with enough textbooks, library books and other learning tools. They expressed the need to provide enough laptops and computers to help them acquire digital literacy. In addition, learners should be provided with the workshop materials to enable them learn vocational skills practically.

P: Government to give school library books and more text books and tools to learn better  
(P-FGD-OLK-SNE-NYAH)

**Interviewer:** what are the materials/ resources do you require for technology  
P: computers and laptops (P-FGD-OLK-SNE-NYAH)

P: want shoes, socks, sewing machine for making clothes and sweater (P-FGD-ESA-SNE-NYAM)

Parents suggested that learners should be provided with materials, tools and machines for tailoring, carpentry and animal rearing to enable them gain practical skills in these areas. They should also be provided with games and sports materials and equipment and indoor games facilities so that those who have severe disabilities can have an opportunity to participate in games. They also suggested that the government should provide assistive devices such as wheelchairs to learners with disabilities.

**PA:** Like those who know tailoring, they should be helped with a tailoring machine, those who know things like making furniture, they should be provided with machines for doing carpentry, those who can rear animals, they should be assisted in getting animals to rear such as a cow, goat or chickens so that they can support themselves. (PA - FGD-LI- LAI)  
**PA:** They should be provided with games and sports, materials and equipment (FGD-NGARI- LAI)

**PA:** others are adapted games that is in door games some are good since they can be played indoors for children with challenges to move (PA-FGD-OLK-SNE-NYAH)

PA: Government to offered facilities like wheel chairs (PA-FGD-OLK-SNE-NYAH)

### *Infrastructure*

Parents emphasized the need for building more special schools to cater for many children with special needs still waiting to be admitted in the few existing schools. They also suggested that the government should expand the existing special school so that they may admit more learners. They also pointed out that there is need to build special secondary schools to accommodate learners who complete primary education and miss positions in regular schools.

**PA:** Let's say for example, some parents who were saying they would like to take their children to school, but when they come, they are told there are no vacancies for their children, so infrastructure also should be put in place such that there should be enough dormitories and enough classes as well as enough caregivers (PA - FGD-LI- LAI)

**PA:** Ministry to provide secondary schools for special students to adapt well. This will enable them to continue with secondary education after primary. (PA-FGD-OLK-SNE-NYAH)

The respondents expressed the need to establish physical infrastructures that are friendly to learners with special needs such as classrooms, laboratories, computer labs, studios and workshops. The government should also invest in digital resources. Special schools should be fully funded by the government.

The learners on the other hand indicated that they should be provided with resources such as Books, Stationery, Library books, and Magazines. They also require better facilities and equipment to enable them learn better and stay in school with some level of comfort.

Translator: give them computers teachers in profession to help us on how to plait, giving us books rubbers stationeries in short geometrical sets, books textbooks, storybooks, school uniform, shoes, sweater, bags, water, food, sleeping facilities, big net to sleep on so that they don't get bitten by mosquitoes and blankets to sleep on and feel comfortable and happy and they don't feel cold and roofs that don't leak, good chair in class good tables, good windows, get money to get lockable card boards, (PP KWA P KWA)

#### *Human resource*

#### *Assessment officers*

Parents expressed the need to employ more assessment personnel and establish more assessment centers to enable parent access assessment services easy and reduce cost.

**PA:** Poverty is also another big issue because some other if you ask them to come all the way from Narumoru or even past Narumoru, to come seek for assessment, maybe they can come and find that the officers are out in the field and there is no officer in the office, they

are forced to go back home yet, they can't manage to come back again, so also the poverty also deters them from doing so. (PA - FGD-LI- LAI)

### *SNE teachers*

Parents suggested that there is need to train and employ special needs education teacher to work in special schools and inclusive programs. They noted that SNE teachers should be posted in regular schools to promote inclusion of learners with special needs in the mainstream. Learners also shared the same views.

**Parent:** the government employs professionals for special needs children and counselors (**PA-FGD-MALIK-S-BUN**)

**PA:** Also walimu wengine hawana that knowledge ya special education so mko supposed kuinclude, every school ikuwe na walimu wamesomea special education. Kama huyu nlimtoa private school juu wanaona ako na celebral palsy, hawezi andika, yeze anaewela lakini wakiona hawezi andika sasa wanaona ni kama hawezi soma. Unajua wanamuachilia tu anaenda shule tu ivo wanamuacha na yeze anatake advantage,yeze hasomi juu wanaona yeze hawezi soma. So mko supposed at least kwa every school ikuwe na walimu wamesomea special education. Another thing, hizi shule za public kunakuwanga na zingine zina special class lakini ni tu za mentally challenged, hakuna deafs, blind, also those classes za physically disabled are not friendly. So mko supposed kuangalia ata kama mmesema disability ikuwe integrated,haiwezi juu facilities hakuna, hakuna classes za deafs, hakuna materials so mko supposed kuangalia hiyo. (PA- FGD-JOY-SNE-KBU)

PA: I think if they can give schools enough teachers (PA-FGD-OLK-SNE-NYAH

**P:** The government to give us things and teachers who will help us learn (P-FGD-ESA-SNE-NYAM)

The respondents expressed the need to train in vocational skills in order for them to have the capacity to train the learners in vocational areas. They underscored the need to equip, support staff with the relevant skills for dealing with learners with special needs

The teachers also need to be trained in the skills for vocational training such as carpentry, welding, etc. this is necessary because the teachers are trained on how to teach and handle special needs learners, but lack these vocational skills which could be of great help (PA KAB-SNE BAR)

### *Learning environment*

Learners suggested that the school environment should be made friendly for learners with physical disabilities. They expressed the need to adapt the physical environment by providing ramps for those in wheelchairs and adapting toilets.

The majority of our children does not have the potential to cope up with the environment due to their disabilities. I suggest government should create an environment where they can cope well and excel. (P-FGD-OLK-SNE-NYAH)

**PA:** Because you find like in a school like this one, you can hardly have enough schools of this nature to sustain the number of children with disability so these children some end up because like when we came here we did an interview so there are those who are never taken , they maybe end in other ordinary schools, and those schools may not have the facilities. How do you ensure those other schools, ordinary schools like where my daughter was, that they are made to comply with certain basic expectations of a special child. Things like toilets, do they have special toilets, do they have a lamp r they only have staircases. So that when you have a child with disability, at least the basic needs are not interfered with, they are not feeling completely out of place because of the environment they are in. Because the environment can make that child affected because anaona hawa wengine kwa mfano wanaeza panda yeeye hawezi panda. So when you are coming up with these standards, i think there is also need to include because there is what is probably basic that really is required in school even in our public and even private. (PA- FGD-JOY-SNE-KBU)

### *Provision of bursary*

Parents suggested that learners with special needs should be given bursaries just like their colleagues without disabilities. They reiterated the need to fund learners with special needs to be able to start small business enterprises and earn a living.

PA: There is also this one more thing. Bursaries should also be given to the children. The same way they give to other regular schools, even for the disabled, they should also be given. (PA - FGD-LI- LAI)

PA: think it is good for the government to look into the future of this child also because the same way out there they are taking care of the youth like starting up youth groups and they fund them, so even in the sector of the disabled, it is also good they start up groups and fund them so that every individual who leaves school, they can be funded to start even if its business instead of leaving them to loiter aimlessly without doing anything. (PA - FGD-LI- LAI)

### *Time*

#### *Teaching time*

The learners wanted the lesson time increased; they recommend remedial classes and repetitions of what they have been taught.

Translator: remedial teaching, maybe the teacher should repeat what has been taught (PP KWA P KWA) Interview what else do you need to learn better?

### *Assistive devices*

The respondents expressed the need to provide assistive devices that lessen the severity of disability with regard to accessing education. These include low vision devices for the visually impaired; hearing aid for the hearing impaired; crutches and wheelchairs as well as making the learning and school environment accessible to all through the provision of ramps; wider bathroom and classroom doors for wheelchair users. Parents pointed out that learners needed to be provided with assistive technology to enable them acquire digital literacy.

PA: These children need assistive devices such as hearing aids and wheelchairs (FGD- NGARI- LAI).

This is supported by the Taskforce Report (2012) which observed that most schools lacked basic requirements such as teachers, teaching and learning materials and physical facilities. Republic of Kenya (2012)

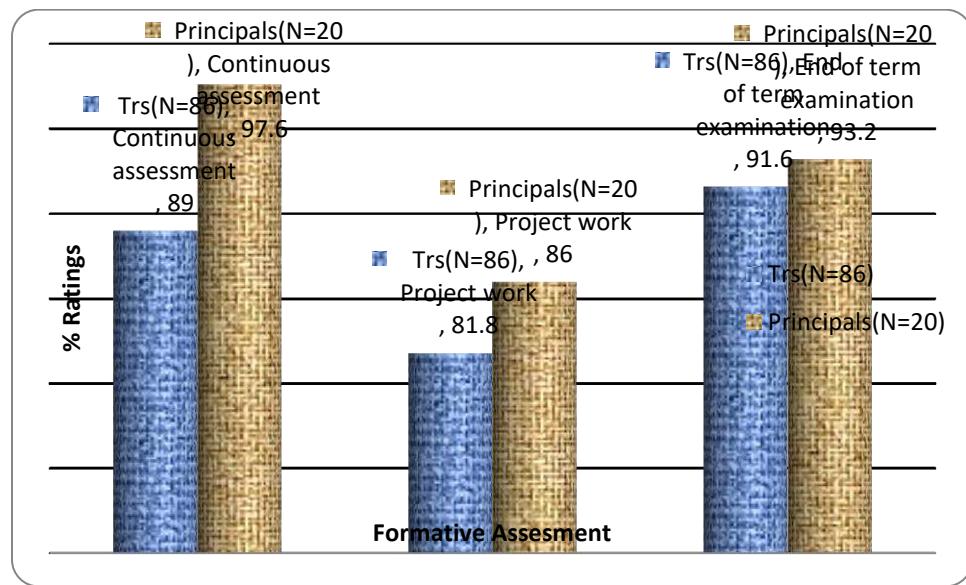
The needs assessment findings further indicated that assessment centers and personnel were not adequate which made it difficult for parents to access assessment services easily. It was also noted that assessment centres lack specialized equipment to carry out assessment of various categories of special needs. This is supported by Kochung, Report (2003) which pointed out that Educational Assessment and Resource Centres (EARCs) have inadequate specialized equipment and human resource; there is inadequate infrastructure and facilities, and additional costs for learners with disabilities which hinder progress in special needs education. (Republic of Kenya, 2015). Attainment of quality

education is dependent on how well the curriculum objectives and curriculum support materials are translated into activities through the utilization of the available resources.

#### **4.13.3 Assessment**

The survey sought to establish the input of the secondary school principals and teachers with regard to different modes of Assessment, which were clustered into two; Formative and Summative assessment. The results were tabulated and presented in the following figures below.

**Figure 4.47: Analysis of SNE Secondary school Principals and teachers' responses to Formative Evaluation.**



In Figure 4.47, the responses demonstrate that SNE secondary Principals and teachers, had a preference for formative assessment, especially CATs rated at 97.6% and 93.8% by both respondents and end term examinations rated equally high. Comparably project work was not highly regarded.

#### **4.13.4 Analysis of Secondary school Principals and teachers responses on Summative Evaluation**

The survey sought to establish the input of the secondary school principals and teachers with regard to Summative assessment. The results were tabulated and presented in figure Figure 5.1.7.2 below.

#### *Functional assessment in SNE*

The respondents advocated for comprehensive functional assessment in both health and educational assessments at an early stage so as to ascertain the type and severity of disability for proper placement and intervention. To this end, Educational Assessment and Resource Centers (EARCs) are crucial if education for all is to be achieved. They suggested that assessment should be done by a multi-disciplinary team and the officers involved should be trained in special needs education.

Respondent: Suggestion matrix for addressing adaptation of the curriculum for learners with special needs and modes of assessment suitable for various categories of learners with special needs with regard to Special Needs Education in the curriculum reforms. (LCD-EO). See appendix: LCD-EO....Notes: adapt a compatible matrix from the ref.21

**R:** On assessment, EARC<sup>s</sup> should improve on the following; teachers posted there should be fully trained; there should be necessary facilities; multidisciplinary team needs to be practically facilitated. ( MA-IS)

R: There should be regular, accurate and comprehensive assessments of students with ASD since it is the foundation for effective program services and professional development. (MA-IS)

According to UNESCO, IBE 9 (No. 15 – 2015), formative approach supports the learning process, enable the teacher to understand how students are learning, identify problems the students may face in the learning process and use feedback to ensure that all have the opportunity to learn .

The need to adapt assessment to suit different categories of learners with special needs, accommodation in the form of timing, mode of response and scheduling were also key among the findings. Emphasis was made on the need to have special examinations for learners with special needs. This is supported by

Kochung Report (2003) which states that examinations for learners with special needs should be presented in accessible formats and that time allowed should be commensurate with the nature and extent of individual needs.

#### **4.13.5 Formative assessment**

Parents suggested that learners should be assessed continuously during the learning process and records kept to constitute the final grade instead of using summative evaluation. Vocational skills should also be assessed through project work. They were strongly opposed to KCPE being the sole determinant of promotion of learners in secondary schools. They suggested that continuous assessment marks should constitute the biggest percentage of the marks attained at the end of every level.

**PA:** The internal examinations which include attendance, participation, CATS should contribute to 50% and 50% be left for final national examinations. (PA ST, ANT P BUN)

**PA:** In terms of evaluation, when we are evaluating, probably it is up to the method. Evaluation through examination is okay, but probably the difference is how it is done because you see now its like you know ukiingia standard one, you will do an exam in standard eight. It is like that is what is determining kuenda form one, you will find that there is a lot of pressure that is put on and geared towards examination that's why there is a lot of cheating because it is like if you failed that one, it is like you have lost in life because the way we assess, we normally put a limit tunasema tunaevaluate october. Suppose it is put in a way that evaluation is a kind of continuous or regular such that you are able to monitor the child through out. Because unaeza kuwa number one through out but ikikuja final exam, imagine ukigonjeka because you can get sick, you imagine you are been assessed for only that one week, kama ni standard eight ni siku tatu. The eight years you have been in school has been reduced to only three days and those three days you can be feeling not very well then you are condemned. Na ungechukua uone vile huyu mtoto alipata kutoka standard one, two, three uone vile evaluation yote, that is a child unaeza sema aingie form one straight ata bila kufanya huo mtihani because you have already assesed the child. Probably we need to see how we look at it tujuje kama tutaanza na kuassess either wakiwa standard six upto eight ama seven to eight, yaani we need a bigger period to really assess and say this child amaa ni A student ama ni B student. (P-FGD-OLK-SNE-NYAH)

*Adaptation of assessment*

The respondents suggested that assessment should be adapted to suit the needs of learners with special needs. There is also need to develop different ways of assessing those who are gifted and talented.

**PA:** To prepare special examinations for special students since even these children are special since they cannot do normal work. Mainly concerning daily living. (PA-FGD-OLK-SNE-NYAH)

#### *Examination time*

The learners expressed the view that they needed more time during examinations because some of the concepts in subjects like science were difficult.

More time for exams so that: Some words in science are hard to understand (PP ST.ANT P BUN)

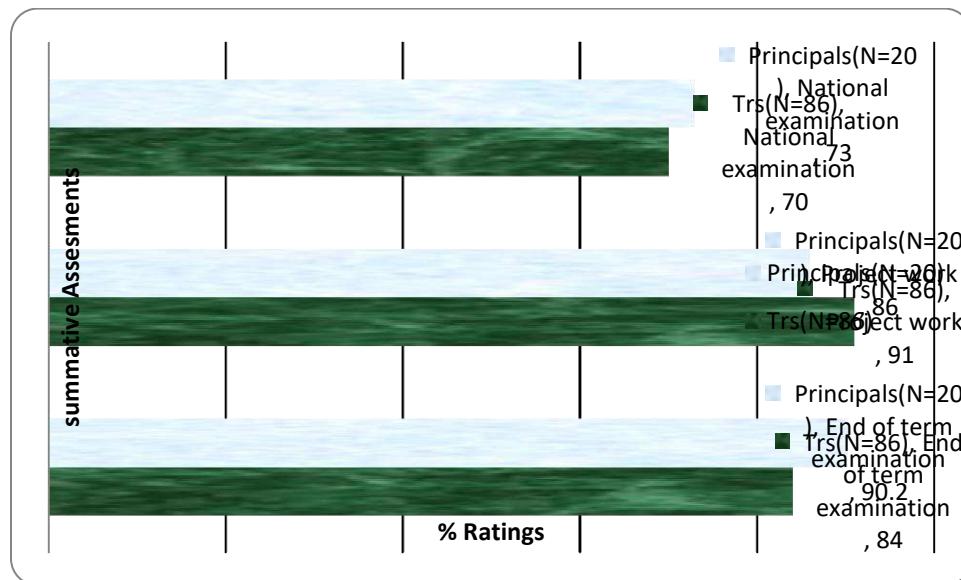
More time allocated (extra time) because some people write slowly those with PH may spend a lot of time trying to sit upright. (PA-KAJB-SNE-KAJ)

#### *Assessment by observation*

The parents suggested that learners with special needs can be assessed through observation of behavior, especially on the way they interact with others and their reaction in the classroom

Form, we give them, there are times we collect them in the halls and we see how a child interact with others in a moment he or she has stayed in school and we compare the period child came from home. We see if there is different position of a child, for a child who has stayed in school I think this one is different. Like a child within the school if compare the child from outside that gap is very big. When you take a child from here now with little knowledge he or she got from here. Let say a student here usually participate in music festivals, in drama and such like things. When you sit and see this kind of a child participating in such activity you may not believe such a child. Class work can be assessed like the way you are here now. You go sit with them in a class the teacher is there and just see the reaction of a child and a teacher. This will show these students understand the teachers or not [PA NYAN PHB }

**Figure 4.48: Summary on summative evaluation by principals and teachers in secondary schools**



Based on the results in **Figure 4.48**, the SNE secondary school principals and teachers strongly agreed that national examinations should not be emphasized in the secondary curriculum. This was consistent with secondary school teachers in regular schools, however, contrary to the secondary principals in regular schools who were of the opinion national examinations should be emphasized. Teachers considered end of the year and project work as effective forms of summative evaluation.

Key results therefore reveal that Formative assessment was preferred most than summative especially National examination, which was rated least at 70% by teachers and 73.4% of principals.

Parents were strongly opposed to KCPE being the sole determinant of promotion of learners in secondary schools. They noted that KCPE put a lot of pressure on the

learners which results to examination cheating. Learners also indicated that they feared KCPE.

**PA:** In terms of evaluation, when we are evaluating, probably it is upto the method. Evaluation through examination is okay, but probably the difference is how it is done because you see now its like you know ukiingia standard one, you will do an exam in standard eight. It is like that is what is deetermining kuenda form one, you will find that there is a lot of pressure that is put on and geared towards examination thants why there is a lot of cheating because it is like if you failed that one, it is like you have lost in life because the way we assess, we normally put a limit tunasema tunaevaluate october. Suppose it is put in a way that evaluation is a kind of continuous or regular such that you are able to monitor the child through out. Because unaeza kuwa number one through out but ikiku final exam, imagine ukigonjeka because you can get sick, you imagine you are been assessed for only that one week, kama ni standard eight ni siku tatu. The eight years you have been in school has been reduced to only three days and those three days you can be feeling not very well then you are condemned. Na ungechukua uone vile huyu mtoto alipata kutoka standard one, two,three uone vile evaluation yote, that is a child unaeza sema aingie form one straight ata bila kufanya huo mtihani because you have already assesed the child. Probably we need to see how we look at it tuje kama tutaanza na kuassess either wakiwa standard six upto eight ama seven to eight, yaani we need a bigger period to really assess and say this child amaa ni A student ama ni B student. (P-FGD-OLK-SNE-NYAH).

Due to the importance attached to the examinations and too much competition, assessment is no longer seen as part and parcel of the teaching and learning process but as a gateway to determine who can proceed to the best institutions at the next level of education. In order to address challenges in assessment the Sessional Paper no. 2 of 2015 recommends that in the reformed curriculum, competencies and skills will be assessed and that the introduction of standardized assessment testing across the basic education cycle will address this need (Republic of Kenya, 2015).

#### **4.14 Pertinent and Emerging Issues**

Teachers and head teachers were asked to what extent provided emerging issues should be included in the curriculum in Figure 4.24.

**Figure 4.49: SNE Secondary Teachers and Head teachers' responses to pertinent and emerging issues that should be addressed in the curriculum**

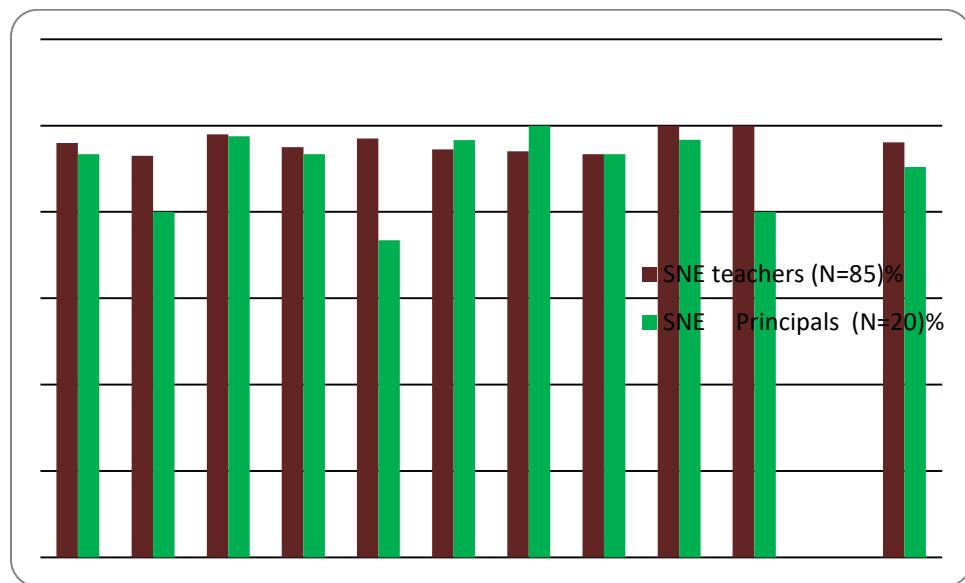


Figure 4.49 shows that more than 96 % of teachers of Special Needs Education (SNE) at secondary and primary levels desired greatly that pertinent and emerging issues should be addressed in the curriculum reforms. Based on their responses for specific pertinent and emerging issues in the order of priority integrity(100%),drug and substance abuse(98.1%), financial literacy(94.5%), security and safety (98%), gender issues(93.4%), health education which includes other aspects such as HIV/AIDS, sexuality education, hygiene (96 %),

technology (97%), environment which includes climate change(93%) ,child rights(94%) and disabilities(100%).

Similarly, most principals of Special Needs Education (SNE) at secondary and primary levels affirmed the need to have pertinent and emerging issues addressed by the curriculum. The most preferred was integrity (96.7%, followed by ,drug and substance abuse(93.4%), financial literacy at 96.6%, security and safety at 97.5%, gender issues at 93.4%, health education which includes other aspects such as HIV/AIDS, sexuality education, hygiene at 93.4% , technology at 73.4% , environment which includes climate change at 80.0%, child rights at 100% and disabilities at 80%.This can be linked to the fact that pertinent and emerging issues are continuous occurrences of social issues that have a considerable influence on the well-being of the society. The complexity of these emerging issues and magnitude of their impact cannot be handled without organized learning experiences in both formal and non-formal settings.

These findings are in line with the Sessional paper no 2 of 2015, which emphasizes that learners have issues ranging from sexuality, drug and substance abuse, media influence in these times of technological advancement, and political and social scenarios that influence their lives (Republic of Kenya, 2015).

Other emerging issues already in the school curriculum such drug and substance abuse, HIV and AIDS, gender, and environment still rated highly for inclusion in the curriculum. Though these issues are already integrated in various subjects in the current curriculum, they fail to effectively yield the desired results and remain a critical aspect of education as indicated in a research carried out by KICD which has shown that emerging issues are not taught in most schools. (KICD, 2014).

# **CHAPTER FIVE**

## **SUMMARY, CONCLUSIONS AND RECOMMENDATIONS**

### **(SNE)**

#### **5.1 Introduction**

Based on the primary findings and secondary data in tandem with the study objectives .The following conclusions, implications and recommendations were presented as per the study theme and objective.

#### **5.2 Societal Needs**

##### **5.2.1 *Conclusions***

The study findings reveal that the curriculum does not adequately address the following societal needs: environmental protection, social development, patriotism, technological development, economic and industrial development, national cohesion, inequalities and discrimination against persons with special needs

##### **5.2.2 *Implications of Curriculum Reforms***

Curriculum should be informed by the needs of the society. Therefore, there is a need to reform the curriculum to comprehensively address the evolving societal needs.

##### **5.2.3 *Recommendation***

The curriculum reforms should address the following societal needs as highlighted in the findings of the study: environmental protection, social development, patriotism, technological development, economic and industrial

development, national cohesion, inequalities and discrimination against persons with special needs

### **5.3 Competencies**

#### **5.3.1 Conclusion**

The study findings indicate that learners with special needs require the following competencies: collaboration, communication, mentoring, networking, decision making, reflection, planning, self-care, numeracy, literacy, information communication technology ICT, entrepreneurship, critical thinking, problem solving, research skills and socialization. The current curriculum does not propose to develop these competencies in learners with special needs.

#### **5.3.2 Implications of Curriculum Reforms**

There is need to have a paradigm shift to a competency based curriculum to facilitate acquisition of desired competencies.

#### **5.3.3 Recommendation**

Curriculum for learners with special needs should promote the following 21<sup>st</sup> century competencies; collaboration, communication, mentoring, networking, decision making, reflection, planning self-care, numeracy, literacy, information communication technology ICT, entrepreneurship, critical thinking, problem solving, research skills and socialization.

### **5.4 Learning areas**

#### **5.4.1 Conclusion**

According to the findings of the study, the following learning areas were identified as critical to be emphasized in the curriculum for learners with special needs; literacy skills, languages, numeracy skills, speech training, orientation and

mobility, sign language, vocational and technical skills, health and hygiene, activities of daily living skills, use of assistive technology and braille skills. Findings also indicated that some learners with special needs can study the learning areas provided in the regular curriculum with specific adaptation to suit their needs. However, those who may not follow the regular curriculum should pursue an alternate pathway geared towards equipping them with adaptive and vocational skills. Learners with cerebral palsy, dyslexia and those with autism who have special talents have not been catered for by the current curriculum. The findings showed preference of a flexible curriculum that takes into consideration individual learners' abilities. Specialized learning areas for learners with special needs and specific learning needs are not addressed by the current curriculum.

Concerning teacher education, the findings indicated that there is a need to include inclusive education as a core subject in teacher training. There is also need to train teachers in the use of assistive technology, sign language and Braille.

#### **5.4.2 Implications of Curriculum Reforms**

The curriculum needs to be reformed to ensure that learning areas that are specifically for learners with special needs are adequately addressed. In addition the regular curriculum needs to be adapted to suit different categories of learners with special needs. There is also need to develop curriculum for vocational training and talent development.

#### **5.4.3 Recommendations**

- i) The reformed curriculum should include the following key learning areas depending on the category of learners with special needs: literacy skills, languages, numeracy skills, Speech training, orientation and mobility, sign

language, health and Hygiene, activities of daily living skills, use of assistive technology and Braille skills.

- ii) Vocational and talent curricula for learners with special needs should be developed.
- iii) Regular curriculum should be adapted to suit specific categories of learners.
- iv) The curriculum should be flexible in terms of duration of content coverage to cater for individual learning needs of learners with special needs.
- v) The teacher training curriculum should include inclusive education as a core course.
- vi) Teachers should be trained in the use of assistive technology, sign language and Braille.

## **5.4 Learning approaches**

### **5.4.1 Conclusion**

The findings of the study indicated preference of the following practical and learner centered approach as suitable for teaching learners with special needs at all levels: dramatization, songs, dances, field excursions, experiments, demonstrations, Projects, and use of the Individualized Education program (IEP) or Differentiated Instructions (DI). The need to modify instructional strategies to address learning difficulties in an inclusive setting was echoed.

### **5.4.2 Implications of Curriculum Reforms**

There is need to have a paradigm shift from teacher centered, theoretical approaches to learner centered, practical individualized and differentiated approaches.

### **5.4.3 Recommendation**

Curriculum delivery approaches used to teach learners with special needs should be learner centered, practical, differentiated, and individualized.

## **5.5 Assessment**

### **5.5.1 Conclusion**

The findings of the needs assessment indicated preference for formative assessment, continuous assessment, oral assessment, project and use of observation as appropriate assessment methods for learners with special needs. The need for flexibility of assessment through adaption of time, test items, mode of response, print size, colour and size of the paper to suit specific learners with special needs was underscored. The findings also revealed the need to develop special examinations for learners with special needs. There is also need to carry out an early functional assessment for early intervention.

### **5.5.2 Implications of Curriculum Reforms**

There is a need to reform the current cognitive based assessment methods to more holistic and practical oriented assessment modes that cater for learners' diversity.

### **5.5.3 Recommendations**

- i) The reformed curriculum should adopt formative assessment where all the aspects of learning are continuously assessed.
- ii) There should be flexibility in assessment through adaption of time, test items, mode of response, print size, colour and size of the paper to suit specific learners with special needs.
- iii) Assessment of vocational skills and talents should be assessed through practical based projects and not through theory papers.
- iv) Special examinations should be developed for learners with special needs depending on specific needs.

- v) Functional assessment should be carried out at an early age to facilitate early intervention.

## **5.6 Nurturing talents**

### **5.6.1 Conclusion**

Findings on strategies of nurturing talents in learners with special needs indicated preference of the following strategies: games and sports, ability grouping, mentorship programs, clubs and societies, curriculum enrichment, Cooperative learning, accelerated learning, advanced placement, talent academies, special schools for gifted and talented, and special needs classes. Learners with autism who are known to have special talents in specific areas and have challenges in all other learning areas need a curriculum that is geared to nurturing the talents. The current curriculum does not clearly define specific ways of identifying and nurturing talents.

### **5.6.2 Implications of Curriculum Reforms**

Strategies need to put in place for identifying, nurturing and developing talents in learners with special needs.

### **5.6.3 Recommendations**

- i) The curriculum should employ the following strategies for identifying and nurturing talents of learners with special needs: games and sports, ability grouping, mentorship programs, clubs and societies, curriculum enrichment, Cooperative learning, accelerated learning, advanced placement, talents academies, special schools for gifted and talented and special needs classes.
- i) A talent curriculum should be developed.

## **5.7 Learning Resources**

### **5.7.1 Conclusion**

The findings of the study established that the following resources were either lacking or inadequate in institutions for learners with special needs: adapted text books and learning materials, computer devices, assistive technologies, assistive devices, workshops and workshop materials and equipment for those who pursue the vocational pathway. In addition there is lack of space in the existing special schools and Units for admission of learners with severe disabilities. Further, physical infrastructures are not friendly to learners with special needs.

The findings also indicated a shortage of trained Special needs education teachers, technical teachers for vocational centers and specialized support staff.

### **5.7.2 Implications of Curriculum Reforms**

There is an acute shortage of SNE resources to implement the envisaged competency based curriculum.

### **5.7.3 Recommendations**

- The following resources should be availed to facilitate implementation of curriculum for learners with special needs: adopted textbooks and learning materials, computer devices, assistive technologies, assistive devices, workshops and workshop materials and equipment for those who pursue the vocational pathway.
- More teachers should be trained in special needs education.
- Special needs teachers should be trained in vocational skills
- Caregivers and specialized support staff should be adequately trained.
- A curriculum for training caregivers and specialized staff should be developed.

## **5.8 Emerging and contemporary issues**

### **5.8.1 Conclusion**

From the findings, it is evident that issues such as integrity, financial literacy, security and safety, health and hygiene, technology, sexuality and disability mainstreaming are top among the most desired pertinent to be included in the school curriculum. There was special emphasis on the need to create awareness campaigns the needs and potentials of persons with special needs education and disabilities. Though some of these issues are already integrated in various subjects in the current curriculum, they fail to effectively yield the desired results and remain a critical aspect of education.

### **5.8.2 Implications of Curriculum Reforms**

There is a need to mainstream, emerging issues in the school curriculum.

### **5.8.3 Recommendation**

- i) Pertinent emerging and contemporary issues should be mainstreamed in various learning areas.
- ii) Awareness creation programs on the needs and potentials of persons with special needs and disabilities should be developed and implemented.

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