



KENYA INSTITUTE OF CURRICULUM DEVELOPMENT

**REPORT ON NEEDS ASSESSMENT FOR
SECONDARY LEVEL CURRICULUM IN KENYA**

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FOREWORD

The last curriculum reform in Kenya was done in 1985, when there was 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 graduants 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. Based on the Report on “Total Integration of Quality Education and Training” of 1999, a needs assessment was undertaken. The national curriculum for primary, secondary education was then reviewed in 2002, followed by Teacher Education Curriculum in 2004.

Over the years, education in Kenya has been 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, 2010 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 Millennium Development Goals (MDGs) and Sustainable Development Goals (SDGs). 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.

Specifically this Needs Assessment study provides 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 2010 and the Kenya Vision 2030.

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ABSTRACT

This study sought to assess the needs for the secondary level curriculum in Kenya. The specific objectives of the study were to: Establish the general needs for Secondary curriculum reform; desired competencies; the talent identification and nurturing strategies; desired content/learning areas/pathways; suitable resources; desired pedagogical approaches; formative and summative assessment modes for competency based curriculum.

This study took a mixed methods design which involved both quantitative and qualitative approaches. The targeted population comprised of all principals, teachers, and learners in secondary schools, various Education Field officers, parents, industrialists, those in informal sector and other stakeholders. Data was collected using questionnaires, observation schedules, interviews, Focus Group Discussions (FGDs), and submitted memoranda. The study employed a multi-stage sampling technique, which involved random selection of the respondents for quantitative data and purposive sampling of the respondents for qualitative data. A total of 543 teachers and 109 principals were involved in the study.

The findings show the need for the curriculum to be reformed to enhance peaceful social co-existence, contribute to economic and technological development and to negate social vices such as corruption. The respondents identified different competencies that were clustered into four 4Cs of the 21st century skills that include: communication, collaboration, critical thinking and creativity. They also suggested that values and attitudes be inculcated in the learners. Respondents desire to have a curriculum that enables every learner to harness their potential through well-developed learning activities that will lead to the identification and subsequent development of these areas of potential and talent. The preferred learning areas are those inclined towards equipping learners with practical skills and that can help the learner in life after school. The findings advocate for introduction of various pathways. Respondents emphasized the need for specialization so that learners can take what they are interested/gifted in or talented in.

The findings of the study reveal a desire for instruction that is more learner centred, approaches that are interactive and geared towards the acquisition of practical skills. The need for provision of adequate teaching and learning resources was emphasized. Most of the resources were unavailable, inadequate and unequally distributed in the learning institutions.

Formative Assessment and especially continuous assessment was the most preferred mode of assessment. Majority of respondents affirmed the need to have contemporary/emerging issues addressed through the curriculum. These include: child right drug and substance abuse, integrity, security and safety, hygiene, HIV/AIDS, Environmental issues, Technology, gender issues, Environmental conservation, Sexuality, Early marriages, Unemployment/Poverty among others.

The study recommends that the envisaged new curriculum should be competency based where the competencies cut across all the disciplines. The secondary education curriculum should incorporate the 21st century skills and employ various strategies of identifying and nurturing talents. Packaging of content/learning areas should provide for various competencies, abilities, interests and learners needs in diverse contexts. Practical subjects that promote self-reliance, creativity, innovation, job creation and national economic development while also promoting national values, cohesion and development should be emphasized. The curriculum should be flexible to allow for orientation to different pathways. KICD should orient teachers on the implementation of the new curriculum. Instruction should be modeled to provoke critical thinking and problem solving skills as opposed to rote learning. KICD in collaboration with ESQAC should build a network of pedagogical counselors for each learning area and create regional networks for a more effective monitoring of classroom practices. The government should ensure that relevant and adequate human and financial resources, physical resources and teaching and learning materials are availed in learning institutions to promote implementation of the competency based curriculum. The resources should be equally distributed. Critical contemporary/emerging issues ought to be incorporated at various levels of the curriculum in appropriate ways.

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ABBREVIATIONS AND ACRONYMS

ABE	-	Adult Basic Education
AIDs	-	Acquired immune deficiency syndrome
CBE	-	Competence Based Education Council
EAC	-	East African Community
EFA	-	Education for All
ESD	-	Education for Sustainable Development
ESQAC	-	Education Standards Quality Assurance Council
GOK	-	Government of Kenya
HIV	-	Human Immunodeficiency Virus
IBE	-	International Bureau of Education
ICT	-	Information Communications Technology
KICD	-	Kenya Institute of Curriculum Development
KIE	-	Kenya Institute of Education
KNEC	-	Kenya National Examination Council
MDGs	-	Millennium Development Goals
MoE	-	Ministry of Education Science and Technology
NESP	-	National Education Sector Plan
NFE	-	Non Formal Education Centres
REAR	-	Research Academic Reform
SACMEQ	-	Southern and Eastern Africa Consortium for Monitoring Educational Quality
SDGs	-	Sustainable Development Goals
SPSS	-	Statistical Package for Social Sciences
STI	-	Science, Technology, and Innovation Technology
TIMSS	-	Trends in International Mathematics and Sciences
TSC	-	Teachers Service Commission
UNESCO-		United Nations Education Scientific Cultural Organization

CHAPTER ONE

BACKGROUND TO THE STUDY

1.1 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), 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.

1.2 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 except the university. The Institute also undertakes, organizes and conducts 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

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

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).

Kenya effected the last curriculum reform in 1985, when there was 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 grandaunts 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 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 content in each subject for secondary was too much, and there was also repetition of content in various subjects. The national curriculum for 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 secondary education level objectives, and the subjects’ general and specific objectives. The rationalization of secondary education entailed removing the overloads by a reduction in the number of subjects and content in the different subjects. In all the subjects, the areas specialized content that was deemed to be job oriented was left out to be undertaken in higher education and training. Essential competencies earlier acquired through the Business Education subjects were organized to be taught in the new integrated Business Studies subject. These included foundational aspects of economics, accounting, commerce and office practice. The teaching of English and Kiswahili was to be undertaken using the integrated approach. A deliberate attempt was made to respond to the emerging issues which included; health, environmental and civic education, gender and the anticipated industrial transformation of the nation (KIE, 2002).

Summative evaluation of 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. 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, is 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 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:

1. 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;

2. Addressing local needs by including the study of local knowledge and culture;
3. Providing pathways to give equal opportunity to all learners to recognize their talent and achieve their full potential; and
4. 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 (MoE, 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.

1.3 Statement of the Problem

The fast paced growth of the global economy requires competitive youths with relevant work and life skills that match the growing economies. The recent global economic downturn has further signaled an urgent need to deal with youth unemployment and inequality effectively (OECD, 2012a). Reforms in education must of necessity be targeted towards providing broader curriculum areas based on skill-centered approaches, and appropriate knowledge from non-academic sources (World Bank, 2014). It further implies that the future of achievements in education and training are anchored on curricula that are progressively changing to guarantee growing opportunities for the youth. Curriculum plays an important role in how learners are taught, and there is a strong body of evidence that

shows that putting a high-quality curriculum in the hands of teachers can have significant positive impacts on student achievement.

The Kenyan curricula for secondary level of education was last reviewed in 2002. Since then there have been numerous developments both on the national and international level. 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. 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 Kenya Vision 2030 and 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 integrated in the curriculum. The curriculum review of 2002 greatly reduced the learning areas in order to reduce on the amount of content that learners had to cover in different subjects.

At Secondary school level, learners require more time to nurture talent and acquire requisite competencies. In essence, such structures reduce wastage and make it possible for a country to leverage its development on the wide array of relevant skills and competencies inculcated through a well thought out and inclusive curricula. The Kenyan system has a long period (8years) for foundational skills and a very short period for secondary school (4 years) which is not sufficient for acquiring intended skills. This calls for a review of the education system to introduce a shorter Primary Cycle and a longer Secondary School Cycle.

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 seeks to create different pathways to enable students have an opportunity to pursue different career pathways of their interest. The needs assessment study provides 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.

1.4 Research Objectives

The specific objectives of the study were to:

1. Establish the **general needs** for the secondary curriculum reform
2. Determine desired **competencies** for secondary level of education
3. Determine the **talent** identification and nurturing strategies to be adopted at secondary level of education.
4. Establish desired **content/learning areas/pathways** at secondary level education
5. Identify **resources** suitable for competency based curriculum at secondary level of education
6. Determine desired **pedagogical approaches** for competency based curriculum at secondary level of education
7. Establish formative and summative **assessment** modes for competency based curriculum at secondary level of education

1.5 Scope of the Study

This study was carried out for the secondary level of education for which KICD is mandated to develop curriculum.

1.6 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 secondary school curriculum was reviewed in 2002, followed in 2004 by a review of the primary teacher education curriculum, the special needs education curriculum in 2006 and the diploma teacher education curriculum in 2007. 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 secondary 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 will include; reviewing of learning materials and orientating the serving teachers and other field education officers such as the quality assurance officers, curriculum support officers and Education Assessment Resource Centre (EARC) officers. The Institute needed to undertake 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.

CHAPTER TWO

REVIEW OF RELATED LITERATURE

2.1: Introduction

This chapter presents reviews of literature on curriculum 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, values and attitudes, learning areas, nurturing of talents, resources, assessment and contemporary and emerging issues. Among the articles reviewed include journals, policy documents, books, grey areas such as circulars and other empirical studies.

2.2 Definition of Key Concepts

2.2.1 Curriculum

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. 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.

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 underpinning 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 KICD to develop a curriculum framework after the engagement with the stakeholders during needs assessment.

The curriculum is designed for different levels of education systems. The process of curriculum development in Kenya though centralized involves many stakeholders and responds to a wide range of society requirements. The curriculum seeks to encompass the dynamics of the development of knowledge and various disciplines prevailing in the society. It engages 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).

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, 2015). The organization and sequencing of curriculum facilitates learning. Within the learning areas, content, teaching and learning experiences, assessment and resources are determined by the goals of education from which general and level objectives are derived.

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 it 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). Further, competencies are outcomes that learners should have acquired by the end of their general education in order to succeed in academics, in self-development, in acquiring employment and success in 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.

In essence therefore, Competency-based curriculum is 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 other words, competencies encourage 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, 2015). Competency is related to capacity, that is, a person's ability to evaluate information received and makes 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).

2.2.4 Values and Attitudes

The Needs Assessment survey not only defined competencies as abilities but also as values and attitudes to be acquired by the time learners leave an education cycle. 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). With the emphasis on technology, innovation and science as a means of attaining the Vision 2030 goals there is a tendency to pay less attention to moral and ethical issues which need to be given equal measure of attention in development.

Value education include explicit and implicit school-based activity which promotes student understanding and knowledge of values, and which develops the skills and dispositions of students so they can enact particular values as individuals and as members of the wider community. The things, ideas beliefs and principles that are of worth to a person shape his or her values. People's values help to define who they are and help determine the choices they make.

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.

2.2.5 Pedagogy

Instructional strategies and techniques of carrying out instruction in the delivery of curriculum content are referred to as strategies. Pedagogy deals with the practice of teaching and learning. This is where the teachers bring in the ‘how’ of teaching using instructional designs to convey content to learners in order to achieve learning outcomes stated in the objectives.

For effective curriculum implementation, the teachers must have the capacity to interpret the curriculum through instructional strategies and techniques. These determine how much is learned by the learners. Often, teachers rely on the traditional approaches of teacher centred learning in their effort to cover the syllabi. However with the introduction of the 21st Century skills and the competence based curriculum, the instructional methods must change to more learner centred approaches. Osakwe (2009, in APHRC, 2010) explains the learners centred approaches where the teacher seeks to bring about the change in behavior of learners by imparting knowledge and skills in an interactive way. This is where the learner constructs meaning from the experiences received in their own perception.

2.2.6 Resources

These refer to any inputs that are used in the learning environment to effectively achieve the desired outcomes. These could be human, infrastructure, realia or financial resources. They are also referred to as teaching and learning curriculum support materials. Resources in education include both print and non print materials and 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. 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.

2.2.7 Assessment

This refers to measuring learning outcomes. In education context it is the process of ascertaining whether students have attained curricula goals. Otunga, et al. (2011: 121) refers to assessment as evaluation, and 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'.

Assessing learning outcomes has become of great concern among stakeholders in Kenya. The main concern being the lack of a holistic approach to learning since focus is greatly on performance 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 that describe the nature and extent of children learning, its degree of correspondence with 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.

2.2.8 Contemporary and Emerging issues

The cross-curricular issues are commonly 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 otherwise known as pertinent and 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 labour 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.

2.2.9 Talents

There is no one universal definition of 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 school are defined as those who demonstrate the potential for a high level of performance in different ability areas, when compared to others of similar age, background and experience such as intellectual, creative, artistic, social, physical, spiritual (Department for Education and Children's Services, 1994).

In Korea, a gifted person is defined as one who possesses extraordinary innate abilities or visible talents requiring special education to nurture them. The purpose of gifted education is to promote self-actualization of individuals and have them contribute to development of society and 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 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. According to Kinyua (2014) 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 Kenya government acknowledges the need for the 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.

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 secondary 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 learning. At secondary 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 Ministry of Education 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.

2.4 Review of Relevant Theories

2.4.1 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). Kliebard discusses four curriculum groups that he refers to as humanist (or mental disciplinarians), social efficiency, Developmentalist (or child study), and social meliorists.

2.4.2. Curriculum Theories

2.4.2.1 Humanists

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.

2.4.2.2 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.

2.4.2.3 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.

2.4.2.4 Social efficiency

Theorists such as Ross, Bobbitt, Gilbreth, Taylor, and Thorndike are Social efficiency proponents 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 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.

2.4.2.5 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.

2.4.3. Curriculum Reform Theories

Since curriculum reform engages with redesigning the learning context, one of the curriculum reform theories is Instructional Design theory.

2.4.3.1. 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 is associated with cognitive, emotional, social, physical and spiritual development (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 offers guidelines about the methods to use in different situations in curriculum implementation. 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. This will articulated in this BECF which takes cognizance of the place of values as an anchor for the pillars of curriculum.

Importance of Instructional Design Theory in Curriculum

As Pogrow (1996) states, the history of educational reform is one of consistent failure of major reforms to survive and become institutionalized. Pogrow further asserts that the

single biggest tool in promoting curriculum reform has been advocacy. To help educators to improve education, it is imperative that there be public or stakeholder participation. This should also be done in other areas of education 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. The Institute aspires to engage stakeholders as well as parent participation in its advocacy for a competent based curriculum.

Globally, fundamental changes in the education 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. This is best explained by the theory expounded by John Hattie-*Visible Learning theory* (2012).

Visible Learning means an enhanced role for teachers as they become evaluators of their own teaching. According to John Hattie Visible Learning and Teaching occurs when teachers see learning through the eyes of students and help them become their own teachers. It refers to making student *learning* visible to teachers so that they can know whether they are having an impact on this learning that is an important component of becoming lifelong learners – something basic education wants students to value. The 'learning' part of visible learning is the need to think of teaching with *learning* in the forefront and with the idea that we should consider teaching primarily in terms of its *impact on student learning*.

When the *teaching is visible* the student knows what to do and how to do it. When the *learning is visible* the teacher knows if learning is occurring or not. Teaching and learning are *visible* when the learning goal is not only challenging but is *explicit*. Furthermore, both the teacher and the student work *together* to attain the goal, provide feedback, and ascertain whether the student has attained the goal. Evidence shows that the greatest effects on

student learning come when not only the students become their own teachers (through self-monitoring, and self-assessment), but the teachers become learners of their own teaching. In successful classrooms, both the teaching and learning are visible. This way of learning is essential for criterion referenced assessment which seeks to make assessment part of learning, and is an essential component of the competence based curriculum.

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 Kenya Vision 2030, the Kenya Constitution, Sessional paper No. 2 of 2015, the Basic Education Act (2013), National Education Sector Plan (2015), Kenya Institute of Curriculum Development policy documents, Education for All goals as well as the Sustainable Development Goals, among others.

The review of policy documents is necessitated by the fact that it is a national priority to align the curriculum to address the aspirations of these policies 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 Societal needs

Every society has certain needs that must be fulfilled in order 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).

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 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 labour 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 Re-Alignment of the Education Sector to the Constitution (2012) noted that the quality of education is not clearly spelt out so that the curriculum delivery can focus on development of specific expected competences 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 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. Consequently the curriculum reform has been preceded by needs assessment because the stakeholders ideally should participate in this process.

Education should prepare workers for the 21st century by teaching skills necessary for industry and commerce. Kenya Vision 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. The implication was that the secondary 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 is 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.

2.5.3 Competencies

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 out the 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 learning institutions.

The Task force (2012) recommended core curriculum competencies to be used. These are presented in levels from pre primary to senior secondary and starts with very basic competencies. The Task Force recommended some core competencies that should be acquired by learners and 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.

2.5.4 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 is expected to: 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. The aspirations of the Constitution therefore should be embedded in the curriculum and taught to all learners across the levels.

In addition, the Vision 2030 adds that the 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.

2.5.5 Learning areas

Currently, there are 32 subjects at Secondary level. Technical subjects are offered in limited number of secondary schools only, hence only a few students are exposed to technical subjects while in secondary school. The Sessional paper no. 2 of 2015 expounds on the need to teach foreign language in our system of education for global competitiveness. Aspects of education for sustainable development were also some of the key recommendations made in this policy. Among other things that the curriculum should develop are the 21st Century skills, and learners who maintain, improve and sustain the environment.

When the Constitution of Kenya, 2010, was promulgated, the onus was on KICD to ensure that the curriculum was in line with the spirit of the Constitution even before the curriculum reforms. This necessitated amendment of some parts of the curriculum where deliberate effort was made to respond to the needs of the Constitution, while making the subjects relevant and meaningful. The reforms therefore will further address appropriate areas in the Constitution. Other areas to be developed should enable learners to acquire relevant skills, knowledge and attitudes.

The current curriculum has been seen to lack flexibility, not cater for regional disparities and lacking in pathways to direct learners at the secondary levels. According to the Curriculum Policy (2015), the curriculum has no emphasis on accelerated or flexible modes of learning; neither does it permit entry and re-entry at different levels. The learners are not able to make informed choices as they decide on career paths and areas of interest. The Sessional paper No. 2 of 2015 clearly states that the curriculum will provide knowledge skills and values, and competencies to enable learners to move seamlessly from the education system to either further education or to technical/vocational areas. The curriculum is also expected to apportion a certain percentage of the content to meet regional needs (Republic of Kenya, 2015).

Vision 2030 lays importance on certain learning areas. Agriculture is seen as a major contributor to the country's GDP. It further echoes the importance of mainstreaming Science, Technology and Innovation in the school curriculum (Gok, 2007).

2.5.6 Assessment

For learning process to be complete, assessment must take place, whether it is school based or at the end of the cycle. Those that are school based are diagnostic and for placement, while the national end of cycle exams are for transition to the next level. Assessment can either be formative or summative. The summative assessment is usually carried out by KNEC, while other National assessments assess the attainment levels of certain competencies. Summative assessments are based on utilization of a single metric to assess basic knowledge and skills levels acquired by students. Used this way, it is an instrument of accountability. This mode of assessment is preferred since teachers are able to check in a linear manner the level of assimilation of information, facts and concepts passed to learners. On the other hand, formative approach supports the learning process. The teacher

is able to understand how students are learning, to identify problems the students may face in the learning process and to use feedback to ensure that all have the opportunity to learn (UNESCO; IBE, 2015)

Among the shortcoming of the assessment mode in Kenya, as outlined by the Taskforce report (2012) and the Sessional Paper No.2 of 2015, is too much emphasis on examination based certification at the end of each cycle, lack of open opportunities for learner to pursue further education and lack of harmony with the educational structures of East African countries. In addition, teachers are not adequately trained in test development and evaluation procedures.

Due to the importance attached to the examinations and too much competition, assessment is no longer seen as part and parcel of the teaching learning process but as a gateway to determine who can proceed to the next level of education. The policies recommend 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). Further forms of assessment have been proposed for every level in the Taskforce Report (2012). They include observations, learners profiling in core learning areas and social development as well as standardized assessment. Quality assessment therefore, will ensure competencies in the curriculum are attained. This is because assessments measure learner competencies and evaluates the learning that has taken place.

2.5.7 Resources

As textbooks play a crucial role in the education process, the government allocates 60% of the tuition vote on textbooks annually since 2003 when this began. It is expected that currently, there should be 1:1 pupil textbook ratio in order to cater for instructional materials for learners. However this is not the situation and learners are still sharing textbooks in a ratio of 1:4 or more in some schools (Buhere, 2015).

2.5.8 Contemporary and Emerging issues

The various contemporary and emerging issues have been identified from different policy documents such as the Constitution, Vision 2030, and Education for Sustainable development (ESD), Child Act (2001), Millennium Development Goals (MDG),

Sustainable Development Goals (SDG), and NESP (2015) among others. Each of these policy documents emphasizes different aspects of the cross cutting issues and education has been identified as the wheel to nurture them among learners across all levels. These policies documents articulate that learners across all levels irrespective of their age are faced with contemporary lifestyles and challenges that necessitate decision making competencies. In particular, the Sessional paper no 2 of 2015, 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). Although the curriculum has Life skills Education Curriculum as well as curriculum support materials, cross cutting issues remain a critical aspect of education, more so because emerging issues are not taught in most schools (KICD, 2014).

The Education Sector Policy on HIV and AIDs (MoE, 2013) and the Policy on Gender (MoE, 2007) state that these contemporary issues should be mainstreamed into the existing curriculum. Teachers should be given capacity to do this so that they in turn can help learners to benefit from and cope with many contemporary and future challenges. The Sessional Paper No.1 of 2005 has paid attention to effective teacher development and utilization, while Vision 2030 lays emphasis on quality education and training. These can only be actualized through effective capacity building of teachers.

The Constitution of Kenya, 2010, gives more details on contemporary and emerging issues and the direction education should take. This is stipulated in several chapters such as two and six which deal with principles of governance, leadership and integrity; chapter four deals with bills of rights which include child rights; part two deals with environment; part three deals with specific application of rights like children rights and persons with disabilities; chapter five part two deals with environment and natural resources; while chapter twelve deals with national security (GoK 2010). All these are cross curricular issues that need to be in cooperated in the current curriculum reforms across all levels of education, lest it is rightly declared unconstitutional. Other cross cutting issues like technology, health issue and drug abuse are also emphasized in the Vision 2030.

Although guidance and counseling is not a crosscutting area, education needs to address personal development and mentor, mould and nurture the learners. This is appreciating that

some learners across all levels come from difficult social economic contexts. With the emphasis of parental and community engagement in education in the education policies, the curriculum reforms will engage all stakeholders including parents and members of the public.

The MoEs' purpose for requiring the Task Force to consider the issue of Mentoring and Molding in the ToRs demonstrates the importance of an individual's right to dignified growth and development, free association and free speech. This is facilitated by the education system, which prepares individuals to participate effectively in society in an informed and acceptable way on the basis of values aimed at national cohesion and unity.

2.5.9 Talents

According to the curriculum policy (2015), the curriculum as it is does not give linkage of talents to development of careers, further education or training. There is need to address the aspects of identifying, nurturing and developing talents among learners. Kenya Vision 2030 calls for curriculum that develops learners' entrepreneurial skills, competencies and talents. Additionally, Sessional paper no. 2 of 2015 expounds on the need to develop and nurture talents for global competitiveness while the Taskforce Report mentions identification and advancement of talents among core curriculum competencies.

2.6 Review of Curriculum in other Contexts

2.6.1. General overview

The process of curriculum development is initiated by a needs assessment which basically looks at the situation of '*what is*' and '*what should be*'. This calls for systematic investigation to collect data and establish the need for curriculum reforms. Results of the needs assessment supported by related literature are used to develop appropriate curriculum designs and delineate the expected competencies (Otunga et al., 2011). This section therefore presents related literature reviewed on curriculum in other contexts, other than the policy document or other researches done in the curriculum.

2.6.2 Societal needs

For a curriculum to be relevant, it must meet societal needs. Education is recognized as a key means to ends of greater economic and social equality, eradicating poverty and of national, economic, social and political development (IBE, 2015). This paper further argues

that when education in a country lacks relevance and quality, it creates a shortage of human resource with appropriate mix of skills. This constraints holistic and inclusive development, sustainable growth and global competitiveness. It further perpetuates social inequalities and exclusion, leading to “social and political instability”, hence is a threat to peace and security of any society (ibid).

The curriculum is critically important in any society as it engages in a collective way the knowledge, skills and values that need to be learned by all. If sustainable ways of living e.g. one important aspect the curriculum should reflect that while the curriculum conceptualizes the Sustainable Development Goals (SDGs) ensuring inclusiveness and providing equity n quality education is curriculum has an essential role of providing quality learning for all learners and support education that is relevant to holistic development. In so doing, the curriculum seeks to meet provisions of the fourth SDGs.

Lovat and Smith (1995) argue that there is always an underlying social and politico-economic philosophy which impacts upon education and the curriculum. Brady and Kennedy, (1999) extend this argument by maintaining that curriculum is not an entity apart from society, it is firmly embedded in it and thus is a social construct. But it is also a personal construct, as curriculum represents a selection of societal ideas, skills, values and practices. Thus, the curriculum is constructed by people, for people and as such should be relevant and all encompassing so as to address all the needs of the society. National development is multifaceted and goes beyond economic and material progress knowledge technology; equity and social justice are elements of national development.

The rapid development and proliferation of ICT and of related digital technologies are driven towards a knowledge economy; it demands often higher levels of education in workers across all sectors. Since personal development is one of the education goals, there should be links between education and the individual. Access to education is pivotal to life’s chances and self-fulfillment (Musuota, 1994). Additionally, Brown (2003) argues that to enable a society to progress, education must be widely available to individuals.

Education is much more than a mechanical process, as it deals with human lives, destinations, hopes and dreams (Disla, 2002). Thus careful thought needs to go into the selection of curriculum content. The needs of the society must be taken into consideration.

The societal needs include the preservation of culture, industrial and economic needs, Creativity needs, as well as moral and ethical needs. Some of the countries that Kenya has benchmarked with in education are South Korea and Malaysia. In these countries, teaching of moral education is taken seriously among the core subjects right from pre-school through all the levels of education. These countries also emphasize on the promotion of nationalism and patriotism through teaching of history of the country in South Korea and Local studies in Malaysia (KIE, Bench Marking Report, 2010).

The Kenya Education Commission of 1964 (The Ominde Commission) was formed to introduce changes that would reflect the nation's sovereignty. The commission focused on patriotism, identity and unity, which were critical issues at the time. The committee also laid emphasis on an education that would foster social equality, preserve Kenya's cultural heritage and reduce poverty. Consequently, the content of History and Geography subjects were changed to reflect national cohesion. One of the recommendations was that Kenya adopts a unified national curriculum approach. This committee also laid emphasis on an education that was to promote unity and patriotism.

Although the curriculum should be seen as a vital element for improving education, quality and relevance of education to holistic, inclusive and sustainable development goals, it is a key means for improving quality and equity in education this effective learning and ensuring consistent alignment of learning with social aspiration and development goals.

2.6.3 Competencies

Within the last three decades, many African governments have embarked on reforms to transform secondary education so that it can contribute to the development of skills for employment. In particular, countries have introduced technical and vocational education subjects as part of an essential life skills development agenda to enhance the chances of young people finding paid work or getting into self-employment after completing their secondary education (Akyeampong, 2014). They have tried to introduce competencies in their curriculum.

Competency based education identifies specific competencies and skills that must be mastered by a learner and are regularly measured against set standards so as to assess the effectiveness of the teaching (Farrant, 2004). All competencies should be both demonstratable and evaluatable (Ross, 2000). Competency based training emphasizes on

outcomes and skills rather than processes of learning and the time taken to reach a prescribed standard of competency (Evan, Haughey & Murphy, 2008). It emphasizes what the learners should know and be able to do. Rather than education being focused on what the teacher thinks learners should know (teacher-focused) it looks at learning from the point of view of the learner performance (learner-focused) making as clear as possible what should be achieved and standards for measuring that achievement (Republic of Kenya, 2011). It is a shift of the curriculum away from the idea of knowledge to one of skills and abilities where content is less important than standards of achievements. In a competency based curriculum, knowledge is closely linked with understanding rather than being identified in its own right. The shift to competency based approach to curriculum and learning is an integrated and holistic understanding of what it is that we want our young people to learn, be able to do and to become.

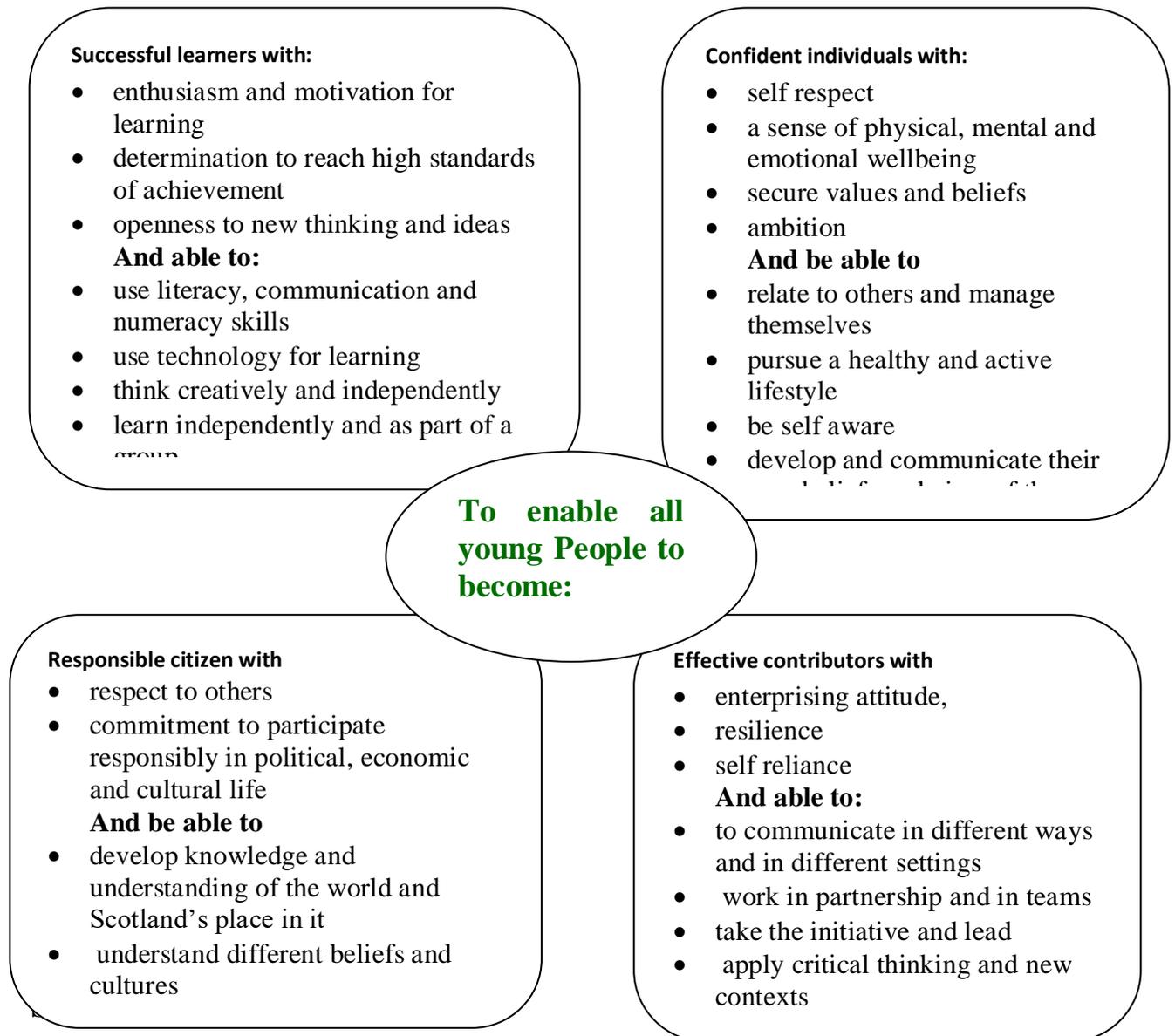
Global trends in curriculum designs are moving towards competence based approaches. Different countries have different ways of developing competencies in their curriculum. In South Korea and Malaysia, curriculum designs are a blend of both objectives and competencies based approaches. The designs are both thematic and these themes are packaged in modular forms and cut across all subjects. In the European Union (EU) countries, competencies are a combination of knowledge, skills and attitudes appropriate to the context. For them 'key competences are those which all individuals need for personal fulfillment and development, active citizenship, social inclusion and employment' (European parliament, 2006: in IBE 10). Further it set out 8 key competences for lifelong learning namely: mother tongue, foreign language mathematical sciences and technology, digital competence, learning to learn, social and civic initiative and entrepreneurship, cultural awareness and expression.

According to Scottish Government (2009), all children and young people are entitled to opportunities for developing skills for learning, life and work. The skills are relevant from the early year's right through to the senior phase of learning and beyond. Curriculum for Excellence is designed to transform education in Scotland, leading to better outcomes for all children and young people. It does this by providing them with the knowledge, skills and attributes they need to thrive in a modern society and economy laying the foundation for the development of skills throughout an individual's life. Providing individuals with skills helps each individual to fulfill their social and intellectual potential and benefits the

wider Scottish economy. The skills should be developed across all curriculum areas, in interdisciplinary studies and in all the contexts and settings where young people are learning. Scotland focuses on a number of overlapping clusters of skills: Personal and learning skills that enable individuals to become effective lifelong learners; Literacy and numeracy; the five core and essential skills of communication, numeracy, problem solving, information technology and working with others; Vocational skills that is specific to a particular occupation or sector

The development of skills in Scotland is essential to learning and education to help young people to become successful learners, confident individuals, responsible citizens and effective contributors. The skills and attributes which learners develop should provide them with a sound basis for their development as lifelong learners in their adult, social and working lives, enabling them to reach their full potential. Every child and young person is entitled to support to enable them to gain as much as possible from the opportunities to develop their skills which Curriculum for Excellence can provide. Timely provision of support to meet individuals' needs will enable children and young people to effectively engage with opportunities for skills development.

Figure 2.1: Developmental Skills for Learning



2.6.4. Global views on values and attitudes in education

The values included in the Australian curriculum include: cooperation, freedom, happiness, honesty, tolerance, unity, peace, respect, responsibility, simplicity, humility and love. In Singapore, the concept of a national ideology had an objective of preserving their Asian identity in an era of globalization where they would be exposed to external influences. They outlined the essential tasks in developing the National Ideology, namely: to find common values which all can share; to preserve the heritage of the different communities; and to ensure that each community also appreciates and is sensitive to the traditions of others.

The Singaporean education had a basis for developing values that were mainstreamed into the curriculum. This promoted Singapore identity with key common values that all racial groups and faiths would subscribe to and live by. Outside of these Shared Values, each community would practice its own values as long as they are not in conflict with the recognized values inculcated through the curriculum.

America has also implemented values and character education especially in the state of Georgia. Values are considered to be important to a child's character formation. This fact is particularly appropriate in the preschools and early school years. As students progress through schools, it is important that their education provide instructional opportunities, which help them develop their beliefs about what is right and good. The State Board of Education believes that there is a core list of values and character education concepts that should be taught in their schools such as these;

Table 2.1 Character Curriculum

<ul style="list-style-type: none"> • accomplishment • cheerfulness • citizenship • cleanliness • commitment • compassion • cooperation • courage • courtesy • creativity • democracy • dependability • diligence • equality 	<ul style="list-style-type: none"> • fairness • frugality • generosity • honesty • honor • kindness • knowledge • loyalty • moderation • patience • patriotism • perseverance • productivity • punctuality 	<ul style="list-style-type: none"> • respect for authority • respect for others • respect for the Creator • respect for environment • respect for health • school pride • self-control • self-respect • sportsmanship • trustworthiness • truthfulness • tolerance • virtue
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In the Kenyan context, the guiding principles have been developed from the *Values Education Study (2003)*. They recognize that in *all* contexts schools promote, foster and transmit values to all students and that education is as much about building character as it is about equipping students with specific skills. They also recognize that schools are not

value-free or value-neutral zones of social and educational engagement. Although the curriculum in Kenya has addressed values like nationalism, patriotism, integrity and mutual respect, through integration and mainstreaming and education is structured to promote positive attitudes towards good health and environmental protection (KIE, 2006), much more needs to be done to inculcate this in learners and not teach for achievement of a mean score only.

The three countries in the East African region have developed a competence based curriculum. In Rwanda, the process began in 2014, and currently (2016), they are implementing it in phases starting in the early grade learning as well as Form One (Republic of Rwanda, 2015). Just like Kenya, Rwanda is building a knowledge based economy driven by science and technology. Its curriculum framework translates the country's education vision into learning experiences and assessment. In view of the East African harmonized Curriculum Framework, it is imperative that Kenya as a partner state adopts the agreement made among the partners in the East African Protocol and revert to a competence based curriculum.

Principles guiding the competence base curriculum framework in Rwanda include; learner centred approaches, teaching and learning that emphasizes on competencies rather than knowledge domain, flexible inclusive learning that has emphasis on talents, integration of ICT and interconnectedness with cross cutting Issues such as sexuality, genocide studies, financial literacy, and peace and values education among others (Republic of Rwanda, 2015).

Identifying specific basic competencies such as literacy and numeracy, and generic competencies such as critical thinking, creativity and innovation, among others, depends on specific contexts. When Kenya adopts the competence based curriculum, there will be need to establish both basic and generic competencies depending on the views sought from the stakeholders.

2.6.5. Learning Areas

The curriculum in Kenya in the last century has been designed around the philosophy of subject matter content. The main tenets of this subject matter philosophy underlie 19th Century doctrines of classical psychology. According to the doctrines, the mind is

compartmentalized into specific faculties which can be trained to accomplish a given task. The end task is passing examinations which are taken after drills and learning through rote memorization. The learning environment is characterized by competition and detailed mastery of facts of the subject matter.

Subjects in the curriculum vary from one country to the other. For instance the education system in Japan runs from grade 1 to grade 16. Education is compulsory during the elementary and middle level schools which comprises of the first 9 years of the education system. Transition rate from middle to high school is at 98% (MOFA Japan, 2014). The graduation to high school and the university is based on examination performance. The middle and high school curriculum is offered in single institutions for continuity purposes.

The Australia system of basic education comprises of foundational curriculum in the first two stages. The compulsory subjects in stage three are mathematics, English, science and foreign language. The parent may choose to allow or deny their learners the opportunity to study religious studies and sex education since they are not part of the national curriculum.

South African curriculum offers a broad range of subject in the basic education system. The subject choices differ from school to school but every learner must study English language out of the 11 languages offered in the school curriculum (Exchange, 2012). The languages offered in the curriculum are based on the eleven national (formal) languages allowed in South Africa.

In Ghana, Children join education system at age 6 years (for grade 1 to 6). The stage transits to junior secondary school which comprises grade 7 to 9 and whose admission is open to any learner who completes grade 6 without the requirement of an examination. Junior secondary schools are therefore in the same compound with the primary schools. Senior secondary consist of 3 years starting from grade 10 to 12. The subjects done at this level include a set of core subjects and a number of clusters of elective subjects (Keteku, 2008).

South Korea has a national basic common basic curriculum with electives. For early grade learners, concentration is on mother tongue, Mathematics, Disciplined Life, Intelligent Life, Pleasant Life and 'We Are the First Graders'. The emphasis here is on discovering oneself and transition from home to school.

Often in many countries, the curriculum is too overloaded, overcrowded, “congested” and outdated. In some cases, there has been reduction of the basics curriculum to a very small number that people can focus on. The International Commission on Education for the Twenty-First Century, proposed to UNESCO an integrated vision of education based on the four pillars of “learning to know, to do, to be, and to live together.” Some advocate for the “4Cs (Critical thinking, communication, collaboration and creativity) or the 7Cs (the 4Cs plus “computer, character and culture”. Some speak of becoming “good capable and world-improving people”. Others would say it is having people becoming “effective thinkers, effective actors, effective relators and effective accomplishes” (UNESCO, 2012). The aspect of the 21st Century skills is one which the curriculum cannot ignore in the development of its curriculum framework.

UNESCO (2000) regards ‘learning to do’ or to ‘act creatively’ as the second of its four pillars of education needed to support society in the 21st Century. Amadio, Operti and Tedesco (2014) regarded curriculum in a wide context of having the most important values being acquired at school and the most fundamental learning experiences required to ensure new generations are prepared for life in the aspired society. Additionally, Brown (2003) opines 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.

Jensen (1998) observed that a strong Arts curriculum is at the creative core of academic excellence and lays the foundations for positive, measurable and lasting academic and social benefits through building creativity, concentration, problem solving abilities and self-discipline. In China, it is now creative students who are labeled as “good students” rather than students who gain high scores through the traditional rote learning. By learning and practicing art, the human brain actually rewires itself to make more and stronger connections (ibid). Music, on the other hand, is a tool that primes the brain’s neural pathways, enhances a wide range of academic and social skills. Creative Arts and other creative practical subjects such as Home Economics and Industrial Arts therefore need to be in the curriculum.

2.6.6. Assessment

There are new trends in assessment the world over as governments endeavor to reform education in order to meet their needs. These trends cover both alternative and authentic

assessment. Alternative assessments focus on the active construction of meaning rather than the passive regurgitation of isolated facts. These place more emphasis on thinking skills, collaborative skills and provide opportunities for multiple correct answers. Authentic assessment on the other hand, focuses on knowledge, thinking and skills. It aims at solving problems and accomplishing tasks. These give a teacher a clearer picture of what the learners are able to do with the knowledge acquired over a long period of time. Tests in this area are prepared with the success of the learners in mind as opposed to the success of a few as in the case with norm referenced assessment.

Countries have continually benchmarked with the best in the field of education in order to improve performance. The Japanese Government resolved to reform their education in order to catch up with the west through continued and aggressive research. Singapore has the best education indicators in the world in Mathematics and Science as measured in the Trends in International Mathematics and Science Survey (TIMSS). The Kenya Vision 2030 takes cognizance of the achievements of a number of countries in education as well in the economic indicators and makes mention of the rapid progress over a short time of South Korea, Malaysia, Finland, Ireland, China and Chile. PISA studies carried out in America and Europe have continued to inform policy on education and consequently testing.

Although the quality of education of Kenyan schools appears to be better than most of the Sub-Saharan Africa; there is need to balance between quality and quantity, since this affects assessment modes. The results from the Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ) III survey in 2010 reveal that Kenyan learners, in standard six generally perform well in both reading and mathematics tests compared to their counterparts in 15 countries in Sub-Saharan Africa. For instance, Kenya is ranked 4th after Seychelles, Mauritius and South Africa on standard 6 pupil's reading competency level 8 and second after Mauritius on standard six pupils' mathematics competency level 8.

Educational psychologist Benjamin Bloom categorized what and how we learn in three domains namely cognitive, psychomotor and affective. Although the curriculum in Kenya underscores the need for holistic development of the learners as suggested by Bloom's approach, the KIE (2010) indicated that learning in Kenya mainly focuses on the cognitive domain or the aspect knowledge only. Attitudes a central component of competencies are

never assessed. The emphasis has been on certification at the expense of learning. This often only fulfils a function of selection and as a regulation of opportunities for those who move ahead in the education system (UNESCO, 2015). It becomes an indicator of the institution one moves to in the next level of learning and the career path that is pursued.

Although the MoE in Kenya lays a lot of emphasis on school based continuous assessment, there is a lot of pressure on curriculum implementers to perform highly in national exams. This results to teachers' focusing on revision and drills for exams thus compromising the learning process.

Unlike Kenya, South Korea and Malaysia puts a lot of emphasis on school based assessment. In South Korea for example, there are no National assessments, though selected sample schools are assessed at grade 3 and Form 1 to ensure standards of teaching and learning are maintained (KICE, 2008). This means that transition from one level to another in basic education is seamless. Although the Malaysian education system has national examinations at the end of every level, the results, unlike Kenya, do not determine transition to the next level. At the end of Level 4, the assessment determines the career path of learners (MoE, 2001).

The summative assessment at the end of secondary school levels cuts off learners from proceeding to the next level of education. The competitiveness of the examinations leads to a situation where the focus of assessment is shifted from informing learning and improvement in performance. This is also cited in Sessional Paper No 2 of 2015 on Reforming Education and Training Sector in Kenya and underscores the importance of developing the whole person and emphasizes the need for a balanced curriculum.

According to Kellagan and Greaney (2001) regular, reliable and timely assessment is key to improving learning achievement and should therefore be a fundamental component of an effective teaching and learning process.

In an established competence based curriculum framework, the purpose of evaluation is spelt out and goes beyond selection and certification. Since there is emphasis on the formative aspect of assessment, the purpose includes monitoring progress and providing feedback. In the case of Rwanda, assessment focuses both on knowledge and

understanding, aptitude and practical tests, attitudes and values (behavior) and generic competencies guided by specific indicators (Republic of Rwanda, 2015).

Assessment of competencies is criterion referenced, as compared to assessment of an objective based curriculum. Huitt, (1996) in his article ‘Measurement and Evaluation’ differentiates between criterion and norm referenced assessment based on purpose, content, item characteristics and score interpretations. Whereas criterion referenced assessment focuses on determining whether each learner has achieved specific skills or concepts, norm referenced assessment focuses on ranking learners with respect to the achievement of others in broad areas of knowledge.

2.6.7. Pedagogy

For teaching to be effective it has to be systematic and stimulating. Teachers need to acquire skills as they teach in order to make it motivating. Perrot (1984) in Otunga, et al (2011) identifies several factors such as set induction, stimulus variation, explanation, questioning and reinforcement as presentation skills of interaction. Others are use of examples, question and answers and explanations. Instructional approaches also are discussed as simulation, presentation, discussion and problem solving.

Classroom teaching and learning need to be adapted in a fundamental way in order to ensure that youth fully benefit from the inclusion of 21st-century life skills in secondary education curricula. Such reforms must include pedagogical practices which nurture communication, collaboration, creativity and critical thinking skills (Akyeampong, 2014)

2.6.8 Resources

According to Otunga, et al (2011), there are two types of instructional resources; human and non-human resources. The human resource includes the teacher or any other person interacting with the learners, while the non human is either print or non print resources. Print resources include course books, reference and supplementary materials as well as class readers, journals, newspapers, workbooks, fiction, periodicals, study guides, magazines among many others. Further Schonwetter (2008, in Otunga, et al, 2011) has given other forms of resources that exist. These include, but not limited to multi-media presentations, teaching websites and repositories, government sites, conference sites, trade sites and teaching and learning objects. Generally it is the teacher who decides on the

resource to be used to enhance teaching and learning alongside the teaching method to compliment delivery of content and achievement of objectives. All this will depend on content and purpose of instruction, language level and class size, resource availability and adequacy (ibid).

2.7 Review of Relevant Previous Research

2.7.1 General overview

Educational changes at the national level at the initiation or implementation stages must plan and consider how people will react to change. There is need to consider how the process will be affected by the existing circumstances. Sekui, (2004, in Wedell, 2009) observed that in Japan, an educational change that involved new curriculum made teachers worry because of the required new practices in classroom management styles and secondly the implementers may lack confidence on the new styles they are expected to adopt. There is therefore need for comprehensive rationale for the anticipated curriculum reforms. This section presents review of relevant previous curriculum research that relates to the themes of this study.

2.7.2 Societal needs

Various studies have indicated existence of gaps in the curriculum as pertains to the societal needs. The Bessey Committee of 1972 pointed out that the curriculum did not achieve the national objectives because of the narrowness of scope and over emphasis on rote learning (Republic of Kenya, 1972). The study established that the curricula neglected practical and creative activities especially in agriculture and basic manual skills. The curriculum was also found to be unresponsive to Kenya's cultural heritage and the entire environment in which children as well as young people grew. By 1977 in Kenya, secondary school graduates surpassed the white collar jobs that were available aggravating the problem of unemployment in the country. The Report of the National Committee on Educational Objectives and Policies (Gachathi report of 1976) guided curriculum improvement during this period. The Gachathi Report (Republic of Kenya, 1976) raised the issue of unemployment in relation to 7-4-2-3 education system. In view of this, the committee proposed that the secondary school education curriculum should be redefined to make it practical with more emphasis placed on the teaching of sciences, agriculture and vocational subjects. The 7-4-2-3 system of education lacked the capacity and flexibility to

respond to the changing aspirations of individual Kenyans and the labour market needs. Consequently, there was an urgent need to change the curriculum to focus on the acquisition of relevant and practical knowledge and skills that would lead to quality employment. The rationale was that the existing system was too short and not rigorous enough to give graduates enough practical education to fit in the world of work.

The year 2002 saw a national revision and rationalization of the curriculum. The revision entailed refocusing the goals of education, the level objectives, subject general objectives and the specific objectives. The summative evaluation of the secondary school curriculum made it apparent that the revised curriculum had gaps that needed to be addressed if education was to have the desired impact on the socio-economic and technological development of the country and specifically achievement contemporary needs of the of Vision 2030. The key recommendation was re-alignment of the curriculum to meet the societal needs and viewing the curriculum as an outcome of a process reflecting a political and societal agreement about the what, why and how of education for the desired society of the future.

2.7.3 Competencies

Ford (2014) opines that Competence Based Education (CBE) and training is not a new concept. Ford traces development of CBE to the theory of behaviorism whose proponent is the psychologist Skinner, because it reflects instructional designs informed by the field of Psychology, and measuring what learners are able to 'do' and at what level (standards-based performance). The emphasis is outcomes versus process.

Until recently, CBE programmes were a 'niche', for adult learning and vocational education aimed at the job market. Calls for more effective and demonstrable outcomes have attracted interests in development of major competence based initiatives (Ford, 2014). In CBE, students are assisted and not taught. It draws what the competence is, how it will be achieved, the activities and content, and how it will be assessed. Ewell (2013) in Ford (2014) refers to it as curriculum mapping. It clearly establishes and communicates the linkages between learning, assessments and specific competences.

A study carried out in Korea by IBE-UNESCO(2012), revealed that a CBE is not in conflict with the existing curriculum and that specific subjects continue to provide a critical

path in promoting acquisition of key competencies such as communication and efficient management. The study further shows that competency skills recommended for Elementary level were; problem-solving skills, communication skills and cooperation skills. A survey conducted in Ghana by COTVET (2009), it was affirmed that Competency Based Training is an industry and demand driven education and training programme, its products have a high demand on the job market.

Rychen and Salganik (2001) carried out a study 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.

2.7.4 Learning Areas

A study by Herman (2011) who investigated the role of vocational oriented education with that of national educational institutions in 18 countries and found that the students who come from vocational stream acquire the skills better than the others who do not have the vocational orientation. The vocational streams of students have better chances to get employment as well as higher salary because of the skill set they possess.

According to Inwang (1985) in Ibukun, Akinfolarin and Alimi (2011: 179) “Vocational Education helps to fix right habits of thinking and doing in students through repetitive training, carried out to the extent where it gives the trainee a productive ability with which he or she can secure employment. Student learning outcome are likely to be practically seen in Vocational and Technical Education where students discover and do things themselves”.

The teaching and learning of Mathematics, Sciences and Languages is important to the assimilation and acquisition of the 21st century skills. Since, the country’s Blue-print for economic development flags the teaching of Mathematics, Languages and Sciences as being vital to the country’s development. 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 (Government of Malaysia, 2012). Similar studies carried out in Singapore indicate the emphasis on the 21st Century which include creative and critical thinking, communication and collaboration, and social and cultural skills. These are core values that the Singapore education system sets to cultivate in all its students (Soland et al., 2013) and Voogt & Roblin (2012) pointed out that in Japan, as in Singapore, the competencies and pedagogical moves associated with 21st Century competencies are seen as a central means of using education to ensure sustained economic prosperity in the years to come. These 21st Century aspirations have been articulated in a New Growth Strategy (2010) announced by the Japanese government as well as in “The Future Vision on Career Education and Vocational Education at School,” by the Ministry of Education, Culture, Sports, Science and Technology (2011). Further, the 21st century competencies in the Japanese classrooms were not dissimilar from Singapore: problem solving, communication, collaboration and use of Information Communications Technologies (ICT).

2.7.5. Resources

As Ngware, Wamukuru and Odebero (2006) observe, quality and adequacy of resources such as physical facilities have a direct bearing on quality as they determine how effectively the curriculum is implemented. These scholars have argued that quality education cannot be achieved and sustained if the resources and facilities are not available in sufficient quality and quantity. Apart from textbooks, AHPRC (2010) have observed that teaching aids significantly contribute to learner achievement. Developing and using appropriate teaching resources have been proven to improve learners’ achievement. It requires teachers who are creative, proactive and who appreciate the power of resources in enhancing performance.

According to Twoli, Maundu, Muindi, Kiio, and Kithinji (2007), Oluoch, (1990) and Beswick, (1975), the expanding scope of knowledge in many areas of education, necessitates the teacher to be aware of the diverse types of teaching resources available for use, as well as those that can be prepared using locally available materials. Twoli et al., (2007), recommend that the teacher should carefully prepare a wide spectrum of learning materials, and effectively use them during the teaching-learning process. Apart from

teachers, field officers and head teachers have a part to play in helping teachers to use teaching and learning resources. KICD (2014) study on educational resources indicated the need to sensitize head teachers and education field officers on the key role that teaching and learning resources plays in the teaching learning process. This will help the school administration to encourage and support teachers in their quest to develop teaching and learning resources.

2.7.6 Pedagogy

The instructional strategies adopted by teachers determine what will be learnt by the learners. An assertion made by AHPRC (2010) in classroom observation study for mathematics implies that pedagogical content knowledge was a major factor that influences how much content is learnt. Additionally, Osakwe (2009) in the AHPRC study (ibid) identify some variables for quality classroom instruction that include attitude of the teacher, knowledge base, mastery of subject and social cultural context. Effective communication by the teacher enables this context to be well utilized to facilitate learning. Individual attention to learners is therefore important too in enhancing learning. Darling –Hammond (1990) opines that policies on teaching affect the teachers directly and hence if pedagogy has to change as a matter of policy, the policy too has to pay attention to the knowledge base of the teachers. Wanzere (2002) suggests that there is need to enhance the competence of the Kenyan teachers in the light of rapid, intensive and fundamental nature of present day technological, economic, cultural, societal and political changes.

2.7.7 Talents

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.

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 School are defined as those who demonstrate or show the potential for a high level of performance in different ability areas, when compared to others of similar age, background and experience 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 development of society and 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 to 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.'

The Gifted Education Programme 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 had 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.

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).

The five key principles of identification according to Richert (1991) 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). Unfortunately without a common definition or understanding of learners who are gifted and talented, it becomes difficult to design their education and what it should entail and even methods of nurturing the talents.

2.7.8 Assessment

An analysis of the assessment system in Kenya reveal that the high stake end of cycle assessment, namely KCPE/KCSE which asses over 1.3M children annually compromise the role of formative assist (Mugo & Asiago, 2015). Despite being national examinations, they do not improve learning as they act as sieves to determine certification and movement to higher levels. This encourages basic learning at the expense of deep and underlying issues in the content or the learning areas which produces extended analysis and application of the acquired knowledge.

The current system of assessment measures a narrow range of competences. Numeracy and literacy assessments are attempted by the national examinations which are not necessarily by the government such as UWEZO. At a time when the teaching of the 21st Century skills or competencies is coming to the fore, measurement of competencies and other soft skills is important (Mugo & Asiago, 2015). These are currently not catered for by assessments in Kenya schools.

The taskforce report (2012) pointed out that teachers are poorly prepared to develop tests and evaluate learning. Formative assessment which should assess continuous learning do

not play a major role improving learning but of preparing learners on handling the national exams. A worrying trend is that schools find it easier to buy commercial exams from which teaching is done. These are prepared by entrepreneurs and not necessarily persons in education. The problem may be rooted also in how the training of teachers was conducted.

With the competence based curriculum, there is need to conduct assessment for learning; meaning that teachers can utilize assessments as analytical tools to improve students' learning (Mugo & Asiago 2015); it's a part of teaching and learning process and not an after process activity. Maclellan (2001: 307-318 in Mugo & Asiago 2015) observes that *'assessment for learning must be contextualized and represent meaningful tenets of human achievement with skills and competencies that are used in real world context'*

These assessments dwell on cognitive domain at the expenses of other learner attributes and competencies. Teachers with less cognitive potential are greatly disadvantaged. Hence teachers dwell in these low levels of the bloom taxonomy in the teaching because experience and routine has proved that this is all the national exams require; factual knowledge and repetition.

2.7.9. Contemporary and Emerging Issues

On mainstreaming of emerging issues in the school curricula, KICD (2014) conducted an assessment across secondary schools and found out that emerging issues were not mainstreamed in all subjects, and not all teachers had knowledge on mainstreaming possibly because of insufficient training in this area. Owino (2013) observed that as a non examinable subject, Life skills education becomes relatively inconspicuous and also negative attitude from both teachers and learners down plays the role of implementing the cross cutting programmes in the curriculum.

The KICD study confirmed that the attitude of teachers and learners impeded the teaching and learning of emerging issues. Teachers lacked commitment and passion as there was more emphasis laid on subjects that were nationally examined. Among other challenges cited in the teaching of emerging issues were inadequate teaching and learning resources, inadequate time, too much content and areas to cover under emerging issues and teachers lacked mastery in handling emerging issues. It was worse for schools with special needs as

there are no sign words for emerging issues and school administrators were not supportive (ibid).

A study done by UNICEF (2006) on Life Skills Education in Swaziland revealed that teachers did not deem the subject as important since it was not in the curriculum. The MoE study tour report to Zimbabwe and Malawi indicate the need to enhance the capacity of teachers to enable them mainstream the emerging issues into the curriculum as stipulated in the Education Sector Policy on HIV and AIDs.

2.8 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 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 standardised (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 & Ong’ondo, 2011).

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. 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).

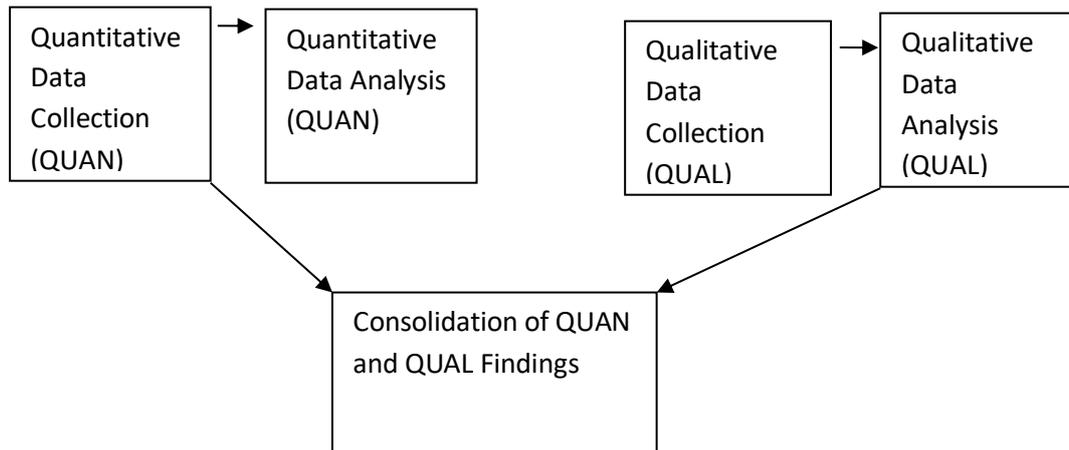


Figure 3.1: Concurrent Mixed Approach Design

3.3. Research Methods

In this study, one research method was used - the survey - but applied differently in the two approaches, as explained further below.

3.3.1. *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 principals at secondary schools 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.

3.3.2. *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 sub-section) 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, 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 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).

3.4 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 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.

3.4.1. Target Population

The institutions targeted comprised of all Secondary schools, various Education Field officers and other stakeholders. Within the institutions the study targeted all principals, teachers, and learners. The target population size was **6,495** (Ministry of Education, 2011). **Table 3.1** illustrates the target population structure while **Table 3.2** indicates other organizations that were targeted, especially as participants in the Key Informant Interviews.

Table 3.1: The Target Population Structure

REGION	COUNTY	SEC
Central	Kiambu, Murang'a, Nyandarua, Nyeri, Kirinyaga, Laikipia	1,063
Coast	Mombasa, Kwale, Taita Taveta, Lamu, Kilifi, Tana River	280
Eastern	Machakos, Makueni, Kitui, Meru, Tharaka, Embu	1,279
Nairobi	Nairobi	337
North Eastern	Garissa, Wajir, Mandera, Marsabit, Isiolo	57
Nyanza	Kisumu, Siaya, Homa bay, Migori, Kisii, Nyamira	1,231
Rift Valley	Nakuru, Narok, Kericho, Bomet, Elgeyo Marakwet, Nandi, Uasin Gichu, Turkana, West Pokot, Trans Nzoia Samburu, Kajiado	1,554
Western	Kakamega, Vihiga, Bungoma, Busia	694
Total		6,495

Source: MoE (2011)

Table 3.2: Other Targeted Organizations

Organization	Units per category
Faith Based Organizations	2 faith-based organizations per county
Field Officers	1) Quality Assurance and Standards Officers: 1 per county 2) 1 TAC Tutor per county 3) 1 EARC per county 4) 5 National Quality Assurance Officers (MoE Directors)
Other Organizations	1) KNEC 2) KISE 3) CEMASTEAM 4) Universities (Private and Public) 5) KEMI 6) KIPPRA 7) TSC 8) KNUT and KUPPET 9) FKE 10) Kenyan Diaspora and Embassies

3.4.2. Sampling Technique

The study employed a multistage multi-stage sampling technique (Mugenda and Mugenda, 2009), which involved random selection of the quantitative respondents and Purposive sampling of the qualitative respondents.

3.4.3. Sampling Procedure for the Quantitative Phase

The Sampling was done through the following stages

1. The country is divided into eight geographic regions, as used by the Ministry of Education and each region is sub-divided into counties
2. From each county, districts were selected as per the proportionate size of the region, randomly (and purposively for marginalized areas).
3. From the selected districts, educational institutions were selected proportionately at random, as stipulated in the sample design
4. For the quantitative phase, from the selected educational institutions teachers were selected at random in secondary schools. The same proportional selection technique will be applied for other institutions and field officers.

3.4.4. Sampling for the Qualitative Phase

Sampling was done using purposive techniques leading to identification of several participants, institutions and key informants. The participants who took part in the study included secondary school students, parents, teachers, principals, workers in the informal sector and industry, Education field officers and various stakeholders.

The Qualitative data were generated using questionnaires and observation schedules. These were administered mainly to principals and teachers in secondary schools. The Qualitative data were generated using In-depth interviews of student leaders, workers in the industry/informal sector and key informants. Focused group discussions were used to generate data from the students and parents. In addition memoranda were sought and received from individuals and institutions from across the country.

3.4.5. Pilot Study

Before actual generation of the data, a piloting of the tools was undertaken in ten counties in various regions across the country. These counties were randomly sampled. The questionnaires and interview guides were tested for appropriateness of question items in terms of language, content, clarity, time taken to administer as well as general administration logistics. In addition, the pilot study was used to determine 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 research objectives. After the analysis of data collected from the pilot study, ambiguities and unnecessary content in the questionnaires and interview guides were addressed.

3.5. 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 CEMASTEIA carried out the needs assessment over a period of two weeks. Twenty three (23) teams were dispatched to visit different regions of the country. In total, 120 officers participated in the research process. County Education offices were the entry points into the selected counties. In addition, a call was made for memoranda from all Kenyans in the Media.

3.6. Data Analysis

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

3.6.1 Quantitative data analysis

The data from questionnaires were analyzed by use of the Statistical Package for Social Sciences (SPSS) software Version 17.0. This software provided general statistical information about the participants investigated and assisted in making inferences about the population.

3.6.2 Qualitative data analysis

The process of Qualitative data analysis involved several 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 was confirmed to be consistent in coding process. The team was then divided so that data for different levels were analyzed separately but using the pre-determined themes consistent with the research objectives.

Then, each team was 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).

3.7. Trustworthiness of the Study

This involves explaining the steps that were taken to ensure that the entire research process was done in a trustworthy manner. This is further important to assure the readers that the findings of this study can be trusted to inform policy and practice for curriculum reform. In this section, the steps that were taken to ensure validity and reliability of the quantitative research process are explained. Then, the steps taken to ensure trustworthiness of the qualitative phase is also discussed.

3.7.1 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 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 content 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 centres on the correct interpretation of the concepts. Use of mixed method approach also addressed the construct validity of the study.

3.7.2 *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 $Nr_{pxy} / 1 + (N-1)r_{pxy}$, where r_{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.

3.7.3. *Trustworthiness of the Qualitative research process.*

3.7.3.1. *Credibility*

Credibility is the extent to which the study actually investigated what it set out to investigate which was to assess the needs of Kenyans for curriculum reform. The credibility of the study was mainly ensured through *triangulation*, which basically means bringing together various perspectives.

The study utilized three types of triangulation: triangulation of data collection techniques, triangulation of data sources, and triangulation of analysis (Rothbauer, 2008; Jwan & Ong’ondo, 2011). During the study, various data generation techniques were used. These included interviews guides, focus group discussions, observation schedules and submissions in the form of memoranda).

In terms of data sources, the triangulation involved getting data from different participants (Jwan & Ong’ondo, 2011). Each set of participants yielded different evidence that provided different insights regarding curriculum reform. The different sources were learners, parents, educations officers, various key informants/stakeholders and various corporate institutions. The findings of the Quantitative phase were triangulated with the results of the Qualitative phase so as to give a more complete picture of the needs for curriculum reform.

CHAPTER FOUR
PRESENTATION AND DISCUSSION OF FINDINGS

4.1 Introductions

This chapter presents the consolidated key findings of secondary level needs. The chapter is divided into different themes which include: secondary level needs, competencies, content/learning areas, talent identification and nurturing, pedagogical approaches, teaching and learning resources and assessment.

4.2 Secondary Level Needs

The study sought to find out the general secondary level needs. This information was sought from different respondents who included teachers, principals, parents, students, key informants as well as people working in the industry and informal sector. Other respondents gave their views through memoranda. The secondary school principals and teachers responses are presented in Table4.1

Table 4.I: Responses on the extent to which the secondary level curriculum should emphasis societal need.

Societal need	Teachers responses' (%)	Principals responses' (%)
Environmental protection	90.4	93.8
Social development	91.3	92.9
Technological development	90.3	91.9
Economic and industrial development	93	92
Patriotism	95.7	97
Average rating	92.2	93.5

Table 4.1 shows a summary of the most desired societal needs. Patriotism was rated highly by 95.7% of the teachers and 97% of the principals.

The economic and industrial development was indicated by 93% of the teachers and 92% of the principals. A respondent pointed out that learners should be encouraged to change the mindset of securing white collar jobs and instead develop competencies suitable for

employment in the industry and self-employment. For this respect, a view was expressed that secondary education should make learners self-reliant, self driven, all round graduates who can go for self employment as an alternative for employment.

INF: We need a workforce with strong resentment towards corruption and well equipped to fight it morally and otherwise. A workforce that appreciates the ethnic diversity and is able to amicably integrate in all engagements. We need Self-driven, all-rounded graduates who are able to comfortably go for self-employment as an alternative to formal employment, considering the increasingly reducing opportunities in the job market (**BUS.MAN-INF-NAD**).

A respondent from the industry said that the secondary curriculum should provide a linkage between education and industry.

Industrialist ...We need to find the link...schools will not have factories running in them ...at the school level even in the universities...there is need to find partnerships and linkages between the business sector and educational institutions...link the curriculum development to the business world(**MAN-IND-KAK**)

Different respondents advocated for a skills oriented education. They stated that education should equip the learner with intellectual and practical skills that would help them to fit in the job market when they leave school. The respondents stated that by the time students leave school, they should be able to apply what they know to real life situations. They should interpret their learning in terms of production. To some of the respondents, life does not end at academics. Even those who do not make it to higher levels of education are capable of doing something for their livelihood if provided with the right skills. In regard to these issues the respondents said:

Student Leader: I would like to request the government in as much as they care for those people who get high grades, let them remember those with low grades because we need them in society. For example, my dad is not good in books but give him any other work to do he is in a better position to do than those who are very educated. Let us concentrate on the other skills they have. Like someone who is in Jua kali they are also contributing to society. So let the government remembers that, the skills are the ones that will help us (**SL- MUMS - MUR**).

Parent: Our education system should cater for needs that would give the child the skills that would shape their minds or intellectual needs and not just educationally but practical needs (**PA-FGD-MOIG-S-UG**)

Student: I should be able to guide my younger brothers and sisters. I can also have knowledge on how to do something so that I can achieve what I want. For example, I can go there and apply the knowledge of agriculture and grow some sukumawiki and get money and provide for them (**S-FGD-KAS-S-KIL**).

Parent: ...knowledge in farming just like the old system of education when there was 4K clubs in schools; for example he/she should have knowledge on how to grow different types of crops for example maize, cassava,... be able to do things like driving, mechanical work, something that will help him/her in life ...show a difference between those who have gone to school and those who have

not, because he/she will have knowledge he/she should be different in dressing, talking to others (PA-FGD-MAKWP –KWA).

Student: that you can invest in business after school (S-FGD-KWANG-KIT).

Student: They should be equipped with some of the practical skills. So, see like Form one when they come here they don't know anything. When you are taught in primary when you reach secondary you will be broad in mind and have ideas, something in mind (S-FGD-KIS-S-NYAN).

Student: When you come here you find that there are practical exams in Agriculture. There are some schools which have gardens and they should teach them right from primary school so that when they come here it will be easy for them (S-FGD-KIS-S-NYAN).

Student Leader: Personally when I leave form 4, the education system should be in such a way that after I leave school I can start something but when its theory based, I still have very little and even the teachers they are not trained in such a way that they can encourage the practical part. That is a challenge in the education system (SL-MBIT-S-HOM)

Student: Like Science in primary, there is this topic on energy and lights those cell you do practical and know how to connect those things. And when you come here it will easier for you to know them (S-FGD-KIS-S-NYAN).

Respondent: Sasa hawa wanaweza fundishwa...nimesema carpentry, masonry, tailoring, shoemaking, na mahali wanaweza kubalika kwenda kujoin kama sasa hoteli...sasa kama hapa...wapelekwe catering, wenye watakuwa na elimu kiasi wapelekwe wasomee accounting, salesmanship, vitu kama hizo, ndio wakitoka huko, waweze kuchangia kwa wengine, kuchangia katika uchumi. Watakuwa wanajiendeleza, na pia wanachangia uchumi wa nchi

(They can teach skills like carpentry, masonry, tailoring, shoemaking and catering which will help them to join even the hotel industry. Let them be taken to do catering, and those who qualify may pursue courses like accounting, salesmanship and the like so that they can contribute to the economic development of the nation. They will have advanced themselves and also the nation) (HOT-INF-NAR).

Strengthening the need for practical skills, a respondent in the informal sector pointed out that skills that are needed in job market should be focused on at all levels of education as long the learners can learn them with ease.

Respondent... Education should ensure that learners who leave school at different levels all the way from Primary school to University have interest in skills at those levels that are required and now missing in various industries and which they can easily learn. This will lead to quality output at all levels in industrial work, and inject some certainty in the prospects of improved and regular incomes for all workers who attain some skills. This can be achieved if a thorough research is done on skills required in various industries at all levels (BUS.MAN-INF-NAI)

A respondent indicated that secondary school curriculum should prepare learners for TVET training.

KI: Curriculum content at the secondary level should be able to prepare such students even to TVET, TVET and institution (KI-SGKN NAI).

This was supported by other respondents who suggested that learners at secondary school level to be taught talents, vocational skills, technical skills, scientific research and mathematics.

KI: There is more to life. Failing an exam does not mean that you are failing in life. There are people who have succeeded in this life and they did not make it in school because they did not have very good grades your talented you're a good footballer you can be hair dresser, beautician you can do what God has created you to do because we all have talents **(KI-KEPSHA-NA)**.

KI: In secondary level the students should be helped to develop talents, general vocational **(KI-WIPER)**.

KI: technical skills, scientific research and mathematical prowess **(KI-MPC NAI)**.

A respondent noted there is need for attitude change toward technical subjects. Positive attitude will encourage many learners take courses in technical training. Both male and female learners should be encouraged to take up different technical trainings without biases.

KI-There are very few girls who have been trained in electrical in motor vehicle because basically of attitude. Boys too you find very few tailors mending because of that kind of attitude we have so we have to develop or we have to teach them that kind of how to accept such kind of things **(KI-NVCET-NYA)**.

Environmental protection was rated by 90.4% teachers and 93.8% of the principals. On the other hand, social development was rated by 91.3% of teachers and 92.9% of the principals. These findings on social development were echoed by other respondents who pointed out that secondary education should aim at producing all-round moral, mental and spiritual learner and should build a firm foundation for further education. They should have a well-developed value system that respects life and property (their own and other people's), environment and gives them commitment to contribute to society and the nation. This would also enable them have a strong understanding of equity and justice.

Student Leader... it should help me to be a mature adult, grow spiritually and morally upright, it will help me acquire values that are going to help me in life and whenever I fall into difficulties I can apply what have learnt **(SL-MOIG-S-UG)**.

Technological development was rated high by 90.30% of teachers and 91.9% of the principals.

Empirical evidence has it that value education is essential for sustained social and economic development and the realization of human potential. 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 environmental protection are given due consideration.

4.3 Competencies

Literature defines competency as 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, p. 2). It is a word used to denote a person's ability to acquire, retain and evaluate information (Drew, Hardman & Hosp, 2008).

This study sought to find out the competencies that learners should acquire at secondary level. These competencies included the skills, values and attitudes. The information was sought using questionnaires, interview schedules, Focus Group Discussion and memoranda. The secondary school principals and teachers 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 competencies 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 were weighted out of 5 and averages derived. From the weighted averages, percentage mean ratings were further derived. The findings are presented in this section.

4.3.1 The desired competencies

Through questionnaires, the teachers and principals identified different competencies that were clustered into four 4Cs of the 21st century skills. These includes: Communication, Collaboration, Critical Thinking and Creativity. The overall ratings of the skills by the principals and teachers are presented in Table 1.

Table 4.2: Teachers and Principals overall Responses on Desired Competencies

Competencies	Teachers responses' (%)	Principals responses' (%)
Communication	95.0	96.2
Creativity	95.4	95.6
Collaboration	95.0	91.0
Critical thinking	90.4	93.8
Average %	93.5	94.2

As shown in the findings the respondents were in favour of the 21st C skills with an average of 93.5% and 94.2% of the teachers and principals respectively.

These findings were echoed by the students, parents, key informant and other respondents who gave their views through the memoranda. These respondents advocated for development of skills that enhance life in the 21st century. Commenting on the skills, a respondent through memoranda said:

MEM: Soft skills; 21st century skills such as problem solving, critical thinking and emotional intelligence, creativity and logical thinking; Computer and Digital literacy; Innovativeness, and Teacher professionalization programmes through mentorship (**MEM-CEMASTE**-)

The term 21st 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. The 21st century skills can be applied in all academic subject areas, and in all educational, career, and civic settings throughout a student's life. These competencies are key because the learners in the 21st C, are expected to find multiple answers to challenges, choose what fits their schools and environments, for them to be successful in meeting the future challenges education must foster creative leadership, communication and management in classroom.

This was consistent with study by Rychen and Salganik (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 findings are also supported by Dewey theory that curriculum should ultimately produce students who would be able to deal effectively with the modern world.

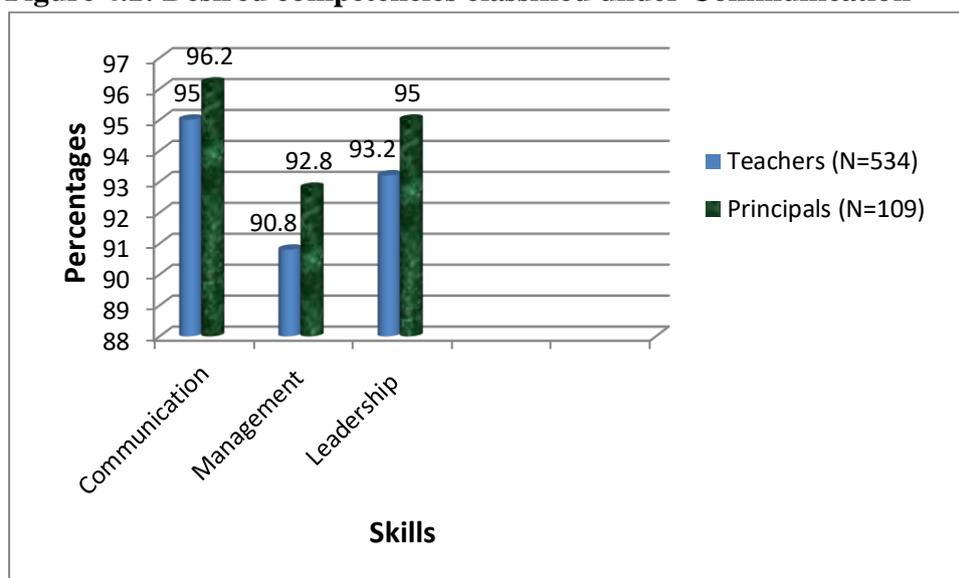
Further, the task force on re-alignment of education (2012) which recommended some core competencies that should be acquired by learners such as communication skills, Manipulation skills, Social skills, Environmental awareness, Numeracy, Writing, enquiry skills, ICT, talent potentials, Observation skills, Entrepreneurial skills, Ethical skills, Investigative skills among others also supports the findings. A study carried out in Korea by IBE-UNESCO (2012), revealed that a CBE is not in conflict with the existing curriculum and that specific subjects continue to provide a critical path in promoting

acquisition of key competencies such as communication and efficient management, is also consistent with the Kenyan findings

4.3.2 The desired skills classified under Communication

Several skills were put together under communication skills. These include leadership, management, and communication skills. These skills and their ratings from both principals and teachers are presented in Figure 4.1.

Figure 4.1: Desired competencies classified under Communication



The findings show that over 90% of the secondary school teachers and more than 92% of the principals agreed to a Great Extent that communication, management and leadership competencies should be incorporated into the curriculum.

These findings were echoed by the students, parents, key informant and other respondents who gave their views through the memoranda. Students on their part advocated for oral and written communication skills, for example, ability to communicate in English, public speaking, debating skills and creative writing skills so as to be able to write books and magazines. The students said:

Student: For me I should be able to communicate well in English (S-FGD-KAS-S-KIL).

Student: ...able to write a book and produce a magazine hence I want to be a writer (S-FGD-MOG-S-SAM).

The students identified communication skills as having a bearing on their relationship with others. It is through these skills that they will be able to express themselves

Student: By the time you're a leaving school, you should be able to express yourself. For example when you are getting a job, you are supposed to express yourself. It can only be achieved through public address, student teaching others (S-FGD-KIS-S-NYAN)

Leadership skills were rated as important by 96.2% of the principals and 93.3% of the teachers.

Other respondents also pointed out that learners should be equipped with leadership skills.

Student...Good leadership skills, better grade, apart from education I would like to have gotten maximum skills life wise (S-FGD-PBH-S-UG).

KI: ... at secondary school that is when we train for responsibility ... and leadership (KI-PWA-UNI).

4.3.3 The desired skills classified under Creativity

The skills clustered under creativity included problem solving, research, analysis, entrepreneurship, innovation and creativity. The ratings of the principals and teachers on the skills are presented in Figure 4.1.

Figure 4.2: Responses on competencies classified under Creativity, by secondary Principals and teachers.

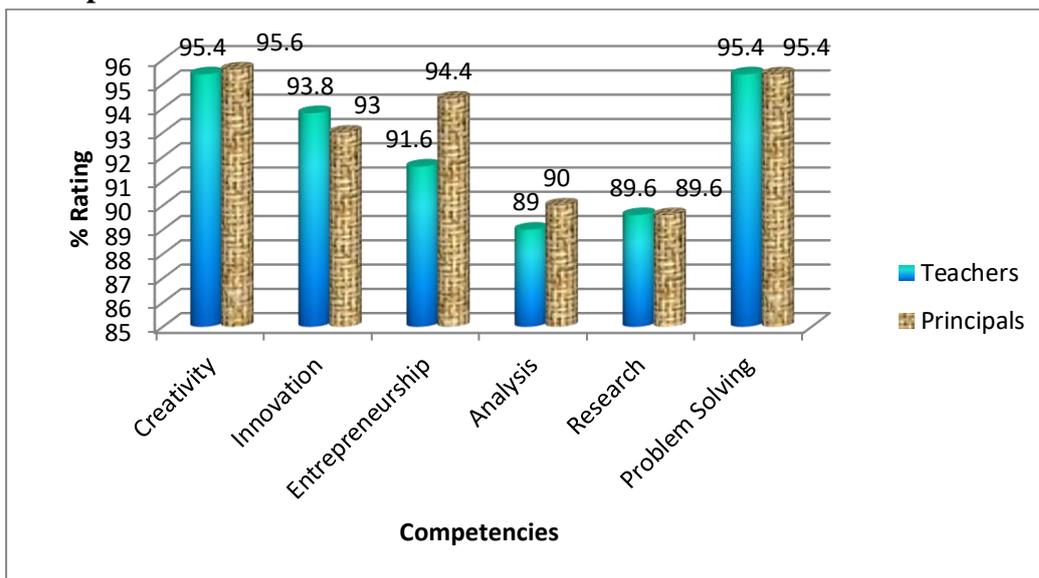


Figure 4.2 provides a summary of various respondents' views on the skill of innovation, creativity, entrepreneurship, problem solving analysis and research. There were no significant variations with regard to competencies desired with the least preferred competencies being analysis rated at 89.6% and the highest being creativity 95.6%.

Respondents through an interview, Focus Group Discussion and memoranda also identified these skills as important in the curriculum. Commenting on creativity, the respondents said:

Respondent: I can only begin by saying that they should be creative. These things need a lot of creativity. Like, if you are taken to a certain field if I may say, after you get there, you will have in mind what you can do out of your creativity. Just like 8.4.4, in our time when you got to class six we had practical of making funny things such as mats and it was depending on how creative you were. That time you find that children are motivated by what is being done. The following day you would find that the child that you didn't show him how to make a certain thing can be able to do it out of experience and observation. But if a child is not taken to that field to observe what is going on there it will take him a long time for him to know those things (**MECH-INF-UG**).

It was pointed out that learners should be able to identify the importance of research and techniques of carrying out research at the end of the secondary school level. In relation to this, the respondents said there is need for analytical skills.

Like the principals and secondary schools teachers, parents, learners and key informants also suggested that learners should be equipped with business, entrepreneurial, and financial literacy skills. To them, such skills would be necessary for self reliance. Instead of the students being idle, such skills would help them in finding something to do and earn a living.

Student leader: coming back to the economy you find that some of these countries that have developed... you find that entrepreneurs are highly encouraged... when you talk of like my society, entrepreneurship is not known.. we leave school we start looking at the white collar jobs and that's exactly what teachers taught us for the education system in Kenya is such that we are taught to look for the white collar jobs and not the blue collar jobs (**SL-MBIT-S-HOM**)

Student: By the time you live secondary school you should also have well equipped skills. When you are waiting to go to university you should not be idle, you should have something practical that make you to be busy (**S-FGD-KIS-S-NYAN**).

Respondent: People should be taught technical, practical, entrepreneurial thing that they can help themselves with. Many have been learning to get employment, but are losing hope and becoming useless and desperate when they fail to secure employment. They forget the animals and the farm can earn money. So what I say is that they are "*sleeping*" over resources that they could use to better their lives (**CARW-INF-UG**).

The findings on the need for entrepreneurial skills conforms to the Kenya Vision 2030 which places great emphasis on the link between education and the labour market, the need to create entrepreneurial skills and competences, and the need to strengthen partnerships with the private sector. It is the curriculum which is supposed to develop these skills and competencies.

At secondary school level, the respondent emphasised the need to have students develop competencies in science, technology and innovation. They need to use skills acquired in numeracy, science and ICT to create solutions to problems in the society.

KI: In Secondary school, we should have people who are innovative, critical thinkers because the person is actually an adult. Should be able to innovate solutions to problems in society, Should use numeracy skills to innovate, use science to innovate, use ICT and that was learnt to create solutions to the problems society faces (**KI- KPSA- UG**).

Student...I anticipate to be ... very innovative... I hope to invent something that can make our Kenya proud, that will change our Kenya and turn it into the first world countries (**S-FGD-BUT-S-BUS**)

KI: ...use of technology, ability to innovate, for example, entrepreneurial competencies. Those are competencies that need to be injected into the minds of the youth at a very early age (**KI-CA-NAD**).

Closely related to innovation are digital literacy skills. Some respondents pointed out that learners need to understand issues relating to digital technologies and have skills in the same.

MEM: Digital literacy should be achieved at 10 years of age. This includes understanding communication principles, how to operate computers, internet usage skills and understanding of the basic principles of digital technologies and issues surrounding use of digital use (security and privacy, digital citizenship). (**MEM-ED-AC**)

Student: ... for example those who did computer, they should leave the school when they are able to work on the computer having full skills so that they don't incur additional costs to undergo the computer studies when out of school (**S-FGD-NJU-S-MUR**).

Parent: When the school started computer lessons, I would like when the student finishes form 4 they can utilize their computer skills by teaching others as a source of income (**PA-FGD-KIRIS-S-SAMB**)

Key informants expressed the need to train learners on matters of technology since the world has changed in terms of technology use.

KI: ...The other facet that has been lacking has been computer and IT literacy in a first changing world where everything now has become e, e-education, e-health, e-tourism, e-everything. We must empower young people to have the capacity to use computers not just as gadgets or as means of either accessing content and information but that can help them become better people (**KI-CA-NAD**).

On problem solving, the respondents suggested that at the secondary level, the student should be able to come up with different ways of solving problems and choose the best solution. The respondents emphasized lateral thinking, adaptability and resilience among the students. Strengthening the need for these skills, the respondents said:

KI: I would imagine that they should really be supported to be able to solve problems. Problems solving skills because most of our students are just clever they are not intelligent you know being clever means being able to recall what you were taught and getting back to the teacher but when you are given a problem to solve you extend it and that is why you remember me mentioning on the table about the kind of questions evaluates this class (**KIT - BIS- HOM**).

KI: ... Why problem solving becomes critical in secondary school level is in primary school adults solve problem. If there is no water ... kid comes and tells the teacher ... In Secondary school, they will probably not report. They will probably complain because they know that this is problem that

needs to be solved but can we teach them that before you complain try to solve the problem. (KI-CEB NYAM)

KI: ... And then in secondary we need to teach - it is called lateral thinking, a multiplicity of solutions to a similar problem. They should be having plan A – Z not just A and that is it. (So that if my girlfriend leaves me I kill myself- that is one solution there could be other solution).So, one of the competencies is the competence of anticipation. Let us teach them to anticipate the unexpected so that you have tools to adopt. Adoptability also. Maybe the other competence that we really want to talk about is resilience not just personal but also some concept ... So social interaction is another important aspect and that is why I don't know where the rain started beating us ... (KI-CEB-NYAM)

KI: ... When you go to secondary, they should be able to solve problems, they also be able to think critically, logically, ... (KI-CBE-KIT).

4.3.4 The desired skills classified under collaboration

Table 4.3: Secondary school principal and teacher responses on collaboration

Competencies	Sec.Trs (N=534 (%) N=109	Sec Principals (%)
Collaboration	95	91
Interpersonal relationship	93.00	93.2
Coordination	90.80	93.4
Planning	94.00	93.8
Organizing	91.60	93.4
Negotiation	91.60	87.6
Coaching	87.20	84.0
Mentoring	85.80	93.6
Networking	93.60	91.
Average percentage	91.4	91

Table4.3 shows scores on responses by teachers and principals who seem to agree to a great extent that collaboration and inter related competencies such as interpersonal relationship, coordination, planning, networking among others should be embedded into the curriculum reforms. However coaching was relatively rated lower compared to other competencies. Today, much success lies in being able to network, organize, plan, share, and use information to solve complex problems, in being able to adapt and innovate in response to new demands and changing circumstances, in being able to command and expand the power of technology to create new knowledge.

The respondents, who were interviewed, involved in focus group discussion and also those who gave their views through memoranda were in agreement with the principals and

teachers that collaboration skills should be inculcated in the learners. They advocated for social skills. The students said they need skills of transforming others in the society for better life.

Student:...having the ability to change the mind set of others who have not gotten the opportunity to be educated (**S-FGD-BUT-S-BUS**).

Respondents suggested that education should impart skills of how to relate with others.

Parent: Our government should support our children because there are many children who are killing other ones. We should have those lessons on how to teach them about how they relate with others (**PA-FGD-NJAB-S-NYA**)

Parent: ... children can learn socialization skills and how to interact with parents, peers and other members of the community (**PA – FGD – NDUR - LAIK**).

Respondent: Socially, they should be taught how to interact with others regardless of their differences, learn to appreciate individual differences. That way, they will fit in whatever society they integrate in. But some just learn mathematics and English which may be absent within the social environment they will live in (**SHOP- INF-NYE**).

MEM: Competencies related to life skills development in areas of negotiations, communication, relating to strangers are crucial for young children. For those who are training as their teachers need to be more careful to exhibit the very values desired of the children (**MEM-DBK-IS**).

KI: ... When you go to secondary ...they should also be able to respect others, they should also behave in way that will enable them to fit with others in the community. Today you see children who cannot fit in the society. They are social misfits, so they need to have these competency before they leave primary (**KI-CBE-KIT**).

A key informant indicated that the curriculum should equip learners with good morals and the ability to produce and create things for the benefit of society.

KI: Somebody who is morally upright, somebody who is aware of the environment somebody who can be a producer somebody who can create things for the society so that of course the society moves from one place to another ... (**KI-REG-LAU**).

Another respondent was of the opinion that apart from learning academic knowledge, learners should be exposed to other practical skills such as feeding animals at home and also skills on how to interact with other members of the society.

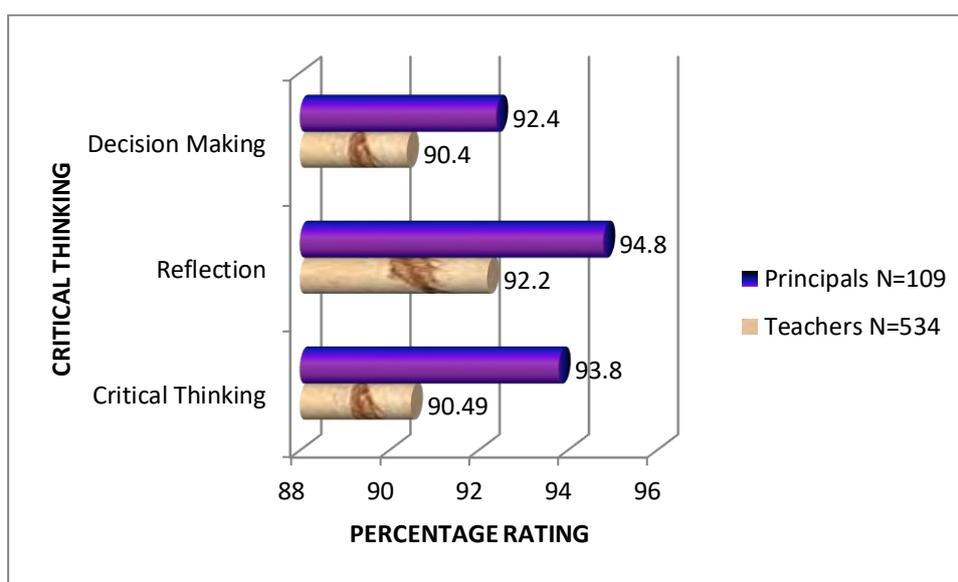
INF: They are learning too much academic, and forgetting to associate with the normal life. They should be involved, exposed to practical life integration such as feeding animals at home and farming. Within the locality they belong to, they should do what is done there... but some just learn mathematics and English which may be absent within the social environment they will live in (**SHOP- INF-NYE**).

Other skills included security skills, self awareness, interaction skills, awareness of change and growth, interrelationship of life roles, career planning, Soft skills (empathy, emotional intelligence), Skills to harness local resources for livelihood. This may be brought out through exposure of the learner to the existing environment.

This similar to a study carried by the Republic of Korea (RoK, 2013) revealed that, much success lies in being able to network, organize, plan, share, and use information to solve complex problems, in being able to adapt and innovate in response to new demands and changing circumstances, in being able to command and expand the power of technology to create new knowledge.

4.3.5 The desired skills classified under Critical Thinking

Figure 4.3 Percentage rating on critical thinking and related competencies



The results presented in Figure 4.3 show a strong consensus among principals and teachers on the aspect of critical thinking, reflection and decision making. The teachers rated much higher reflection (94.8%) and critical thinking (93.8%) while the principals rated higher decision making (92.4%). These responses demonstrate that critical thinking and its related competencies should be emphasized into curriculum reforms.

Buttressing this point, a key informant said that critical thinking is instrumental in the competency based curriculum.

KI: In competency based education ... we have to develop critical thinking. So that the learners are taught to internalize, think about issues, evaluate and be able to... those are some of the methods that the teacher trainees in this curriculum they can prepare teachers to deliver the curriculum the way it is intended to be.(KI-TSC-NAI)

In relation to decision making skills, students noted that they should acquire the ability of being able to make decisions and overcome every day challenges. The student leaders

pointed out that by the end of their secondary level, they should be good decision makers such that they are able to solve the difficulties that they face.

Student Leader...By skills you should be able to be a good decision maker. When faced with difficulties you should be able to apply those decision making skills you acquired in school and critical thinking you should be able to be creative and critical to analyze situations in order to make the right choice where you're faced with difficulties (**SL-MOIG-S-UG**).

Student: By the time you leave form four you should have good decision making skills (**S-FGD-KIS-S-NYAN**)

Student: ability to make my own decisions and also to stand by them and also abilities to overcome challenges...both emotional and physical challenges (**SL-MAL-S-KIT**)

4.3.6 Other skills

Parents and students called for more emphasis on psychomotor skills to be taught to learners.

Parent: I think psych-motor skills should be emphasized. For-instance, we have seen so many guys making a lot of money through running, so many guys are making a lot of money through soccer (**PA-FGD-MUTG-S-KIT**)

4.3.7 Values

In addition to the skills, the respondents enumerated values that should be inculcated in the learners. The learners explained why it is necessary to teach values in school. Currently there are poor role models and there is need for good role models. According to them, actual teaching starts when they observe and emulate significant others in society like parents and teachers.

Student Leader: When we go out there in the society we have poor role models. I think the school should teach us values so that when we go in the society and meet a person who is not a role model I will be in a position to know that person is not a good role model (**SL-MUMS-MUR**).

Student Leader:...it starts from the top- teachers, parents ...teachers should be good role models...parents and teachers should play a great role in developing positive values. Teachers should not criticize students but encourage positive approach and avoid setting negative examples (**SL-KABRS-BAR**)

On the same breath, parents noted that it is important that teachers teaching social ethics should be trained on the same and that the teachers should practice the same so that learners may emulate them.

Parent: but it's important that the teacher to this child who ,is already an adult, to go through a course that will reorient him how to teach otherwise, if the teacher is the one who telling the children to cheat then there is no we will teach values (**PA-FGD-MOIG-S-UG**)

Parent: I would like to add on the value system they should also go, down to the teacher because this is where student pick up the values (**PA-FGD-MOIG-S-UG**)

A respondent expressed the view that education should help develop values that are applicable in life like taking care of our environment. A key informant said:

KI: ... our education should develop values in our citizens, built citizens for this country...we keep on complaining in the social public about dirty cities, dirty things, about things that we don't like yet we don't solve those social issues in education, education should help us to solve these problems ... I feel pain when I see students have burnt a school, I say I have made this school, ... taught them to Form 4, they can burn and destroy a property then ...asking myself what values have we given these children,, values that we can use and values that we can enjoy and those should be solved by education. Education should be very key to develop character of our children...(KI-CEMASTEANAI)

The respondents emphasized the issue of integrity and honesty. To them, such value will help in eradicating corruption making people accountable. The respondents expressed the need for the curriculum to include the national values as enshrined in the constitution, and further, that civic responsibilities should be emphasized.

Parent: In terms of values, we should bring up anticorruption form of education which could still be integrating more of the subjects something against tribalism, corruption, something about nationalism, something for patriotism. . (PA-FGD-MOIG-S-UG)

Respondent: The curricula at different levels should aim to enhance Accountability, Integrity, Responsibility, Peace, Commitment to work, Negotiation, Acceptance and environmental preservation. This can be achieved by involving learners in community service at all levels during holidays hence inculcating Nationhood in learners. (OCO-IS).

Student...I think apart from the knowledge that we gain in school we need to be better people by knowing how to abolish corruption and also be a good leader (S-FGD-PBH-S-UG).

Student: First of all, education should achieve virtue of honesty, because it does not make any sense a person having no that value to go and work somewhere like treasury(PA-FGD-MOIG-S-UG)

Student: To be honest and truthful. When you leave secondary and you can't perform well and you don't have good grades. Some jobs nowadays they don't consider grades sometimes they look on values (S-FGD-KIS-S-NYAN)

Student: Being truthful should start in school. They are students who don't go to school and they pass exams. Teachers steal those exams for them. Teacher should help student to do what they know (S-FGD-KIS-S-NYAN)

KI: The gaps we found last year but one when we visited the then CS Prof. Kaimenyi and some of the gaps we found are the value system we need to come up very ... we can incorporate values as we teach whichever subject we teach - the value of honesty, integrity, patriotism, hard work. I think our curriculum should help us in dealing in this values. Other than just cramming, children should understand they should be honest to avoid exam cheating (KI-CEB – NYAM).

KI: ... is the issue of corruption and tribalism. It is the role of parents to teach their children ..what corruption is. You know corruption starts with a child at home in a way that you start stealing parent's pens, biro's ... (KI-FGD-MASU)

Student: Leader: so when I am a leader there is some challenge so it were better if integrity was introduced as a subject in schools. So that we learn that integrity is something we should live vices like corruption, tribalism (SL-MBIT-S-HOM)

Industrialist... inculcate... them in our youth whatever the level of education... things like honesty... people who are accountable, people who are concerned with ... environment... I see this to be very key values (**MAN-IND-KAK**)

Industrialist... Let people learn patience, to value honesty and above all to know that they should be accountable for whatever action that they do ...later on they will pay for them dearly (**MAN-IND-BAR**)

Respondent: Values are eroded in our contemporary society. There is need for a curriculum that emphasizes on reviving values like honesty, kindness, love, unity, trustworthy in young children. Such values will uproot corruption which is the cancer of the nation. (**MEM-DBK-IS**)

KI: ... It should be able to instill basic moral values, a sense of patriotism and a cohesive society (**KI-CCO-MAN**).

The respondents pointed out the need for spiritual growth and moral uprightness among the students. The children should be brought up in the ways of God.

Student Leader ... it should help me to be a mature adult, grow spiritually and morally upright, it will help me acquire values that are going to help me in life and whenever I fall into difficulties I can apply what have learnt (**SL-MOIG-S-UG**).

Parent: If you bring up a child in the ways of God he will follow those ways(**PA-FGD-NJAB-S-NYA**)

A respondent added that the religious institutions such as the Madrassa must be actively involved in inculcating religious values to the children, and this should begin at an early age. This should not be left to the family and school.

KI: As the children are growing up, the religious values should not just be left to the family and school Churches... (for example) ..Islamic institutions like the Madrassa it's a role they should take very keenly at a young age (**KI-CEE KWA**).

A respondent emphasized that priests should create time to visit schools mainly for spiritual issues. He regretted that emphasis is laid on other disciplines at the expense of religion.

KI: So let us balance because lack of balancing it then we end with consequences that we cannot bear. Spiritual aspect is very important so that is why we are emphasizing today the priests just as it was earlier on should have that opportunity to help in information in education in schoolsWhy priests may not be wanted there its because of finance again I said economical financial reasons but it is not very expensive to give him petrol to go and once in a week because of the goodness of the child... So priest is what I want to emphasize here is the priest is very important in every society and when it is the priest it is religion. We should never rule it out. But now we are looking at doctors, lawyers and other professions we are forgetting the role of the priest and especially in education (**KI-BIS-HOM**).

According to the respondents, discipline and obedience should be emphasized in the curriculum. The students should learn how to respect themselves, others and also property. With this they will be able to fit in the society.

KI: ... you talk and people are annoyed because they see it doesn't reflect education, because values like respect, the patience... I saw somebody talking in the newspaper on youth they don't mind how they make money, those are very bad values those are the things that education should show that you should be patient and work hard.. have been running for a project for one, you have run with project two years, those are things that hidden curriculum should show that you should wait (**KI-CEMASTEANAI**).

Student: Another thing is respect. You should first start by respecting oneself, respecting our parents, respecting other people cultures like eating and dressing. Understand and respect it to avoid conflict. (**S-FGD-KIS-S-NYAN**)

Parent: respect, hardworking, obedience, honest (**S-FGD-KWANG-S-KIT**).

Student: Just to add on respect, like in high school should be strict on mode dressing. For girls to avoid wearing short dresses and wear decently when the leave high school fit into the society (**S-FGD-KIS-S-NYAN**)

Parent: The child should also be competent in obedience. They should learn how to take orders from their parents. (**PA-FGD-KIS-S-NYA**)

Parent: I would like to encourage positive character traits such as hard work love humility honesty respect...they should really love one another and the country, but not social difference. (**PA-FGD-MOIG-S-UG**)

A respondent was of the opinion that discipline should be inculcated in the learner, with emphasis on hard work, tolerance, good decision making, relating well with people and being self driven.

KI: hardworking, discipline, in terms of spiritual guidance be tolerant ... Human skills here determine how you relate with people.. good decision maker ...another thing also self driven. You need not to be followed to do things for you and also for other people (**KI-FGD-MASU**)

Parents pointed out that values played a key role in helping learners in future to manage ways in which they would make money. They emphasized that schools should instill in the learner the value of responsibility.

Parent: I think those values may assist student's aims in making money but how they make money is not important. I think there is a problem in values, because one may be a thief a very rich one and that's what you want to become especially there is no honesty, so social values should be there (**PA-FGD-MOIG-S-UG**).

Parent: The schools should allow the student to practice responsibility for example allowing them to go out once a week in an afternoon (**PA-FGD-NYANDA-S-NYA**)

Student Leader:...The values such as responsibilities, should love each other, should share. Should chaste because after here you're supposed to be responsible, unity at large and you should be able to relate well with everyone (**SL-MOIG-S-UG**).

Students were of the opinion that the values taught should be relevant to the world of work.

Student:...there are some values you are needed to have when you are supposed to set up a business in a particular place. Finally you have to have a good public relationship with others. You can't be

someone who can't relate to others well and you expect your business to succeed. So for me I would also say you should have good relationship with others (**S-FGD-StMARS-NAR**)

Others pointed out the need for self determination and independency.

Student...I think along the academic system I should have learnt the spirit of self-determination whereby you can live independently and you can struggle with one something without using shortcut (**S-FGD-PBH-S-UG**)

Student...I anticipate that to be self-reliant and be very innovative. Not to depend on someone or things those are not made from our own country (**S-FGD-BUT-S-BUS**)

Parents were of the opinion that the value of friendship should be cultivated in the school community

Parent: The school should foster friendship with the learners. The learners should be made to take their teachers and their school in general. (**PA-FGD-KIS-S-NYA**)

KI: ... Should focus towards a specific area, need career guidance, sexual reproductive education ...developing relationships with those around them, sharing, respect, community service at the ground, hard work, focus on career development, moral and spiritual values, guidance and counselling in all spheres of life (**KI-FAWE-NAI**).

Other respondent indicated values like good behaviour, relationship between gender and attitudes character, good morals, etiquette, appreciation of their environment and consciousness on how to better their lives.

KI: ... Relationship between gender and attitudes, respect, honesty and integrity should run through the system, love for the county, general social etiquette, numeracy, literacy, understand that they live in a country called Kenya, patriotism, integrity, love, self-esteem, assertive, respect for self and others, able to negotiate, confidence building, value of contentment, simplicity and concern for others (**KI-FAWE-NAI**)

A respondent reiterated the need to inculcate morals in the learner. The respondent also was of the opinion that there is need for the learner to appreciate preventive medicine and the need for cleanliness.

KI: ...to inculcate things like morals in our children to understand even appreciate preventative medicine, appreciate that ... cleanliness, the country will be having health budget that is low, and that's are the hidden things that education will help us to do that (**KI-CEMASTEANAI**).

Some respondent were of the opinion that there is need to inculcate the value of citizenship and patriotism in the learner. Lack of patriotism was said to be a major vice among people in the society.

KI: Our patriotism does not reflect itself in aspects where one is benefiting at the expense of others. ...we are failing.... these vices that are eating up our society we still have quite a long way to go (**KI-CEE KWA**).

A respondent indicated that the current curriculum puts a lot of emphasis on content and not other aspects of life like humanity, dignity and values. The curriculum should address aspects like caring and love.

KI: The value of the education is not just the degree. There is the other aspects of our life, the humanity, the dignity, the value, you know? Basic things that are in us. And all the other things we used to see in international schools, we used to see at KCCL. The first thing we look for is a happy child. While really, this child can cheat to cover content can do manner, all manner of things. So our curriculum doesn't teach us to care, ... or to love, ... I don't know, it's strange (**KI CITAM NRB**).

Other values included tolerance, love, humility, good citizenship, diligence, kindness, loyalty, peace, social justice, unity and cooperation, the virtues of honor, courage, industry, confidence, kindness and assertiveness, nationalism and patriotism, patience, community service,

Student: When someone leaves this school will have ability to work and develop the nation, so in education many school should engage in teaching their students about virtues honor, courage and industry, integrity, confidence, kindness and assertiveness not only about education because if we leave school having no education but no virtues it makes no sense. .(**PA-FGD-MOIG-S-UG**)

Student: You should have humility and you wanting something you will get it easily. When your boss wants to give you a job he will grant you the job because you have humility (**S-FGD-KIS-S-NYAN**)

Student: They will be honest and disciplined. They will be courageous to face any challenges that they will be met outside the school so they will be able to do things or even bring many new ideas within the society (**SL-KIRIS-S-SAMB**)

A suggestion was made that these values should be mainstreamed in different topics.

Industrialist...Mainstream values in education, in different topics and subjects, also activities (**EMP-IND-BUS**)

4.3.8 Attitude

Learners stated that a good attitude towards subjects and the subject teachers should be cultivated by learners since attitude affects performance. A student suggested that education should give the right attitude like enabling them to appreciate various sources of livelihood including farming. A student leader pointed out that learners should have good attitude towards everyone and be able to relate with everyone. This was echoed by the students who said they need to acquire positive skills and attitudes to relate and fit into society.

Student: If you have education you can understand the attitude of life. You can have knowledge for example agriculture it will help us in our life because we can apply the knowledge to do farming (**S-FGD-KAS-S-KIL**).

Student Leader...You should have good attitude towards everyone. You should be able to relate with everyone (**SL-MOIG-S-UG**).

Student...We hope to acquire... positive attitude toward others and high self esteem, create a country where there is peace and harmony... (**S-FGD-StCNAM-S-BUS**)

Students were of the opinion that education should instill in students' positive attitude towards work. Respondents pointed that there is a negative attitude towards jobs different from the so called white collar jobs and noted that this mentality should be done away with.

Student: Education sector should also help learners to gain positive attitude in life, because you will find many students wanting those white colour jobs prefers to work abroad because of mainly problems in their country (**PA-FGD-MOIG-S-UG**)

KI: ... Lakini because sisi we had colonial mentality that we are down and we must place the white man, so kila mtu anachukua white collar na ile ya blue collar ni ya hao. Nobody want to be associated with blue collar jobs. Unataka kuwa nini engineer, daktari, nobody will say I want to be a mechanic, plumber, mason, they say this is a dirty job which is low, but we need reeducate the system and tell people to think different (**KI-CDE-MAK**).

These findings are consistent with Developmentalists theorists that curriculum should focus attention to the development of children's emotional and behavioral qualities.

The implication from these findings is that Kenyans need a Competency Based Curriculum loaded with competencies needed by all individuals for personal fulfillment and development, active citizenship, social inclusion and employment and for lifelong learning.

4.4 Talent Identification and Nurturing

Talent is a natural endowment or ability of superior quality. A credible education system should nature every child potential. Children blossom through the academic curriculum when sports and arts are integral to their learning environment. For a long time intelligence of a child has been measured by the grades, ranks and marks scored in school examinations. Many parents reprimand or give up on their children who do not measure up to this yardstick. The result of this is frustration on the part of the learners and negligence on the part of the parents with serious consequences at both individual and societal level. Desired psychological constructs such as a sense of confidence, self-awareness and self-esteem fail to be nurtured and developed in such children.

The needs assessment survey sought to find out the strategies of identifying and nurturing the potential and talents of the learners at secondary education level. This information was gathered by administering questionnaires, interview schedules and Focus Group Discussion. Other respondents gave their views through memoranda. In their responses, the respondents mentioned different types of talents that can be nurtured, gave their views on

how to identify the talents, who to identify and when to identify them. They also gave their opinion on the strategies of nurturing the talents. These responses are discussed in this section.

4.4.1 Types of Talents

Different respondents pointed out that there are different talents that can be identified among students. These include talent areas in visual and performing arts, culinary arts, drama, and sports

Parent: physical, cooking, drama, music, athletics, race, dance, sports, art, poetry, public speaking hairdressing, football. (PA-FGD-MOIG-S-UG)

Respondent: Talents like... music also should be taught at an early stage in schools...I think there many talents but for me are talent for me I just want ports...drawing...(CARW-INF-UG).

Respondents: Example is singing. Those with singing talents should be helped to develop them(SHOP-INF-NYE)

Respondent... aina tofauti tofauti ya mchezo, basketball, football, marathon na hizi zingine hizi za kurusha rusha,mpila...(Different types of sports i.e. basketball, football, marathon and netball) (MEC-INF-UG)

Respondent:--talents... Sports, music, craft, pottery, debates, comedy, Agriculture (META -INF-BUS)

Respondent; anaanza kuunda nyungu yako na anaeka hapo,kuna mtu ako na kipawa ya kuchonga mbao anaanza kuunda nyungu yako na anaeka hapo,kuna mtu ako na kipawa y a kuchonga mbao (Someone can make pots, someone else can be gifted in carpentry) (MEC-INF-UG)

The students said they were convinced that they should be motivated and encouraged even in non-academic areas.

Student: ...demoralization, you see even for example principal used to... if they find them...a girl doing mistake, they just demoralize them. They don't give them that hope....Some of us are not talented in this side of academics, some are best in when it comes to field, but if they see you are not doing well in that side of academics they will just tell you, you are nothing, you have to do this instead of going there.... (S-FGD-MARM-S-MARS).

Student: ...recognition, you see that one when you are recognized and then you are...may be given a kind of gift you end up even influencing others (*to play football*) or get even more completion, so we don't have such FGD-MARM-S-MARS).

Student: For me our learning should entail the talent. In Kenya system our learning in cramming only. After four years you will not remember all what you have crammed and gain nothing. When we go towards talent like football the school encourages you to improve on your talents and it will act as a security after you leave school. (S-FGD-KIS-S-NYAN)

4.4.2 Identification of the Talents

A respondent proposed broadening or creating more opportunities for talents to be showcased and developed. The respondents suggested several methods that can be used by several stakeholders to identify talents.

Identification through the curriculum

The curriculum should be anchored on using education as a tool to identify and nurture talents. The respondents said there is need for a provision of a balanced curriculum, market driven and one that encourage creation and participation in co-curricular activities. Co curricular activities should be mainstreamed and made a part of the daily learning experience. In the same way schools offer swimming as part of the daily timetable scheduling, other activities which could be relegated to clubs should be incorporated into the main school timetable.

It was suggested that the curriculum should be wide in the formative years of education in order to provide a variety of opportunities for the children to explore and know what they are best in.

A respondent advised that during the extra curricula activities competitions, an officer should be assigned the duty to identify learners with specific talents which can start being nurtured from there.

KI: now that we have devolution and services have come closer to people then and sport is involved although still some part of it is to the national government so the sports department in the county will be able to identify such talents by ensuring that they go to competitions when the primary schools and secondary schools have competition then an officer can be sent to see who are talented and then nurture that talent from there (**KI-WV-SAMB**).

Identification by the parents

Parents were of the opinion that they should be at the forefront in identifying talents in their children. This is done by children sharing with them and observing the children. The parents should monitor their children and be able to identify what they are good in from the time they are very young in early childhood.

INF...For me I think the ... the major backbone lies with the parents in the first place...because they are supposed to monitor their children, which talents they have... in early childhood... then pass the information to the right teacher who is in that line (**WEL-INF-NAR**)

INF: As a mother, when do you know that your child has a talent? As a mother I will know there is a talent when the child starts playing the ball, starts singing, modeling.... (**MEC-INF-NAR**)

INF: Ukiwa nyumbani kwako, watoto wako...ata kama uko na wawili, watatu...ukiwaangalia unaona huyu anafanya mambo kama mechanic, engineer ama ni daktari, huyu ni driver, ni pilot...yaani vile unaona mtoto wako akikua. Lakini, vile unamuona, hakuna wazo linguine zaidi ya hapo unatakiwa kumuelekeza kwa hiyo njia umeona. Ni rahisi sana ku-identify talent ya mtoto.

(When you are at home, it is possible to identify the kind of talent any of your children may be having. some could have potential in mechanics, engineering, medical field, driving, or even piloting. so it is your duty to help the child pursue the area they seem gifted in. it is very easy to identify the talent of a child.) (HOT-INF-NAR)

Parent: When they are small, they open up and say what they would like to be so as a parent you should watch them and guide them until they are mature to follow their talents (PA-FGD-NJAB-S-UG).

Parent: When you see a small child starts to make small vehicles a parent see a talent in him (PA-FGD-NJAB-S-UG)

Parent: Like a girl child, you see she is very smart and loves to do some works in the house and sometimes they learn a lot from that. Like my son loves football so as a parent you see a talent in him.. (PA-FGD-NJAB-S-UG)

Identification by the teachers

Teachers were said to be very instrumental as far as the identification of learners' talents is concerned. They can reach out to parents informing them of this potential in the student

INF:Na waalimu pia ni watu wamefundishwa. Hao pia ni wazazi. Wanaweza-identify huyu mtoto, talent yake ni fulani. Sasa wapangwe kulingana na talents, wanafundishwa masomo ya kawaida, na pia wanapelekwa kufundishwa kulingana na talent ile imeonekana na hao watoto.

(Teachers are well trained and they are also parents.they can be able to identify the talent in individual children. so the learners can be grouped according to talent areas and nurtured in this area even as they pursue the core curriculum alongside this) (HOT-INF-NAR).

Student: The teacher involved could see this student is talented in this or that and help out. (PA-FGD-MOIG-S-UG)

Student: I think this teachers should really help the students in informing their parents of the talents they have because sometimes you can go to your parents... when they have this strict parents, you can go to your parents and tell them, "dad, i love singing" singing is the talent .So they wouldn't get that (SFGD-MEKA-SP-KWA)

They can identify through their personal interest in learners' lives, encouragement, tolerance and support for petty interests in children.

KI: A teacher is in a position to identify talents in learners and nurture through encouragements. Teachers should be trained to notice talent and encourage a child to grow in whatever area they are good (KI-MCDE-KAK)

A respondent suggested that talents can be identified through child exploration.

KI: Let us encourage these students to know themselves and you can stand up and speak so that by the time they are expressing themselves I will be able as a teacher to see the gifts of this particular student...children at that early age are playing with toys the one that likes making vehicles from soil, just constructing a vehicle from a soil in the western part you know you are mechanic or engineer, the one that likes constructing something even like a guitar then wherever they are just trying to see that is a musician. The ones that like entertaining others that is a comedian we need to give them an opportunity to express themselves so that we can pick some of these skills and talents and develop them so that we don't say that if we don't pass Form four your case is gone. If you are good at music why don't we explore that and enhance that. If you look like a comedian like the Churchill

live let us promote that... If there are comedians take them to the institute of comedians (**KI-DVC-KAU**)

A respondent suggested that teachers should engage learners more in activities such Physical Education and discussion in order to observe the different skills each learner portrays.

KI:,, To identify talents in learners to very great level, when you take students for P.E, we can observe. When you engage learners in discussion you can observe the difference, the different skills intellectual thinking and several other skills (**KI-SGKN NAI**)

The respondents pointed out that for effective identification of the talents, teacher training and development is crucial. Teachers will need to be equipped with competence to identify and nurture talents.

In this regard, one respondent stated that skill for talent identification should be embedded in the teaching standard norms so that the role of the teacher is not just to impart knowledge but also to nurture and foster talent. It was observed that currently, there is no organized way of identifying talent and in view of that teachers should be given skills on how to identify and nurture talents.

KI-The teachers should be able to help identify the talents even as they deliver other lessons their own lessons they will be able to know that this child has a special talent and that child should be encouraged on that that particular area an area that they have found a child is strong in and that is their talent then the talent should be natured and not killed (**KI-TSC-NAI**)

Though the teachers were placed high in the identification of learners' talents, a respondent observed that the teachers have no capacity to identify talents in learners and how to nurture them. He further said that even if talents were identified, the question would still be whether we have time to nurture them since all the time is study time.

KI: Does the teacher have the time to observe these children? Do even the students have the time to do these things because even break time "kuna assignment yenye mwalimu amewapatia." Lunch time has been reduced to 15mins and games time is revision. So we need to consciously know that part of the curriculum is talent, part of the curriculum is co-curricular activities and mainstream them. Actually this is one thing that I passionately would ask KICD to do to mainstream these things .You know we call them co-curricular but we still treat them there are schools which believe that they are not important. (**KI-CEB -NYAM**)

The key informants also expressed the need to train teachers so that they can help learners in identifying talents especially at primary level.

KI... We need to train teachers, and refresh them to provoke the students to come up with the talents they have, sometimes we find a student who can be full of talents in himself and they have not been developed until they go to secondary level, and you find they will develop them at very late level, I think teachers should be trained as such early level and help the students to show the talents they have. (**KI-AIC-KIT**)

KI:...teachers ..could identify your weakness and strength and where the teacher could say here you are good in this line you are also good in computer but your talent in good work is so critical and it

will add you value to you.. should be part and parcel of the structure of the school system to identify talents within the children so that they can say this child is too bright you give him a work in class, in five minutes he has finished and waiting for others to finish that's already a talent for the child to understand faster, you need to go further and know what the child can do, because they are gifted children and are wasted on lower classes (**KI-UNESCO-NAI**)

KI:...I would propose that our curriculum at a certain level, may be after primary, and that's what I talked about projects and so on, our teachers should be trained to include talents, being able to see talents in children so that after form 4 may be after form 2 at a certain point students should be allowed to go to their areas (**KI-CEMASTEANAI**).

KI:... you not allowed them as early as possible, may be they would the best musicians in the country or in the world, may that will be even film making now, even now country like Nigeria is making a lot of money in film making, I think we should allow learners to pursue their area of interest as early as possible, but the teachers here comes, as we say a teacher is a guide to help them because you can also know this one like music, this one like this, I think the teachers can help with those talents identification (**KI-CEMASTEANAI**)

Other ways of identifying the talents were teacher- learner interaction, teacher- parent collaboration, teacher- teacher professional exchanges.

Identification through the school system

At school level, respondents proposed creating of healthy competition and reward systems, fair evaluation and appraisal systems. Others included institutionalize career guidance and counseling, build linkages between industries and school, promote and facilitate clubs such as writing, film, astronomy, drama, and music clubs.

KI: If I have music lesson and tell the children to sing I will be able to know I have musician in guitar and this one cannot sing. So by the time we are identifying the talent and this is what we should do we identify the talent of this child you don't stop there. Like here let me use our school: if I identify the talent of a child I am supposed to work hand in hand with the parent because if I identified as the teacher there is nothing I can do because I also want the parent to work with me so that we can now tap this talent and we help the child now to move to another level (**KI- HET- NAI**)

Student Leader: I think that teachers should be more strict on the school clubs... I think that if the teachers are present during this clubs, someone will feel they want to work hard on the talent (**SL-MAKGS- MAK**)

KI:... different clubs and students go to clubs of their interest so from their you can be able to identify students who are good at one thing or the other then we continue nurturing those particular talents .There are those who are good in drawing. How do you get those who are good at drawing? If you organize like a day for Art (**KI-SCDE-SAM**)

Student: ...Yes we have but even teachers are not committed...I think it is better when we have a ... active clubs in school just like debating club, journalism club...yes because it can may be open our minds (**S-FGD-MARM-S-MARS**)

Student: We need to have games competitions like running, sports, playing football, and volley ball. By doing this, it is easy for us or it is easy for one to identify his or her talent (**SL--MARMD-S-MARS**).

Student: You find in school there are talent night. We have games you will see somebody is playing well and also in music some sing well. The teacher should know there student who have talent. And they will employ a teacher for those talents (**S-FGD-KIS-S-NYAN**).

Student: They should also come up with various clubs, such that if one is talented in music or football. They will be taught on how to improve their talent and perfect them(**S-FGD-KIS-S-NYAN**).

Student: Like most debate clubs they are carried in some school. So they should these debates in all school and it build their talking skills (**S-FGD-KIS-S-NYAN**).

KI: let talents and skills be embraced like if someone has a talent in music or drama or anything let all these talents be let them be grown like in most cases those people who are talented in football may be when they are out of school like if someone is in high school he or she is only participating in games that are that the school will participate in but after that let us say he or she is not able to go to university so it means they the talent is cut from there. And these people may be if it happens that they are not doing anything else cannot continue with education you see they will have nothing to do but if their talent could have been cultivated so that after the education they also there well equipped they can also get to grow their talents further so that they can engage themselves other than just sitting idle and doing some bad things that they may engage in (**KI STU KAU**).

Another respondent said that learners should have opportunity to participate in activities so that their talents can be identified.

KI: ... you can identify a talent in a child is by making children to participate because without involving them.... may be involving them in games you cannot identify the talent and do you know that children can like...even in a classroom you congratulate a student maybe mtoto aki answer a question very nicely when you congratulate that student kila siku atakuwa akijibu maswali so you motivate. That's another way that you can nurture (**KI-WV-SAMB**).

Parents observed that one way of identifying learners' talents is through play yet in most cases, schools do not give them a chance to play. They pointed out that lack of emphasis on practical work has denied learners an opportunity to develop their talents.

Parent: When it comes to play, there are schools where they don't allow the children to play and this is when you see that talents. Through the play is what they see the talents (**PA-FGD-OLOOL--S-KAJ**)

Respondents suggested that talents can be identified through assignments especially in the technical areas and through projects.

Build a *repository of ideas* and innovations that result from students expressing their creativity in areas such as science and arts. This repository should serve as a pool for interested actors (such as private sector, foundations etc) to pick from and help students develop/nurture innovations.

Talents can also be identified through schools exhibitions in areas like science (Annual science congress), handcrafts, IT, sports, games, music and drama. Others ways include

conferences, excursions, field trips and exhibitions, career talks and open days, student service and attachments, student mentoring, student councils, Non examinable courses in performing and fine arts, physical examinations and technology, student magazines and debates.

Establish specialized training centers in schools to train the identified learners. Equip all schools with facilities to provide opportunities for learners to discover their potential and talents.

Identification through talent focused institutions

The respondents proposed talent focused institutions and academies in every county.

KI: okay the talent academies I think the government should establish more talent academies and then these schools will be used to identify the people with the talents so that they can do more of the talents and less of the reading Yah. That is what I think (**KI STU KAU**).

KI: In our school we have a center for gifted and talented on the school and that is where we sent these children for who have different talents and when we sent them there we have teachers there who deal with different group. If its swimming we have swimming academy, if it's creative Art we have a creative Art group to work and walk with these children up to where we can have children with parents in their own. If it's swimming, we have academy for swimming. If it's music we have extra music lessons that are offered- (**KI HET NAI**)

The respondents suggested the establishment of advanced talents centers in all counties and vocational centers in all counties, development of talents identification centers.

It was suggested that Ministry of Education should create a department to search for talented children and other individuals.

Identification using questionnaires

Learners suggested an innovative method of identifying talent whereby a questionnaire filled during admission to school would enable one to state the talent areas they feel inclined to.

Student:..Before admission, they should like fill a questionnaire that... has a section for the talents for the students. Because we would have already been identified in the admission forms, the schools will start preparing (**SFGD-MEKA-SP-KWA**)

Identification by the experts

The respondent proposed that practitioners/ mentors be involved in the identification of talents.

Practitioners must be actively involved in the identification of talents at all levels and in all relevant fields. Physical activities, Community service, spiritual activities, arts and crafts, and creative arts are all areas that include search for talents (**KCCB-RI**).

Identification by the community

The respondents said that the community members as well as the churches can identify the talents of the children.

Parent: the first one is the parent.(Eeh).there is the government, local community e.g. the churches, the mosque. All these can identify these talents. For example, One day I needed a plan of a house. I was directed to a certain boy that has not gone beyond standard eight because of school fees. But the boy had a skill in art. When I met the boy, he drew me the plan of the house. Very nice one na nikajenga (*very nice one and I built using it*). People in the community can identify these skills. (PA-FGD-MAKG-S-MAK)

Other platforms for identifying talents

The respondents pointed out the need for development of talents identification tools and a national talents identification and development framework. Initiatives such, talent scholarships and media focus on talent achievements should motivate learners to explore and develop their talents and motivate education institutions and its leaders to create opportunities to nurture these talents.

Counties should create education strategies that take advantage of their regional strengths to attract talent to their areas and create opportunities to develop them.

4.4.3 When Should Talents be identified

According to the students, identification of talents should start early, right from class one.

They emphasized that schools should expose the learners to as many talents as possible.

Student Leader: when an examination is done like KCSE they always look for the tops who have gotten A and A-, B-,B+, those ones are considered more. They forget to consider those with Cs and D, they need the nation to help them. Let us look at other talents they have if they are not good in books and through that we need to know what this person can do because not all educated people will bring improvement to the nation. (SL- MUMS- MUR)

Student: In some foreign countries football is taught from class one. Such a person can join a club later on in life (S-FGD-MUS-S-KAK)

Student Leader...I think this one should come even directly from far, like from Kenyan view many have got fortune via the talent use and the same case should apply to the intellectuals where they should be fitting in any environment (SL-MOIG-S-UG).

Parents would like talents to be identified early for early orientation to specific pathways.

Parent: ...children's areas of talent should be identified and nurtured early so that even as they move to secondary school they continue learning in their areas of talents and interests. Those talented in science should take the science paths and those who have technical talents proceed to technical institutions. (PA- FGD- NDUR- LAIK)

4.4.4 Nurturing of Talents

The respondents noted that there is need to nurture talents from early levels of education.

They said:

Respondent: This has been in place by use of the various activity areas for the young children. More

effort should be put in, in terms of nurturing the talents right from the earliest stages. This will address children's individual differences and help them along the lines" in which area are they best at" as opposed to the current academic orientation tradition by teachers (**MEM-DBK-IS**).

Student: It is a God given ability but it also needs nurturing. So if some of this lessons like the art lessons maybe somebody was born he/she knows how to draw if they have art lessons in school this person can nurture her talents and of course they need the teacher who teaches art work for the teacher to identify the talent in school (**SFGD-MEKA-SP-KWA**)

The respondents indicated that talents can be nurtured by giving learners opportunities and enough practice in schools. However, respondents emphasize that it is important for the learners to go through the education system even as they develop the talents.

Industrialist...wanafundishwa masomo ya kawaida, na pia wanapelekwa kufundishwa kulingana na talent ile imeonekana na hao watoto. They need to go through the normal education system then they are taken for the development of the talents (**MAN-IND-NAR**)

The students said that the government is instrumental in nurturing talents. According to them, others who can help in nurturing talents are county governments, Non Government Organizations (NGOs) for example Red Cross. They are convinced NGO'S can go a long way in nurturing talents.

Student...For those students who are talented in athletics and they go to national level, the government may consider and pick them and coach them so that they can run for the country in future (**S-FGD-KAW-S-MAK**).

Student:...and even an NGO like Olive ... which used to nurture talents, we only got support from those; but in the side of teachers...no (**S-FGD-MARM-S-MARS**).

Students explained why they think the government should come in. They said teachers may not be skilled enough to nurture certain talents. Coaches should also be availed to coach those who are talented.

Student: For me, it's only the government... I would like the government to help because ... many people have ... different talents but they don't have that... that ability to do it because we have teachers but now teachers are not improving that. (**S-FGD-MARM-S-MARS**)

Student: Like me am talented with netball but there is not coach for net ball... but teachers are busy, they say they are busy(**S-FGD-KAS-S-KIL**)

The key informants indicated the need for talent development to improve livelihoods of individuals.

KI:....To come to talents, I was looking at it as this talent when you develop it is going to improve the livelihood of the individual in sense they will earn income, look at Yego, the police officer who is a javelin thrower, this young man gotten an award to say that he broke the Olympic record, .. how were you able to do this, he says it is a talent (**KI-CDE-GAR**)

4.4.4 Strategies of nurturing talents

Through the questionnaires, the teachers and principals of high schools rated the strategies of nurturing the potential and talents as shown in **Table 4.4**

Table 4.4 Teacher and principals Responses on talent nurturing strategies

Strategies	Principals N = 109	Teachers N = 543
	%	%
Games and sports	96.0	94.8
Curriculum enrichment	93.4	94.6
Clubs and societies	91.6	91.2
Cooperative learning, Competition among schools and academic conferences	89.7	90.4
Ability grouping and mentorship programs	89.4	90.0
Special schools for G&T	89.2	89.0
Special needs classes	88.2	88.0
Accelerated learning and advanced placement	78.2	87.8
Early admissions to school	67.8	74.6
Average percentage	87.1	88.9

The findings show that different strategies can be used in nurturing the talents as shown by an average of 87.1% and 88.9% of the principals and teachers respectively. The highly rated strategy was Games and sports as shown by 96% of the principals and 94.8% of the teachers. These findings converged with the students, parents, key informant and other respondents who gave their views through the memoranda. In relation to this the respondents said:

Student...I think they should encourage co-curricular activities because they serve in building talent. They should also encourage games by funding some of these activities that involve games it's easy for schools to participate (**S-FGD-BUT-S-BUS**).

KI: We have our games they happen, we have our athletics, football games and sports but apart from few of them who will get at the national level and maybe get picked by some of the corporate and again if some are too young and then they may give up on the way and I think that is where public and private partnership comes in (**KI CPC NAI**).

This is consistent with the National Youth Situation Analysis Report of 2009, which 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.

The findings from the principals and teachers of secondary schools shows that, nurturing of learners potential and talents may be best enhanced through curriculum enrichment at a rating of 93.4 and 94.6% respectively. Music, sports, creativity, public speaking, drama and innovation are some of the talents the respondents felt should be emphasized in the curriculum. A respondent also indicated that having co-curricular activities and allocating more time for co-curricular activities can help in talent identification and nurturing. Renzulli and Ries (2009) noted that curriculum enrichment is the most preferred strategy enhances the mastery of the curriculum by providing a series of planned activities which support the curriculum content, enrich the learning environment, learning experiences and teaching approaches.

Also featured prominently as strategies for nurturing learners potential and talents were clubs and societies as rated by 91.6% and 91.2% of principals and teachers respectively.

Relating to this, a student said:

Student...Through clubs of journalism, if they practice in schools... and also an experts be brought to be able to explain the benefits of being a journalist and also tell them how to do it **(S-FGD-KAW-S-MAK)**.

Cooperative learning, competition among schools and academic conferences were rated by 89.7% of the principals and 90.4% of the teachers. According to some of the respondents, talents can also be nurtured if schools can raise the necessary finances for them to be able to participate in competitions with other schools

Student...Create a career room and bring equipments, like for singing, drums and play what they like. Competition will help develop better. Teachers do not like some activities like scouts and music...they think it's a misbehaving club. Some students are not good in studies they should be helped in their talents **(S-FGD-StCNAM-S-BUS)**.

Parent: and then at this level these competitions, as in music festivals, you know we have these things in music festivals drama festivals; we should broaden those festivals in early stage, even in ECD level **(PA-FGD-MOIG-S-UG)**.

Students...I think for those who are talented the school can help them financially. You realize that we've games competition, music competition so the school can support the co-curricular part of studies financially and also look for links for those who are talented to nurture their talent... The school should identify that special player so that they can find the appropriate sponsor to sponsor that child **(S-FGD-PBH-S-UG)**.

Student: The school be ready to provide financially example this year we have only two activities we are going to compete with others and other games the school is saying it doesn't have finances so the school should be ready to raise the finances So that we can be able to compete with other schools **(S-FGD-KAS-S-KIL)**

Student: practice, then the school should support those ones who are talented like if you want to go and see the school should provide the fare (S-FGD-KAS-S-KIL)

KI: For example, we have the drama festival, music festival, what we do with those students after they perform so well apart from them going to State House and performing and getting trophy (KI CPC NAI).

Commenting on academic conferences, the respondents emphasised the need for science congress.

Student: The education should put more effort in science congress because it makes the student to open his mind and more progress can be made in the country (S- FGD- OLOO- KAJ).

Student Leader: And again when you talk about the science congress the government is not doing so well in motivating students. Some of these ideas might be crude as we look at them but if we give them time and then other people might help them develop them so the idea of the science congress could be expanded (SL-MBIT-S-HOM)

Ability grouping and mentorship programs were rated high by 89.4% of the principals and 90% of the teachers.

KI: Get people to interact with the children and in the process identify talents in them and help develop them- (KI- LIS -NAI)

KI: Coaching and mentorship programmes should be based in schools... Coaching is where you are given tasks and then you are assessed and told what you should have done in such a situation. A mentor does not give you answers. You get answers as you grow... (KI-MCDE-BUS)

KI: ...the child sees a teacher as a friend as a consultant; so that kind of aspects it will make children to be nurtured well and have a focus and have a life (KI-NACECE-BUN)

The respondents pointed that talents can be nurtured through use of resource persons and experts in that field to mentor learners with different talents.

Student: Also the school can provide functions, whereby now these students should be exposed to people who are talented in such or the government can just bring like some conferences, people specialized in different talents should be brought together in certain hall and the students from different schools who have such talents will be coming there for getting advice (SFGD-MEKA-SP-KWA)

Student: we need an expert someone who has knowledge in that field, yea he will come and nurture them and talk to them (S- FGD- St MARS- NAR)

Student: For instance, you find that those that are interested in public speaking and leadership programs, they are called for the trainees they come and train you part of public speaking then you are given different forums to present yourselves in front of a public or in front of a certain crowd, which makes you nurture your skills better. Even here at the parade, you find that different students are given the opportunity to on the activities of the day for example, the school captain, the captain of the day. Still the students are given the ability and the forum to lead in the church; you find that the students are the ones who take control of things (S-FGD-NJU-S-MUR).

Special schools for gifted and talented (89.2% and 89%). This is a new concept in Kenya because our education system doesn't have special schools for the gifted and talented. These are critical education institutions for nurturing talents which Kenya should embrace. Parents suggested that scholarships should be availed for talented primary school learners to allow them to transit to secondary school level where they can nurture their talents.

Parent: If student is good and not good academically for example, if we say a student has good 300 marks which may not allow him to join high school but is talented, then we may have scholarships, for those others they can transit to secondary schools as continue to nurture their talents, we could also encourage them (**PA-FGD-MOIG-S-UG**).

The establishment of special schools to cater for the gifted featured prominently among the respondents as way of nurturing the talents among the learners. This was in conformity with 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.

Learners pointed out that the government should choose some schools in every county and set up training camps for the talented. Those with talents should be sponsored.

Student: The education should put more effort in science congress because it makes the student to open his mind and more progress can be made in the country (**S- FGD- OLOO- KAJ**).

Special needs classes (88.2% and 88%) and accelerated learning and advanced placement at 78.2% and 87.8% respectively. one respondent proposed that the envisaged curriculum should allow for fast learners to be fast tracked. The lowest ranked strategy was early admission to schools (67.8% and 74.6%).

Respondents indicated that talents can be nurtured by giving learners opportunities and enough practice in schools. Other different strategies of nurturing talents were suggested by the respondents. These include the use of use talent academy schools in Kenya including

football academy, music academy. Parents suggested that the government should put up talent academies at the secondary and county levels so as to help nurture learners' talents in areas such as athletics, music, and ball games among others. Pertaining this, the respondents stated:

KI: as a country is good that once a child is identified to have a talent in sports or in drama or anything we can now go ahead and put up a regional talent centres. I am saying regional because eeh...like if you go to rift valley side they are good in sports if you go to the western side of this country they are good in football. So you can put academies talent centres- **(KI CD LAI)**

Parent: The government should think of coming up with talents academics probably in secondary school level where various talents are developed. **(PA-FGD-MOIG-S-UG)**

Parent: Also, let these academies start from the local level; and now that we have counties, let every county have an academy for athletics, songs, ball games so that these children can be developed. You would find that in class, a child will not even do maths and score 50%, but in ball games, songs or athletics, or Art and Design, he or she excels. Let the government assist them in the area of talents and that would be the only way through which that child can support him/herself in life. **(S-FGD-NYAM-S-NYAM)**

Student...I think the government should also open talent academics where the youth's talents are nurtured **(S-FGD-BUT-S-BUS)**.

Respondents: Maybe we need to set up institutions because not every child is bright with books. So maybe if we set up like football institutions, the main thing in that institution is football though the child will still learn like languages and how to communicate but above all the institution should be there to nurture talent **(MECH-INF-MUR)**

KI: We should be able to identify those students at the music festival, at the drama festival and put them into their academies which are talent academy. So you have helped, you have identified and then you put talent academy and these people can now grow on that line. **(KI CPC NAI)**.

The respondent suggested that talents can be developed through talent exhibits.

KI: We have that aaaaah... an activity where like something like talent show. So that we the school are able to capture all other talents and like only thee... music and aaaaah... and eeeeh... drama... American school talent so that is are an open whereby everybody is allowed to show his/her own talent. So if school could adopt that where there is that curricular activity where it is open for all so that those talents are captured into it would be best- **(KI STU KAU)**.

Student: ...they should hold an open talent show so that the young men could show their talents **(S-FGD-MARM-S-MARS)**.

Learners pointed out that the government should choose some schools in every county and set up training camps for the talented. Those with talents should be sponsored.

Another suggestion was that tertiary institutions like colleges and universities could offer short courses on talent areas.

Parent: we need special schools for such talents. And short courses in let's say university or colleges. Wawe na short courses for those people with different talents **(PA-FGD-MAKG-S-MAK)**

However some respondents said that the learner can only undertake the short courses after going through a basic curriculum. A key informant indicated that talent should not be emphasized at the expense of academics.

Parent: I it is better for the child to finish class eight first. They need education for communication. Lazima awe anajua Kiswahili and Kingereza. This is because without language hawezi kutunga wimbo...Hata anaweza kwenda secondary akipata marks nzuri. He needs this education also. Up to the level ataweza(**PA-FGD-MAKG-S-MAK**)

KI...As you struggle to nurture talent but make sure this person has papers on the table because that talent after some time they will be redundant... (**KI-CAT-BUN**)

Parents also suggested that the government and the private sector should create employment opportunities for talent areas in order to motivate learners.

Parent: under employment opportunity the government should create employment for this talents and also private sector, there should a way of all of us (**PA-FGD-MOIG-S-UG**)

Other ways of nurturing talents were through teaching some of the subjects like home science art and craft, practicing ones talent in real situations.

Student...For example let me use journalism, we go to the station like citizen, we go and do what they do and put it into practice and be devoted (**S-FGD-KAW-S-MAK**).

Student...I think there is this subject home science and the arts it was abolished but sometimes someone may have talents and the subject is not there, and they may survive in future through it, it can be brought back to develop students who have those talents, (**S-FGD-KAW-S-MAK**).

Student...You know all of us may not have the same talents, so someone may be talented in things like biology , science and other one may be talented in arts subject that is learnt in school so I think this subject it can be introduced again in school, for the beneficial who are talented in that field (**S-FGD-KAW-S-MAK**).

Instead of pegging ones potential through exams, the students suggested the need for special studies for weak students that can help them realize their potential.

Student...I don't know whether it is possible for the government to make sure the student who finish four form and didn't pass to be just given a chances to have a special studies for their own just to grow their minds, and also to get, because there are students who do not understand much in class but when we come to agriculture they can develop in terms of farming, rearing animals, so it is better for government for chances to be opened for them even if they get any grade, and be allowed to do work that they can be productive. The government should be advised to give form four leavers, a chance on these special issues (**S-FGD-KAW-S-MAK**).

Student...I think government should introduce a different course whereby if your kid fails, they will be introducing those talents from now. If you fail in class, then you are placed in learning of the talents. And also by introducing education about the business or to conduct business because maybe you have money but you don't know how to use this money, you will be in a position to use this money and how to put up some other business. And then you become a businessman after finishing form 4...Sometimes parents may be having a lot of money and they share it with their young ones (**S-FGD-MUL-S-BOM**)

The students however noted that sufficient time in school is needed for nurturing talents. Learners observed that lack of time and facilities greatly impacts on talent development. They therefore suggested that allocating time on the time table would help in nurturing talents in learners.

Student Leader: So it would be like the time allocated is not enough like the sports are there you do not have facilities for those who can dance and sing. That one should be nurtured so that when they get out of school they just exploit this. You see people like Lupita Nyong'o got a job out of the talent. I have never seen in the education system people are acting or maybe a player playing and its being marked something like that (**SL-MBIT-S-HOM**)

Student Leader :I would think of a scenario where they give time for like talent night it would be like in the syllabus that the time is there even in the timetable so that this people are given time to show what they have. The schools could introduce inter classes so that we can identify what they everybody can do (**SL-MBIT-S-HOM**).

Student...According to me the school should provide enough time and resources for those talents (**S-FGD-PBH-S-UG**).

Student...There should be balance in the part of talents and academics. if someone is good in academics support her if in talent support him/her (**S-FGD-StCNAM-S-BUS**).

Learners and parents also noted that equipment and facilities should be availed to enable practice of talents.

Parent: Nafikiri hapo kitu cha kwanza ni mazoezi kwa wakati ambao unafaa. Alafu pia katika mazoezi kuwe na vitu kama viwanja, kama ni mambo na mipira...kuwe na mipira ya kutosha...ili huyu mwanafunzi asikae lalamika eti hakuna mipira...hakuna nini...kuwe na hizo equipment (**PA-FGD-OLOLUG-S-NARK**).

Translation into English

(I think the first thing is to get practice at the right time. So there should be playing fields, balls..the balls should be enough...so that this student does not complain that there are no balls or this and that...these equipment should be provided).

Student: I would like to be a journalist, we have a club but we don't have equipment, we lack support from role model (**SFGD-IFT-S-GAR**).

Parental support as well as support from other members in the community should be encouraged through awareness creation and mobilization of the communities. This will help them realize the importance of talents.

Parent... hata pia waalimu wanaweza kutusaidia katika shule. Unakuta labda mtoto kwa darasa sio mwerevu sana, lakini pale wakikimbia uwanjani, ana ile mbio...ana ule ujuzi wa kukimbia. So katika shule waweze kupewa nafasi waweze kuifanya ikuwe, na waweze kum-support, kumpeleka ile levels ambae anaendaga katika shule, mashindano...ata kama kuna ile ya likizo. Nae wazazi pia waweze kumpa nafasi huyo mtoto aweze kuendeleza iyo talent ambayo ako nayo (**PA-FGD-OLOLUG-S-NARK**).

Translation into English

(Teachers can also help us. you will find a child who is not very bright but can run very well. So the school can offer them opportunities to grow this talent and can also expose the learner to competitions. Parents should also offer moral support at come) **(PA-FGD-OLOLUG-S-NARK)**.

Parent: We see a learner with talent and as a parent you can get someone who is also good in the same talent to help mentor the learner **(PA-FGD-KIRIS-S-SAMB)**

Student: I think we should be provided for platforms to showcase our talents in school events or national events and get something in return if he/she is the best **(SFGD-KANJU-S-NYE)**.

Student-Even for those students who have not excelled in certain level like the high school level there should be things for them to do, they can be encouraged by the government to start their own businesses, or they can set up with other areas like going to polytechnics to learn some trade like sewing, or mechanics, technical skills instead of focusing on education and academics in general **(S-FGD-MEKA-SP-KWA)**

One respondent expressed the view that for talent to be identified and nurtured people must have change of attitude and appreciate talents such as music, football, athletics and drama.

KI-Remember when this young girl hit the whole world, Nyongo, she certainly made the world know that you don't need to be a doctor to be recognized and she has made a big impact in the thinking of many children that you can be a musician ,play football, run and still have bread on the table**(KI-CEE-KAK)**

They also pointed the need to have a system which supports learners from the lower level to the national level and the need for parental education so that learners are not just subjected to academics only.

KI. .. there was an initiative at national level, but how can we have one on the top and we don't have one in the lower level and it is only focusing on certain skills, so we need somewhere where innovation, creativity centre at lower level where anybody who have idea, can try it out any time, and then na kuwe na system from down here all the way, so that our national creativity ikuwe expanded, we have narrowed ourselves to academics, na mtu akianguka si unasikia wengine wanajinyonga, wanasema napelekea baba hii, siwezi nikafika nyumbani, you know there is a case I know from county, a child a girl was canned naked by the father because in class 7 amepata 277, anachapwa, na anapelekwa shule na anasema this is a very big girl na ni baba yake anaambia mwalimu, kwasababu baba ako na focus of academic only, he does not think the girl can amount in anything, if she doesn't scores highly in academics, this national site we have to work and change it altogether **(KI-CDE-MAK)**

KI... Learners should be facilitated to identify their talents and potential early enough, pursue them so that they can offer their contribution in developing their country **(KI-CCO-MAN)**

Respondents suggested that government should be funding learners and also helping them improve their talents and skills.

Key informants indicated that talents should be nurtured through exposure and provision of variety of resources. A respondent indicated that students can be nurtured in these centres or talent clubs at every county where learners can exit from incase one does not make it to the university. This would keep learners from getting into anti-social behaviour such as drug and substance abuse.

KI... Let us look on to practicals, because this issue of school and exams orientated, we should also have talents departments, and develop them fully, the skills should be embraced. Some take children to games academy, and they get very good money through this, so we must emphasize on the issue of talents, we should create schools for talents and this will help **(KI-CDE-GAR)**

KI:...these is nothing wrong in creating schools in terms of talents: everything should be part of the main, main curriculum and investment in terms of resources, financial and equipment should also be pumped seriously to schools so that this is done **(KI-SGKN NAI)**

KI... Regular school teachers to identify and nurture talent, guidance and counseling and career guidance teachers to assist in identifying talent. Schools to nurture talents if facilities are available even at National level through competition. Through talent academics, also home and community can help identify talent **(KI-FAWE-NAI)**

KI... For example, one with talent in academic to move on, a hands on person to be channeled to appropriate pathways. Every child's potential should be taken care of talent centres should also be created...nurturing of talents which should be channeled to the right pathways **(KI-FAWE-NAI)**

KI...Observation, we need to do it practically and identify the talents, we also need to expose them to various activities so that they can have a wide variety of exposure, also we need to avail a range of materials to our learners freely, so that when the learners turn to this corner or that they have the materials, to engage and through that free choice of materials, you will see even talents come out because children when the materials are many they are not grouped or are not conditioned to use either material when the materials are available they make free choices, that is when you see students go to take hammers, timber, that is when you see engineer, doctor, the engineer building bridges **(KI-CBE-KIT)**

KI...Strategy of identifying and developing talents will involve Policy formulation by the two levels of governments ...The best strategy is to help create talent academies in every county. Once these institutions are set up and running, experienced personnel will help in identifying inherent potentials in learners. **(KI-CCO-MAN)**

KI... so that we don't require to keep this person to do history up to a level that is not needed, to continue forcing this boy to do this until a certain level, to me at a certain point there should be deviation now, so you go to music, I found that in Israel, they have a room with musical instruments, there are others in a room with innovation mind, there is another one of Arts, there is another one for dancing and that, I think at a certain level those students should be left, and then schools which is also found in Britain that also school tends to specialize at a certain level, like you say Lenana is for music, like Moi forces is for dancing, to Kamukunji for soccer.. , otherwise it is very key to identify and we place them where they want... those musician who have done architectural design though they were in university for several years and they never did anything on that, they went back to music.. **(KI-CEMASTEANAI)**

KI:... They can join that club, and we shall start having professionals, other than just saying you walk in the village "unapata wazee wanasema" Eish that son of nani used to be a footballer when they used to see you in the village yaani scoring, you are just there, you joined drugs and now taking chang'aa and you were a very good footballer, we should have ways of tapping these people don't waste them. **(KI-CD-BUN)**

A key informant pointed out that talents can be nurtured at the counties through cultural festivals and support from teachers.

KI:...example you may find that a child is very poor or not performing well in learning but very good in athletics, football and creativity and in drama, now the teacher is the first person to identify the ability this child has particularly in talents, as a county it is through competition, bring the issues of inter-school competition now the county..... like the cultural village or the cultural in counties taking place with where community try to being their traditions and customs, it will develop the

talents of particular children. That is why you hear that a certain school is good in folk song or that, it is because of the certain talents identified by teachers and developed.(**KI-CDE-GAR**)

The respondents pointed out that, in order to nurture talents self-learning should be emphasized and learners availed time to acquire self-learning skills.

KI..... so we should really appreciate it because talent are coming from the domain of self-learning but how do we motivate these people, so, to motivate them we have to allow for time and space, for this self-learning skills to come out..... (**KI-PWA-UNI**)

Key informants indicated that talents need to be identified at an early age at primary level and have mentors/coaches to help nurture them

KI... the primary place to identify talents is within the home environment... it also depends in the ability or capacity of a parent to decipher and identify certain tendencies in a child which could perhaps could tell a parent this child is more tuned towards the , music.. child has a number of interests in observation in conducting experiments or this child is very good in speech and perhaps can become a very good lawyer or lecturer. (**KI-CA-NAI**)

The responses of different respondents show an agreement on the different talents that learners may have. They pointed out that after identifying the talents there is need to nurture them lest they are lost.

Respondent ... I would like to add that when we were young in school we had defined talents in that we were known what we individually likes and we were helped to develop the talents that we had rather than stressing on books where you aren't good. You start nurturing what you're good at from the school level (**CAP-INF-LAM**)

Apprenticeship was said to be one of the ways of nurturing talents among the learners.

Respondent: eeee...giving my own example somebody can think I have learnt a lot but I only dropped out of school when I did my class eight and after that I just ventured into the Jua-Kali sector whereby my cousin played a major role in giving me some instructions that is, giving me knowledge then along the way I came and met these architectural people engineers who built me much on my work so...so that is how I prospered in this job (**WEL-INF-NAR**).

However, it was pointed out that having some initial skills would make apprenticeship work better. If somebody got these skills it would become easier to understand the job even if he or she has to initially work under somebody. Art and craft was said to be an important subject that can lay basis of nurturing talents.

Respondent: yea.... we have we have those things like in my school me I learnt in Art and Craft most in fact I was the best student by that time. so...by the moment I came into the welding sector it wasn't hard for me and because I got somebody who had learnt a lot they still injected some ideas in me easily (**WEL-INF-NAR**).

The respondents suggested that learners should engage in practicing what they are good at.

Respondent; unawaambia wafanye mazoezi zaidi kama wanajua wako na talent Fulani, kama ni kukiambia enda kwa uwanja kimbia kama ni ya kucheza mpira chukua mpira ndio hii,alafu wafanye more practise...(They should do more practice if it is athletics or playing football) (**MEC-INF-UG**)

Respondent...giving children opportunities to practice different things in school,...teachers have clubs in sports, athletics and run them well. **(META -INF-BUS)**

Respondent...Expose them to many things by practical exposure or thru wide reading habits **(QUAR-INF-MAC)**

A respondent noted that parents and teachers can nurture talents by supporting the children and making a follow-up even in school to ensure that there are practical activities that will help promote that talent. Also, parents can support their children by providing the necessary resources that can help in nurturing their talents.

Respondent:... Kitu moja nikumuunga mkono ndio nimsaidie. Kitu ya pili ni mkalishe chini nimuulize kama hii kitu umeona kama iko ndani yako? Akikubali iko ndani yake, mimi mwenyewe nimuuge mkono kama ni shule na hiyo kitu iko shule tilia mkazo kwa hiyo kitu unataka kufanya. The first thing is to support him or her so that I can help him. The next thing is to ask him or her if that in deed is their talent. If it is, then I should support him even in school if the talent is offered there **(BUT-INF-KAJ)**

Respondent... ningenda niangalie kama agriculture iko kwa ile shule, wanafanya practical. Ningesihi mwalimu asome ile talent iko kwa huyo mtoto, nitajaribu ata tusaaidiane na chenye mwalimu anataka, nijaribu nipatie huyo mtoto. Atleast akifika shule kama ni jembe anaitishwa sio lazima ningoje shule inunue hiyo jembe. Ningesema achukue yangu kabla ya shule ikuje, ndio akitoka jioni aniambie jembe yangu ilifanya kazi gani.

(I would go and find out if there is Agriculture in that school and whether they are doing practicals. I will ask the teacher to find out if the child has that talent. I will also provide resources needed so that the child can pursue that talent) **(BUT-INF-KAJ)**.

A respondent suggested that learners should have some free time so that those with special talents can be identified.

Respondent: in terms of sports an early age... the school should offer them morale to develop, offering part-time free time so that they can select those students who have the special talent in sports **(CARW- INF-UG)**.

Some respondents said that these talents can be nurtured by for example farming; small portions of land could be given to the learners, to grow different crops, and also by sending them agricultural shows for exposure.

Respondents...given very small portion of land to grow even two potatoes, the farming competition...competitions in schools **(MITU-INF-NYA)**

4.4.5 Assessment of Talents

Parents emphasized on the need to encourage learners' involvement in the talent areas by ensuring that talent areas are assessed.

Parent: The talent areas should be assessed and marks given to encourage the students since now they either take or nobody bothers. . **(S-FGD-KIS-S-NYA)**

It was suggested that schools could consider issuing leaving certificates that articulate one's talent areas. This would serve to motivate learners.

Student: The school should also consider leaving certificates. So they can know on what they are good in. From the classification they will know where your talent is **(S-FGD-KIS-S-NYAN)**.

The findings on talents identification and nurturing are supported by Theorists such as Ross, Bobbitt, Gilbreth, Taylor, and Thorndike who asserted that students would be scientifically evaluated (such as talent identification and testing), and educated towards their predicted role in society. Talents identification and nurturing is also in tandem with the curriculum policy (2015), which postulates that the curriculum as it is does not give linkage of talents to development of careers, further education or training. There is need to address the aspects of identifying, nurturing and developing talents among learners. Kenya Vision 2030 similarly, calls for curriculum that develops learners' entrepreneurial skills, competencies and talents. Additionally, Sessional paper no. 2 of 2015, expounds on the need to develop and nurture talents for global competitiveness while the Taskforce Report on re-alignment on education (2012), mentions identification and advancement of talents among core curriculum competencies further supports the findings.

4.5. Content / Learning Areas / Path ways

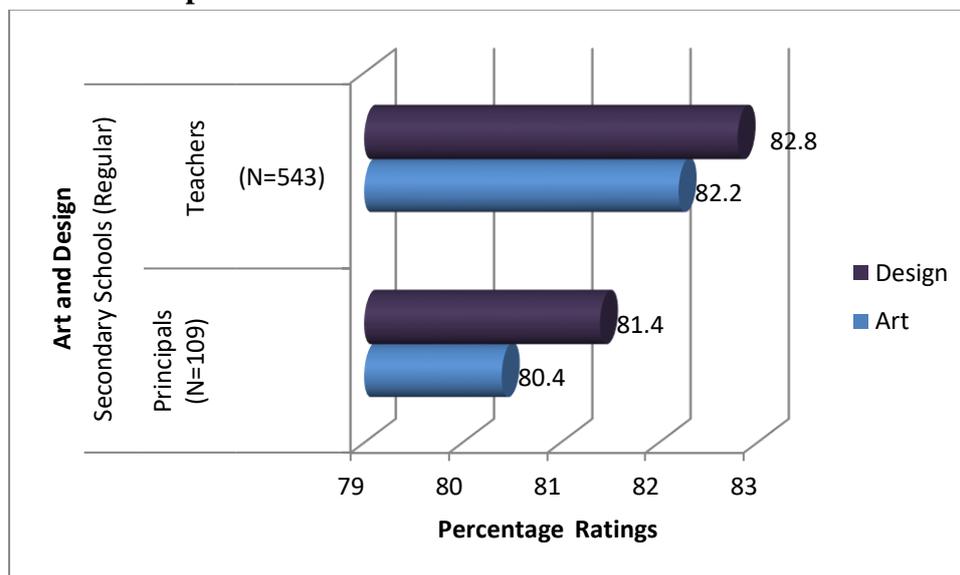
This study defines learning area as the content to be taught and learnt. The respondents were asked to suggest content, learning areas and pathways that are necessary in the curriculum. The secondary school principals and teachers were required to give their responses through a questionnaire. They were asked to indicate the extent to which the identified content/activity/learning areas 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 were weighted out of 5 and averages derived. From the weighted averages, percentage mean ratings were further derived.

The study highlighted 21st C learning areas. Desired outcomes within 21st century learning frameworks include learning traditional school subject and contemporary content themes in combination with the interdisciplinary 21st century themes. The core subjects and themes that frame 21st century learning include traditional core subjects while emphasizing civic

literacy, global awareness, financial literacy, health literacy, and environmental literacy. For the purpose this study, subjects were clustered under various sub-themes.

4.5.1 Extent to which Art and Design should be emphasized in the secondary school curriculum

Figure 4.4: Principals and Teachers Responses on the extent to which Art and Design should be emphasized in the school curriculum



As shown on figure 4.4, 80.4% and 82.2% of the principals and teachers respectively were in favour of Art as a teaching area in the curriculum. On the other hand, 81.4% of principals and 82.8% of teachers rated Design as important.

The learners advocated for the teaching of creative Arts like Music and Art and Craft. On this they said:

Student Leader: Some time back there were subjects like Art and Craft so if they can be reintroduced in schools and expanded in schools that already have them like some schools have power mechanics and others don't have them. So I think it should be in all schools so that there is inclusivity all round (SL-RAP-S-MIG).

Student: lessons like art and music should be rational support because some people may have interest in those sectors but since it may need educational support, people just concentrate on other things (S-FGD-MOIGP-S-UG).

Student: I think when we were taught in primary, we used to ... have arts but as we go on when we reached class 8 nothing was completed. I think those subjects like creative arts, music has to be at least introduced in primary so that when those kids reach secondary they will yaani... advance so that when they go they can become somebody better in future (S-FGD-MARM-S-MARS).

Student: Ok, when I was in down town school, in Nairobi we were doing music, art and craft drawing but when I came here there is no, nothing like that ... I heard that if you are best in drawing someone can take you and then you go far. (S-FGD-MARM-S-MARS)

Student...according to me I think these things that are being ignored I don't know they are being taken as minute, something like music and art and craft. I think they should be introduced because not everyone is able to read and understand Biology or Chemistry because I might be able to read and understand Biology but someone else is well equipped in music or art so something like that should be introduced so that someone can choose the subject that he/she is well capable of doing (S-FGD-BUT-S-BUS).

4.5.2 Extent to which Agriculture, Technology, Vocational and Technical subjects should be emphasized in the secondary school curriculum

In the secondary school curriculum, the practical component of learning was emphasized. The respondent indicated the need to encourage practical skills than theoretical knowledge in schools. The learners said that they would like to be taught what will help them cope with life after school. To them, whatever is taught in the curriculum should be relevant and applicable in real life situations.

Parent: a lot of practical need to be emphasized. If a child is made to do things for himself, his mind is sharpened. We don't want theories yet children do not understand. The generation that we have can't do very simple things. They should not think they will have money always to pay people to do simple things that they can do themselves (PA-FGD-KATP-MAK)

Industrialist...Offer practical skills and not just papers (EMP-IND-BUS)

In the same vein, the principals indicated the need for emphasising subjects like Agriculture, technology, vocational and technical subjects. The findings on these areas are presented in Figure 4.5.

Figure: 4.5 Principals and Teachers Percentage Responses on the extent to which Agriculture, technology, vocational and technical subjects should be emphasized in the school curriculum

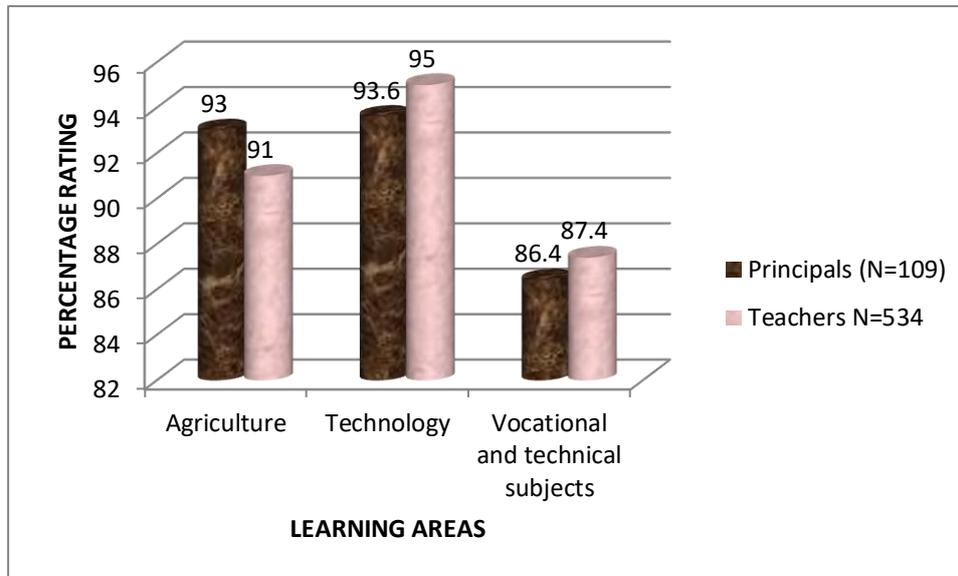


Figure: 4.5 shows that the principals (93.6%) and teachers (95.0%) were in favour of inclusion of technology in the envisaged secondary school curriculum. Other respondents suggested the need to advance technology from the primary school level and fully implement it at the secondary school level was highlighted as a key content area for secondary school level.

Pupil: They should advance technology in a sequential manner ...they should advance fully technologically at secondary level (P-FGD-KIPP-UG)

The high ratings on technology as learning area that should be entrenched in the curriculum are in line with a study conducted at South Korea, which found that technological skills are most sought after (Soomyung, et al., 2004).

Agriculture was suggested for inclusion in the curriculum by 93% of the principals and 91% of the teachers. Other respondents involved in the study also pointed out the need for Agriculture in the curriculum. They said:

KI: Today our Agriculture has gone down why because we do not teach this subject. If you see children today in primary they are not taught agriculture yet we talk of agriculture being the backbone of our economy. It's a subject we ignored, when we talk of value of crop rotation, bee farming, irrigation etc. We need to bring back these subjects and ensure they are examinable and not made a choice. (KI KPSA UG)

Commenting on Agriculture, a key informant pointed that such a learning area should also inculcate values like patience as they learn since they go hand in hand with what is in real life.

KI: Our country is also agricultural to me those are things we have stopped, that children don't want to see things that will take them back at home, yet we can do so much in agriculture that I will wait for my cabbage to grow, and in six months I must wait, I have planted maize and I want this maize to help me to take my children to back to school and I wait when I hear that a person is not ready to wait and have shortcut, and that's what we were saying that in our curriculum that we must develop them (**KI-CEMASTEANAI**).

The suggestion to have Agriculture in the curriculum is in tandem with Vision 2030 that lays importance on Agriculture as a major contributor to the country's GDP (RoK, 2007).

As shown in Figure ---vocational and technical subjects were suggested by 86.4% of principals and 87.4% of the teachers. These findings were echoed by other respondents who also suggested technical subjects such as Electrical Engineering, Drawing and Design, Carpentry, Masonry, Woodwork, Metal Work and Power Mechanics.

Student...all technical and applied sciences must be introduced in schools so that students can learn subjects of their own opinion. You find someone is not able to perform in a certain subject but he can perform well in a certain activity. So he should be given that chance to participate where he is comfortable (**S-FGD-BUT-S-BUS**).

Strengthening the idea of teaching of technical subjects, the parents said at secondary level hands-on skills should be emphasized like plumbing, welding, and construction as well as advanced skills in mechanics.

Parent...Awe na uwezo kama wa kutengeneza vitu kama baeskelu, au kama mechanicshuleni mtoto ajichugulie kile anataka...pate kitu cha kumsaidia (**PA-NDAP-NY**).

The technical subjects were given prominence by the respondents probably because they are practical in nature and through them they will impart practical skills to the students.

4.5.3 Extent to which Physical Education should be emphasized in the secondary school curriculum

The principals and teachers rated the extent to which Physical Education should be emphasized in the secondary school curriculum. Their findings are presented in Figure 4.6:

Figure 4.6: Principals and Teachers Mean Percentage Responses on the extent to which Physical Education subjects should be emphasized in the school curriculum

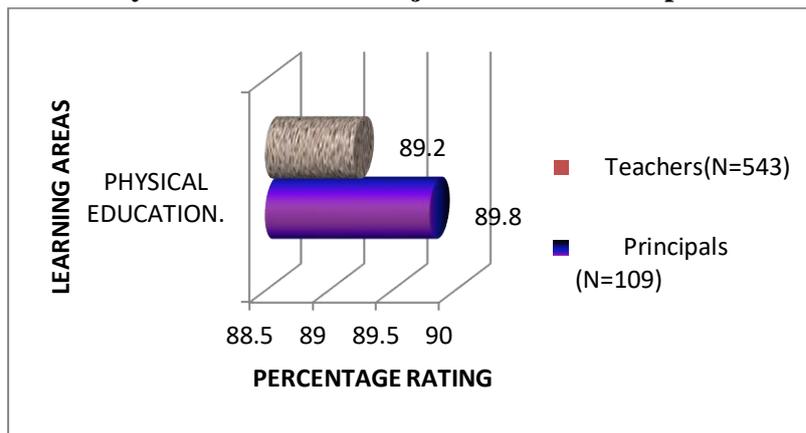


Figure 4.6 indicates views of principals (89.8%) and teachers (89.2%) on the extent to which P.E should be incorporated in the secondary school curriculum. The findings show that PE is an important subject and need to be taught. Some respondent raised concerns of the greater emphasis given to class work or academics in disregard to the development of skills. They emphasized the importance of P.E lessons in the curriculum.

KI: curriculum and other aspects of life skills that students ought to internalize have been heavily limited because it is books all through and that is why I said , the curriculum should have been moderately to reduce the roles so that it can allow the learner to learn other aspects of life in terms of skills and tend to think the system as it compel learners to concentrate on books and knowledge and little of everything else, and from my experience and what we know even P.E lessons are useful to teach other subjects...(KI-SGKN- NAI)

Student Leader: Because there many co-curricular activities in school so when the learners go out of school, they will be well equipped with physical exercise like they can be able to play even footballs and even they can be able to do other works apart from school work (SL-KIRIS-S-SAMB)

4.5.4 Extent to which Humanities should be emphasized in the school curriculum

Figure 4.7: Principals and Teachers Mean Percentage Responses on the extent to which Humanities subjects should be emphasized in the school curriculum

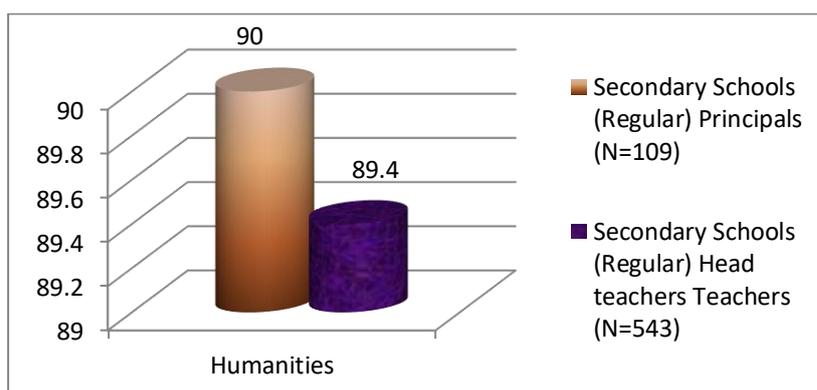


Figure 4.7: Shows how principals and teachers rated humanities subjects as shown by 90.0% and 89.4% respectively. These include: History and Government, CRE and Geography. The genesis and social existence of mankind is intertwined with our History and government, Geography and Religion among all the other humanities and so become indispensable areas of human endeavour.

In addition, they noted that citizenship should be taught at this level. However, giving an example of Geography, a key informant pointed out that much content is taught but little is applicable outside the school setting.

KI: However some subjects so much is taught at school but very little is utilized by the learner outside school. In fact a subject like Geography a lot of content is covered at school but when the student transits to university it becomes irrelevant. **(KI-TCDE-NYAM)**

4.5.5 Extent to which Environment and Climate Change Aspects should be emphasized in the secondary school curriculum

The principals and teachers rated the extent to which environment and climate change aspects should be emphasized in the school curriculum.

Figure 4.8: Principals and Teachers Mean Percentage Responses on the extent to which Environment and Climate Change subjects should be emphasized in the school curriculum.

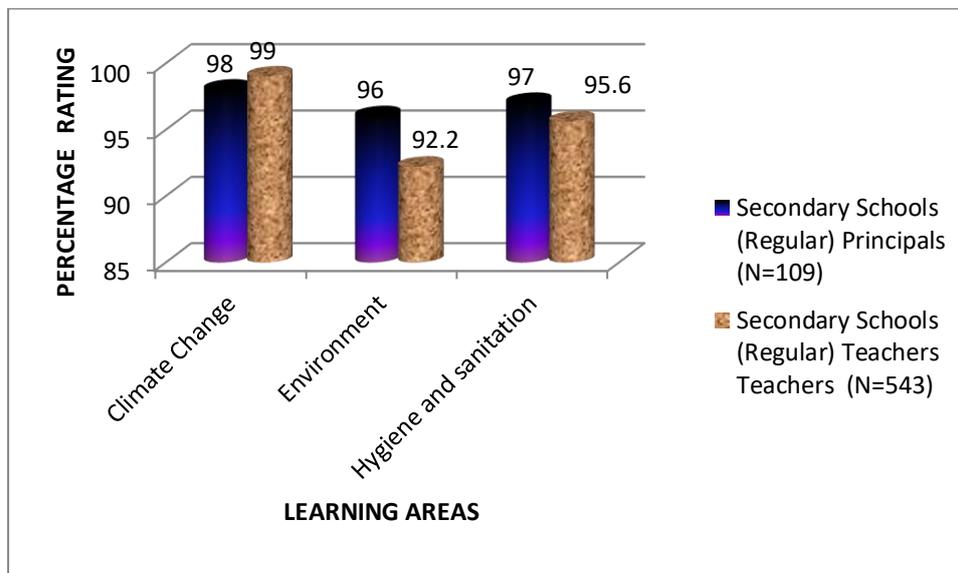


Figure 4.8 illustrates the emphasis by the principals and teachers on magnitude to which climate, environment hygiene and sanitation subjects should be envisaged into the

curriculum. Their percentage rating was between 92% and 99%. The high percentage is an indicator that these subjects should not miss in the curriculum.

Other respondents also expressed the desire of teaching issues of climate change, global warming and environmental awareness in the curriculum.

Respondent: Climate change is at the fore of most international discussions nowadays, and the consequences of this change are becoming evident every day. Students should be enlightened on this, and on measures they can internalize and do on a day to day basis so as to have an overall positive impact on climate change in the long run, e.g. they can be trained on how they can make it a habit to plant a number of trees each year. If everyone did so, the impact would be very positive.
(BUS.MAN-INF-NAI)

4.5.6 Extent to which Financial Subjects should be emphasized in the school curriculum

The principals and teachers rated the extent to which financial subjects should be emphasized in the school curriculum. This is illustrated in Figure 4.9

Figure 4.9: Principals and Teachers Mean Percentage Responses on the extent to which financial subjects should be emphasized in the school curriculum

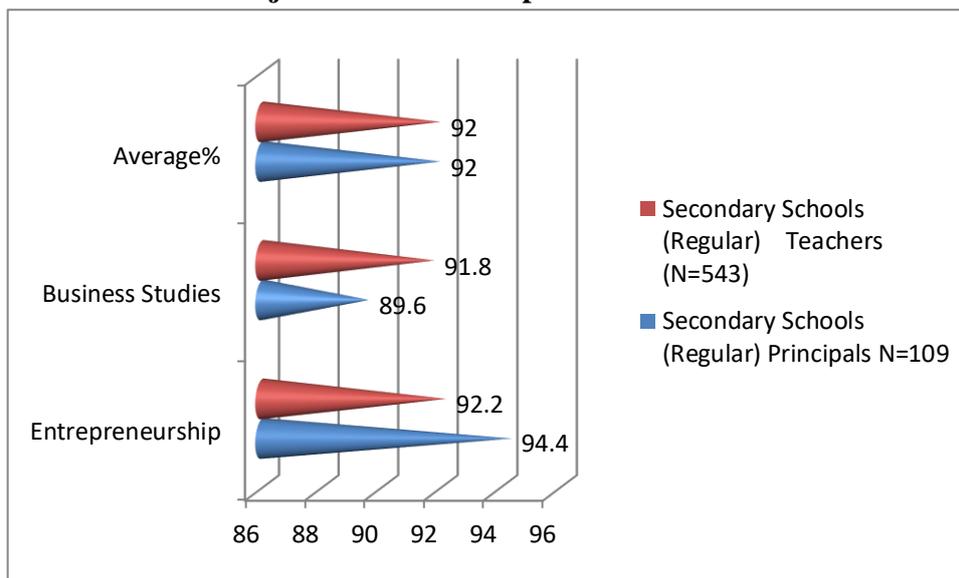


Figure 4.9 shows that the respondents were in favour of entrepreneurship as indicated by 94.4% of the principals and 92.2% of the teachers. The respondents also indicated the need of business studies in the curriculum. These findings are in agreement with those of the other respondents who were involved in the study. On the entrepreneurship, the respondents said:

KI: And actually when you mention entrepreneurship, I think that should seriously be introduced in secondary schools because by the time somebody is graduating to join the university, they don't

know what they want, I have seen many students finishing form 4 and they can't tell you what they want to become(**KIT- BIS - HOM**).

KI: Education reforms need to be informed by current and future local, national and international job and business opportunities...There is a need to redirect the learners focus to entrepreneurship. School syllabuses should be changed to competence-based so that learners' invention/innovation capabilities can be identified early and be given an opportunity to pursue their interests. (**KI-CCO-MAN**)

KI: Careers like in Agricultural sector in Homa Bay county all the food from this area comes from Kisii region so when our people pursue that practically not only academically I..Every now and then you hear we have water shortage someone in Nairobi says we don't have water you say you people are mad. So some careers can help us develop and utilize...the entrepreneurial skills that it may also help us come up with businesses it's a very rich one when it comes to market level, the fishing industry we need some knowledge (**KI-FGD-MASU**)

Commenting on business studies respondents noted that should be taught so that the learner can learn how to make business plans and budget. The respondents also advocated for the teaching of financial literacy.

Student: Business studies. They should also teach us how to make business plans, so that if you go outside there you can start a business before you join a university and so that when we are outside there we can develop projects that can develop our country (**PA-FGD-MOIG-S-UG**).

Respondent: kitu ya kwanza ni biashara, wakati wowote umekaa chini umeanza kuhesabu na kuipangia kwa sababu hata ukipewa million moja unaweza kulala njaa kama iko hapa, kama hujui kupangia... kitu ya kwanza muachilie huru Kama mtoto wangu ameenda shule, nijue anaenza kuwa na biashara atilie maanani

Translation

(The first thing is business. Any time you are seated, you start counting and budgeting. Even with a million, you can sleep hungry if you don't know how to budget. I would like to be assured that once my child goes to school, he can start a business (**BUT-INF-KAJ**).

KI: on financial issues mostly we learn them in mathematics and business studies as a subject..In primary school it was removed but we meet it in secondary so it should be started in primary...so that the kids grow with that and have ideas. (**KI-FGD-MASU**)

The importance of these subjects is universal as the world becomes more businesslike in nature and the economic well being of countries determines the quality of life for its citizens.

4.5.7 Extent to which 21st Century subjects should be emphasized in the school curriculum

The principals and teachers rated the extent to which mathematics; languages and sciences subjects should be emphasized in the school curriculum. Their findings are presented in Figure 10.

Figure 4.10: Summary of principals and teachers responses on Mathematics, languages and sciences

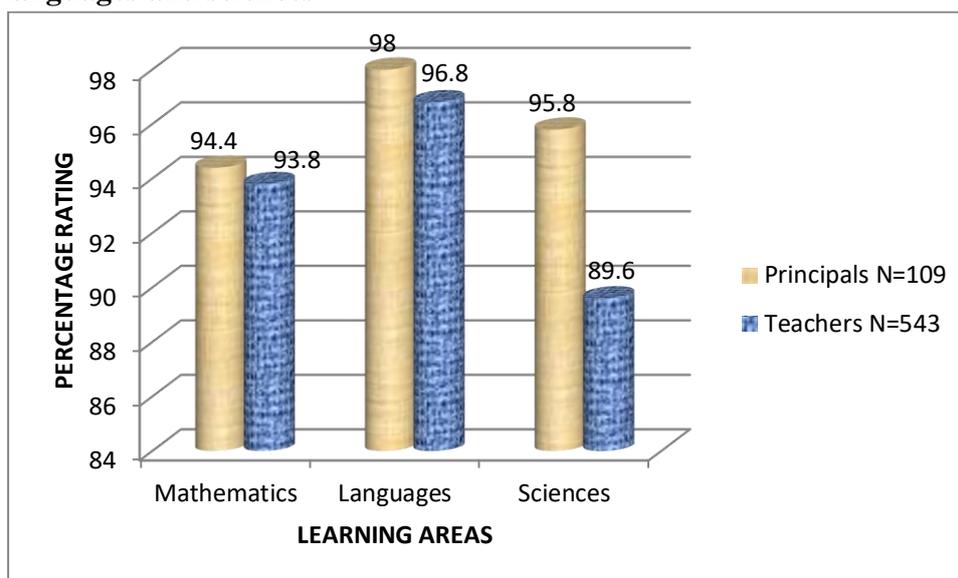


Figure 10 emphasizes the importance of mathematics, Sciences and Languages as teaching areas in the curriculum. Other respondents also emphasised on these learning areas. The sciences that were suggested included: Biology, Chemistry and Physics. These subjects are being taught in the current curriculum and the suggestions of respondents to have them taught is an indicator that their impact on the lives of the learners. Strengthening their importance, the respondents said:

Student...I'd choose Biology, Chemistry the whole day, Life skills and CRE, creative Arts e.g. Drawing, Music, pianos, guitars music instruments, art and design, having guidance and counseling sessions on how to become an upright girl. If I can have dancing, I'd spent the whole day dancing. If there is competition in eating I spend day eating...(S-FGD-StCNAM-S-BUS)

Parent: What I would like mostly is Mathematics. The child should take this as number one. The child to take Business Studies, also to take Geography. These are the ones that I would like the child to take in his/her class and for examination. (S-FGD-NYAM-S-NYAM)

Student: Mathematics ... Biology...those ones. (SL-MAL-S-KIT)

Students suggested that they wished to pursue careers in nursing. By implication this would mean relevant content for those areas.

Student: ...before joining the university I would like to do nursing...after finishing form 4, I would like to go to the university then after university; I would like to be an engineer if it is possible (S-FGD-MARM-S-MARS)

As far as languages are concerned, respondents called for the teaching of English and Kiswahili. In relation to English, a respondent noted that the Literature taught in different schools should be the same instead of having some schools study different books from other schools.

Respondent: Another thing is that in every school the literature is different. You find that in this school they are buying a different book from another school. You find you are in the same class but in different school and you have a different literature. ...In the time of exams you find the students are very different (**MECH-INF-UG**)

The respondent also suggested the teaching of the foreign languages like French, German and Arabic where they are not currently offered.

Student: If there shall be introduction of foreign languages need to be learned alongside the other subjects in school (**S-FGD-KIS-S-NYAN**).

Student: we are taught English and Kiswahili and some other schools have more languages but not all so they should also be taught. Languages like French, Germany (**SFGD-KANJU-S-NYE**).

Student Leader: There are some things I wish I learnt. There was a time I came into contact with Arabic language and I wish I studied it. I wish I learnt French or Germany but fortunately it's not there (**SL-MBIT-S-HOM**)

However, the respondents suggested that foreign languages studied in secondary schools should not be limited to German and French but also include Spanish and Chinese.

Student: Languages are limited to say French and German. We could introduce Spanish and Chinese (**S-FGD-MUS-S-KAK**)

Commenting on the foreign languages, the students said such languages will be instrumental in communicating with people from other countries.

Student...I think the foreign languages should be taught more so that those students who pass well may go to other countries and if they know the language it will be very easy to communicate (**S-FGD-PBH-S-UG**)

From the findings, it is evident that teaching of sciences, mathematics and languages is key in education and therefore should be included in the curriculum. Furthermore, the country's Blue- print for economic development flags the teaching of mathematics, languages and sciences as being vital to the country's development. 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 call for the teaching of foreign language is consistent to the Sessional paper no. 2 of 2015 that expounds on the need to teach foreign language in our system of education for global competitiveness.

4.5.8: Extent to which Home Science subjects should be emphasized in the secondary school curriculum

Figure: 4.11: Principals and Teachers Mean Percentage Responses on the extent to which Home Science and core subjects should be emphasized in the school curriculum

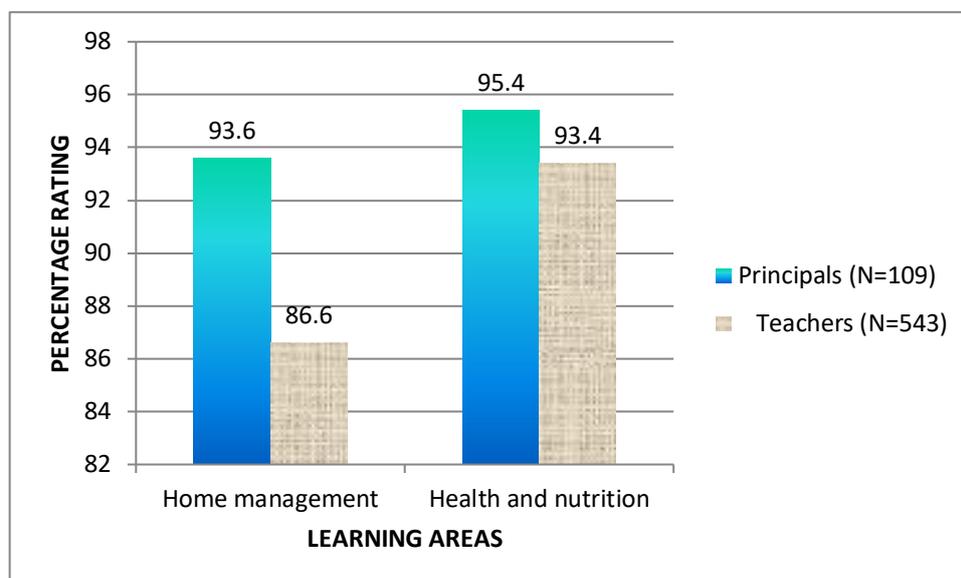


Figure 4.11 shows results from principals and teachers that health and nutrition should be emphasized to a great extent rated at 95.4% and 93.4% respectively.

Student: We can also have home science because if it's there we get teaching on how to wash their clothes (S-FGD-KAS-S-KIL).

Student: Home science it deal with values of food and nutrition, so if I take home science by the end of the four years I should be able to go back home and prepare a good meal. Maintaining cleanliness, making clothes, being able to set a table for visitors (SL-MAL-S-KIT).

KI: I think part of the previous curriculum should be borrowed back like during the times of our fathers and mothers like my mum tells me she learnt home science in primary they learnt all those things in primary so I think those vocational skills should be taught also in primary high schools and also in universities in all institutions because not all who are in primary schools will make it to the high schools are not pouring high schools will make it to universities so you see if there is this vocational trainings in primaries then have not made it to go to a high school yet I know I am some skills in home science I know how to do tailoring, metal work as he has just mentioned so even if I won't make it to go to high school at least I can keep myself busy with something not necessarily the white collar jobs like since I have not have not gone up to the university ...I think those skills part of the previous curriculum should be embraced back into the...(KI STU KAU)

Student:...home science should be introduced and especially for girls because in future it will help them on how to do their house chores, cook and prepare your own things which are valuable to a girl (S-FGD-MOG-S-SAM).

Pupil: But the home science should be included in primary and secondary. Also technical subjects like woodwork, engineering.

Health education was also suggested. A student suggested that First Aid should be taught in schools in case one is involved in accident.

Student...be taught on how to use first Aid because may be you are at home and there is a small accident you are not able to do something about to (S-FGD-KAS-KIL)

4.5.9 Other Learning Areas

Life Skills and Social Ethics Education

Parents and learners noted that life skills should be taught, and specified skills such as decision making, leadership, how to interact with others and live an independent life. They also suggested teaching of issues related to disaster management.

Parent: I think life skills should be taught because this abilities decision making, leadership, I think they should be told in life skills (PA-FGD-MOIG-S-UG)

Student: I think in primary schools to high schools we should majorly teach students social skills how to interact with others (S-FGD-MOIGP-UG)

Parent: We should be told how handle things on our own, stand on our two feet, treated as adults, so that after high school you can depend on yourself according to our tradition.(PA-FGD-MOIG-S-UG)

Student: What I would like to say is that something like life skills should be enhanced in the school because not only that we need the academic successes you may find someone is successful in academics but considering that that person does not have integrity, he or she may end up failing in life. (S-FGD-NJU-S-MUR)

In addition, the learners would like to see moral issues addressed. They need to learn how to deal with the issues affecting them. They also need to continue learning about body changes and boy-girl relationships.

Student... students should be taught how to cope with such emotions because some may lead to feelings of committing suicide (S- FGD- OLOO- KAJ)

Parents said that children should be taught social ethics and in particular how to live in the society. They advised that learners should be sensitized on the consequences of bad governance; violence and conflict.

Parent:.. For example what happened in Rwanda and the post elections violence in Kenya.(PA-FGD-NDUR- LAIK)

Parent: It is good to add this subject on day to day life and have time to explain to them e.g. social ethics which used to be there on how to live within the society. Without that I don't know where we are heading to a good place. (PA-FGD-NYAKI-S-NYA)

Parent: Before we go to secondary as we talk about values, that will bring up social ethics which should cover all the social space, because if it is taught at this level the child will grow knowing who he or she is. (PA-FGD-MOIG-S-UG)

Parent: I think we used to strengthen ethics. The products of our education system are not upright morally (PA-FGD-NYANDA-S-NYA)

Students also said lessons on good behavior were necessary.

Student: If you look at the generation now, you could see that the youth we are facing a lot of challenges in our behaviour, so what I would like included in the curriculum is that we have some lessons which are regular for guidance and counseling. This will enable the students to have some skills which are lacking in this generation. So, if they are included I think the education would shoot higher than it is now. (S-FGD-NJU-S-MUR)

Key informants noted that age appropriate and value based sexuality should be taught at secondary level. One of them said:

KI: Again at the level of secondary school the issues of sex education should be made clear we can't leave them to experiment with the wrong information that should also be able to do all that is the curriculum. Students should be guided to be in serious and good relationships (KI-PAS-NAI).

KI: Again at the level of secondary school the issues of sex education should be made clear we can't leave them to experiment with the wrong information that should also be able to do all that is the curriculum. Students should be guided to be in serious and good relationships (KI-PAS-NAI).

Talent related Learning Areas

The student leaders pointed out that teaching of talents is currently missing in the education system. Talent related areas like music and drama should be emphasized at secondary level.

Student Leader...What is missing is really helping the students realize their talents. You see in Kenyan system, it is so much about education leaving about the other part of talents so that the student doing is just about what am supposed to learn. They should balance co-curricular activities like music, football etc with the class work (SL-MOIG-S-UG)

Respondent: learners need to be exposed to other Talent-related life skills which are currently given minimal or no attention by many schools because they are not examinable e.g. Music, drama, etc. in case one opts to follow this trajectory of life after secondary level (BUS.MAN-INF-NAI)

Parent: the education of today is behaving as if there is nothing like practical work. Our polytechnics are being closed down; aa... we behave like we are all paper people. That is why we have many people with degrees who are tarmacking. Who have their degrees and diplomas and they are tarmacking. They can do nothing in this life. That is why they are stealing. So it's my opinion that talents like foot balling, and others like building, those are talents, should be taught in our schools (PA-FGD-MUTG-S-KIT)

Psychology and guidance and counseling

In order to cope with psychosocial challenges, they also requested to be taught and psychology.

Student: Psychology – when you acquire psychological abilities you will be able to study the human behaviors you will be able to know this is a good person, this is a bad person or this intends, like for example if you have a psychological ability of suicide bomb you will be able to alert the people around or the official of the government there is a suicide bomb around and many of the lives of people will be saved (SFGD-MEKA-SP-KWA)

Compulsory and Optional Subjects

Parents suggested subjects that should be compulsory and those that should be optional. In their view the teaching of practical subjects such as music, home science and agriculture should be compulsory. Other compulsory subjects suggested included Biology, Chemistry, Physics, Mathematics and CRE. Geography, History and Government, Business Studies, Art and Design and others can be optional for those learners who would like to specialize in them.

Parent: Also, I would like to contribute by saying that the subjects the learners are taking at secondary level, they are just okay. A subject like Biology, Chemistry, Physics, Math and CRE, these are subjects that are supposed to be made compulsory for all learners. A subject like CRE would enable these children to acquire values. These other subjects that have remained like Geography, History, Business Studies, Art and Design and others; they can just be optional for those learners who would like to specialize. Let it not be that; the learners are going to take all the subjects. **(S-FGD-NYAM-S-NYAM)**

Parent: ... the technical subject such as music, Home Science and Agriculture actually should be taught at an early age for them to work out in the field with the resources available. These subjects should be compulsory in schools. **(PA-FGD-NYANDA-S-NYA)**

On the issue of computers studies, the parents said they should be compulsory as a subject from class 1 – university. They added that as parents they should also be encouraged to learn computers. Students also suggested that computer studies should be a compulsory subject in high school.

Student: I think computer should be enforced as a compulsory in high school so that we can have technological fitting in the world. **(PA-FGD-MOIG-S-UG)**

Parents suggested that learners should be taught all the compulsory subjects but emphasis should be on subjects that are geared towards specific careers.

Parent: The learners at secondary level need to learner all subjects that are compulsory but be allowed to special in areas/subjects that would contribute to their career interests. **(PA-FGD-St.JOSE-BUNG)**

Learners expressed a desire that technical subjects should be made compulsory for all.

Student: I Think some of these technical lessons should be made compulsory in schools, I know there are some schools that teach arts, music, woodwork something like that and they are not staying in schools we find someone who is not very academically speaking has a tough time dealing with the worldwide she/he does in schools so if it is done compulsory in schools and these people don't have flat performance **(SFGD-MEKA-SP-KWA)**

INF ...Kiswahili and Math's... Geography is hard; needs changes on map reading **(JUA-INF-GAR)**

These findings generally provide much-needed evidence to educators, policymakers, and legislators who are in dire need of research-based guidance on the learning areas for competency based curriculum. There is need to redefine the values attached to different

disciplines and the resource requirement. Embracing the teaching of practical skills implies allocation of sufficient time for teaching by minimizing all types of constraints (rules, regulations) that do not encourage experimentation, innovation and creativity in the teaching and learning process.

The findings of learning areas are critically important given the vision of the curriculum reform on nurturing every learner potential.

4.5.10 Pathways

The respondents agreed that there is need for the establishment of pathways in the curriculum. The respondents advocated for the country to embrace the alternative pathways to education to stop wasting learners and resources. Suggestions were made that the pathways should be made attractive to the students. It will also involve career guidance from an early age so that the learners can know their interests and follow the pathway that will enable them to attain their goals.

KI:...I think it is the way to go...we invest a lot of resources in academics only for somebody to go up to fourth form and realize that they cannot make it to go forward.... it would save us a lot of resources. The challenge we have is to structure it in a way that it is attractive to the students. .. it will require a lot of resources in terms of career guidance .. from an early age so that they can know their interests ... For instance if a child decides at class four that they want to be a mechanic by the time they reach class eight it should be known that there is enough TIVET resources. **(KI-TCD-KWA)**

The curriculum developers were challenged to come up with a curriculum that allows for specialization. Parents and learners observed that the curriculum should offer other avenues through which those who are not academically inclined can still advance in life.

Student: curriculum developers should try and make sure that at the secondary level students focus on courses that they want to take meaning that they take subjects that will help them in the careers they want to take **(SFGD-RAP-S-MIG)**

The students said that it would be better if the students are taught subjects within their aspirations. Parents were of the same opinion. They said learners should be made to specialize in the areas they are interested in. The learners should be exposed to their areas of interest and vision so that they don't feel like the system is wasting their time.

Student: Not everyone is clever they should have institution to go for other training it will reduce the cases of immoral behaviours **(S-FGD-KIS-S-NYAN)**.

Parent: The Kenya that we have is targeting students that are going to university. This person has no skills anawezajifanyia nayo. For example, a third of those going to the university and the rest do not know any work to do with their hands. For example, during the old system there was carpentry and all that and the product that we are having out there, they came out of that good work **(PA-FGD-OLOOL-S-KAJ)**

Student: I think that in secondary school level people should read according to their career aspiration. Because you tell someone to read something not that they want to pursue that career. But they read a subject because they have to read it. And also the subject should at least examine in all schools. For example if we have music in our school other schools should also have it not that some schools have certain subjects while other schools don't (**S-FGD-BUT-S-BUS**).

Parent: Specializing in his/her area so even after Form Four it was easy (**S-FGD-NYAKI-S-NYA**)

KI: everyone who is given pathways is given passion, for example, one want to be a doctor and the other wants to be a teacher, they should not be forced, and that's the right direction we are heading, as a parent or a teacher you should know what a child want to be; does he want to be an artist, dancer, teacher, engineer, actor, entrepreneur, film actor these are the courses that should be pursued in life. And then in that case we will stop the issue of school dropout failure, the society people who have nothing to do, and this will make everybody is being engaged...(KI-CDE-GAR)

KI: you build more on concept to use in practical, and as they grow to higher level, let's say secondary they have understood themselves, they become like, they have a vision, and when they have a vision, they want to learn more of their vision, you should be able to give them opportunity to understand their life as they are, and that why the pathways are important, there are children who do not want to waste time without being given certain tasks, like if they have started playing music he needs to know how to use gadgets, if they have started to model a car they need to go where they can model a car, and others who need to go to an area where they need to redefine themselves and I think this is the critical area, and when they reach basic education, the lower secondary and gaining knowledge to upper secondary then they have already taken future and that is the kind of curriculum we want...(KI-UNESCO-NAI)

KI: I think we need to back to that specialization system....you specialize in what, you are strong in the mathematics, and sciences, you have a strength in because after standard 8, a lot of them because don't qualify to go high school.... it was a good idea but I think it should be an option for those who want to do it, then there is something else for those who want because it is for very sharp people. If you are sharp, girl or boy, you will excel in that system and still be aware of the environment and the social aspect... Not just knowledge, consider now ... somebody just decides to do chemistry and physics and they discover many things you know, they have come up with new ideas in medicine and all that , you know taking 20 subjects does not make an expert anything. (**KI-KHRCR-NAI**)

In the same vein, some industrialists and key informants indicated that learners should be taught subjects that can enhance wide exposure for future and then they can specialize in learning areas.

KI, Actually I think I have suggested I have alluded to F.2 before F.2 by F.1 & 2 if we have all the crucial courses....may be given that some entrepreneurship may be given by that time so that as they now choose their pathways from F.3 then they can already be guided to know which areas but I think we might end up increasing a number of subjects so that there is more choice (**KIT - BIS- HOM**).

A respondent suggested that there is need to come up with schools that specialize in certain disciplines.

KI: Then come to secondary level that is where you now specialize. Is specialization a secondary level so I am going to a technical high school, so I think we need to even change the concept of this polytechnics and technical institutes to make them high schools? So this is a technical high school, so that the child who goes to let's assume now Alliance girls become a science oriented school, then we will have Mang'u being a business school then we have Kapsabet being a technical so these children are gifted differently but they will go to high schools but when you say the ones who do not go to high school we are going to take them to technical institutes, what are you telling them? You

are telling them you are failures and we need to start now categorizing so that everybody feels that there is nothing like nationals. By secondary school every child should be very clear about what they want to do with their career but you find that by form four they wait for their results so that the result slip can tell them what kind of career they will do. They don't actually know even at form four what they want to do and I think it's very important **(KI-CPC-NAD)**.

Parent: We should have two secondary schools, with both technical and the normal education... like Kabete. It is no longer there, it was a secondary school from form 1 and 6. Technical schools like Kabete produced good students, also Starehe has two schools, technical and secondary. Now you finish form four at 16 and get lost **(PA-FGD-OLOOL-S-KAJ)**.

Three pathways were suggested by the respondents. These include the technical pathway, talents and general education.

Technical pathway

Respondents called for establishment of polytechnics and Technical institutions which would offer vocational courses to cater for learners who do not perform well in the academics. They said that such learning areas would give the learner a repertoire of skills for self-reliance.

Student: if someone is through with education and did not pass well they should be given an opportunity to go to the polytechnics and then be employed by the county governments **(SFGD-KANJU-S-NYE)**

KI: The so called technical schools should come back as we all cannot be academicians. I have a boy who is good in Arts but am taking to a normal even when I know that the best he will get is a 'C'. But I know he is a wizard in whatever he holds but not academic. I cannot take him to a village polytechnic because of age. **(KIT-CD-BUS)**

KI: ... Former technical schools should have been introduced yesterday **(KI - FBO - BUN)**

KI: that TVET was meant to people who are failures that's why we present the whole idea wrong progress in terms of learning after finishing a craft course for those who have succeed with credit and distinction they can proceed to diploma they can proceed to a degree and we can use technical institutions like Technical University absorbing most of their clients through those kind of field... **(KI-NACECE-BUN)**

KI: And that is why I think this curriculum of ours should be made in a way that is also addressing the needs of these other children, so that if for example a child wants to go ahead and may be do like plumbing there is an institution for this child where can also go and do something else. May be like Tailoring there is these girls who are not able to go to secondary school and that is why I feel that we need to bring back this whether village polytechnics they used to be there long time ago because they are really going to take care of big number of children who are not admitted to secondary schools **(KI HET NAI)**.

KI: If we can have... these people who go to village polytechnic, start with village polytechnics they go to technical universities, I think the idea of coming up with technical university is like took the university of Mombasa that is noble one so that people who start from village polytechnics can go all the way and they graduate in technical subjects and we need these technical people to address the issues and challenges that we are facing today and also to help us to achieve our vision 2030. We will not achieve vision 2030 without training **(KI DVC KAU)**.

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KI: I think we need to also develop another path especially the technical aspects so that there are these pupils at class 8 who are not academic based, they can take a technical where they can do building and construction, like we had earlier the technical institutes and after they are through they can be absorbed in the job market or we also have technical university, so that we can have two of them, the academic and technical I think that will be able to catch and develop the talents from our children so that we may think all round.. (**KI-CDE-KIT**)

KI... it is useless wasting a child for many years without gaining anything when he would have gone to direction that could have helped him, you empower a child on area that he fills comfortable in the society earlier enough such that if he finishes let's take for example the TVET pathways which can go to technical and vocational within the TVET (**KI-UNESCO-NAI**)

Respondents observed that vocational courses would benefit learners in the sense that they could get certification after going through trade tests and in turn would enable them to be self employed or to seek employment in the job market.

Respondent: Kama umepeleka mtoto carpentry... Sasa akifika mwisho atahitimu, atakuwa na trade test. Akiwa na trade test, anaweza kuanza biashara yake, ama aende kuajiriwa mahali. (If you take your child for a carpentry course, at the end they will get a trade test and be able to start their own business or be employed) (**HOT-INF-NAR**)

The respondent expressed concern that Prof. Odhiambo's recommendations on pathways were very good, however the public has not been convinced.

KI: Prof. Odhiambo's pathways were good but we have not convinced parents about it especially TVET. Let this pathway choice be included in choices at their school level so that learners do not perceive TVET as areas of failures... (**KI - CDE - BUN**)

The call for establishment of polytechnics which would offer vocational courses to cater for learners who do not perform well in the academics is an effort to ensure none of the learners is left out of the system. Such a pathway would ensure that the graduates of a certain level do not rely on formal employment but instead would go for self employment. These suggestions are in line with the ideas of Inwang (1985) in Ibukun, Akinfolarin and Alimi (2011: 179), who says "Vocational Education helps to fix right habits of thinking and

doing in students through repetitive training, carried out to the extent where it gives the trainee a productive ability with which he or she can secure employment. Student learning outcome are likely to be practically seen in Vocational and Technical Education where students discover and do things themselves”.

Talent pathway

The respondents noted that students should be encouraged to take courses or training programmes which are in line with their talents, interests and abilities. This could be reinforced by creating pathways that develop student’s talents or abilities from an early stage. The system therefore should provide adequate opportunities for learners to follow career paths which promote development of their talents, abilities and interests.

KI: when we know our talents, we are able to concentrate on areas that we can do our best (**FGD-UNIV STUD- PWANI**).

KI: Why can’t we go to colleges produce me as an athlete, why can’t we go to colleges that provide me as a musician.... So irrespective of whether I dropped out at form 4, year.... My daughter was good in fashion and design, she is deaf and when she did the grade test, from grade III, grade 2, and grade 1 in fashion and design but at form 3, she dropped at form 3, still when I exposed her to the job market, they said, but now she is good at these things but doesn’t have form 4 certificate-the form 4 certificate has nothing to do with what she does, so it is like we screen people out rudely based on academic, so out way of nurturing and promoting talents is to start, we should start redefining out screening, we screen people, that is how we should motivate people (**KI-PWA-UNI**)

KI: ... Students should be able to go to schools offering subjects/areas they are good at. This is possible through identification and nurturing of talents so that there is no pressure on academics. Former technical schools should have been introduced yesterday (**KI-FBO-BUN**).

Student: schools should not only be academic oriented they should also help those who have talents to improve them (**S-FGD-KANJU-S-NYE**).

The respondent suggested that pathways need to be created in order to identify talents through P.E, art and craft, music and home science. They said subjects also need to be examined.

KI: Pathways to identify talents at early stage like footballers through P.E. lessons art and craft to be examined. Home Science through practical lessons musicians should be nurtured and identified early. (**KI-TCD-GAR**)

The respondent said the Odhiambo Report on education had the idea of talent. It outlines how students were to be given opportunities to identify their talents.

KI: I was reading Douglas Odhiambo Report on Education; it had this idea of talent. You know we have two categories of people with talent. We have people who are multitalented, there are people who are very bright, and they are soccer players, could even be runners, and they should also be given this opportunities.... those that people who may be not being very good in academic issues

should have institutions that can take care of them. They are weak academically but they are talented
(KI-TCD-KWA)

The pathway of the talents also implies that those who have some abilities can pursue that line and also earn their living. The implication on this is the needs for a well laid down a system that identifies the talents of the learners from early age and start nurturing them alongside the school curriculum. Those who are good in academic and those in talents should be encouraged to go on as pointed out by one of the key informants.

General education pathway (academic)

Students noted that while there is need to balance, those who are good in academics should be allowed to pursue academics and the rest their talents. Those who are not endowed in academics can still excel by exploiting their talents.

Student: I think those who are perfect in education let them to continue with their education and those who are talented continue with their talent (S-FGD-KAS-S-KIL)

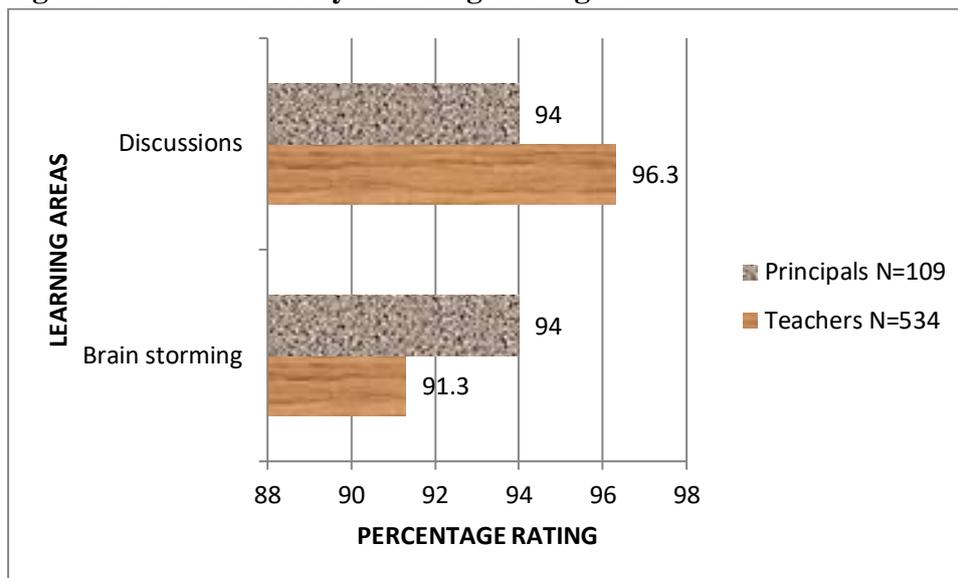
KI: those ones who are gifted in class they go through the normal curriculum but for those who are not gifted in academics then they go and carry out what is best for them because at the end of the day instead of being idle...(KI CD LAI).

4.6 Pedagogical Approaches

Literature defines pedagogical approaches as instructional strategies and techniques of carrying out instruction in the delivery of curriculum content. In the Kenyan context, it has been noted that more often than not, teachers rely on the traditional approaches of teacher centred learning in their effort to cover the syllabi. Societal needs have evolved and so have learner needs. The study sought to find out the appropriate and relevant pedagogical approaches to deliver the secondary level curriculum. Secondary school teachers and principals responded to a set of items in a questionnaire regarding the extent to which they would like the suggested pedagogical approaches of teaching to be used while delivering the secondary school curriculum.

4.6.1 21st Century Teaching Strategies

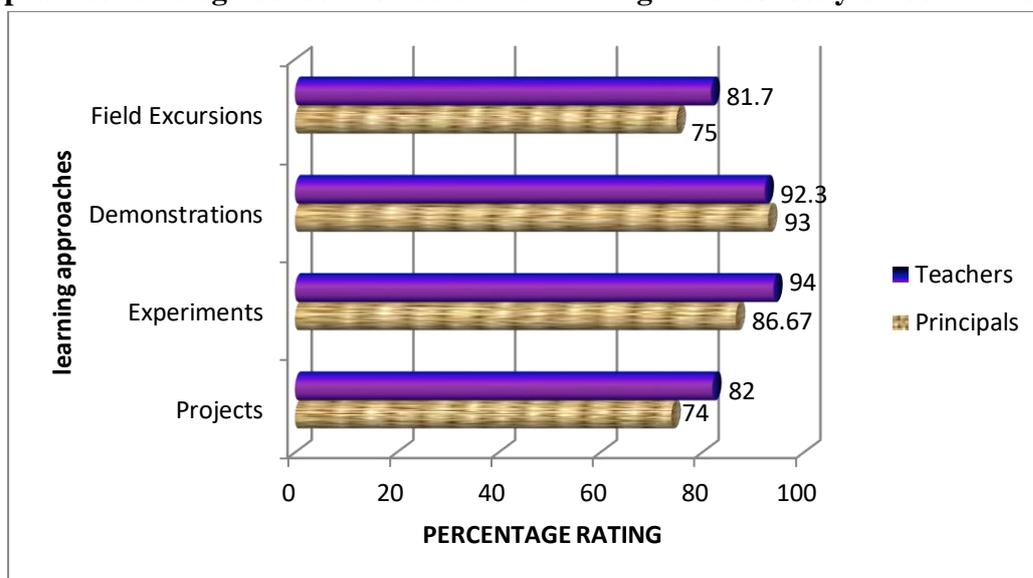
Figure 4.12: 21st Century Teaching Strategies



Discussion as a method of instruction is rated highly by secondary school teachers with a rating of 96.3%. This therefore dictates that in the pedagogical design of the new curriculum, the discussion method should be visibly positioned. Furthermore discussion method is one way of enhancing collaboration among the learners, an aspect of the 21st Century skills. Brainstorming is an approach that trains learners to accept different views and perspectives on the path of knowledge construction and received a rating of 91.3% of the teachers and 94% of the principals.

4.6.2: Practical methods of teaching

Figure 4.13: Principals and Teachers' responses on the extent to which various practical strategies should be used in delivering the secondary school curriculum.



From the percentage ratings displayed in Figure 4.13, most teachers (94.0%) preferred the use of experiments during the delivery of secondary school curriculum. Use of demonstrations was also rated highly by the respondents at 92.8%. Project work was rated at 82.0% while field excursions were the least rated in this category with a value of 81.7%. The enhancement of practical methods in the instruction of the new curriculum will lead to acceptable levels of skills acquisition.

A respondent observed that in a Competency Based Curriculum, pedagogical skills should be practical and not those which facilitate rote learning. Examples are the exploratory, inquiry-based, Problem-based teaching methods, Experimentation and discovery methods which include field work, field visits, exchange programs and project work.

KI : 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**).

The respondent further observed that field studies and exchange programs enable children to see what is happening in different parts of the country. A parent advocated for project work (for example in the farms) to enhance acquisition of skills adding that some of the projects could generate money for schools.

KI: even within the country for our students and pupils to see for example what is happening at Webuye paper mill, people from Manderu 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)**.

Parent: Yes, trips to take children for trips it helps a lot and they learn a lot because they are together as a school. **(PA-FGD-NJAB-S-NYA)**

Parent: The 8:4:4 turned to be even more theoretical, its products are half baked, for life they cannot even repair a fence or even cut grass for the cow **(PA-FGD-NYANDA-S-NYA)**

Parent: There should be small projects in schools where the student can learn from. There were also duties where children were assigned to work in the farms where they work and you come out of it something. **(PA-FGD-KIS-S-NYA)**

Parent: The parents should allow the learners to have projects. When you were young and you went to aunts or 'guka' (grandfather) we were given chicken. This chicken should belong to the child to create the spirit of owning. The children learn how to be responsible since they want to take care of their livestock. **(PA-FGD-KIS-S-NYA)**

Parent: the schools can also support learners' projects which can generate money which can be used to buy resources. **(PA-FGD-KIS-S-NYA)**

The students indicated that it would be advisable to use practical in teaching some of the subjects like Agriculture in order to enhance retention of the content. They said:

Student...In terms of practical what I can add is in agriculture it can serve better when all the student are doing it practical. our country will grow economically, as when you do practical you are able to understand better the concept so according to me, it is better to have practical of agriculture for example keeping poultry in school and having some of the machines, we heard in those topics we may be coming across them, if you come across something it's very hard to forget **(S-FGD-KAW-S-MAK)**.

In addition to the practical, the students pointed out that there is need to use field work where the student are taken to see some of the physical feature that are found in subjects like Geography.

Student ...My point is about field study, you can find that schools in Nairobi where there no forests, student will may experience hard time to go and learn than students in interior outside like stones, sands, different soils, which are learnt in geography and part of agriculture. So it is better for schools to be exposing students to go and conduct field study in school and far from the area **(S-FGD-KAW-S-MAK)**.

The respondents said the practical approach to teaching helps to develop skills such as collaboration, problem solving, ICT integration skills in teaching and learning. They proposed that practical skills take up 70% and theory 30% of the total teaching and learning time.

Parents further suggested the use of television programmes to educate students on the importance of even menial jobs. They noted that debates among schools could enhance learning.

Parent: There should be activities in the television to be airing short broadcasting on how somebody have become successful in through things done manually than those who have gone through formal education. (PA-FGD-NYAKI-S-NYA)

Instruction that focuses on skills requires sufficient amount of time allocated to the acquisition of skills. In the study respondents proposed that three quarters of instruction time be allocated to practical skills. According to the U.S Department of Education (2002), one of the major challenges of implementing Competency Based Curriculum (CBC) is that rules, regulations and time constraints may forbid experimentation, exploration and innovation. Another major challenge is ensuring that the competencies are both effective and consistent with the ultimate purpose.

4.6.3 Learners’ activity-based strategies

The respondents proposed learner-centred approaches which are constructive in nature and a reversal of the traditional classroom practices.

Figure 4.14: Principals and Teachers’ responses on the extent to which various learners activity-based strategies should be used in delivering the Secondary school curriculum.

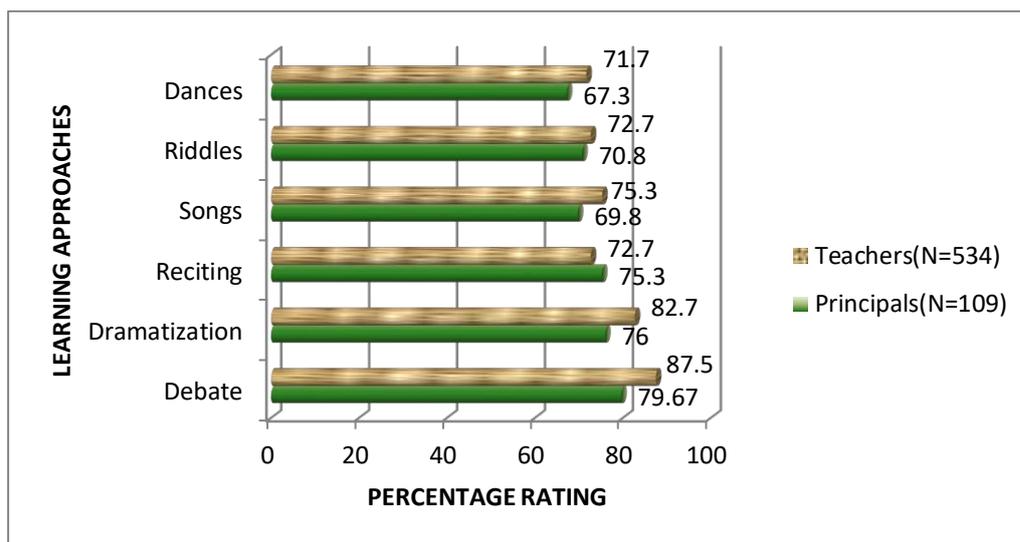


Figure 4.14 illustrates that most of the teachers (87.5%) and principals (79.67%) preferred debate as a strategy of delivering the secondary school curriculum. Through debate, learners practice on how to communicate and by so doing, they acquire communication skills which are part of the 21st Century skills. Dramatization followed debate closely with teachers’ percentage rating of 82.7%. Through dramatization, some talents may be

revealed, nurtured and eventually lead to job creation. This can lead to production of learners who are great communicators. Songs had a percentage rating of 75.3. Reciting and use of riddles followed and each of them had a percentage of 72.7%. The last one in this category was ‘dance’ with rating of 71.70%. Compared to the other learning approaches, the average percentage for this cluster was the lowest at a rating of 77.1%.

In this issue, other respondents highlighted some learner centered approaches. Some of these approaches cited by the respondents were: discursive and interactive approaches which promote participatory learning, practical teaching approaches using problem solving techniques, discovery and exploratory methods, especially those that are hands – on. A respondent recommended anything that liberates the learner. He explained that good approaches are those that are discursive, dialogic and interactive.

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-NYAMIRA)

Review of related literature indicates that with the current clamor for 21st century skills, the instructional methods must be more learner-centred. This justifies the need expressed in the study for promotion of critical thinking, creativity, innovation, collaborative learning, problem solving and decision making skills. It is further supported by the views of cognitive constructivist theorists like J. Piaget and J. Dewey who posit that learners are not passive recipients of information but they actively construct their own understanding. Piaget et al advocate for experiential learning where learners are taught to solve real life problems.

Institutionalization of learner centred approaches is not a totally novel idea in the Kenyan context. Policy documents have articulated the need for a skills oriented education. The Task Force on Re-alignment of the Education Sector (2012) bespoke of too much focus on academics. This came in the wake of growing disenchantment with the 8-4-4 system whose initial aim was to equip learners with skills for self-reliance. Ong’ondo (2010) quoting KIE, 2002: viii observes that one of the aims of secondary education in Kenya is to ‘develop the intellectual ability for enquiry, interaction, critical thinking and rational judgment.’ The fact that it has not been totally achieved constitutes a gap which needs to be bridged. One of the sure ways of bridging the gap is by reforming teacher education.

4.6.4 Experiential learning strategies

Figure 4.15: Secondary Principals and teachers' responses on experiential learning strategies

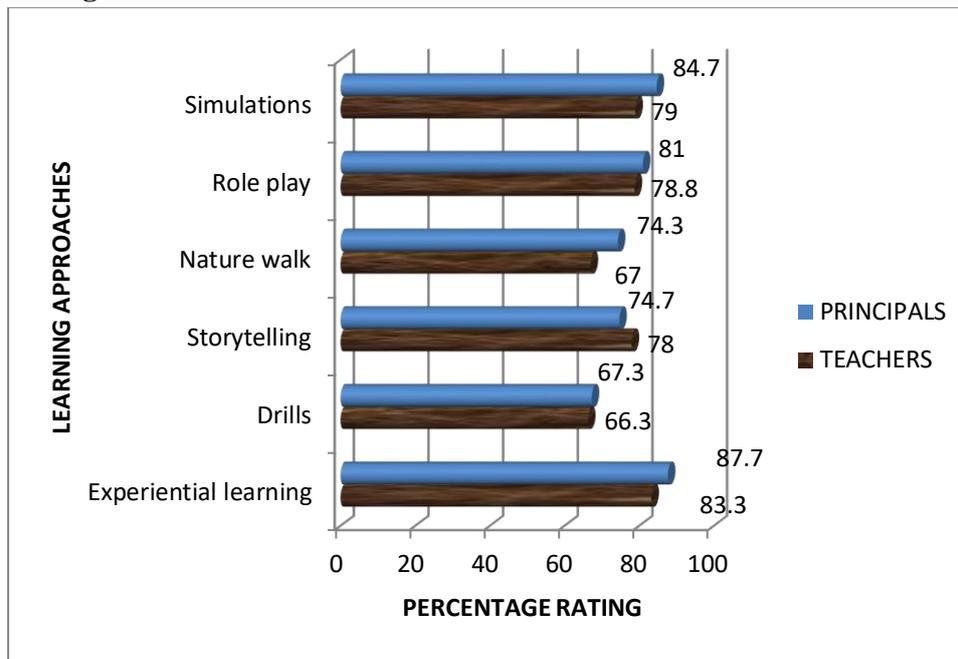
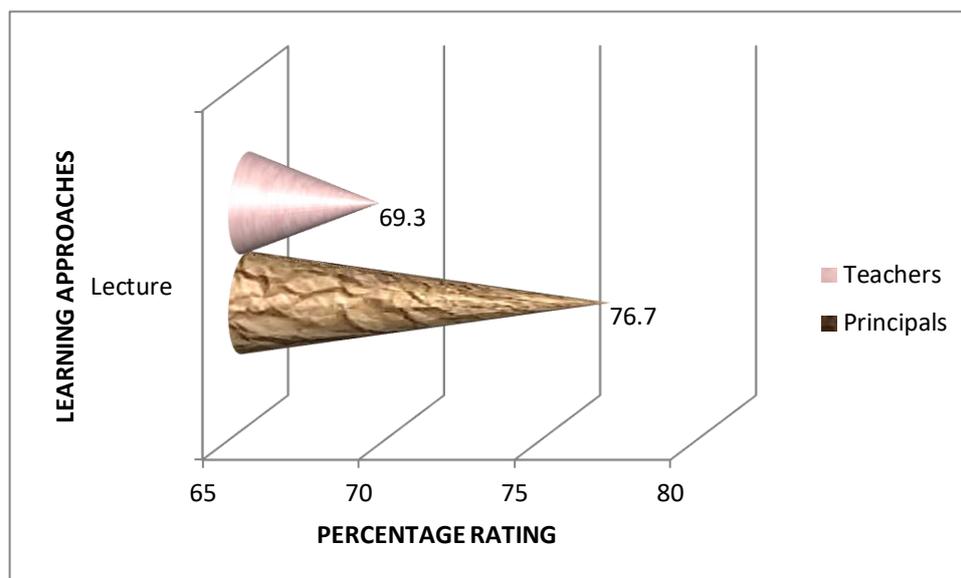


Figure 4.15 shows responses of both principals and teachers with regard to experiential learning teaching strategies. Experiential learning was ranked highly with a percentage rating of 87.7% by the principals. It was followed closely by simulations with a percentage rating of 84.7%. This indicates that experiential learning and simulations should be among the preferred methods of delivering the curriculum. Other approaches included drills, storytelling nature-walk and role play had percentage ratings were relatively low.

4.6.5 Lecture method

Figure 4.16 Principals and Teachers responses on lecture method



The sampled teachers and principals rated this method of teaching very low at 69.3% and 76.7% respectively. This implies that it should be used sparingly given that 21st C focuses more on creativity, critical thinking, communication and collaboration and cannot be achieved through lecturing.

4.6.6 Other learning approaches

Other learning approaches as given by the principals include apprenticeship, asking questions and answering, assignment approach, research, benchmarking, case studies, use of resource persons, computer game play, note making, use of the library, use of ICT gadgets like mobile phones, peer teaching and problem solving approach.

Interactive and participatory approaches

The respondents proposed team teaching, peer Cooperative learning, Activity based teaching and learning, Collaboration.

Learners suggested that lessons should be more participatory rather than focusing on completion of the syllabus. They would like to be able to express their views in class. They emphasized the need for group discussions to enhance learning.

Student: ... I think group discussions should do it after the end of the topic or may be syllabus you have groups and you discuss what you have learnt without using books, just applying. (S-FGD-MOG-SAM)

Student Leader: I feel I should just be taught and the teacher should confirm whether I have understood for when you are teaching you give the students time to express their minds (SL-MBIT-S-HOM)

Parent: Let school meet and intermingle. During our time these schools were free from 3.30p.m. let schools meet and debate or intermingle. (PA-FGD-NYANDA-S-NYA)

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, let's 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-CEMASTEANAI)

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 plays. Use of approaches equivalent to Nyumba KUMI initiative. The textbooks should encourage both gender (pedagogy should be gender sensitive) (KI-FAWE-NAI)

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

Students also noted that peer teaching could enhance learning – students learning from other students.

Student: May be you know I don't know maths then my friend here know maths then they will teach me, like that we will share ideas in the class room. (S-FGD-KAS-KIL)

The learners cited collaboration especially in mathematics and science project work and reporting. A student suggested that contests should be held in all subjects to promote learning.

Student: I think so far the government is everything only they are holding the mathematics contest, we want also the contest for other subjects to be (S-FGD-MARM-S-MARS).

Differentiated instruction

The respondents challenged teachers to do more research on what they teach and to cater for both fast and slow learners. They are expected to reach out to individual learners by catering for their individual learning needs.

Student: I think it is student teacher kind of learning. You contribute in a lesson. Teacher should have a plan on how to teach. And inform them earlier so that they can research for it. But not all schools do that. they want to finish the syllabus early. In learning there are different abilities. Others are fast and others are slow learners. Slow learner will spend more time to go and study on what they have learnt while other are ahead of them. But if the teacher will interact there a room for expressing oneself (S-FGD-KIS-S-NYAN)

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 Okelo 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).

Other methods cited are in use but may not be widely used in all institutions of learning namely: integrating ICT in teaching and learning of mathematics and science, storytelling of real life experiences, games to teach concepts in mathematics and science, lesson study which brings about research lessons, open ended approach to teaching that require varied ways of solving a problem, mentorship of learners through field visits and experience for example in banks, hospitals, law firms among others Mentorship of learners through field visits and experience for example in banks, hospitals, law firms among others, Use of guests on academic and non-academic topics, Use of outdoor and indoor physical activities, Video games , and research activities.

The respondents consider these learner-centered approaches appropriate for teaching transferable skills such as time management, communication, planning, work-appropriate behaviour and attitudes, team and independent work, financial literacy and entrepreneurship, workplace health and safety, work place rights and responsibilities and customer orientation and satisfaction. In the respondents' view, the proposed approaches give rise to all round students as they impart practical skills. They promote understanding and critical thinking as opposed to rote learning.

Reversal of Traditional Classroom Practices

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. This will ensure curriculum connects with realities of life and allow learners to relate content with their immediate environment.

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**)

KI: So there is there need for strong interaction between the teacher and the students opposed to increased kind o of lecture format of training and there must be a lot of practical work so that if for example, you are a journalist and you have been trained on feature writing the next thing that should happen is that you should be let out to go and write a feature several of them (**KI-CEO-MCK-NAI**).

Learners suggested that content should be current and that practical approaches should be used. What they learn should not be outdated.

Student Leader: We should learn something that is practical and current. For example we learnt about writing telegrams yet they are outdated. You should learn trendy things (**SL-MBIT-S-HOM**).

The respondents further suggested that pedagogical practices should encourage teachers to conduct classroom research and provide forum for feedback from curriculum implementers, encourage reflective teaching for purposes of teachers self-quality assuring curriculum implementation, ensure evaluation of the curriculum is in line with the objectives of the intended curriculum to avoid mismatch and train teachers on practicing interactive learning. This calls for reforming the teacher-learning process in the teacher colleges too.

ME: Reports in the media allege that while reforming the curriculum and or education structure, reforming teacher-learning process in Kenya is urgent...Our education system lacks about 100,000 teachers to effectively and efficiently manage the learning process. This goes up if we factor in those who should be removed from the system because they do not teach (Okwach Abagi in DN, 2016).

A respondent proposed an elaborate approach to teaching and learning ethical and integrity issues in the learning institutions. They proposed using creative learning should be employed to encourage young people's awareness about the importance of integrity through activities like role-plays, debates, workshops and discussions. According to them adoption of the World Bank supported integrity club initiative in the learning institutions serves to trap the youth initiatives to fight against Corruption. The initiative has been adopted in some other African countries such as Zambia. It has also been adopted in the USA. In the implementation of the programme, facilitators provide governance and anti-corruption classroom lectures to pupils and students in high schools and colleges. The lectures deal with basic understanding of corruption, its causes, manifestations and consequences with emphasis on its relations to good or bad governance.

Practical lessons should include Ethics and Anti-Corruption Commission (EACC) mock hearings in schools. The Model's Ethics Course is designed and implemented by the through mock hearings which encourage students to analyze ethical dilemmas through examining real-life examples of ethical misconduct and acting out role plays.

The programme should include both national and school level essay contest, where students are encouraged to develop and express their attitudes towards corruption and lawfulness.

Respondent: The topic will aim at educating and encouraging the youth to be self-directed, focused and responsible citizens while still at school with the view that the same will be upheld in adulthood. Lessons under this topic will include their entitlements, responsibilities and elements of good citizenship including principles of democracy (**TIK-AC**).

Integration of Technology

The respondent stated that it is necessary to explore effective and innovative ways of teaching such as using computer which allows for individualized learning where people learn more at their own pace and in case of teacher shortage in a particular subject; one can actually use recorded information for teaching. Key informants indicated that the teachers should be equipped with the 21st century technology which is where the learners are and as such the teachers need to be ahead

KI :.. but the teachers in 21st century are teachers who will be able to appreciate technology because you can't move against technology, we are also to move with the development of the children, go and buy a new phone and give your kid you will make it for you, and us who went to school we want to take them back to teach them in different **(KI-CEMASTE-A-NAI)**.

The respondent advocated the use of IT as a tool in teaching. They particularly mentioned Technology assisted learning for example E-Learning.

KI: ...all teachers should be competent and able to use IT. It should be incorporated in teacher colleges so that they are versed in that area. Those who are not in teacher training should be in - serviced. **(KI-TCD-KWA)**

A respondent suggested that practical and technology based learning should 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 wa leo huwa najaribu kitu lakini ingekuwa wakati ule tunaifanya practical ingekuwa mzuri zaidi. Kwa vile ingesaidia yule mtoto kwa vile hiyo kitu ingekuwa kwa kichwa yangu.
(If those days we had done practical, it would have been good since it would have helped a learner as the skills would have been learnt very well.) **(BUT-INF-KAL)**

Parental Participation

A respondent proposed full involvement of parents in their children's education

Respondent: a curriculum that includes parental participation on regular basis in and out of school with specific stipulated roles for its success and relevance to the market... curriculum to avail longer sessions for reflection in learning and application of the learnt concepts, cease from more theory to more practice **(KCP-RI)**.

The Ministry of Education's clarion call has been for a skills oriented instruction as stipulated in Kenya Vision 2030. Vision 2030 defines the desirable skills to be acquired by learners thereby providing a rationale for the implementation of the relevant pedagogical approaches.

The skill gap is invariably attributed to an education system that is exam-oriented and promotes rote learning. The products of the system are considered half-baked and lacking vital life skills.

4.7 Teaching and Learning Resources

In this study, teaching and learning resources refers to any inputs that are used in the learning environment to effectively achieve the desired outcomes. These could be human, infrastructure, realia or financial resources. The survey sort to establish the availability and adequacy of resources which are important in implementing and actualizing a competency based curriculum. Information was sought by researchers observing the available resources in the educational institutions at secondary educational institutions. The respondents in the study identified the key resources, their sources and distribution. The findings are outlined in this section.

4.7.1 Teaching and Learning Resources

Table 4.5: Percentage rating of resources observed in secondary level learning institutions

Teaching and learning resource	Not Available (%)
Art room	92.1
Music room	90.8
Technical subject	86.5
Home science lab	84.8
Biology ,chemistry and physics laboratory	63
Library	76.2
Models	68.2
Photographs/ photos	44.6
Charts	62.1
Sports equipments	41.8
Agriculture farm	16.8
Syllabus	8.9
Text books	47.3
Classrooms	56.9

From analysis, the data obtained shows that Art Room (92%), Music Rooms (90.8), technical subjects' resources (86.5%), home science laboratory (84.8%) and science laboratory (63%) were observed and rated highly as unavailable in the sampled institutions. Classrooms were also rated as unavailable by 56.9% of the respondents. These findings agree with those of other respondents who were involved in the study. They pointed out the inadequacy of *Physical* facilities in learning institutions. They identified different physical facilities that are key in the implementation of the Competency Based

curriculum. The respondent indicated the need for well equipped laboratories. These include sciences, languages and computer lab. On this they said:

KI-if students are doing sciences they may require labs so that they are able to undertake practical in carrying out experiment...(KI-IED-NAI).

KI. like in physics to talk about force, or graphic how do you demonstrate to a child without having a laboratory (KI-UNESCO-NAI)

Students...Sometimes we struggle a lot because some facilities are not there like fish and other things... The chemicals that are in the laboratories are not enough. The government should add that. There must be additional practical facilities like test tubes, burettes, beakers, because they are not enough and other things.
(S-FGD-KAW-S-MAK).

Student...Our laboratories are those of the old ages... our apparatus are outdated (S-FGD-BUT-S-BUS)

Student... Some schools do not have laboratories except private schools (S-FGD-StCNAM-S-BUS)

Student: I think we require more laboratory equipment like apparatus because you can see it is very difficult even during the national exams people are divided into classes because students in public schools are many, a class can reach up to 300 students so I think it is better for us to have enough laboratory equipments (S-FGD-MARM-S-MARS)

Student: laboratory equipment should be advanced (S-FGD-MARM-S-MARS)

KI: ... Currently, you realize there are schools which do exams without laboratories,...if you want to develop the talents and capacities of every individual then we should have standard facilities in our school system .. If I am teaching a class of 40 the equipment should account for all the 40 pupils [KI – KUP-NAI]

As far as libraries are concerned, the learners said the libraries should be spacious and well equipped so that students can study on their own. Parents advocated for schools to have fully equipped libraries in order to encourage a culture of reading among learners.

Student Leader: I believe each and every school should have a library and not a small one, a more advanced one where I know information the teacher has given me to research I cannot find it in my books but if I go to the library I'm very sure I'll get that book. Also it provides a conducive environment because class is not always a conducive environment due to noise making... (SL-MUMS- MUR).

Parent: Ndiyo. Nafikiri kuna mambo na vitabu. Kuwa na vitabu shule... ..kuwe na...tunaiita maktaba ama? ...yes...kuwe na hizo maktaba nyingi...na pia kuwe na darasa za wakati wanafunzi kama wametoka darasani kuna wale wanapenda kwenda kwa maktaba kusoma, kuwe na viti vya kutosha, ...

Translation into English

(yes, there is the issue of books. there should be books in school..there should be..We call it a library or?.yes...there should be many libraries....and desks. Some students love to go to the library after school and read..So there should be enough chairs and books... (PA-FGD-OLOLUG-S-NARK).

KI.... having books should go hand in hand with stores and libraries. (KI-AIC-KIT)

Key informants expressed the need to establish sub-county libraries.

KI: ... We require library in sub county level where children can access the materials... (**KI-CDE-KIT**)

The respondent observed that emergence of new secondary schools has impeded quality education since most of them do not have physical facilities like classrooms and playing fields..

Other respondents suggested that schools need classrooms, toilets and other facilities before the country can think of computers

KI:.. Facilities for example, room, ...there is a child doesn't even has classroom, the environment is not conducive, there needs to be that classroom, it needs to have enough space then all other.....girls do not go to school when they have their menstrual periods because of the kind of toiletsso that environment may not just mean on classroom..... yes the classroom is important enough desk ...(**KI-KNHCR-NAI**)

It was observed that in some schools the classrooms are small and therefore they should be expanded.

Parent:...resources we will talk in terms of classes....the government should expand these classes so that we can have at least pupils which we can handle, at least 35... library which at teaching practice you go and ask for certain book and they tell you we don't have that book...we talk about laptops...are very necessary,...sports facilities;... science facilities (**PA-FGD-ATH-S-BAR**)

Student: even the size of the classrooms as you can see, even here we don't have a lot of class rooms so when changing of class some come here, some go to the ICT to learn and some come to this lab and you see this place is not very good (**S-FGD-MARM-S-MARS**)

The respondents also mentioned the need for demonstration workshops. Tools and equipment to be used in the facilities were said to be key yet missing in the learning institutions.

The high levels of unavailability of facilities like art room , music rooms , technical subjects , and Home science room, is evidence that these subjects are not given a lot of weight in the current curriculum. In the current policies, these subjects are optional and only few learners consider pursuing them. However, this is against the spirit of the competency based curriculum that emphasis on practical skills. This is a worrying factor because, for effective implementation of the curriculum, the facilities that allow experiential learning need to be availed. In essence, unavailability and inadequacy of essential resources imply a radical turnaround for implementation of any curriculum. Competency based curriculum is not spared either, with the quality of education in mind. As Ngware, Wamukuru and Odebero (2006) observes, quality and adequacy of resources such as physical facilities have a direct bearing on quality as they determine how

effectively the curriculum is implemented. To these researchers, quality education cannot be achieved and sustained if the resources and facilities are not available in sufficient quality and quantity. The suggestion by most respondents that such resources should be availed in schools is a clear indication of the weight that the respondents place on technical subjects.

The respondents said that tools and equipment should be availed for the implementation of the curriculum. These include:

Computers or computing devices

The students cited the importance of adequate computers and computing devices in schools. These will make it easy when it comes to doing practical. They isolated computer tables, media suites and filming studios with related quality equipment.

KI: ...You may need modern facility computers, for example if you are in media you need proper editing suites, you needstudios, you know you need cameras yousteel cameras, you need video cameras, and then you need ...Proper skills in terms of use of computers and designing desktop kind of skills you know so that people can be able to do desktop publishing and all that and ... more importantly also you need some better environment for learning with ample space well aerated, clean space, isolated from the pubs, the markets (**KI- MCK-NAI**).

Student...They should provide for computers because students who take computers are many, and when we are doing practicals the computers are not adequate (S-FGD-KAW-S-MAK).

Student...I think the government should buy for schools some computers schools which are 'huku mashinani' (in rural areas) not only concentrating in Nairobi so that child who has never had a chance of touching a computer should have that chance so that in future he does not hustle when he/she is employed in an office he doesn't have to go through another training of how to operate it. The government should avail computers to schools (**S-FGD-BUT-S-BUS**).

They also pointed out the need for laptops which in their view should substitute writing notes. They would also like to have conventional audio-visual teaching and learning materials to enhance their lessons.

INF: computers is a good idea,... they learn foreign things by using modems,-- connect to the internet (**JUA-INF-KWA**)

Student:...have smart boards and projectors because these are programmes that education is easier to classify and understand ...audio visual (**SFGD-MEKA-SP-KWA**)

Interviewee: we need to be well conversant with IT skills and we should use computers in more than one subject. Technology should be introduced even in high school where e should also use videos in the labs and even in geography for better remembrance (**SFGD-KANJU-S-NYE**)

Emphasizing on the ICT, a respondent expressed the need to provide learners computers and laptops which have multi-media capability, the ability to take pictures, the ability to take a video and the ability to record sound in order for them to create and share own content.

The respondent noted that the use of visual aids in learning enables learners to grasp more than merely listening.

KI:...The learner acquires 11% from listening and 70% from visuals. Where the learner is involved the learner uses all the six senses. Some of the materials needed can be bought or made locally...In ECDE teachers are trained to make materials. They use sacks to make materials and children enjoy learning using the materials. Where aviation is taken a skeleton of a plane will be required, where engineering is taken they require a skeleton of a vehicle which can be used for a very long time (**KI-MCDE-KAK**)

Other respondents were of the view that computers are not a first priority, other resources should be provided first. These respondents suggested the need to have enough books, chalk and teachers before the provision of computers.

KI:... have enough desks, teachersto take care of every child... even when these computers are provided, this is not the time, it is a very good idea but it is not the time. (**KI-KNHCR-NAI**)

Internet and E-Platforms

Learners expressed the need for schools to have connectivity in order for them to access internet learning resources.

Student: Internet connection, to the wifi like in school if you want to research... like Science club the teacher doesn't have data bundles (**S-FGD-KIS-S-NYAN**)..

Student: lately the president has been taking laptops to some schools in the rural areas and if you look those places that are being given those laptops, what are those laptops there for? So like sometimes in places there is power shortages everywhere such cases the government should look for ways to make incase a place doesn't have power from a certain source there is another source that can provide electricity from apart from that (**SFGD-MEKA-SP-KWA**).

Student: Internet, it should be provided in schools so that if someone has ideas they can expand them using that resource (**SFGD-KANJU-S-NYE**)

E-platforms or online platforms and text books were identified as key resources that should be provided to improve learning in schools. The respondent recommended provision of relevant materials that promote a child's talents and adequate Space to allow the mind to explore. Teaching learning materials should be appropriate, interesting and responsive to the local environment.

It was further indicated that the move to introduce ICT in schools is a very noble idea especially in this era of globalization. However it should not be done on a crisis mode but adequate preparations should be done.

KI: ...You see some schools without desks, some schools even without classrooms, And then you are talking about IT. We are going to increase the gap between those who have and those who haven't (**KI-KNEC-NAI**).

In addition to these, the students pointed out other resources like fields of football which could be facilitated by the government.

Students... some schools lacks football field so the government should intervene to help them buy field
(S-FGD-PBH-S-UG)

Games and Sports tools and equipment

One of the key informants pointed the need for facilities to support sports in schools

KI. the important thing like a sport centre and here we have children doing variety of sports that is important and the only limitation in our country is that we may not build it across the whole country we may only have a few schools with those equipments.,(KI-UNESCO-NAI)

Student Leader: we want like football here, the teachers don't improve on it. When we want to play foot ball, there are no balls which can play it (SL-StPH-S-KIT).

Farm tools and equipment

Parents also noted there should be tractors and greenhouses in schools, to allow for actual practice.

Parent: There should be actual practice in school for example promising tractors which they can see and use, even green house should be in school. (PA-FGD-NYANDA-S-NYA)

Teaching and learning materials like text books were observed as unavailable (47.3%). On the same issue, different respondents were in agreement that provision of teaching and learning materials is of paramount importance. They pointed out the need for various categories of books, chief among them enough textbooks. They said sharing of books has challenges. They indicated that currently textbooks are shared by as many as seven pupils (for one book). Learners also expressed the desire to be provided with topical books on a variety of subject areas of interest to broaden their knowledge.

Student: they should also provide more books that do not necessarily have to be educational books like books used in science technology (SFGD-KANJU-S-NYE).

Student: They lack those books ... you are going to see ... you will see seven students sharing one book and that is even is not recommendable (S-FGD-MARM-S-MARS).

Student... if the school doesn't have text books, the education cannot go well. And we ask the government to provide the needy schools to have a library and a librarian to handle books to be used ... So as to increase our knowledge through different authors, to sharpen our minds to be better people... (S-FGD-KAW-S-MAK).

Students... textbooks ratio to students should be considered and also by encouraging teachers maybe by early payments ...(S-FGD-PBH-S-UG)

The students went on to say that they would like to be provided with free set books as all learners cannot afford to buy their own.

Student... Set books should be given to schools...some students do have money to buy (S-FGD-StCNAM-S-BUS)

Key informants pointed the need to expose learners to both local curriculum materials as well as international materials that relate to areas of interest in our country like culture, patriotism and even legends. Such materials include course books and supplementary materials.

KI: ...learning resources will be guided by the content of the curriculum...have main course books which are helping the teacher to teach in class ...need to have supplementary materials that are beyond the national level...materials which give a global perspective, which goes beyond your own country it is good to expose the children to resource materials that are not within the country context.. Other materials that looks at culture and patriotism, even the material that engage on legends. Children are really exposed to variety of materials, **(KI-UNESCO-NAI)**

A respondent commented that the books in use should not be changed too often and they should not be too many. He added that having so many recommended books ends up confusing the learners.

Respondent: When I was in school, by the time we had a book by the name new This was an English book and it was so good that it helped us a lot. In fact it was very simple book and we started it while we were in class three and it boosted us up to class five and those who were behind us they used the same book because those days the syllabus was not changing that much like nowadays. Nowadays, the book which is read this year, by next it will change the parents are told to buy new text books. For example English text book you find that they are like three of them and the teacher wants you to buy them. And funny enough, these books have different information, the student are getting confused because they are being taught different things. By the time a student will be in class eight, they will be totally confused. ...To me I can say even if the syllabus has to change, they give people some duration. The person in form one by the time will be in form two at least will find the things which form threes read are still there. These days even students are not able to assist each other who are below them due to the changes of syllabus **(MECH-INF-UG)**.

Still on the set books and textbooks, the parents said a book should be used for a span of 10yrs. This will make siblings to use same books instead of tasking the parents to buy new books every year.

Parent...Textbook aspect should be addressed i.e. one textbook should be used by other children behind them in a family other than having different textbooks every year.**(PA-FGD-MAT-S-KAK)**

Commenting on the revision books, the students said there is need for teachers to find out the books that have been approved.

Students: Teachers should consult on the allowed revision books **(S-FGD-PBH-S-UG)**

KI:...we need to see how we can even review the booksthat are sometimes recommended for the students and the pupils to read right now as the industry even people are concerned that even the language is a problem so that means something should be done how is languages being taught in schools **(KE- CKUJ- NAI)**

4.7.2 Other resources

The respondents identified other resources that are key in the implementation of the competency based curriculum. These include:

Human Resource

It was indicated that teachers are very crucial in the implementation of the curriculum.

KI: ...I propose here that the most important resource is first of all of course the teacher and that's why we are still insisting that number one teachers should be motivated from the word go (**KI-TCDE-NYA**)

Student: I think the greatest resources are teachers (**S- FGD- OLOO- KAJ**)

The respondents said it is critical to provide well trained teachers and ensure that they receive continuous and regular in-service. The case of inexperience among teachers was highlighted.

Student: Some teacher teaches without skills. Some come to class and they have no experience. The government should have a way of assisting teacher before they teach (**SL-KABRS-BAR**)

Industrialist...tuwe na watu ambao wao wanaweza kuwafundisha...ambao wana ujuzi wa kufundisha... We need people who can teach, people who have knowledge in teaching (**CEO-IND-GAR**)

Industrialist...In-service. Hiyo in-service iangaliwe... Kila term kila mwaka hiyo training iwe inaendelea... In-service. We need to focus on it. The in-service training should go on throughout the term or the year (**CEO-IND-GAR**).

Key informants expressed the need to revive teachers' advisory centres to help equip teachers with skills.

KI: ... We require library in sub county level where children can access the materials, we also need to revise teaching advisory centre, where we had teaching learning aids were being developed, and teachers in zone can go there and get and share them as a zone... offices to support teachers in curriculum issues (**KI-CDE-KIT**)

According to the respondents, those choosing to be teachers should be vetted. The profession should be for willing people but not those who choose it as an afterthought or for lack of any other career

KI: We are not so much talking about money but we are saying we should try to identify the right person who should be a teacher from the word go with or without what we may call a package teachers who would actually take teaching as their career as their profession (**KI-TCDE-NYA**)

The students expressed the need for adequate teachers for all the subjects and specialist in certain cases. They pointed out that some subjects of interest to students are not offered in some schools due to lack of teachers.

Student: You see one may have a career in form three you find some do not do Geography because there are no teachers for that subjects. Teachers should be there for students who for example want to be surveyors (**S- FGD- OLOO- KAJ**)

Student: One is that even though it is not affecting this school, you find that so many schools are lacking teachers. You find that a school has eight classes and five teachers meaning there are classes which lack teachers. So we can say it could be better if every school could have more than enough teachers (**S-FGD-NJU-S-MUR**)

Student Leader: ...the government should supply adequate teachers to the schools which are needing teachers,....(SL-FGD-REH-S-UG)

Respondent: Let the government employ more teachers. With enough teachers, performance would improve (MAIZ-INF- NYAM)

Reports in the media allege that while reforming the curriculum and or education structure, reforming teacher-learning process in Kenya is urgent and should be core of any development reform in the education sector. Our education system lacks about 100,000 teachers to effectively and efficiently manage the learning process. This goes up if we factor in those who should be removed from the system because they do not teach (Okwach Abagi in DN, 2016).

For good performance in schools, the respondents suggested that teachers should not teach long in one school. They should be rotated in different categories of secondary schools, that is, from national to county schools.

Student...The teachers should be rotated, from national schools to provincial and provincial to district; this will improve schools and make them better (S-FGD-KAW-S-MAK)

The students highlighted the need for teachers to teach the subjects that they specialized in, in teacher training colleges. In addition, they pointed out that the teachers must have passed well at the college level.

Student...The government must employ specialist teachers, let us say if a teacher in university level studied English let them teach English in school to improve that, because you might have a teacher who studied geography in university and in class teaches English...Also the government should employ qualified teachers, mostly teachers who have first class, second class, but those who fail they should not be employed unless they go back to school (S-FGD-KAW-S-MAK).

The students raised the issue of having qualified teachers to handle specific talent areas as a means of helping the learners develop the particular talent. Additionally, they pointed out that teachers should take their work seriously. Some of the co curricular teachers don't take their work seriously. They said:

Student...I think only few schools take field works seriously. You find when you have a game master is not serious of what is happening, I think we should be serious and come up with someone who is for that purpose... When you come to the field, the teachers also participate in the field which is tiresome because they had a class work. It is better for government to employ people of the field which will assist the learner to have an exercise, education also being simple because a person is healthy, the government should increase teacher for field (S-FGD-KAW-S-MAK).

A respondent commented that in addition to teaching, teachers should have the capacity to discipline learners, even if it means caning. Teachers should also avoid absenteeism.

Respondent: The very important thing is the teachers. They should have capacity to teach, discipline learners, even if it means caning...what I know is that teachers are very important in teaching and discipline (SHOP-INF-NYE)

Ensuring ESQAC is effective becomes imperative. Respondents requested the government to ensure quality assurance officers visit schools in order to ensure that teachers implement curriculum as required.

Respondent: The relevant officers should be visiting schools (MAIZ-INF-NYAM)

Industrialist...Kwa sababu school inspector...Anakaa ndani ya darasa, anaangalia mwalimu vile anafundisha, anaangalia mtoto vile anasoma...anaangalia kitabu cha mwalimu amejitayarisha, mambo nyingi yalikuwa yanatengenezwa hapo. Lakini siku hizi hakuna.

Translation

Because school inspectors used to enter into classes, observe the teacher as he/she teaches, observe how the students are learning, and inspect teachers' books and his preparation, so much used to go on well. But today this is not done (CEO-IND-GAR)

A wide variety of education researchers and economists agree that teachers make the most important in-school difference for student achievement (Berry, Smylie, & Fuller, 2008, p. 4). The findings indicated that the teachers as human resource were inadequate and in some cases incompetent. Others were said not to be serious with their work. This compromises the quality of education. The implication of these findings is that the issue of teacher training and deployment needs to be of immense concern to educational administrators, policy makers and teacher-preparation institutions. Given the high suggestion on the talents as one of the pathways, it therefore means that teachers should not only be trained on their teaching subjects but also on how to identify and nurture the talents. Continuous and regular in-service courses are necessary for the teachers who are already in service.

Apart from teachers, the respondents identified other stakeholders that are also instrumental in the curriculum implementation. Learners suggested that resource persons could be brought into the schools to sensitize them on pertinent social issues that they are undergoing. Other human resource includes counselors and chaplains. Such people are made to be role models to the students.

Student: invite professional, journalist and politician to come to school to motivate us as our role models (SFGD-IFT-S-GAR)

Student: I think this resource people. They should be brought to school especially who have experienced the problems we face (S-FGD-KIS-S-NYAN)

Student: Experts and people who have gone through similar emerging issues should be support learners (S-FGD-MUS-S-KAK)

Parent: There something which is not there in primary, that is not too much emphasized and is guidance and counseling, I think there is a problem and they should send counselors to those schools I think there is a year that we proposed they should be sending counselors to primary schools and secondary. (PA-FGD-MOIG-S-UG)

Student: Providing ...Guidance and Counseling for those traumatized with home challenges for them to concentrate in class...domestic conflicts back at home, divorce, physical abuse (**SL-MAL-S-KIT**)

To meet the mentoring demands of modern school, it is recommended that the services of a qualified counselor and a chaplain be availed in each schools to help the children early enough as issues emerge. This should be provided at GoK expense. In addition, higher centers should be established to serve as referral centers for cases that cannot be handled at the school level. Schools are encouraged to allocate more time for spiritual and moral matters (**KCCB-RI**).

The respondents said there is need for qualified librarians and laboratory technicians.

Student...The government first should employ permanent technicians, because I have talked that when you go around the schools you will not find any government technician, they pick from village who do not know how to handle even a test tube (**S-FGD-KAW-S-MAK**).

A key informant suggested use of community as a resource

KI: ...I was thinking if we use the community as a resource for learning for instance we have a ... so many... Features in the community or we want to learn about the life skills practically so instead of telling them in learning giving theoretically to learners you can take them and let them seek for themselves in the community because the community is available (**KI- STU- KAU**)

Financing

It was apparent that the utilization of finances in the institutions was paramount to the availability of resources. The key informants reiterated the need for financial resources.

They said the government should allocate more money to education.

KI .. One of the main resources...you know resources both financial and human these are two resources we require most, because for you even to develop human capacity you need money to train the teacher, you need money to put up infrastructure, so we need both human and financial resources, and in that sense what we are saying the government should put more money to education in the counties because I have noted that the Serem commission has allocated more money, to the education sector whereby now the county government will not only be basically involved in the early childhood training but will also be involved to improve the infrastructure both secondary and primary (**KI-CDE-GAR**)

Respondents noted the resource problem is further associated with the mismanagement of the limited finances that institutions get. They indicated sound financial management practices needed to be applied where money was availed but people did not buy the resources.

The issue of funding is in line with the findings of Ikoya (2008) who aver that many school heads, who are managing schools with inadequate facilities, complain of poor funding. Others talk of untimely release of funds but most view it as a problem of poor management of available resources because of existing dysfunctional school resource management policies and structures. In schools, particularly those without clear policy on management of physical facilities, the outcome of such huge investments hardly yield any profitable

dividends to the schools. In such cases, most schools experience perennial shortage of school facilities, poor academic performance, high level of indiscipline and wastage. Lack of educational resources in some schools may not necessarily be due to inadequate fund, but to inefficient management of available funds. All these depend on proper planning and the creativity of the school administrators.

Infrastructure

The respondent proposed the need to equip all learning institutions with appropriate infrastructure for academic and non- academic activities such as sports in order to develop potentials of learners in various areas. These include among others, water, electricity as well as roads.

Respondent: Water near, road near, good environment will learn better. We need desks be there, clean class. Good environment. (MAS-INF-BUNG)

Student: ... so to me I think the government should install electricity in schools. I think that will support us (S-FGD-MARM-S-MARS)

Student: Yes, and also class rooms lack electricity we are here up to six then we go home, some people want to extend but because there is no electricity they can't extend (S-FGD-KAS-S-KIL)

The students pointed out that the challenge of power at home affected students especially the day scholars. For this reason they suggested support from the government through rural electrification

Student...This goes to day school student, at times some homes lacks lights so the government should encourage rural electrification (S-FGD-PBH-S-UG)

Student: In Samburu County we don't have many secondary schools especially in the interior. If they build schools in the interior they will be able to go to schools since currently they are practicing nomadic pastoralism. The children will be able to go to school and this will improve our county (S-FGD-MOG-S-SAM)

The need for a school bus was indicated by some parents. This could be bought through the help of the government and parents.

Parent: This is like in buying school buses. The project should start without the parents benefiting directly. These projects can also be assisted by the government. (PA-FGD-KIS-S-NYA)

Students agreed that a dining hall was a necessity but it was lacking in a number of schools.

Student: Another resource is about in this school, we don't have, we lack a dining hall..... just we take food and then we sit outside (S-FGD-MARM-S-MARS)

Student: In addition to that... is when we are eating outside, like we may contract diseases, and a good health is good for learning and there that also have to be improved (S-FGD-MARM-S-MARS)

A student noted that in their school, they did not have water and that the government should provide them with storage tanks.

Student: So we wanted our government to provide us with some tanks our school we don't have water (S-FGD-MARM-S-MARS).

Student: ... like to mention someday schools, some you find them they are being forced to carry water in jerricans to go to school for washing purposes. So, such a thing all schools just to mention, a resource of water should not be missing forcing the children to come with jerricans. (S-FGD-NJU-S-MUR)

Time as a Resource

Parents were of the opinion that time management should be inculcated in the learning by being exposed to the importance of a time table.

Parent: The importance of the time table should be inculcated to learners for them to be able to keep time. (PA-FGD-KIS-S-NYA)

4.7.3 Distribution of Resources

The respondents pointed out that resources should be fairly and equitably distributed for better development of the country. They emphasized the need to rectify the disparities in resource allocation and distribution

Student: Proper distribution of funds without really checking on which somebody come from. (S-FGD- INOS-LAIK)

Student:...I think on allocation of resources the government should be fair not only favoring some parts of Kenya but also some minority some small places which have been ignored. Like let's say north eastern. It should distribute resources equally for that student there to be able to compete with a student from Nairobi or any other part of the country that seems to be much developed than the others (S-FGD-BUT-S-BUS)

Parent:I think we have problems in equality, some schools have others don't have and at the end of the year they give some results so the one which don't have really go under (PA-FGD-MOIG-S-UG)

The respondent said that equitable resource allocation to schools will accord every learner the same learning opportunity and that the graduates are able to compete competitively on the same level in the job market.

KI:...social aspect, I'll talk of equity in politics first in Kenya for example we have schools that are marginalized, we have schools that are private and they are rich in facility and we still expect that these students will compete in the same opportunities and the same things that the society offers and so if we look at these developed schools they have enough resources and support and these schools that are in marginalized areas you find that they go for an exam when they've never seen a lab or any facility. For the education sector to grow we have to empower marginalized schools (KI-FGD-PWN)

While noting the disparity in provision of resources between schools in the rural and urban settings, parents in Samburu County requested the Government to provide schools with computers, electricity and enhance security.

Parent: they can help even if its facilities. The government can provide equally since in places like Nairobi, the schools are well equipped and you find learners are advantaged and yet they are doing the same exams with the rest. Here (*Samburu County*) they lack those computers and some schools lack electricity power, enough teachers and other schools lack security. The government should also consider the rural areas too. Learners from these areas are disadvantaged and when its exam time they sit for the same national exams (**PA-FGD-KIRIS-S-SAMB**)

They indicated that such laboratories lack in the marginalized areas and urged the government to consider providing such facilities in the affected areas.

KI: ... the government should consider the marginalized areas receiving we have great schools in Nairobi and other urban areas but when we go in the low marginalized areas we find that they don't have labs there are students who have gone from form one to form four they are learning about Bunsen burners in schools they have KCSE and they have never seen a Bunsen burner and chemicals so that that's what I think (**KI- STU-KAU**).

KI: ...It's more cumbersome in secondary school than in primary school where subjects like biology, physics are compulsory so already I know the government is chipping in but sometimes need to be done particularly for the new schools because otherwise our students are not getting equal attention when it comes to other subjects like sciences, even computers. It is theory sometimes when we talk of all secondary schools having electricity they don't have some don't have (**KI-CEB-MIG**).

4.7.4 Sources of Resources

It was strongly indicated by a respondent that government together with the community should provide textbooks to learners. Some students were of the opinion that it's only the government that can support the institutions to get resources.

Student: for me, I think it's only the government (**S-FGD-MARM-S-MARS**)

Student: It is only the government who can assist us (**S-FGD-MARM-S-MARS**)

Respondent: Books should be availed in schools by the government (**MAIZ-INF- NYAM**)

Some students however felt that though it was the duty of the government, parents and donors could also come in to support the schools in providing resources

Student: I think it is the duty of the government, but also our parents as this is a public school it belongs to our parents as well as the government; so shall not leave it to government only because it is all ours but not only for government (**S-FGD-MARM-S-MARS**)

Student: Even the donors, international donors...I think the county government even (**S-FGD-MARM-S-MARS**)

However, a respondent expressed concern that parents were overburdened since they had to purchase books for their children. Also, fees charged by some schools are too high for some parent to afford.

Respondent: There before the government, provided pupils with textbooks but now we parents are the one to buy the books for our children. Second, nowadays, curriculum needs government to intervene because you find some schools have high charges of school fees that you find the child

from very poor background cannot be able to pay and the parent can not be able to educate that child (MECH-INF-UG).

4.8 Assessment

Learning outcomes are measured through assessment. The study sought to find out the forms of assessment which in the respondents view are appropriate for assessing what the learners have been taught. In their response they also gave the importance of assessment, modes of assessment and types of exams.

4.8.1 Importance of assessment

The respondents' gave their views on appropriate modes for assessing what the learners have been taught. All the respondents pointed out that assessment of learners was important in order to know how much the learners understood what was taught. Assessments were also viewed as one of the ways of identifying different potentials of learners.

Respondents: ... the performance of children at different levels of competition is very important because along the same line you may realize this child can stand to represent Kenya in different levels ... (CAP-INF-LAM)

Respondent: There's nothing bad with the exams. However, for public schools, they do not compete favorably like their counterparts in private schools. The way I look at it, head teachers are to blame for non-effective monitoring of teachers' class attendance. Other officials should check on performance of schools generally (MAIZ-INF- NYAM)

A key informant however indicated that assessment should be meaningful and should be able to address the regional and cultural diversity.

KI : ... should do the same but not similar i.e. a child migrating in rural and is a mobile school and tell him about traffic jam and you have not provided resources so that when you speak of it he can see the video not imagining, how resources are distributed and utilized, a flexible curriculum to address diversity. Also flexibility of children from one class to the other i.e. not basing on performance and age. Accelerated learning should also be there. Assessment tool should be meaningful.. (CEB – SIAYA)

The respondents proposed that education should adopt an assessment method which will assess problem solving and critical thinking skills. The methods should help recognize the talented and gifted learners and variations in abilities.

The respondents suggested a variety of modes.

4.8.2 Modes of assessment

Secondary principals and teachers were sampled randomly from the entire country and were asked to respond to the effectiveness and validity of the various assessment forms used in our school system on learners' outcomes. The different forms of assessment were clustered into formative and summative and composite means for each of them calculated. The responses were constructed in the form of a likert scale with "level of extent" being the construct of measurement. Their responses are presented in this section.

4.8.2.1 Formative Assessment

The respondents gave their views on formative assessment. The responses of the principals and teachers are presented in Figure 4.17

Figure 4.17: Principals and Teachers' responses on Formative assessment

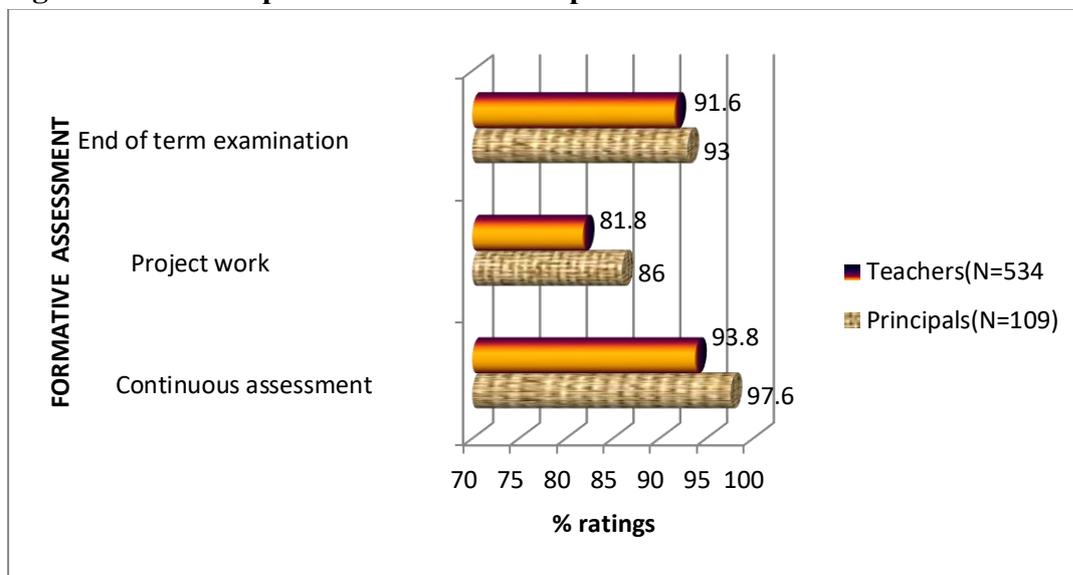


Figure 4.17 Findings show that respondents preferred most continuous assessment which was ranked at 97.6% of the principals and 93.8% of the teachers. Other respondents also pointed out the need for continuous assessment. They were of the opinion that CATs are an ideal way of finding out how well the learners have understood what was taught. They are of the opinion there should be more formative assessment as it motivates learners. Students suggested that there should be continuous assessment and these should contribute to the final grade. They were of the opinion that continuous assessment can be used from as early as form one through to form four for a longitudinal presentation of their individual performance.

Student: They should start assessing from Form one how a student is performing and use it for Form four because some steal exam. Like in primary school they should start from class 6 (S-FGD-KIS-S-NYAN)

Student Leader: Here in this school we have the exams CATS and like in form 4 we have the lunch quizzes evening quizzes ...but at some point you find that these exams are not regular like you find at times you have to do two CATS it would be better that after this period you assess this student after short periods (SL-MBIT-S-HOM)

Student: ... after the topics that we have learnt, after one week, I would like to do an exam. I want to test whether I have understood that topic....and every weekend; no... every Friday we want assignment. By Monday for example, like composition, and then by Monday we bring here then it is marked by our teachers (S-FGD-MARM-S-MARS).

Student: ... for example when we are waiting for the KCSE there are those who fear even if you are very bright you find that when the KCSE comes he fails. If it was possible, we could have for example after the first year in Form One, we have for example an exam which is conducted for example the same exam in the County it may be conducted by the same teachers because students you find that when they see new faces, the way the KCSE is conducted they fear that ... So it could be well if we have an examination at the end of Form One and Form Two and Form Three and Form Four then the report... (S-FGD-NJU-S-MUR)

Student:...I prefer we use the CATs since when we use the K.C.S.E we get so many cases that leakages are out of papers. The results for the students to get to the next level, we get KNEC to come and collect results for the assessment of the CATs they have been doing since form one so that they can get the real results (S-FGD-BUT-S-BUS)

Student:...I equally support the use of continuous assessment tests because as we are talking in different parts of Kenya like let's say North Eastern .The type of education that students from N.E use is different from education that a student from Nairobi use. Like for example a student from North Eastern will sits under a tree in the morning, he will not be sure of lunch and will not be sure a teacher. Maybe the head teacher and the deputy and one teacher are in that school so CATs will help in going to the next level in that it is easy to realize the ability of such students compared to KCSE whereby some parts of the syllabus that are set have never been covered by a student from North Eastern because of lack of resources like teachers (S-FGD-BUT-S-BUS)

Parent: We can have different assessments, we can have assessment for attitudes, achievement, generally may be after every one year we can assess (PA-FGD-MOIG-S-UG).

Respondent: Tests on continuous basis are good for gauging the performance of learners. Also, tests would be sourced from other counties and vice versa (MAIZ-INF- NYAM)

KI ...deliver examination from overall achieving so that we have CATs in every stage and remove overall exam...Assessment must be continuous within particular subject at different levels and the teacher ought to see whether they are moving on well or not. (KI-CEB-KAK)

A key informant is of the opinion that continuous assessment should encompass activities being done at home.

KI: The assessment can be oral, written, done home as homework (KI HET NAI)

KI:...Should be assessed from home when on holiday they need to give a report on what they did etc practically if it is sing in choir, in church testament to that effect (KI-MCDE-BUS)

The respondents indicated that CATS are a better option to summative evaluation as they take place in a relaxed and enabling atmosphere. They also help determine a child's previous performance.

KI: I advocate for CATs in a relaxed and enabling atmosphere not with a policeman with a gun. CATs records covering every topic should be part of the final assessment and not for teachers to use them to light their jikos. As parents look for vacancies in schools they are at pain to explain that the child was performing well but does not know what happened but has not records to show. **(KI-TCDE-KAK)**

KI: The best way for me to assess I think in my opinion would be to have continuous assessment and not base it on just one final exam has been the focus that exam is a do or die.” **(KI-KEPSHA-NA)**.

KI: I think it should be continuous assessment throughout so that we are able to make it to be able to even grow through those competencies because the summative is not enough rarely 8 years in class and then you need two hours for an exam then when you don't pass you don't get the marks you are said to have failed so the eight years are seen to waste and there might have been some conditions that could even have affected you so if you are able to access that child all the way from class one in English all through so you can be able to even identify the gaps along the way and be able to see how the gaps can be so I would suggest continuous assessment **(KI-MCDE-NYA)**.

A respondent was of the idea that such tests should be given on a regular basis so that learners can be given a chance to remember what they have learnt. Some suggested that CATS should be done after very topic and weekly.

Student: After each and every topic, I think it is good to have a continuous assessment tests because there are topics that are complicated like in chemistry, physics and biology **(SL--MARMD-S-MARS)**

Parent: Exams will help us know what they have learnt. I would like the CATS after every topic so that the teacher can know what the learner has learnt. You can't wait until the end of term to examine the learner and you find the learner hasn't understood anything **(PA-FGD-KIRIS-S-SAMB)**.

KI: Professor Odhiambo three years ago and he suggested that we come with a structured way whereby we can continuously assess the learners and put this marks as we move on instead of doing one of the exams so that the continuous assessment tests that are, might be done maybe after even year or two years are the one that you put accumulative mark the final analysis just like the universities do and also putting into account the special talent and ability the learners have **(KI-TCDE- NYA)**.

Respondent...they are supposed to assess them continuously...every step of the week they are supposed to know what was taught so that you rectify earlier than later **(WEL-INF-NAR)**.

Respondent: On weekly basis so that they can remember what they have learnt that week **(CARW-INF-UG)**.

KI: Now this is what we have taught for these 6 weeks and then we are going to assess, and from there after you have assessed and you have seen that John has got 30% in math's and then what are you going to do as a teacher? And that now we have analysis, we sit down as teachers we do analysis and we know multiplication and division was not well understood, so when we come back the next leg of the term before we even start teaching now look at what the children were not comfortable with and then we revise before we continue. So now that one is for school and these

assessments are different. The assessment can be oral, written, done home as homework (**KI- HET-NAD**)

Respondent: On weekly basis so that they can remember what they have learnt that week (**CARW-INF-UG**).

Respondent...they are supposed to assess them continuously...every step of the week they are supposed to know what was taught so that you rectify earlier than later (**WEL-INF-NAR**).

Another respondent noted that the teacher should be actively involved in checking students work during teaching and giving enough examples to ensure that no child is left behind. Also, too much dictation and work should not be given as the learner will not be able to revise if it is too much.

Respondent: ... take time while teaching and make sure every student is keen to what you are teaching. For example, if it is mathematics, first give the students more examples and then you assign them to do one...then you have to go round checking whether the student is doing the right thing or not. If you find the student is wrong you are supposed to correct him/her and show how it should be done. Another thing is in secondary school, you find that the teachers are giving the students a lot of dictation such that by the end of the lesson the students are getting tired even they will not be able to go through them all. When the exams come, the students are totally blank because they didn't go through all the notes (**MECH-INF-UG**).

A section of respondents suggested that continuous assessment marks should constitute 30% of the total marks and summative exam form the remaining 70% in KCPE.

KI: we assess them continuously so that at least final battle of it is only 50%, because you find sometimes you can train students and you are very sure this one are doing quite well but when all of them are failing so you wonder what happened and were best students. As a teacher you are really demoralized because the set of examination is beyond the students. So I suggest that assessment is based on lectures or teachers and let the final assessment be done nationally so that we have national uniformity (**KI- DDE- MUR**).

KI:but if you ask the school today they have all the information may be you should have a way of may be giving that feed back that we are asking. So that KNEC may have 70% the exam, 30% what the school says about how the child has been performing. by the exam itself you have that inclusion. (**KI-SCDE-SAM**)

KI: It's continuous and should not be just about exams being 100%. if you have to do one National Exam you should take 50%. Continuous assessment tests can take may be 30%. Talents can take 10% then other issues smartness, keeping time, discipline students need to add marks or you can lose marks; patriotism should take at least 10% (**KI-CPC-NAD**).

The respondents also noted that there should be standard continuous assessment measures which will focus even on soft skills/life skills/social skills. Also, there is need to develop instruments such as aptitude tests, psychometric tests which can be administered through inter-teacher and inter-school exchange programmes.

KI: we can develop tools like aptitude tests like if I can look at the social interaction of the student (**KI-CEE- KWA**).

Port folio assessment tool can be used to assess learners' abilities from the time they join school up to the time they leave.

KI-You can assess different talents, you can assess how students are participating in the community you can assess leadership skills of students you can assess even the way students respect each other. We can have a tool of assessment. We can refer to anything and we can refer to that assessment test. Then we can say because of course these places will always be small so that if we say assessment test let them take maybe 50% of the total marks. If a student scores less than 40 marks in the assessment test even if you are sick and do not do very well in the final exam which is out of 50 even if you get 20, 30 you have not gone to waste ok. So maybe in US there is something they call portfolio, the port folio carries your things from the moment you enter that school to the moment you are leaving ok(**KI-REG-LAU**)

A respondent proposed development of an assessment tool for different areas. A respondent indicated that assessment in competencies based curriculum requires development of tool to measure the acquisition of the desired competencies and that this should be done continuously but not at the end of the programme.

Respondent: With the shift from purely academic to other domains of education, there will be a change in the role assigned to national examinations. It will now be necessary to design a tool that can be used to measure and assess or evaluate the degree of learning that takes place in such areas as attitudes, values, and character. Do away with the national examinations especially at the lower primary level and replace them with well-coordinated and managed continuous assessments. Research on and design evaluation methods that can be used to measure learning in the fields of affective domain of education (attitudes, emotions, morals and values) (**KCCB-RJ**).

KI: I think we must develop a reasonable assessment tool that sometime should even be continuous because sometime you may not be able to evaluate skills that have been learned over long period of time in one instant, the competencies should be constantly evaluated and practiced given room to be summatively evaluated as well (**KI-SGKN NAI**)

Parents and students noted that to enhance integrity in examinations, independent officers other than teachers teaching in those schools to conduct continuous assessment tests conducted internally in the school. These assessments could replace national examinations which were marred by cheating.

Parent: I am suggesting if we can go for continuous assessment test, officer should be send in each school and assess in class one class four and then class eight, the government should also come in and assess again if they are still ok, an then on issues that some students may favor their own students, teachers can be send from other counties. (**PA-FGD-MOIG-S-UG**)

Student:... like the national exams, you see now during those times there is a lot of stealing and even those people who are not able to pass well, they can as well pass. I think in order to do away with cheating in exams, we... I request to have internal exams and then that exam is recorded for you (**S-FGD-MARM-S-MARS**)

They added that continuous assessment can enhance integrity of examination process. Key informants suggested that assessment should be competency based and meaningful. This will help reduce cheating in examinations. The assessment format should be oral, practical work, projects and theory which should determine with reasonable degree of accuracy the capability of the learner. The items should bring out more of critical thinking. External examiners should do the final assessment to avoid teachers misusing the opportunity to

settle differences negatively. The respondents proposed regular checks of the level of attainment of competencies in Class 4, 6, and at Form 2

KI :It's continuous and should not be just about exams being 100%. if you have to do one National Exam you should take 50%. Continuous assessment tests can take may be 30%. Talents can take 10% then other issues smartness, keeping time, discipline students need to add marks or you can lose marks; patriotism should take at least 10% (**KI CPC NAI**).

The respondents suggested practical exams because the current system of cramming makes them forget things as soon as they are through with the exam

KI: ... we can use simple mechanisms like using some old vehicle, where the learner is asked to assemble it after it has been disassembled. And rather than theoretical assessment....And as a matter of fact, we do pass exams not because we know but because we have cramming ability, for five minutes, put the concept in my mind then 10 minutes after examinations I am very blank. (**KI-TCD-KWA**)

KI: ...as a matter of fact, we do pass exams not because we know but because we have cramming ability, for five minutes, put the concept in my mind then 10 minutes after, forget..” (**FGD-UNIV STUD- PWANI**)

End of term examinations and project work also scored high in this study. Commenting on the project work, a respondent said:

Respondent 2: Assessment should be based on not only written but practicals and whether the child can display these. To develop creativity, there should be assessment on projects for example how to recycle things; drawings, collage etc. Award honesty so as to discourage cheating and shortcuts Special awards/ scholarships or marks for those who excel in sports or arts. (**TKS-IS**).

Parents said that exams should be continuous so that students can get used to them.

Parent : Let the exams be done all the time and students should get used to exams since they are continuous. (**PA-FGD-KIS-S-NYA**)

Although formative evaluation was highly recommended, some of the parents lamented the frequency of the exams noting that this tended to eat away into the teaching time. They suggested that they should be fewer and a longer interval.

Parent: I think exam business is more tailored than doing anything else. Its exam, exam, exam.... especially in primary schools, there is a lot of exams. Now, is like pupils are wasting a lot of time doing exams, and marking. Your term is of 14 weeks, and you do four exams. And if each exam will take about one and half weeks, it means, six weeks will be spend on exams. That is why we turn to these remedial to recover the time wasted(**PA-FGD-MUTG-S-KIT**)

Parent: if it were possible, the exams could be limited, they should be controlled...at least two per term.: or even one a year (**PA-FGD-MUTG-S-KIT**).

Parent: I think we can stagger the exams. Maybe 844 has been there for 30 years, and if it won't undergo reforms overall, reforms maybe we can have class 1-4 take a common exam, then that grade is carried to upper primary, then at the last stage let's say class 8 they do another exam, then the grade is aggregated we get the grade. Then come to form 1, and form 2, you have an exam, then that grade is carried over to form four, then(**PA-FGD-MUTG-S-KIT**).

Learners further observed that written exams are not necessarily the best way of assessing learners since it does not take care of other aspects that the learner may be good in.

Student: the way of testing students through exams is not the best way because people are good in different forums (SFGD-KANJU-S-NYE)

Student: if someone wants to be an engineer and has the ability to make something they should be allowed and then it can be marked and maybe more marks can be gotten in the area that they are good in(SFGD-KANJU-S-NYE)

The student leaders advocated for individualized assessment citing that such a method will enable the teacher identify the weaknesses of the learner unlike if assessed as a group.

Student Leader:...personal assessment. If the teacher assess me personally he will be able to explain to me where I goes wrong rather than in group assessment where am not able to tell you where I goes wrong because of the group mentality (SL-MOIG-S-UG).

The respondents advocated for assessment based on learners abilities. They said it will help a lot if the child's interest is considered and nurtured from early years. The respondent also indicated that assessment can be on one on one based on the learners' abilities not necessarily academic

KI: In this county (Kilifi) we had cases of schools being burnt, we lost a lot of resources and in many cases it is because of fear of doing exams. I think Teachers, parent and community at large we have a responsibility to talk to the children.... Not all children can do the same exam and expect all of them to pass. if we identify their interests and abilities from the beginning, ... we cannot give them the same exam. The exam should not be the only tool of assessing a learner and taking him to another level. There are some areas if we assessed we'd realize the child has other good attributes not necessarily in academics (KI-CEE - KIL)

Some learners, however, are of the opinion assessment should not be in the form of written examination. Students excel on paper but they do not have the necessary skills.

Student: I think we don't need to assess the person using a CAT because there are cases of people cheating in exams You get to see on paper but on your hand or on a play you don't have the skills set you simply have the knowledge to pass that exam. I think the staff the of having everyone can show what they can do best then it can work better, to ensure that people who go into various sectors are capable of doing the job not people who have excelled in papers not only knowing on what to excel on paper, should ensure that the real skill. For example if you are a doctor who is well qualified and have the best results on paper but they don't have the skills at hand then we will have a problem. (S – FGD – StMARS - NAR)

Although some learners were in favour of CATS, others felt that it was not a fair way of assessment. They said this type of assessment is influenced by the teachers who set the questions.

Student: ...Use KCSE because someone is serious, but cats you joke. KCSE is standard because CATS they set one topic. CATS' teachers will be setting simple questions so that all students pass but KCSE we don't know the questions. KCSE generalized the students in the whole country but

here you can get an A but if you compare with others are better than you, so we compete with them
(S-FGD-StCNAM-S-BUS)

KI ...people will just award people marks most of these teachers teach in their local schools. And nobody will like to see a brother appearing to have failed... (KI-NACECE-BUN)

Other forms of assessment suggested by teachers included talent assessment, moral and values assessment, observation and practical assessment.

These key findings show that formative assessment, in the form of continuous assessment tests, take precedence over summative evaluation mainly due to issues of credibility, competition and a general feeling that summative evaluation disadvantages and disenfranchises learners; summative evaluation and the consequent ranking of schools engenders competition and individualism; commercialization of assessment; need for new modes of assessment.

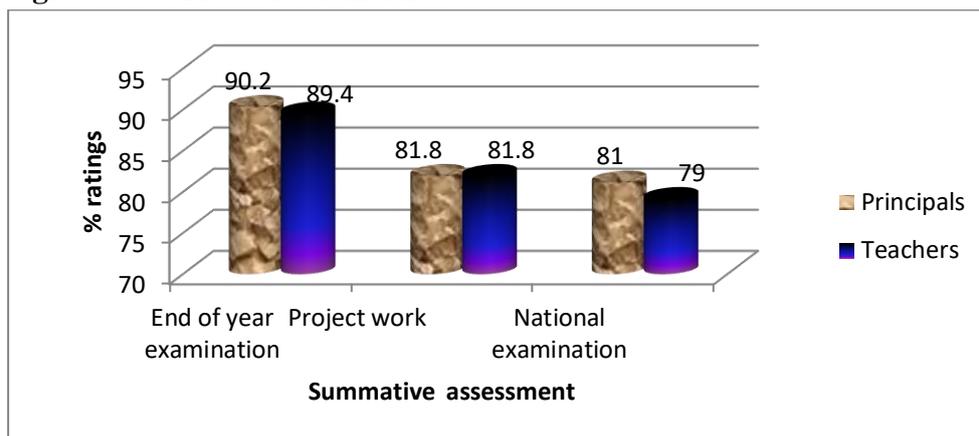
Kouwenhoven (2003) contends that the most significant impact on school curriculum since the 1960s has been the demand for assessed results. Kenyans echo this line of thought in the study as they sanctioned assessment. The respondents in particular argued that continuous assessment motivates learners, facilitates progressive assessment as opposed to a one-of assessment whose results may be affected by circumstantial interferences. Another plus in favour of continuous assessment is its flexibility, it can be administered regularly. According to Kellagan and Greaney (2001) regular, reliable and timely assessment is key to improving learning achievement.

Another argument brought forth by the respondents was that formative assessment is better adapted to assessing skills and abilities. They are considered a good tool for identification and nurturing of talents. They are deemed appropriate for a more holistic assessment of learners' achievements. The study highlighted the existing gap in assessment, that is, the apparent lack of appropriate tools to assess skills.

4.8.2.2 Summative assessment

The principals and teachers at secondary level ratings on summative assessment as indicated in

Figure 4.18: Summative assessment



As shown in Figure 4.18, end of year examination was rated high by the principals (90.2%) and teachers (89.4%). The national examination was rated at 81% and 79% by the principals and teachers respectively.

There were mixed reactions among other respondents as far as summative evaluation is concerned. Some respondents were for the opinion that national exams continue being administered. The national exam was advocated in this case because of its promotion of equality among learners. Students were of the opinion that we should still continue having KCPE and KCPE as they help in placement of students and one is better prepared for the final examination. They said summative examinations like KCSE is necessary in that it plays an eliminative role to determine those who would transit to university

Student: I think it (KCSE) is necessary, you will be able to identify the ones who are capable of going to the universities (SFGD-MEKA-SP-KWA)

Student: we keep it because that's where we have completion, so we can know who were working, and show importance of education (SFGD-IFT-S-GAR).

Students: We support national examination because it promotes equality (S-FGD- PBH-S-UG)

Student... for me I support K.C.S.E because they seem to be more intensified because you can find there is math's paper 1&2, English paper 1,2 and 3 and just one paper testing what you have learned from form 1 up to form four. I thing collecting all these CATS from form 1 up to form 4 can be tiresome so I prefer just using that single examination paper to go to the next level (S-FGD-BUT-S-BUS)

Student: It is through the certificate that determines the future to the university you are going to join to employment. (SL-MAL-S-KIT)

Students: For me KCPE and KCSE is the best because students they happen to fail in Form One, Form Two and once they get to Form Three they realize they have to adapt to the system and they start performing. But suppose the results were taken from Form One and Form Two, you see it will affect. And also considering that we are doing a common exam it will be easy to standardize rather than this County is doing a different exam from the other County (S-FGD-NJU-MUR).

However, they suggested that strict measures be put in place to avoid exam leakages.

Respondent... The exams in schools are good because they enable students to study hard. Maybe for the main exams that is, KCSE where some schools happens to perform poorly and you're at times surprised. Maybe we improvise the Tanzanian mode of exams where you just use the index numbers only (CAP-INF-LAM).

KI: We can't avoid exams but how those exams are taken and how the results are handled I think is important and probably if the exams would be made in such a way that the problem is when the society is not honest if we say that lets ..Counties sets,...here could be credible so that at one county we can have the national exams. There could be regulations to lower the examination that are also administered by the teachers ...and who knows what they want to test, who knows what they want to evaluate except the excitement that they have reached. (KIT - BIS- HOM).

He regretted that a wrong precedence had been set in the country where people are placing a lot of significance on passing national examinations some even using un procedural and dubious methods.

KI:And I think that issue of exam is also moulding our school children the wrong way because if the parents emphasize on a grade and the child maybe is not talented for those kind of grades, they might be talented in other things. I think an education system should be there that can also be able to help those other talents that children might have so that they don't feel rejected because they don't perform in school. (KIT - BIS- HOM).

In order to curb a number of challenges facing exams in this country, a respondent has proposed three parts in the entire examination

KI: ...broken into three parts. That one of school, National practical; for all National level and then the theory way... (KI-NACECE-BUN)

They further suggested that KNEC should come up with mechanisms of assessing this.

Parent: KNEC should be given a proper mandate to conduct various forms of assessments, not just academic but they can do other different forms under that cycle and they make it official that this time we do particular assessment (PA-FGD-MOIG-S-UG)

Respondents suggested other formats of administering KCSE. The students suggested other national exams to be administered in the course of secondary level. This will give several options for consideration for those going to higher levels. In this respect, the past records of students should guide the final grade.

Students:...I think more exams should be introduced maybe form one and two you do a national examination so that it may not be only one examination that they consider in you joining the university. ... (S-FGD-PBH-S-UG)

Student...in terms of education, we should at least at Kenya do national exams maybe every year in the whole country but not only waiting for K.C.S.E and K.C.P.E (S-FGD-BUT-S-BUS).

Student...They should consider what you were getting from all other exams, then what you have gotten in the KCSE they should look if it is in the same range, you can find in these exams for example you go D's, and in the final exam you get a B+, what is that? That's what I am talking about, (S-FGD-KAW-S-MAK)

Student...In my view the exam should be done nationally so that we avoid panicking, when we will be doing KCSE or KCPE. .. By the end of form four students fails not because they are stupid, this is because of panicking cause of not doing thorough practice, that is why am requesting the

government to be providing for us national exams during end terms, so that will help us better and better. (S-FGD-KAW-S-MAK)

Student: examinations have always been a part of us but I think it has been done in a poor way by testing at the end of four years, so maybe they should be doing it at the end of every year until the four years are over and maybe irregularities can be controlled (SFGD-KANJU-S-NYE)

Student Leader:... the examination should be moderate,... for example after KCSE , the students should be given interviews, for example if they are going to colleges they should be given interviews,...by observing characters, by just going to the field,...after form 4 the schools should write a report about the students in the school,...continuous assessment tests and mocks are just a way of preparing bus towards that final examination,...final exam should be the best way.....(SL-FGD-REH-S-UG)

The suggestion is that we should do away with final exams as we know them. One examination or two cannot determine a person's capabilities. The curricula should not be examination oriented. Assessment should be done throughout the year or years. These should include tests, assignments, practical tasks and oral tests. At the end of term/year, the means for these marks from all subjects taken are recorded and kept. This should be done at primary and secondary school levels .At the end of the 7, 4 for 2.The marks are tabulated to make the score or grade for the student. Another suggestion is that the tests, assignments, practical tasks and others can take 70% of the marks and a not so formal exam takes 30% of the marks.

We can also introduce open book examinations at higher levels (JWM-IS)

Further, the respondents suggested that continuous assessment could be used as part of the final score in the secondary school level.

Respondent: Let KCSE contribute only 50% of the final secondary school grade. The rest should be accumulated over the four years of the course through research, writing and presentation of papers, projects, CATs, general conduct, special talents and oral exams. This will reduce the tendency to cheat in national examinations. (ASM-1S)

Other respondents called for abolishing ranking in the learning process.

Respondent: Stop child to child competition and ranking. We don't want to teach rivalry and individualism in Kenya, we want cooperation and friendship (ASM-1S).

Respondent: Stop KCPE and let the teachers give a comprehensive primary school leaving certificate that will help the child and her parent to decide on future career and subjects to pursue in secondary school. Children will then join secondary schools that are near them or those that will offer their choice of subjects (ASM-1S).

One of the respondent proposed that CRE should be tested on its own, unlike the current status in which it is tested together with Social Studies. Religious education is a guardian of values and morality and should be given priority in both primary and secondary school curriculum.

Respondent also proposed introduction of talent based examinations, that national examinations should be based on the talent identified in a particular student in primary,

secondary and tertiary institutions. Parents suggested both summative and formative examinations for the secondary level.

Parent: in secondary I can suggest both summative and formative, formative for the better of students, summative to get to know what they have achieved because secondary school level remember we are talking about placement. **(PA-FGD-MOIG-S-UG)**

Parents suggested that there should be more than one examination then these can be harmonized at the end of the course.

Parent: There some children who are more clever than others. It there can be another assessment apart from this exam. We can be having other so that at the end we can harmonize. **(PA-FGD-NYAKI-S-NYA)**

Though national exams were preferred by some respondents, others had contrary opinion. They felt that national exam may not measure all what the learners has learnt. For this reason, a respondent was of the opinion that examinations should be given by the school because teachers are the best assessors.

Respondent: Exams given by the school are the best because teachers are the best assessors. The national ones may not tell exact how the learner is... **(SHOP-INF-NYE)**

Respondents further observed that the exam oriented attitude of Kenyans have disadvantaged learners who do not make good marks in summative examinations in that they are not equipped with requisite skills for survival.

Respondent: Lakini saa hizi, ile masomo tuko nayo ni ya kufanya mtihani, examination-oriented. Mtoto asome tu, aende kupita mtihani, na asipo pita mtihani, hakuna jambo ingine iko kwa kichwa chake

INF: Currently, we are focusing on examinations .Children only focus on passing their examinations and in the in an event that they don't make it, they have nothing else in their heads. **(HOT-INF-NAR)**

The key informants expressed concern that learners are subjected to examinations which when they do not perform they are rendered useless by the system. Such learners should therefore be exposed to talents.

KI:...The challenge with the examination is that it disenfranchises so many people take for example in every one year, you hear for example, eight hundred thousand kids have done KCPE two hundred and fifty thousand go to secondary school, nobody ever takes stock of what really happens to the five hundred and fifty thousand who don't go beyond a primary school. **(KI-CA-NAI)**

As observed by the respondents, exams should not be used to intimidate learners. Certain schools should not be viewed as for the failures because of their performance.

Respondents ... and the exams as he has said nowadays is not the same as our days. You may here once the child fails he/she is told to join the private school an act that demoralizes a lot in that this private schools deters education progress a lot due to the performance pressure **(CAP-INF-LAM).**

Commenting on the assessment, learners said that all energies should not be on passing of exams but practicing what has been taught.

Students: ...Students should avoid reading just to pass the exam. They should focus on acquiring the professional knowledge of the area of their specialization (**S-FGD-PBH-S-UG**)

Student:...Education should be not only for personal exams but should produce individuals who can fit in tomorrow's society (**S-FGD-BUT-S-BUS**).

Also, primary and secondary exam leakages have been rampant, because of the demand and pressure to pass national examinations.

KI:.. We have that...(Wrong)...mindset that once I get a grade A I'll be absorbed into the job market and improve my skills greatly..”(FGD-UNIV STUD- PWANI)

The parents said that buying of examinations should be abolished because they don't test what the teacher has taught but the whole syllabus which is wrong. The parents were also on the opinion that KNEC should come up with another methods of assessing the student that will make him/her move from one level to the other

The issue of commercialization of assessment was criticized by the respondent especially due to the recent development where teachers are not preparing their own tests. The role of the principal as the first supervisor was highlighted and the need to build their capacity in assessment emphasized.

KI: These days they want to commercial exams in schools which I think is not the right thing...we used to be in schools and we were being tested by our own classroom teachers weekly or randomly and it worked quite well and at the end of the year when the final exam came, it didn't show a lot of deviation at all at all (**KI-CEB-MIG**)

Some of the students felt that other exams should be considered when determining the final grade of the students

Student:...You should first before KCSE, first we can just say we start with a sub-county exams, then the county exam which should be done with other strict measures then the KCSE which is done by all the students in Kenya then you take the average. (**S-FGD-KAW-S-MAK**)

Parents also expressed the need to have holistic assessment of the learner in terms of talents, attendance, and behaviour.

Parent: In my view assessment should not be begged on one final examination, more so, talents, attendance, behaviour can also be examined and this will encourage learners to work hard in all aspects (**PA-FGD-KITUN-S-BUN**)

Some learners felt that the summative exam is not fair. In their opinion it does not reflect a students' final output due to environmental factors.

Student Leader: Personally I would say that the KCSE exams is not the best .Imagine of this scenario I become sick when KCSE is around and then I do the exam when sick and fail. That means I am now a fool. Another scenario is where people say you do KCSE once unless you repeat. So people are scared and fail out of that .That does not mean you are now a fool. And you now look at the setting. The syllabus from form 1 to 4 cannot be tested in one paper and you say now the student

is qualified. Sometimes you find that a whole topic was not set so how do you know the student knows this (SL-MBIT-S-HOM).

The entry behavior of learners should be assessed for proper placement of learners. Projects should form part of the final examination. In secondary, they said learners can sit for external mock exams. Mock is important to put learners on their toes.

KI: ...the entry behavior of learners even at pre-school level. We must have some assessment to find out whether the child can communicate, voice has developed and can remember where they have come from. Entry behavior helps in providing assistance where it is needed especially for slow learners... (KI-MCDE-KAK)

KI:...Part of their examination should be to come up with projects... second term there should be a project which children have come up with before they sit for their final exam to show they have understood(KI-MCDE-BUS)

Respondents posited that though exams may be the one way to find out how well learners have learnt in school, the issue of integrity makes them not always viable.

Respondent: The first thing is maybe to test them like an exam although that's not a very good way to know because an exam can be leaked but i think it's the best way to do exams, that's the only way to prove (MECH-INF-MUR)

On integrity in exams, the students pointed out that the exam body needs to be more vigilant in order to ensure that there is no production of unqualified professionals due to exam leakages. The learners pointed to the unfairness and lack of integrity of the current exams citing cases of leakages.

Student Leader: Like last year I am told the exam was everywhere and if an exam is like that is that an exam? With such an assessment everything is tested and results given. With the leakages student just cram what is in exam and you mark and say this is a good student (SL-MBIT-S-HOM).

Students ...evade leaking of exams which leads to quacks professionals. The department dealing with the exams must be very serious (S-FGD-PBH-S-UG)

Student: ... this issue of leakages in exams. Some of them who are becoming doctors are not qualified because they stole exams. (S – FGD – ATHS - BAR)

Student...I think here exams should not be considered much, because you find a person does not excel in other exams in school but when we do national exam they perform well, the sequence should be taken, the mock, so that you can get the rate of the students to avoid this cheating. (S-FGD-KAW-S-MAK)

Some respondents had the opinion that national examination for primary examination be discontinued to provide open opportunity for all to proceed for secondary education.

Respondent: My suggestion would be that the Class 8 examination be discontinued so that students proceed, as far as possible, to local day secondary schools which are large enough to accommodate those of varying abilities and interests. (SMO-IS).

The respondent proposed that a framework be developed to assess both cognitive and non cognitive abilities.

Respondent: There needs to be flexibility in regards to SNE learners. The KICD/MoE ought to provide assistive equipment and technology and adopt best practices in regards to how SNE learners

are assessed. ...Assessment should be done to promote learning rather than to quantify learning. ...We propose an assessment framework that embraces Continuous assessment tests, project based assessments, community service, oral/written assignments, non-cognitive attributes, attitudes and behaviours (KP-EO).

A respondent suggested that the overall grading and exam should include other areas such as moral, industrial and co-curriculum activities. Learners went on to suggest an alternative assessment mode whereby a first year student would do an exam in first term and results submitted to the University of their Choice. Subsequent examination results up to the fourth form would be sent to the university. According to the students this would prove a students' output.

Student Leader: According to me I would like they introduce assessment exams where you do exams in term one and submit to the university you want to join so that this university assesses your performance up to form 4. After form 4 they would see that this student is actually a performer. (SL-MBIT-S-HOM)

4.8.2.3 Other suggested modes of assessment

The principals and teachers suggested that; aptitude test, Assessment of research, Co-curricular assessment, Observation and Oral assessment should be developed as effective modes of assessment.

Types of Examinations

Parents suggested that learners can be subjected to oral examinations. This would help the teacher to find out whether they had learnt what was expected.

Parent: I was also thinking that the current examination system should be strengthened; some exams should be done orally. .. if it's like language the only sure way of assessing ability of use of that language is oral. (PA-FGD-MOIG-S-UG)

Student: another way is just to tell the teacher orally (SFGD-MEKA-SP-KWA)

Parents were of the opinion that multiple choice type of questions should be done away with.

Parent: ... those multiple choices, picking A, B, C, D, it is good that we do away with it. When the child is tested, let him/her write an answer, not indicating A, B, C, D. Multiple choices should be removed. This one will make the child to learn and master the content because A, B, C, D he/she will guess any answer and write it, but if it is a word, he/she must learn, struggle and get the correct answer and this one will make him or her to think critically and this will help him/her when joining secondary ... it will be easy for him/her to learn and study. (S-FGD-NYAM-S-NYAM).

Parents noted that there should be assessment in practicals such as knitting, moulding etc.

Parent: Like there before the work of the hand like knitting, moulding pots and the like it will help him/her. (PA-FGD-NYAKI-S-NYA)

Key informants indicated that the country should do away with national exams

KI.the government it is high time that it can do away with the national exam and then they find a way of testing and analyzing students how they are performing because it is the national exams which brings a lot of theft and corruption issues (**KI-FGD-RONU**)

KI...The first thing that should be done away with is the national exams.... it is really unfair because it is more based on cramming other than the knowledge you have. So you find that a person is good in cramming and the other one just has content but unfortunately what he has, has not been set. (**KI-FGD-RONU**)

4.9 Contemporary and Emerging Issues

The respondents were asked to give the Contemporary and Emerging Issues that should be included in the curriculum. The identified issues are discussed in this section

4.9.1 Climate Change

Climate change was said to be the talk of the day and for this reason it is among the contemporary issues affecting the society.

Respondent: Climate change is at the fore of most international discussions nowadays, and the consequences of this change are becoming evident every day. Students should be enlightened on this, and on measures they can internalize and do on a day to day basis so as to have an overall positive impact on climate change in the long run, e.g. they can be trained on how they can make it a habit to plant a number of trees each year. If everyone did so, the impact would be very positive. (**BUS.MAN-INF-NAI**)

4.9.2 Pollution

Learners attribute having little or no concentration in class partly to environmental pollution. They said there is need to teach about the consequences of pollution and how to curb it.

Parents....I think we should educate people on the ravages of pollution so that they can stop it. (**SFGD-MEKA-SP-KWA**)

4.9.2.1 Noise pollution

Student...The schools near the markets, bars those things should be closed have a policy that controls those music like our school coz it's near the beach they make a lot of noise. (**S-FGD-StCNAM-S-BUS**)

Student...The schools near the markets, bars those things should be closed have a policy that controls those music like our school coz it's near the beach they make a lot of noise. (**S-FGD-StCNAM-S-BUS**)

Students: Global warming...The student can be taught more on how to reduce global warming, creating awareness also around on the ways of producing also global warming (**SFGD-MEKA-SP-KWA**)

Student: I think for many things we should be told what is important to all of us for example some topics at the end some have like some lessons on pollution that is something that is general human

kind on earth, we should be taught that but there are some things you are taught and you are like where is it important where is it applied (S- FGD- StMARS- NAR)

4.9.2.2 *Air pollution*

Student Leader: high population has brought about people leaving in congested places. Due to this congestion, and having industries at one place, this brings about air pollution that affect plants, animals and human being (SL- MAKGS- MAK).

4.9.3 *Environmental conservation*

Parents noted the importance of teaching learners about environmental conservation while learners expressed the need to put this knowledge into practice by actively engaging in clean ups.

Parent: conserve the environment, which should be a subject. Environment and its conservation should be a subject like mathematics (PA-FGD-MUTG-S-KIT)

Student Leader: If you walk around these towns they are really dirty Students should be given a day where they walk to a street, they clean it up, and then they do things like planting trees. I think in that way they will have developed that sense of environmental management (SL-RAP-S-MIG)

Student... Our school has a lot of snakes...create awareness about animals in the compound. (S-FGD-StCNAM-S-BUS)

9.9.3.1 *Environmental Cleanliness*

Parents said that students should educate on garbage disposal and environmental conservation.

Parent: we can first educate the parents on how to do it. so the parent will also teach the child. Corruption is also contributing on environment on planting trees they end up cutting those trees. Like in our town there is a lot of garbage. Educate them on how to dispose that garbage and conserving our environment. (PA-FGD-NYAKI-S-NYA)

Student: ...environmental pollution, industries fitted with devises to filter poisonous gases to prevent global warming. (SL-MAL-S-KIT)

Parent: Entertain learning with environmental sustainability issues. They should do or practice while in school (PA-FGD-NYANDA-S-NYA)

4.9.4 *Radicalization and Terrorism*

Parents observed that there is need to emphasis on patriotism in the curriculum to curb learners from getting enticed into radicalization.

Parent: the curriculum is not emphasizing on patriotism, and that is why there is radicalization, the youth and most of us do not love our country. We don't feel we belong here. (PA-FGD-MUTG-S-KIT)

The learners further indicated that out of school children are prone to radicalization.

Student: The Students who stay at home are those who join Al Shaabab (S FGD AthS BAR)

Parents highlighted the issues of terrorism, drug and substance abuse, tribalism and nepotism as issues that ought to be included in the curriculum.

Parent: You see nowadays there is ... terrorism, drug and substance abuse all this how can we be able to bring them to the curriculum so that we can address those problem especially from lower classes? Like tribalism, nepotism how can we help them? (PA-FGD-NYAKI-S-NYA)

Student: we need security in our place. There is not enough security here in terms of like we say teachers.. they are fearing to come to this place because the soldiers themselves... sometimes they become hard to the people. They are not treating the people in the same way because somehow they think Somalis are Somalis so they don't treat people justly. Even though soldiers are sent, people fear them.(SFGD-KHADJ-S-MAND)

Student: it's a matter of terrorism we would like our people as Kenyan not as a community, as a tribe, as a religion... we would like to join in one hand to avoid this terrorism. It's affecting us. It's affecting all of us as Kenyans. If you are a Kenyan who is born in this country I think that we are Kenyan. We are Kenyan for sure because we never went to school in Somalia. By talking this language of Somalia, these people... they are making us to look like we are the terrorist. As Islam, we don't want to be made as a terrorist so joining hands together is what we will going to do to avoid the terrorism. .(SFGD-KHADJ-S-MAND)

4.9.5 Alcohol and Drug abuse

Learners pointed out to the need to help both the boy and girl child who are neglected leading them to engage in drugs and substance abuse among other vices in the streets. The students noted that issues of drug and substance abuse ought to be taught and should be compulsory. Peer discussions could also be used to address this issue.

Student: boy child has been left behind, he never asked in a high school level and he is loitering in the street that is most of the young engage in theft and drugs because no one is out there taking care of them so they have to struggle to find other means. The government should come with an initiative on how to try and balance the ways of helping the girl child and the boy child (SFGD-MEKA-SP-KWA)

Student: We taught of the effects of the drug abuse because they use the drugs but they don't know the effect of the drugs ... Forming groups for educating the youth... Yes in school form clubs that will act like advisors(S-FGD-KAS-S-KIL)

Parent: there is this issue of drugs. I think it would be good if we teach about them so that they may be taught the side effects of the drugs. Because some children when they go outside, let say to university, they are introduced to drugs. This is because at primary and secondary this is not given the weight it deserves. This should be taught as a compulsory subject and examinable because if we say it is optional, children will not take it.(PA-FGD-MAKG-S-MAK)

4.9.6 Technology

Challenges associated with technology should be addressed. Guidance on the use of computers and internet was emphasized by the respondents. Not all content should be allowed to be accessed by the learners.

INF: The onset of the Internet has created a great rift between the "analogue" and "digital" generations in Kenya and Africa at large, with the awed older parent generation unable to guide their computer savvy children into a digital world they know nothing about. The internet-exposed youth therefore lead themselves into all kinds of extreme mischief as they "learn" from the net; traditional social structures have broken down, resulting in amoral society on all fronts. Control of children's

interaction with the internet should thus be paramount, with the government leading the way in providing guidance and necessary controls and regulations towards this end, and the education system weighing in with structured lessons. Conservative China has demonstrated that this can be done by blocking unsavory content from the internet, unlike the liberal West that believes in “absolute freedom”. It is to be noted that the West has strong remedial support systems and traditions in case of adverse exposure of youth as well as adults to negative traits, unlike in Kenya where there are very few professional guidance and counseling experts or remedial centers, and it is stigma in Africa to be seen to have been “treated” for waywardness of any kind. (BUS.MAN-INF-NAI)

A respondent suggested that there is need to address the issue of persons and students spending too much time on social media.

INF: I think it is affecting our country because ... most people spend most of the time on technology. They don't have time for their family, so if people are taught on how to control their time with technology, I think it will help For example, students they don't have much time to study. Parents don't communicate with their children well so it really affects them. I think technology if people put it correctly it will help...people spend most of the time with for example phone (CARW-INF-UG).

It was suggested by the student leaders that there is need for E-learning exchange programs locally and internationally.

Student Leader...I think, we should have E-learning, exchange programs with international and other schools (SL-MOIGS -UG).

In the same vein, the students suggested improvement in ICT for information sharing.

Student...I think ICT in schools should be improved this will greatly boost education system because we will have enough information, providing free education (S-FGD-KAW-S-MAK)

Student... I think the education introduction of technology in the education sector shall be of great importance to schools because students and teachers can be able to do research and they can be able to do research and they can be able to different things which they were unable to do before the introduction of technology (S-FGD-BUT-S-BUS).

Student... We have the issue of I.T. The jubilee government promised Kenyans that will install an IT project so let that project runs because the world is running digital. Let it start by electrifying schools that have no electricity and see the way forward (S-FGD-BUT-S-BUS).

Parents suggested that instruction on ICT in schools should include appropriate use of technology to counteract social media influence.

The students also pointed out that a lot of care should be taken when handling technology.

According to them, the parents should have an upper hand in this.

Student...parents should be keen on their children's phones. For example advising them on the wrong sites that they may visit which may lead to distortion of their minds...when a parent buys the child a phone, let the parent take care of it. Let the parent tell the child the importance of this phone. Let the parent tell the child more of positive things about the gadget. (S-FGD-BUT-S-BUS)

In relation to the safety of using technology, the students suggested they should be allowed to use phones in school. They alluded to the fact that though not allowed; they still carry them and endanger their lives by connecting them dangerously.

Student...I think that mobile phones should be allowed in schools in that...we get that instead of loosing lives here in school. We get that some students sneak in with them and connect wires which can lead to power shorts and most cases of fire arise from people tampering with the wires. The solution is to support the phones in school **(S-FGD-BUT-S-BUS)**

Parents identified issues of technology including their negative influence as pertinent area to be taught to learners

Parent: Our education system should be set in such a way that as technology changes we move in target to it **(PA-FGD-MOIG-S-UG)**

Parent: If you tell somebody not to do anything after that he will tend to try what you have told him not to do (*inappropriate use of technology*). Nowadays these children are very clever not like our days. There was no other source of getting these things. Even nursery school they know everything **(PA-FGD-NYAKI-S-NYA)**

Parent: Watching TV when the parents are not there and sometime they download some bad things from the internet. **(PA-FGD-NJAB-S-NYA)**

Parent: Punitive measures should be meted to control posting of pornographic material in media. Sites broadcasting pornography and violence should be blocked. **(S-FGD-MUS-S-KAK)**

4.9.7 Remedial Teaching

Students suggested that the issue of holiday classes and other forms of remedial classes should be negotiated between the school administration, the students and the parents

Student: After there was put a ban on the tuition in the schools, let me say that it could have been optional where the three parties agree - the school administration ... the students and the parents. Yes, the four parties as I have mentioned when they come to an agreement that the students at their will wanted to undertake the tuition as if it is even one week after the school term has come to an end. And still that is for those who are feeling they would like to take it. Then the other one is per the concerned students who would like to undertake the night lessons... I think that would still try to uplift the performance of the country. **(S-FGD-NJU-S-MUR)**

4.9.8 Guidance and counseling

For the secondary level, learners and parents suggested that student should be taught respect for other communities, religious morals, drug and substance abuse, tolerance, discipline. Integrity, gratitude and ability to interact with other students .They went on to suggest that inculcation of these values would be enhanced if the guidance and counseling component in schools is strengthened.

Parent: At this level learners have moved away from their localities therefore they need respect for other tribes and embrace religious ideals, tolerance, gratitude and interacting with learners from other schools freely. **(PA-FGD-MALIK-S-BUN)**

Parent: However, if peer counseling and guidance and counseling is strengthened values such as obedience, honesty, cooperation and dedication to responsibilities should be emphasized to a great extent **(PA-FGD-KITUN-S-BUN)**

Parent: When a child is in school, he is supposed to be taught that corruption is bad and should be taught about drug abuse, so that as he leaves school he should be aware and follow closely what he has been taught. The school should also have discipline too. When they leave school they should

know drugs are not good, corruption is not good and when they get employed. And when he goes to any office not corrupt in order to get assistance. (PA-FGD-IRIS-S-SAMB)

Learners: Aspects like morals. Immorality mainly gets ground in secondary school. So the government should put up structures maybe the counselors to counsel students and so on (SFGD-RAPS-S-MIG)

4.9.9 Cultic Religious Groups

Students noted that the issue of cultic religious groups should also be addressed.

Student: Another thing that may affect education is cultic religious groups. Some of the religious groups in Kenya they say that education is not necessary although you have god in your heart. So such religious beliefs should be not condoned in the country, they should be put off so that education in Kenya can grow and not only grow but also help students to remember what they did with their school lives or education. (S-FGD-KWANG-S-KIT)

4.9.10 HIV and AIDS

With regard to HIV and AIDs, a student noted that they should be taught how to live with the infected and the affected.

Student: They should be taught how to live with the infected and affected, we should be taught the ways which some can. -S-KIL)

Parents: Another thing ... there is the challenge of HIV and AIDS ... also it has contributed a lot. You can find a child has the potential but his/her parent has been affected by HIV and AIDS ... now the child cannot study well.(PA-FGD-NYAM-S-NYAM)

Student: We should try to educate the student about danger of the diseases and immoral behaviours. Tell them about life after they leave school. There some things you cannot be told by your parents. You need someone else (S-FGD-KIS-S-NYAN).

Student...Educating the youth on the effects of HIV/AIDS and making them shy away. From acts that may lead to contraction of the disease (S-FGD-BUT-S-BUS)

4.9.11 Poverty and Unemployment

Students noted that education on poverty and unemployment eradication should be given.

Student: We should educate us on important things to help in our life on to reduce poverty (S-FGD-KAS-S-KIL)

Student: unemployment, many people living below the poverty line thus most children are not able to go to school. (SL-MAL-S-KIT)

4.9.12 early marriages and Pregnancies among the Girls

Learners in the northern region of the country lamented that early marriage was adversely affecting their chances of getting an education and called on the government to eradicate it.

Parent: ...early marriages, it's a matter of the parents. ... the girls are the people who are in early marriages. You will find a student dropping out of school because of her parents pressuring her to marry a man and the man who she is marrying is not her choice but it has been forced by her parent. The parents are only thinking of the money to take ... they are making the child to get out of school and make her to marry that man. The man is again older than her. ... I would like the government to educate, create the girl child education in our community and to make and we would like to

remind my parents, our parents as Somalis to avoid early marriages. We are the people who are doing early marriage in our country.(SFGD-KHADJ-S-MAND)

Parents lamented that early marriage was adversely affecting the girl child's chances of getting an education.

Parent... Kuna mambo kama hii ya early marriages. Watoto wanamaliza class eight na wanapeanwa. Inaffect mambo na masomo pia maana imeishia hapo. So akisomeshwa hata wale watoto wakiwa primary, na waweze kujulishwa ya kwamba inastahili wasome hadi kiwango ya university, Yule mtoto akiwa class eight, atajua tubado hajamaliza masomo yake. So mambo kama hiyo early marriages ina-affect community (PA-FGD-OLOLUG-S-NARK)

Translation into English

(there is this issue on early marriages. children who finish standard eight are married off. this affects their education which ends there. so children should be sensitized on this issue in primary school and made aware that they can further their education up to the university level. the child in class eight will be made aware that their education has not come to an end. so this issue of early marriage does affect the community.)

Learners called for guidance and counseling services in schools to combat rampant early pregnancies and rape cases.

Student: And there is also about the young girls at school. A lot of pregnancy cases and rape cases are showing up so may be a girl can get some services about protecting the girls , guiding and counseling in schools (SFGD-MEKA-SP-KWA)

Student:... Some engage with sex to increase manhood, the girls become pregnant and both then they drop out of school (SFGD-GATU-S-NYE)

4.9.13 Sexuality/Sex/Health Education

Though some learners decried the hard stance taken by schools on issue of condoms, others were of the opinion that the government should not introduce condoms in schools.

Student: But in school not everybody is concerned with the student because they say they are not my children. In school they bring certain rules like if you are found with a condom in school you will be expelled (S-FGD-KIS-S-NYAN).

Student: Homosexual and lesbianism ...the government is saying they will introduce condoms in school I don't think it right (S-FGD-KIS-S-NYAN).

A student leader observed that girls in secondary school have problems understanding and managing their menstruation yet it is expected that the knowledge they presumably got in class and from their mothers should help them.

Student leader: Sometimes I have a problem with mothers they don't teach girls issues like menstrual cycles yet we learn them in class. I love what my primary teacher taught me there was an organization that came to teach children the menstrual cycle and insisted that everybody need to be there to learn.(SL-MBIT-S-HOM)

Parents pointed the need to prioritize sex education to the youth in order to empower them to live positive lives.

Parent: Sex education should be given priority to help learners get the right information from schools and help those infected live positively (PA-FGD-MALIK-S-BUN)

Student: High pregnancy rate is the main thing that makes Samburu girls go down in terms of education. If they can invest and go down in the interior and teach them the importance of education and they stop the culture because it will help the girl drop out due to pregnancy. If they teach them the effect of this culture it will improve their education. (SFGD-MOG-S-SAM)

4.9.14 Equality/Gender/Rights

Female learners requested to be taught gender equality issues to bolster their self esteem and help them contribute to the political development of the nation.

Student: should encourage them and teach girls that they are equal to men, like Taiwan having a female president, we shall have female for president (SFGD-IFT-S-GAR)

Parents highlighted the fact that neglect of both the boy child and the girl child has affected access to education

Parent: Huko nje unakuta the boy child. You know we have been concerned with the girl child for long, but now the endangered is the boy child. You find the boy has finished form four, but instead of looking for a job you find him in the market chewing miraa day time (PA-FGD-MAKG-S-MAK)

Student: some communities discourage girls from going to school, communities should stop that and influential leaders should help in that (SFGD-IFTEN-S-GAR)

Commenting on gender, the students pointed out that the boy child is now endangered.

Student...I think that in as much as the society is trying to empower the girl child, they should also not forget the boy child is somehow being left behind (S-FGD-BUT-S-BUS)

4.9.15 Family related issues

The student leaders emphasized good relationships between parents and their children. To them, such relationship would enable sharing among the two parties. In addition, the parents are supposed to be role models to their children

Student Leader...parents should be able to relate well with their children so as to make them to be free with each other to facilitate sharing (SL-MOIG-S-UG).

Learners cited the need to sensitize parents to help their children relate with their peers

Student: especially we have issues that affect us at home mostly which affect us which ...*unclear*.... Maybe those things are coming in when we are in school in cases where you find they are hurting you are caused by the parents and are, if I would say I could say that there to address the parents and the child have meeting to choose the parents like the parents have different they might have such a parent might be too harsh to my daughter or my son a parent, parent who cannot give her daughter or her son a chance even to relate with others only humiliating or that student or his or her age is to ...*unclear*...his or her friend but at home some parents they don't give such a chance so I could ask that the school may have such meetings when all parents are there at least to address them educate

them and show them, show them the importance of ,of exposing their children to other children (S FGD St MarS NAR)

4.9.16 School Related Issues

The student leaders said they can be supported through provision of good guidance and favorable learning environment both in school and at home.

Student Leader...In the curriculum, we should have... good guidance and favorable learning environment (SL-MOIG-S-UG).

4.9.16.1 Teacher Deployment

Student...I think one of the emerging issue is teachers, a teacher from this area is teaching the same home area, the teacher can have a neighbor and they have a grudge from home to school so the government should transfer teachers far from their home areas. (S-FGD-KAW-S-MAK)

4.9.16.2 Career Talks

Career talks were cited as one of the contemporary issues that need to be included in the curriculum. Such talks would create awareness on different types of careers.

Student Leader...I think we should have those career talks to create awareness amongst the students (SL-MOIG-S-UG).

4.9.16.3 Strikes

The students pointed out student and teachers strikes as some of the emerging issues that affect teaching and learning. School strikes interfere with the learning process.

Student... Concerning teachers strike, the government is not serious about it. When I was born teachers used to strike and even now they are striking. Government should take strict measures to curb this. Like last term it went up to two months, and when you look at the performance the private had high marks compared to public school. so there the government is to be blamed. So there is need to overcome this challenge and what they can do is to employ teachers in contract for five years, and when the five years are over they employ others for the same. This will reduce unemployment of teachers, and pay them well and this will clear this strike. Government should employ teachers in durations (S-FGD-KAW-S-MAK)

Student...Government should give the teachers their demands, even the president passed through the hands of teachers and spend more on teachers, you can think that the teachers are the poorest paid and are the ones who do a lot of work to make the country develop in terms of technology (S-FGD-KAW-S-MAK)

Student:...Concerning the students strike, in my view I think the government also has failed, there is a school at home in my village back it was involved in the strike the minister of education of the area were informed that the problem was the principal, the principal just remained in the same school, who should be blamed? I think the government should be blamed because they were called but they didn't solve the problem and also I think they should liaise with people to talk to students they come annually and if there is any problem the students will just suppress and form a strike for that juncture people should be there consulting schools and solving problems (S-FGD-KAW-S-MAK)

Student:...about the teachers also, the government should be concerned about the welfare of the teachers so that it is regular that the teachers are in school and shy away from this thing of teachers striking (S-FGD-BUT-S-BUS)

4.9.16.4 School Fees

Learners identified inability to pay fees as one of the hindrances to learning .they requested for financial support for those who were unable to pay their fees.

Student: fee support like those who are not able to pay for their fees (SFGD-IFTEN-S-GAR)

According to the learners the gap between the rich and the poor should be addressed. Many children from the poor families are out of school because their parents don't have enough money to pay school dues. They miss out on learning.

Student: In terms of the economy, it must be changed because in this country 80% are poor and only 20% are rich. If you go out there a lot of children are out of school, why? Because their parents have no money to take them to school (S- FGD- ATHS- BAR).

Student: Issues on school fees, you will find that for example students may be sent home for school fees, when you enter in to the class a teacher may be teaching only 6 and the rest are absent, the others are lacking what others 6 are learning. So we need to be equal in school... My request to the government is that schools fees must be paid per parent because some parents have six children in secondary school and are paying 10,000 and parent is a peasant farmer, so that's a challenge to that parent (S-FGD-KAW-S-MAK)

They link high fees to emotional stress among some learners whose parents have difficulty raising the required amounts. They would like the fees to be reduced.

Student Leader: the country should cater for the needs such as reducing school fees. Most of the students get disturbed due to what their parents are going through. Like this year, many students have been sent home due to school fees being hiked (SL-MAKGS-MAK)

4.9.16.5 Discipline in Schools

Parents observed that removal of corporal punishment coupled with the stress on children's rights impedes on instillation of expected values in the youth in schools .this because teachers shy away from administering punishment thus giving too much freedom to the learners. They suggested that we need to rethink this act.

Parent: There is another one, this may look like it's not there but it has got its own effects. You know pupils or learners have been given too much power. Teachers have no control over the pupils. There is this children rights, its like teachers do not have their children. They have been kept so low, that we don't have the power over our children. You stay like friends, if they start doing bad things and because they have the power and can spoil your employment, you forget about the child and you earn your living. So that is also affecting the education of our children. And it should somehow be taken back to the way it was (PA-FGD-MUTG-S-KIT)

Parent:The removal of corporal punishment and human rights requirements, have made it difficult for teachers and parents to instill expected values (PA-FGD-KITUN-S-BUN)

Student: Indiscipline cases should be looked into because they are many cases...I think other Students cracking some stupid jokes about your physical appearance should be told to stop (S- FGD -Oloo- KAJ)

However, they indicated that suspension from school may not be an effective way of dealing with indiscipline. Other ways should be devised. They indicated that excess disciplining by teachers should be discouraged. A student leader cited peer pressure as the genesis of most indiscipline and immorality among students. He went on to suggest that introduction of basic

Psychology coupled with discussions could stem this issue.

Student leader: Okay there is something I don't know how it can be taught. The peer pressure in as much as we have the guidance and counseling it's the peer pressure that messes things. It's where indiscipline and immorality comes from. It's like maybe they can introduce some psychology learning and introduce positive discussions in students (**SL-MBIT-S-HOM**).

Parents cite discipline as a social issue. Parents also blamed peer pressure as a major catalyst for the negative vices that youth undertake. They would like teachers, counselors, and religious leaders to work together on tackling social and moral issues that affect the learners.

Parent: you will get a child who has been brought up well and one who is not, since they are age mates the one with bad character teaches the good ones bad things. If it is a girl, she is impregnated, if it is a boy is taught drug abuse, smoking bang... so this age grouping..... I.I... don't know if it has medicine!! (**PA-FGD-MUTG-S-KIT**)

Parent: In many schools there are discipline issues such as homosexuality and I as a preacher sometimes I engage in counseling boys who have been sexually molested by peers in school and after talking to them they change their behaviour and focus on education (**PA- FGD- NDUR-S- LAIK**)

As far as discipline is concerned parents expressed the willingness to collaborate with teachers to instill good discipline among the learners.

Parent: I can say that there should be unity between parents and teachers so that parents continue training children on good behaviour even when they go home after school. They should collaborate in disciplining children (**PA-FGD- NDUR-S- LAIK**)

For students to be able to achieve competencies, parents advocated for corporal punishment.

Parent: There should be corporal punishment which is controlled by the discipline matter. This will assist the students acquire the competencies (**PA-FGD-KIS-S-NYA**)

4.9.17 Unity

Learners observed that there is need to be taught the basic history of the country for purposes of enhancing patriotism and national unity.

Student Leader: What we should have first of all is basic history of the country. There are some countries where it is compulsory to know the history of your country. That will be able to bring

patriotism which will curb various things like tribalism because people will see like what happened in 2007 and will take measures to avoid that (**SL-RAP-S-MIG**)

Student Leader: Like the guidance and counseling department ... you find most of the guidance and counselors are employed mostly in hospitals yet most people fear going to the hospital to look for advice. If they introduce them in school it would be a good thing (**SL-RAP-S-MIG**).

Parent: Education you know when they study, like here in Samburu , if they study they will be like brothers so when they get out from offices they will work as Kenyans ,so they need not see themselves like Turkanas, Samburu but Kenyans. Education should foster unity (**PA-FGD-KIRIS-S-SAMB**)

4.9.18 Child labour and Abuse

A student suggested that there is need to fight child labour and child abuse

Student...fight against child labour (**S-FGD-KWANG-S-KIT**)

Student...about child abuse I think the government should try to change the attitude of the parents by maybe educating them and teaching them on the importance of educating to the children (**S-FGD-BUT-S-BUS**)

4.9.19 Political Stability

A student noted that tribalism should be addressed through the curriculum.

Student: ... here in this region of ours there is a lot of tribalism, like for example, this tribe is competing with this other tribe and if you just look at the school, even there is existence of dirtying in the school...and the people should be mixed in order to enhance peace (**SL--MARMD-S-MARS**).

4.9.20 Security

Students also noted that security is key for development to take place. This will even lead to rising of education standards and development of infrastructure.

Student: We need to embrace security. In Samburu there is a problem with security and if the government can provide security then people will be able to carry out their activities. They can also improve the infrastructure, transport and communication. (**S-FGD-MOG-S-SAM**)

4.9.21 harmful cultural practices

4.9.21.1 Female Genital Mutilation (FGM)

Students were of the opinion that harmful cultural practices, like female genital mutilation should be dealt with. They said learners should be sensitized on pertinent issues like FGM so that they can be able to make a stand.

Student: You should be a person who can make change. Like FGM in our community you are supposed to teach them it is not allowed. Make change by making them understand these things are not healthy for life of a woman. (**S-FGD-KIS-S-NYAN**)

Student: Harmful cultural practices, like female genital mutilation, harmful to the girl child. Early marriages affect the girl child (SL-MAL-S-KIT)

The learners also indicated that the government should provide security for the girls faced With female genital mutilation

4.9.21.2 *Circumcision*

One of the social issues that affect learning that was cited by learners is circumcision in some communities.

Student: Yeah, like cultural things like circumcision in some communities. Yeah you find after a certain period of time, many boys were not in school and they miss school a lot. (S FGD MurS MUR)

4.9.22 *Intimidating sexual acts like gayism, fornication.*

A parent highlighted the issues of homosexuality and lesbianism as affecting students.

Parent: Long ago we used to have mixed school and those kids have come to hear those things when they are in college. I am biology teacher, and when we put the same sex together you tend to bring homosexuality and lesbianism. There is something we missed when we did away with mixed school. (PA-FGD-NYAKI-S-NYA)

Parent: There are so many bad things that have come up like a child has joined Form one when he is good and after form four ... others want to marry other men. (PA-FGD-NJAB-S-NYA)

4.9.23 *Corruption*

Parents and students also identified corruption as a pertinent area to be taught to learners.

Parent: currently the issues of corruption, our country is actually dying because of corruption, that is the issue which should be dealt with from lowest level to the highest. *Officer* (PA-FGD-MOIG-S-UG)

Student: Student should be taught about corruption and disadvantage of corruption in the society and how it goes about. When u go to school you be an agent of change in the society. (S-FGD-KIS-S-NYAN)

Parents noted that the issue of corruption and especially relying on godfathers to get a job should be addressed.

Parent: Even corruption contributes a lot on this because even when they pass their exam they fear they will not get jobs at the end of it. And sometime the work is given those children who have god fathers. (PA-FGD-NYAKI-S-NYA)

A parent was of the opinion that issues of corruption should be incorporated in the curriculum so that they are not tempted to make easy money.

Parent: ... avoiding our children of going to astray for looking easy money. And majority of youth are supporting corruption and it overwhelming and majority of them are making good money. (PA-FGD- NYAKI-S-NYA)

Student: Learners should be taught that corruption is bad and also be educated on effects of corruption so that when they grow up, they can work hard to reduce corruption (S-FGD-MUS-S-KAK)

4.9.24 Support for Learners

It was pointed out that students need to be shown love as they go on with their studies

Student...We need love and support for all students even if they get a D they get a certificate...education is the gate to success and without education you can't stand before people and tell them anything. (S-FGD-StCNAM-S-BUS)

Learners should be supported to go through difficult issues. As such guidance and counseling should be in all schools.

Student: I think we should encourage more schools to have guidance and counseling departments so that if someone has a problem they can go and approach and explain the problems if someone has lost a parent... the learners can be able to go, go to them talk give out their problems at least the people who are there knowledgeable about ...issues in they are experienced... help you see your life in the future better than just and pondering on what happened may be three years ago your time is moving, you are supposed to be clearing your school and you still haven't settled down.(S FGD St MarS NAR)

Some learners have talents but are needy. Such learners can be supported through provision of the necessary equipment. Parents observed that poverty has led to the youth dropping out and engaging in vices. They suggested that this could be stemmed if the government could support polytechnics so that those who do not transit to secondary levels can be absorbed and given skills leading to self employment.

Parents: There are parents who are very poor and can't afford. Anaomba mtoto wake akimaliza class eight aanguke mihahi kwa sababu hana fee ya kumpeleka secondary (*they pray for their children to fail exams since they are not able to pay for them*) (PA-FGD-MAKG-S-MAK)

Parents: When 8-4-4 was being introduced, the idea was after finishing certain level you can be employed. That idea of that time is no longer there nowadays. In primary level, they would be taught kushona, mambo ya mbao. If we can make use of polytechnics that are just near us and the government pays for such children, itasaidia (PA-FGD-MAKG-S-MAK)

Parent: the child can join polytechnic after class eight, and then we can have gradual attainment of grades. After attaining this grade you go to the next one. And if possible the government be employing them...if you are a mechanics it doesn't matter whether you have degree or from polytechnic, what matters is the practical part of it. The skill of doing the job as required. (PA-FGD-MAKG-S-MAK)

Different stakeholders were said to be probable support givers. They include government (county and the national government), parents, well-wishers and Organizations like UNICEF, sponsors, CDF, School committee.

A student suggested that more girls ought to be educated.

Student: I wish more girls to be educated more than boys, like in rural areas most of them are not educated they are just looking after the goats. (S-FGD-MARM-S-MARS)

4.9.24 Role of education in Addressing Emerging Issues

The parents indicated that the following issues need to be addressed in the school curriculum; terrorism, peer pressure, HIV and AIDS, security, causes and effects drugs and substance abuse, homosexuality, social media, pornography, how to live with others. Parents lamented the lack of patriotism in learners which led to lack of integrity in work values. They suggest that a subject on patriotism be introduced in schools to instill work values.

Parent: on side of education, the students we are producing are money minded. Hata mtoto akimaliza form four, they are not patriotic. Roho ya kufanya kazi hakuna. They look for shortcuts to get rich quickly. If they can get somewhere where aibe mtihani apite, it doesn't matter, provided they get certificate. I think from primary to secondary we need a special subject on patriotism (PA-FGD-MAKG-S-MAK)

Parents admitted that they had not done their part to be role models for their children in terms of implicit and explicit values that they ought to teach their children. They requested for parental education to be given to them by the government.

Parent: you see in the society people walk with their children. As you walk you want to tell people this is my daughter. Some parents can't say this is my daughter or son because of the dressing. Unakuta kama mzazi unashindwa kwenda na yeye. (You find that a parent is unable to walk with their child). Especially we men. Unashindwa kwenda na mtoto wako wa kike kwa sababu ya mavazi yao. (You are unable to walk with your daughter due to the immodest way she is dressed). Lakini wazazi wengine wa kike ndio wanaharibu the daughters (but some of the mothers are the ones spoiling the daughters). Because of the clothes they buy for the daughters. Very ashaming yet bought by the mother. Hata mama mwenyewe vile amevaa ni aibu. (how the mother is dressed is shameful) . Sijui tutafanye nini? (What should we do?) Such mother can't tell the daughter is dressed badly. The society is rotten PA-FGD-MAKG-S-MAK)

Parent: I think the government should come up with training or seminar of parents on parenting (PA-FGD-MAKG-S-MAK)

CHAPTER FIVE

SUMMARY, CONCLUSIONS AND RECOMMENDATIONS

5.1 Introduction

This chapter focuses on the summary of the findings and conclusions drawn by the researchers. Based on the findings and conclusions drawn, recommendations were made to provide strategies and way forward.

5.2 Summary of Findings

From the findings presented and discussed in Chapter four, the following were noted:

Patriotism, Economic and Industrial development, Technological development, Social development as well as Environmental protection are some of the needs in the society that are supposed to be addressed through the secondary school curriculum as rated by an average of 92.2% of teachers and 93.5% of the principals. The importance of these needs was also highlighted by the others respondents in the study.

The 21st century skills are critical. These are the skills of communication, creativity, collaboration and critical thinking. These were rated by an average of 93.5% of the teachers and 94.2% of the principals. Other respondents also echoed the need for these skills. In addition, they pointed out the needs for inculcation of values and attitudes among learners. Without these skills, values and attitudes the students may not be able to successfully participate in the global economy.

The findings brought out the need for identification and nurturing of talents. It was pointed out that the talents can be identified at home, in the school setting, by experts, or through various structures that can be set within the society. Parents and teachers were said to be the key players in the identification exercise. Games and sports were said to be one of the key strategy of nurturing talents among learners as indicated by 96% of the principals and 94.8% of the teachers. Other strategies included: curriculum enrichment; clubs and societies; accelerated learning; and advanced placement; ability grouping and mentorship programs; special needs classes; cooperative learning; competition among schools and academic conferences and also through establishing special schools for the gifted and talented among others.

The findings of the study show the need for learning areas that can equip learners with practical skills. These are subjects that can help the learners secure a job either in formal sector or self employed. Such learning areas include: Technical and Vocational subjects, Art oriented subjects, Languages, Life Skills, Humanities, Environment and Climate Change, Technology, Sciences and Mathematics, Financial and Business related subjects among others. Additionally, the findings shows the needs for different pathways that can allow learners specialize in the area(s) of interest and stop wasting learners and resources.

The findings show that most of the key resources for competency based curriculum were missing in schools. The data obtained shows that Art Room (92%), Music Rooms (90.8), Technical Subjects Resources (86.5%), Home Science laboratory (84.8%) and Science laboratory (63%) were observed and rated highly as unavailable in the sampled institutions. Classrooms were also rated as unavailable by 56.9% of the respondents. These findings agree with those of other respondents who were involved in the study. Other resources needed for the curriculum included well trained teachers, computers or computing devices, Games and Sports tools and equipment, finances among others. The findings indicate the need for fair distribution of the resources.

The findings of the study reveal a desire for instruction that is more learner centred, approaches that are interactive and geared towards the acquisition of practical skills. All the categories of respondents in the study emphasized the need for experiential learning by advocating for activity based, project based and inquiry based learning methods. This persistent preoccupation with methods which in the respondents view, liberate the learner, is fuelled by the growing concern amongst Kenyans of the emergent skill gaps in the job market. In order for the products of the Kenyan education system to be 'work and life-ready', Kenyans seem to be persuaded that a competency based curriculum is the answer.

Continuous Assessment Test was the preferred mode of assessment as rated by 97.6% of the principals and 93.8% of the teachers. Emphasising on this mode of assessment, a student said:

Student:...I equally support the use of continuous assessment tests because as we are talking in different parts of Kenya like let's say North Eastern .The type of education that students from N.E use is different from education that a student from Nairobi use. Like for example a student from North Eastern will sits under a tree in the morning, he will not be sure of lunch and will not be sure a teacher. Maybe the head teacher and the deputy and one teacher are in that school so CATs will help in going to the next level in that it is easy to realize the ability of such students compared to KCSE whereby some parts of the syllabus that are set have never been covered by a student from North Eastern because of lack of resources like teachers **(S-FGD-BUT-S-BUS)**

Different Contemporary and Emerging Issues were identified in the study. These include: Climate Change; Pollution; Environmental conservation; Radicalization and Terrorism; Alcohol and Drug abuse; Technology; Guidance and counseling; Cultic Religious Groups; HIV and AIDS; Poverty and unemployment; early marriages and pregnancies among the Girls; Sexuality/Sex/Health Education; Equality/Gender/Rights; Family related issues; School Related Issues; Discipline and strikes in schools; Unity; Child labour and Abuse; Political Stability; Security; Harmful cultural practices; Corruption, among others

5.3 Conclusions

The following conclusions were made from the findings:

- Issues related to patriotism, economic and industrial development, Technological development, Social development as well as Environmental protection are key in the society. They need to be addressed in the secondary curriculum.
- 21stC skills that include communication, creativity, collaboration and critical thinking are critical in the competency based curriculum
- Nurturing potential and talent are major area of focus in the intended new curriculum. The new curriculum and by extension schools need to embed within them strategies that will enable every learner to harness their potential through well-developed learning activities that will lead to the identification and subsequent development of these areas of potential and talent.
- The preferred learning areas are those inclined towards equipping learners with practical skills and that can help the learner in life after school. These are learning areas that can produce all round student economically, socially, politically as well as technologically. From the findings, the respondents preferred early specialization and orientation to specific pathways.
- Availability, adequacy and relevance of resources in schools contribute to achievement of educational objectives and goals. Resources that are key in implementation of competency based curriculum were not available in most schools. As such, the resources were not equitably distributed.
- For effective implementation of Competency Based Curriculum, there is need for the use of interactive and activity based approaches that are geared towards the acquisition of practical skills. The success of the implementation of the curriculum

is therefore hinged on the teacher quality. Improving teacher quality is expected to revolutionize classroom practices.

- From the foregoing discussion, the role of assessment in education needs to be re-defined. More emphasis needs to be on formative assessment as opposed to summative assessment.

5.4 Recommendations

- The envisaged new curriculum should be competency based where the competencies cut across all the disciplines. This will make the curriculum to conform to the global trends in curriculum designs. The competences should comprise of those which all individuals need for personal fulfillment and development, active citizenship, social inclusion and employment and for lifelong learning.
- The envisaged secondary education curriculum to incorporate the 21st century skills
- The new secondary level education curriculum should embed various strategies of identifying and nurturing talents.
- The government should establish talents education institutions
- Packaging of content/learning areas should provide for various competencies, abilities, interests and learners needs in diverse contexts. Practical subjects that promote self-reliance, creativity, innovation, job creation and national economic development while also promoting national values, cohesion and development should be emphasized.
- The curriculum should be flexible to allow for orientation to different pathways.
- KICD should orient teachers on the implementation of the new curriculum
- KICD in collaboration with ESQAC should build a network of pedagogical counselors for each learning area and create regional networks for a more effective monitoring of classroom practices.
- The government should ensure that relevant and adequate Human and financial resources, physical resources and teaching and learning materials are availed in learning institutions to promote implementation of the competency based curriculum. The resources should be equally distributed in all learning institutions.

- Instruction should be modeled to provoke critical thinking and problem solving skills as opposed to rote learning.
- Critical contemporary/emerging issues ought to be incorporated at secondary level of the education in appropriate ways.

REFERENCES

- Akyeampong, K. (2014). Reconceptualised life skills in secondary education in the African context: Lessons learnt from reforms in Ghana. *Int Rev Educ* (2014) 60:217–234
- APHRC (2011). Classroom Observation study.. a report on the quality and learning in Primary schools in Kenya. African Population and Health Research Centre
- Baathany, B. H. (1991). Instructional Systems, Palo Alto, California: pearson
- Barrow, M. (2013). Woodland Resources. Retrieved June 7, 2014, from Mandy Barrow Woodlands Resources: www.mandybarrow.com
- Brady, L. & Kennedy, K. (1999). Curriculum Construction. Sydney; Prentice Hall
- Brown, M. (1994). An introduction to the discourse on competency-based training (CBT) in Deakin University Course Development Centre (Ed.), *A collection of readings related to competency-based training*. Victoria, Australia: Victorian Education Foundation
- Bugotu, F., Maeke D, Paia, H., Ramoni, M. & Arnold, B. (1973). Education for What? A Report on the Findings of the British Solomon Islands Protectorate Education Policy Review Committee. Honiara; Government Printers.
- Buhere, K. (2016) why textbooks matter in Education. Wednesday, March 9, 2016 Standard Newspaper.
- Browder, Diane M. (2001): Curriculum and assessment for students with moderate and severe disabilities. The Gullford press.
- Colangel, O. & G. A. Davis (Eds), Handbook of Gifted Education 9pp 81-96). Boston:Allyn& Bacon.
- Department for Education and Children's Services, S. A. (1994). *Understanding giftedness: a guide to policy implementation*.
- Dimmock, C. & Walker, A. (1998); Transforming Hong Kong's Schools; Trends and Emerging Issues. *Journal of EducationAdministration* 36 (5).

- Disla, L. (2002). Cultural Worlds: An Introduction to the special issue. High school Journal 84 (1)
- Drew, C., Hardman, M. & Hosp, J., (2008). Designing and conducting research in education. California, USA: Sage publication inc.
- Edwards, M, Sánchez-Ruiz, L. M., Sánchez-Díaz, C. (2009) Achieving Competence-Based Curriculum in Engineering Education in Spain
- Evan, T., Haughey, M. & Murphy, D. (2008). International Handbook of distance education. Bingley, UK: Emerald Group Publishing Ltd.
- Exchange, S. A. (2012). High School Exchange in South Africa. Retrieved June 7, 2014, from Experience a High School Exchange in South Africa: www.jcr.co.za/sastudent.htm
- Farrant, J. S., (2004). Principles and practice of education. (18thed). England, UK: Pearson education Ltd.
- Gagné's, F. (2003). Differentiated Model of Giftedness and Talent (DMGT)
- Gachathi, P. J. (1976). Report of the National Committee on Educational Objectives and Policies, Ministry of Education. Nairobi: Government Printer
- GoK, (2007). Kenya Vision 2010. Ministry of Planning and National Development and the National Economic and Social Council (NESC), Office of the President. Nairobi. Kenya.
- Halstead, J. & Taylor, M. J. (2000). Development of values, attitudes and Personal qualities. A review of recent Research. (slough, NFER).
- Huitt, W. (1960). Measurement and Evaluation: Criterion-versus norm-referenced testing. Educational Psychology Interactive. Valdosta, GA: Valdosta State University. Retrieved from <http://www.edpsycinteractive.org/topics/measval/crnmref/html/>
- www.pacwcbt@pill.edu.(2002) Child and Adolescent Development Resource Book University of Pittsburg
- Japan MOFA. (2014). Web Japan MOFA. Retrieved June 6, 2014, from Schools-Explore Japan-Kids Web Japan-Web Japan: <http://web-japan.org>
- Keteku, N. W. (2008). Education Reform Ghana. Retrieved June 7, 2014, from Education Reform in Ghana: Senior Secondary School: www.bibl.u-szeged.hu/oseas.../ghana.htm
- KIE. (1990). Formative Evaluation of the Secondary Education Curriculum. KIE Research Report Series No.22. Nairobi. Kenya

- KIE. (2010a). Summative Evaluation of the Primary School Education Curriculum Nairobi. Kenya
- KIE. (2010b). Summative Evaluation of the secondary School Education Curriculum. Nairobi. Kenya
- Kenya Institute of Education Handbook: Silver Jubilee Edition; (1957-1982)
- Kabiru, M. (1997). The status of Early Childhood Education in Kenya. Nairobi: NACEC
- KICD (2013). Rapid Assessment of Utilization Of Educational Resources (Prototypes) In Learning Institutions In Kenya. Nairobi. Kenya.
- Kellagan T. & Greany V.(2001): Using Assessment to improve quality of education. UNESCO. International Institute for Educational Planning. Paris
- Kliebard, H. M. (2004). The struggle for the American curriculum. 1893- 1958. Amazon:SBN-10: 0415948908/ISBN 13
- Kouwenhoven, W. (2003).*Competence Based Curriculum Development* . INTECH Open Access Publisher
- Kang'ethe, R. W. (2004). *A Comparative Study of Measures used in the identification of Gifted and Talented children in Two Provinces of Kenya*. Nairobi. Unpublished Ph.D Thesis. Kenyatta University.
- Kang'ethe, R. W. &Mugo, J. (2010) “Gifted and Talented Children and Policy in Kenya:A Ride through Post Independence History”. A paper presented during the National Conference of The Gifted and talented in Kenya. Kenyatta University (July 27th to 30th July 2010).
- Kinyua, P. M. (2014). Exploring Giftedness among Learners with juvenile Delinquency in elected Rehabilitation schools In Kenya. Nairobi. Unpublished Ph.D Thesis. Kenyatta University.
- Kochung E, (2003). *A Report of the task Force on special Needs education.Appraisal Exercise Republic of Kenya*. Ministry of Education.
- Koech, D. K. (1999). *Totally Integrated Quality Education (TIQET)*. Nairobi, Government Press.
- Ministry of Education (2013). Basic education act No.14 of 2013
- Ministry of Education. (2012). Sessional Paper No 2 of 2015: Reforming education and Training Sector in Kenya
- Ministry of Education (1997): Towards Thinking Schools, Singapore

- Ministry of Education Malaysia. (2014). Malaysian Guide. Retrieved June 7, 2014, from Malaysia Guide: Public, State Education in Malaysia. www.justlanded.com
- Mugo & Asigo (2015). From Assessment of Learning to Assessment for Learning in Kenya's primary Education post 2015. A policy brief by the Learning Outcome Network.
- Ministry of Education Australia, (2013). The Australian Curriculum. Retrieved June 7, 2014, from The Australian Curriculum v6.0.: www.australiancurriculum.edu.au
- Ministry of Education Science and Technology (2015). National education Sector Plan. VolOne. Basic Education Programme Rationale and Approach. 2013 -2018
- NEXT (2010). Japan Ministry of Education, Culture, Sports Science and Technology, Education Reform for the 21st Century, National Council of Education Reform and Process of its Reform, Tokyo, Japan.
- Nyerere J. K. (1967). Education for self-reliance. Dar es Salaam: Government printer.
- Reigeluth, C. M. (1996). Instructional design theories and models; A new Paradigm of Instructional Theory. 1999- books.google.com
- Republic of Kenya. (2009). *National Youth Situation Analysis Report*. Government Press. Nairobi.
- Republic of Kenya. (2007). Government of Kenya, Vision 2030. Nairobi: Government Printers.
- Republic of Kenya. (2011). A teacher competency framework for the Kenya primary school teacher. Ministry of education.
- Republic of Kenya. (2010). Task force report on the re-alignment of the education sector to the constitution of Kenya 2010: towards a globally competitive quality education for sustainable development
- Ross, A. (2000). Curriculum: Construction and Critique; masters classes in education series. New York: Routledge Falmer Garland inc.
- Saltery, D. (1989). Assessment in Schools. Basil Blackwall Ltd.
- Sifuna, D. N. & Karugu, A. M. (1988). Contemporary Issues in Education. Nairobi: Kenyatta University.
- Swaffield, S. (2008): unlocking Assessment, A David Fulton Book

- Perkins, D. (1992). *Smart schools: from training memories to educating minds*. Free Press
- Pogrow, S. (1996). *Reforming the wannabe reformers: why Education Reforms Almost Always end up making things worse*. Phi-Delta Kappan, 1996-ERIC Prentice Hall.
- The Scottish Government (2009). *Curriculum for excellence building the curriculum 4 skills for learning, skills for life and skills for work*. Edinburgh: Scottish government
- Tien, C, Ven, J. H. & Chou, S.L. (2003). Using the problem based learning to enhance student key competencies. *Journal of American Academy of Business*. Cambridge
- Treadaway, J. (2003). *Education for what? Revisited*. Paper presented at the SICHE Education Conference, Panatina, Honiara, 23-25 September, 2003.
- Twoli, N., Maundu, J., Muindi, D., Kioo, M, Kithinji, C., (2007). *Instrumental Methods in Education*, Kenya Institute of Education, Nairobi
- UNESCO. (2015). *The curriculum in debates and in educational reforms to 2030: for a curriculum agenda of 21st century*. IBE No. 15. Geneva. Switzerland.
- UNESCO. (2015). *Repositioning and conceptualizing the curriculum for the effective realization of sustainable development goal four, for holistic development and sustainable ways of living*. IBE: repositioning curriculum in education quality and development, relevance. Incheon. South Korea..
- Otungu, R., Odero I., Barasa, P. L. (eds). (2011). *A handbook for Curriculum Instruction*. Moi University Press. Moi University. Eldoret.
- Voogt, J. & Roblin, N. P. (2012). A comparative analysis of international frameworks for 21st century competences: Implications for national curriculum policies. *Journal of Curriculum Studies*. Volume 44, Issue 3.
- Wedell, M. (2009). *Planning for Educational Change. Putting People and their Contexts First*. Continuum International Publishing Group. London.

SN.	CODE	RESPONDENT(S)	INSTITUTION	COUNTY
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CODES USED IN THE DOCUMENT

1.	BUS.MAN-INF-NAI	Business man	Informal sector	Nairobi
2.	BUT-INF-KAJ	Butcher	Informal sector	Kajiado
3.	CAP-INF-LAM	Capenter	Informal sector	Lamu
4.	CARW- INF-UG	Carwash	Informal sector	Uasin Gishu
5.	EMP-IND-BUS	Employee	Industry	Busia
6.	S-FGD-MARM-S-MARS	Students	Marsabit Mixed	Marsabit
7.	S-FGD-MOIG-S-UG	Students	Moi Girl Secondary	Uasin Gishu
8.	PA-FGD-NYANDA-S-NYA	Parents	Nyandarua Secondary	Nyandarua
9.	HOT-INF-NAR	Hotelier	Informal	Nairobi
10.	JUA-INF-GAR	Jua kali	Informal sector	Garissa
11.	KI - FBO - BUN	Education Secretary Friends Church	Faith Based Organization	Bungoma
12.	KI -BIS-HOM	Bishop	Church	Homabay
13.	KI- CD LAI	County Director	Teachers Service Commission	Laikipia
14.	KI CITAM NRB	Citam Education Secretary	Faith Based Organization	Nairobi
15.	KI CPC NAI	Chair Person	Parliamentary Committee on Education, Research And Technology	Nairobi
16.	KI HET NAI	Headteacher	Makini School	Nairobi
17.	KI KPSA UG	CEO Kenya Private Schools Association	Private Schools	Uasin Gishu
18.	KI- LIS -NAI	Chief Executive	Life skill Promoters	Nairobi
19.	KI STU KAU	Students	Karatina University	Nyeri
20.	KITCDE-BUS	County Director	Teachers Service Commission	Busia
21.	KI-AIC-KIT	Reverend	Africa Inland Church	Kitui
22.	KI-CAT-BUN	Priest	Catholic Diocese	Bungoma
23.	KI-CBE-KIT	In charge Basic Education	County Government	Kitui
24.	KI-CCO-MAN	Chief Executive Human Resource	County Gov	Mandera
25.	KI-CD-BUN	County Director	TSC	Bungoma
26.	KI-CD-GAR	County Director	TSC	Garissa
27.	KI-CD-MAK	County Director	TSC	Makueni

28.	KI-CEE KWA	County Education Executive	County Government	Kwale
29.	KI-CEE-KAK	County Education Executive	County Government	Kakamega
30.	KI-CEMASTEANAI	Director	CEMASTEANAI	Nairobi
31.	KI-DVC-KAU	DVC	Karatina University	Nyeri
32.	KI-FAWE-NAI	CEO	FAWE	Nairobi
33.	KI-KEPSHA	KEPSHA CEO-Nairobi	Kenya Private Schools Heads Association	Nairobi
34.	KI-MCDE-BUS	MOE CDE	MOE	Busia
35.	KI-MCDE-KAK	MOE CDE	MOE	Kakamega
36. 37.	KI-MPC NAI	Member of Parliamentary Committee	Parliament	Nairobi
38.	KI-NACECE-BUN	National Association NACECE	NACECE	Bungoma
39.	KI-NVCET-NYA	Assistant Director NVCET	MOE	Nyandarua
40.	KI-PAS-NAI	Pastor	SDA	Nairobi
41.	KI-REG-LAU	Registrar Laikipia University	Laikipia University	Nyandarua
42.	KI-SGKN NAI	Secretary General KNUT	KNUT	Nairobi
43.	KI- BIS - HOM	Representative (Bishop)	County Education Board	Homa Bay
44.	KI-TCDE-NYAM	County Director	TSC	Nyamira
45.	KI-TCD-KWA	County Director	TSC	Kwale
46.	KI-TSC-NAI	Chair Person	TSC	Nairobi
47.	KI-UNESCO-NAI	Representative	UNESCO	Nairobi
48.	KI-WIPER	Member	Wiper Party	Nairobi
49.	KI-WV-SAMB	World Vision	World Vision	Samburu
50.	MAN-IND-BAR	Manger	Industry	Baringo
51.	MAN-IND-KAK	Manger	Industry	Kakamega
52.	MAN-IND-NAR	Manger	Industry	Nairobi
53.	MEC -INF-NAR	Mechanic	Informal sector	Narok
54.	MEC-INF-UG	Mechanic	Informal sector	Uasin Gishu

55.	MECH-INF-MUR	Mechanic	Informal sector	Murang'a
56.	MEM-CEMASTE	Memoranda	CEMASTE	Nairobi
57.	META -INF-BUS	Metal dealer	Informal Sector	Busia
58.	MITU-INF-NYA	Mitumba dealer	InformalSector	Nyandarua
59.	PA-FGD-NDUR-LAIK	Parents	Ndururumo High	Laikipia
60.	PA-FGD-KATP-MAK	Parents	Kathonzweni Pri	Makueni
61.	PA-FGD-KIRIS-S-SAMB	Parents	Kirisia Secondary	Samburu
62.	PA-FGD-KIS-S-NYA	Parents	Kisima Mixed	Nyandarua
63.	PA-FGD-MAKG-S-MAK	Parents	Makueni girls sec	Makueni
64.	PA-FGD-MAKG-S-MAK	Parents	Makueni girls sec sch	Makueni
65.	PA-FGD-MAKWP – KWA	Parents	Makwenyeni Sec	Kwale
66.	PA-FGD-MOIG-S-UG	Parents	Moi girls sec	Uasin Gishu
67.	PA-FGD-MUTG-S-KIT	Parents	Mutonguni Secondary	Kitui
68.	PA-FGD-NJAB-S-NYA	Parents	Njambini Secondary	Nyandarua
69.	PA-FGD-NYAKI-S-NYA	Parents	Nyakiambi Secondary	Nyandarua
70.	PA-FGD-NYANDA-S-NYA	Parents	Nyandarua Secondary	Nyandarua
71.	PA-FGD-OLOLUG-S-NARK	Parents	Ololung'a Sec	Narok
72.	PA-FGD-OLOOL-S-KAJ	Parents	Oloolua Secondary	Kajiado
73.	PA-FGD-St.JOSE-BUNG	Parents	St. Josephs Sec	Bungoma
74.	QUAR-INF-MAC	Quarry	Informal	Machakos
75.	S-FGD-OLOO-KAJ	Students	Oloolua Secondary	Kajiado
76.	S-FGD- StMARS-NAR	Students	St. Marys Sec	Narok
77.	S-FGD-BUT-S-BUS	Students	Butula Boys	Busia
78.	S-FGD-IFT-S-GAR	Students	Iftin Sec	Garissa
79.	S-FGD-KANJU-S-NYE	Students	Kanjuri	Nyeri
80.	S-FGD-KAS-S-KIL	Students	Kasidi Sec	Kilifi
81.	S-FGD-KAW-S-MAK	Students	Kawala Sec	Makueni
82.	S-FGD-KIS-S-NYA	Students	Kisima Mixed	Nyandarua
83.	S-FGD-KWANG-S-KIT	Students	Kwa Ngindu sec	Kitui

84.	S-FGD-MARM-S-MARS	Students	Marsabit Mixed	Marsabit
85.	SFGD-MEKA-SP-KWA	Students	Mekaela Sec	Kwale
86.	S-FGD-MOG-S-SAM	Students	Moi Girls Secondary	Samburu
87.	S-FGD-MOIG-S-UG	Students	Moi Girls Secondary	Uasin Gishu
88.	S-FGD-MUL-S-BOM	Students	Mulot High	Bomet
89.	S-FGD-MUS-S-KAK	Students	Musingu Boys	Kakamega
90.	S-FGD-NJU-S-MUR	Students	Njumbi Secondary	Murang'a
91.	S-FGD-NYAKI-S-NYA	Students	Nyakiambi Secondary	Nyandarua
92.	S-FGD-PBH-S-UG	Students	Paul Boit High Sch	Uasin Gishu
93.	SFGD-RAP-S-MIG	Students	St. Joseph Rapogi	Migori
94.	S-FGD-StCNAM-S-BUS	Students	St. Cecelia Namenya	Busia
95.	S-FGD-BUT-S-BUS	Students	Butula Boys	Busia
96.	S-FGD-StMARS-NAR	Students	St. Marys Sec	Narok
97.	S-FGD-KAW-S-MAK	Students	Kawala Sec	Makueni
98.	S-FGD-MOIG-UG	Students	Moi Girls Sec	Uasin Gishu
99.	PA-FGD-NYANDA-S-NYA	Parents	Nyandarua Secondary	Nyandarua
100.	SHOP- INF-NYE	Shop keeper	Informal sector	Nyeri
101.	SL- MAKGS- MAK	Student leader	Makueni girls sec	Makueni
102.	SL- MUMS - MUR	Student leader	Mumbi Girls	
103.	SL-KIRIS-S-SAMB	Student leader	Kirisia Secondary	Samburu
104.	SL-MAL-S-KIT	Student leader	Maliku Secondary	Kitui
105.	SL--MARMD-S-MARS	Student leader	Marsabit Mixed	Marsabit
106.	SL-MBIT-S-HOM	Student leader	Mbita Secondary	Homa Bay
107.	SL-MOIG-S-UG	Student leader	Moi Girls	Uasin Gishu
108.	SL-RAP-S-MIG	Student leader	St. Joseph Rapogi	Migori
109.	WEL-INF-NAR	Welding person	Informal sector	Narok