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**School of Education**

**Theme:**

**“Managing Changes in  
Education for Sustainable  
Development”**

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**“Managing Changes in  
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# Contents

<b>Students' Mobility in the East African Community: a catalyst for internationalisation of higher education in east africa</b> — <i>Andrew K. Kandie, Email: andkankip@gmail.com</i> .....	1
<b>Inclusive Education: a change in education for sustainable development</b> — <i>Andrew Makachia, Shikuku Mulambula</i> .....	13
<b>Managing Education for Sustainable Development</b> — <i>Wafula Andrew; Mulambula Musima; Siakilo Emmanuel</i> .....	31
<b>Public Policy and Practice in Juvenile Rehabilitation Programmes in Kenya: Current Trends and Needed Reforms</b> — <i>Beth Wambugu,</i> .....	45
<b>An Investigation into Implementation of ICT in ECD and Primary Schools, in the Light of Free Laptops at Primary One: a case study of teachers implementing ICT into their teaching practice</b> — <i>Betty Tonui, Eunice Kerich, Rachel Koross and J.K. Too</i> .....	63
<b>Will Our Children Learn? Learning Environments, Teachers and Teaching Approaches Should Matter to their Learning</b> — <i>Brown Bully Onguko</i> .....	77
<b>Issues in the Implementation of Instructional Materials Procurement Policy in Kenyan Public Primary Schools: the case of Wareng District, Uasin-Gishu county, kenya</b> — <i>Catherine Kiprop, Jane Jelimo &amp; Emily Bomett</i> .....	99
<b>Towards Integrated E-Learning Approach: teachers and students perceived challenges in the teaching and learning of business studies in kenyan secondary schools</b> — <i>Susan J. Kurgat</i> .....	125

---

<b>An Assessment of School Management Committees' Capacity in the Implementation of FPE Funds in Public Primary Schools</b> — <i>Joyce W. Kanyiri, Mary W. Nganga &amp; Faith J. Kiprono</i> .....	143
<b>Reorienting Education to Achieve Vision 2030: challenges and barriers</b> — <i>Kanyiri Joyce, Alice Kibui &amp; Omondo Tom</i> .....	157
<b>Risk Management on Financial Performance in Higher Institutions of Learning: a case study of uganda christian university, mbale campus</b> — <i>Henry Omache, Dan Nabende, Sam Okware, Francis Wabusa, Gidudu Hannah Lunyolo</i> .....	171
<b>The Impact of Reading Culture on Academic Performance of Students in Manafwa District</b> — <i>Khakale George I, Chelangat Moses, Nandutu Janet, and Gidudu Hannah Lunyolo</i> .....	179
<b>Challenges and Effects of Financing University Education in Kenya</b> — <i>Gilbert Nyakundi Okebiro and Morara Vincent Gesora, </i> .....	187
<b>A Case for Teachers' Workplace Learning: the role of school leadership</b> — <i>Chirure Nabututu Hellen</i> .....	205
<b>Integration of Music, Dance and Drama in Enhancing the Teaching of English Language in Secondary Schools</b> — <i>Chelangat Moses Taifa, Nabende Wamakote Danny, Khakale George G.H. Lunyolo</i> .....	217
<b>Preparation of Teachers in Teacher Education</b> — <i>Njuguna J. Mwangi</i> .....	227
<b>Simulation and Modeling Methodology for Physics Teachers</b> — <i>Joseph K.Maritim</i> .....	249
<b>Projection on The Number of Secondary School Students in Kenya in 2015: a survey of nandi north and south districts</b> — <i>Zachariah K. Kosgei &amp; Joyce J. Kurgat</i> .....	263

---

<b>Gender Differences in Parental Involvement in Children’s Learning in Public Secondary Schools: a case of kieni-west district, nyeri county-kenya</b> — <i>Ondigi S. &amp; Ndirangu L.</i> .....	273
<b>Teachers’ Preparedness in the Integration of Information Communication Technology in Public Secondary Schools: a case of kieni east district, nyeri county- kenya</b> — <i>Thuranira Simon &amp; Ndirangu Lydia</i> h .....	293
<b>Training Needs of Headteachers of Public Secondary Schools in Kenya</b> — <i>Ongek Margaret</i> .....	309
<b>Language Education as A Catalyst in Documenting Local Languages: a case of the lubukusu noun phrase</b> — <i>Ndalila K. Henry</i> .....	337
<b>Nurturing Integrity in Management Education with the Development of an Alternative Web of Metaphors</b> — <i>Patrick Onsando &amp; Thomas Cheruiyot.</i> .....	361
<b>Assessment of Coping Strategies by Orphaned Learners and their Academic Achievement in Selected Primary Schools in Kenya</b> — <i>Owino A. Alice and Susan J. Kurgat</i> .....	381
<b>Preparing Exemplary Educators for Tomorrow’s Schools</b> — <i>Pat Rogan,</i> .....	393
<b>Challenges in the Allocation of Constituency Bursary Funds and their Effect on Access and Retention of Students in Public Secondary School in Nairobi County, Kenya</b> — <i>Saina Shadrack Kiprotich</i> .....	397
<b>Review of the Teachers’ Service Commission Pilot Project on Teacher Appraisal and Development: implications for teacher education</b> — <i>Sophia A Oriwo</i> .....	417

---

<b>Principals’ Definition of School Instructional Mission and Its Influence on Learners’ Academic Achievement in Public Secondary Schools in Baringo County, Kenya</b>	
— <i>Stephen T. Cheboi and Jonah N. Kindiki</i> .....	435
<b>Resistant to Change Frustrates Maasai Girls’ Learning Outcomes in Secondary School Education in Kenya</b>	
— <i>Stephen Kipkorir Rotich Laban Ayiro, James Sang</i> .....	455
<b>Use of Counseling as an Intervention Against Interdiction and Summarily Dismissal</b>	
— <i>Syellow C.M, Joseph Bii &amp; Makila Leunita</i> .....	475
<b>Challenges Facing Adoption of Information Communication Technology in Educational Management in Universities in Africa: “an african perspective”</b>	
— <i>John K. Chang’ach</i> .....	485
<b>Managing Change In Education Sector</b>	
— <i>Veronica Onjoro</i> .....	501
<b>Effect of the Learning Environment on Dropout in Primary Schools in Katilu Division, Turkana County in Kenya</b>	
— <i>Namunwa B Daniel, Emily J Bomett, Kiprop Catherine</i> .....	511
<b>Managing Change in Education: Exploring Early Childhood Education Teacher Competencies For’ For Sustainable Development</b>	
— <i>Betty Bor, Esther Bitok, Philomena Chepsiror and John Chang’ach,</i> .....	529
<b>The Higher Education Crisis In Kenya: dilemma and options</b>	
— <i>John Mugun Boit</i> .....	547
<b>Gender Equity and Access in Kenyan Public Universities: an examination of affirmative action policy in practice</b>	
— <i>John Mugun Boit</i> .....	557

---



**The Position of Research in Uganda Christian University: a case of ucu mbale campus**

— *Nabende Wamakote Danny, Mwelu Lukunyu Stephen, Gidudu Hannah Lunyolo, and Annet Magolo* .....573





## **Students' Mobility in the East African Community: a catalyst for internationalisation of higher education in east africa**

*Andrew K. Kandie, Email: andkankip@gmail.com*

### **Abstract**

Universities worldwide are ever striving to improve the quality of education they are offering while focusing on international, intercultural or global dimensions. It is notable that institutions globally have to comply with the ISO specifications which stand out as a yardstick for quality checks. Internationalisation incorporates student mobility into its concept while bringing Universities on board to realize its universal nature. Students' mobility plays a big role in internationalisation of education as it involves cross-border flow of students from various countries with different backgrounds and cultures. In East Africa, a recent study indicates that increased mobility is characterised with a significant number of post graduate students. Most of these students are professionals in various fields and therefore are resourceful when strategically incorporated into the university set up to enhance international, intercultural or global dimensions into the education system. Students' mobility in the East African Community is a fast growing phenomenon and could be very useful towards attainment of higher educational goals. With these dynamic changes, university policies may be modified to cater for opportunities that arise with students' mobility in relation to internationalisation of education. This paper aims at examining the contribution of students' mobility on internationalisation of education in Universities with prime focus on East Africa. This will help Universities to elevate internationalisation of Higher Education which has been facing numerous challenges in the region. The information obtained is based on a research conducted

**in East Africa and an in-depth analysis of literature in the related field.**

**Keywords:** *Students' Mobility, East African Community, Internationalisation, Higher Education*

## **Introduction**

The universal nature of higher education is a term that almost goes unnoticed when the term University is often mentioned. The Universality of higher education is one important element as far as higher education quality globally is concerned. With increased rates of globalization, the universal nature of higher education manifests itself further in various components in higher learning. Globalisation calls for unity; that is, higher education institutions worldwide functioning as a unit as they try to achieve common goals of education while conducting higher education activities.

Globalization “refers both to the compression of the world and the intensification of consciousness of the world as a whole”; in other words, it covers the acceleration in concrete global interdependence and in consciousness of the global whole (Robertson 1992, p. 8). As far as quality of higher education in a nut shell is concerned, this implies that higher education institutions try to achieve a common status as other higher education institutions globally; hence, the Application of ISO 9000 standards to education and training in Universities. In as much as the Universities across the globe try to cope with globalization challenges, the internationalisation of higher education is affected either positively or negatively. External effects on higher education are very important: “For present-day higher education, external influences play a dominant role in determining the nature of the curriculum. Higher Education of the 21<sup>st</sup> century is challenged by a variety of external factors... it is not only challenged by governments and broader society to demonstrate its relevance, but also by the ever-increasing globalization of knowledge.” (Jooste, 2005-2006:11).

Therefore, one of the most important issues is that universities should be able to understand the forces that emanate from globalization with a keen eye on opportunities that arise from it such as making use of increased mobility rates globally. Without examining the effects of globalization on

internationalisation of higher education, the Universities may lose track on important and innovative processes that may affect internationalisation goals in higher education institutions.

However, it is necessary to be clear that student mobility should not be misconceptualised as a yardstick for measuring the extent of globalization. According to Knight (2011), “A long standing myth is that the more foreign students on campus the more internationalised the institutional culture and curriculum will be.” Many a times, when people think that the more the number of students in a University, the higher the rates of internationalisation. In contrary, it is possible to have a high number of international students in a university and have low rates of internationalisation. To demystify this misconception, this particular case perceives students’ mobility as a phenomenon that can impact positively on internationalisation of education through the students. Based on interaction between home and international students and staff, these international students can bring new ideas and approaches to learning.

### **Definition of terms**

In this research, the key terms include students’ mobility, East African Community (EAC), Internationalisation of Higher Education and Higher Education. These terms are defined as follows:

***Students’ Mobility:*** Student mobility refers to international students who travelled to a country different from their own for the purpose of tertiary study (Ischinger, 2006). In Universities in EAC, we have foreign students both from EAC countries and from other countries worldwide. In this scenario, student mobility in East Africa will lay much emphasis on those students who are originating from EAC.

***East African Community (EAC):*** The East African Community is the regional intergovernmental organisation of the Republics of Burundi, Kenya, Rwanda, the United Republic of Tanzania, and the Republic of Uganda, with its headquarters in Arusha, Tanzania. The Treaty for Establishment of the East African Community was signed on 30 November 1999 and entered into force on 7 July 2000 following its ratification by the original three partner states – Kenya, Tanzania and Uganda. The Republic of Rwanda and the Republic of Burundi acceded to the EAC Treaty on 18

June 2007 and became full Members of the Community with effect from 1 July 2007 (EAC website).

**Internationalisation:** “Internationalisation at the national level/ sector/ institutional levels is defined as the process of integrating an international, intercultural or global dimension into the purpose, functions and delivery of post secondary education” (Knight, 2004, p. II). This is the working definition of internationalisation as proposed by Knight (Knight et. al. 2008, p. 15). This paper adopts Knight’s definition and focuses on the intercultural, international and global dimensions of education in Universities.

**Higher Education:** Higher education refers to post secondary education. Sometimes it is referred to as tertiary education. In this case, the author concentrates on university education in EAC.

## **Objectives**

Internationalisation of education in Africa has been facing challenges over the past decade. However, at a more practical level, internationalisation is proving to be a useful tool for helping institutions benchmark and come up with innovative solutions to ongoing management, academic, and research-related challenges (Hans de Wit et. al, 2005). The East African community has recorded an increase in international students in Universities with a very significant percentage originating from the region. This population comprises of both undergraduate and postgraduate students who can impact greatly on internationalisation of higher education. Therefore, this paper aims at examining the contribution of students’ mobility on internationalisation of education in Universities with prime focus on East Africa. This will help Universities to elevate internationalisation of Higher Education in their institutions of learning.

## **Methodology**

This research paper is based on the findings of a research conducted in East Africa and an in-depth analysis of literature in the related field. Therefore, more information was obtained by use of library research, whereby the researchers used document analysis to come up with findings on the contribution of students’ mobility on internationalisation of education in Universities with prime focus on the East African region.

## **Student Mobility Rates**

Concerning globalization in higher education sector, the rise of student mobility rates cannot be neglected. Student mobility and its influences on internationalisation of education in higher education cannot be disregarded. Currently, the phenomenon has been characterised by increased trends. As an aspect of globalisation, the student mobility is fastened by increased globalization impacts on higher education. Globally, we realize an increased in-and-outbound flow of students in various countries with various interests in higher education. This has been increased by global demand of Education.

“By 2025, global demand for international higher education will increase to 7.2 million. This four-fold increase from 2000 represents a compound annual growth rate of 5.8%.” (Böhm, 2002:VI).

Furthermore, Böhm attributes the development of a new competitive environment to the success of countries such as the U.S.A, U.K and Australia, in attracting international students. Therefore student mobility can change the face of higher education by creating a competitive environment that can lead to improvement of various aspects of higher education and thus internationalisation of education.

## **Student Mobility Rates in EAC**

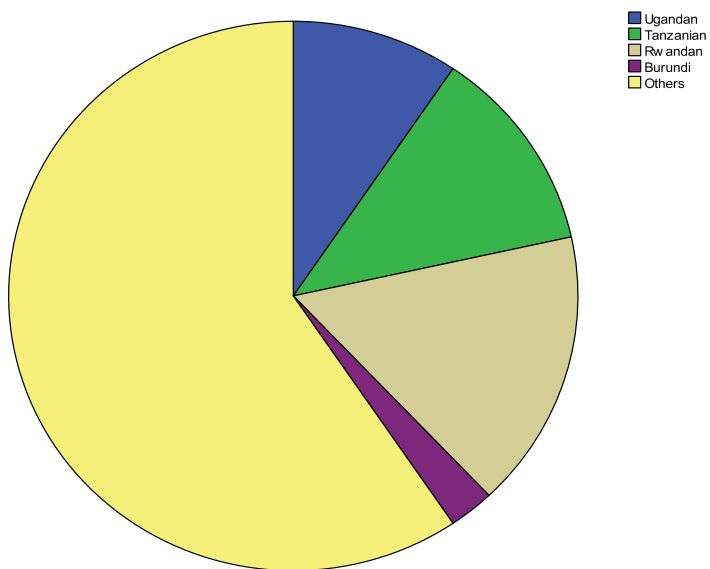
For long, there has been unclear track record of student mobility case in EAC. Although East Africa has had a long history of regional migration, there are no accurate data to approximate the numbers involved or that can be used to make future projections. (Nyaoro, 2010). Even though, a research conducted in universities in EAC with concentration in four Kenyan Universities (Kandie, 2014) indicates that over 25% (of a total of 966 foreign students from the four universities) of the foreign students in these Universities are East African Students. The research furthermore indicates that more than 50% of these East African students are post-graduate students. Table 1, Figure 1 and Figure 2 clearly shows the scenario.

**Table 1:** Distribution of Foreign Students in the Kenyan Universities.

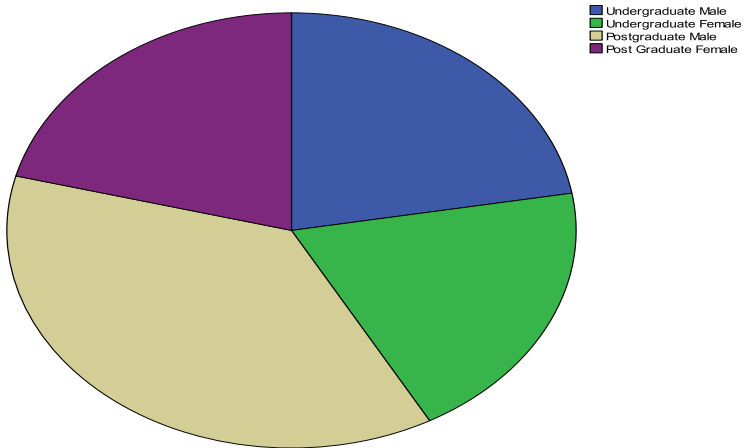
Nationality	Undergraduate		Undergraduate		Postgraduate		Post Graduate		Total	
	Male Column Sum %	Mean	Female Column Sum %	Mean	Male Column Sum %	Mean	Female Column Sum %	Mean	Column Sum %	Mean
Ugandan	4.7%	16	4.8%	9	10.1%	29	9.9%	15	7.1%	69
Tanzanian	6.1%	21	11.8%	22	15.3%	44	13.2%	20	11.1%	107
Rwandan	5.0%	17	6.5%	12	13.6%	39	17.2%	26	9.7%	94
Burundi	4.4%	15	9.7%	18	1.0%	3	2.6%	4	4.1%	40
Others	79.8%	273	67.2%	125	59.9%	172	57.0%	86	67.9%	656

Source: Kandie (2011)





**Figure 1:** *Distribution of Foreign Students in the Kenyan Universities*



**Figure 2:** *Distribution of Foreign East African Students according to gender and course level in Kenyan Universities*

### **Internationalisation of education and Students' Mobility**

From the statistics, it is clear that post graduate East African students are more than their Undergraduate Students counterparts. This fact is significant as far as internationalisation is concerned. Because internationalisation involves the process of integrating an international, intercultural or global dimension into the purpose, functions and delivery of higher education, then interaction of such post-graduate students with the other key stake holders of higher education, may play a big role in boosting internationalisation. The key stake holders include the university management; academic and non academic staff and also the students. Joint programmes that encourage the sharing of ideas and new ways of doing things involving the foreign international students may improve quality of Education in Universities. This is so because the post-graduate students are professionals in their fields besides being from different cultural backgrounds and have very innovative insights into higher education.

According to Gabriella (2010), "...universities cannot engage in developing our future society unless they engage in developing

intercultural dialogue. Universities cannot be universities unless their mission is to offer an education that is greater than the sum of their individual academic disciplines.” This implies that universities must integrate intercultural dialogue for it to be complete. Students from vast cultures must get an avenue where they can interact freely and therefore strengthen intercultural dimension of higher education.

## **Conclusion**

Students’ mobility rates are fast expanding globally. This comes with rise in the number international students in universities. Considering East Africa, it is notable that there is significant number of post-graduate students in Universities in East Africa. For this reason, these students can play an important role in internationalisation of higher education. The diverse culture in the educational setup can help in developing multicultural consciousness and interaction in the university. Through the participation of international students especially the post-graduate students in learning/ teaching, training, seminars, social/ interactive activities and administration among other core functions of universities, intercultural, international and global elements can be realized in these institutions. Offering work-study, volunteer opportunities for international students incorporates international and multicultural dimensions in service delivery. The process of interaction is a two way gain to the countries involved. This is so because these international students share their home experiences with students/ staff in the host institution and after completion of studies, they in turn share in their home countries the experiences gained while being an international student.

The mandate presented to international professionals gives them an opportunity to make a difference with positive impact on internationalisation of education. International experience comes about with new ideas that can enhance the delivery of services within institutions of higher learning, nurturing novel research opportunities and excites the quest for innovative solutions for common challenges.

Development of regional blocs is also an important issue as it enhances collaborations in institutions of higher learning and research. Such efforts have long history in EAC and some are marked by joint initiatives in establishing institutions in the region. For instance, the formation of

IUCEA way back in 1980 brings on board all stakeholders in institutions of higher learning to enhance collaborations in Universities. The key strategic intervention which IUCEA Secretariat aims to put in place is to ensure that IUCEA becomes an effective and all-embracing research and human resource development institution for East Africa. Among them, Introducing institutionalized “Free Movement of Students” in East Africa was emphasized (IUCEA, 2008). Therefore, students’ mobility stands out as a very important issue as far as regional collaborations are concerned. With these dynamic changes in higher educational sector, universities can employ a strategy to harness the potential in international students/ professionals into building internalization sustainable development.

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## **Inclusive Education: a change in education for sustainable development**

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### **Abstract**

**Education is a basic foundation for the development of any country and it is a key lever for sustainable development. In line with Millennium Development Goals, Kenya committed itself to achieve EFA goals by the year 2015. All learners including those with special needs and disabilities should access quality education in an inclusive setting. In Kenya learners with special needs and disabilities are excluded in mainstream education system and offered education in secluded systems and or not offered education. The purpose of the present study was to examine key changes in education systems for effective implementation of inclusive education in mainstream schools. Inclusive education is concerned with all learners including those with special needs and disabilities accessing education in mainstream schools. Inclusive education is the taking back of learners who were being taught in separate education systems to mainstream schools. Inclusive education is a philosophy that emphasize that schools should be transformed to respond to the needs of learners and not the other way. Areas that were considered for change included teacher preparation and competencies, adaptations of the environment, examinations, curriculum and changes in policies and legislations. This research paper used qualitative approach and utilized secondary data. Social theory of learning and social model of disability guided the study. It was concluded that changes in teacher competencies, curriculum, physical environment, teaching resources and policies have to be made. It was also recommended that teachers have to undergo in-service courses and the curriculum, environment,**

**teaching materials including assistive aids have to be appropriate for all learners.**

**Keywords:** *Inclusive education, Change in education, Development*

## **Introduction**

Education in Kenya is considered a basic right and a basic need (Mulambula & Sitienei, 2012). The Education for All Agenda (EFA) and Salamanca statement advocate for the rights of all children including the right to access education with an emphasis on inclusive education (UNESCO, 1990 & UNESCO, 1994). This advocacy stems from the fact that through education the whole child is developed in terms of skills, attitudes and knowledge necessary for successful integration into the society irrespective of what condition the child has (Miriam-Webster, 1978). Inclusion in its broader term refers to inclusion of the marginalized groups on grounds of religion, ethnic, linguistic minorities, immigrants, girls, and students with disabilities, HIV patients, street children and remote poor population (Republic of Kenya, 2008). Inclusion is thus a term that refers to more than inclusion of learners with special needs and disabilities.

Inclusion in education is a philosophy that transform the mainstream education system to respond to different learners in a constructive and positive way (Hejnen, 2002). Under inclusive education model, Learners with special needs spend most of their time with students without disabilities in the general class (Bowe, 2005). Jha (2002) describe inclusion as a process by which schools attempt to respond to all learners as individuals by considering their curriculum organization and its delivery. Through this process, Jha notes that a school builds its capacity to accept all learners from the local community who wish to attend and in so doing reduces the need to exclude some learners on the basis of special needs and disabilities on the pretext that such children should be educated in special schools. Special needs education is considered a service and not a place and those services are included in the daily routines and classroom structures, environment, curriculum, teaching strategies and brought to the child in a mainstream school. Carey (1997) argues that inclusive education leads to a reduction of all forms of discrimination and fosters



social cohesion as children who grow and learn together, live together. There are a wide range of learning needs, interest and capabilities that are provided in an inclusive setting (Stainback & Jackton, 1992).

Kenya immediately after independence established an educational commission that recommended that persons with disabilities be educated in regular schools while Education commission report of 1976 recommended that integrating equipment be provided in regular schools system for the integrated learners (Republic of Kenya, 1964 & 1976). The presidential working party on Education and man power Training commission report (Republic of Kenya, 1988) recommended the integration of learners with disabilities in regular schools and Koech in Republic of Kenya (1999) called for Equal treatment of the unequal. This treatment was to come in the way of curriculum differentiation, different styles of teaching inclusive classes, environment and teaching learning resources adaptation suiting children with special needs and disabilities. Children's Act (2001) and Disability Act (2003) emphasized the rights of persons with disabilities which included the rights to Education. Kochung report in Republic of Kenya (2003) was a landmark in the education of children with special needs. In this report, it was recommended that special needs education in Kenya be funded adequately at all levels including Early Childhood Development programmes, Primary Schools, Secondary Schools, Colleges and Universities. This report further emphasized early identification and assessment of children with disabilities, awareness creation, training of all teachers in special needs education and addressing educational needs of all learners in terms of curriculum differentiation, adaptations of examinations, learning aids and physical facilities.

Further in 2005, Kenya government developed sessional paper No. 1 (2005) which resulted in the development of Kenya Sector Support Programme (KSSP) document. As a result of KSSP document, all special schools and integrated programs started receiving funds for various activities including infrastructural development, tuition, and sports activities among others.

Special schools are segregative and discriminative in nature. Learners with special needs and disabilities are eliminated from mainstream schools and lumped together in these excluded educational systems where education is of low quality (Mulambula & Sitienei, 2012).

From the foregoing, the present paper will examine policy changes internationally and locally, teacher competencies, curriculum, learning resources, and environment adaptations as key changes in education to enable inclusive education be implemented for sustainable development. This will be a paradigm shift in education in that learners who have to date been thought as not fit to learn in mainstream schools will attend home schools where they will live for the rest of their lives as fully integrated members of the society.

### **Statement of the problem**

Every country must invest in its entire people and one such important investment is education through which social justice and economic development can be realized. However not all governments treat their citizens equally especially the developing nations. Some people especially those with disabilities and other conditions are segregated and denied or given less quality education in special schools rather than in mainstream education. In Kenya, policies are being put in place to ensure that all children including those with special needs and disabilities access quality education in an inclusive setting. World over about 130 million children with special needs are not attending school and 80% of this are in Africa (Republic of Kenya, 2008). Various commissions and policies in Kenya have advocated for integration and or inclusive education. Inclusive education has haphazardly been implemented, its meaning not yet understood well and teachers not well versed in the teaching methodologies of learners in the inclusive schools. Studies conducted on implementation of inclusive education in other parts of the country have shown that teacher competencies, curriculum, teaching/learning materials and environment adaptations influence implementation of inclusive education in schools (Ndonye, 2011; Keriongi, 2011 & Okuta, 2011). It is on this premise that the present paper has examined teacher competencies, curriculum, and environmental physical and policy changes as major educational system changes for sustainable development in Kenya.

### **Purpose of the study**

The purpose of the present paper therefore was to examine changes made in education for effective implementation of inclusive education

in mainstream schools in Kenya. The objectives of this paper therefore were:

- To identify Teacher competencies necessary for the implementation of inclusive education
- To analyze the Policy changes made to implement inclusive education internationally and locally.
- To assess how schools have reorganized curriculum, examinations and environment to implement inclusive education.

### **Methodology**

This is a qualitative research paper which utilized secondary data by reviewing literature related to inclusive education. The thrust of this paper lies on the belief that learners with special needs and disabilities should be given equal rights and opportunities thus social justice. Therefore this paper was based on social model of disability and social learning theory which emphasizes that persons with disabilities are usually handicapped by the society and on that basis are unable to perform tasks on the basis of disabilities (Mike, 1980). These models advocate for the inclusion of persons with disabilities in mainstream societal activities. Social learning theory by Albert Bandura posits that teachers should teach learners with special needs and disabilities in social contexts that promote cognitive development and social development through observation and imitation (Bandura, 1993).

### **Changes in Knowledge and Teaching Strategies Needed for Inclusive Education Implementation**

Rodgers (1993, P.6) has suggested that teachers in inclusive schools should be competent in handling all learners including those with special needs and disabilities. The author asserts that competent teachers teach each individual student in an inclusive class addressing each child's needs at his own pace. The teachers should not teach the class as if students in that class have the same average intellectual ability. These teachers should be aware of the dynamics of their classrooms, should be versatile and comfortable using different teaching techniques.

Burstein, Wilcoxon, Sears, Cabello and Pagana (2004) notes that teachers

who teach in inclusive schools should undergo systematic and intensive training that involves research based practices. This will enable them be able to instill confidence and competence in inclusive schools. Further the authors assert that teachers must engage in professional training as an ongoing activity for their professional growth and competency.

In regular primary schools, teachers who are not trained in inclusive practices set their classrooms climate for completion. Comparisons in terms of academic performance among learners and standards to be achieved by learners are predetermined. According to Falvey, Givner, Haager (2004), this climate cannot make teachers succeed in an inclusive setting. Priority areas that will ensure competency at handling learners in an inclusive classroom includes collaborative team teaching, individualization of educational plans, mulitgrade teaching, peer tutoring among others (Fisher, Frey, & Thousand, 2003). According to Jha (2002, P. 140), innovative practices that ensures participation of learners with special needs in an inclusive classroom and therefore successful implementation of inclusive education includes whole class inclusive teaching, group /co-operative /collaborative teaching, peer tutoring /child to child learning , activity based learning and team approach.

In cooperative learning program, instructional methods such as direct instruction, small group instruction, individualization of roles and accountability and independent practice are combined in a team based approach (Katz & Mirenda, 2002). This cooperative learning is also referred to as collaborative learning where learners work with their peers towards a common goal. The approach promotes the skill of sharing responsibilities, listening to each other, control of emotions and making of decisions (Kenya Institute of Special Education, 2007). This strategy has been found to enhance learning, improves good relations, develop problem solving skills, and improve academic and social skills of students with special needs in inclusive classrooms (Putnam, 1998). Peer tutoring is a specialized form of cooperative learning where students work together in learning academic content and each one of them playing the role of the teacher to the rest of the students. Benefits of peer tutoring include gains in academic skills, self help, communication and social skills by learners with special needs (King-Seers & Cummings, 1996; McDonell, 1998). Falvey et al (2004) notes that peer tutoring minimize behavior problems, increases opportunities to respond and enhance activity comprehension

in such areas as math, reading and social interaction. A study on peer tutoring on reading skills and social interactions with autism children revealed that these skills improved among all learners (Kamp, Berbeta, Leonard & Dequadri, 1994).

Team teaching on the other hand refers to a situation where teachers conduct lessons together and in so doing there is the sharing of their expertise to assist learners overcome their difficulties (KISE, 2007). For instance, in an inclusive class of 50, there is need for more than one teacher if those learners with special needs have to benefit and teachers are able to plan together, teach together, evaluate results together and modify learning goals for each student.

Ainscow, Booth and Dyson (2006) noted that teachers in inclusive classrooms should plan for the general class as well as for individual pupils. Literature on inclusion gives significant attention to strategies that ensures that learners with special needs access and participate in the general classes. For instance, in USA teachers must prepare an Individualized Educational Programme (I.E.P) if they are handling inclusive classrooms. An IEP is a document which describes a child's educational performance, annual goals and objectives to be achieved by the teacher, services the child require and a description of instructional and assessment modification a child require (Individuals with Disability Education Act, 1999). Other alternative ways of handling students with disabilities in inclusive classes Jossey-Bass (1993) in Kiaritha (2011) include:

Teachers should face the class when they are speaking to learners with hearing impairments so as they are able to read the lips. If they are writing on the board or narrating a desktop demonstration, teachers should try to avoid talking when they are facing the board or the desktop.

In class discussion and conversation, teachers should focus primarily on the student with the disability and not on the student's aide or interpreter. In talking to students with hearing impairments, some instructors tend to address the interpreter or to say things like, "Tell her she should ...". Instead, look at and speak directly to the student, with only occasional reference to the interpreter.

During the initial meeting, teachers should ask students with disabilities

what they can do to help them participate in class. Students who cannot raise their hands to answer or ask questions, for example, may feel isolated or ignored. They should be asked how they wish to be recognized in the classroom. Some students will want the teacher to call them. Others may prefer to meet periodically with the teacher before or after class to discuss the course content.

Teachers should consider alternatives to oral presentations, if needed. Oral presentations may be difficult for students with speech, hearing and/or specific learning disabilities. Some students may want to give their presentations with the help of interpreters. Others may want to write out their presentations and ask an interpreter or another student to read it to the class. Still others may wish to give their presentations without assistance and should be encouraged to do so.

Teachers should ensure that students get the academic help they need to succeed in their class. Although a student may have an in-class aide such as a note taker or sign-language interpreter, these aides are not academic tutors. Students with learning disabilities may benefit from ongoing peer help after the teacher.

In summary according to Kumar (2004), the following seven core competencies are a must if implementation of inclusive education has to be successful:

One, Teachers must possess relevant professional knowledge on special needs issues; two, Classrooms must be managed in a way that learners needs are accommodated; three, Collaboration among teachers both special educators and general teachers has to be enhanced; four, Assessment and evaluation procedures should be flexible to accommodate learners with special needs; five, Instructional techniques should be individualized; six, Individualized and adaptive instruction should be utilized; and lastly assistive technology should be used to help those learners with physical disabilities.

## **Changes in Curriculum, Examinations and Environment Organisation by Schools**

According to Falvey et al (2004), one key competency teachers should demonstrate is the ability to select, adapt or modify the curriculum and examinations to make them accessible to all learners. The author further content that teachers should have the ability to spontaneously adapt the curriculum as he/she teaches in the inclusive classroom to respond to the needs of different learners as well as to formerly adapt the curriculum to ensure that all learners access it. For instance, teachers in Countries such as Japan have restructured their curriculum and allowed schools to experiment with different curricular.

In Taiwan University, entrance examinations system has been scrapped in favor of a more holistic approach that considers grades essays and extracurricular activities (Beech, 2002). According to this author, South Korean college students are picked not because of their test scores but for their unique talents. In America, Students learn social skills and group work in environments that celebrate diversity (Elliot, 2002). The Author maintains that exams make students drop out of school especially the rural, the disadvantage and the disabled. In other words the purpose of exams is to filter the best students on only academic grounds and therefore the author asserts that there should be a shift from norm referenced to criterion referenced evaluation.

UNESCO framework (1994) has highlighted the need for child centered pedagogy for addressing the educational needs of the disadvantaged and the disabled. The merit of inclusive schools is not just the delivery of academic content but the development of all skills, attitudes and knowledge for successful integration in the society (Katz & Miranda, 2002).

Jha (2002) states, that success and access to education by all learners lies in the curriculum, the pedagogy, the examinations and the schools approach. The author further suggests that if the unseen barriers are taken care of, access to education by all children will be possible. Republic of Kenya (2008) notes that curriculum has been restructured to respond to the needs of learners with special needs and disabilities. For instance, specialized syllabus has been developed in the area of visual impairment and physical disabilities. The report goes on to state that sign language

has become official language in Kenya and Kenya National Examination Council has made arrangements for learners with special needs. Extra time is allowed for candidates with special needs, some subjects like science have been adapted and scripts for learners with special needs are marked by examiners trained in special needs education. Some of the recommendations that were made in the special needs policy (Republic of Kenya, 2009) include:

Curriculum should be adapted to cater for all specialized areas in special needs education,

Teacher training curriculum in all teacher training colleges should include components of special needs education,

Kenya National examination Council (KNEC) should design National Examinations for learners with special needs as individuals and provide certificates to learners with special needs who do not sit for national exams due to their divers learning needs,

KNEC to ensure that time allocated to learners with special needs for examination papers is determined by the nature and severity of the special needs and disabilities, Ministry of Education should seek copyrights from publishers so as to adapt regular curriculum and have mass production of teaching /learning materials for learners with special needs and disabilities.

The recommendations were made in view of the fact that unless the teacher is prepared to implement them then inclusive education won't succeed. Kumar (2004) suggested that teachers hold the primary responsibility of providing instructions that are characterized by students' diversity, development of appropriate curriculum, its interpretation and its deliverance.

Effective implementation of inclusive education depends on the ability of teachers to ensure that the physical classroom environment, teaching learning aids are adapted to suit learners with special needs and disabilities in inclusive classes (Republic of Kenya, 2009). The provision of compensatory or assistive aids is very crucial for learners with special needs and disabilities. These devices reduce the effect of disabilities that result from impairment (KISE, 2007). The assistive aids include wheel chairs for learners with physical disabilities, hearing aids for learners



with hearing impairment and magnifying glasses for those learners with low vision. Other assistive devices include Braille machines, speech kits, white canes, communication boards and computers. Teachers should ensure that assistive aids and other specialized learning resources should be given first priority as they facilitate access and participation of learners with special needs in the inclusive class (Mary berry & Lazarus, 2002 & Muka, 2009).

Lazarus and Mayberry (2002) and Muka (2009) contend that learners with special need benefit greatly from using such assistive aids as word processors, digital personal organizers, mult-media (films and microphones). In addition, an inclusive class requires teaching /learning resources that enrich and enhances learning environment where learning abilities are improved (KISE, 2007). The abilities include knowledge retention, remembering, thinking, reasoning, interaction and imagination. Specific learning resources include projectors, graphic aids, models, mock – up specimen and software resources. Inclusive education is enhanced with the provision of adapted learning resources and restructuring of the classrooms, construction of ramps, paths and leveling of the school compound for those learners with mobility difficulties and visual problems. Ndonge (2011) and Kochung (2009) report, that learners with special needs and disabilities require barrier free environment to maximize their functional potential. Republic of Kenya report on the special needs policy (2009) recommended that the environment in an inclusive setting should be accessible and disability friendly. The policy further recommended that all primary schools should be provided with funds to remove the existing barriers that make school environment unfriendly to learners with special needs and disabilities. The areas that should be made disability friendly include libraries, toilets, furniture, steps (ramps) and pathways. With this friendly environment for persons with disabilities it was envisaged that learners with low vision and motor problems will move around in the school environment easily and will feel as part and parcel of the school community (KISE, 2007).

Kenya Project Organization (2010) noted that issues to be addressed for successful implementation of inclusive education include reduction of the number of pupil in classes to manageable sizes, provision of adapted and specialized equipment, adaptation of buildings and any construction in the school to cater for the needs of the learners with motor problems. In a

study carried out by Mukhopadyay, Nenty and Abosi (2012) in Botswana on inclusive education, it was found out that for inclusive education to succeed there was need for improvement in the school infrastructure and provision of resources.

### **Policy Changes**

International efforts to recognize the right of persons with disabilities started way back after Second World War and United Nations organization formulated universal declaration for human rights of 1948 which culminated in the establishments of elementary care of children with disabilities and rehabilitation in institutions. This was as a result of neglect, ignorance, superstitions and fear of persons with disabilities. Over the years the UN Convention on the rights of the child of 1989 was declared to continue the recognition of the rights of persons with disabilities. It stated that children were to be guaranteed effective access to education where they were to achieve fullest possible social integration and individual development.

The Jomtien conference was a landmark in recognition and consolidation of the previous thinking about the rights of all children including those with disabilities and special needs (UNESCO, 1990). The thinking was further reinforced by UN standard rules on the equalization of opportunities for persons with disabilities' education (1993). Additionally, Salamanca statement and Framework for action on special needs education of 1994 embraced the thinking of inclusive education by laying down four fundamental principles. The principles included accommodation of all children by schools, community participation and attendance of neighboring schools by all children, flexible curriculum and cost effectiveness of inclusive education (UNESCO, 1994).

During the review of education for all Agenda in 2000 at a world education conference in Dakar, one of the challenges that faced National governments, included non- reflection on children with educational needs on account of disability and provision of education in regular classrooms (UNESCO, 2000). As a result, the United Nations organization committed itself to EFA goals by drafting the eight Millennium Development Goals (MDGs) to be achieved by the year 2015.

The goals were interpreted as a broader commitment towards a better world in the 21<sup>st</sup> Century. They included elimination of global poverty, promotion of gender equality, education and environmental sustainability among others. These were the measures the countries world over were to take for a better world. Education was one of the main strategies to achieve these goals. All children were to be taught together irrespective of their condition in mainstream schools (UNESCO, 2000). Kenya Government ratified the cited international documents and in line with them it has from time to time set up various educational commissions since independence up to recent which have been tasked with the mandate to look into the welfare of persons with disabilities and special needs among other educational mandates. These commissions have recommended the integration and or inclusion of learners with special needs and disabilities in mainstream schools (Republic of Kenya, 1964; 1976; 1980; 1988 & 1999). As a result laws and policies have been written to effect the recommendations made and they include The Disability Act (2003), Children's Act (2001), KSSP document (2005) and Special Needs Policy (2009). They have emphasized the education of special needs learners in least restrictive environments. More recently the ministry of education has embarked on putting in place structures including training of teachers to implement inclusive education to match with the trends in education internationally (Republic of Kenya, 2008).

### **Conclusions and Recommendations**

The writer has concluded that implementation of inclusive education cannot be done overnight and it is a process that will take time to be undertaken as it involve changes in educational systems. Some countries have implemented inclusive education in their own way depending on how they have understood the concept of inclusive education. However, generally the writer further concludes that education systems are being changed in terms of policies, curriculum reorganization, teaching strategies, restructuring of physical environment, teaching/learning materials and assistive aids to accommodate all learners including those with special needs and disabilities.

The writer has recommended in line with the model in figure one, that education system in Kenya should be changed in a way that all teachers are trained to handle all learners in their classrooms, the curriculum should

be changed according to the different needs of learners, environments are modified, assistive aids are provided and policies are changed to reflect these changes.

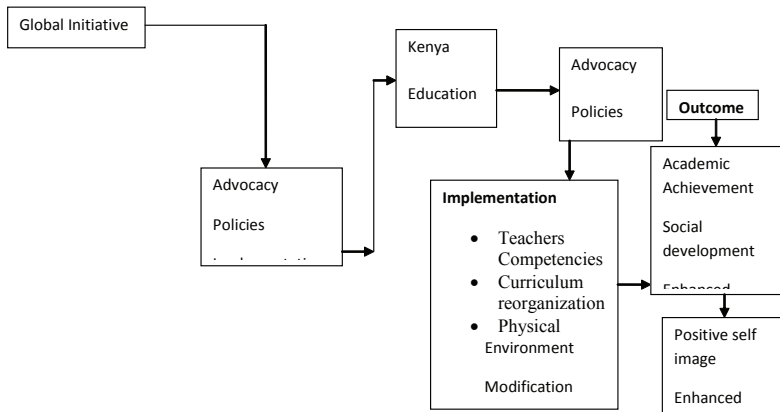


Figure 1: Model of change

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## **Managing Education for Sustainable Development**

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### **Abstract**

**UNESCO being the lead agency for the UN Decade of Education for Sustainable Development has continually reiterated that education remains the vehicle to achieving sustainable development. This paper puts forth a proposition for the use of a conceptual approach of Education for Sustainable Development (ESD) for the planning and design of curricula to ensure that educational opportunities in sustainable development are holistically and effectively provided to secondary school students. It addresses how the internal and external environments could influence the prospects of a school to address curriculum development and an implementation process in ESD. In addition, due to concerns of many researchers that any strategies pertaining to sustainable development should consider the surrounding environment and geographical location, this study addresses what such a ‘localization’ process would mean in practice through a case study of selected secondary schools in Kenya. Working from stated definitions of ‘Sustainable Development’ and ‘Education for Sustainable Development,’ the author developed a theoretical process for achieving curricular reform in secondary education. This paper explores current awareness and attitudes towards sustainable development; explores the inclusion of sustainable development in the secondary school curriculum and investigates possible barriers to incorporating sustainable development in secondary school curriculum. In-depth interviews and questionnaire tools are key in data collection for this study. Findings are presented descriptively in form of cumulative frequency counts and percentages. The study establishes that awareness levels of sustainable development among secondary**

**school students are low and their attitudes negative. There are opportunities for inclusion of sustainable development in the secondary school curriculum albeit notable barriers; an already flooded secondary school curriculum as well as inadequate teachers required for implementing the curriculum. It is recommended that the Ministry of Education needs to undertake a ‘Phased Strategy’ in order to systematically and holistically develop a curriculum in ESD in secondary schools. Universities need to start training teachers of Environmental Studies and that there is a critical need for a ‘localization’ strategy for a ESD curriculum development process in Kenyan secondary schools. Besides, UNESCO should focus more on ESD sensitization, public awareness and education through establishing a portal and creating caucuses which would map ESD implementation in universities.**

## **Introduction**

Education, both formal and non-formal, public awareness and training are key processes by which human beings and societies can reach their fullest potential. In a bid to respond to educational needs, Education for Sustainable Development (ESD) has been enhanced. In December 2002, resolution 57/254 of the United Nations Decade of Education for Sustainable Development (UNDESD) 2005-2014 was adopted by the United Nations General Assembly and UNESCO was designated as lead agency for the promotion of the Decade. The vision for Education for Sustainable Development is about:

Learning to recognize, respect, value and preserve the past achievements; appreciate the diversity and uniqueness of the peoples of the earth; live in a world where resources are distributed in a way that no one is denied what they need to live happily for a healthy and productive life; assess, monitor, evaluate, care for, rehabilitate and restore the state of our planet; create and enjoy a better, safer, more just world; be caring citizens who exercise their rights and responsibilities locally, nationally and globally. Quality education is a prerequisite for Education for Sustainable Development (UNESCO Nairobi Cluster, 2006:4).

The Plan of Implementation recognizes two key aspects of education in relation to sustainable development:

First, education is the foundation for sustainable development and much of the work on Education for Sustainable Development (ESD) must be closely linked to the pursuit of Education for All (EFA). Second education is a key instrument for bringing about changes in values and attitudes, skills, behaviours, and lifestyles consistent with sustainable development within and among countries. Education is then meant to address such issues as gender equality, environmental protection, rural development, human rights, health care, HIV/AIDS and consumption patterns as these intersect with the sustainable development agenda (UNESCO Nairobi Cluster, 2006:3).

Education has kept on changing with time to meet the needs of a dynamic society. There are concerns all over the globe on the education offered; the changes in education; the curriculum and the content in relation to the challenges that face our society, hence the call for Education for Sustainable Development. Education remains the basic tool of transformation towards sustainable development. This is because education redefines, refocuses, and re-orientes people's capacities, activities and perspective to transform their visions to produce the society of their make. Education provides scientific, technological skills, the motivation and quite paramount the justification, ethical dimension and social support for pursuing and applying them. This therefore means the only way to make a world that we want we have to pass through education as it is the most appropriate means. The teacher therefore has a responsibility of instilling ESD to the learners for a sustainable society. The international community understands the role of education in modeling individuals who consequently make the society. The world today is threatened by lots of ills like destruction of the ecosystem/biodiversity, pollution, terrorism, heightened poverty, unfair trade and so on. Through education, the attitudes, values, behaviour, skills, technology and lifestyles required for a sustainable future can be fostered. ESD is a process of learning how to make decisions that consider the long-term future of the economy, ecology and equity of all communities. Building the capacity for such future-oriented thinking is a key task of teachers and the teacher educators should prepare teachers for this daunting task. ESD is a holistic approach that wants to make up for the ills of man and enhance a life supporting world as opposed to the already existing life-threatening situation in the world. The international community wishes to use education to transform the society to a balanced one which enhances equality and that which supports life.

Higher education has a central role in the development of knowledge based economy. Thus the overall mission of the universities according to Kurapka and Vaitkus (2012) is to prepare individuals for the labor market; to prepare for life as active citizens in a democratic society; to contribute to personal growth; and to maintain and develop an advanced knowledge base. The sole person charged with this responsibility is the teacher. Educational institutions, particularly the ones educating or training teachers, stand out as the vehicles to instilling knowledge and training the teacher with the desirable knowledge on Sustainable (SD). According to UNESCO (2006) education at all levels and in all its forms should help people of all ages to understand the world in which they live and the complexity and interrelationship of problems such as poverty, wasteful consumption, environmental degradation, urban decay, population growth, gender inequality, health, conflict, and the violation of human rights that threaten the future. ESD is fundamentally about values, with respect at the centre for others, including those of present and future generations, for difference and diversity, for the environment, for the resources of the planet we inhabit.

Education enables us to understand ourselves and others and our links with the wider natural and social environment, and this understanding serves as a durable basis for building respect. Along with the sense of justice, ESD aims to move us to adopting behaviours and practices which enable all to live a full life without being deprived of basics. The three key areas of concern to ESD are society, environment and economy with culture as an underlying dimension (UNESCO Nairobi Cluster, 2006). The Faculties of Education in different universities and teacher training institutions have a key role to play to enhance sustainable education. They form a link between knowledge generation and transfer of knowledge to society in two ways. They prepare the future decision makers of society for their entry into the labour market. Such preparation includes education of teachers, who play the most important role in providing education at both primary and secondary levels. Secondly, they actively contribute to the societal development through outreach and service to the society (UNESCO, 2006).

## **Objectives of the study**

This paper presents findings of a study that aimed at achieving the following objectives:

To assess students' and lecturers' knowledge of Education for Sustainable Development in the Faculty of Education in Catholic University of Eastern Africa.

To establish the extent to which students and lecturers in the Faculty of Education in Catholic University of Eastern Africa in Kenya engage in community-based activities.

To evaluate the relevance of research carried out by students in the Faculty of Education in Catholic University of Eastern Africa in solving societal educational challenges.

To find out relevant components of Education for Sustainable Development not being offered in the Faculty of Education in Catholic University of Eastern Africa in Kenya.

## **Methods**

The study employed case study research design. The research concentrated on students in the undergraduate programmes in the Faculty of Education: that is the ones taking the school focused and fulltime/regular program and the lecturers teaching the undergraduate students in the Faculty of Education. The study targeted 814 students and 13 lecturers in the Faculty of Education. The students' population was not homogenous. Therefore, the researcher used stratified random sampling which is one method of Probability Sampling (Kombo and Tromp, 2006) to divide the students' population into homogeneous subgroups and then took simple random sample in each subgroup. Simple random sampling was employed in selecting lecturers who participated in the study. There were two groupings in the undergraduate programmes offered in the Faculty namely B/Ed Fulltime and B/Ed School Focused; simple random sampling was then used taking 10% to ensure that the sample was representative in proportion to their number in population. This is because for descriptive studies 10% of the population is adequate for sampling (Gay, 1996). The researcher therefore distributed questionnaires to 81 students and intended to interview 13 staff lecturers. Nevertheless, only 67 students

returned their filled up questionnaire. 2 lecturers were not available for interview, thus only 11 lecturers were interviewed.

## Results

### Knowledge of Education for Sustainable Development among Students and Lecturers

The first question in the students' questionnaire sought to find out students overall feeling

towards the coverage of the following components of ESD: Peace, Environment, Development, Entrepreneurship, Information Communication Technology (ICT) and HIV/AIDS Education. Table 1 presents a summary of students who felt CUEA did offer education in the ESD selected areas, those who felt it did/did not and those who gave no response either due to hurry to finish filling in the questionnaire or they did not have an idea/response.

**Table 1: Students' Opinion on inclusion of key components of ESD**

Selected ESD areas of concern to Africa at CUEA	Students N=67						Total	
	n	%	n	%	N	%	N	%
Environment	63	94	3	4.5	1	1.5	67	100
Development	57	85.1	7	10.4	3	4.5	67	100
ICT	45	67.2	18	26.9	4	6	67	100
Peace	41	61.2	22	32.8	4	6	67	100
HIV/AIDS	32	47.8	31	46.3	4	6	67	100
Entrepreneurship	64	95.5	2	3	1	1.5	67	100

**Source:** *Field data, 2014*

When asked if they had taken ESD or ESD related courses, 10 out of 11 lecturers interviewed said they had taken ESD related courses. Those who had taken ESD related courses mentioned courses like HIV/AIDS, gender,

environment, ICT and education psychology/counseling psychology. Some had researched or presented papers in ESD related courses. Asked who organized these studies, 5 lecturers said it was personal initiative, 3 learnt as part of the graduate studies, 1 as personal initiative and part of graduate studies and 1 said it was part of training in the convent. From the findings it was clear CUEA did not have a conceptual framework on ESD. Most lecturers admitted that ESD was a new concept to them and had not heard about it before and it was only after explanation on what ESD addressed that they pointed out some studies they had taken which were of concern to ESD; they posited that they took initiative to take those studies out of the necessity to be up to date with contemporary educational challenges. It was also observed that the lecturers interviewed were not aware of the African module for the ESD studies. All the lecturers agreed ESD concerns in education were vital to teacher training and that CUEA and other universities needed to adopt ESD fully as it offered answers to most challenges in teacher training and achieving of overall education objectives in line with sustainable development.

### **Extent to which Students and Lecturers Engage in Community-based Activities**

Students were asked to list the community based activities they engage in and which were organized by the Faculty of Education. Table 2 presents a summary of students' responses on this attribute.

**Table 2: Community-based Activities that Students Engage in**

N=67		
Activities	N	%
Teaching/Visiting Schools Activities	19	28.4
Community Service Day	17	25.4
Environmental club Activities	15	22.4
Awareness and Seminars	11	16.4
Donations	11	16.4
Guidance/Counseling/Peer counsel	10	14.9
Project Writing/ Youth Projects	9	13.4
Visiting the Sick, Assisting Needy	8	11.9

**Source:** *Field data, 2014*

Lecturers were asked to indicate how often they engaged in community service. Seven lecturers said they engage in community service spontaneously and in an ongoing process, two once a semester, one sporadically and another when opportunity arises. Some activities they identified included environmental conservation, educating the community, mobilizing the community to tackle the problems in the neighborhoods like collecting litter, clearing the drainage etc. The participation of the lecturers in community service seemed to be in line with the ESD expectations. One ESD perspective is that educated people in the society should dedicate themselves to serving the community and improving the living standards. Lecturers indicated that they were involved in many community activities.

They provided civic education on many societal challenges like HIV/AIDS, democracy, and environment. Secondly, they participated in policy formulation to develop policies that enhance sustainability. Some offered counseling services to the community, participated in church and women groups, held leadership positions in community welfare groups etc. They also conduct research aimed at solving societal problems. Thus they



initiate change through research, writing and mobilizing community to development.

### **Relevance of Students' Research in Solving Educational Challenges**

In the interview all the lecturers observed that the research carried out by students in the Faculty was relevant to ESD. All the same, they observed that there was over concentration in some areas (e.g. performance) whereas others have not been researched on (like the role of education in enhancing poverty alleviation). They felt there was need to research on areas of other problems on SD under economic, social and environmental realms. The following were some areas the students had been conducting research in and the lecturers felt address issues of ESD: drug and substance abuse, Reproductive health, environment, Performance, Alcoholism among youth and Causes of crime among boys. Other areas were on adolescents, Gender, Culture and influence on education of girl child, Discipline, guidance and counseling, HIV/AIDS, Special education, Free primary education, counseling and peer counseling, Environment, Public relations, How parents could be involved in education of children, Problems facing mentally handicapped people in learning in integrated (mainstreamed) schools, visually and physically challenged, Strikes and disadvantaged groups in the society especially women and children. There was need for curriculum implementation to try and address the critical issues in education, segregation in schools-the private and public schools, Globalization and IT.

Lecturers made several suggestions on the relevance of research conducted by students in enhancing Education for Sustainable Development. They indicated that research conducted by students' enhanced awareness on sustainability matters. Research was seen as being of invaluable contribution in education in regard to reevaluating and understanding a country's national goals of education and their relevance globally. There were those who felt research would tailor the education offered to immediate region challenges so that teachers and instructors would teach with emphasis in relation to their places of work. They observed that research conducted by students would help in highlighting those most immediate and urgent issues in education that need to be emphasized on development such as politics and economy.

Lecturers indicated that research conducted by students would enable the nation to have a sound curriculum that could be practical and market oriented addressing for emerging issues such as HIV/AIDS, crime, clashes and globalization; result to a curriculum that is acceptable in other parts of the world. Research would lead to new innovations in methodology to teaching. Research would help in unearthing the problems facing the sector of education; research would assist in making. Therefore, research conducted would help the researcher to come to terms with the needs of the country and capitalize on those needs when suggesting intervention measures. In addition respondents felt research was also a tool of education in that it would help unearth evils in the society and try to offer remedy.

At the same time the lecturer respondents felt that research helped in planning for the future and management of available resources. It educated stakeholders and equipped learners with relevant skills. Helped to know the causes of most problems, helped in suggesting ways of eradicating such problems, made an individual to acquire the right knowledge, skills and attitude for enhancing sustainable development. In improving the economy, the respondents were of the view that research would help in fair distribution of resources, help people acquire skills to be self-employed and instill values of hard work to create wealth. At the same time the respondents believed that research on environment areas of concern would help the present generation realize that they were the care takers or trustees of the environment. This would hence lead to using the environment resources in a sustainable manner; without jeopardizing chances for the future generation.

### **Suggested Fundamental ESD Courses that need be included in Teacher Training**

Lecturer respondents were asked to indicate relevant components of ESD that were not being offered in the university curricula to teacher trainees and which they felt were significant. Table 3 summarizes the opinions gathered from the lecturers.

**Table 3: Suggested Fundamental ESD Courses**

<b>Suggested ECD Course</b>	<b>Frequency</b>	<b>Percentage</b>
Peace and conflict resolution	9	81.8
School financial resource mobilization	11	100
Corruption and its consequences	11	100
Health issues in education	10	90.9
Gender education and development	6	54.5
Nationalism and patriotism	11	100

### **Summary**

The study sought to establish the extent to which the Faculty of Education in Catholic University of Eastern Africa incorporates Educational for Sustainable Development components in a bid to manage education for sustainability. This conviction was driven by realization that the faculties of education train and produce teachers and that these teachers develop policies in the education realm in curriculum. Knowledge of ESD therefore remains indispensable in developing education curriculum that would enhance ESD. UNESCO (2006) postulated that education is the tool for transformation and the teacher is the instrument of achieving the desirable changes in relation to sustainable education, hence the great need to train teachers on ESD. The study employed a case study design, targeting lecturers and students in the Faculty of Education. The researcher employed stratified probability and simple random sampling to select 81 teacher students and 13 lecturers in the sample. It was established that the curriculum of the Faculty of Education covered ESD attributes minimally and that more needed to be incorporated in the curriculum. It is recommended that UNESCO should focus more on ESD sensitization, public awareness and education through establishing a portal and creating caucuses which would map ESD implementation in universities.

### **Conclusions**

Students and lecturers demonstrated knowledge in ESD. Key areas that are incorporated in the Faculty of Education curriculum include:

environment; entrepreneurship; development; ICT; peace and HIV/AIDS. Students and lecturers were reported to be engaging in community-based activities. These activities were: teaching/visiting schools; organizing community service days; engaging in environmental club activities; organizing environmental awareness seminars; donations; offering guiding and counseling services to community members; assisting the concerned with project writing particularly for youth projects and visiting the sick and the needy.

Lecturers provided civic education on many societal challenges like HIV/AIDS, democracy, and environment. Secondly, they participated in policy formulation to develop policies that enhance sustainability. Some offered counseling services to the community, participated in church and women groups, held leadership positions in community welfare groups etc. They also conduct research aimed at solving societal problems. Thus they initiate change through research, writing and mobilizing community to development. Lecturers observed that research carried out by students in the Faculty was relevant to ESD. All the same, they observed that there was over concentration in some areas (e.g. performance) whereas others have not been researched on (like the role of education in enhancing poverty alleviation).

lecturers felt there was need to research on areas of other problems on SD under economic, social and environmental realms. It was observed that the curriculum in the Faculty of Education did not fully address components of ESD. It was therefore suggested that the following attributes be included in the curriculum: peace and conflict resolution; school financial/ resource mobilization management; corruption and its consequences to the environment; health issues in education; gender education and development; and nationalism and patriotism. It is recommended that UNESCO should focus more on ESD sensitization, public awareness and education through establishing a portal and creating caucuses which would map ESD implementation in universities.

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## **Public Policy and Practice in Juvenile Rehabilitation Programmes in Kenya: Current Trends and Needed Reforms**

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### **Abstract**

Historically juvenile rehabilitation schools and services in Kenya have oscillated between government ministries of education; home affairs; gender, children and social development; and currently the ministry of labour, social security, and services. This cyclic oscillation implies hesitancy in policy statement on the function of the rehabilitation schools. Furthermore, the practice in juvenile rehabilitation has undergone paradigm shifts from the punitive disciplinarian, to carminative, egalitarian, and systematic paradigms between 1909 and 1995. This is in spite of the numerous international policies on juvenile rehabilitation, prevention of offence and treatment of incarcerated offenders, to which Kenya is a signatory, and is expected to have ratified. Empirical and theoretical support shows that with appropriate policy provisions, an offender is effectively rehabilitated. In view of the cyclic oscillation of juvenile rehabilitation, the Kenyan policy guidelines vis-a-vis international policies, and the current practices in juvenile rehabilitation were examined in this paper, with a purpose of answering the following questions; what are the policy provisions on juvenile rehabilitation in Kenya? Do juvenile rehabilitation policies in Kenya conform to international standards? How effective is the current juvenile rehabilitation in Kenya? This paper created a basis for formulation of rehabilitation principles that lead to effective rehabilitation. This was achieved through an examination of policy and practice in Kenyan public

**juvenile rehabilitation schools using mixed research methodology that borrowed aspects of both phenomenology and descriptive survey research designs. The findings indicate inadequate policies, discrepancies between policy and practice and generally, an ineffective rehabilitation programmes.**

**Keywords:** *Policy, Juvenile Offender, Rehabilitation, Reforms*

## **Introduction**

Juvenile rehabilitation refers to the policies, practices, tools and approaches used to modify a child's behaviour (Friend, 2008). It is a form of special needs education for learners with Emotional and behavioural disorder, and in particular, for learners in conflict with the law (offenders). Juvenile rehabilitation was instituted in Kenya in 1900s by the colonial government to deal with young offenders whose activities were considered detrimental to colonial interests (Chloe, 2002). Ever since, the theme on increased efforts to reform juvenile offenders has persisted. However, these efforts have undergone paradigm shifts over the years, from the punitive disciplinarian, to caritative, to egalitarian, and to systematic paradigms between 1909 and 1995 (Mugo, 2004). This paper anchors on the assumption that these paradigm shifts aligned with changes in policy.

This paper focused on public policy and practice in juvenile rehabilitation schools and programmes in Kenya. It aimed at shedding light on the policy framework that informs juvenile rehabilitation. Comparisons between policy and practice through examination of operational programmes followed. This in turn underscores the needed policy reforms for strengthening juvenile rehabilitation in Kenya.

Juvenile rehabilitation in Kenya is mandated to the Department of Children through Rehabilitation Schools and program (Munyao, 2006). The department, schools, and program have undergone cyclic oscillation between government ministries over the years. Existing literature shows that juvenile rehabilitation schools and programmes have oscillated between government ministry of; Education; Home Affairs; Gender, Children, and Social Development; and currently the ministry of Labour, Social Security, and Services (Mugo, Kangeth'e & Musembi, 2006). This



implies hesitancy on policy statement on the function of the rehabilitation schools. At the same time, the country has witnessed increased levels of crime. These preceding factors roused research interest that yielded this paper.

According to Gargiulo, (2012) many policies that are common in SNE have resulted from the interaction of a variety of forces, situations and events, that make it necessary to focus on the needs and provisions for persons with special needs. These forces lead to legislation and litigation for general equity. Furthermore, Friend (2008) argues that variation in rehabilitation programmes has led to a search for those “principles” that distinguish effective treatment interventions from ineffective ones.

A more recent research in Kenya by Kathungu, (2010), shows that the rehabilitation schools and programmes are unaudited despite the frequent changes. Therefore, many questions on juvenile rehabilitation abound, they however coalesce around four main issues: 1. the policy guiding rehabilitation, does it align to international standards and provide guidelines for successful rehabilitation outcomes? 2. The programmes for juvenile rehabilitation, this includes the process of rehabilitation and the rehabilitation personnel; 3. The content of rehabilitation, what are the rehabilitees taught. Does it have potential to deter them from recidivism? 4. Aftercare services for rehabilitees, what are the services offered to rehabilitees who exit the rehabilitation schools. Where are rehabilitation graduates years later? Therefore, there are many research gaps in juvenile rehabilitation.

In this context, this paper focused on these understudied areas, with a main purpose of assessing juvenile rehabilitation policy versus practices, to answer the following questions. What are the policy provisions on juvenile rehabilitation in Kenya? Do juvenile rehabilitation policies in Kenya conform to international standards? Does the policy on juvenile rehabilitation facilitate successful rehabilitation outcomes? In particular, the following objectives guided the work presented in this paper.

## **Objectives**

- To establish the policy provisions for juvenile rehabilitation in Kenya.

- To examine whether juvenile rehabilitation policy provisions in Kenya conform to international standards.
- To assess the effectiveness of juvenile rehabilitation policy in Kenya.

## **Research Methods**

Mixed research method was employed by borrowing aspects of both Phenomenology and Descriptive Survey research designs. According to Creswell (2012), mixed methods research utilizes in-depth contextualized and natural but time consuming insights of qualitative research coupled with the more efficient but less rich quantitative research. This approach allowed for triangulation of different methods of inquiry, data collection, and data analysis.

The population in this paper included nine rehabilitation schools, nine Managers and nine Children's Officers. From this population, a 44.4% sample was selected. The sample comprised four rehabilitation schools selected based on their function and gender, they included Kabete and Getathuru rehabilitation schools for boys, and Kirigiti and Dagoreti rehabilitation schools for girls. The sample also included one Manager and one Children's Officer per school. Three policy documents were also included in the sample. The research employed interviews and document analysis methods of data collection. The researcher interviewed the four Managers and four Children's Officers on aspects of policy and practice. The researcher then conducted content analysis of policy documents. The data were analyzed using descriptive statistics and thematic analysis, and the findings presented in tables, graphs, and narrative form as follows.

## **Results of the Study**

The study managed to obtain information from a total of eight respondents. Document analysis of the Children's Act (2001), National Standards and Regulations for Statutory Children's Institutions (NSRSCI) (2008) and the National Special Needs Education Policy Framework (SNE Policy) (2009) was also done. The research findings were mapped against an analytical framework, which was developed following objectives of the study and the ensuing discussions as follows.

### **Bio-Data of Respondents**

Bio-data of respondents was obtained to provide parameters that supported the study although they were not directly under study. This included working experience of the Managers and Children’s Officers in a bid to gauge their capacity for giving reliable information, based on assumption that any respondent with a work experience of six months was capable of responding to the interview questions. Their working experiences are captured in Table 1 below.

**Table 1: Working Experience of Managers and Children’s Officers**

<b>Rehabilitation School</b>	<b>Working Experience in Years</b>	
	<b>Managers</b>	<b>Children’s Officers</b>
Kirigiti	16	20
Dagoreti	7	5
Kabete	4	0.5
Getathuru	3	4

All the Managers and Children’s Officers had working experiences that ranged between 6 months to 20 years and were all considered to be in a position to give the required information.

### **Policy Provisions for Juvenile Rehabilitation in Kenya**

The legal framework in which special education operates within a particular country shapes the way special education is seen (Farrell, 2009). Against this background, the Managers and Children’s Officers were asked to name the policies guiding juvenile rehabilitation in Kenya. They named the following policies shown in Table 2:

**Table 2: Juvenile Rehabilitation Policies Named by Managers and Children’s Officers**

<b>The Mentioned Policy</b>	<b>Frequency of mention by Managers</b>	<b>Frequency of mention by Children’s Officers</b>
Constitution	1	-
Children Act	4	4
NSRSCI	1	1
Education Act	1	-

Managers and Children’s Officers mentioned four policy documents appearing in Table 2 above, as their guides for juvenile rehabilitation at their schools. All the Managers and Children’s Officers were aware of the Children Act (2001) as the main policy guiding juvenile rehabilitation in Kenya. However, only one Managers and one Children’s Officer mentioned the NSRSCI (2008). This was surprising considering that all documents and forms for juvenile rehabilitation in Kenya in use today are contained within this document.

Other mentioned policies included the Education Act Cap 211 of 1980 (GoK, 1980) and the Constitution of Kenya (2010). Each appears once in the list of managers. Important policies like the SNE Policy (2009) did not feature even once. Furthermore, all the documents mentioned were local, implying that the Managers and Children’s Officer do not consider any international statutes as important guides in their work.

The international policies that the Managers and Children’s Officer were expected to mention included, the Convention on the Rights of the Child (UN, 1989) and the United Nations Standard Minimum Rules for the Administration of Juvenile justice (Beijing Rules) (UN, 1985). Other international policies include United Nations Guidelines for the Prevention of JD (Riyadh guidelines), (UN, 1990a) and United Nations Rules for Juveniles Deprived of their Liberty (Havana Rules), (UN, 1990b). These policies outline the nature of treatment, rights, welfare, and education of the juvenile offender.

## **Juvenile Rehabilitation Policy Provisions in Kenya versus International Standards for Juvenile Rehabilitation**

In Kenya, rehabilitation of juvenile offenders occurs in exclusive schools (Kochung Report, 2003). As a special needs educational function, juvenile rehabilitation anchors on both the policies on special needs education and the policies on juvenile offenders. The government of Kenya has domesticated some of the international policies; for instance, the Convention on the Right of the Child was ratified through the Children Act (2001), and the Beijing rules (UN, 1985) domesticated through the NSRSCI (2008). Many of the international policies on special education and juvenile offenders are yet to be embraced in Kenya. The following is a discussion of ratified and unratified international policies.

### **Policy Governing Special Needs Education**

Several policies on persons with special needs such as the Universal Declaration of Human Rights, (UN, 1948) have been in existence for decades. However, the American Public Law 94-142 was a landmark progress in legislation for the education of persons with disabilities (Gargiulo, 2012). The American Public Law 94-142 passed in 1975, it contain the core principles that ensure the educational rights of learners with special needs (Wright & Wright, 2004). These principles include Zero Reject, Free Appropriate Public Education, Least Restrictive Environment, Non-Discriminatory Evaluation, Parent and Family Rights, and Procedural Safeguards (Friend, 2008). These principles are the basis for most of the other policies in special needs education.

The policy guiding juvenile rehabilitation in Kenya is quite divergent from these principles in the following ways. The children's Act (2001) contravenes the principle on Zero Reject policy through its recommendations that offenders be rehabilitated in exclusive rehabilitation institutions where children remain under the main care of the School Manager. The second principle is Free Appropriate Public Education implying that children are provided with free and appropriate education regardless of their needs. Juvenile rehabilitation in Kenya is free, however it negates in the second part because offenders are committed to rehabilitation schools that are far away from their regular school. Furthermore, the third principle advocates least restrictive environment. According to (Friend, 2008), the

Least Restrictive Environment for most learners is the general education setting. The current rehabilitation schools are very restrictive because, they were conceived as ‘jails’ for children by colonial government (Chloe, 2002), and to date they are used for holding children in conflict with the law. Thus, they still operate as facilitates for incarcerated minors. This presents high chances of ‘labeling’ of rehabilitation graduates, which affects their post-institutional life trajectories.

The fourth principle is Non-Discriminatory Evaluation. It entails a multi-disciplinary approach. This compares favourably to the Kenyan policy on juvenile rehabilitation, which provides for assessment through the NSRSCI (2008) forms. However, the local policy does not provide for the part on multi-disciplinary approach to assessment. The policy is silent on the assessment personnel. Consequently, there are chances of discriminatory evaluation of juvenile offenders.

Kenya developed an SNE policy (2009), however, this policy is sketchy and does not explicitly show how special education will be provided. Some categories of special needs such as the Emotional and Behavioural Disorders under which juvenile rehabilitation falls are only appearing in the list of categories. Consequently, provisions for such learners become the jurisdiction of the individual school.

### **Policy Governing Juvenile Rehabilitation**

The international policies on juvenile rehabilitation include the Convention on the Rights of the Child (UN, 1989), which urges all nations to protect children and outlines the rights of a child who commits offence. Its principles overlap with other international policies on juvenile rehabilitation. The other policies on juvenile rehabilitation include; the Beijing Rules, (1985), the Riyadh guidelines, (1990), and the Havana Rules, (1990). According to Bueren & Tootell, (2014), the later three policies operate within the framework each other.

The set of three policies are the international guidelines for a three-stage process of juvenile rehabilitation. Firstly, the Riyadh Guidelines are social policies applied to prevent and protect young people and children from committing offence. Secondly, the Beijing Rules establishes a progressive justice system for young persons in conflict with the law. Finally, the

Havana Rules safeguards the fundamental rights and establishes measures for social re-integration of young people once deprived of their liberty, whether in prison or other institutions. Each of the three policies was analyzed and its ratification in Kenya examined as follows.

### **United Nations Standard Minimum Rules for Administration of Juvenile justice (Beijing Rules)**

The Beijing Rules establishes a progressive justice system for young persons in conflict with the law. The Rules have six parts. The first part is on General Principles, it refer to comprehensive social policy in general and aim at promoting juvenile welfare to the greatest possible extent, by minimizing intervention for offending through the juvenile justice system, and reducing related harm such as ‘labelling’. This principle requires diversion of children from the juvenile justice system, quite contrary to the local policy (Children’s Act, 2001) which requires that all children be apprehended to a children’s court.

The second part is on Investigation and Prosecution; it requires that a judge or other competent official or body immediately consider the issue of release of an apprehended juvenile, (Beijing Rule, 10.2.). Again, the Children’s Act, (2001) contravenes this by limiting the jurisdiction of releasing a child to the court, so that an apprehended child is processed all the way to presentation before a court before considerations for release. The third part relates to investigation and is not part of rehabilitation.

The fourth part the Beijing rule is on Non-Institutional Treatment, section 18.2 of stipulate that ‘no juvenile shall be removed from parental supervision, whether partly or entirely, unless the circumstances of her or his case make this necessary’. The Children’s Act, (2001) negates by recommending that offending children who are committed stay at the rehabilitation school while the committal order is in force.

The fifth part of the Beijing Rules is on Institutional Treatment; its section 19.1 states that the placement of a juvenile in an institution shall always be a disposition of last resort and for the minimum necessary period. This is not adhered to in Kenya because, although the Children’s Act, (2001) give a variety of options of handling an apprehended child, most magistrates and judges consider institutional care as the first resort.

### **United Nations Guidelines for the Prevention of Juvenile Delinquency (Riyadh guidelines)**

The Riyadh Guidelines are social policies applied to prevent and protect young people and children from committing offence. These Guidelines stress the “need for, and importance of progressive delinquency prevention policies” that should:

Avoid criminalizing and penalizing a child for behavior that does not cause serious damage to the development of the child or harm to others.

Provide educational opportunities that meet the varying needs of young people, especially those at risk or in special need.

Recognize that part of maturing often includes behaviour that does not conform to societal norms, and that tends to disappear in most individuals with the transition to adulthood.

Avoid labeling a youth a deviant or delinquent as this contributes to negative patterns of behaviour.

These guidelines by the United Nations have not been implemented in form of policy formation in Kenya. This may be the reason for the rise in levels of juvenile delinquency in Kenya.

### **United Nations Rules for Juveniles Deprived of their Liberty (Havana Rules)**

The Havana Rules safeguards the fundamental rights and establishes measures for social re-integration of young people once deprived of their liberty, whether in prison or other institutions. Rule 17 states that detention before trial shall be avoided to the extent possible. This is not provided for through policy on juvenile rehabilitation. All offenders are apprehended and kept under police custody or children’s remand while investigation is in progress. Rule 19 of the Havana Rules is adhered to, through policy provision within the Children’s Act (2001) requiring that all records such as the Social Inquiry Form remain highly confidential. Rule 20 states that no offender will be received at rehabilitation institution without a varied committal order. This is ratified through the Children’s Act (2001), which states that the committing authority shall be a presiding judge or magistrate.



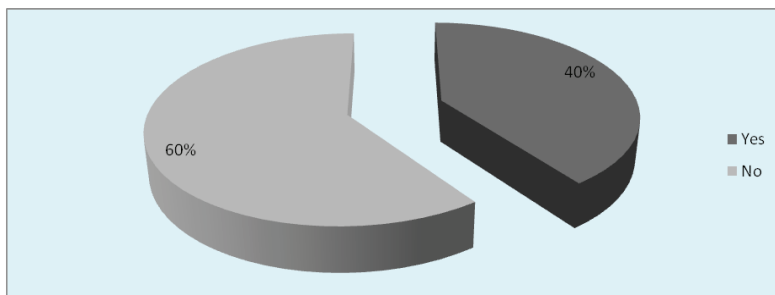
Most of the Havana rules are adhered-to in practice. However, they have not been ratified into a policy document. Some of these rules appear in the children's act (2001). Other Rules in this set of rules are not unrealizable in the current local rehabilitation schools and programmes. For instance, section C of the Havana Rules requires that offenders be assessed, classified, and appropriately placed in the right programmes. This is unrealistic in Kenya because of the limited rehabilitation facilities in terms of physical facilities, personnel, and tools. The Managers and Children's Officers confirmed that there are few dormitories, which leads to mixing children with different risk levels at the rehabilitation schools and the consequent behavior contamination. They also commented on inadequately trained personnel, saying that less than a quarter of their personnel were qualified in behavioural sciences.

Section J of the Havana Rules states that every committed juvenile should be allowed as much contact with the wider community. This is the opposite of the provisions within the Children's Act saying that a committal order shall be in force unless revocation is done by the committing court. Moreover, during the committal period, the juvenile can only access the wider community through a leave of absence, which the manager said is hard to obtain when a rehabilitee plans a visit outside the school.

The Havana Rules Section N, outlines in details how the rehabilitee should return back to the community, and recommends that assistance should be given to the exitee in form of suitable residence, employment, clothing, and sufficient means to maintain himself or herself upon release in order to facilitate successful reintegration, and until they re-establish themselves in the community. The Managers and Children's Officers were quick to say that the post-institutional phase of juvenile rehabilitation was non-functional. This resonates earlier findings by Wakanyua, (1995), Munyao, (2006), and Mugo, et.al, (2006) showing that the exit strategies in Kenya were poor and there was no follow up of exitees. With this background, this study sought to assess the effectiveness of juvenile rehabilitation in Kenya.

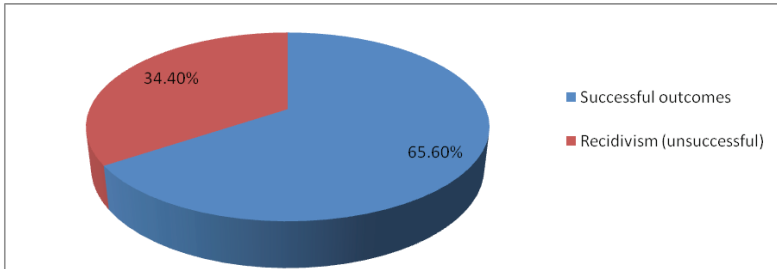
### **Assessment of the Effectiveness of Juvenile Rehabilitation Policy in Kenya**

According to Watt (2006), the levels of recidivism is a major factor that can be used in determining the success of a rehabilitation programme and hence its efficacy. This paper established the levels of recidivism through interviews and document analysis. The Managers and Children's Officers were asked their opinions regarding effectiveness of juvenile rehabilitation in Kenya. Their responses were shown in figure 1.



**Fig. 1:** *Opinion of Managers and Children's Officers on Effectiveness of Juvenile Rehabilitation Programme*

The above research findings clearly show that more than a half of the Managers and Children's Officers felt the juvenile rehabilitation in Kenya was ineffective. To ascertain their responses, document analysis of Summary Assessment Report of Newly Admitted Child was done to identify repeat offenders. This analysis entailed looking for records of repeat offenders from the forms entered between July 2011 and January 2012 when the data collection was concluded. Ninety Summary Assessment Report of Newly Admitted Child forms were analyzed. The findings were as follows.



**Fig. 2:** *Success versus Recidivism of Juvenile Rehabilitation Outcomes*

These findings show that more than a third 31(34.4%) of the ninety rehabilitation graduates whose forms were analyzed came into conflict with the law in their post-institutional lives. This translates to 59(65.6%), successful outcomes of juvenile rehabilitation. This denotes very high levels of recidivism among graduates of public juvenile rehabilitation institutions. The findings negate from the earlier findings by Watt, (2006) showing that many children stop offending when appropriate juvenile rehabilitation is offered.

A level of recidivism that exceeds a third may be considered very high considering that only a small number of offenders are required to make a society unsafe, and that these children are released back into the society to continue offending, probably to eventually graduate to hardened criminals, and to ultimately find themselves committed to adult jails. This situation is avertable by provision of better policies.

### **Summary of Results**

Juvenile rehabilitation in Kenya anchors on international policy and guidelines. The government of Kenya has ratified some of these policies including the Convention on the Right of the Child (1984) through the Children Act (2001), and the Beijing rules (UN, 1985) domesticated through the NSRSCI (2008). This shows that most of the international policies are ratified in Kenya close to two decades after their inception. Some international policies are yet to be ratified through policy formulation including the Riyadh Guidelines (1990) more than two decades since their inception.

The Children's Act (2001) is the main policy guiding juvenile rehabilitation in Kenya. However, it is sketchy and lacks important guidelines on assessment of offenders, rehabilitation personnel, and after care services. The policy does not categorically state the function of the rehabilitation programme, this has led to frequent oscillations of the programme between different government ministries.

International policies explicitly outline the provisions for learners with special needs. On the contrary the local SNE Policy (2009) is sketchy and fails to outline provisions for various categories of learners with special needs. Generally, there are glaring discrepancies between international policies and local policy statements regarding juvenile rehabilitation.

Local policy on juvenile rehabilitation contravenes international standards by holding a child captive during investigation, by rampant use of institutionalized care and treatment of offenders, and by inadequate provisions on assessment of offenders. Furthermore, the deficiencies between international and local policies are imprinted by the observed high levels of recidivism among juvenile offenders of up to a third and above. This implies that juvenile rehabilitation programme in Kenya is inefficient.

## **Conclusions**

The researcher concluded that there are discrepancies between international and local policy frameworks on juvenile rehabilitation. These discrepancies lead in effective rehabilitation and high levels of recidivism. The existing local policies are sketchy and lacking in many areas including assessment, rehabilitation personnel, and treatment of children with SNE who find themselves in conflict with the law.

In the time ahead, there is need to improve juvenile correctional policy and practice, to embrace the view that rehabilitation programs, informed by the principles of effective intervention, can “work” to reduce recidivism and create safer societies. An effective rehabilitation programme would provide rehabilitation in least restrictive environment and ensure the rehabilitees are not labelled. In addition, it would provide follow-up services until the rehabilitee is comfortably settled for proactive community life. The paper recommends policy review to address the concerns raised in this paper.

## **Recommendations**

This paper recommends the following changes for the enhancement of public policy and practice in juvenile rehabilitation:

The government should as much as possible align local policy on juvenile rehabilitation to international perspective to capture all the gains within the models composed by a wide variety of professionals from different countries. This translates to more refined local policies and guidelines.

The government should provide policy guideline to facilitate diversion of children from the juvenile justice system in line with the Beijing and Havana Rules.

The special needs education policy guidelines should include information on rehabilitation of children with special needs who present problem behaviour.

The juvenile justice system should provide guidelines facilitating thorough assessment of the offender and ensure the rehabilitation programmes address the cause of behaviour, particularly those relating to the home background.

The government should provide adequate funds to develop more rehabilitation facilities to reduce behaviour contamination, and to facilitate adequate post-institutional phase of rehabilitation to reduce recidivism.

Through government revolving funds, the concerned ministry should provide rehabilitation graduates with resources that enable them to become self-reliant by introducing them to agencies of government funds for youth to reduce recidivism, and foster safer societies.

The government should steer rehabilitation of juvenile offenders towards inclusive schools to eliminate the 'labelling' aspect of the rehabilitation programmes and to embrace the current practice of inclusive education.

The government should employ qualified personnel to enhance the efficacy of the rehabilitation programmes.

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## **An Investigation into Implementation of ICT in ECD and Primary Schools, in the Light of Free Laptops at Primary One: a case study of teachers implementing ICT into their teaching practice**

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### **Abstract**

**Information and communication technologies (ICTs) have been touted as being potentially powerful tools that can be used to facilitate the implied educational change and reform. Implementation of ICT in higher education learning environments is a complex task. Teachers and students, but also management, administration and ICT support are affected by and affect the implementation. To facilitate the change processes better the first step is to actually understand what problems and challenges implementation of ICT leads to and how it affects practice. Although classical instructional methods will continue to be used in the teaching-learning process, it is also true that Information Communication Technologies (ICTs) can be harnessed to become powerful pedagogical tools. Proceeding from the premise that there are many ways to use new technologies for teaching and learning, the paper presents literature on the possibilities and challenges of integrating ICT into teaching-learning, the rationale for adopting and using ICTs for learning-teaching, as well as the key factors that influence the adoption and use of ICTs in teaching and learning both from a general perspective and in a technical education context. The paper then outlines and discusses findings of a study designed to investigate the possibilities and challenges of using Information Communication Technology (ICT) in teaching-learning procedures in primary school institutions in Kenya using data obtained from a Tinderet District school in the Rift valley**

**region of Kenya. It examines views in pertinent literature as well as teachers' perceptions of the benefits of integrating ICT into teaching-learning, the success factors and obstacles encountered in their endeavours to do this. Conclusions are drawn and suggestions made to address the challenges and improve on the use of ICT for teaching-learning in teaching institutions.**

**Keywords:** *ICTs, implementation, teaching-learning, challenges, possibilities*

## **Introduction**

The emergence of a new global economy, which has resulted from globalization and technological change, has serious ramifications for the nature and purpose of educational institutions. Schools can no longer remain mere venues for the transmission of a prescribed set of information from instructor to learner. Schools' current challenge is to promote "learning to learn"; i.e., the acquisition of knowledge, values, attitudes and skills that make possible continuous learning over the lifetime (Commonwealth of Learning - COL, 2003). For the purposes of this paper, ICT is defined to include all technology for the manipulation and communication of information. Sometimes used interchangeably with Information Technology, ICTs constitute an assorted set of technological gadgets and resources used to communicate, and to create, manage, store, and disseminate information, examples of which include computers, the Internet, broadcasting technologies, and telephony. ICT integration in education suggests the application these technologies to enhance the quality of teaching and learning in institutions (United Nations Educational, Scientific and Cultural Organisation - UNESCO, 2005).

The computer, which is an important component of ICT, provides powerful tools to inform decision-making, improve education policies and practices, and promote lifelong learning. It is generally held that computers can empower teachers and learners, advance change and foster the development of '21<sup>st</sup> century skills' (Trucano, 2005). There is widespread belief that computer technology can and will empower teachers and learners, transforming teaching and learning processes from being highly teacher-dominated to student-centred, a transformation expected

to result in increased learning gains for students, creating and allowing for opportunities for learners to develop their creativity, problem-solving abilities, informational reasoning skills, communication skills, and other higher-order thinking skills.

ICTs in education are featured in different modes some of which include open and distance learning, e-learning, teleconferencing, and blended learning (Tinio, 2008). Open and distance learning is defined by the Commonwealth of Learning (2003) as formats of providing learning opportunities that is marked by the separation of teacher and learner in time or place, or both time and place. E-learning (also termed ‘online learning’) encompasses learning at all levels, both formal and non-formal, that uses an information network whether wholly or in part, for course delivery, interaction, evaluation and/or facilitation. Teleconferencing refers to “interactive electronic communication among people located at two or more different places” (Rao, 2008), while blended learning is a new term that is used to refer to learning models that combine traditional classroom practice with e-learning solutions.

The potential of each technology varies according to how it is utilized. Haddad and Draxler (cited in Tinio, 2008) have identified at least five levels of ICT use in education: presentation, demonstration, drill and practice, interaction, and collaboration. Each of the different ICTs may be used for presentation and demonstration, the most basic of the five levels. Except for video technologies, drill and practice may likewise be performed using the whole range of technologies. Networked computers and the Internet are the ICTs that enable interactive and collaborative learning best; their full potential as educational tools will remain unrealized if they are used merely for presentation or demonstration.

Kenya has made remarkable progress in promulgating an ICT policy framework and implementation strategy, complete with measurable outcomes and time frames (Farrell, 2007). In January 2006, Kenya put in place a National ICT Policy, whose aim is to advance the livelihoods of Kenyans by ensuring the availability of accessible, efficient, reliable and reasonably priced ICT services (Kenya Ministry of Information, 2006). Many education institutions in Kenya have started to leverage the Internet to improve their programme’s reach and quality. An example is the African Virtual University (AVU), initiated in 1997 at Kenyatta

University. It uses satellite and Internet technologies to provide distance-learning opportunities to individuals in various English-speaking and French-speaking countries throughout Africa (Amutabi, 2003).

One of the strategies related to the implementation of Kenya's ICT policy seeks to create awareness of the opportunities offered by ICT as an educational tool to the education sector (Farrell, 2007). It was against this background that this study was designed to see whether this awareness has been achieved in primary schools institutions in Tinderet Constituency. Tinderet constituency has 105 public primary schools with 700 TSC teachers and 17 private schools. The following 5 schools were found to have at least 1 computer each. The Tinderet primary schools, Kimatgei primary, Kibukwa primary, Kabunyeria and SDA Labuiwa primary school. Tinderet primary school was taken as a case to be investigated.

The study sought to address the following questions:

1. What possibilities do ICTs offer teachers in teaching-learning processes?
2. To what extent do teachers use ICT as a tool for managing teaching-learning?
3. What challenges do teachers face as they integrate ICT into teaching-learning processes?

## **Methodology**

This study made use of a descriptive survey design, which involved the use of a questionnaire. Answers to the first question were obtained by reviewing relevant books, journals, internet sources, and other relevant material in order to establish the different possibilities of using ICT in teaching-learning. The questionnaire was designed to gather information on teachers' perceptions of the extent to which they integrate ICT into teaching-learning, and their perceived challenges in this endeavour. The school was purposively selected from among others in the western region of Kenya. Survey design is basically concerned with describing the characteristics of a particular individual or of a group (Babbie, 2010). Since the research sought to describe and account for existing conditions relating to the training of teachers to use ICT in education, a descriptive survey design was deemed appropriate.

From the total population of about 80 teachers at district who have basic computer training (according to DEO's official records), a sample of 26 teachers were selected to participate in the study. This was done using stratified random sampling, so that identified subgroups (six academic departments) in the population were represented in the sample in the same proportion in which they exist in the population (Gay, Mills, & Airasian, 2006).

The instruments used in the study were piloted in different institutions within the region. This was done to guard against interaction of the pilot group and the study sample, which would compromise the results. The reliability of the questionnaire was tested using test re-test method. The questionnaire was administered twice to the pilot participants with a span of two weeks in between, and a reliability index (0.72) was obtained. This was considered acceptable since Koul (1984) has posited that a reliability index of 0.50 and above is acceptable.

## **Results**

The following tables depict data on teachers' perceptions of their use of ICT in managing curriculum. In the tables, F represents frequency count.

**Table 1: Teachers’ Perceptions of the Extent to Which They Use ICT in Curriculum Management**

Area of ICT use	Response					
	Agree		Undecided		Disagree	
	F	%	F	%	F	%
As a tool for managing curriculum.	17	69.4	4	16.7	5	13.9
To enhance students’ interest in learning	18	50.0	4	11.1	14	38.9
To ease handling of student information	26	72.2	5	13.9	5	13.9
To enhance lesson preparation	26	72.2	1	2.8	9	25.0
To manage learning resources	24	66.7	3	8.3	9	25.0
To facilitate student assessment	21	58.4	5	13.9	10	27.7
To make timetabling easier	22	61.1	4	11.1	10	27.8
For communication	21	58.3	4	11.1	11	30.6
To extend access to education	10	27.8	3	8.3	23	63.9
To ensure equity and inclusion	12	33.4	7	19.4	17	47.3

The results indicate that teachers in primary school institutions generally view ICT as an appropriate tool for curriculum management (69.4%). More than half of the teachers generally held that they use ICTs in all the areas for demonstration, with the exception of extending access to education (27.8%) and ensuring equity and inclusion (33.4%). This is an indicator that teachers have embraced ICT as a tool for managing curriculum, notably to ease handling of student information (72.2%), to enhance lesson preparation (72.2%), to manage learning resources (66.7%), to facilitate student assessment (58.4%), to make timetabling

easier (61.1%), and for communication (58.3%). However, although half of the teachers did indicate that they use ICT to enhance students' interest in learning, a significant proportion (38.9%) disagreed with the statement with 11.1% having been undecided. Nevertheless, it is concluded that, broadly speaking, lecturers in technical training institutions regard and use ICT as an appropriate tool for managing teaching-learning.

**Table 2: Teachers' Perceptions of Challenges of implementing ICTs into Teaching-learning**

	Challenge	Response					
		Agree		Undecided		Disagree	
		F	%	F	%	F	%
1	Teachers are required to use ICT in curriculum management.	18	50	7	19.4	11	30.6
2	I have sufficient training to enable me integrate ICT in teaching-learning.	18	50	5	13.9	13	36.2
3	The number of ICT equipment for teachers' use is adequate.	7	19.5	3	8.3	26	72.3
4	Adequate support is provided by administration to enable teachers integrate ICT in teaching-learning.	15	41.7	5	13.9	16	44.4
5	There is a clear institutional policy regarding the use of ICT.	16	44.4	4	11.1	16	44.5
6	There are procedures for monitoring and evaluating teachers' use of ICT in curriculum management.	12	33.3	5	13.9	19	52.8
7	Internet connectivity is not a problem in my institution.	33	91.7	1	2.8	2	5.6

8	I take advantage of internet connectivity to obtain web-based learning materials.	31	86.1	2	5.6	3	8.3
9	Adequate technical support is provided teachers' to use ICT.	19	52.8	7	19.4	10	27.8
10	Teachers' are enthusiastic about ICT.	15	41.7	8	22.2	13	36.1

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The findings in Table 2 indicate that the greatest challenge that teachers' face is unavailability of computers. Only 19.5% of the teachers responded that the number of ICT equipment for teachers' use is adequate while 72.3% of them indicated the opposite.

## Discussion

### The possibilities of using ICT in teaching-learning

From the review of literature, it was established that ICTs offer numerous possibilities for teachers. Research and experience have demonstrated that computers have the potential to play a powerful role in enhancing the environment of learning as well as in preparing students to acquire skills, competencies and attitudes essential for competing favourably in the emerging global 'knowledge' economy (MOEST, 2005). According to Whitehead, Boshee and Jensen (2003), computers allow the teacher to prepare learning tasks that are authentic, challenging and multidisciplinary and to use assessments that are performance-based, generative, ongoing and equitable. They also provide learning contexts that are collaborative, knowledge building and empathetic, where the teachers serve as facilitators, guides or co-learners.

In management of the curriculum, computers can benefit the teacher in the following areas. ICTs, notably computers, could assist the teacher in planning, organising, and monitoring and evaluation procedures (Kindiki, 2008); processes that rely on availability of precise and timely information. Computers can also be used in recording, storing and retrieving student data, including personal details provided in registration forms such as name, gender, address, parents' details, and course enrolled for. Computers can also be used to prepare and keep profiles of student



progress, such as attendance and records of achievement. This way, the teacher can access information at the click of a mouse regarding such issues as the details of all the courses that a school offers, the number of students in each class, and the name of the teacher teaching the course, among other details.

Curriculum management in the school is based on how teachers and educational managers allocate time as a framework upon which the structure of the whole school is built (Kindiki, 2008), and to this end computers can also be used for timetabling and daily rota. The computer also allows the teacher to prepare effectively for teaching since they can type up their schemes of work, lesson plans, lesson notes and examinations with great ease. Courses can be prepared, edited, and stored more efficiently by use of a computer. Teachers can also consult databases for schemes of work and lesson material, such as notes and flashcards.

Perhaps the greatest potential for computers in education is in the improvement of traditional teaching (Carnoy, 2004). With availability of presentation software such as PowerPoint, the teacher can prepare slides well in advance and teach with the aid of an overhead projector, thus saving a lot of time.

Other possibilities include the use of ICT to manage resources, for effective communication, assessment and evaluation, producing reports, ensuring equity and inclusion, and extending access to education. In higher education and adult training, computers can be used to open educational opportunities to individuals and groups who are constrained from attending traditional institutions (Tinio, 2008).

### **The Extent to which teachers in primary schools in Tinderet constituency use ICT in Curriculum Management**

The results indicate that lecturers in technical training institutions generally view ICT as an appropriate tool for curriculum management. This is an indicator that teachers have embraced ICT as a tool for managing curriculum. The findings show that ICT is used for handling of student information, lesson preparation, managing learning resources, student assessment, timetabling and communication.

It is telling that primary school institutions have yet to take advantage of ICT to extend access to education. Trucano (2005) has asserted that ICTs can be used to open educational opportunities to students and individuals who are constrained from attending institutions of learning.

### **Challenges of Implementing ICT in Teaching-learning Processes in Primary Schools in Tinderet Constituency**

Despite huge efforts to position information and communication technology (ICT) as a central tenet of teaching and learning in Kenya, the fact remains that many students and teachers make only limited or no formal academic use of computer technology (Kessy, Kaemba, & Gachoka, 2006). This is usually attributed to a variety of operational deficits on the part of students, teachers, and institutions (schools). Significant challenges that need to be addressed include educational policy and planning, infrastructure, language and content, capacity building, financing and monitoring and evaluation (Whitehead, Jensen and Boshee, 2003; Farell, 2007).

The findings indicate that the greatest challenge that lecturers face is unavailability of computers. Only 19.5% of the lecturers responded that the number of ICT equipment for lecturers' use is adequate while 72.3% of them indicated the opposite. Another notable challenge was the lack of institutional commitment in requiring lecturers to use ICT coupled with the lack of procedures for monitoring and evaluating lecturers' use of ICT in curriculum management. This finding is in agreement with Farrell's (2007) contention that one challenge is the lack of a clear purpose for use of technology in teaching and learning. Similarly, Trucano (2005) has argued that during the program design process of most ICT in education initiatives, little attention is paid to monitoring and evaluation issues and feedback loops.

Whereas infrastructure has often been cited as another major obstacle to embracing ICT in educational institutions in Kenya (Tinio, 2008), the findings of this study indicate that primary school institutions are working towards overcoming this challenge as exemplified by the presence of internet connectivity. Ninety one point seven percent (91.7%) of the respondents indicated that internet connectivity is not a problem in their institution. However, there is still need to further probe into how efficient such infrastructure is, especially the speeds of connectivity.

For any ICT integration to be successful, various competencies must be developed throughout the educational system among teachers, technical support specialists, educational administrators, and content developers. In view of this, it is considered unfortunate that adequate capacity building of teachers' in ICT integration is yet to be achieved. Although half of the teachers (50%) responded in the affirmative to the question about their level of training, more still needs to be done.

Many teachers acknowledged that ICT has great potential to enhance learning activities, but that this is hampered by challenges such as inadequate equipment, lack of technical and administrative support, inappropriate attitudes and inadequate training. One wrote, "Teachers lack capacity for use of ICT in curriculum management," and another elaborated on this pointing out that "Training should focus on teaching methodologies that are ICT based." Clearly, training is still a concern. According to Tinio (2008), teacher professional development should have focus on skills with particular applications, integration into existing curricula, and curricular changes related to the use of IT. Ideally, these should be addressed in pre-service teacher training and built on and enhanced by in-service programmes.

One interesting finding is that teachers in primary school institutions have appropriate mindsets for ICT integration. While 41.7% of them indicated that lecturers are enthusiastic about ICT, responses to the other question relating to attitudes indicated that many teachers (86.1%) take advantage of internet to obtain class materials. This suggests that teachers in technical training institutions are shedding off the label 'technophobic' and are ready to embrace ICT for teaching-learning.

## **Conclusion**

ICTs offer great potential that can be exploited to enhance teaching-learning processes. Broadly speaking, lecturers in technical training institutions regard and use ICT as an appropriate tool for managing curriculum. However, the process of integrating ICT in teaching-learning in technical institutions is still riddled with challenges, notably unavailability of computers, lack of procedures for monitoring and evaluating ICT use, and inadequate capacity building. In light of this, it was recommended that primary school institutions should put in place

procedures for re-training teachers in ICT integration, management should provide adequate support, and that primary school institutions should equip their institutions with more computers to expand access to education since the use of computers will act as a motivator for learners to attend school.

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## **Will Our Children Learn? Learning Environments, Teachers and Teaching Approaches Should Matter to their Learning**

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### **Abstract**

The declared aspirations by the community of countries to achieve both Education for All (EFA) and Millennium Development Goals (MDGs) is a critical part of educational initiatives in Kenya. Schools are the physical places through which some of these goals can be achieved. Majority of the schools, particularly those in rural and remote places, as well as those in slums in Kenya have remained unfriendly spaces for the purposes of proper learning. This paper shares findings from a doctoral research that entailed teachers' professional development accompanied by other intervention initiatives to improve the school situation including a school-to-school curriculum exchange partnership involving grade 5 and 6 students of a Canadian school and grade 6 students of the Kenyan school, and provision of safe water for the school community of 1200 members in rural western Kenya. The objective of the interventions was to initiate a whole school improvement process focusing on teachers' and learners classroom interaction, teachers' professional development and interaction of the learners in a Kenyan rural setting with learners in a developed setting in Canada. The data was gathered through documentation of school-to-school partnership project between the Kenyan school and a school in Alberta province of Canada, observation of teachers in classrooms in the Kenyan school and interviews with teachers. Findings reveal teachers' enthusiasm to teach despite very difficult circumstances including poor infrastructure and lack of

**teaching and learning resources. Students on the other hand were inspired through the initiatives to enjoy their learning through active learning approaches. The school community received water filters, revived their water sources and got safe water in school.**

**Keywords:** *Curriculum partnership, Education for All, Millennium Development Goals, Teachers' professional development.*

## **Introduction**

Education may never have been in the limelight over the centuries as has been the case in the last two decades beginning with the World Conference on Education for All in Jomtien 1990, the Dakar Framework for Action in 2000 and United Nations Millennium Summit where the Millennium Development Goals were declared. Nations of the world realized that for advancement in human development, education was critical as a means to improve the human condition.

By signing up to address both Education for All goals (EFA) and Millennium Development Goals (MDGs), the nations of the world essentially committed to improve not only their citizens' access to learning, but also to providing the spaces and materials to enable learning. By some countries keeping schools particularly those in rural, remote and slum areas with inferior learning facilities and resources, they essentially marginalize them. In the 2010 Global Monitoring report for Education for All that focused on marginalization, it is stated that overcoming marginalization should be at the heart of Education for All agenda (UNESCO, 2011). The report further states: "Education should be a driver of equal opportunity and social mobility, not a transmission mechanism for social injustice" (p. 137). This characterization of education as a driver of equal opportunity and social mobility may not always be the case in some of the poor countries of the world. Education may in fact be playing a role in transmitting social injustice as a result of the poor learning facilities and lack of enough qualified teachers in marginalized areas.

Education in rich countries as experienced by the citizens of those countries tends to be of similar standard across the board regarding



the comfort in the learning spaces, learning materials used and teacher quality. It is recognized though that “ in all countries, whatever their level of development, some individuals and groups experience persistent disadvantage in education that sets them apart from the rest of the society” (UNESCO, 2011, p. 138). However, for those in poor countries, their experiences in educational institutions are so varied because of the inequalities in resourcing, low teacher quality and uninhabitable learning environments. Indeed the EFA Global Monitoring Report of 2010 suggested that dimensions and characteristics of marginalization differ between developed and developing countries, but recognized that the rich countries are also characterized by extreme and persistent patterns of deprivation (UNESCO, 2011).

This paper presents findings from a doctoral research and two other associated interventions in one school in Lugari district, rural western Kenya. The three initiatives include: curriculum partnership between the Kenyan rural primary school and a Canadian elementary (primary) school, a safe water project in the Kenyan school and a design-based research focusing on teachers’ professional development through blended learning on appropriate technologies in the same school. First, I present the Kenyan primary school features in the following section.

### **School location and features**

The school that was the focus of the initiatives in this study was a rural primary school located in Lugari district. Lugari district is a rural district whose main economic activity is subsistence farming particularly planting of maize and beans. The district is mainly served by earth roads. Most of the school walls and floors were made of mud and loose soil respectively. The school infrastructure and learning materials such as textbooks were very minimal or non-existent. The school, like others in the Western parts of Kenya had large classes of more than 83 students with some students sitting on the floor for lack of desks (Glennester, Kremer, Mbiti & Takavarasha, 2011).

Most teachers in schools in Kenya with features such as those mentioned above will normally have had pre-service teacher training, consisting of two years in a teacher training colleges, which are spread across the country. For the purposes of this paper schools such as the one reported

by this author are described as being in challenging educational contexts. Challenging educational contexts in this paper should be understood as those contexts with environmental, social and infrastructural constraints such as lack of universal access to formal learning, threats to such learning activities resulting from cultural or religious reasons, lack of access to electricity, lack of clean water and sanitation and other access limitations linked directly to poverty (Onguko, 2012).

The primary school, which was the focus of the interventions had a population of about 1000 students and 20 teachers. Thus in total about 1050 people were direct beneficiaries of the interventions. As can be seen in Figure 1, the school learning environment had limited resources such as the poor blackboard for teaching. Notice also the windowless classroom with uninhabitable walls in the picture. These are the learning spaces some children have to endure in their endeavour to be educated just like their counterparts in more developed contexts. In the following section I present literature review, thus grounding the interventions within a theoretical frame based on earlier scholars' work.



**Figure 1: An example of a classroom in the intervention school**

## **Literature: A theoretical framework**

The initiatives in this paper were aimed at bringing about whole school improvement in a rural setting in Western Kenya. Whole school improvement is a provision propagated by among others scholars, Fullan (1985), and Joyce (2004). Fullan for example, has provided a series of publications focusing on changing the way schools are operated especially in developed countries, and which ideas can be applied to educational settings globally.

The Education for All Global Monitoring report of 2005 focused on the quality imperative for education. The report highlighted among other important aspects to provision of quality of education as: more and better trained teachers, improved textbooks being made available to all learners, pedagogical renewal and more welcoming learning environments. These are important pillars in assuring quality of educational provision (UNESCO, 2004). These quality pillars are still lacking in many schools in poor countries. This scenario is applicable across many parts of Kenya. The interventions reported in this paper focused on some of the aspects identified above including equipping teachers with varied teaching strategies through a school-based teachers' professional development. Other aspects are pedagogical renewal through a curriculum partnership between two schools and creating a more welcoming learning environments by providing safe water in school.

Fullan (1985) presented variables that identify effective schools. One of the variables he identified was professional development for teachers to enable them function in their role of delivering instruction to their learners. Fullan observed that change in individual teachers is an important process through which teachers can improve thinking and the way they do their work thus their teaching. Teachers, according to Fullan have to talk to each other, plan for their teaching together and observe each other as they teach. These factors according to Fullan make the school conducive for professional development. The study presented in this paper was initiated as a result of the general lack of variables presented by Fullan and thus attempted to bring about change through the initiatives presented.

New information communications technology has become an important component for reforming teaching, learning and teachers' professional development. As suggested by Chapman, Garrett and Mahlck (2004)

technology had and still has the potential to contribute to teachers' professional development. While in 2004 it was still not so common to have teachers in rural parts of Kenya participate in technology enhanced professional development within their work environment, with proliferation of new technologies and particularly the spread of the Internet, this has become possible. These authors rightly suggested that teachers needed not leave their schools to go for professional development as technology enhanced learning was one sure way to provide professional development. The study in this paper was a tested one way in which technology enhanced learning could be utilized in a remote and rural part of Kenya. Thus learning from earlier experiences elsewhere, teachers were able to participate in professional development without leaving their school for an external training venue.

Reforming education systems is a consistent venture attempted by many countries. Kenya has not been left behind in consistently seeking to reform her education system. However, as Mukudi (2004) observed, implementation of free primary education from 2003 in Kenya was for political expediency rather than a planned educational reform. She based this argument on the fact that there was no situation analysis and evaluation of both the quality and extent of primary education before implementation. As such Mukudi suggested that problems arose including lack of adequate funding, poor infrastructure in schools, overcrowding in classrooms, lack of adequate teachers and learning materials. These problems have persisted to date, ten years since implementation of the policy. This paper reveals some of the inadequacies identified ten years ago are still prevalent as evident in the school in which the interventions shared in this paper were implemented.

A task force to re-align the Kenyan education system to the constitution found among many other aspects bedeviling the Kenyan primary education sub-sector were that free primary education resulted in increased number of children and thus led to overstretched and overcrowded facilities and high pupil:teacher ratios (Ministry of Education, 2012). The other finding relevant to this paper was that there was poor quality of infrastructure in terms of classrooms, sanitation, and furniture in rural areas and arid and semi-arid parts of Kenya. The task force also found that emphasis on cognitive abilities for the sake of passing examinations has resulted in rote learning. These findings were outcomes of deliberations in cluster

meetings between stakeholders and members of the task force. While recommendations were made regarding these and many other challenges, it is important to note that the children continue to learn in such conditions, although the government is aware of the sorry state of schools. One curious recommendation by the task force was that standards and quality assurance officers should ensure that standards required, infrastructure and equipment are available in schools. Such a recommendation could be presumed to mean that the standards and quality assurance officers will be provided with funds to set up such infrastructure and buy the equipment. It seems according to the task force members that poor infrastructure in schools is a problem arising from poor performance by standards and quality assurance officers, yet according to this author it is a result of lower investment inputs in education.

A research reported by Kisirkoi (2012) focused in Teachers Advisory Centre (TAC) tutors and teachers in Nairobi County of Kenya. In the study 5 TAC tutors and 5 teachers were interviewed and observed on their effectiveness in their roles as teachers' advisors and teachers respectively. Kisirkoi found that "TAC tutors, in their effort to conduct teacher professional development, had faced challenges as follows: unclear terms of service, too many assignments, lack of capacity, unclear reporting systems and lack of facilitation" (2012, p. 300). On the other hand, she found that teaching approaches used by teachers were predominantly lecture method at 80% of the time, question and answer sessions at 12%, group work at 4% of the time, individual work 2% and other approaches such as role play 2%. Thus, these findings are representative of the teaching situation and the teachers' professional development scenario in which the Kenyan primary school teacher has to operate. Whole school improvement is not a major concern though as educators and other stakeholders tend to focus on limited and specific aspects at a time such as construction of buildings or professional development or co-curricular activities in isolation of other aspects.

The Uwezo Report (2012) identified that across Kenya; only 3 out of 10 children at grade 3 are able to read grade 2 work. The series of studies done across the East African region paint a picture of the grim situation regarding learning in Kenya. Uwezo further revealed that a grade 3 child in Nairobi (the Kenyan capital) is twice as likely to read a grade 2 level paragraph than a child in the same grade level in Western region of Kenya,

where the interventions in this paper were implemented. These findings by Uwezo point to the disadvantages children in rural settings face, a major concern of this author as well.

Education in Kenya has been reviewed many times through Commissions of Inquiry and Presidential Working Parties. However, right from the first Commission of Inquiry after independence, recommendations have been provided most of which have not radically changed the way education is structured. For example, Bunyi (2013) argued that in 1963, the Ominde Commission drew attention to the overly teacher-centred methods of teaching in primary schools and recommended use of activity methods. On the other hand, Bunyi asserts that the Gachathi Commission recommended use of problem solving methods. Surprisingly while these two recommendations are so basic and necessary for reforming the way teaching is conducted, the scenario in schools is so different. As Bunyi concluded, “teaching and learning in primary schools remains heavily teacher centred” (2013, 688). The research and interventions reported in this paper were conducted in part to reform the way teachers engaged with students by incorporating activity based learning and cooperative learning coupled with problem solving and inspiring learners to develop interest in Science, Technology, Engineering and Mathematics (STEM) careers. The teaching and learning approaches identified by Bunyi and incorporated in the interventions in this paper have been recommended since independence but never quite implemented across the country. The literature reviewed in this section elucidates the need for whole school improvement for the benefit of the learners. In the following section the methodology and interventions are highlighted.

### **Methodology and interventions**

As mentioned in previous sections a number of initiatives were included in the intervention in the school. These included a curriculum partnership project involving a Canadian elementary school and the Kenyan primary school where grade 5 and 6 students of a Canadian school interacted through asynchronous communication modes on a common science curriculum project with the Kenyan school children of grade six. Email communication between the teachers at both sites enabled the students send to each site questions as raised by the them. The students at both sites answered a common question: if you were to drink water in class/school,

where will the water come from? The students took tours around the school and the neighbourhood to understand the water sources within the school environs. Understanding of water sources at both school sites enabled the students to respond to questions posed by their peers from the opposite school. Thus, this was a curriculum exchange partnership between the students from the two schools without them having to physically travel across 14,000kms between the two locations. In this partnership 24 class six students in the Kenyan school and 3 teachers were the participants.

The second intervention initiative focused on providing ten biosand water filters to the school to enable the school community access and use safe water. This initiative was a further extension of the curriculum partnership project as the school in Kenya lacked water sources, leave alone safe water for drinking. Through the water filters initiative, the students of grade 6 who were part of the curriculum partnership were able to play a leading role in managing the safe water provided through the biosand water filters. The type of filters provided were originally designed in Calgary, Canada by an engineering professor who later started the Centre for Affordable Water and Sanitation Technology (CAWST). However, since CAWST is now wide spread around the world, the filters were procured in Kenya at a total cost of Canadian dollars 800 that included purchase, transportation and installation.

The third intervention initiative was a doctoral research on provision of teachers' professional development through blended learning by availing contextually relevant and locally developed content on appropriate technology that included multi-media content on tablets, powered by solar energy. This intervention was the research component that utilized design-based research and involved 10 teachers in the school and two instructors called professional development tutors (PDTs). Apart from self-study of the multimedia content in the form of PDF readings, video, and audio role-plays, there were also fortnightly face-to-face sessions over a period of four weeks. The data for this segment of the intervention was gathered through interviews held at entry and at exit. Thus interviews were held with teachers in February 2011 just as the intervention began, to establish their professional development needs, and in June 2011 when the Professional development was over. Teachers were also observed while implementing the teaching strategies gained in the professional development as well. Data was also gathered during face-to-face meetings held on Saturdays

where teachers shared views on their experiences teaching through the teaching strategies gained in the professional development. The findings of the intervention are presented next.

## **Findings**

The outcomes of the three interventions are presented under subheadings of each of the initiatives. First, I focus on the curriculum exchange partnership between the students of grade 5 and 6 in a Canadian school and grade 6 students of the Kenyan school.

### **Curriculum Exchange Partnership Initiative**

The two schools were located a distance of about 14,000 kilometres apart in time zones of 10 hours separating them (East African Time versus Mountain Standard Time). While it was envisaged that there would be some real time interaction (synchronous) between the students of the two schools, this proved difficult because of the separateness in distance and time zones of the two sites. The students at both sites were therefore able to communicate by asking questions for their peers to respond through email messages delivered by the two teachers leading the initiative at both sites.

The interventions in the curriculum partnership aimed at inspiring students towards careers in STEM. The students were responding to questions regarding the water sources and their school and home environments with regard to access to water. The findings that mainly focus on the Kenyan school site reveal a number of unique aspects. Of the 24 students who were part of the curriculum partnership intervention, only one had ever seen water on a tap. This child who was privileged enough to have seen tap water had just relocated from Nairobi, the Kenyan capital to live in her rural home. This revelation shows how disadvantaged students in rural and remote parts of a developing country can be. Such students for sure do have a longer way to catch up with the rest of the world if they have never seen water on a tap. This finding can be backed up by the findings by Uwezo, for example, regarding reading abilities of learners in Nairobi and rural settings. Children in rural settings are highly disadvantaged in terms of lack of basic learning resources and exposure to the modern world.



Secondly, the curriculum partnership question for students required them to identify the source of water for the school. As such the students together with their three teachers who participated in the project went on a tour around the school, the neighbourhood borehole in one homestead and the local stream. Surprisingly, this short tour that should have been a regular part of the learning process in the school raised a lot of concern not only to the villagers, but also to the head teacher of the school. It took the effort of this author who was the link person between the two schools to seek permission from the head teacher for the students to be allowed to visit the stream for learning purposes. The head teacher was not convinced by the teachers' view that the students can learn from outside the school compound. On the other hand, the local people, were so interested to know how come on that day the students were walking out of school towards the river. This outcome of surprise by the neighbourhood and resistance by the headteacher can be explained by the limited understanding in the community that learning should happen only in classrooms in school and not in the surrounding community and environment. However, for a headteacher of a school to limit students' learning in classrooms explains the limited or deficit model of learning students in poor countries are exposed to.

Thirdly, the students' interaction through the email messages from Canada inspired the Kenyan school children who got to know a little bit about Canada as a country and the city of Calgary. In a final discussion, majority of the students consistently mentioned how they would want to visit and study in Canada and specifically in Calgary. This enthusiasm by the students to venture further afield to Canada was an aspiration to the students that may require follow-ups later to find out if any one of the students would achieve the aspiration.

Questions asked during the asynchronous discussions via email for example, required the students at both sites to enlighten their friends on how water is availed in school. Kenyan students indicated that they always carry at least 3 liters of water each to school every morning. Asked what makes their water dirty, they indicated insects and bad smell. The students further suggested that dead rats and frogs, coupled with the waste from cows, caused the bad smell they frequently encountered in their water. In other words cows and people share the same drinking water such that the cows drink and urinate in the water that is also used by human beings.

For the Canadian students, the water was readily available in school and classroom, accessed through strategically placed taps within the school buildings. The scenario in the Canadian school was a great contrast to the Kenyan situation where only one student of the 24 involved in the initiative had ever seen tap water having lived in Nairobi, the Kenyan capital. Thus expecting the students at both sites to live with a world view that is similar would be a tall order since they operate in very contrasting environments.

The students recognized that while there were two water tanks in school, they were not operational because the gutters were not working. The students were also cognizant of the fact that while there was a water borehole in school, they did not use the water because the water was dirty. The borehole had been contaminated because the school pit latrines were constructed only a few meters from the borehole.

Students indicated that apart from suffering from diarrhoea due to dirty water, they also frequently suffered from stomachaches and headaches. They explained that when they got sick they got treated at Lugari Forest hospital, Lumakanda district hospital as well as Munyuki hospital. Students were aware that there are ways water can be purified including use of water guard and chlorine solutions. Having engaged in the curriculum partnership initiative, the next step was to avail safe water in school as evident in the initiative discussed in the following section.

### **Safe water project**

The safe water intervention entailed installation of ten water filters with each one having the capacity to provide 60 litres of safe water per day. Thus, in one day when all the filters were used, there would be at least 600 litres of safe water in school.

Important to note is that there was no source of water in the school at the beginning of the interventions. Thus all the 1050 people in the school mainly depended on water sourced from students' homes and one homestead in the neighbourhood. Students brought to school a three-litre container of water, a piece of firewood and cow dung every morning from Monday to Friday. The three-litres of water brought by each child was put together and used for cooking food for teachers, nursery school children and the grade eight students. The piece of firewood brought by

each student was for cooking while the cow dung was used for smearing the floors of the classrooms every Friday.

On receiving the ten biosand water filters, it became apparent to the school that they needed a water source from which they would get water to filter for their use. Initially there had been another project in school that assisted to put up two 10,000 litre concrete water tanks. However, these water tanks had been spoilt and were non-functional. The need for water was now clear and so the school leadership repaired one of the two water tanks to be used for collecting rainwater. On the other hand, the secondary school, which had been established three years earlier, set up a water borehole as a second source of water. The water filters were thus shared between the primary and secondary school hence an additional 200 consumers to the original 1050 primary school community members. As illustrated in Figure 2 the primary students were refilling the biosand filters with water as part of their learning as participants of the curriculum partnership initiative.



*Figure 2: Students of intervention school refill water in filters*

During the training of the school community on safe water provided by two CAWST trainers from Canada, the head teacher of the primary school said:

We are very much privileged and we know that this is a first (water project) of its kind in this part of the region. The primary school community is very much happy to have this project brought to us. The primary school wing comprising of pupils, teachers and parents welcome this project and will ensure that they live a healthy life with the safe water (Head teacher, 7/5/2011).

The principal of the secondary school echoed similar sentiments stating:

In our area water is an issue [problem] in the entire community. In the two schools: both primary and secondary, as you will realize when you have time to walk around, you will see that we do not have a water source. So even for you to have accepted to come to help us learn on how we can manage the water we have for domestic use, it is something we appreciate. To begin with water is so important because water is life (Principal, 7/5/2011).

These were views of the two of the leaders of the other members who participated in the two-day training on how to manage safe water including use and maintainance of the biosand water filters. These views were a reflection of the realities in the school and the representative of other members concerns as participants from the school community. However, the major reason why the Kenyan school benefited from the initiatives shared in this paper was because I had selected it as my doctoral research site. Therefore in the following section I briefly present some findings from the research participants which were collected through interviews one year after the intervention.

### **Teachers' professional development**

The 10 teachers participated in professional development by accessing self-study content on tablets and planning for lessons based on the teaching strategies namely activity based learning and cooperative learning. The tablets on which they accessed the content were operated on solar energy while the teachers met in face-to-face session to discuss their experiences in their teaching (see Figure 3).



*Figure 3: Teachers participating in discussions during face-to-face meeting*

Teachers during a follow-up interview one year after their intervention shared what was happening in their classrooms. Nita when asked what successes they had in using cooperative learning and activity based learning strategies stated:

The impact is that when you give them (students) an assignment to work as individuals, they do not score as high as when you allow them to discuss freely, they express themselves, then they come to a conclusion together. When they work as a group the scores are high because many heads are put together and they are sharing ideas before they come to a conclusion (Interview).

On lack of resources for teaching, the teachers were clear that since parents have been informed that there is free primary education, they do not want to provide any learning resources including basic commodities like sugar.

Nita spoke about the support from parents indicating: “The other day teacher Ludia was lamenting that parents cannot give even a spoon of sugar for experiments. We get surprised that parents cannot support by

providing one spoon of sugar”. Following up on this statement, Ludia shared further that:

The parents think that if a teacher requests for a spoon of sugar from each child, the teacher will get so much sugar to use in school. They understand it is free primary education. We ask the parents to contribute one shilling so that we can buy the sugar. They [parents] tell us you buy we shall pay later (Interview).

Emma said in responding to a question on challenges encountered when using the teaching and learning strategies they gained through the research:

“On use of materials, sometimes they are not very reliable. We are supposed to improvise everything and yet the improvised materials are not very strong. We need to purchase some of the materials” (Interview). Nita further expressed her concerns regarding the insecurity of the materials teachers make for us in classrooms. “Regarding the classrooms, some of the classes up there do not have shutters [lockable doors and windows]. When teachers make materials, the members of the community come in and steal the materials” (Interview). The evident example of one of the worst classrooms as depicted in Figure 1 is a clear indicator of the difficult and challenging conditions teachers have to work in to make students successful as learners and later on as responsible members of the society.

The findings shared in the foregoing paragraphs in a nutshell present food for thought if education in challenging contexts has to be of a higher quality. Such initiatives like those in this paper may be one way of ensuring some changes in the way our children learn. In the following section, I discuss the findings in greater detail.

## **Discussion**

Based on the three separate yet related interventions in the rural school in Lugari district, it is clear that there are many challenges in the school and which are not necessarily unique to this one school. Teachers gained through the interventions by learning about new ways of engaging their learners through activity based and cooperative teaching and learning strategies. The students gained through getting opportunities to talk in class and also lead in cooperative learning activities. The fact that the teachers who participated in the intervention on professional development

were teaching across all the grades from nursery to grade 8 was a great gain to the school in terms of injecting more student-centred learning approaches. The students gained in more authentic learning by teachers using learning materials in classes, which had not been the case previously.

Regarding the curriculum partnership between the two schools with a focus on inspiring students to STEM careers, the students from the rural school in Lugari district were able to learn new things. They for example, were able for the first time to venture into the village and learn through interaction with the local environment - the stream and water well they visited as sources of water for their school. Visiting the local stream and neighbourhood home which were the two main sources of water was new learning that surprised villagers who wanted to know why the students were not in school. On the other hand, the students learning about a Canadian city and Canada as a country resonated easily as the students indicated that while they had never traveled out of Kenya, they really would like to travel to Canada. The students were able to view themselves in the videos taken on the laptop and this was also new learning for them through some new technology. They were so keen to view themselves on video on the laptop small real estate screen as depicted in Figure 4.



*Figure 4: Students view videos of themselves on a laptop*



The safe water intervention in school brought about a renewal to the school in Lugari. The water filters provided 600 litres of water daily. The water was placed in strategic places around the school compound for easy access for drinking. The intervention also provided the school with opportunity to construct a new borehole and also to repair one of the two 10,000 liter tanks that was not operational. This was indeed renewal as the rain water that had hitherto gone without being harvested was now easily harvested and used in school. The neighbourhood home that always provided water for over 1000 people was spared the strain on a small borehole built for one home's use.

While one cannot really attribute any specific long term gains in performance of the students in the school to the interventions attempted in the paper, it is suggested that the living conditions, the learning processes and the motivation of the students were in some ways enhanced. Students were able to gain their voice and speak in class during their learning, safe water was readily available in school, thus alleviating the heavy burden of children having to carry water to school every morning, and the 24 students in the curriculum partnership project were able to interact with their peers from Canada through the questions they raised and answered by the students at both sites.

During the research component of the interventions in the school, I observed teachers implementing activity based learning and cooperative learning. In a grade 8 classroom, it was a great surprise to observe students who were preparing for their terminal examinations at the primary school level not able to name an axe in English. Whenever the teacher asked the name of the tool in the picture (which was an axe), the students mentioned '*shoka*' the Kiswahili name for axe. He tried to push them to name the axe in English and they were totally at a loss. This not only proves what Uwezo reports mentioned in the literature review section over the last three years have been about, but also is an indictment of the way children are introduced to learning. In nursery schools across Kenya, young children at ages 3 – 5 are taught through letters and pictures. When learning letter 'A', they recite 'A' for Apple and not 'A' for Axe, a tool which is definitely more available in Kenyan homes than an apple. This study therefore advocates for a paradigm shift in the way education should be provided for by the Kenyan authorities and experienced by the Kenyan learners as I conclude in the following section.



## **Conclusion**

While the interventions in this study highlight the scenario albeit in one school in Kenya that could easily reflect the reality in that part of the country, it is clear that the complete story across Kenya has not been told yet. Lugari district is clearly not the most marginalized part of Kenya. As such there are places in Kenya such as the Arid and Semi Arid Lands (ASAL) of Northern Kenya, which are definitely worse off. Thus the question for Uwezo has been: are our children learning? Which reflects the present. I pose the question through this paper that projects into the future thus: will our children learn? This is an important question, as the prevailing circumstances are not getting any better soon. However, we need to begin answering this question and the interventions in this paper were one step towards enabling answers to the question for the intervention school and the community around the school.

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## **Issues in the Implementation of Instructional Materials Procurement Policy in Kenyan Public Primary Schools: the case of Wareng District, Uasin-Gishu County, Kenya**

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### **Abstract**

The main purpose of this study was to examine issues in the implementation of instructional materials procurement policy in Kenyan Public Primary School. The study was prompted by the recent loss of Ksh. 1.3 billion meant for text books under the Free Primary Education (FPE) programme which raises questions about the functionality of the procurement policy. The study was conducted in Wareng District of Uasin Gishu County. A descriptive survey design was adopted utilizing both quantitative and qualitative approaches. A sample size of 152 respondents comprising 38 head teachers, 76 panel heads, and 1 DQASO were drawn from 38 public primary schools to participate in the study. Purposive and stratified simple random sampling techniques were used to select the respondents. Questionnaires, interviews, and document analysis were used to collect data. Research instruments were tested for validity and reliability. Descriptive statistics were used to summarize the findings. The study revealed that, SIMSC's lack of knowledge and skills in the procurement process and that un-procedural procurement practices adopted by schools compromised the implementation of the procurement process. Finally, the study established that, the level of compliance to the procurement process is still low and majority of schools still flawed procurement rules. The study recommends that proper

**monitoring and evaluation mechanisms on procurement be put in place to ensure proper implementation of the policy.**

**Keywords:** *Procurement policy, implementation, Instructional materials, public primary schools, compliance.*

## **Introduction**

The economic and social benefits of providing universal primary education are now widely recognized. Mondoh (2004) noted that there is no tool for development that is more effective than the education of the household and that no other policy is likely to raise economic productivity, lower infant and maternal mortality, improve health and nutrition as the education policy. Education is one of the effective instruments a nation has at its disposal for promoting sustainable social and economic development (Republic of Kenya, 1999). The growing demand for education has led to increased expenditure on education. World Bank (2003) estimated that the proportion of Gross National Production (GNP) devoted to education in the developing countries, particularly in Asia, Latin America and Africa rose on the average, from 2.3% in 1969 to 4.5% in 1984.

The need to provide all Kenyans with Education is based on the perceived contribution of education in overall development. This perception was captured by Eshiwani (1993:39), where he noted that, “Education stimulates and empowers people to participate in their own development”. Education plays a critical role not only in expanding further educational opportunities, but also in fostering basic intellectual abilities such as literacy that are crucial to success in a world where power is closely linked with knowledge. Sifuna (1980) concurs with the view when he asserts that the numerous changes on Kenya’s educational systems are as a result of the government’s appreciation of the fact that education is key to national development. The Kenya Government declared full free primary education in all public primary schools in the country in January, 2003. Up to end of 2002, education at all levels in Kenya was a cost-sharing venture between parents and the government (Kamunge Report, 1988, Sessional Paper No. 8). Quality education had thus become almost unaffordable by most poor families, a situation that contributed to the

high level of illiteracy, high school drop-out rates and child-labour in the country.

The influence of instructional materials in promoting students' academic performance and teaching and learning in educational development is indisputable. Students learn better when most of the senses are appealed to the instruction and use of instructional materials in education has added a new dimension in the positive promotion of the teaching and learning process. It provides the much needed sensory experiences needed by the learners for an effective and meaningful behavioural change. Instructional materials are meant to improve the quality of education for effective academic performance of agricultural science students in schools. The performance of the students on the intended learning outcome provides the validation loop on the success of the interaction and instruction (Bakare, 1986).

Instructional materials have been defined by various authors. For example, Obanya (1989) viewed them as didactic materials which are supposed to make learning and teaching possible. According to Abdullahi (1982), instructional materials are materials or tools locally made or imported that could make tremendous enhancement of lesson impact if intelligently used. Isola (2010), referred to them as objects or devices, which help the teacher to make a lesson much clearer to the learner. Instructional materials are also described as concrete or physical objects which provide sound, visual or both to the sense organs during teaching (Agina-Obu, 2005). In this study, instructional materials refers to any instruments, devices or materials used to transfer and hand over the knowledge, information, news and skills to learn from teachers/instructors to learners or students. Principles in using the instructional instruments and materials in teaching are that they must be suitable in terms of contents and learning objectives set by the teachers. The teaching materials must be accurate and suitable for the students to learn, and practice their analytical skills. They must help expose the students to sufficient experiences. The instructional materials must also be suitable to the school sizes and educational policy as stated by each educational area (Bergeson, 2008).

The benefits of the educational instruments and teaching materials are to facilitate learning and understanding, to save time in teaching and learning, to transfer accurate learning contents to the students, to make

the lessons or concepts to be learned more concrete and therefore easy to understand and to develop learning potential of the learners (Supanika, 2010). Evidence from studies by the World Bank and other international organizations on the quality of learning achieved in the developing countries points to the great importance of the following school inputs: teachers (class size, teacher training and morale); instructional materials (textbooks and other reading materials; writing implements (radio and other instructional media); school buildings and facilities; nutrition and health of children; language of instruction; and examinations.

Given this background, educationists, policy makers and even parents have raised pertinent issues related to the FPE policy and particularly of improvement on the quality of education as envisaged in the policy. UNESCO (2005), in its assessment report on Kenya's Free Primary Education programme noted that; FPE was meant to reduce school drop outs, reduce the number of street children, and child laborers, boost girls education and increase the quality of Education. The same UNESCO (2005), report praises the Free Primary Education in Kenya for the provision of learning and teaching materials, citing it as probably the greatest positive impact of FPE, the continuous attendance of lessons as pupils are no longer sent home for fees. In the same report, issues of increased enrolment in classes which could impact negatively on the quality education were also raised.

Though seen as the most successful project implemented by the government in 2003, the F.P.E programmes continue to draw increasing concern among many stakeholders (Ilahaka 2006). Primary school head teachers in many counties manage big budgets and are involved in procurement and accounting for funds in their charge. One immediate concern has been the ability of primary school head teachers together with the members of the instructional materials selection committees to effectively procure materials required for ensuring quality in primary education. It is against this background that this study seeks to evaluate the issues affecting the implementation of the procurement policy in public primary schools in Wareng District in Uasin-Gishu County.

### **Statement of the Problem**

The need for and uses of the instructional materials are regarded as very important factors for successful teaching and learning. The schools should



therefore lay more emphasis on the provision of modern and effective teaching instruments and materials to support the efficiency of learning activities. According to the Handbook for Management of Instructional Materials (2007), it is a policy requirement that every public primary school in Kenya constitutes a procurement body referred to as Schools Instructional Materials Selection Committee (SIMSC) for acquisition of Instructional Materials (IM). It is also a requirement that headteachers of primary schools submit accurate enrolment data to Ministry of Education for capitation purposes.

Despite all the efforts the government of Kenya (GOK) has put in place for effective procurement of instructional materials, some schools are still unable to attain the textbook-pupil ratio of 1:3 in lower and 1:2 in upper. It follows that there is inadequate supply of instructional materials in schools. A research carried out by Southern and Eastern Africa Consortium for Monitoring Educational Quality (SACMEQ) in 2007 revealed that one in every five (22%) pupils did not have all the three basic learning items that were considered necessary for effective participation in classroom activities (SACMEQ, 2011). Similarly, in the same study which involved a sample of 4436 standard 6 pupils in 1993 primary schools in all the 8 provinces in Kenya revealed that only 15% of the standard 6 pupils in 2007 had sole use of mathematics books. This is in line with education for all (EFA) by the world conference on education held in Jomtien Thailand (1990) and reaffirmed in Dakar Senegal 2000. The government has given priority to education sector by allocating a substantial fraction of its expenditure on education which has accounted for 28.2% of the total government expenditure. This investment has seen the establishment of many schools both primary and secondary (Kimalu et al, 2001).

It is clear that, many schools are still faced by procurement challenges hence operate against the policy. In one occasion, it was noted through a press report that Ksh.1.3 billion meant for textbooks under Free Primary Education (FPE) programme had been wasted, that donors claim that books bought with the money were either stolen, lost or thrown away (Otieno, 2009). The losses covered a period of six years (2003-2008) with an average cost of Kshs 226 per book. Wareng audit report (MOE, 2009) revealed cases of school heads who made wrong entries on order and issue and receipt registers, besides cases where one supplier was used for many years against the procurement policy demand of annual review

of all tenders. Further, the National Audit report on textbooks (MOE, 2009) revealed that, the district stands at a ratio of 1:4 textbooks per pupil in lower primary and 1:3 in upper which is high and against the National Policy of 1:3 in lower and 1:2 in upper.

From the above scenario, it is obvious that the procurement process may not have been adhered to and it seems there are many factors contributing to this, hence the need to find out the issues that influence compliance to the procurement process. In particular, the problem that this study sought to investigate was whether the present policy on procurement was functional in relation to the knowledge and skills of the School Instructional Material Selection Committee (SIMSC) and their level of compliance to the procurement process.

### **The Procurement Procedure of Instructional Materials**

Before schools acquire and use any resource, they need to consider their importance in relation to the teaching and learning process. For it to be of value, it must influence learning positively and facilitate the achievement of quality teaching and learning (MOE, 2008).

In line with the above, the Ministry of Education issued a comprehensive Primary School Instructional Material Management Handbook which is to serve as a guide to the school management committees at all the stages of procurement process including the establishment of a School Instructional Materials Bank Account (SIMBA) and the establishment of a School Instructional Selection Committee (SIMSC). All schools are required to have a SIMBA into which they receive funds from the MOE for the purchase of text books and other instructional materials.

The table below outlines the various processes involved in the procurement process of instructional materials for primary schools.

**Table 1.1: The First Stages of the Procurement Process of Instructional Materials (IM)**

	<b>Process Description</b>	<b>Form to be utilized</b>
<b>Planning</b>		
1	<p>The SIMSC makes a list of all the textbooks and teachers guides that the school currently has and compares this to the requirements of the schools such that the priorities can be identified.</p> <p>In identifying the textbooks required reference should be made to the MOE Approved List of Primary School Text Books.</p>	
2	<p>After the priority text books and instructional materials have been identified, the SIMSC will determine the particular texts they wish to purchase. Reference may be made to the approved text book lists and advice sought from the DQASO.</p> <p>The criteria to be used in selecting the text books will take note of : syllabus coverage; content of the books; illustrations and layout; exercises and activities; price and durability.</p> <p>The SIMSC will also make a list of pupils' readers and stationery required, taking note of minimum standards outlines in the Primary Schools Instructional Materials Management Handbook.</p>	
<b>Receiving the funds</b>		
3	<p>Funds for text books and other instructional materials will be transferred directly by MOE into the School Instructional Materials Bank Account (SIMBA) and will be recorded in the receipts column of the SIMBA cashbook.</p>	<p>Official receipt issued to MOE for the funds</p>

4	School community will be informed of the amount received and notice of the receipt and the amount is posted on the school's notice board.	
<b>Selection of the Supplier</b>		
5	STC should pre-qualify text book suppliers competitively	Pre-qualification
6	Issue a Request for Supplier Quotation to at least 3 potential suppliers who have been pre-qualified. The request for quotation should include the details of all the textbooks and instructional materials the school requires	Request for Suppliers Quotation Proposed School Order
	<b>Process Description</b>	<b>Form to be utilized</b>
<b>Selection of the supplier (Cont.)</b>		
7	Suppliers who receive the request for quotation form will complete an offer for the supply of Instructional Materials form and indicate the prices and terms they will offer the school to supply the textbooks and instructional materials and deliver this to the school in plain sealed envelopes	Offer for the supply of Instructional materials
8	The STC will convene and select a supplier from amongst those who deliver their letters of offer within the time limit provided.	
9	The decision on the supplier selected should be recorded in the STC Minute Book.	

<b>Table 1.2: The Second Stage of the Procurement Process of Instructional Materials</b>		
<b>Ordering and Contracting with the supplier</b>		
10	The school will sign a contract with the selected supplier for the supply of the items of over Kshs.500,000. This contract will indicate the Latest Estimate Delivery Date (LEDD) to assist the school in planning.	Supply contract
11	The school will prepare an order form and complete 4 copies of the same. The 1 <sup>st</sup> copy will be issued to the selected supplier, the 2 <sup>nd</sup> to the DEO, the 3 <sup>rd</sup> to the ZQASO and the 4 <sup>th</sup> to be kept in the school's Instructional Materials file.	
<b>Receiving, Paying for the Instructional Materials</b>		
12	The supplier will deliver the Instructional materials to the school within the time stipulated in the supply contract and instructional materials order form. The SIMSC (represented by the head teacher, chairperson of the SMC and parents representative) will review the instructional materials delivered and will compare these to the materials listed in the order form and supplier delivery note and invoice, ensuring that materials have been received in the correct quantities and types.	
13	The Primary School Instructional Materials Management Handbook provides guidance on what the head teacher should do in the event that the supplier does not deliver the materials in full or within the stipulated time. The head teacher should prepare a list of all the Instructional materials not delivered in the Instructional Materials file.	

14	Upon confirming that the order has been delivered in the correct quantities as per the order form and the supplier invoice and delivery note, the school will prepare and issue a crossed cheque written in the name of the supplier against the school's SIMBA for the value of instructional materials delivered to the school. The payment will be recorded in the expenditure side of the SIMBA cashbook.	
15	The instructional materials received will be stamped, dated and numbered and recorded in the school's stock receipt and issue register.	

Source: Ministry of Education (2007)

When the procurement process will have been adhered to, the following target ratios will be established in all public schools. Table 1.3 provides the guidelines.

**Table 1.3: Ratio of IM in Public Primary Schools.**

Lower primary (standard 1---4)

Basic minimum pack of school stationary	1 per student (including 12 exercise books-64pgs)
Chalks	5 boxes, per classroom, per year.
Teacher's preparation books	1 per teacher (to last for 4 years)
Enrolment and attendance registers	1 per class.
6 core textbooks	1 textbook per 3 pupils for each subject and standard
8 core teachers Guides	1 per subject per grade for each teacher

Supplementary reading Materials in English	1 reading book for each enrolled pupil
Supplementary reading books in Kiswahili	1 reading book for each enrolled pupils

**Upper primary (standard 5---8)**

Basic minimum pack of school stationary	1 per student per year (including 12 exercise books-120pg)
Chalks	5 boxes per classroom per year.
Teachers preparation books	1 per teacher (to last 4 years)
Enrolment and attendance registers	1 per class per year.
6 core Textbooks	1 textbook per 2 pupils for each subject and standard.
8 core teachers ' guides	1 per subject per grade for each teacher.
Supplementary reading materials in English	1 reading book for each enrolled pupil.
Supplementary reading books for Kiswahili	1 reading book for each enrolled pupil.
Wall maps of the world, Africa, East Africa and Kenya.	1 of each per school.
English dictionary for std 8	Small class sets of 1 dictionary per pupils.
Kamusi for std 6-8	Small class sets of 1 kamusi per 6 pupils.
Atlas for std 6-8	Small class sets of 1 atlas per 6 pupils.

*Source Ministry of Education, (2003)*

### **Composition of the School Instructional Materials Selection Committee (SIMSC)**

According to a circular ref. MOE/PS/GA/1/10 dated 12/7/2003; each primary school in Kenya was to constitute a School Instructional Materials Selection Committee (SIMSC) comprising 15 members as follows:

- Headteacher-                      Chairperson
- Deputy Headteacher-              Secretary
- 8 Class teachers-                  Members
- 1 Teacher representing          SNE
- Chairman                          SMC
- Parents (male and female)
- Senior teacher

The circular further stipulated that the head teacher become automatic chair of the committee. The deputy head teacher equally assumes the position of the secretary. Each class is thereafter represented by one teacher and since there are eight classes the number automatically becomes eight. In addition, there is a teacher who represents the interest of Special Needs Education.

The chair of the School Management Committee becomes an automatic member. Two parents-male and female and the senior teacher are also incorporated as members. Head teachers of schools are required to ensure that a quorum is met before any proceedings are undertaken.

### **Methodology**

This study was carried out in Wareng District of Uasin-Gishu County in Kenya. The target population of the study was all head teachers, parent representatives, panel heads and DQASO. The sampling unit was the school rather than the individual participant. Using formula for calculating sample size proposed for descriptive studies in Kothari (2005) of 30%, 38 schools were selected using stratified random sampling (to include all the divisions) from a population of 129 public primary schools in the district. Purposive sampling was used to select 38 head



teachers, 38 parent representatives and one DQASO. Two panel heads from each of the selected schools were further selected using simple random sampling technique. Questionnaires were administered to all the head teachers, parent representatives and the panel heads. In addition, the DQASO and 11(30%) head teachers were purposively sampled to be interviewed by the researcher. Experience in administration was the basis of their selection. The study adopted a descriptive survey design which was deemed appropriate as it intended to describe conditions as they were at that particular time. Data was analyzed using both quantitative and qualitative techniques.

### **Results and Discussions**

The main objective of this study sought to assess SIMSCs' knowledge and skills in the procurement process and to establish their level of compliance of the procurement policy. Their responses are as in table 1.1 below.

**Table 1.4: Assessment of SIMSC's Knowledge of Procurement Procedures with Suppliers**

	Items	Respondents	Frequencies & Percentages of Respondents		
			SA & A	SD & D	U
4	The suppliers gives 10% discount to the school	Head teachers	25 (65.8%)	9 (23.7%)	4 (10.5%)
		Panels heads	37 (52.9%)	11(15.7%)	22 (31.4%)
		parent representative	12 (40%)	6 (20%)	12 (40%)
5	The 10% discount is received inform of additional IM	Head teachers	27(71%)	9 (23.7%)	2 (5.3%)
		Panels heads	21 (30%)	34(48.6%)	15 (21.4%)
		parent representative	2 (6.7%)	16(53.3%)	12 (40%)
6	The SIMSC advertises tenders	Head teachers	21 (55.2%)	9 (23.7%)	8 (21.1%)
		Panels heads	22 (31.4%)	36(51.4%)	12 (17.1%)
		parent representative	8 (26.7%)	17 (56.6%)	5 (16.6%)
7	The SIMSC orders IM for the School	Head teachers	26 (68.4%)	12 (23.7%)	0 (0%)
		Panels heads	24 (34.3%)	33 (47.1%)	13 (18.6%)
		parent representative	11 (36.6%)	6 (20%)	13 (43.3%)

8	Schools select suppliers through STC's	Head teachers	27 (71.1%)	10 (26.3%)	1 (2.6%)
		Panels heads	27 (38.6%)	36 (51.4%)	7 (10%)
		parent representative	7 (23.3%)	21 (70%)	2 (6.7%)
9	STC's have the ability to select appropriate suppliers	Head teachers	21 (55.3%)	6 (15.8%)	11 (28.9%)
		Panels heads	30 (42.9%)	23 (32.8%)	17 (24.2%)
		parent representative	10 (33.3%)	12 (40%)	8 (26.7%)
10	SIMSC receives IM orders for the school and verifies its quality and quantity	Head teachers	28 (73.7%)	6 (15.8%)	4 (10.5%)
		Panels heads	38 (40%)	38 (54.2%)	4 (5.7%)
		parent representative	7 (23.3%)	22 (73.3%)	1 (3.3%)
11	SIMSC makes payment after delivery of IM	Head teachers	26 (68.4%)	8 (21%)	4 (10.5%)
		Panels heads	26 (37.1%)	36 (51.4%)	8 (11.5%)
		parent representative	5 (16.7%)	21 (70%)	4 (13.3%)

Results indicate that majority of 60% SIMSC members agreed that suppliers give 10% discount to schools. However, a significant number of 31% panel heads, 10% head teachers, and 40% parents' representatives were undecided. This implies that although schools receive 10% discount, it can also be argued that some do not or if they receive, some of the

procurement members are not aware of it. This implies that, if some of the SMSC members are not aware, the head teachers and suppliers are the only ones who negotiate for school discounts. This means there is no transparency in the way discounts are awarded to schools and therefore schools may end up not benefitting from discounts as required.

Further, results also indicated that, the 10% discounts are received in form of additional IM. This is represented by 71% head teachers who strongly agreed, 35% panel heads and 26% parent representatives. Contrary to 23% head teachers, 48% panel heads and 53% parent representatives who strongly disagreed. A significant number of 21% panel heads and 40% parent's representatives were undecided. This therefore means that although schools received 10% discounts they may not receive it in form of additional IM as revealed by majority of respondents. This implies that schools may receive it in form of cash or may not receive it at all. This does not auger well with the policy requirement that demands that discounts awarded to schools should be in form of additional IM (MOE, 2007). When schools receive discounts in cash it may land in the wrong hands hence deny learners the benefit from additional IM aimed at boosting the already procured items. Moreover, it would be difficult to establish the amount of cash given to schools as discounts since it is pegged on the ability to negotiate. The disparity in the award of discounts to schools could be attributed to questionable integrity, lack of knowledge and skills by SIMSC members, opaque procurement practices, or suppliers who dictate terms and conditions of service to schools when they credit them with IM after disbursement of funds from the Ministry of Education delays.

In addition, results also revealed that, 55% head teachers agreed that SIMSC advertised tenders, contrary to 51% panel heads and 56% parents' representatives who disagreed. This implies that schools do not advertise tenders and therefore use the same suppliers for many years. The use of the same suppliers for long denies schools better terms of services that come with new tenders.

Further results also revealed that, 68% head teachers' 34% panel heads and 36% parents' representatives strongly agreed that SIMSC orders IM for their school. A significant number of 20% parents' representatives, 47% panel heads and 23% head teachers disagreed. Nevertheless, 43%

parent representatives and 18% panel heads were undecided. This implies that schools order IM through SIMSC as supported by the majority of the respondents. However, it is clear that sometimes schools may not order IM through SIMSC as supported by a significant number of respondents who disagreed and those who were undecided. This means that, although some schools use the procurement committee to order materials, there are those schools that use other means. Schools that do not use SIMSC may not be in a position to provide the appropriate resources needed by learners as they may compromise quality and quantity. The same results were confirmed by the DQASO that schools are sometimes supplied with cheap materials that may not last long or may be supplied with less IM when payment was made for more hence deny learners preferably from low economic backgrounds access to the limited resources.

Further results also reveal that 71% head teachers, 38% panel heads and 23% parent representatives strongly agreed that schools select suppliers through STCs'. However, 26% head teachers, 51% panel heads, and 70% parents' representatives strongly disagreed. Since majority of 60% respondents disagreed, it means that schools do not select suppliers through STCs'. It also implies that schools do not have STCs' and that selection of suppliers is not done within the right procurement practices. Under normal circumstances, suppliers are selected by the STCs'. When schools do not have them, their tendering procedures will be compromised by procurement members who may be biased in their selection due to massive conflicting interests.

However, results also reveal that majority of 50% SIMSC agreed that STCs' have their ability to select their suppliers contrary to 30% SIMSC who strongly disagreed implying that schools should use STCs' to select suppliers. Siringi, (2004) notes that the major challenge of financial management at school level is that, those charged with the responsibility of handling finances in primary schools are untrained or are not qualified to do the job thus money allocated for procurement is either squandered or lies idle in school accounts while students suffer in the classrooms.

Further, results also revealed that 54% panel heads and 73% parents' representatives strongly disagreed that SIMSC receives IM orders for their schools contrary to 71% head teachers who strongly agreed. This implies that although SIMSC sometimes receive IM for their schools,

they may sometimes not be present when IM is being delivered implying that sometimes IM received is not checked in order to cater for quality and quantity.

In addition, results also revealed that, 68% head teachers strongly agreed that payments was made after the delivery of IM contrary to 51% parents' representatives and 70% panel heads who strongly disagreed. A total of 10% parents' representatives, 9% panel heads, and 10% head teachers were undecided. This implies that, sometimes schools made payment to un- delivered IM. Some of the head teachers interviewed attributed this to late disbursements of funds from the government therefore forcing them to make payments in advance to suppliers who had given them IM on credit. The DQASO confirmed the same results and attributed it to late disbursements and the fact that some head teachers colluded with briefcase book sellers who did not have equipped stores thus depended on advance payments in order to supply IM to schools. Further it was noted that suppliers used established friends to supply IM on their behalf. Mbugua (2009) adds that, you can come across a cheque of Kshs 300,000 payments made in advance yet books received later is worth Kshs 200,000. The balance of kshs 100,000 is shared between the head teachers and suppliers. According to UNESCO, (2005) grant disbursements for text books and materials were untimely and that most arrived in the second or third terms when schools will have long been opened.

### **The Level of Compliance to the Procurement Process**

The study also sought to assess the level of compliance to the procurement process in public primary schools. In order to achieve this objective the procurement committees were required to indicate whether they had functional SIMSC, chose IM for their schools or informed the community of money received in SIMBA account. Their responses are as indicated in table 1.5 below.

**Table 1.5: Assessment of the Extent of Compliance of the Procurement Process**

	Items	Respondents	Frequencies & Percentages of Respondents		
			SA & A	SD & D	U
1	There is a functional SIMSC in the school	Head teachers	26 (68.5%)	8(21.1%)	4(10.5%)
		Panels heads	48(68.6%)	12(17.1%)	10(14.3%)
		Parents' representative	17(56.7%)	10(33.3%)	3(10%)
2	The SIMSC makes a list of textbooks and teachers guides	Head teachers	26(68.5%)	6(15.8%)	6 (15.8%)
		Panels heads	30(42.9%)	27(38.6%)	13(18.5%)
		parent representative	24(80%)	1(3.3%)	5(16.7%)
3	The school community is informed of the amount of money received in the SIMBA account	Head teachers	24(63.1%)	12(31.6%)	2(5.3%)
		Panels heads	22(31.4%)	35(50%)	13(18.6%)
		Parents' representative	4(13.3%)	12(40%)	14 (46.7%)
4	The receipt of the amount is posted on the school notice board	Head teachers	20(52.7%)	8(21.1%)	10(26.3%)
		Panels heads	5(7.1%)	54(77.2%)	11(15.7%)
		Parents' representative	6(20%)	17(56.7%)	7(23.3%)

Results reveal that, majority (68%) head teachers, 68% panel heads and 56% parents' representatives strongly agreed that there are functional SIMSCs' in their schools. This means that schools have functional SIMSCs and therefore procurement procedures in schools are carried

out by SIMSC members. Functional SIMSCs ensure that transparent procurement practices are followed hence the money schools receive is used for the right purpose. Further, results also revealed that, majority (69%) of the procurement members strongly agreed that the SIMSC make lists of text books and teachers guides for their schools. However, a significant number of 15% head teachers, 38% panel heads, and 3% parents' representatives disagreed whereas 15% head teachers, 18% panel heads, and 16% parents' representatives were undecided. This implies that although schools use SIMSC to select IM for their schools, sometimes some schools may not involve them in the selection of IM as revealed by a significant number of respondents who disagreed. This means that head teachers sometimes make lists without the knowledge of other SIMSC members (teachers and Parents' representatives).

As regards informing the community of the amount of money received in SIMBA accounts, 63% head teachers strongly agreed contrary to 50% panel heads and 40% parents' representatives who disagreed. A significant number of 18 % panel heads, 46% parents' representatives, and 5% head teachers were undecided. This implies that there may be no proper communication channels put in place in order to inform the community on the financial standing of their school.

In order to underscore the fact that schools use notice boards as communication zones, there was need to assess whether receipts of money received and spent were posted on the school notice boards. Results indicated that 52% head teachers strongly agreed contrary to 77% panel heads and 56% parents' representatives who strongly disagreed. This means that some schools never post receipts on schools notice boards and therefore the stake holders and the entire community is not aware of the amount of money their schools receives and how the same is spent. Out of the 38 schools visited, it was observed that, only five (5) had the receipts of money received and spent posted on their school notice boards while the rest 33 did not have. This implies that schools do not adhere to the procurement policy which requires them to do so as a way of promoting transparency and accountability in their procurement process. Lack of transparent procurement practices may promote un-procedural transactions which may deny learners an opportunity to benefit from funds set aside for IM by the government. The same results were confirmed by the DQASO that head teachers carried out most procurement transactions



without the knowledge of other SIMSC members hence compromising on the level of adherence. In addition, a report by SIDA through DFID acknowledges the importance of using community members to inspect purchases in schools and assess school accounts through posting receipts on school walls (notice boards) in order to facilitate for efficient and transparent systems of procurements ([http:// www.Unesco.Org](http://www.Unesco.Org)). Makori, (2004) asserts that some of the education stakeholders; sponsors, parents and the surrounding community members are left in darkness on issues of procurement.

### **Procurement Process with suppliers and the level of Compliance**

The study also sought to assess the level of compliance of SIMSC when dealing with suppliers. In order to achieve this, the SIMSC were asked to indicate how they dealt with suppliers. Their responses are as indicated in table 1.6 below.

**Table 1.6: Assessment of Practices and extent of Compliance**

	Items	Respondents	Frequencies & Percentages of Respondents		
			SA & A	SD & D	U
5	the SIMSC prequalifies IM suppliers competitively	Head teachers	24(63.2%)	12(31.6%)	2 (5.3%)
		Panels heads	11(15.7%)	49(70%)	10(14.3%)
		Parents' representative	9(30%)	18(60%)	3(10%)
6	The suppliers complete an offer for supply form of IM and indicate their terms	Head teachers	18(47.4%)	14(36.9%)	6(15.8%)
		Panels heads	28 (40%)	35(50%)	7(10%)
		Parents' representative	3(10%)	25(83%)	2(6.7%)

7	The STC convenes to select the suppliers	Head teachers	23(60.5%)	12(31.6%)	3(7.9%)
		Panels heads	8(11.4%)	51(72.8%)	11(15.8%)
		Parents' representative	8(26.7%)	20(66.6%)	2(6.7%)
8	The school signs a contract with suppliers for items over Kshs 500,000	Head teachers	15(39.5%)	17(44.7%)	6(15.8%)
		Panels heads	3(4.3%)	43(61.4%)	24(34.3%)
		Parents' representative	2(6.7%)	26(86.6%)	2(6.7%)

Results revealed that, 72% of panel heads and 60% parents' representatives strongly disagreed that, SIMSC prequalified textbook suppliers competitively contrary to 63% head teachers who strongly agreed. Results also indicated that, 36%% head teachers, 50% panel heads and 83% parents' representatives disagreed that suppliers filled an offer for supply form. Moreover, 60% head teachers strongly agreed that, STC's convened to select appropriate suppliers contrary to 72% panel heads and 66% parents' representatives who strongly disagreed. Further, majority of 64% respondents strongly disagreed that, schools signed contracts with suppliers. This implies that majority of schools did not subject suppliers to fill an offer for supply form, did not sign contracts with suppliers, and that their STCs' did not convene to select suppliers. This is an indication that schools use the same suppliers for long and therefore never compared terms and conditions for different suppliers hence would not benefit from better terms offered by new suppliers.

However, schools with low enrolments receive less than Ksh. 500,000 and are not obliged to sign any contracts with suppliers, MOE, (2007). Those with large enrolments tend to skip the process. When schools use the same suppliers for long they miss an opportunity to benefit from better quality services like; comparing prices, discounts, prompt deliveries among others. The DQASO confirmed the same results that, when schools stick to the same suppliers, IM is supplied in bits or is in less quantity; other cases reported are of suppliers who do not beat

their timelines or unnecessarily hike prices. When this happens, schools incur unnecessary losses that could be avoided. Moreover, late deliveries subject learners to hardships of trying to cope with high text book ratios. UNESCO, (2005) acknowledges the fact that learners experience hard times doing home work in core subjects due to high text book ratios in schools. In addition, the Sessional Paper no.1.of 2005 highlights the government's intention to train management bodies in order to enhance their management and coordination capacities. Mahoney (1988), points out that training transforms management from being struggling amateurs to be more knowledgeable, confident and determined professionals. Gary (2005) adds that training is hallmark of good management, a task managers ignore at their own peril.

### **Conclusions and Recommendations**

The study concludes that the level of education affected SIMSCs' roles in the procurement process. SIMSC had not been trained on financial management and were not in a position to implement the procurement process as required. It was also established that the procurement process has not been implemented as required due to limited knowledge and skills of SIMSC members in the procurement process. Lack of compliance to the procurement policy in most public primary schools also compromised the procurement process. The study recommends that proper strategies need to be put in place by the government in order to link QASOs directly to the procurement process in order to reduce chances of compromising with the implementation of the process. The trend should be to add the number of district Education auditors and that of the QASOs in order to facilitate frequent monitoring and evaluation of the procurement process in all public primary schools.

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## **Towards Integrated E-Learning Approach: teachers and students perceived challenges in the teaching and learning of business studies in kenyan secondary schools**

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### **Abstract**

The role of technology in teaching and learning is rapidly becoming one of the most discussed issues in contemporary educational policy. Most experts in the field of educational technology in the world agree that when technology is properly used, teaching and learning are enhanced. Unfortunately, the introduction of such technologies is not without challenges. This paper examines the challenges encountered by teachers and students as they use the new innovation of integrative E-learning in Business Studies in Kenyan secondary schools. It is based on a descriptive survey research undertaken in selected E-schools in Kenya. Purposive sampling was used to select the teachers and random sampling technique was used to select the students. A total of three Head teachers, eight Business Studies teachers and 127 Business Studies students participated in the study. Questionnaires and face to face interviews were used to collect data from the sample. Descriptive statistics were used to analyze the data gathered in this study. Descriptive statistics included the use of frequency tables, percentages and mean scores. The study revealed that Heads teachers, Teachers and students perceive the approach to have many challenges, especially at the initial stages of installation that are overcome in due course. These challenges observed in the implementation process of the integrated E-learning approach

**can be overcome by having a comprehensive ICT strategic plan that will guide all issues pertaining to the implementation of the E-learning approach in the school system. Moreover, the Ministry of Basic Education should grant more autonomy to schools in acquisition and accountability of the school funds pertaining to the installation of the innovations. For instance schools should not be restricted to purchase textbooks even when they have enough but allow the funds to be diverted to purchase new technologies.**

**Keywords:** *Challenges, Integrated E-Learning Approach, Teaching, Learning, Business Studies, Kenyan Secondary Schools*

## **Introduction**

Integrated E-learning approach is deemed as the latest innovation that integrates the traditional methods with the modern ICT technologies in the education sector. These technologies include the internet, e-mail, education programmes through the DSTV or video recording, CAI/CBL programmes, slide shows, projections, use of smart boards/interactive whiteboards among others. These have multiple advantages over the former instructional approaches.

The role of technology in teaching and learning is rapidly becoming one of the most discussed issues in the contemporary educational policy (Rosen *et al.*, 1995). Most experts in the field of educational technology in the world agree that when technology is properly used, teaching and learning are enhanced (Yusuf, 2005). According to British Educational Communications and Technology Agency (BECTA) (2003a), a number of ICTs can be integrated into the education sector, namely LCD projectors, Web-based learning, Encarta software, computer productivity tools, interactive white boards, among others.

**LCD projectors** work the same way as the overhead projector. It projects an image onto a screen or blank wall thus providing more instructional flexibility. Since slides are stored in files on the computer, they can be made accessible to students or other instructors. Presentations are easily made using PowerPoint or other software applications. PowerPoint can also be used to prepare handouts and content outlines. Teachers can post



their PowerPoint slides on the Web so that students may download for study purposes.

**Web-based learning** creates opportunity for individualized learning, visualization of micro and macro world, formation of two-dimensional and three-dimensional mental images. The visualization tools allow learners to view, rotate, as well as modify or construct new images for instance curves or graphs in Business Studies thereby making abstract real and aiding students' understanding of Business concepts.

**Encarta software** is an educational software package that is highly interactive. It is meant for individualized or group learning. The program allows the student(s) to click on parts of the program where it actually talks to them and they can see what it does, rather than just seeing a picture on the board.

**Computer productivity tools** include computer application tools such as Word, Excel, PowerPoint, Dbase among others. These tools help bypass difficulties and weaknesses experienced in writing and drawing by hand. For example, the capacity to produce legible script, accurate graphs drawn with ease and precision, manipulation and easier interpretation of data.

**Interactive White Board** offers a whole class spontaneous access to a wide range of multimedia resources that can be manipulated and annotated. Projection helps students to visualise abstract knowledge. Manipulation of objects on screen offers opportunities for knowledge building, although use often reinforces a teacher-centred didactic pedagogy lacking in response to individuals.

Constructivists posit that learning occurs when a learner constructs internal representations for his or her unique version of knowledge (Tsay *et al.*, 2000). This pedagogy argues that interactive activities in which learners play active roles can engage and motivate learning more effectively than activities where learners are passive. It has been established that individuals learn better when they discover things by themselves and when they control the pace of learning (Leidner *et al.*, 1995).

It follows the principles outlined by Norman *et al.* (1996) in which they advised on the need to engage learners in interactive environment where they can learn through a collaborative learning with peers. Collaborative learning is an instructional approach in which students

of varying abilities and interests work together in small groups to solve a particular problem. For instance, Web based learning environment provides telecommunication tools that tie learners together into coherent learning communities. The concept behind this is to build a community of practice that is aimed at giving learners opportunities to actively learn through participation in knowledge building, knowledge sharing and collaborative-based activities as a member of an online group (Brandon *et al.*, 1999).

In addition, the theory of behaviourism concentrates on the study of overt behaviours that can be observed and measured. It views the mind as a “black box” in the sense that response to stimulus can be observed quantitatively, totally ignoring the possibility of thought processes occurring in the mind.

Some key players in the development of the behaviourist theory were Pavlov, Watson, Thorndike, Skinner and Gagne. Skinner (1992) asserts that for a learner to acquire the tendency to act, demonstrate, to think, to speak or to feel in a desired way, the conditions that facilitate learning, namely internal and external conditions of a learner must be thought out clearly and then managed.

Gagne (1977) explains that there are certain conditions that precede the learning events. These conditions operate to determine the probability of its occurrence. These conditions of learning are broadly referred to as: internal conditions of a learner, represented by learner’s physiological and psychological readiness for learning and the external conditions of learning represented as external events of instruction. Gagne and Briggs (1992) elaborate the above views by advancing that “Efficient learning situation is not guaranteed outside the internal and external conditions of the learner”.

The internal conditions of a learner can be termed as his physiological and psychological readiness which is a pre-condition for learning to take place. The external conditions can be viewed as particular methods of teaching such as the integrated E-Learning approach, which can be arranged appropriately to facilitate learning. It is presupposed that if the learner’s conditions are synchronized and manipulated appropriately, then learning would take place. The extent to which the E-learning approach is

being used to raise the student's achievement as perceived by the teachers and the students is the concern of this study.

### **Statement of the Problem**

Development for any country is highly dependent on quality education. Education and access to information is universally recognized as the most important enabler of empowering societies and individuals to manage future challenges on their own. Provision of quality education, on the other hand, is dependent on more than just teachers and classrooms. The quality of the content taught, the materials used to teach it and the skills that are developed are also of great importance.

Many studies conducted across the globe on use of technology in classrooms have reported that technology can be an effective tool in supporting learning and teaching in a classroom situation. SchoolNet programme in South Africa promotes learning and teaching through the use of ICTs. Strydom (2003) says of the e-Education policy white paper:

Every South African learner in the general and education training bands will be ICT capable, that is, use ICTs confidently and creatively to help develop the skills and knowledge they need to achieve personal goals and to be full participants in the global community (p. 13).

This shows that ICT innovations have great potential, particularly with regard to access to information, collaboration and the creation and sharing of ideas.

The realization of these, however, will require new innovations in the methods of teaching. Business Studies is a crucial subject that teaches individuals how to participate in the society in terms of investment of resources. An educated manpower is an essential asset in any country aspiring to attain industrial status.

Good student performance plays a catalytic role in the process of nation development as it presupposes good understanding of how the different structures in business operate. However, enrolment and performance in the subject have been unsatisfactory. KNEC reports (2006-2008) indicate that an average of 44% students take the subject and the average mean score 46.2% respectively. This kind of performance gives a negative picture on the subject and in turn discourages many students from enrolling.

This will mean a high illiterate population in Business knowledge in the country.

KNEC report (2007) has further cited a major weakness in the students' performance as lack of mastery of content. Students do not quite comprehend the Business Studies concepts thus give irrelevant responses. Jepkoech (2002) reveals that teachers of Business Studies do not fully utilize the relevant available resources when teaching and heavily rely on conventional methods of teaching such as the informal lecture and discussion methods. The teachers of the subject, in defence, cited a wide syllabus and less time allocated for its coverage. They lamented, therefore, that they are left with no choice but to teach through the syllabus very fast using the conventional methods.

The problem with Business Studies literacy seems to revolve around the understanding of concepts, its retention, and its presentation in an examination context. The problem is worsened by limited time for syllabus coverage and thorough revision in preparation for the national exam, the KCSE. The probable cause of these problems seems to emanate from the instructional approach the teachers are utilizing.

Therefore, if teachers of Business Studies are to improve students' cognitive and affective abilities in the subject, then they must seek an alternative approach to instruction. Studies carried out in the developed countries by Mayer (2001) provide an example of well-grounded multimedia research. These studies revealed that the use of multi-media approach to teaching led to greater learning by students. The integration of learning technologies into high school classrooms is being promoted and supported around the world. Underlying the promotion and support are claims that successful integration will lead to enhanced learning outcomes (DoE, 1998).

Whereas this claim has been advanced in a number of studies, it is difficult to justify, according to Honey *et al.* (2000). They claim that research into the impact of learning technologies on the quality of students' learning outcomes is limited and outdated. A limiting factor has been the difficulty of defining and measuring enhanced learning outcomes attributable specifically to the use of learning technologies. More so the various studies and reports at the researcher's disposal indicate no studies on the perception of integrated E-learning approach as regards Business Studies.

With this limited knowledge about integrated E-learning approach, it becomes imperative to investigate the integrated E-learning approach in the teaching and learning of Business Studies.

### **Limitations of the Study**

The study was limited to the public E-schools only, which are so far known to utilize the integrated E-learning approach. Time and financial resources did not allow accomplishing the study on a larger scale. The study was limited to Business Studies and therefore the generalization of the findings is limited to the subject.

### **Materials and Methods**

The research was carried out in three counties in Kenya, namely Nakuru County, Vihiga County and Siaya County. It was necessary to use the three counties in Kenya because the three e-schools are situated in those counties. These schools were part of the schools selected for the NEPAD E-learning project in Kenya. These schools were found appropriate because they were fully equipped with the ICTs necessary for the teaching and learning process. The study used a survey research design. The design is deemed appropriate because the researcher could collect more information through the use of samples. This was a specific survey seeking information on the integrated E-learning approach, the independent variable, which is the e-learning innovation, was not introduced. The variable is already under treatment. The introduction of the innovation could not have been possible by the researcher because it is expensive.

To come up with a quality research, the author opted for a mixed research approach that consisted of both quantitative and qualitative attributes. Mixed research is a general type of research in which quantitative and qualitative methods, techniques or other paradigm characteristics are mixed in one overall study. Specifically, the author settled for a mixed model research in which both qualitative and quantitative research approaches were used within the stages of the research process. The author conducted a survey and used a questionnaire that was composed of multiple closed-ended as well as several open-ended. Within the same stage of study the author too conducted an interview. The quantitative and qualitative aspects of the study arose from the questionnaires administered

to the teachers and students of Business Studies as well as interviewing the head teachers of the E-schools and focusing on the same phenomenon.

Three secondary schools constituted the target population for this study. These are three of the six E-schools in Kenya. The E-schools utilise the new integrated E-learning teaching approach. Reconnaissance had been done to confirm that the three had similar E-learning resources. Head teachers, teachers and students of Business Studies in those schools constituted the target population. In the study, Head teachers, Form Four teachers and students of Business Studies were identified as potential members of the sample. Form Four teachers and students of Business Studies were chosen due the fact that the class had utilized the approach longer than any other class. The Form Four Business Studies teachers have had a longer experience using the approach than other teachers in lower classes.

The Form Four students too have used the technologies longer as compared to the other student fraternity. In order to achieve a desired result with minimum costs, the researcher selected all the three Head teachers as well all eight Form Four Business Studies teachers from the three E-schools. A total of 127 Form Four Business Studies students constituted the sample. The sample was 50% of the total Form Four Business Studies students in the three E-schools. The study assumed simple purposive and simple random sampling techniques to get a representative sample. Purposive sampling was used in selecting the three Head teachers and eight Form Four Business Studies teachers. Simple random sampling was used to select the 127 out of the 252 Form Four Business Studies students.

The study used two instruments in collecting primary data, namely questionnaires and interviews. Two types of questionnaires were designed and used. One questionnaire for students was designed and another for the teachers. The instruments were used because they give the respondents adequate time to provide well thought-out responses to questionnaire items. It also makes it possible for large samples to be covered within a short time. Since standardized questionnaires for the study were not available, the author designed the required questionnaires on the basis of objectives, research questions and reviewed literature. The questionnaires used are now presented below.

The questionnaire for the teachers of Business Studies was divided into five themes. Likert types of items were used to solicit responses on the attitudinal statements. Scheduled interviews with the Heads of schools were also used to back up the questionnaires. This target group who is still the subset of the overall target population was presumed to provide a better point of references beyond just teaching due to their insights and work experience. Interviews were carried out for the sole purpose of supplementing the quantitative data from the filled-in questionnaires. Review of literature has revealed that most findings about effects of new technology on learning are derived from quantitative data with very little or no data on direct observation and/or interviews of the learners. There has been lack of sensitivity to concomitant changes that affect the instructional settings as a result of new technology (Park *et al.*, 1993). The students' questionnaire was intended to corroborate and confirm the information obtained from the teacher-respondents. Apart from collecting information given by the teachers, it also focused on the attitudes of students towards Business Studies as a subject when using the new integrated E-learning approach.

Both descriptive and inferential statistics were used for data analysis. Data was tabulated and frequency tables were generated. Frequencies were converted to percentages to illustrate the relative levels of opinion on the issued items. Descriptive statistics entailed calculation of means scores using the Likert scale. Under inferential statistics, analysis of Variance (ANOVA) was employed to determine the significant differences in students' and teachers' perception towards the new approach. Thus the analysis was focused on testing the null hypotheses. The raw data collected from the Likert type of items were summarized in tables and coded before they were entered into the computer for analysis using the Microsoft Excel spreadsheet.

## **Results and Discussion**

The findings of the study revealed that upon the introduction of integrated E-learning in the pilot schools, the new initiative was received with a lot of excitement. On practical implementation of the approach, however, there emerged a series of challenges. Head teachers reported initial challenges to include:

- Finding room for the lab given scarce structures
- Sourcing for funds for improving the facilities
- Designing best method of making all students access the facilities given the curriculum in place, time allocated Vis Vis the available space/room.
- Updating teachers with the necessary user skill/there was need for in-service the teachers.
- Finding somebody who would help in maintenance.
- The schools, however, sorted out some of the challenges to allow for the implementation of the new approach to teaching and learning. As time went by, further challenges were reported as discussed below.

### **Lack of computer literacy skills**

The greatest challenge was students' and teachers' lack of computer literacy skills. Few students and teachers had used computers in the past. The lucky few were the students taking Computer Studies subject. Students reported that they needed to go through the computer basic skills before they could learn from it. Likewise, the teachers needed a thorough training before they could teach through them. Teachers reported that they were inducted shallowly on how to use the machines.

Apparently, the approach was introduced in the schools without prior training on the same. It appears the teachers were caught off-guard or that they were generally unwilling to adopt these innovations. It has been noted that teachers tend to lag behind in adaptation and adoption of new technologies (Kafu, 1976). Therefore, it is not surprising that in spite of the advanced technological developments today, teachers find themselves unprepared to meet new demands of the accelerating educational technology that confront them including introduction of E-learning approach.

This finding is in agreement with what Ruthven *et al.* (2001) points out on the teachers' technical confidence playing a key role. Teachers who have used ICT regularly have developed their confidence to higher levels than colleagues coming to it more recently. The theme of affinity with a particular approach reflected the process necessary to become confident



about what's worth doing. In their conclusion, Ruthven *et al.* (*ibid.*) lament that; "it's quite hard to say to people 'Here's a strategy. Off you go'. Technology skills and experience, resistance to change, and teacher age are all influential."

The suggestion given by the teachers and students was that teachers should be thoroughly inducted on how to operate the machines before they could utilize them in their lessons. The students are then offered the computer basics by their teachers so that all the students in the class would be at par as far as the skills are concerned. Their concern would then be to separate literacy programmes from learning programmes. Students added that their teachers should teach the e-learning skills in the simplest way possible.

### **Time constraints**

Computer Studies as a subject was only offered to few students who had chosen it. The numbers were few because they were restricted according to the resources available. The rest of the students therefore had no opportunity to learn computer basics. Introduction of the new approach meant that all students had to be trained on how to use computers. However, the number of students was too large for the machines available. Furthermore, the school routine in place could not allow for this new arrangement. There are 9 to 10 lessons of 45 and 40 minutes in a day respectively. On rearranging the school routine, only a few slots were available. Most schools could slot a class only once a week to the NEPAD computer lab. This meant delayed training and hence a delay in the actual use in classroom teaching. This students' greatest complaint was that they were not allowed as many times to be in the NEPAD lab as they would wish.

The finding is in agreement with observations made by Hennessy *et al.* (2005) in which a teacher lamented that: "It's not that I don't know what to do, it's that I've not had time to do it". Teachers' role in orchestrating and mediating ICT-based activities requires a lot of time. For example, teachers require time to do the following; locating appropriate materials and guiding students towards them; structuring tasks to harness ICT tools effectively in meeting curriculum objectives; supporting students' use of technology; encouraging more autonomous approaches; furthering

development of subject understanding through supportive pedagogical strategies and monitoring progress.

This study findings concur with what Oliver (2000) says that teachers claim that they have inadequate time to prepare for and integrate computers in the school curriculum. A working solution as suggested by a majority of teachers is to increase the number of machines especially the computers. This will ensure as many slots in the timetable for the literacy classes as well as for teaching and learning.

### **Inadequate computers**

All the pilot schools were supplied with 20 to 25 computers each. These e-schools were the provincial schools which have two streams and above. The two-streamed schools have a capacity of over 300 students. The school with the highest capacity had six streams with slightly over 1000 students. Implementation of the E-learning approach was more challenging in the bigger schools. The ideal situation requires one computer per student. This was not possible because in most schools students had to share. One computer would be shared by two or three students. Students complained strongly on their inability to handle the mouse on the own.

Access to technology resources was mentioned as a critical factor in studies conducted by Ruthven *et al.* (2004). Teachers' comments highlighted the need for accessibility and flexibility of use over and above quantity of machines. Teachers felt that the school management should solicit for more computers from all sources possible. For instance, expenditures on textbooks could be reduced and the money channelled to buying the computers. One head teacher suggested that a sustainable e-learning project requires a comprehensive ICT plan to be drawn. This, he said, would take into consideration all requirements up to and including adequate computers.

This concurs with what Takashi (1992) comments that, in the near future, demands will affect the development and introduction of new technologies into schools. For example, demands for the improvement of hardware, software and educational approaches will make computers a necessary tool in school instruction. Decisions concerning purchase should not therefore involve a consideration of tomorrow's budgets but rather an urgent matter.

### **Enormous internet information**

Students were overwhelmed by the information they were getting from searching. They were faced with challenge of how much is required by the syllabus. They were to hand-write the extracted materials since they could not print. This coupled with the other problems highlighted became a real challenge to them. Furthermore, teachers left them alone to search and therefore had none to turn to when stuck. Students suggested that their teachers should be present at all times whenever they are in the NEPAD lab.

### **Lack of appropriate teaching and learning software**

The software installed was foreign. That is to say, the content was not tailored to the Kenyan syllabus. Information was not organized so the teachers had the uphill task of putting the information into a more organized and appropriate way for their students. For instance the South-African DSTV programme uses totally different language that students have to adjust to if they are to benefit. So teachers have to guide students appropriately lest they get confused. The software mostly benefited few subjects also notably Sciences and Mathematics.

These findings support what Hurschbuhl (1989) observes, that the reasons for the slow growth of software infusion are lack of quality software and insufficient hardware. This situation was predicted by Samways (1992) who noted that availability and quality of software could be a problem to schools. The Kenya Institute of Education (KIE) was challenged by the teachers regarding this issue. Teachers felt that the Kenyan syllabus in all subjects should be digitized. There is therefore need for the KIE to double up their efforts in developing the e-content for all subjects in the curriculum. This would make students' learning simpler and practical because examples would be drawn from their environment.

### **Technical breakdowns**

The sponsors were solely responsible for the machines' repairs and maintenance. Local maintenance was not allowed. This meant that any breakdowns had to wait for the sponsors' contracted maintenance personnel.

Teachers heavily complained of delays in repairs thus de-motivating both the teachers and students. The greatest breakdown reported by the teachers was the internet connectivity. Local support was proposed to maintain the machines to avoid the delays noted. With the administration having a positive view about the E-learning approach, a budget should be set up to employ a technician who will be available to assist the technology users. According to Wim (1994), support of the technical assistant is essential for teachers and students. Teachers and students can be frustrated if they find themselves not being able to use Information technology (IT) properly or to find a resource not working when needed most.

### **Sustainability of the project**

Head teachers reported that the biggest challenge lying ahead of them would be that of sustaining the project. The sponsors were to assist them for a period of five years. Sponsors pulling out would mean that the school solely maintains and expands the project. This then suggests an elaborate ICT strategic plan for the same.

In conclusion, their general comments were as follows:

- KIE to develop good relevant e- content in Business Studies and the rest of the subjects.
- Extension of the labs through having a computer and a projector in each class.
- Provide for double lessons for Business Studies to allow for adequate time to utilize the approach.
- The approach to be adopted by all secondary schools in Kenya.
- The approach to be domesticated because it would revolutionize learning and improve content delivery.
- Educational innovations such as the integrated E-learning approach are not easy thing to implement but yet not avoidable.

### **Conclusion and Recommendations**

From the study findings, it is clear that head teachers, teachers and students perceive the approach to have many challenges especially at

the initial stages of installation that are overcome in due course. These challenges observed in the implementation process of the integrated E-learning approach can be overcome by having a comprehensive ICT strategic plan that will guide all issues pertaining to the implementation of the E-learning approach in the school system.

It is recommended that the Ministry of Basic Education should grant more autonomy to schools in acquisition and accountability of the school funds pertaining to the installation of the innovations. For instance schools should not be restricted to purchase textbooks even when they have enough but allow the funds to be diverted to purchase new technologies. Another crucial move is encouraging the setting up of joint programmes between institutions by developing Zonal multimedia resource centres that can be used by both teachers and students as meeting places for self access of ICT resources as well as exchange of ideas. The resource centres that exist should be fully stocked with relevant ICT resources and managed by qualified personnel.

Last but not least, the Ministry should address the needs of schools as a whole by revising national curricula to allow full institutionalization and integration of ICT. They should support the teaching profession in their efforts to develop the school model especially the development of the ICT strategic plans. They should develop new evaluation and accountability models that make the school more responsive to society as a whole.

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## **An Assessment of School Management Committees' Capacity in the Implementation of FPE Funds in Public Primary Schools**

*Joyce W. Kanyiri, Mary W. Nganga & Faith J. Kiprono*

### **Abstract**

The introduction of Free Primary Education (FPE) in 2003 saw a shift in the functions of School Management Committees (SMCs) with emphasis shifting from collection of funds and provision of infrastructure to management of government funds and learning resources in the school. The school management committees (SMC) are responsible for managing funds, settling disputes in the school and procurement. This study sought to assess the capacity of SMCs in implementation of FPE funds in public primary schools in Eldoret East District. The study was guided by the following objectives: To find out the capacity of school management committee members in the implementation of FPE funds and to establish the training needs of SMCs on the implementation of FPE funds in public primary schools. The study conducted a survey of public primary schools in Eldoret East district. Both probability and non-probability sampling methods were employed to select 200 respondents among the head teachers, senior teachers and members of school management committees. From the study findings Majority of the respondents cited the inability of the SMCs to implement devolved FPE funds while at the same time lacking accounting skills and personal continuous development and training. The study recommends that the SMCs should be trained on financial management to be able to run the schools professionally.

**Keywords:** *school management committees' capacity, FPE funds*

## **Introduction**

The international commitments to Education for All (EFA), and the Millennium Development Goals (MDGs) in 2000, came up with significant efforts, primarily through reducing direct costs to parents, to increase primary school enrolment. Developing countries and their partners increased efforts to improve the efficient and proper use of public funds – reducing Waste, mismanagement and leakage. The management of primary education in much of Africa Since then has been subject to structural changes intended to bring it closer to the ‘user’, and to give citizens at the local Level (particularly parents) a greater stake in management. The goal is to increase accountability, oversight and responsiveness. The new administrative and fiscal arrangements, in line with the Dakar Framework for Action of Education for All (EFA), have placed more responsibilities on regional, district, communal and school level authorities to work together to reach the EFA targets. One of the reasons for promoting this decentralization is the hope that by bringing the resources and decision making processes closer to parents and communities, it will strengthen governance, and the resources available for primary education will be better used (Antonowicz et al., 2010). SMCs are the primary institutions of governance for public schools in Kenya. The SMC is responsible for managing funds, settling disputes in the school or making recommendations to the DEO, conducting tendering interviews/approvals for supplies and receiving school supplies (Kenya 2008).

On January 6, 2003 the Minister for Education, Science and Technology (MoEST) launched the Free Primary Education (FPE). Fees and levies for tuition in primary education were abolished as the government and development partners were to meet the cost of basic teaching and learning materials as well as wages for critical non-teaching staff and co-curricular activities. The FPE did not require parents and communities to build new schools, but they were to refurbish and use existing facilities such as community and religious buildings. The SMCs role of collecting and accounting for funds shifted to managing the funds as directed by the government (MOEST, 2003). This meant that there was a greater need for communities to understand budget processes, and to have the skills to plan and make decisions about education expenditure. This has been achieved by training communities to monitor education policy and budget

implementation, and by working to establish good governance structures in schools (Woodrow 2006).Capitation grants are disbursed directly to schools, in two separate bank accounts, one for school materials and one for operational and maintenance expenditures. Both accounts are managed by the SMC which comprises the headteacher as secretary and elected members among parents and teachers. In addition, parents and communities were empowered to demand to know how funds were used, and the accounts were displayed on the boards for perusal by the stakeholders (Fredriksen 2007).

### **Statement of the problem**

The introduction of Free Primary Education (FPE) in Kenya in 2003 saw a shift in the functions of SMCs with emphasis shifting from collection of funds and provision of infrastructure to management of government funds and learning resources in the school (MOEST, 2003). However, following the implementation of FPE, the Government of Kenya initiated a programme for training school committees in financial management, procurement of instructional materials and the efficient utilization of school funds and resources. Nevertheless, the nature of training required will not be achieved without a comprehensive training programme and availability of a full time training facility (ROK, 2005).There is therefore need for increased capacity of SMC members to participate in the FPE process and manage devolved funds effectively. In addition, the capacity will need further development if FPE programme is to be sustained (Grogan, 2006).

There have been so many complaints from parents on embezzlement of FPE funds, demonstrations have been reported in several schools in Eldoret East District over mismanagement of FPE funds for instance in Ilula primary school, Kaptuktuk primary school, Lelit primary school, among other schools. There are also cases of pending bills even when FPE funds have been released this is an indication of misappropriation of funds. Complaints of poor management of the FPE funds have been reported where SMCs charged with the responsibility of ensuring that the funds are properly used are bent on its mismanagement.

Most primary schools committees are fond of quoting exorbitant prices to gain from funded projects (Agwanda, 2009). There are also other

instances where the FPE funds end up in accounts of institutions they were not meant for. These issues raise eyebrows especially when the program has been in place for the last ten years. There is therefore need to establish informed and well skilled SMC members to participate in the FPE process, and manage devolved funds effectively at schools. There is confusion about the FPE programme and SMCs do not have the capacity to effectively play the roles set out in FPE Policy. Studies on the implementation of FPE have been explored extensively by Riddell (2003), Sifuna (2005), Kenya, (2008), Woodrow (2006), Vreede (2003). However what remains is the capacity of SMCs in the implementation of FPE funds. Therefore, this study seeks to assess the capacity of SMCs in the implementation of FPE funds in public primary schools in Eldoret East District.

## **Objectives**

The specific objectives of the study are;

- To find out the capacity of school management committee members in the implementation of FPE funds
- To establish the training needs of SMCs on the implementation of FPE funds in public primary schools

## **Justification of the Study**

The study sought to find out the gap that exists between the added roles of the SMCs, their capacity, training needs and their effectiveness, which needs to be filled, just as it is stated in the Sessional Paper No. 1 of 2005 that, majority of education managers lack adequate competencies to utilize available information for management purposes, SMCs have not been exposed to adequate management training. This study was meant to establish the capacity of the school management committees' in the implementation of FPE funds in public primary schools.

## **Theoretical frame work**

This study was based on cognitive resource theory of Fiedler and Garcia (1987) which assumes that intelligence and experience and other cognitive resources are factors in leadership success. Cognitive resources

refer to the leaders' intelligence, ability and technical competence. This theory has a belief that training leads to improved job performance. The theory is relevant to the study on the capacity of the School Management Committees' in the implementation of FPE funds in public primary schools, since it stresses on the fact that the SMCs need to possess the right intellectual abilities, technical competence and necessary knowledge so as to be effective in their work. It emphasizes on training which leads to improved performance just as it is stressed by commission reports like the Koech Report (1999), and Kamunge Report (1988), the work of Maranga (1993), Koskei (2004) among others.

### **Methodology**

This study adopted a descriptive survey design to establish the capacity of the SMCs in the implementation of FPE funds in public primary schools. The study specifically targeted respondents involved in the management of FPE funds in the district who included; headteachers, chairpersons of the SMCs, members of the school management committees, senior teachers and an officer from the District Education Office in charge of the SMCs. To obtain the sample, both stratified and simple random sampling criteria were used. Simple random sampling was then used to select schools from each zone. A sample size of 50 schools in Eldoret East district was arrived at. A total of 201 respondents were selected. Questionnaires and interview schedule were used as research instruments. Descriptive statistics was used to group data into frequency tables according to responses of various respondents. In each table the frequency of responses per item was used to indicate their percentages, means and modes which were eventually used in the description

### **Research findings and discussion**

#### **(i) Gender of the Respondents**

The respondents were asked to indicate their gender. This was to help the researcher know whether there is gender parity in the management of schools, 47% of the SMCs were male while 39% were female, 33% of the headteachers were male while 13% were female and 25% of the senior teachers were male while 23% were female. This is presented in table 1.

### **(ii) Age of the Respondents**

The study sought to establish the age of the respondents. This was important because it was to gauge whether the age of respondents influenced the effectiveness of school management. From the findings, 52.3% of the SMCs were between ages 31-40, 40.7% were between 41-50 years old, 7.0% were above 51 years old. 31.2% of the senior-teachers were between 26-35 years, 37.5% were between 36-45 years 31.2% were above 45, 69.6% headteachers were between 31-40 years, 10.9% were between ages 41-50, while 19.5% were above 51 years old.

### **(iii) Level of Education of the Respondents**

The respondents were asked to indicate their highest level of their education; this was to purposely prove studies done which have shown that financial management training has a positive influence irrespective of the original level of education of the respondents. Results show that most headteachers in the district 39.1% were diploma holders, 34.8% were degree holders, while 26.1% possess P1 certificates. Majority of the senior teachers 81.2% had P1 certificates, while 18.8% were degree holders, 7.0% of the SMCs had primary level of education, 7.0% had certificates in various fields, and 3.5% were degree holders while majority of them, 82.6% had O'level certificates. The findings show that most teachers in the region had P1 certificates

## **Capacity of School Management Committees in the Implementation of FPE Funds**

The first objective of the study was to find out the Capacity of school management committee members in the implementation of FPE funds in public primary schools in Eldoret East district. The following subsections present the results under this objective; effective financial management and skills possessed by SMCs.

### **(i) Effective Financial Management**

The respondents were required to rate the capacity of SMCs on effective financial management using a five point level scale, the respondents were asked to respond by strongly agreeing, agreeing, being neutral, disagree or strongly disagree with the given statements which enhances effective financial management. The results show that majority, 53.5 % agreed that the capacity to manage and use devolved funds is important

for SMC members to actively take part in this whole process. Also, 48.8 % of respondents agreed that attending a course on financial management was a pre-requisite. Majority 54.7 % agreed that they needed accounting skills, 51.2 % agreed that SMCs must have experience on financial management, 50.0 % were of the opinion that SMCs needed knowledge on financial accounting while 46.5 % said that SMCs need regular training as presented in table 1.

**Table 1 Effective financial management**

	SD		D		UN		A		SA	
	F	%	F	%	F	%	F	%	F	%
Capacity to manage and use devolved funds			3	3.5	12	14.0	46	53.5	25	29.1
must attend acourse on financial management			3	3.5	14	16.3	42	48.8	27	31.4
Must have accounting skills	3	3.5	12	14.0	5	5.8	47	54.7	19	22.1
Have experience in financial management			9	10.5	10	11.6	44	51.2	23	26.7
Knowledge on financial accounting	3	3.5	11	12.8	11	12.8	43	50.0	18	20.9
Must be trained continually	3	3.5	9	10.5	11	12.8	40	46.5	23	26.7

The findings above show that the respondents believed they need the capacity to manage and use the devolved funds, must attend courses on financial management must have accounting skills among other skills.

This implies that the SMCs in the study region did not have the capacity to manage the devolved funds effectively.

**(ii) Skills possessed by SMCs**

Members of school management committees require different types of skills to manage the day to day activities of the school and also to effectively use the Free Primary Education funds. The members were asked the skills they have in school management. The results indicate that 84.9% and 80.2% of SMCs have skills related to public relation and planning as compared to financial management. Table 2 shows the skills that SMCs possess from what was chosen by the majority to the least chosen.

**Table 2 SMCs skills**

<b>Skills</b>	<b>Freq</b>	<b>%</b>
Public relation skills	73	84.9
Planning skills	69	80.2
Managerial skills	60	69.8
Financial Management skills	51	59.3
Budgeting skills	47	54.7
Accounting skills	12	14.0
Human resource management skills	6	7.0
Monitoring and evaluation skills	3	3.5
Leadership skills	3	3.5

From the findings it is evident that, SMCs lack financial related skills that make them ineffective in financial management. It is therefore clear that the SMCs do not have the necessary capacity required of them in the implementation of FPE funds. The findings show that the committee members in the study area have inadequate capacity in the management of the FPE funds. This concurs with work done by Du Preez and Grobler as cited in Mestry (2006) which showed that there is a correlation between sound financial management and effective and efficient SGBs, this



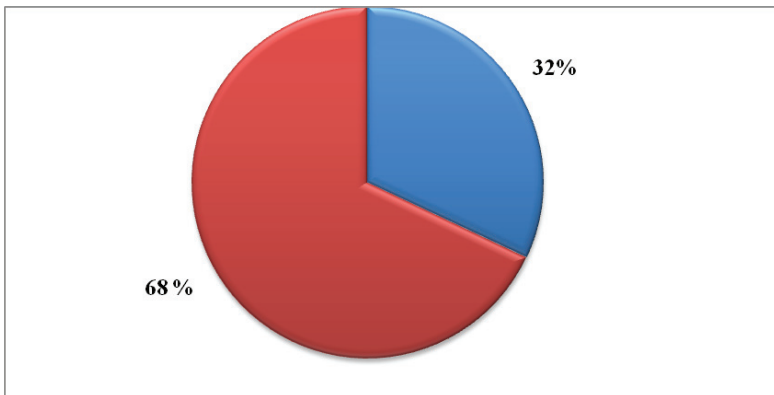
therefore calls for continuous training of the SMCs. There is need to put Programmes on the training of the SMCs in place and funds for training the SMCs to be made available just as it is happening in other countries like UK (Edwardson, 2004).

### **Training Needs of the SMCs**

This second objective sought to establish the training needs of SMCs on the implementation of FPE funds in public primary schools. This was presented under the following sub headings; training on financial management, areas which SMCs need training, problems resulting from lack of training and benefits of training of SMCs.

#### **i) Training on financial management**

The study sought to establish whether SMCs in the region had any training on financial management. From the findings, 32 % of the respondents were of the opinion that SMCs had training on financial management while 68 % said the SMCs didn't have any training on financial management.



*Figure 1 SMCs Training on financial management*

The study findings show that majority of the SMCs didn't have any training on financial management while a smaller number indicated that they had financial management training. This had an implication that there are no measures put in place to ensure that SMCs receive the required trainings.

**ii) Areas which SMCs need training**

SMCs were asked to identify areas in which they needed training. According to the findings, 55.8 % strongly agreed that they need training on Management of FPE funds, majority 61.6 % agreed that they need training on Human resource management, 47.7 % of the respondents strongly agreed that they need training in Project management, 54.7 % agreed that they need training on Financial planning while 47.7 % of the SMCs said they needed training on Procurement of instructional materials as shown in table 3

**Table.3 Training needs of the SMCs**

Training Areas	SD		D		UN		A		SA	
	F	%	F	%	F	%	F	%	F	%
Training on management of FPE funds					3	3.5	35	40.7	48	55.8
Human resource management	6	7.0			9	10.5	53	61.6	18	20.9
Project management			3	3.5	9	10.5	33	38.4	41	47.7
Technological training	3	3.5	3	3.5	11	12.8	31	36.0	38	44.2
Financial planning	5	5.8					34	39.5	47	54.7
Procurement of instructional materials	5	5.8			8	9.3	41	47.7	32	37.2
Public relations			3	3.5	2	2.3	46	53.5	35	40.7

Training on their roles and responsibilities	3	3.5	5	5.8	46	53.5	32	37.2
Monitoring and evaluation skills			73	84.9	10	11.6	3	3.5

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The findings show that the major area of concern where training is needed includes; management skills on FPE funds, human resource management skills, and procurement of school instructional resources, management of physical resources and financial management. Managerial skills in FPE will enable the committees to fully understand the concepts behind the funds, what the government expects is accountability issues related to the same. The results imply that committee members need skills related to financial management.

### **Conclusion**

The study has observed that the capacity of the SMCs is not up to the desired levels with regard to the management of the FPE funds this is due to little knowledge attributed to inadequate training and also the low level of education by both the head teachers and the SMCs members in the public primary schools in the study area. Basing on the research findings it can be concluded that the key training needs suitable for SMC members are; financial management, project management, financial planning, public relation, and training on monitoring and evaluation. This skill combination will enable the committee manage the school funds effectively and in a more cost effective manner. Introductory training for newly elected SMCs should be conducted to enable them to perform their functions. They should also be provided with continuous training to promote the effective performance of their functions or to enable them to assume additional functions. Training in financial school management should be practice based and the following sections should be covered in training: The legal framework that underpins financial school management, financial planning and this includes budgeting, financial organization, financial control and school information systems.

## **Recommendations**

Based on the findings and conclusions of the study it is evident that Members' training plays a great role in the organization, it helps to give clarity of roles and responsibilities and therefore training and development in educational institutions should be adopted as a function and be implemented in a continuous process. The following recommendations are necessary to effectively manage the free primary Education Funds by both the school administration and the members of the school management committees:

There is need for the ministry of education to come up with a clear strategy to develop Members of the school committee, it is necessary that they are trained on financial management, budget planning and monitoring of expenditures in order to increase their skill set as they manage the devolved funds.

Concerning the training needs of the SMCs the study recommends that prior to any form of training conducted, a training needs assessment could be carried out to find out the exact needs of the institutions and be able to distinguish them from the problems facing the schools. This will take into account the personal, institutional and task analysis and provide a holistic approach to training.

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## **Reorienting Education to Achieve Vision 2030: challenges and barriers**

*Kanyiri Joyce, Alice Kibui & Omtondo Tom*

### **Abstract**

Education is the single most important factor essential for economic growth, technological advancement, social-cultural sophistication, healthy living and successful political governance. Nelson Mandela affirms this and states that education is the most powerful weapon, which you can use to change the world. Education is more than speaking a foreign language. It encompasses the development of skills and competencies essential to navigate through life, efficiently and effectively perform productive tasks necessary for maintenance and enhancement of life. It therefore has to be looked at elliptically and not just as a process where children or individuals go through a school system. It has to be viewed from the end product also; the graduates who will emerge from this system and the consequent society created. Education for Sustainable Development (ESD) processes emphasize the need for stimulating a holistic, integrated and interdisciplinary approach to developing the knowledge and skills needed for a sustainable future as well as changes in values, behaviour, and lifestyles. This requires us to reorient education systems, policies and practices in order to empower everyone, young and old, to make decisions and act in culturally appropriate and locally relevant ways to address the problems that threaten our common future. This paper discusses current challenges, presents government proposals for reform and recommends a way forward toward achieving an enabling education sector that supports sustainable development by the year 2030, thus making Kenya a high income nation. The method used was exploratory study and the authors utilized document analysis as a method of data collection by reviewing

existing relevant documents from the ministry of education such as ministry of education reports; commissions and committees' reports; and policy papers. The study also collected primary data using group discussions and individual key informants from key ministry institutions. Data was analyzed using qualitative techniques and presented using description. There is therefore need to critically look into our education system so as to introduce efficiencies and ensure it effectively produces graduates well equipped for modern day life experiences.

**Keywords:** *Development, Education, Reorienting, Vision*

### **Reorienting Education to Achieve Vision 2030: challenges and barriers**

Education plays a pivotal role in contributing to the human resource development and to the nation's general economic development in today's globalizing context. Education is viewed as 'adding value' to investment on human capital; this has seen changing labor market requirements shift to the phenomena of 'lifelong learning'. Like many other countries in Africa, Kenya has since independence in 1963, invested heavily in education as a means to social and economic development for her citizenry. An educated citizenry is vital to implementing informed and sustainable development. In fact, a national sustainability plan can be enhanced or limited by the level of education attained by the nation's citizens. Development options, especially "greener" development options, expand as education increases.

Education is also central to improving quality of life. Education raises the economic status of families; it improves life conditions, lowers infant mortality rates, and improves the educational attainment of the next generation, thereby raising the next generation's chances for economic and social well-being. ESD (Education for sustainable development) carries with it the inherent idea of implementing programs that are locally relevant and culturally appropriate. Education is an essential tool for achieving sustainability. People around the world recognize that current economic development trends are not sustainable and that public awareness, education, and training are key to moving society toward sustainability.



The relationship between education and sustainable development is complex. Generally, research shows that basic education is key to a nation's ability to develop and achieve sustainability targets. Research has shown that education can improve agricultural productivity, enhance the status of women, reduce population growth rates, enhance environmental protection, and generally raise the standard of living. Education is the single most important factor essential for economic growth, technological advancement, social-cultural sophistication, healthy living, and successful political governance. Nelson Mandela affirms this and states that education is the most powerful weapon, which you can use to change the world (van der Rheedee, 2009). Education is more than speaking a foreign language. It encompasses the development of skills and competencies essential to navigate through life and efficiently and effectively perform productive tasks necessary for maintenance and enhancement of life. It therefore has to be looked at holistically and not just as a process where children or individuals go through a school system. It has to be viewed from the end product also; the graduates who will emerge from this system, and the consequent society created.

According to the World Bank (2005), education must impact on national economic development and poverty reduction. The proclaimed development of the western world may be seen as commensurate to the superior literacy levels of the citizenry. Advanced literacy enables critical judgment and entrepreneurship which are critical for the choices an individual makes in every sphere of life.

Individuals are therefore able to study and criticize information available to them, including decisions made by their leaders which impact on their society. They are consequently able to make investment and career choices which propel their socioeconomic development.

The Kenyan government sees provision of education and training to all Kenyans as fundamental to the success of overall development strategy (Government of Kenya, 2005). Not endowed with rich mineral resources which aid development in many nations, and faced with a fast rate of globalization and internal social upheavals, Kenya's only hope lies in re-assessing and refocusing her education system to invest more in her wealth of human resources (Kenya, MOEST, 2004). Furthermore, education is paramount for bridging the knowledge gaps between privileged and under-

privileged communities, social inclusion, environmental sustainability, agricultural production, healthy living, industrial development, and economic empowerment.

In the last 50 years, we celebrate the fact that we have managed to lay a good and solid foundation not only for the expansion of education and training opportunities, but also for the growth and sustainability of the education system. But here is where our celebration ends. As we celebrate 50 years of independence, the education sector is facing major challenges and gaps. Available evidence from the Ministry of Education, researchers and practitioners indicates that our education system faces the “whole system” challenges. These challenges include: the fact that there are almost two million school-age children who are currently out of school and are not able to access quality basic education for all; which is their constitutional right, **the quality** of basic and even higher education is very low compared to other countries with the same or lower GDP per capita as Kenya, and the available teaching-learning resources (books) are not enough and promote poor learning. In the last 10 years, about 200,000 young Kenyans have been pushed out of the education system and terminated their learning at primary school level. Our education system lacks about 100,000 teachers to effectively and efficiently manage our schools and the teaching-learning processes such that for instance, the teacher-pupil ratio at primary is about 1:80 instead of the required 1:40. In developing countries like Kenya, many public schools have limited infrastructure (e.g. classrooms and water/sanitation facilities), and if they exist they are dilapidated and not conducive for effective teaching-learning process. In 2014, pupils still learn under trees or sit on stones in some counties in Kenya. Most teachers are demotivated and remain in the classrooms just because there is no better alternative. Their salaries and working conditions are low compared to others in other forms of employment. There are millions of hungry and angry school-going children in ASAL regions and urban slums that need health, shelter and education support. What fails our education system is not lack of finances and qualified human resources but, our continued failure to invest available resources strategically and where they are needed most. Kenya’s education sector has failed to compete internationally because of the following four factors:

Firstly, despite several policy commissions and task forces being put in place, the education policy reforms in Kenya have largely remained politically driven. In 2002, it was Free Primary Education - a political campaign for NARC and now it is the introduction of laptops for pupils joining Standard One in 2015 for Jubilee leaders. We have systematically failed to apply research-based policy formulation, changes and implementation in the sector. Secondly, we have failed to set up a comprehensive and robust Education Management Information System (EMIS) from national to school level to provide comprehensive real time data that could be used for decision making and planning. No wonder we tend to be ad hoc or go by the political wave and not really practical need based on technical policy analysis and needs assessment. Thirdly, we have failed to conduct comprehensive impact studies on the education interventions in which we have invested a lot of public and donor resources. For example, the impact of FPE and the MoE bursary programs. Findings of such studies could have informed the much-talked-about laptop program. Fourthly, we have failed to put teachers at the core of education growth and improvement of education standards across sub-sectors. Education is still regarded as semi-professional and attracts people with low grades compared to other professions. Besides, teachers' salaries and allowances are comparatively low compared to those -in engineering, medical and judicial sectors

Kenya's poor quality of education and high wastage rates are worse or comparable to less endowed countries in Africa such as Cape Verde, Rwanda, Mali, Senegal and Malawi. East Asian countries like Singapore, Korea, Japan, Hong Kong, Malaysia and Indonesia have often been cited as successful cases of human capital development and fast economic development. In the **70s**, social infrastructure including schools, in these countries were in the same stage as those in Kenya. However, because of political will and good policy choices these countries have been able to accomplish 100 per cent coverage in primary and secondary education. Besides, they have a tertiary (higher) education sector that is large and competitive as those in developed countries. If we are to build on the achievements we have made in the last five years, we should avoid implementing education programs without proper evidence of policy analysis. This is the surest way of avoiding wastage of resources.

Kenya's Vision 2030 is the nation's new development blueprint for 2008 to 2030 which aims at making Kenya a newly industrializing, "middle income country providing high quality life for all its citizens by the year 2030" (UNESCO, 2007). The plan is to be implemented in successive five-year terms with the first plan covering 2008-2012. The education goals of the 2030 Vision are to provide globally competitive quality education and training and research for development. This is to be achieved through reducing literacy by increasing access to education, improving the transition rate from primary to secondary schools, and raising the quality and relevance of education. Other goals are the integration of special needs education into learning and training institutions, and increasing the adult literacy rate to 80%. The government also aims at increasing the enrollment in schools to 95% as well as the transition rates to technical colleges and higher education to 8%. In addition, the rate of students joining universities should expand from 4.6% to 20% within this period, while simultaneously boosting emphasis on science and technology courses. The government has specified the implementation strategies which include integrating early childhood into primary education, reforming secondary curricular, updating teacher education, and strengthening partnerships with the private sector. In addition, the government has goals to improve special needs programs and adult training program, and to revise the higher education curriculum. Specific educational development projects for 2012 are to increase the number of secondary schools by building 560 new secondary schools, to establish a teachers' recruitment program so as to employ 28,000 more teachers, to establish a computer supply program that will equip students with modern ICT skills, to build at least one boarding primary school in each constituency in the pastoral districts for nomadic populations, and to roll out the education voucher system program in five districts.

Vision 2030 also aims to capitalize on knowledge in science, technology and innovation (STI) in order to function more efficiently, improve social welfare, and promote democratic governance. STI is to be applied in all the sectors, and the education and training curricular in the country will thus be modified to ensure that the creation, adoption, adaptation and usage of knowledge becomes part of formal instruction. A new incentive structure will also be developed to support the use of STI in specialised research centres and universities.

The vision 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. This has considerable importance for the structure and focus of the education system and curriculum. It also has considerable relevance to teacher education. Consequently this has been given consideration toward changing the structure of education; the introduction of technical talent; general academic curriculum pathways; the centrality of ICT to teaching and learning and its application on the day to day life. Vision 2030 also recognize the need for a literate citizenry and sets targets for enhancing adult literacy from the current 61.5% to 80% by 2012. Student net enrollment is envisaged to increase to 95% whereas transition rates from secondary to technical institutions is expected to rise from 3% -8%.

Experience, training, and education are the three main mechanisms for acquiring human capital, with education being primary for most individuals whereas education facilitates, and the acquisition of new skills and knowledge increase productivity. This increase in productivity frees up resources to create new technologies, new businesses, and new wealth, eventually resulting in increased economic growth.

### **Reorienting education**

The term “reorienting education” has become a powerful descriptor that helps administrators and educators at every level (i.e., nursery school through university) to understand the changes required for ESD. An appropriately reoriented basic education includes more principles, skills, perspectives, and values related to sustainability than are currently included in most education systems. Hence, it is not only a question of quantity of education, but also one of appropriateness and relevance. ESD encompasses a vision that integrates environment, economy, and society. Reorienting education also requires teaching and learning knowledge, skills, perspectives, and values that will guide and motivate people to pursue sustainable livelihoods, to participate in a democratic society, and to live in a sustainable manner. Experience, training, and education are the three main mechanisms for acquiring human capital, with education being primary for most individuals. Education facilitates the acquisition of new skills and knowledge that increase productivity. This increase in productivity frees up resources to create new technologies, new

businesses, and new wealth, eventually resulting in increased economic growth.

## **Ways to Reorient Education in Kenya**

### **Change in the curriculum**

As has already been seen, the 8-4-4 curriculum brought in over 13 subjects to be covered by the students. With it came increased costs of textbooks, raw materials, equipment and facilities needed to facilitate the vocational aspects of the studies. There was increased workload for the teacher and student and the demand for more school hours. Many children could not handle these, and therefore dropped out. The need for suitably qualified teachers increased in tandem with the increasing population. There is therefore need to critically look into our education system so as to introduce efficiencies and ensure it effectively produces graduates well equipped for modern day life experiences. Stop-gap measures over the years have proved inadequate as standards have remained low. A serious re-look at the curriculum is a must if this nation is to meet its objectives for vision 2030.

Constitutional reforms alone cannot bring about the needed change and development. They must be coupled by a complete change in societal attitudes, which can only be best achieved through quality education. A good education would ultimately equip individuals with requisite information literacy competencies thereby improving job performance, social lifestyles and political participation. The rest of the world is refocusing its education in this line through information and communication technologies (Semenov, 2005).

### **Purpose of education**

In Kenya, career guidance and life-skills have for a long time not been part of the education system. Many children therefore go through school without a clear concept of where they aim to go but wait for the examinations results to decide on their professional destiny. Those who pass their exam and can afford to pay the fees, remain in school because it is smooth sailing while those who seem not to do well academically opt out because they find no value in the school system. Guidance and counseling, including career guidance as has been identified of late must be entrenched into the school system right from early elementary

education stages (Kweyu, 2009). Mentorship should be inculcated in all schools both rural and urban. While many children in the urban areas are more informed and grow up with career choices in their minds, their rural counterparts grow up not knowing much about the world. It must be emphasized that the purpose of education must not be that one “secures a good job” but ,to enable one enjoy an improved standard and quality life. A good job is not the end; it is a means to an end. Human beings, like well manufactured sophisticated equipment and machines, must position themselves toward achieving efficiency and effectiveness as opposed to production and activity.

Instead of training to be an employee, the education system should be such that individuals train with a focus on being job creators and employers – business owners, large-scale farmers, and farmers of special products that have high returns, manufacturers, innovators, creators and technology wizards. The catalyst that is lacking must be found to sharpen and enhance the skills of graduates. While it is good to encourage people to learn in school, it may be more appropriate to teach people that education is wider than just a job (Warah, 2010).

### **School life**

The system should also change from being examination-oriented to being school-life based (Mongolia, 2007; Bwana, 2009). The entire school life would be documented: academics, sports, the arts, and personality, hygiene and people skills. Right from class one, all aspects of a child’s life should be trained, examined and documented and an average or mean score regarded as their performance. Aptitude tests should be introduced where the child’s perception is measured. This would enable better self understanding. A child would know in which areas she/he is strong in and those in which she/he is weak in. Consequently, they can either focus more energy in refining what they are good at so as to be the best in the area, or they can also pay extra attention to the areas of weakness and improve on them. This way, the idea where private schools and academies drill children into passing exams and not being wholly educated would cease. Education should be about producing a complete, well-rounded whole person, not just passing exams. It should also inculcate personal skills and skills that will be useful in the job and business world (Kigotho, 2009)

### **University education**

Universities and university education are essential for development (Mutisya, 2010). Reforms in the higher education sector are urgently needed focusing on quality training and quality of education while increasing enrollment for improved national development. (Daily Nation, 2010).

### **TIVET (Technical, Industrial, Vocational and Entrepreneurship Training)**

TIVET has always been the plan B of our education system. It is where we dump all those who did not make it to the next level. As a nation, we have assumed that technical, industrial and vocational training is a substandard level of education for the less clever in the classroom. While this may be so, we must recognize that sustainable development needs a few good brains and many willing hands. Other nations such as Japan and China did not grow because of degrees and doctorates. They scrapped their selves out of heat, sweat, and pain into developed status. It is the electrician who keeps the bulb working not the engineer who designed it.

Whereas the TIVET enrollment has steadily grown in the last number of years, it is worrying to see that the vast number of school dropouts do not enroll in these institutions. As a country we fail every year to attract them to these institutions because society sees no value for them. Let us take a step back. For every degree holder, we need 6 technical personnel. If this was the case, new developments would be springing up daily and technological advancement rate would practically double. But lack of technical skills in our society is worrying. Soon we will be a nation of degree holders with theoretical knowledge and no practical skill.

The government and society, both have a role to play. The society should demystify the theory of blue collar jobs worth. The youth should see practical application of knowledge as more beneficial than theoretical application.

### **ICT (Information Communication Technology)**

ICT development is a core concept in the jubilee manifesto. Digitization of government and private activities is heavily reliant on application of ICT. In the Sessional Paper No. 1 of 2005 Chapter VII, the Ministry's policy



clearly articulates intentions to integrate information and communication technology (ICT) into education. As the nation goes digital, education is not to be left behind. It is to be fast tracked. The Vision 2030 identifies Science, Technology and Innovation (ST&I) as a foundation for the social, economic and political pillars for overall socio-economic development. The Vision recognizes the role of Science and Technology in development as new knowledge is expected to boost wealth creation, social welfare and international competitiveness. ICT should be the main driver in this regard.

The implementation of the National ICT Strategy for Education and Training through multi-stakeholder participation in 2006, laid the foundation for developing the necessary capacity for a skilled human resource required to achieve Kenya's Vision 2030. This was also in line with the 2010 Constitution. ICT has one major advantage. It stretches the confines of a class room to include the home and the recreation area. ICT will therefore extend boundaries of the classroom to beyond the fixed time and space of school, help adapt instruction to the differences between the students, provide for feedback in real time, and provide the chance of learning in the classroom and at home.

### **Recommendations**

- (a) Train and staff ST&I sector adequately
- (b) Review curriculum to meet skill demands that are constantly changing.
- (c) Strengthen technical capacities
- (d) Identify priority areas.
- (e) Intensify innovation
- (f) Enhance awareness through various media forms
- (g) Have quality Teachers, quality schools and quality school managers.

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## **Risk Management on Financial Performance in Higher Institutions of Learning: a case study of uganda christian university, mbale campus**

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### **Abstract**

**Risk Management** is the application of proactive strategy to plan, lead, organize and control the wide variety of risks that come into the fabric of an organization daily and in the long term functioning. Risk has a say in the achievement of our goals and in overall success of an organization. **Problem statement:** A number of universities and other higher institutions of learning are grappling with how to manage risk in order to maximize firm value via the reduction of costs associated with different risks. There is need for higher institutions of learning to manage key causes of risk and probably in that way also manage risks which have not been identified. **Objectives:** The objectives of the study were to identify types of risks faced by higher institutions of learning and to establish techniques of managing the risks faced by higher institutions of learning. **Methodology:** To achieve the objective of this study, the researchers used descriptive research design with both qualitative and quantitative approaches, interview guide for primary: from secondary sources i.e from books, journals and online publications. Purposive sampling was used to sample managers and simple random sampling technique to sample support staff. **Findings:** Researchers identified various risks like; strategic risk, financial risk, legal risk, reputation risk operational risk and major project risk faced by higher institutions of learning. The study concluded that higher institutions of learning should in

**essence identify and outline common causes of risks and focus on how to manage the key causes for the survival and accelerated growth of their institutions. They can do this by stressing more on sensitizing the students and staff through risk reduction, self insurance and precautionary measures other than solely buying insurance**

**Keywords:** *Risk Management, Higher Institutions of learning, financial risk, Operations risk.*

## **Introduction**

Risk management has attracted an increasing interest which permits all aspects of the risk universe, that is to say it overlaps with all types of risks such as strategic risks, financial risks, legal risks, reputational risks and operational risks

In order for the higher institutions of learning to remain competitive, there is need to manage its risks and earn acceptable returns. Risk is an increasing exposure and higher institutions of learning need to develop policies and strong frame works and approaches to manage these risks. This is done purposely to increase the efficiency and effectiveness of the institutions

## **Methodology and Materials**

Descriptive research design with both qualitative and quantitative approaches was used in this study. Interview guide and questionnaires were used to collect primary data. More data was obtained from secondary sources i.e from books, journals and online publications. Purposive sampling was used to sample managers and simple random sampling technique to sample support staff.

**Types of risks faced by the higher institutions of learning  
Managers and staff members' background information**

S/N	Category of members	TOTAL
1	Director	1
2	College secretary	1
3	Academic Registrar	1
3	HOD	9
4	STAFF MEMBERS	189

**Table 1.1: Risks faced by the higher institutions of learning**

RESPONSES BY 12 MANAGERS											
S/ N	Questionnaire Item	SA		A		NS		D		SD	
		F	%	F	%	F	%	F	%	F	%
1	Strategic Risks	10	83	-	-	01	8	01	8	-	-
2	Legal risks	-	-	01	08	03	25	08	67	-	-
3	Reputation risks	-	-	08	66	02	16	-	-	02	16
4	Operational risks	-	-	02	17	04	33	05	42	01	08
5	Major Project Risks	02	17	06	50	-	-	04	33	-	-

The findings indicate that higher institutions of learning are faced with strategic risks more than other risks. This is represented by 83%.

**Table 1.2: Risks faced by the higher institutions of learning**

RESPONSES BY 189 STAFF MEMBERS											
S/ N	Questionnaire Item	SA		A		NS		D		SD	
		F	%	F	%	F	%	F	%	F	%
1	Strategic Risks	100	53	20	10	07	04	40	21	22	12
2	Legal risks	120	63	19	10	24	13	21	30	05	03
3	Reputation risks	89	47	73	39	21	30	03	02	03	02
4	Operational risks	110	58	40	21	12	06	30	16	07	04
5	Major Project Risks	31	16	06	03	08	06	04	02	140	74

Unlike the managers who established that higher institutions of learning are faced with strategic risks, the staff strongly agree that the institutions of learning are faced with legal risks (63%)



## Ways of Managing Risks Faced by the Higher Institutions of Learning

**Table 1.3** Ways of managing risks by higher institutions of learning

RESPONSES BY 12 MANAGERS											
S/ N	Questionnaire Item	SA		A		NS		D		SD	
		F	%	F	%	F	%	F	%	F	%
1	Internal financing	06	50	02	17	01	08	02	17	01	08
2	Risk avoidance	03	25	05	42	-		01	08	03	25
3	Buy insurance	08	67	03	25	-		01	08		
4	Self insurance	10	83	02	17	-		-	-	-	
5	Risk Reduction	11	92	01	08	-	-	-	-	-	
6	Precautionary measures	09	75	02	15	-		01	08	-	

The results on table 1.3 indicate that managers strongly agree that risk reduction is the best way of managing risks in higher institutions of learning (92%). On the other hand respondents indicated that precautionary measures are not necessary managing risks.

**Table 1.4 Ways of managing risks by higher institutions of learning**

RESPONSES BY 189 STAFF MEMBERS											
S/ N	Questionnaire Item	SA		A		NS		D		SD	
		F	%	F	%	F	%	F	%	F	%
1	Internal financing	133	70	11	06			45	24	-	-
2	Risk avoidance	170	90	09	05	10	05	-	-	-	-
3	Buy insurance	180	95	07	04			02	01		
4	Self insurance	172	90	02	01	13	07	02	01		
5	Risk Reduction	169	89	03	02	17	09	-	-	-	
6	Precautionary measures	101	53	51	27	05	03	32	17		

Results show that the appropriate way of managing risks is by buying insurance (95%), risk avoidance (90%) and by self-insurance (90%). However, the managers were in favor of risk reduction and self insurance.

### Conclusion

According to table 1.1 and table 1.2 above, 83% of the managers strongly agreed that higher institutions of learning are faced with strategic risks while 63 % of the staff strongly agreed that higher institutions are faced with legal risks According to tables 1.3 and table 1.4 above, 92% of the managers strongly agreed that risk reduction is the best way to manage risks in higher institutions of learning while 95% of the staff members strongly agreed that buying insurance is the one of the best ways to manage risks at the higher institutions of learning

### **Recommendations**

Management should recognize the importance of risk management in order to keep institutions safe and financially healthy by understanding the risks they face, participate in establishing priorities in risk management plan Managers and staff members should be responsible for the safety, monitoring, coaching employees and students on safety measures and incident prevention

Management should be proactive by evaluating risk exposures on leading loss areas and benchmark with other universities on how they predict future risk issues

Universities need to conduct ongoing assessment of risk and control systems and use audits to evaluate and maximize the effectiveness of existing controls (AICPA 2009)

Management should establish strategic plan for effective risk management system with a detailed strategic plan to provide a structure which safety managers can re-visit to build and monitor organization's overall needs

Higher institutions learning should have a risk manager to are policy documents, interpret them and fore see risks that are yet to happen

### **Further research**

Research on risk management on financial performance of public sector.

Research on the role of risk management on performance of NON-Governmental Organizations

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## **The Impact of Reading Culture on Academic Performance of Students in Manafwa District**

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### **Abstract**

**In Uganda today the need to master reading is not ultimate but very crucial to all students at all levels. This is so because reading plays multifunctional roles both at school and society especially in Uganda. Which is multi-cultural. Despite the above view it has been noted that most students today are not interested in reading but opt to listen to teachers/lecturers. The researcher therefore intends to establish the impact of reading culture on the academic performance of learners. The study was guided by the general objective to establish whether lack of students motivations towards reading has any effect on their academic performance. The study adopted across sectioned. Survey design to be more applicable. This was because the sample size was large with a cross section of correspondents. The findings indicated that reading culture had an impact on academic performance. The school curriculum lacked space for library which promotes the reading culture. Teachers did not give research work to encourage reading by students. In conclusion, reading culture being a crucial issue needs to be addressed to enable students communicate effectively. The researcher recommends that parents and schools develop simple libraries to encourage reading culture in leaders. Parents should to the learners and encouraged teachers to give exercises which call for reading.**

**Key words :** *Academic performance reading culture*

## Background

With the advent of the colonial era English recently has steadily gained prominence in our society as a tool for communication.

In Uganda today, the need to master reading is great in value because language has a high instrumental role in the academic performance. Thus it is of the par amounting importance for Ugandan student to have a reading culture which is effective.

Nsibambi(1993) Mushega (1997) have all sadly commented on the deteriorating standard of the reading culture in Uganda. People in Uganda are complaining about the deteriorating standard of the reading culture, teachers in secondary schools are concerned about their student's poor performance in English. The ministry of education keeps on emphasizing the need to improve the standard of reading. Complaints come from various institutions of higher learning about the same. Employers too, are concerning with the poor performance of school leavers at interviews and their inability to perform simple reading tasks. This reflects country wide concern about the deteriorating standard of the reading culture in Uganda as a whole.

As viewed above in Manafwa district, reading culture is attracting a lot of concern from stake holders. Thus this prompted the researcher to raise concern.

## Categories of respondents

Category	No	Total
Students	150	150
Head teachers	18	18
Parents	30	30
Inspectors of schools	2	2
Total		200

**Table 1:1: Factors that affect students reading culture**

Students= 150

	SA		A		D		SA	
	F	%	F	%	F	%	F	%
Lack of libraries	140	(93)	5	(3)	4	(3)	1	(0.6)
Provision of books	120	(30)	5	(3)	4	(3)	20	(0.6)
Provision of reading culture in curriculum	130	(87)	10	(7)	5	(3)	5	(13.3)
Students motivation for reading culture	30	(20)	20	(13)	5	(60)	10	(7)
Parents provision for reading culture	130	(87)	5	(87)	130	(87)	10	(7)
Inspector monitoring for reading culture	150	(100)			150	(100)		
Provision of media to encourage reading culture	150				150	(100)		

According to the findings most schools are not visited by inspectors. Many schools lack libraries and there is no provision of reading culture in the curriculum. Provision of media is totally not provided. Students' motivation for reading culture has only affected on 5 students.

**Table I.II: Factors that affect students reading culture  
Headteachers= 18**

	SA	%	A	%	D	%	SA	%
	F	%	F	%	F	%	F	%
Lack of libraries	8	(44.)	2	(11)	4	(22)	2	(11)
Provision of books	7	(5)	3	(2)	2	(11)	6	(4)
Provision of reading culture in curriculum	2	(11)	2	(11)	10	(7)	4	(22)
Students motivation for reading culture	1	(0.6)	1	(0.6)	8	(44)	8	(44)
Parents provision for reading culture	4	(22)	5	(3)	3	(2)	6	(4)
Inspector monitoring for reading culture	12	(8)	2	(11)	3	(2)	1	(0.6)
Provision of media to encourage reading culture	-	-	-	-	18	(100)		

According to the findings, there is no provision for reading culture for students head teachers. The above information also reveals that many institutions lack libraries and provision of media to promote a reading culture is not catered for.



**Table I. III: Factors that affect students reading culture****Parents= 30**

	SA		A		D		SA	
	F	%	F	%	F	%	F	%
Lack of libraries	25	(8)	2	(7)	3	(10)		
Provision of books	20	(6)	3	(10)	5	(2)	2	(7)
Provision of reading culture in curriculum	25	(8)	2	(7)	3	(10)		
Students motivation for reading culture	26	(8)	2	(7)	1	(3)	1	(3)
Parents provision for reading culture	18	(60)	4	(13)	3	(10)	5	(17)
Inspector monitoring for reading culture	28	(93)	1	(3)	1	(3)		
Provision of media to encourage reading culture					2	(100)		

According to the findings parents don't provide media to develop a reading culture. The figure also indicated that lack of libraries and provision of books in schools have negative impact on a reading culture

**Table I.IV: Factors that affect students reading culture****Inspectors = 2**

	SA		A		D		SA	
	F	%	F	%	F	%	F	
Lack of libraries	-	-	-	(2)	100	-	-	-
Provision of books	1	(50)	-	-	-	-	1	(50)
Provision of reading culture in curriculum	1	(50)	-	-	-	-	1	(50)
Students motivation for reading culture	1	(50)	-	-	-	-	1	(50)
Parents provision for reading culture	1	(50)	-		1	(50)	-	-
Inspector monitoring for reading culture	-	-	-		2	(100)	-	-
Provision of media to encourage reading culture	-	-	-		2	(100)		

According to the findings provision of media is lacking in schools. The information also indicates that there are few inspectors of school, only two of them

### **Conclusion**

According to the findings most schools lack libraries – contributing to poor reading culture and poor academic performance by parents

### **Recommendation**

- Libraries should be established at home to school
- Teachers should motivate students to develop a reading culture
- Inspectors of schools should monitor on the development of reading culture
- Parents should provide students with books to develop reading culture

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## **Challenges and Effects of Financing University Education in Kenya**

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### **Abstract**

**Financing education means meeting costs of education in all levels, capital expenditure and recurrent expenditure. Challenges and effects financing university education has taken three phases of evolutionary, revolutionally and Prorevolutionary. Evolutionary since colonial through independence up to late 1980s, marked by the president being the chancellor of all public universities and no private university existed and university education was financed by central government ‘qualified’ students and once admitted were paid a “boom”. Graduates were assured employment in either public or private sector. The effect students were no longer burdens to the parents, although dependent on central government and thought that free university education was a basic right. Second phase revolutionary since late 1980s through the early 2002, where financing university education was changed from the central government to ‘cost sharing’, parents and Higher Education Loan Board [HELB] was introduced, marked by giving charter to some private universities and later public universities introduced parallel programs. The effect was students admitted to any course so long as they had minimal entry requirement and could finance their education. The third phase is Prorevolutionary, since late 2002 through to the present, marked by some Teacher Training Colleges and constituent colleges of public and private universities given charters to be autonomous have their own chancellors, and graduation would be twice year**

**and graduates would have many first class honors. The problem is nowadays public universities are admitting students into courses, which they did not meet the entry ‘cut off’ points and diluting or compromising the standards of the courses, if they finance their education. The objective is to study challenges and effects of financing university education and impact on the quality and standards of courses. The research will adapt diagnostic research design of the empirical data. The findings and recommendations will be vital to all stakeholders in educational sector.**

**Keywords:** *Challenges; Effects; Evolutionary; Revolutionary; Prorevolutionary*

## **Introduction**

Financing education means meeting costs of education in all levels, capital expenditure and recurrent expenditure. Challenges and effects financing university education has taken three phases of evolutionary, revolutionally and Prorevolutionary. Like most African universities, higher education in Kenya was historically free, with the public purse covering both tuition and living expenses [Weidman, 1995].

According to Webster’s New Twentieth Century Dictionary, a university is an educational institution of the highest level, typically with one or more undergraduate schools or colleges, together a program of graduate studies and a number of professional schools and authorized to confer various degrees as bachelor’s, master’s and doctor’s. In this period the university was financed by the colonial government and because few people needed it, colonial government afforded financing for the few but in a hard way. The reasons which facilitated by first, university education in the colonial era was not imparted to Africans, as colonizers taught the Africans had no brains to learn the skills and knowledge in university level. A perception which was wrong and undignified Africans for enforced ways to undermine the Africans in order for the colonial masters to have a leeway of administering and having opportunities for taking resources to their home countries. Second, there was no university education in the region until 1949 when Makerere College in Uganda was elevated to the status of the university college of east Africa [Bogonko,

1992]. This means those who were able financially and favored by the colonial government, their children were allowed to go and receive university education financed by the colonial government, either their parents collaborated with the colonial government or supportive in one way or the other to colonial system. Third, because of few people were qualified to receive it and it could not allow, Africans feared to go for primary and intermediate education to qualify for university education.

### **The statement of the problem**

The system of admission into universities both public and private, changed in the recent past [2002 through to the present] a phase known as pro-revolutionary and universities allowed day scholars and slowly introduced parallel programs for “unqualified” students in certain courses, because of having money and hailing from able backgrounds [wealthy], are admitted and study with those who “qualified” mostly from humble backgrounds [poor] who met the entry “cut-off” points.

The problem is nowadays public universities are admitting students into courses [such as medicine, pharmacy, surgery, law, architecture, engineering and teaching], which they did not meet the entry ‘cut off’ points and diluting or compromising the standards of the courses, if they finance their education.

### **The objectives of the study**

First, is to study challenges and effects of financing university education and impact on the quality and standards of courses, of noble courses or professions.

Second, study the challenges of financing of university leading to competition among public and private universities as a consequence of introducing courses which were “units” in subjects/disciplines taught in the “evolutionary” phase, to become independent courses of study in postgraduate courses, in the “pro-revolutionary” phase.

### **Methodology**

The research adopted diagnostic design of analyzing the empirical data. Diagnostic design method is a problem-solving research method

conducted to answer ‘how and why’ a phenomenon happen and consist of the study of the emergence of the problem; a diagnosis of its causes; formulating remedial measures and suggestions for solution. Data is collected through observations and analyzing empirical or secondary data available in textbooks, journals and newspapers.

### **Literature review: Financing University of university education to 1949 in Kenya**

There was no university education locally the whole of East Africa until 1949, when Makerere College was elevated to become the University of East Africa. Therefore, all university education was obtained in other foreign land. The three colleges of Makerere, Royal college and university college Dar es Salaam, formed the Federal university of east Africa in 1964 [Bogonko, 1994]. It is important to note that developments in university education in Kenya are examined in contextual of east Africa because it was an inter territorial affair and cannot be examined in isolation.

In this period university education was totally financed by the colonial government. Therefore, the Kenyan students in Makerere and those who went overseas for further education were given bursaries, scholarships provided by colonial Development and Welfare Fund and loans which were supposedly open to all races in Kenya, but such schemes were not open to African until 1945. The Kenyans were accorded little, lowest or none consideration as compared to what European and Asian students received. For example in 1949, the 20 new government bursaries given to Kenyan students to study abroad, African received 2, Europeans 9, and Asian 9. In 1950, the figures were 2, 14 and 14 in Africans, Asians and Europeans respectively. In 1951, there were 13 Europeans recipients, 2 Africans, 21 Asians and 1 Arab. In 1952, four Africans, one Arab, 15 Asians and 9 Europeans received new awards [Bogonko, 1994] as shown in table 1.



**Table 1: Number of bursaries/scholarships, 1949-52**

	1949	1950	1951	1952
Africans	10	11	12	13
Arab	2	3	4	5
Asian	43	44	57	57
European	26	33	43	30
<b>Totals</b>	<b>81</b>	<b>91</b>	<b>116</b>	<b>105</b>

*Source: colony and protectorate of Kenya, Education Department Annual Reports 1949-52.*

The table 1 shows Africans who constituted 96 percent of the total population of Kenya, held an annual average of 11.3 percent, of the government scholarships and bursaries as compared to alien or foreigners races comprised of 4 percent of the population, were allocated a massive 88.7 percent of the government studying opportunities abroad or overseas[Bogonko,1994]. The Africans [Kenyans] had no such special scholarships aids compared to Asians and Europeans, even in requesting loans for university education overseas; the aliens were favored as compared to Kenyans.

### **Financing university education 1953-1963**

Makerere university being the only in east Africa, grew rapidly, because it received finance from many sources. It had received 3 million pounds from the British colonial welfare and development fund and 3.8 million pound from the governments of East Africa [Kenya, Tanganyika, Uganda and Zanzibar].Also donations were received from Nuffield, Gulbenkian, Ford, Carnegie and Rockefeller foundations [Bogonko,1994].This implies that with all these resources was able to construct impressive buildings and infrastructure befitting a university to fulfill the constituent college of the University of East Africa. In 1963 and had attributes of the title deserved as full university in 1970.Kenya and Tanganyika as countries, were always suspicious that financial contributions to Makerere college were not properly used and needed to have their own universities were

they could finance capital to. Makerere gaining a University college status, Kenya and Tanganyika, advanced in university education, leading to emergence of University of Nairobi and University of Dar es salaam in Kenya and Tanganyika respectively.

Table 2 shows how Africans compared to Europeans and Asians gained very little from scholarships/bursaries given by the government of Kenya between 1954 and 1962.

**Table 2: Kenyan Bursaries for Overseas Education 1954-62**

	1954	1955	1956	1957	1958	1959	1960	1961	1962
African	12	13	17	18	32	28	28	34	40
Arab	5	7	7	8	10	7	7	4	4
Asian	50	62	58	62	184	64	62	75	80
European	30	41	47	50	57	44	53	56	53
<b>Totals</b>	<b>97</b>	<b>123</b>	<b>129</b>	<b>138</b>	<b>283</b>	<b>143</b>	<b>150</b>	<b>169</b>	<b>177</b>

*Source: colony and protectorate of Kenya, Education Department Annual Reports 1954-62.*

It is interpreted that although the amount of bursary money spent on Africans was much lower than that spent on Asian or European, what worried Africans was the number of their lot who went abroad to seek education.

It was also awkward for the colonial government to insist on tangible security[titled deeds]before giving loans to Africans when they knew they had not demarcated most African land[Bogonko,1994].As a consequence the loans and bursaries given to large numbers of Europeans and Asians meant that more people from these races received university education than Africans.

### **Evolutionary phase of financing university education 1963-1970 to 1980s**

To finance education means to meet costs of education that is capital expenditure and recurrent expenditures. Therefore, capital expenditure

refers to expenditure on such permanent features as new buildings and infrastructure in the university and recurrent expenditure refers to what is needed periodically for example salaries of lecturers and other workers and running or operation expenses and equipment to sustain education in the university.

In the general understanding university education is provided through public and private universities. 'Public university' means a university maintained and assisted out of public funds. Public universities therefore, are those institutions owned and administered by public agencies such as central government and local authorities or county governments.

'Private university means a university established with funds other than public funds. Private universities thus, are those universities established for the purpose of profit-making which are entirely owned and managed by private bodies and individuals, but they are allowed to operate by the ministry of education through the independent commission of higher education of Kenya, to ensure education is being provided adequately and meeting the requirements, the list of public and private is given in the appendix 1. private universities are classified into three categories as; Chartered universities-are the private universities fully accredited by the Commission of Higher Education[CHC] and offer their own degrees, diplomas and certificates recognized internationally; Registered universities-are universities which offer degrees on behalf of mother institutions. These universities were offering degrees before the establishment of the CHC and were given certificate of registration after meeting requirements as stipulated in the university Act; interim-these are universities which have applied for accreditation and waiting approval. "Accreditation" means public acceptance and confirmation evidenced by grant of charter under section 12 of the Act that a university meets and continues to meet the standards of academic excellence set by the commission for higher education.

The era was referred to as "Evolutionary phase" because there was no university and they started establishing university education which took a slow base, because a lot of capital was needed to be used in the construction of infrastructure and buildings in the new created universities in Kenya. University education was historically free, with public purse covering both tuition and living expenses [Weidman, 1995].

The University of East Africa was established in 1963 and the university of east Africa Act, was passed in 1962, inaugurated on 27<sup>th</sup> June 1963, and President Julius Kambarage Nyerere of Tanganyika became its first chancellor.

Viable common faculties were identified for all colleges and professional faculties earmarked for each unit, purposely to maintain standards and quality of university education, Makerere was allocated medicine and agriculture Dar es salaam and Nairobi, engineering, veterinary science and architecture for the years 1963-1967. In 1967-1970, each college was steering its own course, ignoring the policy of common courses and allocated professional faculties. The University Development Committee [UDC] had virtually stopped directing their planning. Duplication now went on unabated. National aspirations had overtaken regional planning [Bogonko, 1992]. This was the effect of development because each college was striving for more faculties and courses to qualify for full fledged university. The working Party on Higher Education in East Africa of 1968, recommended the promotion of each college to full university status in 1970.

However, during 1964-1970 periods, the three countries contributed capital for the building of Makerere University, there were more growth rate of students in Dar es Salaam and Nairobi compared to Makerere, as a Federal University of East Africa. More money was spent on both Dar es Salaam and Nairobi than Makerere. For example in regard to capital expenditure between 1964 and 1970, Makerere received 1,489,000 pounds; Nairobi received 2,266,000 pounds and Dar es Salaam received 4,343,000 pounds. Foreign aid of US dollars 25,371,000 was received by university in June 1967 was also allocated as follows; US\$ 4,685,000 for Makerere; US\$ 6,359,000 for Nairobi and US\$ 10,986,000 for Dar es Salaam [Bogonko, 1992].

The dissolution of University of East Africa, climaxed the beginning of development of university education in East Africa because each country was now given a leeway to finance their universities as they could and develop as quickly as possible to meet the requirements and demands of the people. The University Nairobi in 1970, started expanding the existing faculties and setting up new one such as law, education, agriculture, journalism and institute of African studies. All this needed money or capital expenditure which was financed by the central government.

The central government financed Moi University at Eldoret and was established in 1984 and became the second public university in the republic of Kenya. It specifically meant to offer courses in technology and related sciences, cultural and development studies. In 1987/88, only the faculties of forest resources and wildlife management, science, technology, culture and development studies and education had been established.

Kenyatta university college, became the third public university in 1985 and added the faculties of Arts and science to the existing faculty of education and boosted enrolment of students from 2,371 in 1985 to 5,055 in 1986/87[Kenyatta university,1987,2].

Egerton was the fourth university to become a full fledged public university in Kenya in 1987/88 and its student population both degree and diploma was 1400 in 1985.

### **Challenges of financing university education and effects in evolutionary phase**

1. There was no university education until 1949, when Makerere was elevated into University College.

The effect was those who needed university education acquired it in the foreign land and it was financed by colonial government which restricted the number of scholarships to be given to Africans.

2. The university education was financed by colonial government till 1963 and the effect was scholarships and bursaries given to Kenyans were accorded little, lowest or non consideration as compared to what Europeans and Asian students received. This paralyzed the academic endeavors of the African students in university education.

3. As university education was financed by loans, African parents who applied for loans were required to give tangible security [title deed].

The effect was barring Africans from loans, they knew some African land had not been demarcated. This was an indication of colonial government slow down the developments in university education in Kenya.

4. The loans given to those who qualified were not given to Africans to go for further studies. The effect is loans given to large numbers to

Europeans and Asians meant that they received university education than Africans and as a consequence contributed to underdevelopments of human resource.

5. The Federal University of East Africa established in 1963 and the three countries contributed capital for its operations. The effect was that they financed the university and forgot to make developments of university education in their own countries. It also shows how three countries were united regardless of regional disparities; there was a sense of unity and cooperation before and after independence.
6. Duplication of courses in the three colleges of East Africa was unabated. The effect was academic developments because each college was striving for more faculties and courses to qualify for full fledged university.
7. Few private universities were in operation through the letters of interim from commission of higher education. This included university of Eastern Africa, Baraton and Daystar University.

The effect was that the few private universities ensured quality university education was given and university standards were maintained.

Also the private universities were allowed to establish few faculties and offered few courses of theology oriented.

8. The developments in the four universities into full public universities was seen a blessing because it cut-down the number of Kenyans going to overseas for university education under government scholarship or finance.

The effect it saved the government foreign exchange which was in economic growth and expansion of facilities in the public universities.

9. Since the students who qualified into public universities were financed by the government, the enrolments were matched with the number of available facilities in the universities especially accommodation and lecture halls.

It should be noted that no extra students were allowed in the university without qualification. The sons and daughters of the ministers and executive person in government could not be allowed because of the status of their parents whatsoever.

The effect is that the students got quality education and in standardized environment for university education studies and were not a burden to their parents because those who qualified were ensured after admission and registration payment of money for their up-keep popularly known as ‘boom’.

10. All university student ‘qualifiers’ were compulsory boarders and boarding facilities were excellent. Some apartment or hostels were having single bed room and others were designed for two beds and no double Decker was allowed.

The effect was students enjoyed university environment and could not struggle in learning, something which made many students high schools struggled to attain minimal points to entry to university.

11. The central government financed meals in the maze for only admitted students. The effect was students had enough time for academic and research work which ensured quality and standard education in universities.

12. In 1970 -1980s was marked by student unrest or strikes in public universities and because of demonstrations all over towns, they caused a lot of havoc, rooting shops, putting a braze vehicles of innocent people, and destroying properties.

The effects were as follows; [i]closure of universities indefinitely or long time.[ii]expulsion of students[iii]jailing students[iv]fining students[v] other students died in the course of demonstrations[vi]damage of properties[vii]loss of national resources through lost man-hours as[viii] unutilized university facilities.

### **Second phase of financing university education: Revolutionary phase [1985-2002]**

This phase was marked by financing of university education changed from central government to ‘cost sharing’. Cost sharing in Kenya in higher education was introduced in 1991 as a response to ever-declining state budget, which did not keep pace with student intake when the first cohort of the 8-4-4 of students entered the university [Sanyal and Martin, 1998]. A student loan program was established to enable the needy and poor students to access university education, at its inception, therefore,

admission to public university was enough to ascertain eligibility for a loan. This led to establishment of Higher Education Loan Board [HELB] in 1995. Only students from public universities were eligible for applying for university loan and private university were not eligible. In this phase was marked by 'double intake' into public universities because of 8.4.4 system.

1. Research was key in universities and foreign donors financed research for example Ford Foundation, Rockefeller Foundation and UNESCO were giving grants to university researchers.

The effect was foreign donors could not satisfy every individual, department, faculty, institute or school of a university. The other effect was biasness in allocating research grants and some lecturers took an initiative of self sponsorship to foreign countries for research and others took a back bench in research, because of scarcity of research money.

2. It was considered an academic anomie for universities to wholly rely on the government and donors for research money. Therefore, the universities were challenged to look and think other ways to generate finances for some research projects. The beneficiaries of university research were approached to fund research projects for example commerce [banks], industries and public agencies or companies. All these sources of research finances would be adequate research funds on a more sustainable basis [Kamunge Report, 1988; 74].
3. The other problem in this of accommodation, the quality of facilities and scarcity of learning space. The university education/student population increased without special planning where to learn [lecture rooms] eat [food] or sleep [accommodation]. Congestion was experienced in 1980s because such that a residential room originally meant for one student were catering for two or more students. And as a result double-decker beds were resorted to almost everywhere because; the universities were unable to construct the accommodation facilities to match the increasing population in the universities.
4. The effect is that as the public universities explored the possible ways of settling or resolving the problem of accommodation, by double-decker beds, resorted to refining hostels forever increasing boarding requirements of its students. As the problem erupted, a new body



was established in 1983-University Students Accommodation Board [USAB] to solve the problem accommodation academic discipline matters of students in public universities.

The effect is USAB never solved any problem in 1978/88 academic year. For example Kenyatta University was forced to rent flats in risk ridden Githurai shopping centre.USAB was forced also to erect temporary structures with a view of absorbing every student on campus by October 1987 in double intake 1987/88, but it failed. As the grievances against USAB continued, it was dissolved in late 1989 and its functions devolved to the mainstream university administration [Bogonko, 1992].

5. As accommodation problems raised, university education pegging the actual intake of students to available beds at any university, this resulted into many qualified students were left out, leading to a big backlog of frustrated young people.

As a consequence of frustration, the situation was discouraging, for students, who all studied with a sole aim of joining university, as well as their parents and society in general.

This effect facilitated the qualified unselected students to local university went for further studies in India and USA and parents, and communities financed overseas university education through “Harambee” contributions.

6. Most students went for further studies in India and U.S.A replenished their food and fended them. As a consequence some of the existing training and research institutions are developed as university institutions offering degrees of Kenyan public universities, secondly, with proper control and guidance private and “Harambee” universities to be established in Kenya [Bogonko, 1994].Thirdly, universities should admit qualified-self-sponsored students and help solve qualified students not being frustrated because of “bed space in universities”.

Since accommodation barred many qualified students to university education, some were admitted to access the lecture theaters and library and operate as “day scholars” or staying off campus.

This was opposed by stakeholders because of the following reasons the students would be cut-off from [i]the proximity to lecture theatres;[ii]

library facilities [iv]consultations of an academic nature;[iv]this hampered students in academic progress in research.

### **Prorevolutionary phase of financing university education [2002-to the present]**

This phase marked by some teacher education colleges and constituent colleges of the public universities given charters to become autonomous universities. Many private universities were given charter, some registered and others were given letters of interim. In Prorevolutionary phase, the private and public universities have their chancellors and graduation can be done any time of the year and could be twice a year.

According to sessional paper No.1 of 2005 on “A policy framework for education, training and research”, the government’s long-term policy is to provide a framework for a sustainable, competitive and autonomous national university system. And seek to ensure the development of a diversified financial base and enhancement of managerial independence, while at the same time paying attention to issues of relevance and responsiveness to the market and to national priorities. Despite the three decades of rapid expansion of university education, challenges of financing to access and equity remain a big challenge.

### **Conclusion**

When a double intake of students would be declared to ease the admissions backlog, the universities will plan to absorb at least 40,000 extra students and a time-bomb that experts said could explode if the plan would not be accompanied by a commensurate rise in funding to enable institutions and hire extra lecturers.

Funding has trailed enrolment growth in public universities, compromising quality as infrastructure remained inadequate and a number of lecturers did not grow in tandem [University world News, 20th June 2010;No.56].

University students loan schemes [USLS], the initial loan program, had failed because of its inability to recover loans. But with the inception HELB,loan recovery has been increasing, as result of efficient record keeping, obligating employers through the use of the law to ensure repayment and also by cultivating a culture of repayment among loan

recipients [Otieno, 2004]. Also HELB works together with Kenya revenue authority [KRA] and National Health Insurance Fund [NHIF] to recover the loans by identifying loan recipients who are working in both private and public sector and mandating them to repay funds owed [Ngolovoi, 2006]. unemployment and emigration are some major obstacles to loan recovery. Students in private universities do not receive bursaries from HELB and instead apply to the ministry of education for funds [Ngolovoi, 2006].

Students in both and public universities can also apply for grants or bursaries from constituency development fund [CDF]. CDF was created through the Act of parliament in 2003 to finance community based with overall goal of poverty alleviation [GoK]

Dual track policy was introduced in 1998 via the self sponsored, or module II, programs. dual-track policies are characterized by highly restricted, “merit-based” entry to free or, as in case of Kenya, very low cost university education, with other applicants not so admitted permitted entry on free paying basis.

In Kenya in principle, KSCSE holders with C+ and above qualify for public admission; however, this cut-off point depends on total public university student capacity. Therefore, joint admission board [JAB] sets entry cut off for government-sponsored students every year. If a greater proportion of students have high passes in a particular year, the cut off will be higher and vice-versa [Ngolovoi, 2006].

Module II students gain entry to universities on the basis of different criteria that vary from university to university. At the initial stages candidates had to be form four school leavers who met the minimum entry requirement of C+ but could not meet the entry cut off point for government sponsorship. In attempt to increase the number of self sponsored students, various institutions made admission conditions more flexible and accepted students from different academic backgrounds including holders of A level certificates [KACE] from the old 7-4-2-3 system, P1 holders, diploma holders, and certificate holders from other governmentally-recognized institutions [Otieno, 2004].

With the exception of some institutions, such as United States international university [USIU], most private universities in Kenya are religious. The curriculums of these universities are also geared towards arts and

commercial courses. The private universities depend on their revenue on tuition fees they generate from their students; this makes them expensive and unaffordable for most Kenyans. Some private universities have allocated funds for work study programs and scholarships with the aim of increasing access, only a limited number of needy students benefit from institutional financial aid.

Another new measure is the introduction of pay-as-you-earn or earn [PAYE] programme. The government is also planning to do away with student loan schemes, de-link admission from residential provision, increase university fees, and encourage universities to engage in income-generating activities [GOK, 1988; 1993; 1994; Wandiga, 1993].

Public universities operate as private firms becoming more commercial-profit-oriented and responding to labour market [Abagi, 1995].

### **Recommendations**

Increase government contribution and improve existing university loans system to ensure availability of financial support to poor students.

Empower HELB to mobilize resources from private sector to enable it give loans to all categories of students.

Create incentives for improvement of infrastructure in all local universities.

Provide more support for scholarships and research at university level.

Admission for professional courses such as medicine, chemical engineering, architecture and others should be A- and above, in parallel programmes in both private and public, in order to maintain standards and quality.

Establish public universities centres of excellence in specialized courses, for example agriculture, architecture, engineering, arts, science, veterinary, commerce, education, law and medicine, to minimize unnecessary competitions among over courses offered.

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## **A Case for Teachers' Workplace Learning: the role of school leadership**

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### **Abstract**

**Although teachers' workplace learning has been acknowledged as a significant component of school improvement, very little is known about how the school leadership influences this learning. This paper is the outcomes of a qualitative case study on workplace learning in one public secondary school in Kenya, and focuses on the influence of the school leadership. A qualitative research approach was used and data was collected using interviews, observations and document analysis. The research participants were the head teacher and five other teachers with varying responsibilities as well as work experience. The study established that the school leadership had had a significant influence on teacher workplace learning, which has implications on the role of the school leaders, particularly the head teachers in creating and sustaining an environment that would encourage ongoing teacher learning in the school. For teacher professional development providers and trainers, the findings also imply a need to increase awareness among the school leaders on the important role they play in facilitating teachers' workplace learning.**

### **Introduction**

Schools have become increasingly aware of the need to be effective due to the pressures of accountability from the government, parents as well as other stakeholders. The school leader is one of the most important factors of effective schools. Research literature as well as effective

leadership literature (Retallick, 2009; Dalin et. al, 1994; Sammons et al, 1995; Pashiardis, 1997; Sergiovanni, 2001) show that good leadership is important in initiating and maintaining school improvement.

Building capacity is undoubtedly a major component of school improvement initiatives. One way of building capacity is through encouraging and facilitating workplace learning, which has become increasingly critical as the expectations on both teachers and students to improve school quality and effectiveness continue to rise. Studies (Khamis & Jawed, 2006; Flecknoe, 2005) acknowledge the significance of teacher workplace learning in school improvement (SI) and recommend that the way forward for SI should be to build capacity in the workplace that exposes teachers to learn new ways of being professionals. Another study by Rowden & Shamsuddin (cited in Kraussa & Guat, 2008) established that the extent of workplace learning occurring in an organization is strongly related to employee job satisfaction which in turn determines effectiveness. From these views, the significance of teachers' workplace learning for school effectiveness and improvement cannot therefore be over emphasized.

Although teachers' workplace learning has been acknowledged as a significant component of school improvement, and despite many scholars recognizing school leadership as a dominant influence on the success of improvement initiatives in schools (Deal & Peterson, 1998; Fullan, 2001a, 2001b; Nemsar, 1983) very little is known about how school leaders in different contexts influence teachers' workplace learning. Previous studies on the influence of leadership on workplace learning have been in a developed world context and focused on the influence of school leadership on new teacher learning. For example, Flores (2004) studied the impact of school cultures and leadership on new teacher learning in the workplace in Portugal. Flores' study found that encouraging, supportive and informative leadership was a crucial feature in the workplace learning of beginning teachers. There is, however, little known about how the school leader may influence teachers' workplace learning of continuing teachers. Moreover, very few studies have been done on this subject in the East African context and in Kenya in particular. This study therefore sought to fill these identified gaps and explored how the head teacher of a particular rural public secondary school in Kenya had influenced the teachers' workplace learning.



## **The Content of Teachers' Workplace Learning**

Literature reveals many different things that teachers can learn in the workplace. Feiman-Nemser (2001) identifies the importance of sustained professional learning opportunities based on her research and literature. She has developed a framework of teacher learning based on a set of Central Tasks of Learning to Teach (CTLT). The central tasks she identifies are based on what practicing teachers need to know, care about, and be able to do while on the job in order to promote substantial learning for all students. These tasks involve the gaining of knowledge of students, curriculum and school context, designing responsive instructional programs, creating a classroom learning community and the development of a professional identity. Others include: to extend and deepen subject matter knowledge for teaching, extend and refine repertoire in curriculum, instruction and assessment, strengthen skills and dispositions to study and improve teaching, expand responsibilities and develop leadership skills. Studies on on-job learning for beginning teachers (Khamis, 2000; McCormack & Thomas, 2003) identified almost similar tasks.

Eraut (2002) adds that teachers also learn to share information, seek help, experiment with innovative actions and seek feedback at the workplace, while Hoekstra et al. (2007) point out that in daily classroom life, teachers choose how to act and decide what to do, that is, they exercise judgments. In other words, teacher learning can be interpreted as 'growing capacity to make appropriate judgments in changing, and often unique circumstances that occur in many workplaces' (Beckett & Hager, 2000, p. 302). On his part, Norberg (2000) maintains that the development of critical consciousness should be part of teacher preparation, in all contexts. All these seem to concur in one way or another with Schon's (1983) assertion that practicing teachers learn to adjust and modify practice in response to actions, reactions, interactions and activities in the classroom, and in anticipation of approaching situations.

The American Federation of Teachers (AFT) (2002) report which in addition recommends that professional development should be school based and job embedded appears to concur with Putnam and Borko (2000) and Reimer-Villegas (2008). It identifies some of the things that teachers need to learn as, firstly, a deeper and broader knowledge of content because teachers who do not know content well cannot teach well. Secondly, it considers knowledge about the teaching and learning process

vital, i.e. creating and maintaining appropriate, orderly teaching and learning environments. Lastly, the report recommends that knowledge of pedagogy of particular subjects, for example, the ways of presenting the ideas of specific disciplines, the most potent illustrations, what hinders or facilitates learning of particular concepts and ways of addressing misconceptions, is imperative

On the other hand, Eraut (2004) argues that teachers acquire cultural knowledge informally at the workplace through participation in social activities, much of which is often taken for granted. He adds that they also acquire knowledge of people and situations, know-how in the form of skills and practices and attitudes. A summary of what teachers learn informally at the workplace according to Eraut, Maillender, Miller, Steadman, Ali, Blackman & Furner (2004) is as in Table1(Appendix A).

The preceding review reveals that what teachers can learn at the workplace is almost unlimited. However, the question of whether all school contexts afford the teachers working in them all this learning remains unanswered.

### **Organizational and Leadership Structures and Teacher Learning**

Murphy & Alexander (2007) point out that the organizational characteristics of schools affect the conditions of teaching and learning. Similarly, the prevalent leadership culture in schools is believed to have a great influence on TL within the school because “teachers seem to need a strong leadership to examine the teaching and learning in their schools”. (Bezzinna, 2005, p. 166). Experts on school restructuring call for transformational leadership, in which school leaders foster a collaborative and professional culture, facilitate teacher development, and help teachers to solve problems (Green & Etheridge, 2001) as it provides a conducive environment for TL to take place. This is contrary to a school leadership that is embedded in “transactional leadership based on power, top down decision making, and having rewards controlled by the leader (Leithwood, 1992). This does not provide a supportive environment for effective TL and may lead to reluctance by teachers to “advance” and violate egalitarianism norms (Little, 1995). This view is supported by the Institute for Educational Leadership report (2001) which states that the traditional top-down leadership structures often work against teachers’ opportunities

to learn. Similarly, hierarchical, instead of horizontal, relationships with peers, where for example, teacher leaders exercise authority instead of working collaboratively in learning and decision-making endeavors, does not augur well for effective TL (Darling-Hammond et al., 1995; Cooper, 1993). Principally, the American Federation of Teachers (2002) guidelines recommend that the very organization of a school should promote and provide for continual and purposeful reflection on teaching and learning.

Given that schools have different organizational structures and leadership approaches, it was important to study how these influence the learning of teachers in the workplace. In view of this, this study hence aimed to look at, among others, how the organizational and leadership structures of a particular public secondary may have influenced its teachers' learning.

### **The study**

The study sought to find out the influence of the school leadership on teachers workplace learning. Since the study sought to understand the influence of the school leadership on teachers' workplace learning in a particular secondary school by highlighting how the leadership hindered or supported this learning, the study lent itself to the qualitative approach, more specifically to a case study design. the qualitative approach was considered suitable because first, the nature of the variables under study, that is, the influence of school leadership and the learning of teachers in the workplace are not easily quantified (Johnson & Christensen, 2004). Secondly, I intended to study the phenomenon in its natural settings and according to Creswell (2007) and Bogdan & Biklen (2007), qualitative approach is the best suited for soliciting participants' stories from a natural setting.

The research site was a rural public secondary school. The study school is located in a rural setting, about 50 kilometers from the nearest major town which also serves as the district head quarters, and five kilometers from the main tarmac road and a similar number of kilometers from the nearest other secondary school. It is a public co-educational day secondary school, started 29 years ago as a community school and later handed over to the government.

The target group of participants of the study was teachers in a rural public secondary school in Kenya. Bearing in mind the target group

and the proposed research site, purposive selection of the study school was done to get a school that was a public secondary school located in a rural setting. The head teacher was sampled and five teachers, the deputy head teacher, one heads of department; one long serving teacher, who had worked for 23 years, (22 of which were in the study school).Also sampled was one beginning teacher [2 years experience] and two teachers from among those who had served longest in the school; who, however, participated in his capacity as a teacher and one other teacher who had served in the school for ten years.

Interview was used as the primary data collection method and observation and document analysis as secondary methods. The rationale for using multiple forms of data collection was to establish credibility and validity in the findings of the study through triangulation. This is backed by Hendricks (2006) who affirms that “looking at multiple forms of data when answering research questions helps the researcher fill in the gaps that would occur if one data source was used” (p.72).

### **The Findings and discussion**

The school leadership was found to have facilitated teacher learning to some extent. For example, the school leadership supported and facilitated teachers to attend external workshops and seminars organized by the district education office and/or other education stakeholders such as publishers, despite the limited school resources. The head teacher stated in the interview that he ensured that the teachers are supported to attend external workshops and seminars, whenever they were organized. This was corroborated by the teachers interviewed. For example, one teacher said “most workshops we have had are not internal, but every time the school sponsors us. We go out for one two; three days then we come to inform the rest” (T5 interview).

Further, since not all teachers could attend the external seminars, the head teacher said he ensured that those who attended disseminated what they learnt to the rest of the teachers. This was corroborated by the teacher interviews and by documentary evidence in several staff meeting minutes, showing that teachers who attended seminars often gave reports during staff meetings or were required to prepare written reports. The head teacher himself, perhaps acting as a role model, also reported back

whenever he attended heads meetings if there were any issues of relevance to the teachers as indicated in documents (Staff Meeting Minutes).

Further, support of the school administration for teacher learning is perhaps captured best in one teacher's words:

T: ...one good thing about the schools' administration is that from all the schools I have been, I would like to say that I find that this school is very open to ideas... at least they listen to your side and give a feedback and then all of you can make a decision pertaining to all the ideas that have been put on the table. That has enabled me to grow very much. I didn't find that in many other schools (*T1, interview 1*).

These findings show that the school leadership was a facilitating factor in the learning of teachers in the workplace. This perhaps indicates that the school leadership appreciated the need for teacher to continue to learn. It also perhaps indicates the school leadership's understanding of need to support teachers to learn in the workplace. Several studies (Clement & Vandenberghe, 2001; Fernandez, 2000; Moore, 2000), report that the leadership of the principal is crucial to support the professional development in schools. Fernandez (2000) identifies certain characteristics that are common to all supportive principals as including, among these: visibility, modeling, support and high expectations. The principal in this case portrayed these characteristics to some extent. These findings mirror findings of a study on the impact of school cultures on and leadership on new teacher learning in the workplace (Flores, 2004) in Portugal, which found that encouraging, supportive and informative leadership, was a crucial feature in the accounts of teachers' positive experiences.

Other findings indicated that there were cordial relations between the school head and the teachers. The presence of cordial interpersonal relations between the school head and the teachers had played a significant role in facilitating teachers' learning from each other in the workplace. According to Glatthorn (1987) good relationships at the workplace can facilitate professional dialogue to discuss professional issues of personal interest, peer supervision, peer coaching, and collaborative action research.

These findings showed that the supportive school leadership was a facilitating factor in the learning of teachers in the workplace which perhaps indicated that the school leadership appreciated the need for

teacher to continue to learn or the school leadership's understanding of need to support teachers to learn in the workplace.

## **Implications of the Findings**

### **For School Leaders**

The findings have implications on the role of the school leaders, particularly the head teachers in creating and sustaining ongoing teacher learning in the school. As Fernandez (2000) affirms, leadership constitutes one of the overarching influences in fostering a sense of professional community amongst teachers. There is therefore need for the school leadership to be more proactive in creating a working environment that promotes workplace learning. Moore (2000) offers suggestions for school principals to support professional development of teachers, which includes, among others, planning ahead, establishing routine, tapping internal resources and establishing mentoring programmes. These would perhaps help create a workplace that encourages teachers' learning.

Similarly, relationships in the workplace need to be built and sustained. Although individual teachers have a role to play in creating and sustaining these kinds of relationships, the school administration is considered to play a significant role in bringing this about. The implication here is that the school leaders need to focus on and take a leading role in creating and sustaining cordial and collegial interpersonal relationships amongst the teachers, if the teachers are to benefit from learning from one another.

### **For Teacher Educators**

Due to the significant role that workplace learning plays in teacher development, there is need to increase awareness among the teachers, but more importantly amongst the school leaders of how this learning can be encouraged and enhanced. Professional development providers and trainers need to focus on this. The school leaders need to be aware of the important role they have in bringing about meaningful workplace learning. This awareness can be created through professional development workshops for school leaders as well as reading materials. Teachers also need knowledge on the ways of getting the most out of collaboration. This will help maximize on the benefits of for example, collaborative/group/cooperative teaching.

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## **Integration of Music, Dance and Drama in Enhancing the Teaching of English Language in Secondary Schools**

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### **Abstract**

The research investigates the role that music, dance and drama play in teaching English language. These were guided by study objective and research questions. Music, dance and drama is one of the many activities that surrounds man and his life. Music, dance and drama is as old as man himself. It begins from child birth, through youth initiations to adulthood, at death and after death. The study therefore focuses on the relevancy of the subject in the teaching of English language in secondary schools. The non emphasis of usage of Music, dance and drama (MDD) in the teaching of English language has for reaching effects on learners at all learning levels. Music, Dance and drama are a core component of speech that brings out communication to its full actualization of the listeners perception of ideas and yet this is not integrated in the teaching of English languages. The study therefore sought to establish the extent to which non-emphasis of Music dance and drama in the teaching of English language has affected its teaching and the students. The objective of the study is “the impact of non-emphasis of the use of Music, Dance and Drama in the teaching of English language in secondary schools. The study followed an analytical case study research design and adopted both quantitative and qualitative design. The data collection methods included questionnaires, interviews and documentary review. Frequency Statistical data tables were used

**to analyze data and came up with recommendations for revamping the current status quo of English language teaching.**

**Keywords:** *Role, Music, dance and drama*

## **Introduction**

Music, dance and drama is one of the many activities that surround the life of man. It is as old as man himself, Music, dance and drama begins from one's child birth, through initiation into adulthood, at death and after death. The study therefore focused on the relevancy of the subject in the teaching of English language in secondary schools.

The non usage of music,, dance and drama in the teaching of English language in secondary schools had far reaching affects on the learners at all levels of learning.

Music, dance and drama is a core component of speech that brings out communication to its full actualization of the listeners perception of ideas and yet it had never been integrated in the teaching of English language.

In Ugandan secondary schools, the performance of English language had been poor at ordinary level. Yet the subject determines the future career of children or learners. Its important that Ugandan teachers deiced means to improve on the learners performance of English language at ordinary level.

Sajjabi (1991) reported that the learners' mastery of content in class is influenced by the choice of the teaching methods used by the teacher. Because of poor methods of teaching, learners are left unsatisfied hence affecting the learners' academic performance. This was further strengthened by Heymans (1995) that poor methods employed by teachers discourage the learners thinking ability.

Young (1985) asserted that the way the subject is presented that is lack of variations in teaching affects learners' academic performance.

English language is one of the compulsory subjects in Uganda's syllabus at ordinary level and there was need to device methods of teaching that would improve its performance is secondary schools.

The study therefore established the extent to which non emphasis of Music dance and drama in the teaching of English language had effected its teaching and students.

### **Objectives of the Study**

To establish the impact of non emphasis of Music dance and drama in the teaching of English language in secondary schools.

The role of teachers of Music dance and drama in the teaching of English language.

### **Methodology**

#### **Research design**

The detailed description of research methodology was applied while conducting the study. Both qualitative and quantitative approaches were used to make analysis of the findings.

#### **Population of the study**

The study population were head teachers, teachers, students, parents and stakeholders of secondary schools within Mbale district in Eastern Uganda.

#### **Sampling design**

Out of two hundred respondents, I used random sampling and came out with a sample of eighty respondents comprising of head teachers, teachers, students, parents and stakeholders of secondary within Mbale municipality, giving a total of eighty.

#### **Data interpretation**

The data comprised basically descriptive statistics which were frequency and percentages on the impact of non emphasis of music, dance and drama in the teaching of English language and the role of teachers of music dance and drama in the teaching of English language in secondary schools in Uganda.

## Findings

### Demographic information about respondents

Respondents	Frequency	Percentages
Head teachers	04	5
Teachers	24	30
Students	32	40
Parents	12	15
Stake holders	08	10
Total	80	100

Out of the 80 respondents, 5% were head teachers 30% were teachers, 40% were students, 15% were parents and 10% were stakeholders. From five secondary schools in Mbale district in Eastern Uganda.

### Views by head teachers on integration of music dance and drama in the teaching of English language

**Table 1.1**

	Yes	%	No	%
M.D.D is important in enhancing English language teaching	4	80	1	20%
Non emphasis of MDD in schools yields poor performance of English language	3	75	2	25
Integration of MDD in the teaching of English language enhances good performance of English language in secondary schools	5	100	-	-
Creation of MDD department is crucial in enhancing the teaching of English language	4	80	1	25
Training of teachers of language and MDD on integration crucial for better performance of English language in secondary schools	5	100	-	-

In view of the responses as given by the head teachers, it was found that 80% of them agree that Music, dance and drama is important in enhancing the teaching of English language while 2% disagreed, 75% of them agreed.

**Table 1.2: Views of the teachers on integration of music dance and drama in the teaching of English language**

	<b>Yes</b>	<b>%</b>	<b>No</b>	<b>%</b>
M.D.D is important in enhancing English language teaching	18	75	06	25
Non emphasis of MDD in schools yields poor performance of English language	20	83	04	17
Integration of MDD in the teaching of English language enhances good performance of English language in secondary schools	22	93	02	07
Creation of MDD department is crucial in enhancing the teaching of English language	20	83	04	17
Training of teachers of language and MDD on integration crucial for better performance of English language in secondary schools	24	100	-	-

In view of the above findings, 75% of the teachers agreed that music, dance and drama is important in Enhancing the teaching of English language 83% observed that non emphasis of music, dance and drama yielded poor performance of English language exams 93% behaved that integration of music dance and drama in the teaching of language enhances good performance of English language in secondary school., 83% of the teachers were of the view that creation of MDD department in secondary school is crucial enhancing in the teaching of language while 100% of the teachers agreed that training of teachers on integration could enhance good performance.

**Table 1.3: Views of the students on integration of music dance and drama in the teaching of English language**

Students (n=32)

	Yes	%	No	%
M.D.D is important in enhancing English language teaching	20	63	12	37
Non emphasis of MDD in schools yields poor performance of English language	15	47	17	53
Integration of MDD in the teaching of English language enhances good performance of English language in secondary schools	20	63	12	37
Creation of MDD department is crucial in enhancing the teaching of English language	12	37	20	63
Training of teachers of language and MDD on integration crucial for better performance of English language in secondary schools	16	50	15	50

According to the students, 63% supported the importance of MDD in enhancing the teaching of English language 47% agreed that non emphasis of MDD in their schools yielded poor performance in English language 63 agreed on the integration of MDD and language as a remedy for better performance in English language 37% supported the creation of the department of MDD in their schools and 50% behaved the training of language and MDD teachers on integration for better performance.



**Table 1.3: Views of the parents on integration of music dance and drama in the teaching of English language**

	Yes	%	No	%
M.D.D is important in enhancing English language teaching	7	58	5	42
Non emphasis of MDD in schools yields poor performance of English language	6	50	6	50
Integration of MDD in the teaching of English language enhances good performance of English language in secondary schools	10	83	2	17
Creation of MDD department is crucial in enhancing the teaching of English language	07	58	5	42
Training of teachers of language and MDD on integration crucial for better performance of English language in secondary schools	11	93	1	07

From the above table, 58% of the parents agreed that MDD is important in the teaching of language 50% believed that non emphasis of MDD yielded poor performance in English language. Integration of MDD in the teaching of language was supported by 83% of the parents mean while 58% agreed on the creation of MDD department and 93% strongly behaved that training of teachers of language on integration is important for better performance of the subject.

**Table 1.3: Views of the stake holders on integration of music dance and drama in the teaching of English language**

	Yes	%	No	%
M.D.D is important in enhancing English language teaching	6	75	25	50
Non emphasis of MDD in schools yields poor performance of English language	3	38	5	62
Integration of MDD in the teaching of English language enhances good performance of English language in secondary schools	6	75	2	25
Creation of MDD department is crucial in enhancing the teaching of English language	6	75	2	25
Training of teachers of language and MDD on integration crucial for better performance of English language in secondary schools	8	100	-	-

75% of the stakeholder agreed that MDD is crucial in enhancing the teaching of language 38% behaved that non emphasis of MDD in schools yielded poor performance, 75% behaved that integration of the subject in the teaching of language enhances good performance, 75% also agreed on the creation of MDD department for better performance and 100% of stakeholder supported the training of language and MDD teachers on integration for better performance.

### **Conclusion**

Music dance and drama had not been effectively addressed in terms of teaching, teaching materials, teachers' motivation and student's involvement in learning the discipline.

Secondary, Music dance, and drama as a discipline has not been given room for examination giving negative impression to the learners.

Thirdly, when it comes to employment music dance and drama graduates had hardly easy access to employment discourage the learners, the teachers and even the parents to invest in the subject.

### **Recommendation**

- I recommend that music dance and drama should be examined both orally and written.
- The curriculum should integrate the subject with English language
- The government should make provision for teaching and learning aids to cater for the discipline orally and practically.
- Special teachers should be trained in training institution on integration of music, dance and drama.

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## **Preparation of Teachers in Teacher Education**

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### **Abstract**

**In the introduction of this paper, it evaluates the current situation in teacher education, which currently has being in a state of uncertainty and turmoil due to the current state of poor performance in majority of schools. The situation has deteriorated due to increased poor performance in most schools. Sadly, teachers carry all the blame on poor performance and hence pressurizing them to remedy the situation. The only possible way out is to upgrade teachers education so that prospective teachers posses adequate skills and innovative strategies to incorporate in teaching and learning activities. However, this seems difficult since neither the learning institutions providing teacher education nor the government seems to prioritize teacher education. Moreover, teaching mission and purpose is not valued in many institutions. In the subsequent chapter that forms the body of the research paper, focuses on ideologies and strategies that ought to be inaugurated in teacher education for sustainable development in education. To start with, the paper focuses on the need of teacher education institutions to prioritize need for effective teaching and having qualified teachers in the education system. Moreover, the institutions should be open to the society and stakeholders in teacher education to bring reforms in the system. In addition, the paper points out the need for emphasis of teacher education by learning institution and the government. The resources allocated for teacher education should be targeted to teacher education instead of generalizing it to education sector. Moreover, teacher education institutions and schools ought to collaborate in order to facilitate teacher education. Therefore, universities and teacher training**

**institutes will be a major stakeholder in schools, a strategy that will blend teacher education with innovations. Furthermore, due to emergence of new ideas, like in other faculties, education sector should not lag behind in providing teachers with new ideologies that will enhance innovations in education. In its conclusion, the paper recommends for reforms in teacher education where they should be undergo Teachers' Quality Preparedness Program. This program is stratified to enhance teacher education to face all circumstances in education and improve the situation regardless of the situation. This will be a perfect approach that will improve our education system to meet international education standards.**

## **Introduction**

Sustainable development refers to “the developments that meet the needs of the present, without compromising the ability of the future generations to meet their own needs.” Therefore, transition towards teachers' education for sustainable requires preparing prospective teachers with knowledge and skills to implement sustainability curriculum and practices in classrooms. According to Makrakis and Kostoulas-Makrakis (2012), teachers are ideally positioned to give students an active voice and promote responsible citizenry, therefore situating teacher education for sustainability as an ideal intervention point for transformative change. Unfortunately, Kenyan education programs and teacher training programs focus on declarative knowledge (Cutts, Saltz, and Elser, 2008), while neglecting the social components of change and action (Lukk, Veisson, and Ots, 2008).

The research presented in this article explicitly focused on behaviour change as an intended outcome of sustainability education. Lukk et al., (2008) argues that the sustainability in teachers' education depends on decisions made by individuals and groups regarding behaviours in an attempt to target behaviour change as a part of sustainability initiatives. Although teacher education for sustainable development has been a relatively new field, education has long been a means for targeting behaviour change, that is, comprises of health, drug, and anti-violence programmes. Furthermore, environmental education programmes have attempted to foster environmentally responsible behaviours for decades (Arbuthnot, 1977; Hungerford and Volk, 1990; Ramsey, 1993; Pooley and

O'Connor, 2000). The field of environmental education provides ample precedence for targeting behaviour change through education as well as insights into successful pedagogical approaches.

A re-orientation of teaching and learning practices towards transformative pedagogy is often called as the most needed to make an impact on people's lifestyles and behaviours and help build a sustainable future (Sterling, 2001). Transformative and critical constructivist learning inherent in radical views of sustainable education is a shift of consciousness that can

### **Problem Statement**

It has been a widespread belief by educational economists that education plays a significant role in accelerating development in a country. Education has a significant role in wealth creation, income distribution, greater equality of opportunity, availability of skilled human power, decline in population growth, long life, better health outcomes, low crime rates, national unity and political stability. This has made government and individuals to invest immensely in education. In Kenyan education sector, the government has made policies in the past, formulated long lasting objectives, introducing reforms to improve education sector and intensively invested in the sector. However, there has been relatively less development in Kenya compared to other nations. Many scholars have argued that provision of quality education leads to both social and economic development in a country. Therefore, a general question is posed to Kenyan case whether education provided is of high quality or something else ought to be done to improve the situation.

The government of Kenya emphasis on education expansion that took place during the post-independence period and was complimented by an increasing priority accorded to programmes of quality improvement in education and have been closely linked to Kenya's evolutionary, reformative and developmental processes. In the first two decades of independence, according to Eshiwani, curriculum reforms played a pivotal role in directing the expected quality of development in Kenya. Major innovations were introduced in the curriculum namely: the new mathematics, agricultural, industrial and science education Project for Africa (SEPA), the SPP Nuffield-based science programmes, the New Primary approach among others. These curriculum efforts unfortunately

did not bring about desired quality in the education system. They failed to respond to the problems of low quality curriculum materials, irrelevant content and inappropriate instructional approaches and contributed minimally to development.

Close examination of educational reviews that have been undertaken in Kenya in the post-colonial period also indicate that they have operated under the framework of the country's national goals. The goals of Kenyan education enunciate an answer to the question earlier posed on the purpose or function of Kenyan education today. By any standards Kenyan educational goals and objectives as formulated in numerous reports and commissions are of high quality. If this is so, how come they have not brought much development to Kenya over the years as earlier envisaged? Apparently, the quality of educational goals and objectives is not reflected in educational practice. There is a chasm between theory and practice. A cursory glance at schooling in Kenya today shows that educational practice suffers chronically from what Dore identified as the diploma disease four decades ago (Anderson, 2012). Both the formal curriculum and its objectives are intentionally subverted in order to give way to an entirely new curriculum, an informal curriculum, overtly meant to guarantee success in examination.

The sole criterion of educational quality, it appears, is high performance in national examinations. Whatever various education commissions and reports have stated about the importance of attitudes and values of practical skills and an all-round development is conveniently forgotten and is rather crudely replaced by a very opportunistic theory of education. As a result, we may speak of two distinct educational theories, one idealistic and another opportunistic, existing side by side. But only the second is put into practice, the first remains a highly formalized ideal, used solely for bureaucratic and political purposes. Given the predominance of this instrumental theory of education, and its subsequent practice, we cannot fail to observe a number of problems. One most noticeable is that the widely acclaimed (informal) theory of education and the practice thereof has given rise to false expectations. Due to this educational approach, presently schooling in Kenya is taken to be kind of ritual through which learners must honourably pass if they are to succeed in life. Schools are widely used as chief means of sifting each generation into those who get the prize jobs and those who don't (Anderson, 2012). This selective



function tends to dominate, if not obliterate, the school's basic function of providing education that is supposed to lead to societal development.

It is important to note that in post-independence Kenya there has been a lot of political interference in the education reform process and the larger educational policy making. Some of the educational initiatives that illustrate political interference in Kenya's education sector include presidential decrees on: Harambee school system, free education, school milk programme, quota system, 8-4-4 system of education, model schools, the National Youth Service and higher education. Many of these initiatives according to Amutabi were introduced with little or no input from various relevant stakeholders and were undertaken as responses to certain pressures and crises to wade off public concern. It is no wonder then that many of their reports were discarded immediately the crises waned (Anderson, 2012).

Because of political interference in the education process, policy environment has been characterized by lack of popular consultation, with decrees, circulars and political rhetoric replacing policy-making apparatus. The education sector has been the most affected in this regard. This over the years has initiated uneasy relationship between the political establishment and various educational stakeholders in Kenya and has had a negative impact on policy formulation and implementation of educational programs (Anderson, 2012). It is a trend that requires re-thinking if education has to spearhead national development.

Despite heavy investment in education by the government and various players, the corresponding educational indicators in school participation and achievement have been on the decline signifying limited returns on investment. Some of the critical challenges facing the education system include: declining enrolment and participation rates; low transition rates; declining gross enrolment rates at the secondary school; widening gender and regional disparities particularly in the Arid and Semi-Arid Lands (ASAL); declining quality and relevance of education; the rise in the costs of education and training; under-enrolment of the handicapped and gifted students; inefficiency, poor governance and management of educational structures and institutions.

In order to address these challenges, this paper contends that teachers' education ought to be enhanced. Enhancement of teachers' education is

perceived as a vital aspect in initiating innovation to learners who ought to give back to the society. They should be able to apply their general skills of work planning and organising, consulting and assisting, teaching, managing, administrating, researching, working out and implementing innovations. Moreover, teacher education ought to propel teachers to be researchers in order to enhance their skills in planning, action, observation and reflection (Lewin, 1946/1948; Kemmis and McTaggart, 1982; Kemmis and McTaggart, 1982). Research experience among teachers education should confirms opportunities for extending individual systems of research activities among prospective teachers creating a personal view on sustainable self-development and sustainable education (Salite et al., 2007). This indicates an opportunity to apply the structure of participatory action research for developing an organizational scheme for students' independent professional activity formation

Therefore, paper intends to propel sustainable development through enhancing teachers' education. This will make Kenya a global competitive and prosperous country with high quality life that complies with set goals of education. Improving teachers' education is a perfect strategy to transform Kenya into a newly – industrializing, middle income country providing a high quality of life to all its citizens in a clean and secure environment. However, there has been little emphasis on the role of education in enabling Kenya become a medium size industrialized nation. In order to achieve sustainable development in Kenya, the role of education in the development requires to be redefined.

## **Objectives**

In order to have a comprehensive coverage of teachers' education system in Kenya, the objectives of this paper are:

- Analyse the extent to which to which teachers' education in Kenya prepares prospective teachers to be innovative. That is, how teachers are prepared in the teaching career in areas such as solving issues emanating from the students or in their profession.
- Find out the effectiveness and efficiency of teachers in enhancing students' motivation.
- Determined students' improved performance in their academics as well as coming up with innovations in their area of their studies.

- Assess quality of teachers' education in Kenya through teachers' ability to transform society using education gained in training institutes.

## **Literature review**

### **Introduction**

There are two major forces shaping and driving education in the last two decades. These are the shift from instructivism to constructivism and the quest for re-orienting teacher education for sustainability. UNESCO (2005), as the lead agency spearheading the United Nations Decade of Education for Sustainable Development (2005–2014) defines Education for Sustainable Development as the promotion of values and ethics through education at different levels to make an impact on people's lifestyles and behaviours and help build a sustainable future. Education for sustainable development is more than just environmental education; it encompasses values and attitudinal changes, as well as environmental, economic and socio-cultural perspectives. However, discourse over the meaning of sustainability uncovers its complexity, multidimensionality and contextual relevance. Two contrasting meanings often debated refer to mainstream and radical paradigms (Webster, 2001; Huckle, 2006). The dominant or mainstream meaning of the term represents a reformist orientation and seeks to balance economic growth with social welfare and environmental protection. It obscures the need to develop the economy or society within ecological limits and fosters reductionist rather than holistic or systemic thinking. The radical view in contrast generates economic welfare and social justice within ecological limits. Although these two paradigms simplify the complex, multidimensional and contextual relevance surrounding debates on sustainable development, they do help to see the different pedagogical perspectives underpinned by each one. The radical view of sustainable development asks for an education that integrates reflective, systemic, emancipatory constructivist and critical transformative thinking, while the reformist view is being framed within the instructivist and moderate constructivist pedagogy.

### **Theoretical Orientation**

Teacher education for sustainable development is an essential aspect of changing social environment, inconsistency and even discrepancy of

political decisions that reduce teachers' motivation, feeling of safety and confidence about the sustainability of changes. According to the students' survey, this has a negative impact on graduates' desire to work in the teacher's specialty. The main reasons are students' unconvincing attitude towards the correspondence between the chosen profession and their interests, concerns about insufficient professional skills upon starting independent pedagogical activity, as well as the high level of work quality and responsibility demanded from a teacher combined with the low prestige of the profession.

The issues related to knowledge-based society and sustainable education are especially essential in teacher training. They determine an objective need to explore the opportunities how students can realise independent professional activity during their pedagogical practice in the context of responsibility, professional knowledge and skills, as well as self-awareness improvement. Special attention should be paid to a purposefully organized student-oriented pedagogical process that brings studies closer to professional activity.

## **Theoretical Framework**

### **Transformative learning theory**

Transformative learning refers to transforming a problematic frame of reference to make it more dependable by generating opinions and interactions that are more justified (Mezirow, 2000). Furthermore, it refers to the process 'by which perspectives, habits of mind, mind-sets transform are taken for granted in order to make them more inclusive' (Mezirow, 2000). Therefore, transformative learning involves generating a frame of reference that is more inclusive and dependable and how it implies on expanded consciousness and contextual reality of the learning situation. In this, Mezirow's view of transformative learning echoes others' similar views. In particular, it has some resonance with Freire's (1972) concept of conscientization which has been very influential in critical pedagogy discourse and emancipatory education circles. Both Mezirow's and Freire's work are reflected in the approach of the Centre for Transformative Learning that reflects deep structural shift in the basic premises of thought, feelings and actions. It is a shift of consciousness that dramatically and permanently alters our way of being in the world. Such a shift involves our understanding of ourselves and our self-location: our

relationships with other humans and with the natural world (Morrell and O'Connor, 2002).

Moreover, transformative learning involves a changing understanding of power relations, of body awareness, of the possibility of alternative approaches to living, and a 'sense of possibilities for social justice, peace and personal joy' (Morrell and O'Connor 2002). Importantly then, transformative learning implies both an inner and outer dimension, a shift in consciousness to embrace an extended sense of relationality.

Similarly, Reason (1995) suggests that it 'implies an experience of self much more fully in transaction with others and with the environment, a participatory self or participatory mind'. This is a useful concept in the idea that there are 'level of knowing' (Sterling, 2003), which is based on a systems view of thought. This helps illuminate the point that learning can involve and affect different levels of consciousness.

This model of nesting systems suggests that deeper perceptions and conceptions inform, influence and help manifest more immediate ideas and they, in turn, affect more everyday thoughts and actions. A second point arising from this model is that the influence of deeper assumptions may not be consciously recognised. Our assumptions are operative, but may lay largely unexamined. To give an illustration, Lawton (1989) suggests that:

Every statement that a teacher makes in a classroom is value-laden, connected with ideas about the purpose of education, probably connected with more general values and beliefs, and maybe with the purpose of life. So, it is with educational planners and curriculum developers, whether they realise it or not. (Lawton, 1989)

This model is valid both at the level of individual knowing and collective or cultural knowing. One of the important implications of this model is that it raises questions about learning. Whilst the word 'learning' tends to be used with the assumption that discussants generally share the same perception of what it means, therefore, it raises an important and often missed dimension: that we can learn at different levels of knowing and meaning.

Transformative learning is normally taken to mean learning which touches our deeper levels of knowing and meaning, and, by so doing,

then influences our more immediate and concrete levels of knowing, perception, and action. At this point, it will be helpful to look at Gregory Bateson's work on learning, which does much to clarify what transformative learning can imply. An illuminative theory was developed by Bateson from Whitehead and Russell's theory of logical types, and concerns levels of change and learning. Bateson distinguished three orders of learning and change, corresponding with increases in learning capacity, and these have been adopted variously by learning and change theorists, particularly in the field of systemic learning and organizational change (Argyris and Schön, 1996; Ison and Russell (2000).

First-order change refers to doing 'more of the same', that is, change within particular boundaries and without examining or changing the assumptions or values that inform what you are doing or thinking. In this sort of learning, meaning is assumed or given and relates primarily to the external objective world. Second-order change refers to a significant change in thinking or in what you are doing as a result of examining assumptions and values, and is about understanding the inner or subjective world. In this sort of learning, meaning is recognised and negotiated amongst those involved. Other terms which theorists use and which distinguish between these two levels are, respectively: basic learning and learning about learning; learning and meta-learning; and cognition and meta-cognition. This two-level model sounds very simple, but it makes a very important distinction and has significant implications for any person or group interested in anything more than first order change. From this distinction it is possible to see that most learning promoted in formal education in schools and higher education is of the first order variety, being content-led and externally focussed, and often delivered through transmissive pedagogies within a consensually accepted framework of values and purposes. It is concerned fundamentally with 'information transfer' – learning about things – and does not normally challenge the assumptions or beliefs of the learner. This is maintenance learning – adjustments or adaptations are made to keep things stable in the face of change; what Clark (1989) calls 'change within changelessness'. This is not of itself a 'bad thing' and may be perfectly valid in many teaching and learning situations; however, if the need for transformative learning is recognised by progressive educators, an institutional tradition of first order teaching and learning is an obstacle to deeper change.

Second-order learning is more challenging and involves critically examining of learners and learning organisation, and if necessary changing, their beliefs, values and assumptions. Therefore, this learning experience can be said to be deeper. It is more difficult and often uncomfortable for the learner because it is challenging and, because it involves reflecting critically on learning and change that takes place at the first-order level, it generates an awareness and understanding that goes beyond that level. Because of this, such learning is likely to be more permanent. In shorthand, and applied to organisations, first-order learning and change is often said to be about doing things better, that is, it is often concerned with efficiency and effectiveness, whether applied to the individual or to the institution. But it does not question the ‘things’, the activities and the assumptions which lead to those activities. Second-order change – by contrast – is concerned with doing better things, that is, it raises questions of purpose and values; it asks ‘efficiency and effectiveness in teaching. Such change involves bringing the assumptions to light that underlie first order learning, and critically assessing them, invoking questions of values and ethics. It is important to state that some theorists use the term ‘transformative learning’ to describe experiences which might be said to be equivalent to second order learning. For example, Cranton (2009) suggests that ‘Exposure to alternatives encourages students to critically question their assumptions, beliefs, and values, and when this leads to a shift in the way they see themselves or things in the world, they have engaged in transformative learning.’

However, Bateson’s model distinguished a third learning level, which may said to be epistemic learning; that is, it involves a shift of epistemology or operative way of knowing and thinking that frames people’s perception of, and interaction with, the world. This entails ‘thinking about and evaluating the foundations of thought itself’ (Bawden and Packham, 1993); the experience of seeing our worldview rather than seeing *with* our worldview so that we can be more open to and draw upon other views and possibilities. The case for transformative learning is that learning within paradigm does not change the paradigm, whereas learning that facilitates a fundamental recognition of paradigm and enables paradigmatic reconstruction is by definition transformative. This level of learning, or third order change, is consistent with O’Sullivan’s view of transformative learning as a dramatic shift of consciousness. Similarly, many

commentators see this as involving perceptual change and coming to a transpersonal ethical and participative sensibility. In brief, an expansion of consciousness and a more relational or ecological way of seeing arises, inspiring different sets of values and practices. Indeed, it is important to state that, according to Bateson's theory and others' theories derived from the Bateson model, learning levels are seen as nested systems with higher order learning affecting levels below. Thus second order or meta-learning experience changes thinking and action in the first order domain, whilst epistemic learning causes changes in the second and first order domains. Put more simply, as Fear et al. argue (2006), transformations in the way things are done depend on transformations in the way things are understood – in the worldview or perspective assumptions that condition those understandings. Fear et al., (2006), suggest, while critical thinking and reflection is an essential prerequisite for transformative learning to occur, it is not by itself sufficient unless it results in transformative, sustainable and responsible action.

### **Empirical Review**

A re-orientation of teaching and learning practices towards transformative pedagogy is often called as the most needed to make an impact on people's lifestyles and behaviours and help build a sustainable future (Sterling, 2001). Transformative and critical constructivist learning inherent in radical views of sustainable education is a shift of consciousness that can change one's unsustainable way of thinking, being and acting. Such a shift involves an understanding of one's self in the world; of relationships with other humans and the natural world; of the relations of power; of alternative approaches to living; and of the possibilities for social justice, peace and personal joy (O'Sullivan, 2003). A critical constructivist perspective of learning incorporates not only the notion of "social negotiation" which "recognises that learners learn by challenging their thoughts, beliefs, perceptions and existing knowledge through interacting with other learners and with the course presenters" (Hedberg, 2003), but also an emancipatory conception of knowledge construction (Makrakis, 2004). In teaching and learning, the critical and emancipatory conception of knowledge construction underlies reflexive and reflective practice. "Reflexivity involves more than reflection on one's own practice; it also involves reflecting on the broader context of that practice, and its shaping influences, asking questions such as "Where are we going? What



lies behind our understanding that this is the way to go?” (Rosenberg, 2005). It is a very powerful and useful principle that we should apply most of the time to the way we teach. Such a kind of transformative teaching practice is less evident in schools. Thus, it is critical to find out pedagogical frameworks to integrate curriculum, teaching and learning in ways that promote a radical view of ESD. Curricula are also usually decontextualised, focusing on knowledge without a “real life” meaning to students (Makrakis and Kostoulas-Makrakis, 2005). These discrepancies seem to be not only an outcome of the difficulty translating constructivism in curriculum development and teaching practice, but also of the misleading conception of constructivism as a homogeneous philosophy (Dancy and Henderson, 2007; Barak and Shakhman, 2008).

The view that constructivism is synonymous with approaches to teaching that are learner-centred based on the utilisation of previous knowledge is misleading. Constructivism may take many forms, even within one type. Broadly, constructivist pedagogy reflects two schools of thought: the one based on the principles of neo-positivist and interpretive pedagogy and the other on critical and emancipatory pedagogy. Emancipatory constructivism is best seen as a reaction to positivistic and interpretive conceptions of knowledge construction. Such an orientation merges knowledge with transformative action, which is highly needed for learning-based change, which in turn is considered essential of reorienting curricula and teaching methods to education for sustainability. It is time to explore across disciplines, sectors and cultures, seeking other models that might help us to engage in deep change towards sustainability (Wheeler, 2007). There is also a continuing pressure for curriculum changes involving broad-scale, cross-disciplinary reorganization to facilitate education for sustainability (Fien, 2002a, 2002b; Fien, 2003; Tilbury and Wortman, 2004). This article presents a case study that aims to enhance pre-service teachers learning through the introduction of ESD teaching methods in an under-graduate level teaching methods course and attempts to answer the following questions.

How can we enable teachers to experience emancipatory education for sustainability knowledge construction? In other words, how can we enable teachers to deconstruct and reconstruct their personal theories and practices of teaching in more emancipatory ways? How can we construct a pedagogical environment in which teachers can experience the power

of constructing critical knowledge addressing issues of education for sustainability?

### **Towards a Theory of Sustainable Development**

Current scientific discussions on sustainable development usually start from more or less well-established disciplinary perspectives. A comprehensive and really trans-disciplinary view is mostly lacking and therefore theoretical requirements of a paradigmatic concept of sustainable development are rarely fulfilled. From a systems perspective, sustainable development can be seen as a macro-process (of the global system) consisting of an unlimited number of micro-processes (of subsystems). Both scales differ in their dynamic characteristics: the macro-process of sustainable development is by definition directed from conditions of unsustainability (originated by humankind) toward those of sustainability (this, however, is not obligatory for each micro-process). The micro-processes fit given specific environmental situations and can include highly dynamic and even catastrophic events when seen on their specific scale. This means that although the micro-processes may be unsustainable themselves, their results can contribute to sustainability on a higher scale. This idea, well known in ecosystem research, has so far been widely neglected in discussions in other fields of sustainable development.

### **Methodology**

This research was conducted through a comprehensive literature review on education for sustainable environment. The information was collated from a checklist distributed to ESD stakeholders; an Internet and journals review of ESD activities in Kenya; site visits to RCEs, and Civil Society Organizations and the UN (UNESCO and UNEP). A draft report was circulated to stakeholder for input and a validation workshop was held, where the findings were presented and comments from the participants used to finalise this report.

### **The Status of ESD in Kenya**

A wide range of ESD activities are taking place on the ground and are being led by the government, civil society organizations as well as indigenous communities. These activities are raising awareness, providing capacities and skills, and empowering people and communities to create more sustainable futures. In order to critically review the status of ESD

implementation in Kenya, it is imperative to use the ESD Implementation strategy as a mirror. The seven strategies are discussed as a gauge of the depth of activity implementation. An analysis is given at the end of each strategy.

### **Advocacy and vision building**

The advocacy and vision building strategy advocates for an aggressive awareness campaigns for understanding root causes of unsustainable outcomes in social, environmental, cultural and economic ventures of development. The strategy also calls for awareness creation on the Kenyan population for living and working sustainably. On vision-building, the strategy roots for awareness to reflect a sense of social responsibility and consciousness of individual actions and how they affect social interaction and production in the endeavour of development. To achieve nationwide advocacy and vision building, the strategy prescribed three main activities.

### **Sensitize the public**

The government, the private sector and civil society organizations working on ESD have strived to raise public awareness on sustainability and environmental issues using various media. The creation of RCEs have also help in sensitization of the public through a series of sensitization workshops supported by NEMA. There have been a number of workshops mainly in the form of training of trainers.

### **Produce materials for sensitization**

A number of sensitization materials have also been produced. These include; the publication of ESD tool kits, periodic ESD newsletters, posters, brochures and factsheets, which are distributed for free to learners, teachers and other education-relevant stakeholders. With both technical and financial support from UNESCO an 'ESD Media Training Kit' has been developed.

### **Conduct awareness campaigns**

Awareness creation has been mainly through national and international days. In 2010 NEMA carried public awareness campaigns World Wetlands Celebration at Naivasha, World Water day Celebrations at Mombasa, World Meteorological Day celebrations, Word Environment day held in the rift valley. UNEP is supporting the World Environment Day activities

in Kenya, which creates awareness on sustainable development issues. A number of civil society organizations have also sensitized the public, mainly through workshops. For example, Chanuka Express is an ESD mobile outreach programme, promoting sustainable development among youth. UNESCO supported the training of ESD Media Training Kit as a boot to awareness creation through media.

### **Analysis**

In general the Kenyan populace are now more aware of sustainable development issues than during the beginning of the UN ESD decade. However, the advocacy and vision building activities implemented so far are not as prescribed in the strategy, where advocacy is to be central at all levels and by all stakeholders. The opportunity of making advocacy an educational process for thinking critically of the current and future circumstances has been missed. There is some evidence that primary stakeholders are maintaining some dialogue on ESD issues. However, there is lack of evidence for a common agenda and in lobbying for particular issues of sustainable development through responsible media and other learning processes committed to encouraging informed and active citizenry. While media is instrumental in any advocacy work, there is no evidence of affirmative action in involving media.

### **Consultation and ownership**

The consultation and ownership strategy puts emphasis on consultation and participation in the formulation and planning processes of local and national initiatives and activities among stakeholders as a pre-requisite for ownership. The strategy prescribes consultation to include:

- Transparent and timely dispensations of information on policy proposals and budgetary provisions by the various sectors.
- Processes to solicit inputs from stakeholders into local, regional and national plans and initiatives.
- Legislative affirmation and commitment towards the ESD process.
- Public awareness campaigns that invite feedback to the process and other ESD initiatives.
- Commissioning of research.

Two main activities have been proposed a means of implementing the strategy;

### **Hold consultation meetings**

There have been a number of consultation meetings both at national and RCE level. The consultation at national level lead to the development of the implementation strategy and a draft national policy. At the RCE level, there is evidence that consultations with partners are an on-going process. See the RCE section for examples.

### **Draft policy discussion papers and MOUs**

A number of consultations have lead to the formulation of ESD policies, for example, JKUAT, and Pwani Universities have developed institution based ESD policies. There are also drafts for Kenya Institute of Education (KIE) and RCE Nyanza. Through consultation, a number of partnerships have been formed. However, their formations is loose, more often than not based on individuals and have no written MOUs. NEMA in collaboration with the Ministry of Environment and Mineral Resources has developed a draft National ESD Policy. The draft has been validated by stakeholders and is awaiting cabinet approval.

### **Conclusion**

Scholars have identified a number of enablers and constraints with regard to the possibility of campus-based research projects. It certainly appears that a large number of students are willing to be involved in practical on-site sustainability projects. The students constitute a vast repository of energy to carry out such projects. Among the constraints are those issues that would divert our attention and energy from such projects. These include an increasing preoccupation with basic skills testing at school level and regimes, for instance, league tabling that might replace teacher collaboration with competition.

One major constraint as far as students are concerned is time. As the students pointed out, the projects also need time and energy on the part of staff for their coordination. Staff knowledge and expertise also need to be called on to evaluate the merit of projects, both in the planning and in the assessment stages. Many of the projects need a budget, as they would require materials.

Occupational health and safety issues need to be considered as well. None of these issues is insurmountable and most currently exist in relation to one or another aspect of academics' work, such as assessment or field trips. The budget issue could be justified in various ways: environmentally, aesthetically, fiscally (a reduction in utility costs) and in terms of staff and student morale and „ownership“, in a context where environmental concerns are assuming a higher profile in our thinking.

This paper have shed light on the first element, that is, the students' espoused views and, to a certain extent, the second one, in terms of espoused in-service views – many of the students observed the potential for these projects as preparation for school teaching. Undertaking these projects will expose these espoused views to the stark light of practical reality. A longitudinal study with students who undertake such projects will test the theory further and investigate effects on their subsequent teaching with regard to school-based projects, as well as their attitudes towards sustainability.

## **Recommendations**

The following recommendations require stronger collaboration amongst researchers, NGOs, UN agencies, governments, networks, and civil society across the education and sustainable development communities to strengthen the evidence base on the most effective sustainable development measures through education and their impact at individual, school, and society levels:

- The development of a standardized framework of objectives, knowledge, skills, and measurable outcomes of learning for sustainable development is essential in order to evaluate what works and use that information to revise strategies and raise global awareness about what can and should be done through education to ensure sustainable development.
- Moreover, rigorous, evidence-based research on education as an effective tool for sustainable development, consumption, and lifestyles is needed. Moreover, the location of evidence-based research should be varied; most evidence-based studies have been carried out in Europe, and to a lesser extent the United States and Australia. In addition, more longitudinal studies are needed to

determine a correlation between positive behavior change and exposure to sustainable lifestyles and consumption education programs and activities. Future research should focus on what specific tools produce positive educational outcomes in numerous and diverse settings.

- A myriad of education for sustainable development resource guides and policy toolkits exist; their use needs to be tracked and educational outcomes evaluated.

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## **Simulation and Modeling Methodology for Physics Teachers**

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### **Abstract**

Scientific practice involves the construction, validation and application of scientific models, so science instruction should be designed to engage students in making and using models and simulations. Scientific models/simulations are coherent units of structured knowledge. They are used to organize factual information into coherent wholes, often by the coordinated use of general laws or principles. Therefore, the structure of scientific knowledge can be made more explicit for students by organizing course content around a small number of basic models for simulation purposes. The ability to make and use models for simulation depends on the representational tools. Students learn transferable modeling skills by applying given models to a variety of situations to describe, explain, or predict physical events or to design experiments. Theoretical underpinnings methodology of physics teaching is designed especially for physics teachers. Incorporation of the courses into the university physics curriculum needs a consolidated effort from all the stake holders. The simulation and Modeling procedures have evolved over more than a decade from educational research and the experience of exceptional physics teachers.

### **Introduction**

This paper describes theoretical underpinnings methodology of physics teaching designed especially for physics teachers. Incorporation of the

courses into the university physics curriculum needs a consolidated effort from all the stake holders. The simulation and Modeling procedures have evolved over more than a decade from educational research and the experience of exceptional physics teachers (Davis, 1999). This paper gives an overview of the pedagogical framework with selective emphasis on a few important issues.

### **Objectives and Scope**

The main purpose of the Modeling is to empower teachers with a robust teaching methodology. This includes the cultivation of teacher abilities to critically analyze any given curriculum materials and organize valuable parts into effective instructional units which make the underlying models explicit– tasks which require a strong pedagogical framework. These abilities are needed to take advantage of accelerating changes in curriculum materials, driven on the one hand by advances in educational research and by new computer technology and software on the other.

Topics have different designs to promote complementary pedagogical objectives. The main objective for instance (on modern physics), is to acquaint teachers with all aspects of the modeling method and develop skill in implementing it. The physical materials and experiments in the curriculum should be simple and quite standard, already available in any reasonably equipped physics classroom (Landau, et al, 2006). In due time the teachers come to understand that the modeling and simulation method can be applied as well to more unusual, complex, and exciting subjects (John, 2006). Since “teachers teach as they have been taught,” there is need to include extensive practice in implementing the curriculum as intended for their classes.

The main objective of the design is to give the teachers intensive experience in using what they have learned about the modeling method to construct and evaluate coherent instructional units of their own design (Nick, 2003). They must first learn how to construct such units from standard curriculum materials, already available or easily procured for their classes. The teachers are encouraged to identify the underlying models and develop coherent instructional units which engage students in using the models to structure their own understanding. The units developed by the various groups are presented to the entire class for critique, evaluation and discussion of how to organize the units into a complete curriculum.

Instructional materials developed and disseminated are of greater goal in developing a flexible teaching methodology receptive to new materials, especially in the nascent domain of physics education software. This point deserves emphasis, because there is an unfortunate tendency in some quarters to equate educational reform with the creation and distribution of new materials. Modeling aims to promote a community of reform minded teachers who will continue upgrading their own curriculum materials and classroom practice - who are motivated by the vision of a dynamic teacher empowered with special skills, rather than by the static (Brickle,2006).

### **Where Physics Teaching Fails: Evaluating Instruction**

Physicists appreciate the need for instruments which produce accurate and reproducible measurements (Fleming, et al, 2010). He contends that we need operationally specified performance standards for comparing the effectiveness of different teaching methods. This calls for development and calibration of a battery of instruments for evaluating instruction in a variety of ways. The Force Concept Inventory (FCI) is one such instrument with proven value. The FCI was developed to assess the effectiveness of modern physics courses in meeting a minimal performance standard: to teach students to reliably discriminate between the applicability of scientific concepts and naïve alternatives in common physical situations. The FCI systematically probes student abilities to make such discriminations with respect to six fundamental aspects of the Newtonian force concept.

Including the recent survey done on students' performance in modern physics, we now have FCI data. This data base presents a highly consistent picture, showing that the FCI provides statistically reliable and discriminating measures of minimal performance in modern physics. The results strongly support the following general conclusions:

- Before physics instruction, students hold naive beliefs about modern physics which are incompatible with Newtonian concepts in most respects.
- Such beliefs are a major determinant of student performance in introductory physics.
- Traditional (lecture-demonstration) physics instruction induces only

a small change in the beliefs. This result is largely independent of the instructor's knowledge, experience and teaching style.

- Much greater changes in student beliefs can be induced with instructional methods derived from educational research.

## **Understanding Physics**

The consequences of this fact are devastating. Unaware that their own ideas about force differ drastically from those of the teacher, most students systematically misunderstand what they hear and read in traditional introductory physics. Consequently, they cannot understand why they fail at problem solving, and they are forced to resort to rote methods for learning meaningless formulas and procedures. The result is frustration, humiliation and student turn off! Fortunately, educational research has shown us how to do better.

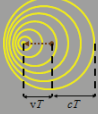
Our analysis of the cognitive factors begins with the observation that the student "misconceptions" are framed in terms of metaphors. Cognitive scientists (Sanborn, 2009) have identified metaphors as a fundamental tool of human thought, which we use so frequently and automatically that we seldom notice the metaphors unless they are called to our attention. Metaphors are used to structure our experience and thereby make it meaningful. In particular, metaphors help us make sense of new experience (target domain) by mapping it onto structure of familiar experience (source domain). (Yasar et al, 2006) argues that our bodily experience, structurally represented by mental image schemas, is the source for our strongest metaphors. For example, we use prepositions to construct a rich system of spatial metaphors, like "more is up," which are grounded in such schemas. Yasar argues further that the metaphorical use of image schemas is pervasive in our understanding of abstract ideas, including mathematics. Even the idea of "deduction" derives from the spatial concept of "following a path."

## Newtonian Concepts vs. Naive Beliefs

**The Relativistic Doppler Effect**

So what happens when we throw in Relativity?

Consider a source of light (for example, a star) in system  $K'$  receding from a receiver (an astronomer) in system  $K$  with a relative velocity  $v$ .



Suppose that (in the observer frame) the source emits  $N$  waves during the time interval  $T$  ( $T_0$  in the source frame).

In the observer frame: Because the speed of light is always  $c$  and the source is moving with velocity  $v$ , the total distance between the front and rear of the wave transmitted during the time interval  $T$  is:

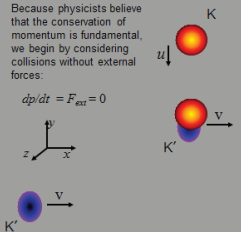
Length of wave train =  $cT - vT$

Figure 1: Relativistic Doppler Effect

The percentages are rough estimates of typical post-instruction results for traditional instruction in University (calculus based) Physics at a university. They indicate the fraction of students who fail to consistently discriminate an appropriate use of Newton's Laws from naive alternatives.

**Relativistic Momentum**

Because physicists believe that the conservation of momentum is fundamental, we begin by considering collisions without external forces:

$$\frac{dp}{dt} = F_{ext} = 0$$


Frank is at rest in  $K$  and throws a ball of mass  $m$  in the  $y$ -direction. Mary (in the moving system) similarly throws a ball in system  $K'$  that's moving in the  $x$  direction with velocity  $v$  with respect to system  $K$ .

Figure 2: Relativistic Momentum

### Appropriate conditions

In other works, misconceptions about modern physics are just cases of misplaced metaphors which will be corrected automatically in response to appropriate experience. The problem of instruction is therefore to arrange

the conditions for such experience. This perspective provides a rationale for one of the most systematic methods for treating misconceptions. It has been suggested that student misconceptions about modern physics are fundamentally different than misconceptions about electricity and magnetism, because students have so much more experience with moving objects. Our present perspective on metaphors suggests otherwise. Students automatically use metaphors to structure experience in any scientific domain. The case of modern physics shows that when they do this casually the metaphors are likely to be misplaced even in domains where they have extensive experience. A major objective of teaching should therefore be to help students “straighten out” their metaphors.

### Fission and Fusion

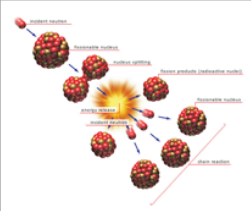
Fission: Gaining energy by breaking apart a large nucleus.

$E_b < 0$  for large nuclei

Fusion: Gaining energy by fusing together small nuclei.

$E_b > 0$  for small nuclei

$E_b \sim 0$  for iron



Example:

$m_{\text{proton}} c^2 = 938.27 \text{ MeV}$

$m_{\text{neutron}} c^2 = 939.57 \text{ MeV}$

$m_{\text{deuteron}} c^2 = 1875.61 \text{ MeV}$

$\rightarrow E_b = 2.23 \text{ MeV}$

Figure 3: Fission and Fusion

This readjustment of mappings onto their personal image schemas can be regarded as developing physical intuition. Physics teachers know the importance of “physical intuition,” but they should be aware that their intuitions (metaphorical mappings) are not the same as their students’. Therefore, when they express their intuition about force by describing it as “a push or a pull,” they are likely to evoke in students metaphorical association of force with human action, one of the major misconceptions.



## **Modeling Method**

The Modeling Method aims to correct many weaknesses of the traditional lecture demonstration method, including the fragmentation of knowledge, student passivity, and the persistence of naive beliefs about the physical world.

### **Model-centered instructional objectives**

The main aim is to engage students in understanding the physical world by constructing and using scientific models to describe, to explain, to predict, to design and control physical phenomena. Students are provided with basic conceptual tools for modeling physical objects and processes, especially mathematical, graphical and diagrammatic representations. This is done so as to familiarize students with a small set of basic models as the content core of physics. Students develop insight into the structure of scientific knowledge by examining how models fit into theories. It shows how scientific knowledge is validated by engaging students in evaluating scientific models through comparison with empirical data and to develop skill in all aspects of modeling as the procedural core of scientific knowledge (Yasar et al. 2006).

### **Student-centered instructional design**

Instruction is organized into modeling cycles which engage students in all phases of model development, evaluation and application in concrete situations - thus promoting an integrated understanding of modeling processes and acquisition of coordinated modeling skills. The teacher sets the stage for student activities, typically with a demonstration and class discussion to establish common understanding of a question to be asked of nature. Then, in small groups, students collaborate in planning and conducting experiments to answer or clarify the question. Students are required to present and justify their conclusions in oral and/or written form, including a formulation of models for the phenomena in question and evaluation of the models by comparison with data. Technical terms and representational tools are introduced by the teacher as they are needed to sharpen models, facilitate modeling activities and improve the quality of discourse. The teacher is prepared with a definite agenda for student progress and guides student inquiry and discussion in that direction with “Socratic” questioning and remarks. The teacher is equipped with

taxonomy of typical student misconceptions to be addressed as students are induced to articulate, analyze and justify their personal beliefs (Sanborn, et al, 2009).

Physics can be characterized as a complex network of models interrelated by a system of theoretical principles. For instance when teaching about Rutherford's scattering (fig 4), using a model in fig 4 simplifies the complexity of the all topic. Learners can easily visualize the scattering angle.

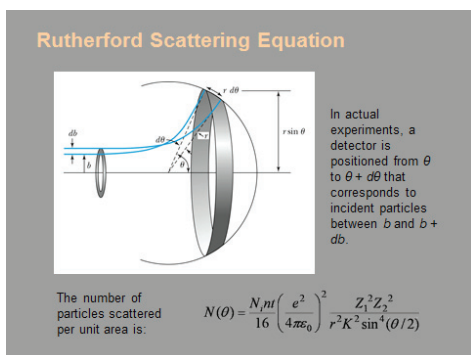


Figure 4: Rutherford Scattering

Models are units of structured knowledge used to represent observable patterns in physical phenomena (Zego and Laquanit, (2005). Accordingly, “physical understanding” is a complex set of modeling skills, that is, cognitive skills for making and using models. The primary objective of physics teaching should therefore be to develop student modeling skills for making sense of their own physical experience and evaluating information reported by others.

Systematic implementation of the modeling method requires some restructuring of the physics curriculum. To make the structure and content of physics as explicit as possible, course material is organized around a small number of “basic models.” Instruction is designed to make students intimately familiar with the structure and use of the basic models. That includes using them to construct and analyze more complex models. It provides them with a set of clear examples grounded in personal

experience from which they can develop general concepts of models and modeling in physics.

## **Models**

The word “model” is used so frequently and expressively by physicists, especially on the research frontier, that it obviously refers to something important.

### **Basic Particle Models in Modern physics.**

To capture the concept for the purpose of instruction, the precise definition: A model (in physics) is a representation of structure in a physical system and/or its properties (Yasar et al.2006). The system may consist of one or more material objects or mass less entities such as light. Unlike a theory, a model refers to an individual system, though that individual may be an exemplar for a whole class of similar things.

The concept of model is predicated on a philosophy of scientific realism holding that the universe is populated by things with definite physical properties. Physicists learn about things by investigating their properties empirically and framing their conclusions in terms of models and theories. They understand physical things through representations in the structure of validated models. Although scientific realism has been challenged by some philosophers, it is doubtful that physics research makes sense without it.

To complete the definition of the model we still need to clarify the concepts of “structure” and “representation. Some commentary is needed to illuminate the structural types and the various representations used to specify them in a model.

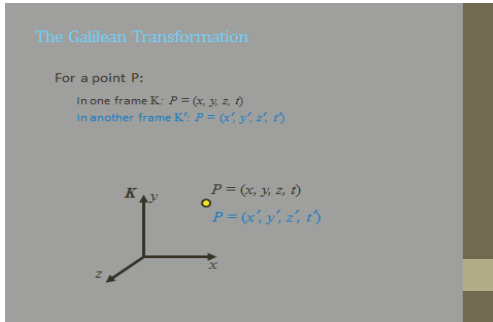


Figure 5: The Galilean Transformation

Examples are given in fig 5. It is especially important to note how representation of structure is distributed across several different diagrammatic and mathematical representations.

A **model** is a representation of structure in a physical system and/or its properties. It describes (or specifies) four types of structure, each with internal and external components:

- (a) Systemic structure.
- (b) Geometric structure.
- (c) Temporal structure.
- (d) Interaction structure

Every complete model includes a system schema specifying the composition, environment and connections of the system. Though system schemas can be specified verbally, for systems of any complexity tabular and/or diagrammatic representations are more informative. Diagrammatic techniques for this purpose have evolved in all the sciences without recognition of their common cognitive function. For example, a standard Bohr diagram (fig 6) is a system schema. Similarly, chemists have developed elaborate representational tools for constructing molecular system schemas, and in biology, for example, animal digestive and circulatory systems can hardly be understood without diagrams.

**Consequences of the Bohr Model**

The angular momentum is:

$$L = mvr = n\hbar$$

So the velocity is:  $v = n\hbar / mr$

But:  $v = \frac{e}{\sqrt{4\pi\epsilon_0 mr}}$  So:  $\frac{n^2\hbar^2}{m^2r^2} = \frac{e^2}{4\pi\epsilon_0 mr}$

Solving for  $r_n$ :  $r_n = n^2 a_0$  where:  $a_0 \equiv \frac{4\pi\epsilon_0 \hbar^2}{me^2}$

$a_0$  is called the Bohr radius. It's the diameter of the hydrogen atom (in its lowest-energy, or "ground," state).


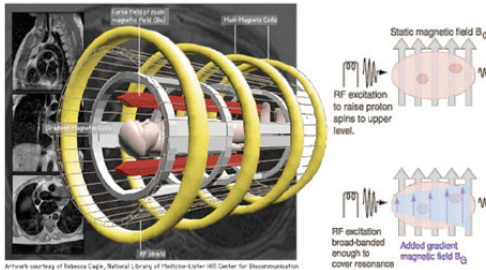


Figure 6: Consequence of the Bohr Model

Strangely enough, diagrams are seldom used to represent system schemas in elementary modern physics, perhaps because the systemic structure of a simple mechanical system is deemed to be so obvious to physicists. It is not so obvious to students. A common source for student failure to solve modern physics problems can be traced to their inability to identify agents of force on an object. To construct a system schema from a given physical situation, or even from an artificially simple situation described in a “word problem,” can be deceptively difficult; for it requires a judicious choice of system, identification of relevant properties and suppression of irrelevant information. It is actually a complex skill requiring extensive modeling to develop to a high level physics model such as shown in fig7. Which shows how an MRI machine used in hospitals for imaging purposes.

## Magnetic resonance imaging



Artwork courtesy of Rebecca Capin, National Library of Medicine/NIH Center for Biocommunication

MRI detects photon resonance emission and absorption by the proton spins.

Figure 7: Magnetic Resonance Imaging

System schemas should not be confused with maps, which represent other kinds of information about systems. Nevertheless, its construction may serve as a check that something obvious has not been overlooked, or that everyone is talking about the same system.

**Primary results of 19<sup>th</sup>-century Thermodynamics**

- Established the atomic theory of matter
- Introduced thermal equilibrium
- Established heat as energy
- Introduced the concept of internal energy
- Created temperature as a measure of internal energy
- Realized limitations: some energy processes cannot take place

The schematic shows a central cylinder with a piston, connected to various reservoirs and pipes, representing a complex thermodynamic system.

Figure 8: Thermo-dynamical System

For thermodynamics, spatial location and configuration represent geometric properties possessed by all systems, though some models (fig 8).

These conclusions can be quantified. From pre/post course FCI scores of two traditional courses, a mean normalized gain of 22% was found, with a largest gain of 32%. In contrast, for two courses using non-traditional teaching methods, a mean gain of 52%, with a largest gain of 69% was found. The two means differ by several standard deviations a highly significant result. This shows that traditional instruction fails badly in meeting a minimal performance standard for modern physics. Moreover, the failure cannot be attributed to inadequacies of the students, for the data show that alternative methods of instruction can do much better.

### **Conclusions**

One reason for the failure of traditional instruction is that it overlooks the crucial influence of students' personal beliefs on what they learn. In the traditional setting naive student beliefs about physics are labeled as misconceptions and are likely to be summarily dismissed as unworthy of consideration. However, the FCI data show that students are not easily induced to discard their misconceptions in favor of Newtonian concepts. Indeed, physics teachers and educational researchers who are aware of this problem have expended considerable effort in designing and testing teaching methods to deal with specific misconceptions.

Although their outcomes have been decidedly better than the traditional ones, success has been limited and the methods can be criticized as excessively time and labor intensive. Many have concluded that student beliefs are so "deep seated" that heavy instructional costs to unseat them are unavoidable. However, documented success with the modeling method suggests that an indirect treatment of misconceptions is likely to be most efficient and effective. In any case, an optimal solution of the problem will surely require an understanding of the cognitive factors involved.

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## **Projection on The Number of Secondary School Students in Kenya in 2015: a survey of nandi north and south districts.**

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### Abstract

**The purpose of this paper was to project the number of students in secondary schools in the year 2015. The study was based in Nandi North and South Districts in Kenya. Descriptive research design was employed and purposive sampling technique used in choosing of the sample size for the study. The objective of the study was to determine the enrolment in schools in the base year, determine the transition and wastage rate and use the information obtained to forecast to the target year. The study was based on the Manpower Requirement Approach. Data for the study was collected by use of questionnaires and interview schedule. The findings indicated that the number of students expected to be in secondary schools in the year 2015 would be 32,545. Based on this finding the educational planner, policy makers and the teachers' service commission should plan for the provision of adequate resources for the anticipated number of learners.**

### Introduction

Education plays a key role in the overall development process and has, therefore, come to be regarded as a major ingredient in the transformation of society. Though the positive role that education plays in development had been acknowledged for ages, it was not until the 1960's that studies were undertaken to establish the actual contribution of education to development. In his pioneering work on the contribution of education to economic growth, Schultz (1961), found out that in America, between

1920 and 1957; increase in national outputs was large compared with the increases of land, man-hours and physical reproducible capital, which led him to conclude that investment in human capital was probably the major explanation for the difference. Denison (1962) reinforced Schultz's findings in his studies on the contribution of education to economic growth, which showed that from 1929 to 1958, 23 percent of the 2.93 percentage point growth rate of the America's national product was the direct contribution of more education, (Gravenir, Mukirae & Ouma, 2006).

Republic of Kenya (2005) indicated that there has been an upsurge in enrolment in public primary schools in Kenya following the implementation of the Free Primary Education in January 2003. The enrolment increased from 5.9 million children in 2002 to 7.2 million in 2003. This progressive increase in primary school enrolment in turn affects secondary schools (Mutua and Namaswa, 1992). The increase in enrolment leads to high demand for manpower. Eshiwani (1993) observed that the greatest expansion realized in Kenya's education system has been at the secondary school level, because of the government's emphasis that this level should produce students who will be enrolled at institutions of training and also that it produces middle grade manpower.

According to Mutua and Namaswa (1992), education is considered as a service that is demanded by the public just like any other goods and services. In this view, therefore, education must be provided to all those who want it.

In this sense they noted that:

Educational planning is a process of forecasting the demand for education and providing sufficient places in schools and other institutions to satisfy that demand. Therefore, it examines the demographic trends through time, in order to estimate the school – age population (Mutua and Namaswa, 1992: p.36).

According to the Daily Nation of 18<sup>th</sup> December 2007, the education permanent secretary Prof. Karega Mutahi was reported to have said that Free Education to students in public secondary schools was set to start in January 2008. He said that the government was committed to ensure all Kenyan children have access to 14 years of basic education: two

in nursery, eight in primary and four at secondary level. Each student would be allocated a total of Ksh. 3,600 per annum and the parents would be expected to meet the cost of boarding and other requirements. The tuition waiver is expected to increase the number of students in secondary schools in Kenya by more than 200,000. Therefore there is need to plan for adequate number of teacher to match the expected increase in the number of students, hence the focus of the current study.

Forecasting students' enrolment is fundamental in provision of quality education if the country is to attain its Millennium Development Goals (MDGs). According to Collymore (2005), the Millennium Declaration in which world leaders (Kenya included) unanimously adopted at their September, 2000, United Nations (UN) Summit, represents a vision for improving the lives of the world's people. The UN agencies and other international organizations defined eight distinct Millennium Development Goals (MDGs) and attached to them, a series of quantifiable and time-bound targets and a set of indicators for tracking progress. One of the MDGs is that of attaining Universal Primary Education. The government's policy was to achieve UPE by the year 2005 with the overall goal of attaining Education for All (EFA) by 2015. In order to achieve this, forecasting the number of students should be given a priority (Koech, 1999).

According to records at the District Education Offices at both Nandi North and Nandi South districts there was persistent shortage of teachers and the facilities were inadequate and as a result the Pupil-Teacher Ratios were high and the available facilities for various secondary schools were overstretched, this is as a result of poor planning and the quality of education offered has been affected. Thus there was need to prepare adequately for future enrolment by forecasting students' enrolment in both districts.

This study forecasted the enrolment of students in secondary schools in Nandi North and Nandi South Districts between the years 2008 to 2012. The researcher made use of data from the past five years (2003-2007) to establish trends which were then used to forecast in the next five years (2008-2012). Five year forecast was appropriate for this study because the period is enough to allow for the training and recruitment of teachers and the establishment of physical facilities. The study intended to fill the gap

by planning through projection of the anticipated enrolment in secondary schools.

### **Objectives**

The specific objectives for this study were:

- To establish the current number of students enrolled in primary school those were expected to be in secondary schools in both Nandi North and Nandi South Districts in the year 2015.
- To determine the trend of transition rate from primary to secondary schools over the last five (5) years (2003- 2007) and to predict the number of students who will be in secondary school in the year 2015
- To determine the students' wastage rate trend in primary and secondary schools over the last five years (2003- 2007) and to predict this rate in the districts in the year 2015

### **Methodology**

The research design adopted by the study was the descriptive survey design. The design was appropriate for the study since the research intended to make a specific prediction (forecast) concerning the number of students in the secondary school level in the year 2015 in both Nandi North and Nandi South Districts.

### **Sample Size and Sampling Techniques**

The staff at the District Education Office (D.E.O) and Central Bureau of Statistics (C.B.S) formed the target population for the study.

The study adopted purposive sampling technique. Data collection instruments for the study were questionnaire, interview schedule and document analysis.

### **Summary of Findings**

The study set out to forecast the number of students who would be in secondary schools in the year 2015. The summary of the study findings as per the objectives is given as follows:

Students who sit for the Kenya Certificate of Secondary Education (KCPE) and those who enroll in form one has been on the increase although the transition rate generally is still low. In 2002 there were 13,560 students who sat for K.C.P.E and in 2003 the number of students who were admitted to form one in both districts was 4,729 representing a transition rate of 34.87 percent. In 2003, the number of students who did K.C.P.E was 13,906 out of which 5,460 students joined form one in 2004 and the transition rate that year was 39.26 percent. The two districts admitted a total of 5,663 students to form one in 2005 having registered 15,019 candidates for K.C.P.E the previous year and so the transition rate was 37.71 percent. In the year 2005 there were 14,795 students who sat for KCPE in the two districts and a total of 6,768 students were enrolled in form one the subsequent year, this represented a transition rate of 45.75 percent and in 2006, the number of students who were in standard eight in the two districts were 14,406 and 7,270 students joined form one the subsequent year which represented a transition rate of 50.47 percent. This seems to imply that over 50% of the primary school graduates are locked out of the secondary school system. This appears to be in agreement with Republic of Kenya (2004), which observed that the transition rate of students from primary to secondary schools in Kenya is below average and that in 2004; this rate was 43% nationwide.

### **Wastage Rate in Primary Schools**

Wastage in primary schools refers to the students who enrolled in class one but fail to reach class eight after eight years. These students either repeat other classes or they drop out of the school system. Student wastage rate in primary schools varies from year to year. The number of students who enrolled in class one in 1995 was 15, 396 and the number of students who managed to reach class eight in the year 2002 was 13,560. Therefore, the number of students wasted was 1,836 representing 11.92 percent. In 1996, the enrolment in class one was 15,490 and the students who proceed up to class eight in 2003 were 13,906 thus 1,584 students either repeated other classes or dropped out and this number represented 10.23 percent. In the year 1997, 16,783 students enrolled in class one and out of this, 15,019 students managed to sit for K.C.P.E. in the year 2004, in this case therefore, 1,764 students representing 10.51 percent dropped out or repeated other classes. In 1998, there were a total of 16,498 students

who were in class one out of which 14,795 students proceeded up to class eight in 2005. This means 1,703 students, which is equivalent to 10.32 percent, were wasted. Similarly there was a wastage of 1,956 students that is equivalent to 11.95 percent from the 1999 to 2006 cohort, because the number of students who enrolled in class one in 1999 was 16,362 whereas those in class eight in 2006 were 14,406.

The implication of the cohort wastage is that resources will not be properly utilized in these districts because the students who repeat other grades use facilities that are meant for other students whereas those who drop out waste the available resources as they will be underutilized.

### **Projection of the Wastage Rate in Primary Schools**

The wastage rate trend was determined by obtaining the average of five different cohorts. The wastage rate trend therefore stood at 10.99%. This trend was projected to the year 2015.

### **Wastage Rate in Secondary Schools**

Wastage rate in secondary schools refers to the students who enroll in form one in a particular year but fail to reach form four after four years. A number of these students drop out while others repeat other grades. The students who were in form one in 2000 were expected to be in form four in 2003, those in form one in 2001 were expected to be in form four in 2004 similarly those in form one in 2002 were expected to be in form four in 2005 and those in form one in 2003 were expected in form four in 2006.

The wastage rate for students who were in secondary schools between 2000 and 2003 was 9.30% because 4482 students were enrolled in form one in 2000 and 4065 students were able to go up to form four in 2003 hence, 417 students were lost along the way. In the year 2001, there were a total of 4530 students in form one and the number that managed to reach form four in 2004 was 4098 students therefore, there was a wastage of 9.54 percent as 432 students either dropped out or repeated other grades. In the year 2002, 4593 students joined form one and the number that was able to go up to form four in 2005 was 4203 students giving a wastage rate of 8.50 percent (390 students). In 2003, there were 4729 students in form one and 4368 students managed to reach form four in 2006, thus there was wastage of 7.63 percent (361 students). In the year 2004, there were 5460

students in form one and in 2007 there were 5022 students in form four hence the wastage rate was 8.02 percent (438 students).

The wastage in secondary schools means that there are resources that go into waste because students who repeat some grades end up over utilizing them whereas the dropouts lead the underutilization of resources. Although the number of students enrolled in the primary school level is higher than the enrolment at the secondary school level, there is a higher wastage rate at the primary school level than at the secondary school level.

### **Projection of the Wastage Rate in Secondary Schools**

To project the wastage rate in secondary schools to the year 2015, the information on Table 5 that gives the wastage rate trend over the last five years was made use of. The average of the percentage wastage rate was determined at 8.60%. This wastage rate of 8.60% in secondary schools was projected to the year 2015.

### **Projected Secondary School Enrolment in the year 2015**

Out of those students enrolled in class one; there are some who will not proceed up to class eight in the same cohort because of wastage. Out of those who will go up to class eight, a number of them will not proceed to secondary schools, and out of those who will enroll in secondary schools, it is expected that not all of them will go up to form four due to wastage.

The number of children who enrolled in class one in the year 2004 was 15,495 students out of this, 13,792 students are expected to be in class eight in the year 2011 because 1,703 (10.99%) students are expected to have either repeated other grades or dropped out of school. In 2012, the expected enrolment in form one is 8,053 students since 5,739 students are expected to drop out of school after doing KCPE. Out of the form one enrolment, only 7,360 students are expected to go up to form four in the year 2015 as 693 students will have formed wastage at the secondary school level. Class one enrolment in the year 2005 was 16,080 students, but with 10.99% wastage rate, 1,767 students are expected to either repeat or drop out of school before reaching class eight in the year 2012. Therefore, the expected enrolment in class eight is 14,313 out of which 5,956 (41.61%) students are expected to drop out or repeat leaving a total of 8,357 students who are expected to enroll in form one in 2013 and in

2015, the number of students expected to be in form three will be 7,638 students after 719 students forming wastage in secondary school.

Total enrolment in class one in the year 2006 was 17,523 students, 1,926 (10.99%) students are anticipated to repeat or drop out leaving a total of 15,597 students who are expected to do KCPE in the year 2013. The number expected to drop out after the primary school level is 6,490 students and as a result, 9,107 students are expected to be in form one in 2014, subjected to wastage at 8.60%, 783 students will not proceed to form two in the year 2015 hence the form two enrolment will be 8,324 students. In the year 2007, there were 17,745 students in class one, subjected to the wastage rate at 10.99%, 1,950 students are not expected to reach class eight in 2014 leaving a total of 15,795 students to sit for K.C.P.E out of which 6,572 students will drop out, hence in the target year (2015) the expected enrolment in form one will be 9,223 students.

This seems to imply that if the present trend in wastage and transition rates were to continue, then the number expected to enroll in secondary school will be 32, 545 students.

## **Conclusion**

The transition rate from primary to secondary schools was found to be 41.61% which according to Republic of Kenya (2004) is slightly below the national transition rate which stood at 43%. Reasons that were given for the low transition rate included the poverty levels of the people, performance in the Kenya Certificate of Primary Education (K.C.P.E) which is below average, the limited secondary school places, and the retrogressive socio-cultural practices of the residents, orphans, disability and ignorance. The number of students expected to be in secondary schools in the target year is 32,545

A number of students who initially enrolled in the formal school system fail to go through the system in the expected time because they either repeat or drop out. The wastage rate at the primary school level was established at 10.99% whereas wastage at the secondary school level was 8.60%. Causes of wastage were identified as financial constraints due to the poverty levels of the people, sickness and death, students' academic performance and pregnancy and early marriages.



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## **Gender Differences in Parental Involvement in Children's Learning in Public Secondary Schools: a case of kieni-west district, nyeri county-kenya**

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### **Abstract**

The attitudes and aspirations of parents and of children themselves predict later educational achievement. International evidence suggests that parents with high aspirations are also more involved in their children's education. This study was set to investigate gender differences in parents' involvement in their children's learning in public secondary schools in Kieni-West District Nyeri County-Kenya. The objectives of the study were to: (i) Investigate gender difference in the nature of parental involvement in their children's learning; (ii) Establish gender differences in factors influencing extent of involvement children's learning and to (iii) Explore parents' views towards the teachers in their involvement in learning. Seventy parents who had their children in public secondary schools were randomly selected. The research study employed a mixed method approach using both qualitative and quantitative techniques in collecting and analyzing data. The study used face to face interviews with fathers and mothers. The findings of the study indicated that 89% of the mothers participated in school events and activities compared to 83% of the fathers. Further findings indicated that 70% of the fathers communicated to their children in mother tongue while at home compared to 61% of the mothers. Majority of the fathers had

**attained secondary education while majority of the mothers had primary education. The study revealed that mothers experienced painful experiences during their time than the fathers. Major recommendations include among others attending parents teachers' conferences and encouraging parents to communicate to their children in English.**

**Keywords:** *Gender, Parental involvement, Children's learning, Gender differences*

## **Introduction**

Parental involvement is a form of investment made by parents for the future benefit of their children (Smits & Hosgor, 2006). The more confidence parents instill in their children regarding success in school, the greater their involvement in their children's education (Eliason & Jenkins, 2003). Parental involvement practices, regardless of other practices applied at home or at school, have been found to influence children's academic performance in school (Sanders & Lewis, 2004). Considering the vast development in the field of education, it is not surprising that parental involvement plays a major role in developing patterns of higher academic achievement in children. It is important to note that through their parents' participation, children not only gain cognitive and social development (Weis, Caspe & Lopez, 2006) but also develop positive attitudes and behaviours, talent, personality and potential skill development.

The quality and content of fathers' involvement matter more for children's outcomes than the quantity of time fathers spend with their children. Family learning can also provide a range of benefits for parents and children including improvements in reading, writing and numeracy as well as greater parental confidence in helping their child at home. The attitudes and aspirations of parents and of children themselves predict later educational achievement. International evidence suggests that parents with high aspirations are also more involved in their children's education. In 2007, around half of parents surveyed said that they felt very involved in their child's school life. Two thirds of parents said that they would like to get more involved in their child's school life (Peters, Seeds, Goldstein & Coleman, 2008). Levels of parental involvement vary

among parents, for example, mothers, parents of young children, Black/Black British parents, parents of children with a statement of Special Educational Needs are all more likely than average to be very involved in their child's education. Parental involvement in children's education from an early age has a significant effect on educational achievement, and continues to do so into adolescence and adulthood. The quality and content of fathers' involvement matter more for children's outcomes than the quantity of time fathers spend with their children (Siraj-Blatchford & Taggart, 2004).

Family learning can also provide a range of benefits for parents and children including improvements in reading, writing and numeracy as well as greater parental confidence in helping their child at home. The attitudes and aspirations of parents and of children themselves predict later educational achievement. International evidence suggests that parents with high aspirations are also more involved in their children's education. In 2007, around half of parents surveyed said that they felt very involved in their child's school life. Two thirds of parents said that they would like to get more involved in their child's school life (with work commitments being a commonly cited barrier to greater involvement). Lone parents and non-resident parents are both less likely than average to feel very involved. Parents are more likely to see a child's education as mainly or wholly their responsibility (28%) in 2007 compared to previous years, and nearly half (45%) of parents believed that they had equal responsibility with the school. Parents also now participate in a wider range of activities with their children. These include: doing school projects together (83%) making things (81%), playing sport (80%) and reading (79%) (Desforges & Abouchaar, 2003).

Studies suggest that fathers' involvement has increased since the 1970s, particularly with children under the age of five. There is evidence, however, of great variation in levels of fathers' involvement, so that even though levels have increased on average, a substantial proportion of fathers recorded no daily direct interaction time with their children. This is likely to reflect, in part, changing family structures. When surveyed in 2007, mothers are more likely than fathers to say that they felt 'very involved' in their child's education (53% compared to 45%). Nearly 70% of fathers want to be more involved in their child's education and even

higher proportions of nonresident parents (81%), who are predominantly male, are also keen for greater involvement.

Research suggests fathers are involved (more often than mothers) in specific types of activities in their children's out of school learning: such as building and repairing, hobbies, Information Technology, maths and physical play. A survey of parents in 2007 found that fathers helpless often with homework than mothers, however, amongst parents working full time there was no gender difference. Evidence suggests that the quality and content of fathers' involvement matter more for children's outcomes than the quantity of time fathers spend with their children. Fathers have a critical role to play in ensuring positive outcomes for their children (O'Brien and Shemilt,2003).

There is consistent evidence that fathers' interest and involvement in their children's learning (which was measured in terms of interest in education, outings and reading to the child) is statistically associated with better educational outcomes (controlling for a wide variety of other influencing factors). These outcomes included: better exam results, a higher level of educational qualifications, greater progress at school, higher educational expectations more positive attitudes (e.g. enjoyment) better behaviour (e.g. reduced risk of suspension or expulsion) at school. These positive associations exist across different family types, including two-parent families, single parent families and children with non-resident fathers. However, the specific outcomes and strength of effect can vary across family type. Research indicates that fathers' involvement is important not only when a child is in primary school but also when they are in secondary school and regardless of the child's gender (HarrisandGoodall ,2007).

Kieni-West district is a semi arid area and in most cases the residents experience prolonged drought. In most cases school events such as academic clinics, parents' teachers' meetings and annual general meetings are highly attended by mothers. On the other hand indiscipline cases are in most cases attended by the mothers while the prize giving days are attended by the fathers if the child be it a boy or girl is being awarded. It is for this reason therefore that the researchers were prompted to investigate the gender differences in parents' involvement in their children's education both at home and in school in Kieni West District.

## **Problem Statement**

Parental involvement in children's education from an early age has a significant effect on educational achievement, and continues to do so into adolescence and adulthood (Siraj-Blatchford & Taggart, 2004). While it is shown that fathers and mothers are involved in their children's education it is not clear the extent to which the mother or the father is involved. It is for this reason therefore that the researchers were prompted to investigate gender differences in parents' involvement in their children's learning in public secondary schools in Kieni-West District Nyeri County-Kenya.

## **Objectives**

The objectives of the study are to:

- Investigate gender difference in the nature of parental involvement in their children's learning;
- Establish gender differences in factors influencing extent of involvement children's learning and to
- Explore parents' views towards the teachers in their involvement in learning.

## **Methodology**

The research design adopted in this study was descriptive survey design. This method was relevant to the study because it involved frequency of answers to the same questions by different mothers and fathers. Both qualitative and quantitative techniques were used. By use of this design the researcher intended to report the status of parental involvement in their children's education as it were in the schools studied. The study targeted 110 parents in public secondary schools in Kieni-West District. Sampled parents comprised of a combination of parents of form three students who had been sampled and others who had not. A structured interview schedule for sampled parents focused on their involvement in the academic achievement of their children. In this study qualitative data was derived from open-ended questions in the interview schedule. The research questions were categorized and a coding system developed based on collected data. The frequency with which an idea or description appeared was used to interpret gender difference.

## Results

### Biographical Data

The sampled population consisted of 56(51%) mothers and 54(49%) fathers.

### Parents' Age

The findings of the study showed that 30% of the mothers were in the age bracket of 31 to 35 years while 36% were between 35 and 40 years of age (Figure 1). On the other hand 61% of the fathers were over 40 years of age (Figure 2) and the minority were in the range of 31 to 35 years.

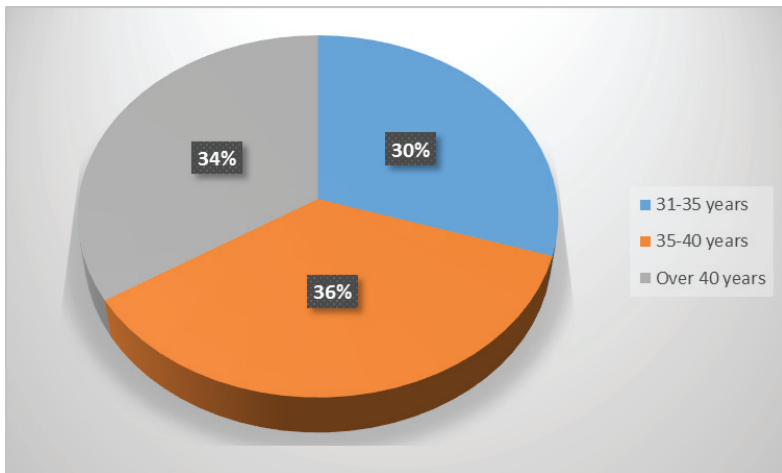
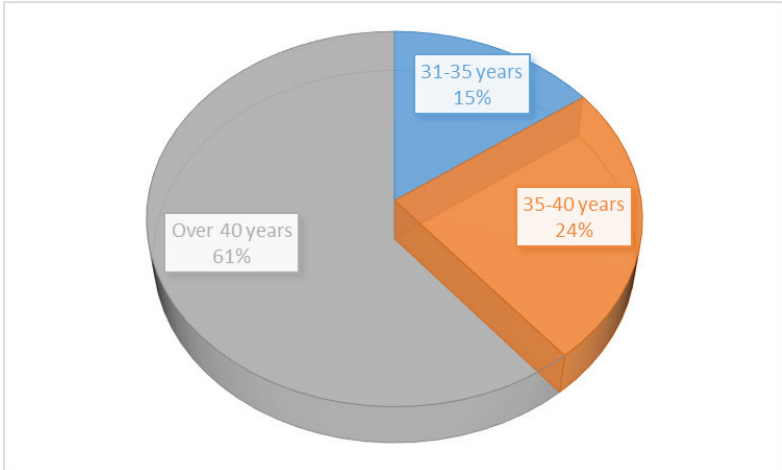


Figure 1: Mothers' Age (DATA 2013)





*Figure 2: Father's Age (DATA 2013)*

### **Parents' Education Levels**

Regarding educational levels majority(39%) of the mothers had acquired primary education and 2% had post graduate education(Figure 3).Table 1 indicates that majority( 50%) of the fathers had acquired secondary school education while only 2% had postgraduate education.

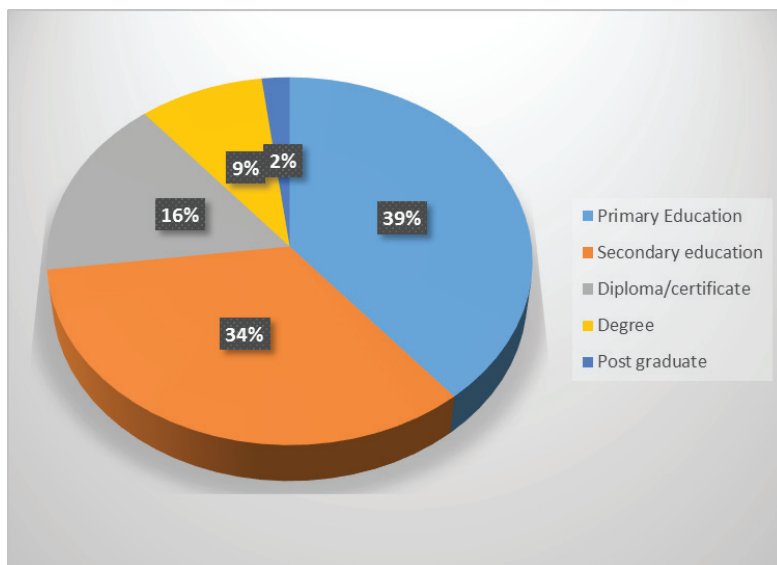


Figure 3: Mothers' Educational Levels (DATA 2013)

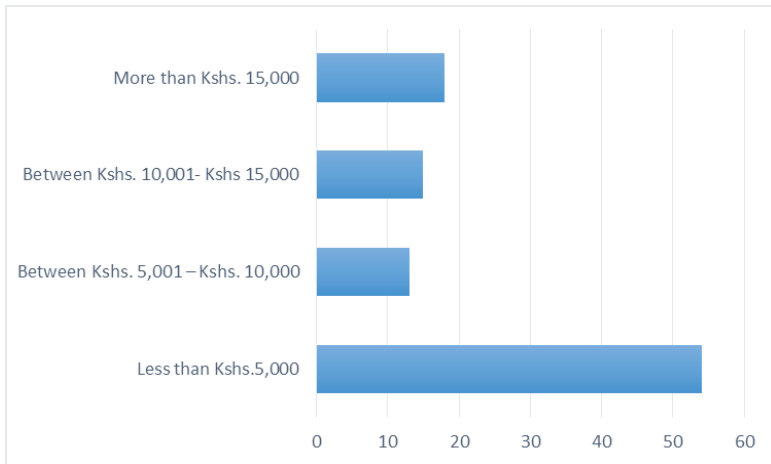
**Table 1: Fathers' Educational Levels**

Education	F	%
Primary Education	13	24
Secondary education	27	50
Diploma/certificate	8	15
Degree	5	9
Post graduate	1	2
Total		100

(Source: Author)

**Parents’ Income Levels**

Figure 4 below shows that 67% of the mothers earned less than ksh 10,000 while 33% earned more than ksh. 10,000. The study revealed that 43% of the fathers earned more than ksh 10,000 while 39% earned less than ksh 10,000.



*Figure 4: Mothers’ Income Levels (DATA 2013)*

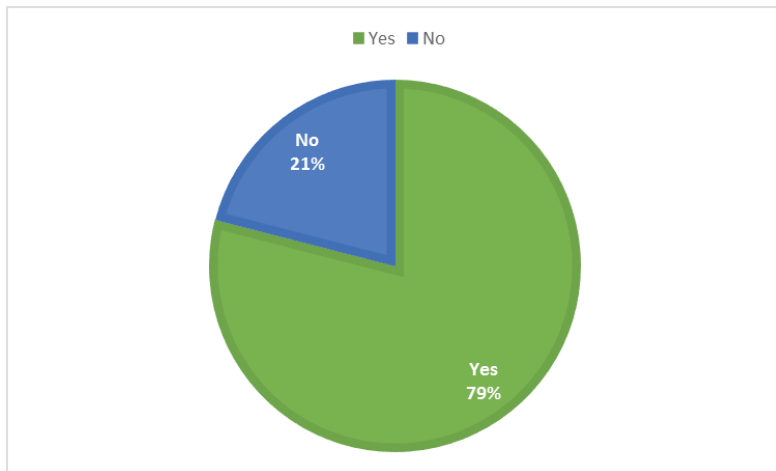
**Extent to Which Parents are Involved in their Children’s Learning**

Mothers were asked about their awareness of the parents’ involvement programmes (Table 2) and the response was that 85% were aware while 15% were not. Figure 5 shows that 79% of the fathers were aware of the programmes while 21% were not.

**Table 2: Mothers’ Awareness**

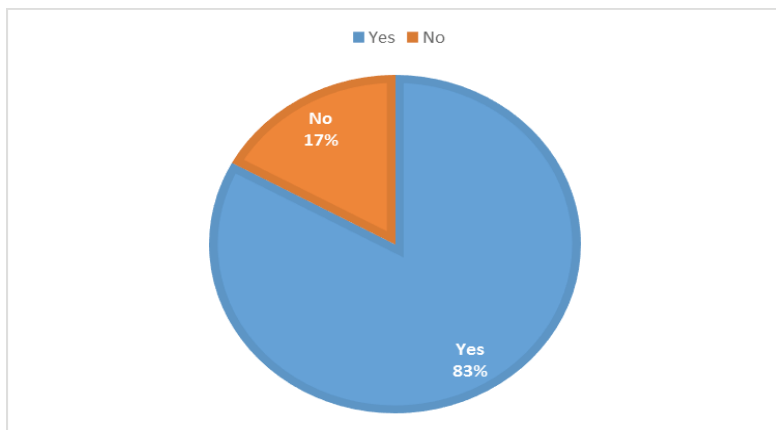
	F	%
Yes	46	85
No	8	15
	54	100

*(Source: Author)*



**Figure 5: Fathers' Awareness (DATA 2013)**

The study revealed that 89% of the mothers participated in school events and activities such as annual general meetings and academic clinics while 11% did not. Figure 6 shows that 83% of the fathers did participate in school events while 17% did not.



**Figure 6: Fathers' Participation in School Events (DATA 2013)**

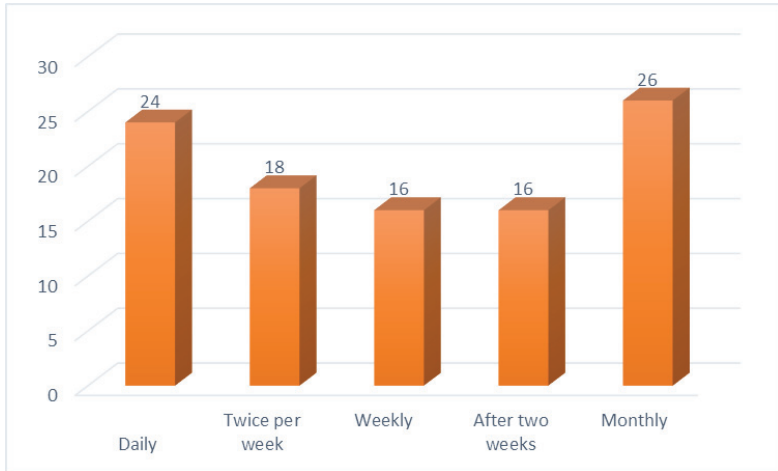
Regarding monitoring of homework 73% of the mothers were involved while 27% were not.

Mothers were asked whether they engaged their children in holiday tuition and the response was that 75% did but 25% did not. Fathers were highly involved (74%) in engaging their children in holiday tuition while 26% were not. The researchers wanted to know how often the mothers checked on the performance of their children .The findings of the study showed that majority of the mothers (32%) did it on daily basis while 21% did it monthly (Table 4) while 24% of the fathers checked their children’s performance on daily basis and 26% did it monthly(Figure 7).

**Table 4: Checking of Performance by Mothers**

	F	%
Daily	17	32
Twice per week	8	15
Weekly	3	6
After two weeks	14	26
Monthly	11	21
Never		

*(Source: Author)*



**Figure 7: Checking of Performance by Fathers (DATA 2013)**

The study found that 65% of the mothers were able to sustain their children in school throughout the term while 35% were not able. On the other hand 52% of the fathers were able to retain their children in school while 48% were not. Regarding visiting children in school to discuss the performance data showed that 27% of the mothers made it on a weekly as well as after two weeks. None of the mothers failed to discuss performance. Majority of the fathers visited their children's school on weekly basis to discuss academic progress while 12% did it monthly. Table 5 shows that majority of the mothers relied on farming (46%) while 415 were salaried. The study revealed that majority of the fathers (45%) were salaried and 40% relied on farming (Figure 8).

**Table 5: Mothers' Sources of Income**

	F	%
Salary	24	41
Funds	1	2
Farming	27	46
Others	7	11
		100

*(Source: Author)*



*Figure 8: Fathers' Source of Income (DATA 2013)*

Regarding the language spoken to the children the researchers found that 61% of the mothers spoke mother tongue while 12% spoke in English (Figure 9). Figure 10 indicates that 70% of the fathers spoke vernacular to their children while 20% spoke in Kiswahili remaining with 10% who communicated in English.

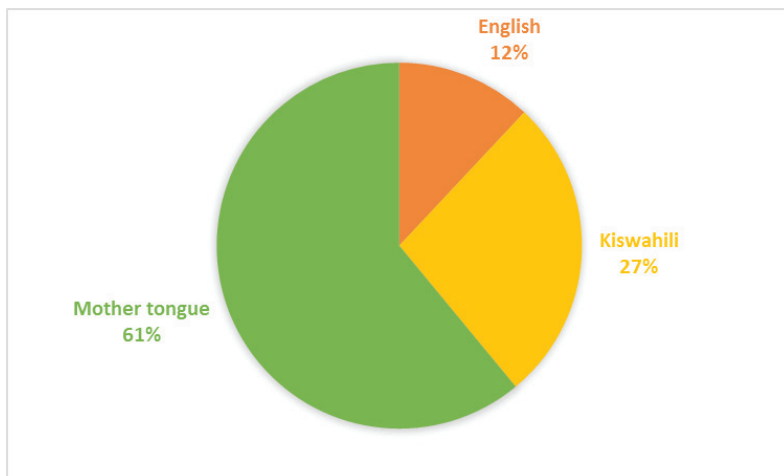


Figure 9: Language used by Mothers (DATA 2013)



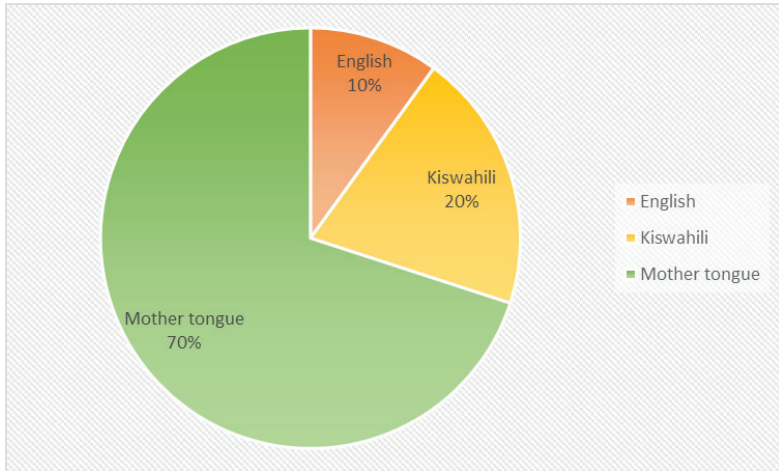
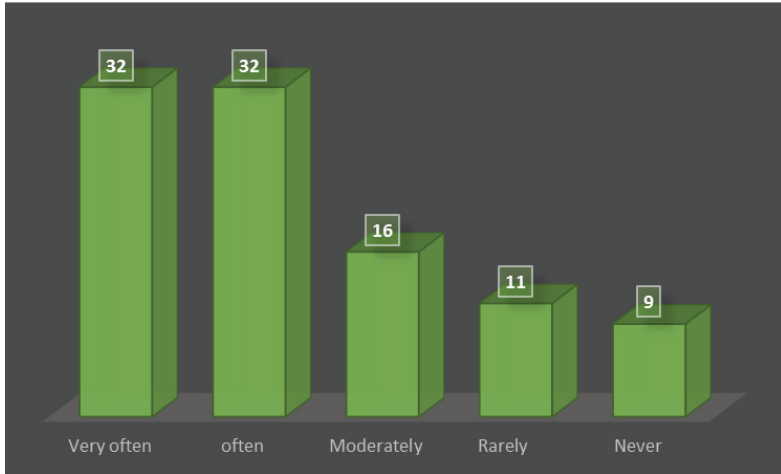


Figure 10: Language used by Fathers (DATA 2013)

Mother believed that their involvement was beneficial to the teachers in aiding in their children educational progress (89%) while 11% did not. The researchers revealed that all the fathers believed that their involvement is beneficial to the teachers in aiding their children educational progress. The study indicated that 46% of the mothers were often engaged in meaningful discussions about their children's education by the teachers while 16% were not. The study indicated that 47% of the fathers were oftenly engaged in meaningful discussions about their children's education while 2% were not and 38% were rarely involved. Response to the attendance of mothers to parents' teachers' conferences showed that 25% rarely attended while the same percentage never did it. The findings indicated that 31% of the fathers attended teachers' parents' conferences while 23% did not and 34% rarely did .

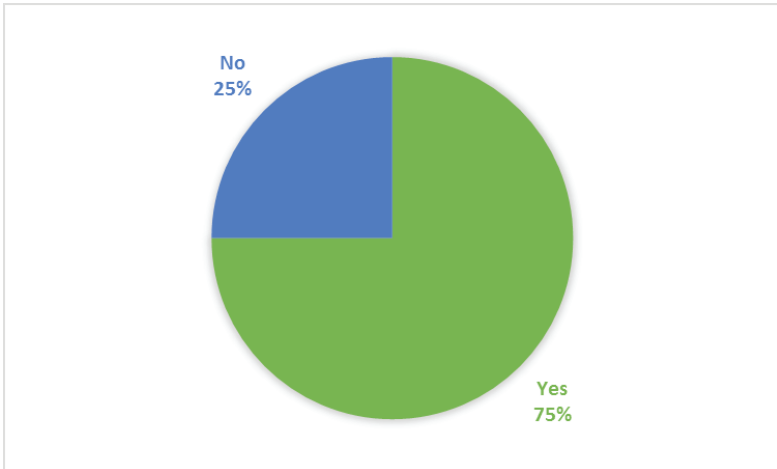
### Learners' Factors

Figure 11 shows that majority (64%) of the mothers were reminded about academic clinics by their children while 9% were not. The study revealed that 57% of the fathers were oftenly reminded by their children about the academic clinics in the school while 8% were never reminded.



*Figure 11: Mothers Reminded on Academic Clinics(DATA 2013)*

Mothers were asked if their children brought newsletters and report forms to them and the results were that 91% did but 9% did not. Fathers reported that their children brought newsletters at home(87%) while 13% of them did not receive. The researcher wanted to know how often mothers discussed their academic progress with their children. The findings indicated that 59% oftenly discussed while 26% rarely did it. Majority of the fathers(63%) oftenly discussed the academic progress of their children with the children while 9% never did so. Majority of the mothers (57%) worked more than eight hours in a day while 28% worked for eight hours which is the standard working time according to the International Labour Organisation. The findings of the study revealed that 50% of the fathers worked more than eight hours while 37% worked the standard time. Figure 12 shows that majority of the mothers (75%) stated that there was a good flow of information while 25% felt that this did not exist. The study found that 78% of the fathers felt that there was good flow of information between the parents and teachers while 12% felt that this did not exist.



*Figure 12: Mothers' Opinion on Information Flow(DATA 2013)*

The findings of the study indicated that majority of the mothers (83%) had difficult and painful experiences during their school time while a minority (17%) did not. On the other hand 80% of the fathers suffered while 20% did not. The researchers found that all the mothers felt that parental involvement programmes can improve their relationship with their children in schools. On the other hand 96% of the fathers felt that organized parental involvement programmes can improve their relationship with their children while 4% felt it would not.

## **Summary and Conclusions**

### **Summary of the findings**

The purpose of the study was to investigate gender differences in parents involvement in their children's learning in public secondary schools in Kieni West District of Nyeri County, Kenya. The results indicated that there are various ways in which mothers and fathers are involved in their children's learning but all at different extents. Regarding participation in school events the participation of the mothers was higher than that of the fathers. The findings of the study showed that mothers were able to sustain their children in school for a term and pay for holiday tuition

to a greater extent than the fathers. The researchers found that majority of the fathers communicated in vernacular more than the mothers did. Majority of the mothers suffered during their school time as compared to the fathers though both mothers and fathers felt that parental involvement programmes were essential in their children's learning.

### **Conclusion**

The findings of the study indicated that parents are involved in their children's learning at different levels. The mothers are highly involved as compared to the fathers. The study realized that even though mothers are more involved the academic performance of girls is wanting. When parents are involved, children achieve more and everyone benefits in the sense that the school is recognized, parents have faith in the teachers and students are willing to stay. Parental involvement in their children's academic achievement yields positive academic outcomes ranging from early childhood throughout adolescence and beyond.

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## **Teachers' Preparedness in the Integration of Information Communication Technology in Public Secondary Schools: a case of kieni east district, nyeri county- kenya**

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### **Abstract**

The use of Information and Communication Technology (ICT) in and for education is rapidly expanding in many countries and is now seen worldwide as both a necessity and an opportunity for improving and enhancing the education offered to citizens across the globe (UNESCO, 2006). This study was conducted to investigate teachers' preparedness in the integration of Information Communication Technology in public secondary schools in Kieni East District Nyeri County-Kenya. The objectives of the study are to (i) establish E-learning sustainability (ii) explore attainment of computer skills and (iii) establish funding strategies in place. Questionnaires were administered to teachers and students. Findings indicated that 90% of the teachers felt that learning computers contributes to the development of the country and especially vision 2030. The study revealed that 68% of the students had no access to internet though 95% can browse the internet using the computers. The level of teachers' preparedness and awareness is low. These findings indicate that majority of the teachers have not yet integrated ICT in the teaching learning process in public secondary schools in Kieni-East District. The study recommends that teachers are taken through workshops

**that target use of ICT in the teaching learning process. Teachers should be encouraged to buy personal computers which they can use while in and out of school to increase teachers' perception on ICT.**

**Keywords:** *Information and communication technology, Teachers' Preparedness, Teachers' perception of ICT*

## **Introduction**

There is enough evidence from existing literature that “teachers are slow to recognize the benefits of new technologies” (Edyburn, 2000 in Zahari, 2005). In limited occasions that technology is used and is still not being used effectively by teachers and therefore it does not impact on learners' performance (Polly et al, 2010). This is a serious concern especially for science subjects and mathematics where learners' performance is usually low. According to Sang et al (2009) and Zhao & Cziko (2001), teachers' educational beliefs impact on their use of ICT. This was the result of a quantitative survey conducted by Sang et al (2009) on 873 primary school teachers from 11 Chinese provinces and municipalities, and of a literature survey by Zhao & Cziko (2001). Kumar et al (2008) conducted a survey of Mathematics, Science and English (MSE) teachers from 65 Malaysian secondary schools. A multiple regression statistical procedure was then used to model socio-demographic factors against AUC and technology acceptance constructs. It was found that, in addition to the attitude and motivation factor already mentioned above, gender; age and computer training have an effect on the Actual Usage of Computers (AUC) by teachers.

The rapid growth in Information Communication and Technologies (ICT) has brought remarkable changes in the education sector in the twenty-first century and affected demands of the modern society. Therefore there is need for all the stakeholders in the field of education to be well equipped with ICT in order to bridge the existing technology gap in teaching and learning processes. To successfully initiate and implement educational technology in the schools depends strongly on the teachers' support and attitudes. Some researchers studied the relationship between teachers' perceptions of the use of ICT and their actual integration of ICT into



teaching and learning processes. Eugene (2006) explored the effect of teachers' beliefs and attitudes towards the use of ICT in classrooms. An observation method was used to collect data on teachers' beliefs and attitudes. The study revealed that there was inconsistency between teachers' beliefs and their actual use of technology in the classroom. Teachers' beliefs and teaching practices were found not to match. Similarly, Simonson (2004) used a quantitative study to explore the beliefs of primary school teachers on the use of ICT in teaching. The result revealed that teachers' beliefs and attitudes were related to their use of technology. Also, Drent and Meelissen (2008) conducted a study about factors which influence the innovative use of ICT by teacher educators in the Netherlands. Their study revealed that student-oriented pedagogical approach, positive attitude towards computers, computer experience, and personal entrepreneurship of the teacher educator have a direct positive influence on the innovative use of ICT by the teacher.

Research has shown that teachers' attitudes towards technology influence their acceptance of the usefulness of technology and its integration into teaching (Huang & Liaw, 2005). In EU Schoolnet (2010) survey on teachers' use of Acer netbooks involving six European Union countries, a large number of teachers believe that the benefits of ICT are not clearly seen. However, evidence suggests that a small number of teachers believe that the benefits of ICT are not clearly seen. The empirical survey revealed that one fifth of European teachers believed that the use of ICT in teaching did not benefit their students' learning (Korte & Husing, 2007). A survey of UK teachers also revealed that teachers' positivity about the possible contributions of ICT was moderated as they became 'rather more ambivalent and sometimes doubtful' about 'specific, current advantages' (Becta, 2008, p.45). Teachers' computer experience relates positively to their computer attitudes. The more experience teachers have with computers, the more likely that they will show positive attitudes towards computers (Rozell & Gardner, 1999). Positive computer attitudes are expected to foster computer integration in the classroom (van Braak, Tondeur, & Valcke, 2004). However, while there are a number of studies on teachers' perceptions, skills and practices of ICT in secondary schools in developed countries, there is lack of study on teachers' preparedness in the integration of Information Communication Technology in public secondary schools in Kieni East District, Nyeri County- Kenya

## **Problem Statement**

Evidence suggests that teachers' attitudes and beliefs influence successful integration of ICT into teaching (Hew & Brush, 2007; Keengwe & Onchwari, 2008). If teachers' attitudes are positive toward the use of educational technology, then they can easily provide useful insight about the adoption and integration of ICT into teaching and learning processes. While it is shown that teachers' computer experience has a positive impact on the performance of students it is not clear the extent to which teachers' preparedness influences learners' performance. It is for this reason therefore that the researchers were prompted to investigate teachers' preparedness in ICT in public secondary schools in Kieni-East District Nyeri County-Kenya.

## **Objectives**

The objectives of the study were to:

- Establish E-learning sustainability
- Explore attainment of computer skills and
- Establish funding strategies in place

## **Methodology**

The study was conducted in public secondary schools in Kieni East District, Nyeri County- Kenya. Twenty seven teachers who had attended science congress and had accompanied students to the district venue. The sample size was made up of 16 males and 11 females. The study also engaged forty three which included 29 male and 14 female students who participated in the science congress. Among the students 7% were in form one, 4.7% in form two, 32.6% in form three and the majority in form four (55.8%). The research design adopted in this study was descriptive survey design. Both qualitative and quantitative techniques were used. By qualitative techniques, the researcher included open ended items where the respondents were given an opportunity to express their views. The researcher established teachers' preparedness in the integration of information communication technology. Measures of central tendency such as mode, mean, median, frequency and standard deviation were used. By use of this design the researcher intended to report the status

of parental involvement in their children's education as it were in the schools studied. Stratified random sampling technique was used in this study where there were two groups namely the science and mathematics teachers and students. The research study used triangulation methodology in data collection. Questionnaires, document analysis and researcher's own observation were used. One questionnaire was administered to the science teachers and the other one to students. The questionnaire allowed the researcher to reach a large sample in a short time and at a low cost as well as enabling the researcher to gather a wide range of information. The questionnaires had three sections namely, biographical data, closed ended statements on educational issues that respondents reacted to by ticking in the spaces provided, while open ended questions on the respondents' opinion about the issues were included. Questions had a scale where SA stands for Strongly Agree, A means Agrees, stands for Neutral means Disagree and SD for Strongly Disagree. The key factors covered were on establishing E-learning sustainability, exploring attainment of computer skills and establishing funding strategies in place. Three documents were analysed during the study at school level. They were the mark books for the opener and midterm examinations which were obtained from the class teachers. KCSE file from the academic dean provided national exam results for the sampled schools for two years and school registers for an update on the enrolment of form three students during the time of study. The DEO'S office provided a current list of registered secondary schools both private and public which included their enrolment. Data was analyzed using descriptive statistics. The researcher used descriptive statistical technique to calculate the frequencies, means and standard deviations of the collected data.

## **Results**

### **E-Learning Sustainability**

Regarding the contribution of learning computers to the development and attainment of vision 2030 ,97.6 % of the students(Figure 1) and 90% of the teachers agreed .

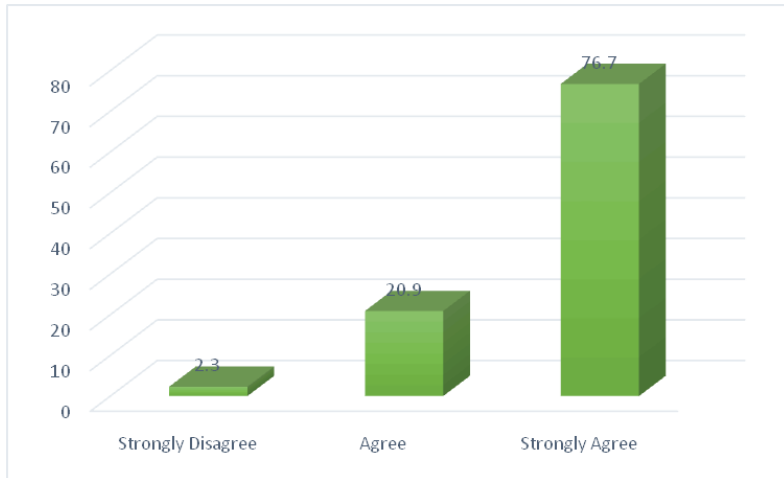


Figure 1:Contribution of Computers to Development and Vision 2030

The study found that 68.3% of the students did not have access to the computers while 19.5% and 12.2% had 3-4 and 1-2 exposure in schools. on the other hand 65.5% of the teachers had no access while 31% had between 1-3 hours .The researchers wanted to know where the students and the teachers used the computers and the findings showed that 71% used the computer laboratory,12.9% in the library and 16.1% in the classroom.In the case of teachers the researchers found that 65.5% used computers in the computer laboratory ,3.4% in the library Where do you use computers in your school.Students stated that 72.1% had an encounter with computers at home,18.6% at school and 9.3% in the primary school. The study further realized that 33.3% of the teachers did not have computers and 3.3 had personal computers(Figure 2).

The study realized that 17.2% of the schools did not have printers while 44.8 had very few Printers.Regarding internet connections in work stations data indicated that 27.6% had adequate while 51.7% had none, On the other hand 85.2% of schools had no usage of wikipedia while 14.8% had some usage .Further 75.9% of the teachers disagreed that the school organizes regular training on computers while 24.15 % agreed.

The findings indicated that 24.1% of the teachers agreed that they had attended forums on e-learning organized for teachers recently while 75.9% had not. The study found that 32.1% of the teachers disagreed that there are teacher(s) who act as resource persons in e-learning while 67.8% agreed. Regarding confidence in using computers in lessons the response was that 55.1% teachers agreed while 44.8% disagreed, further 46.4% of the teachers used computers regularly in. Regarding internet browsing the study showed that 92.6% of the students were good at it. Further 68.3% of the students were good at e-mailing while 55.2% of the teachers use computers regularly for correspondence through e-mail. The researchers found that 46.4% of the teachers agreed that they use computer in maintaining student performance records while 53.6% do not. Data indicated that 50% of the teachers agreed that getting skilled personnel to repair and service a computer is not a problem while 50% disagreed. Teachers (42.9%) agreed that they use computers only when required to do so gathering information for lessons while 53.6% did not.

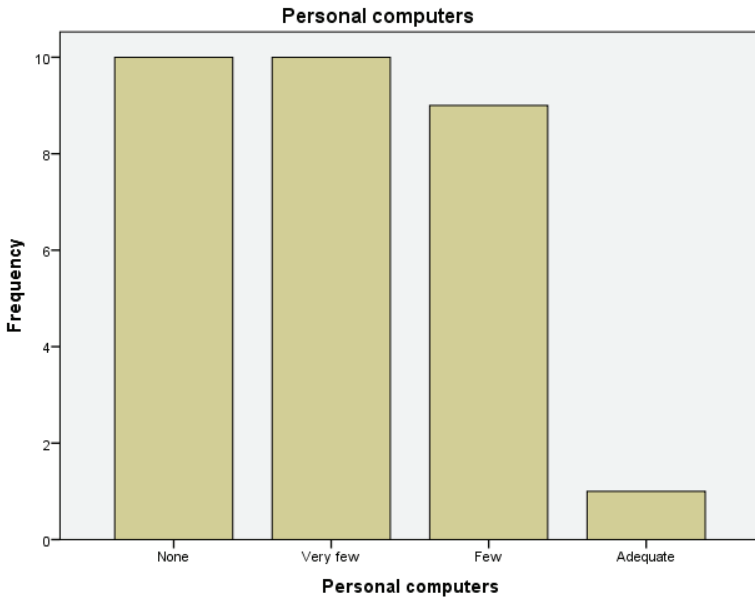


Figure 2: Teachers Personal Computers

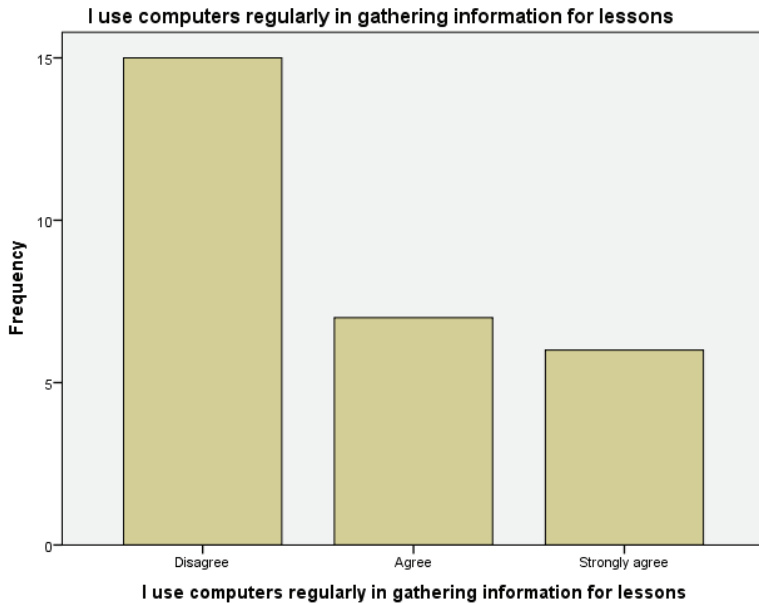


Figure 3: Use of Computer in Gathering Information

### Attainment of Computer Skills

The study realized that majority (97.7%) of the students can open and shut the computers (Figure 4) while 93.1% of the teachers can freely open while 3.4% cannot. Data indicated that 93% of the students can create a document and save in the computer while 2.3% cannot. As far as teachers are concerned 79.3% of the teachers can create a document and save in the computer. The study indicated that 97.7% of the students agreed that they had the knowledge on the use of the computer keyboard while 82.7% of the teachers knew how to use the computer keyboard. Data revealed that 83% of the students can print and scan documents from the computer while 4.9% cannot. Further it was realized that 58.6% of the teachers could not print or scan a document from the computer and 72.4% of the teachers had some usage on exam past papers while 27.6% did not have any usage.

The research found that 44.2 % of the students had access to the computers and related technology usage for over four years while 55.8% had it in less than three years. The study indicated that 55.6% Of the teachers had basic computer skills, 25.9% had the certificate and 11.1% had diploma. The researchers found that 82.9% of the students were good at word processing while 2.4% were very poor. On the other hand 44.8% of the teachers were good at Word processing while the rest had no ability. Regarding the spread sheets (MS excel) 66.6% of the students were good while 26.9% of the teachers had the ability to use Spread sheets but 61.6% had no ability. Results on power point presentation showed that 75.6% were good at it while 28.6% of the teachers were good at power point while 57.1% had little or no ability.

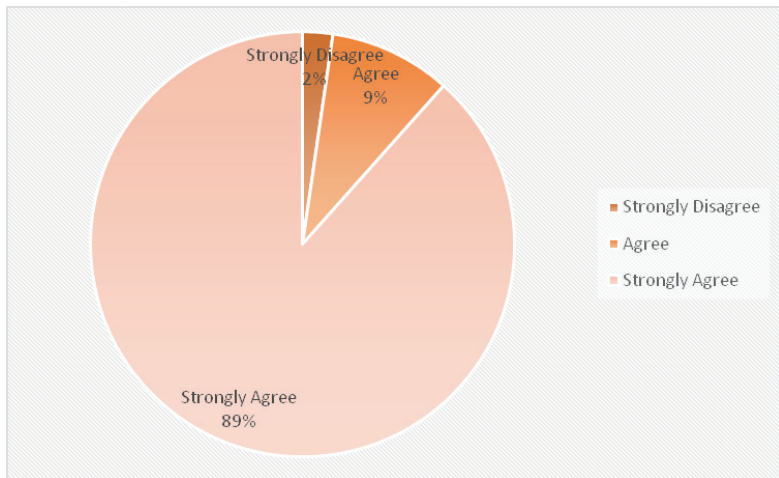


Figure 4: Opening and Shutting the Computer

Regarding the use email frequently 33.3% of the students used it very much, 38.1% used it much while 28.6% never used it at all. Regarding the social network 97.4% of the students were on the face book and 2.6% on the twitter. The study showed that 95.3% of the students browse the internet using the computer while 53.6% of the teachers were good at Internet browsing. The researchers wanted to know if the students could

download photos using the computer and the responses were that 95.2% could and that 92.9% of the students agreed that they could chat with friends using the computer. Findings showed that 48.1% of the teachers agreed that they have within the school people who can create digital content from the curriculum while 51.9% disagreed. The usage of DVDs, DCs, computers as well as power point was as follows, 62.5% (Figure 6), 76% CDs, 71.5% and 16% respectively. Further the researchers found that 76% of the teachers had no usage on Radio, 55% had the usage on TV, 66.7% had the usage in sciences and 70.4% had the usage in Languages.

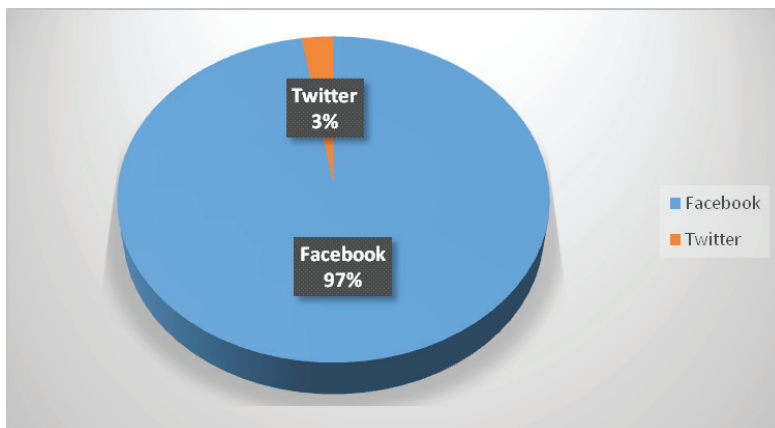


Figure 5: Social Network



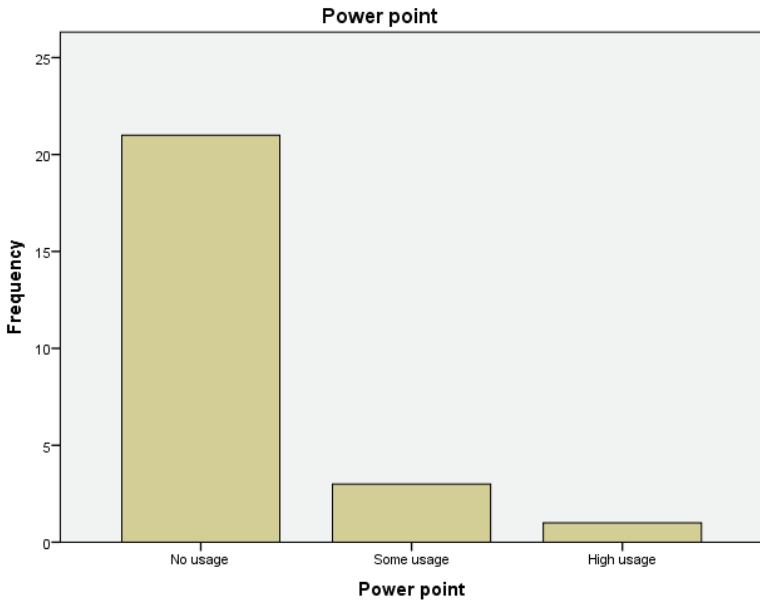


Figure 6: Power Point

### Funding Strategies in Place

When students were asked about their opinion on parents' contribution to the funds for equipping the computer laboratory, 7.2% disagreed, 69.7% agreed while 81.2% of the teachers agreed and 10.5% disagreed. The researchers found that 17.9% of the teachers agreed that their school had benefited from government grant towards e-learning and 78.6% had not in that 12.5% of the teachers stated it was provided one time and 6.3% stated often. Further 82.1% of the teachers supported that the school should charge a levy on the students fees towards the development of e-learning. Regarding sources of funding the study found that 18.2% had received from government, 27.3% from corporate, and 9.1% from NGOs.

## **Summary, Conclusion and Recommendations**

### **Summary**

There is lack of technical support and maintenance to the development of ICT in public secondary schools. Computer rooms are generally a feature of the larger schools. However, access by students to computers was found to be more than in the case of teachers. Schools were found to use a limited range of ICT peripherals, mainly printers and scanners., and digital cameras. Majority of teachers are not in a position to prepare lessons using the computers. Majority of the students had an encounter with computers at home as compared to teachers. Further the study realized that 58.6% of the teachers could not print or scan a document from the computer which are essential in the teaching learning process. Both students and teachers felt that parents' contribution to the funds for equipping the computer laboratory would be of great importance to schools.

### **Conclusion.**

Teachers in public secondary schools in kieni east district are not adequately equipped in ICT. This has an effect on the integration of E-learning in public secondary school. In the long run the academic performance of the public secondary schools may be affected where by a big difference may occur between schools that implement the E-learning and those which do not. Internet access is an issue in most schools.

### **Recommendations**

- Schools and teachers should capitalize on regularly reviewing the use of ICT in their work particularly they should strive to ensure greater integration of ICT within teaching and learning activities in classrooms and other settings.
- Principals should encourage and facilitate suitable ICT training for teachers.
- Schools should provide all their teachers and students with an appropriate and equitable level of
- Experience of ICT.
- Schools should plan for the maintenance and upgrading of their ICT systems.

- Computer rooms, where they exist, should be used to maximum effect.
- Staff members and students should have adequate access to the internet.
- All the teachers should be encouraged to cultivate a positive attitude towards ICT.

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## **Training Needs of Headteachers of Public Secondary Schools In Kenya**

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### **Abstract**

Education plays a critical role in creating professional skills that determine both the level and pace of a country's development. There is need to ensure that education managers possess requisite skills, knowledge and attributes to perform their administrative tasks effectively. A major weakness in education management in Kenya is that school managers are never given adequate preparation for their work especially how to deal with challenges and issues emanating from Kenya's ethnic diversity More and Thomas, in Tucker and Coding indicate that regardless of the year appointed, principals have been trained and certified as administrators through programs largely irrelevant to and grossly inadequate for the responsibilities found in the school principal-ship. Bush and Jackson further advocate for contextualized training of school principals because what works well in one country may not succeed elsewhere. The purpose of the study is to determine the training needs of head teachers from their own perception and find out any relationships between the training needs and selected head teacher variables namely; gender, professional qualifications, headship experience, current head teacher grades and academic qualifications. The Needs Assessment Theory will be used. Literature review will be done on the following themes; Role of the secondary school head teachers along five areas of responsibility namely; Responsibility for Curriculum, Responsibility for Teachers, Responsibility for Learners, Responsibility for Resources and Responsibility for Finance. Stratified and purposive sampling techniques will

**be used. Data will be analyzed by use of descriptive statistics. Inferential statistics will be used; chi-square test and Pearson Product - Moment Correlation. Based on research findings, recommendations will be made to various head- teacher training agencies in Kenya.**

**Keywords:** *Training Needs, Head-teachers, Principals, Perception*

## **Introduction**

Headship is very pivotal in determining school activities and eventual outcomes. For this reason, education manager's right from elementary to higher levels of learning ought to be people who possess appropriate skills in order to perform their administrative tasks effectively.

At the secondary school level, stakeholders in education expect headteachers to provide apt leadership and guidance not only to learners but also to teachers, parents and entire school fraternity. Besides the fact that at the secondary school level learners are very sensitive and delicate given the traumatic adolescence experiences they encounter, it is also note-worthy that it is at this stage that they get their bearing as to what careers and vocations they would pursue later in life. Consequently, parents and governments make heavy investments in education of their youth to make them economically productive and secure in future. In light of this, Olembo (1976) avers that the public has invested a lot in the education of the young so much that such immense investment must be entrusted to well trained headteachers to guarantee maximum production without wastage. Kamunge (1988) and Koech (1999) Reports aver that training of principals will yield quality and raise standards of education in Kenya.

The foregoing points to the fact that headteachers ought to get relevant training in order to be committed to the education process. Professionals in any given work environment are bound to perform their duties and responsibilities without much ado if they have the necessary skills for their job. Public secondary school head teachers are such professionals, and are therefore expected to be thorough in their work. Analysis of education management conducted in Kenya by the Kenya government



in 1994 observed that the trend in secondary schools is that ordinary teachers are promoted to headteachers on the basis of their experience in the classroom. Consequently, due to lack of management skills, the headteachers often encounter difficulties in basic accounting, bookkeeping and human resource management. Thuku (D/Nation, Monday May 3, 1999) observes that most headteachers need skills in school development planning, management of curriculum and all kinds of resources including personnel.

There has been hue and cry from the public about performance of heads of secondary schools in Kenya. Kangoro (D/Nation, Monday May 24, 1999) argues that many secondary school headteachers are ruthless, incompetent and un-approachable. Their divisive rule and dictatorial tactics stifle team work culminating in students boycotting classes demanding for their removal. Highlights of a workshop organized by Kenya Education Journalists Association (D/Nation, Monday September 21, 1998) point out that there is need to radically re-orient teacher training in Kenya to reflect contemporary global thinking and accommodate elements of democracy in schools. Teacher training in Kenya emphasized academic content at the expense of professionalism making trainees inadequate in dispensing their multi-faceted tasks at schools. The workshop lamented that school heads are like military instructors not entertaining questions unless they have solicited for the same. The situation in schools gets dimmer when research based reports highlighted by Tuiyot (East African Standard, *Trend*, Saturday September 21, 1996) reveal that 75 percent of the nearly 20,000 primary and secondary school headteachers in Kenya lack the necessary managerial skills culminating in mismanagement of schools.

Attempts to mitigate the deplorable administrative environment in public secondary schools have birthed dismal results. A study conducted by Muthini (2004) cited in Nandwa, *International Journal of Humanities and Social Science Vol.1 No.9 Special Issue –July 2011 291* on Principals Perception of KESI programmes in Nairobi Province, Kenya indicated that while principals appreciated KESI programmes, they emphasized that they need to be consulted on courses they wish to be updated on during in-service training for school leadership. This echoes the need to organize in-service courses, workshops, seminars and educational trips for educational administrators that are in tandem with current educational

changes in the country. These courses are usually structured based on the whims of KESI planners and administrators. Rarely are structured surveys undertaken among the clients (head teachers) to find out their actual training needs. Consequently the KESI courses are largely irrelevant to the recipients and hardly help to change their behaviour towards the desired direction. This has led to persistent poor performance, lackluster management, low managerial skills, lack of motivation, arrogance and lack of good public relations, poor supervision, poor chain of command and poor delegation (Kenya Times, September 14, 1996). Deblois (1992) cited in Mikios and Ratsoy (1992) analyzed school administrator preparation programmes and concluded that there is irrelevance and incoherence of administrative theory with regard to daily life of school principals. It is urgent that school heads identify their training needs to in order to realize effective administrative practice in schools.

### **Purpose and objectives of the study**

The purpose of the study is to determine the training needs of public secondary school headteachers in Siaya County, Kenya.

Specific objectives of this study are:

- 1) To identify training needs of public secondary school headteachers.
- 2) To establish areas of in-service training perceived by public secondary school headteachers as necessary to enable them improve their administrative skills.
- 3) To determine whether relationship exists between identified training needs and selected headteacher variables.

### **Research questions**

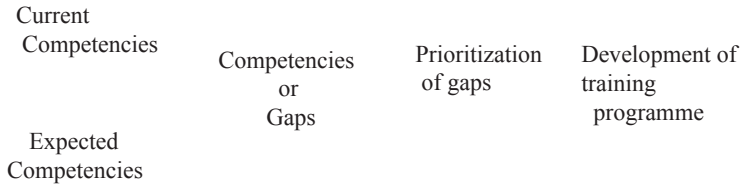
- 1) What are the training needs of public secondary school headteachers?
- 2) What are the areas of in-service training perceived by public secondary school headteachers?
- 3) Does a relationship between training needs and selected headteacher variables?

## **Theoretical framework**

This study is based on Needs Assessment Theory. Needs assessment is an information-gathering tool, which enables one to identify the needs of individuals, institutions or companies. In education, needs assessment has been used to determine needs of local, national and regional education systems with an aim to revitalize these systems either by overhauling the entire education system or revising an existing one. Scholars like Taba (1962); Wheeler (1967); English and Kaufman (1975); and Shiundu and Omulando (1992) concur that when developing a new curriculum or when altering an existing one, the process must start with needs assessment. That is, analyzing what ought to be vis-à-vis what is. Also, Czajkowski and Patterson (1976) affirm that needs assessment is useful in identifying gaps between desired results and current practice. Identification of gaps is then followed by bridging. This bridging must then be done based on needs assessment. The foregoing is the thrust of this proposal. The researcher intends to find out desired practice against current practice in regard to heads of secondary schools in the hope that this will yield gaps for their management training.

Needs assessment is not only a problem solving tool but also a tool by which identified needs can be prioritized (English and Kaufman 1975). It means a rank order of needs can be formed depending on the urgency with which a given need requires action. This study will apply needs assessment as a problem-solving tool. In addition, the researcher will also be able to prioritize a wide range of training needs that heads of secondary schools will have identified. The needs assessment process will be used in this study in the hope that it will help heads of secondary schools to participate more actively in education management in Kenya if given chance to identify their needs. In sum, needs assessment is crucial since it aims at moving practitioners (head teachers of public secondary schools) from use of trial and error in their work. This is because the theory emphasizes that action be taken to address pressing needs once identified so as to alleviate anomalies.

The needs assessment procedure that is adopted for this study is illustrated in Figure 1.



*Figure 1: Procedure for Needs Assessment (Own initiative).*

## **Literature Review**

### **Introduction**

Literature reviewed in this section hinges on training needs of education managers in general. However, to bring the proposed study into perspective, the researcher emphatically addresses training needs of headteachers of public secondary schools in Kenya. To facilitate this review, three dimensions are considered namely; the global, regional/ African and Kenyan perspective on training of headteachers.

### **Global perspective**

The need to improve school management and strengthen the role of headteachers has gathered momentum in recent times so much so that innumerable surveys, reports and research studies exist all in an attempt to unearth that crucial missing element in school leadership. A cursive examination and critique of some of this literature is what makes subsequent reading in this chapter.

### **Armenia**

In an effort to refurbish the education sector in Armenia after suffering long years in war, the Ministry of Education and Science for the first time in 2004, expanded the training curriculum module for school administrators by incorporating three main segments namely; educational leadership, management and supervision techniques. Available literature

reveals that these three areas were sourced from IREX (an international non-profit organization) Leadership Training Handbook. It is therefore apparent that the clientele (school administrators) were not consulted as to areas they could have deemed necessary to be contained in the training program. This is the oversight that this study intends to address.

A survey conducted by United Nations Educational Scientific and Cultural Organization (UNESCO) of teachers' working conditions in 63 countries of the world revealed that majority of teachers (prospective school heads) had reverted to untrained status due to lack of in-service training schemes. Thuku (D/Nation, Monday May 3, 1999) reports that a repeat survey conducted by the United Nations Children's Education Fund (UNICEF) in 1993 echoed UNESCO's findings to the effect that capacity building and training of headteachers in planning, administration, curriculum, supervision and evaluation of tests and measurements are neglected areas.

Provision of quality education management remains high on the agenda of governments all over the world (IIEP Newsletter, October-December 2000). A study conducted by the National Council of Research and Training in the seven states of India examined a plethora of teacher issues namely; teacher recruitment, demand and supply of teachers, initial posting, transfer policy, representation of female teachers in the workforce and the existing position of trained and untrained teachers. Also teachers' views were sought about the impact of pre-service and in-service training on their work. Teachers' views were collected and categorically reported as follows:

**1) Teachers' perceptions about quality of initial training.**

The study points out that 30 percent teachers in Hayana State and 40 percent in Kerala expressed they were dissatisfied with the initial training they received for their practice teaching and field/practical work. As a result, the study advocated for a review of curriculum of initial teacher training.

**2) Factors improving teachers' willingness to participate in in-service training programmes.**

Some of the key factors that teachers identified as crucial include;

- Involvement of trainees in the training process by competent resource persons.

- Support to teachers to implement innovations acquired at training programmes.
- Consultation with teachers to assess their needs.

### **3) Training needs of Headteachers**

The study reports that headteachers expressed their need for training in areas listed below;

- General administration
- Providing instructional support to teachers
- Team building
- Seeking community support.

The foregoing study focused on a host of teacher issues, which necessitated an examination of not only teachers' perceptions but also documented government policy papers. Likewise, this proposed study is to seek headteachers' views about their management training needs.

The IIEP newsletter further reviewed 160 studies covering in-service education of teachers and concluded that in-service education and staff development programmes can be more effective if content is based on self-reported needs of participants. In addition, a study entitled "Teacher Incentives in the Third World" contained in the same IIEP newsletter above suggests that immense attention should be given to the training of headmasters in the area of instructional supervision techniques. It is notable that the foregoing study underscores the thrust of this study by hinting strongly that great success of any organized educational programme can have far reaching effects if participants in the same programme would have their self-reported needs incorporated in such a scheme.

### **United Kingdom**

In the United Kingdom (UK), a survey was conducted by Education Department in 21 secondary schools with the aim of finding out current thinking about professional development and management training needs of school heads of department. The study faulted appointment of heads of department, which it reported was based on assumption that these administrators already had knowledge and skills to do their work.

The study however affirms that this was not always the case. Heads of department formed the target population that was interviewed. The end result was that several training needs were revealed not to mention that the interviewees themselves expressed that they were frustrated and could not contribute effectively to whole-school decision making and development planning. This survey further argues that professional development and training programmes can become effective if notions, ideas and perceptions of school based research and collegial reflective practice in learning organizations are included in such programmes. Simply put, the study advocates for inclusion of participants' views in programmes designed to enhance their performance.

### **England and Wales**

In England and Wales, a research project was conducted by National Development Center for School Management Training in maintained secondary schools purposely to find out;

- 1) Problems in staff management/employment relations
- 2) Training needs of headteachers.

It is indicated that the outlined issues were of crucial concern to school personnel and to local education authorities (LEAs). The report not only revealed problems and issues relating to staff management but also approaches adopted by a sample of headteachers to the management and employment of staff in their schools.

Though detailed findings of this study are unavailable for focused critique, it however concludes that headteachers should depart from their traditional authoritarian roles. The abstract indicates further that tests and questionnaires were used to solicit information from participants. However, there is silence on specific participants that formed target population for the study.

The IIEP newsletter provides vast literature on challenges facing school management in Asia U.S.A. (United States of America), UK (United Kingdom) and even countries in South America like Argentina. Literature on reforms that education should embrace given the changing role of the headteachers covers remarkable space in the above newsletter. For example, under the title 'Improving school management: a promise and

a challenge', it is observed that research results in education are being used by policy makers in Asia to introduce reforms in schools to make schools more responsible and autonomous. It is also expressed that this move towards more school based management demands non-traditional managerial skills from the head teacher. Until the participants or implementers of a new policy are involved in its inception, development and planning, effective implementation of such policy may become futile. The above newsletter concludes that for successful adaptation of new policies and changes in education, it is pertinent that public awareness is raised within the school community especially among head teachers.

It is further pointed out that policy makers should give schools more autonomy and recognize the importance of the head teacher. Emphasis is laid on the urgent need to develop an integrated policy at central level (equivalent of Ministry of Education in Kenya) aimed at improving school management and strengthening the role of headteachers. Areas such a policy should cover include:

- clarify the areas of autonomy and the levels of accountability so that the headteachers feel supported rather than overburdened
- accompany such autonomy and accountability with a strong consistent support system, especially for newly appointed and/ or isolated headteachers
- improve recruitment and selection procedures encouraging the early identification of potential candidates and introducing a system of mentoring by experienced innovative headteachers.
- develop a motivating career path, by offering professional development opportunities and strengthening in-service training.
- setting up a mutual support system and discussion forum for teachers.

A broad spectrum of policy issues on improved school management are raised above, some of which are not within the purview of this proposal. However, professional development of headteachers is a crucial area that is emphasized except there is no mention as to whether headteachers would be a main source of their training needs to be incorporated later in the proposed professional development and in-service training programmes. The IIEP newsletter cautions that head teacher training in



many countries is faced with acute obstacles. Of relevance to this study are the imminent diverse preferences of school stakeholders as to what managerial competencies the training programmes should address. For example, it is speculated that strengthening in-school supervision might be a popular need among headteachers but less so among teachers.

On the whole, it is notable that the thought line of this study seems to be echoed by the IIEP newsletter, which points out that in most countries building initiatives cover few staff, and professional development opportunities, if they exist, remain scarce. Headteachers especially in the more remote areas are isolated and receive little or no support from the central administration. Consequently, there is a wide discrepancy between the current unchanged profile of the head teacher and the ideal profile of an innovative pedagogical leader. That a wide discrepancy exists between the ideal and current performance of headteachers as affirmed above is what this study seeks to find out within the Kenyan context.

### **Argentina**

In Argentina, efforts to construct an effective school supervision system witnessed IIEP-BuenosAires conduct a survey in San Luis province with target population as school supervisors and headteachers. The survey identified two basic conditions that needed to be fulfilled for improved school supervision as follows:

1. The necessary structures and resources should be set up reforming existing norms and regulations and technological resources be allocated to enable inspectors to fulfill their new tasks.
2. For reforms on school supervision to be effective the know-how and attitudes of school supervisors must also change and their role and position in the education system redefined.

Analyses of more studies carried out in other provinces of Argentina IIEP reported that school supervisors concurred that they needed further training. Precisely 42 percent of those interviewed consider their training ‘inadequate’ or ‘extremely inadequate’ for their task. The study also reports that school supervisors identified areas crucial to their training, how their participation can be stimulated and highlighted those institutions best equipped to provide such training. IIEP- Buenos Aires indicated further that opinions of supervisors could not be considered

in isolation as sufficient to determine a training policy. Hence, factors such as education trends and available resources should be considered, the newsletter reported. Likewise for the proposed study, determining head teacher training needs in a vacuum would be defeatist hence; the ideal competencies of these administrators will be generated within the framework of the Kenya Ministry of Education guidelines. On the whole, IIEP newsletter underscores the point that headteachers must be placed in a more enabling environment, given regular support and supervision and they need to be trained. But how this can be done is the puzzle IIEP newsletter leaves unsolved.

This study offers the antidote that involving head teachers first and foremost in the identification of their training needs must precede their training. Consequently, a training policy can be formulated based on the identified needs.

### **African/Regional perspective**

In the African context Bush and Oduro (2006) decry the existence of limited literature and research on school principals in Africa. Drawing from scanty research literature Bush and Oduro generated a paper, which examines challenges facing new principals in the continent. The sum of their paper is that school principals in Africa face a daunting challenge in their work. Specific issues that ail principalship in the continent are that these administrators:

- often work in poorly equipped buildings with inadequately trained staff
- rarely receive any formal leadership training
- are appointed on the basis of their teaching record rather than their teaching potential
- are not exposed to proper induction and obtain little professional support.

Bush and Oduro's efforts outlined above bring out issues pertinent to effective school management but do not offer appropriate suggestions to address them head on.

### **Uganda**

Pfau (1996) did analysis, which describes the details of a survey conducted in Uganda in 1994. The survey aimed at determining management-training needs of primary school headteachers. Data was collected

through questionnaires that comprised 155 tasks and duties performed by Ugandan headteachers. A total of 47 headteachers in 3 districts of Uganda formed the target population. Participants were requested to indicate the tasks they considered more important than others. Those tasks identified as significant were to be included in the subsequent management-training program. The tasks were grouped into 13 categories as follows: (1) general management (2) personnel management (3) staff development (4) financial management (5) records management (6) materials and supplies (7) communication (8) meetings (9) school governance (10) curriculum management (11) school facilities (12) pupil related tasks (13) other tasks. The paper eventually records that the results of the survey were used by the Uganda Ministry of Education to develop a basic management-training course for primary school headteachers.

It deserves pointing out that the foregoing survey offers plenty reference points to this study. First, the thrust of the survey ‘...to determine training management needs of headteachers in Uganda’ is in total agreement with the proposed study save for context, school level and timing. Pfau’s analysis also reports that questionnaires were the sole data collection instruments in the survey. This is unlike this study which seeks to use interviews to complement questionnaires in order to obtain more incisive responses.

While acknowledging that there is increased demand for quality education in secondary school not only in Uganda but in the whole of sub-saharan Africa, Kyeyune and others fault headteacher preparation for school administrative tasks. Their Article spells out certain areas that require headteacher efficacy as leadership; management; instructional supervision and community relations. Though the Article seems not to be exhaustive in highlighting administrative areas manned by headteachers, it hastens to suggest that there is need to design a training programme for headteachers to target gaps in specific skill domains. The Article however fails to explain the procedure for the identification of these gaps.

### **Malawi**

The Association of Christian Educators (ACEM) in Malawi conducted a study with the purpose to create baseline data on the status of management, funding, infrastructure, teaching and learning programmes of Community Day Secondary Schools (CDSS) in Blantyre Synod. This study was based

a sample of 17 CDSS from Blantyre and Zomba districts. Questionnaires and structured interviews were used to collect data from teachers and headteachers respectively. Focused group discussions were also used. The findings of the study revealed that in school administration, headteachers were supported by heads of department who themselves had little experience in departmental headship. Secondly, majority of teachers had limited exposure to school management practices. The bottomline of the study is that school proprietors and ACEM need to develop a systematic school based in-service programme tailored to specifically meet school management needs. The question that begs an answer is that who is to identify these management needs?

### **Botswana**

Pheko (2008) in his Article highlights that rapid expansion of education in Botswana has led to by demand for effective school leadership. Consequently, in 1996 the government started a 10-year basic policy on leadership skills of secondary school headteachers. For purposes of study, Pheko concentrated on three main areas namely:

Perception of headteachers:

- 1) of procedures used to appoint them.
- 2) about leadership skills required for the post of headship.
- 3) of how training for headship can be improved to meet educational challenges.

Interviews were used to collect data from 8 selected headteachers. From the findings, the headteachers reported that besides limitations of procedures used in appointing them to leadership positions, they were also limited in their practice of leadership skills. In sum, the Article stresses the need for Botswana to establish a leadership training policy to guide the training of headteachers in order to enhance effectiveness in school administration.

### **Kenyan perspective**

On the local scene, a lot of emphasis has been laid on training of headteachers as panacea for management anomalies in schools. Maranga (1977); Adhola (1985); and Muyia and Kangethe (2002) argue in their works that training of education personnel not only imparts the crucial management skills to educators but also enhances quality of education

in general. Maranga conducted a study in Kenya to find out problems that hinder effective supervision in schools and subsequently based on the research findings draw training guidelines for external school supervisors. The study revealed obstacles that stifled school supervisors' work as:

1. Lack of sufficient number of supervisors to carry out supervisory duties in schools
2. Lack of intimate relations between teachers and supervisors due to the latter's heavy workload
3. Lack of effective channels of communication between supervisors
4. Lack of supervisory skills and techniques necessary for the fulfillment of supervisory roles.

Maranga used needs assessment tool to establish from external school supervisors the supervisory skills they desired to possess viz-a-viz the current skills they used to perform their work. Consequently Maranga affirmed that training is a *sine qua non* for effective performance of supervisory work. In like manner this study intends to use the needs assessment method to bring out the training needs of headteachers of secondary schools in Kenya.

Adhola (1985) conducted a survey on the role of the secondary school head teacher in the 1980's and revealed the following:

1. Headteachers get little formal training before appointment
2. Courses meant for headteachers are not properly designed
3. Experience on the job is the criterion for selection of headteachers.

Subsequently, Adhola recommends that a training programme be drawn and quickly implemented. It can be observed that Adhola's study offers a solution (training) that must be predicated on proven findings that is, the headteachers' views on their management needs emanating from authoritative research results. A study conducted in Gucha district by Onderi and Croll (2008) set to find out the effectiveness of in-service programmes; teacher and headteacher priorities in determining in-service needs; and the constraints that impede the provision of in-service courses. The study population involved 30 secondary school headteachers and 109 teachers. The study finally revealed that there is need for provision of in-

service courses for headteachers and teachers. The results also emphasized that in-service courses have great impact on learner achievement. The study affirmed that resource constraints were main obstacles to attendance of in-service courses by headteachers. Onderi and Croll used headteachers and teachers to identify their in-service training needs-this approach is underscored in the current study. However, on matters of scope and study sample Onderi and Croll seem to have gone beyond the confines of the current study.

Onguko; Abdalla and Webber (2008) conducted a study to examine programmes available for principal preparation in Kenya and Tanzania. The researchers used document analyses approach by which they examine publicly available information on educational leadership programmes offered by both public and private institutions in East Africa. Areas of focus were programme content; structure; delivery modes and credentialing. The findings revealed that school principal preparation programmes had gaps in areas such as instructional leadership, educational technology and visioning. In sum, it is affirmed that East African educational institutions lack sufficient capacity to prepare new principals or to offer on-going professional development. The foregoing reveals inadequacies of initial pre-service programmes in preparing headteachers for their administrative roles. For this reason, the current study advances the thesis that it is imperative to involve incumbent headteachers in identifying their training needs so that the same could be addressed by a tailor-made in-service programme.

The fact that needs assessment is first step and also most effective method in identification of training needs has witnessed its application in various sectors of development in Kenya. A case in point is the sugar industry where in the year 2006 three organizations; Kenya Sugar Research Foundation (KESREF), Kenya Industrial Research and Development Institute (KIRDI) and Kenya Sugar Board (KSB) jointly conducted Industrial Research Needs Assessment in all the six sugar industries and downstream industries (D/Nation, Thursday March 1, 2007). It is reported that the assessment generated over 100 research and technology needs that if addressed would increase productivity and competitiveness of the sugar factories. Both KIRDI and KESREF directors pointed out that research findings can provide relevant answers to pressing needs in society if the beneficiaries are involved in the identification of the research problems (D/

Nation, Thursday March 1, 2007). Though drawn from the agricultural-industrial sector, the foregoing literature amplifies the thrust of this study by underscoring the significance of needs assessment as an apt method to identify training needs of a particular target population. Indoshi (1999) conducted a detailed assessment of in-service education and training (INSET) needs of primary school agriculture teachers in Kenya. Basing the study on Vihiga district, Kenya, Indoshi employed the needs assessment method to unearth the INSET needs of primary agriculture teachers. After analyzing vast literature on INSET touching on areas like content, timing, duration, and methods among others Indoshi finally argues that INSET programmes in Kenya are characterized by mediocrity, lack of relevance, uninspiring presentation and a failure to make the programmes relevant to what goes on in the schools. This regrettable state of affairs is attributed to the fact that teachers are not enabled to participate in the ownership, planning, organization and delivery of these INSET programmes.

Orwa (1986) did a study on “the organization and effectiveness of in-service education and training and its role in teachers’ performance and primary schools’ achievement in national examinations in Kenya”. Orwa analysed INSET courses for primary school teachers and reported that these programmes are inadequate in terms of organization, timing and length of courses. The foregoing indictment of INSET programmes was based on the fact that:

1. there was no proof of existence of course outlines for providers of INSET
2. syllabuses or even records of INSET activities were not available
3. needs of teachers to be addressed by INSET programmes were not clear due to lack of proper procedure for identification of such needs.

Both studies by Orwa and Indoshi aver that for teacher INSET programmes to be effective, they must embrace opinions, views and perceptions of teachers. It is on the strength of this point that this study seeks to step out to solicit views and perceptions of heads of secondary schools, deputy heads and teachers as to what their training needs are, so that if addressed then these administrators would be able to perform their work more effectively than before.

To improve quality of education in the Kenya, the government seeks to enhance teacher effectiveness and student learning. To this effect several suggestions are offered by Wanzare and Ward (2006) that:

1. current in-service programmes be improved for all headteachers and teachers
2. the role of the headteacher in promoting relevant teacher development requires greater recognition and administrative training
3. organizations such as KESI need to be more involved in providing up-to date staff development for all educational administrators
4. more attention be given to effective induction, internships, strategic staff placements, financing, collaboration among provider organizations and opinions of teachers concerning in-service needs.

While the above report esteems the role of the head teacher in the provision of quality education by offering that head teacher in-service programmes be improved, it does not however spell out the nitty-gritty of what the procedure involves.

The duties and responsibilities of headteachers are so diverse so that the most suitable way to categorize them is by adopting the framework postulated by Dean (1982). Dean spells out five major areas of responsibility for school managers thus:

- 1) Responsibility for curriculum
- 2) Responsibility for teachers
- 3) Responsibility for learners
- 4) Responsibility for resources
- 5) Responsibility for finance.

The five areas above are discussed at length in the main paper.

## **Methodology**

### **Study design**

In this study, descriptive design will be used. This is a method of collecting information by informing or administering a questionnaire to a sample of individuals (Orodho, 2003). Concerning descriptive design, Kombo and



Tromp (2006) point out that such studies are not only restricted to fact finding, but may often result in the formulation of important principles of knowledge and providing solutions to significant problems. The studies are therefore beyond just a collection of data but involve measurement, classification, analysis, comparison and interpretation of data. It is in light of this that this study will use questionnaires and interviews to obtain data which will be subjected to descriptive analysis by use of percentages, frequencies and means.

### **Study area**

This study will be conducted in all public secondary schools in Siaya County. The county occupies approximately 1520sq of land and is located between latitude 0<sup>0</sup> 26' to 0<sup>0</sup> 18' north and longitude 33<sup>0</sup> 58' east and 34<sup>0</sup> 33 west. Siaya is one of the counties in Nyanza Province and is bordered by Busia to the North, Kakamega to the North-East and Kisumu to the South-East.

Agriculture is the peoples' main economic occupation and accounts for 80 percent of the county's population engaged in crop and livestock production. About 60 percent of house hold incomes in the county are from agriculture and rural self employment activities.

At the moment, the county's population is estimated at 493,326 with 227,044 males and 266,282 females. This population is projected to rise by the plan period in 2008. The district suffers high dependency ratio, which stands at 106:100. That is, for every 100 economically active people there are 106 dependants entirely relying on them for their basic needs. This is an indication that Siaya district suffers acutely from poverty whose level stands at 58.02 percent. On the whole, the district's contribution to national poverty is about 1.85 percent (Siaya District Development Plan, 2002-2008). It is further indicated that 57 percent of total population are those below 19 years. This fact points to the need for expansion of educational institutions to cater for this rising youthful population. But learning institutions cannot be expanded and be banked upon to alleviate poverty without paying attention to the quality of their custodians. As mentioned in the background to the study, it therefore becomes pertinent that the deficiencies that characterize the performance of school heads be identified and eventually addressed in order to improve education standards not only in Siaya county but also in the entire country.

### **Study population**

Siaya county has a total of 81 secondary schools. Out of this, 73 are public schools while 8 are private. The respondents in the study will be all the 73 headteachers of the public secondary schools in Siaya county.

### **Study sample and sampling procedures**

The targeted population are public secondary school headteachers. Saturated sampling will be used to obtain the required respondents.

#### **a) Sampling**

In saturated sampling, all the 73 headteachers of public secondary schools in Siaya county will be involved in the study.

### **Research instruments**

Data will be collected using questionnaires and interviews.

There are questionnaires for the headteachers. This instrument is in two parts. The first part consists of statements aimed at obtaining background information of the respondents. This initial information will enable the description of participants involved in the study on the basis of gender, work duration and professional qualification. Part two consists of 60 items designed to gauge the presence or lack of competencies denoted by the frequency of performance of tasks by head teachers in the five areas of responsibility.

#### **b) Interviews**

Interview schedules will be conducted with the public secondary schools of heads secondary Arrangements will be made to interview these personnel at a convenient time. Between ten and fifteen minutes will be dedicated to each interviewee. Their responses will be recorded with their permission. Copies of letters of introduction and interview schedule for quality assurance and standards personnel are found in Appendix A (iii) and A (iv) respectively.

### **Validity and reliability of research instruments**

#### **a) Validity of the questionnaire**

Validity refers to the ability of a test to measure what it is supposed to measure (Kombo and Tromp, 2006). and Heath, 1965). For this

reason, to arrive at the validity of the questionnaire for this study, three specialists in the Faculty of Education, Maseno University, Kenya will be independently requested to thoroughly examine sample copies and make comments, which will be subsequently used to improve the validity of the questionnaire.

**b) Reliability of the questionnaire**

A research instrument is rendered reliable if it consistently produces the same results every time it is used. To obtain reliability of the questionnaire, 10% of the 73 sampled schools in Siaya county will be used for piloting purposes. The 7 pilot schools will be obtained by random sampling in a neighbouring county.

**Procedures for data collection**

In order to obtain official access to the study area and target population to conduct research, a permit will have to be obtained from the Office of the President with assistance from the School of Post-Graduate Studies, Maseno University, Kenya. Thereafter, county commissioner will be informed of the undertaking before commencement of actual research. This will be necessary to allay any suspicion, doubt, fear or even conflict between government authorities and the person conducting research and the public.

**a) Administration of Questionnaires**

A politely worded letter will accompany the questionnaires to be administered to the respondents requesting them to co-operate in the study and to respond to the questions honestly. The questionnaires will be distributed to the respondents in the selected secondary schools and those completed collected on same day. This will be done so as to cut down on transport costs because many of the secondary schools in Siaya District are far removed from main roads. Also, immediate collection of questionnaires will ensure high rate of return hence cases of losses will be reduced.

**b) Interviews**

More vital information on the training needs of heads of public secondary schools in Siaya county will be obtained through interviews with heads of schools.. Arrangements will be made to interview these officers at a convenient time. Their responses will be recorded with their permission.

### **Procedures for data analysis**

There are 60 specific administrative tasks of heads of schools. There will be analysis of background information of respondents in the study. Such general information will cover gender, professional qualifications, academic qualifications, experience in headship etc. Secondly, the rated information provided by respondents will be analyzed based on actual and desired frequency of performance of administrative tasks by headteachers. Inferences will be made on whether relations exist between headteacher variables and training needs.

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## **Language Education as A Catalyst in Documenting Local Languages: a case of the lubukusu noun phrase**

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### **Abstract**

**This paper focuses on the important role that Language education can play in the documentation of local languages. According to Ethnologue, there are currently about 7,000 living languages in the world. 90% of the languages, it is believed, will be extinct by 2050. In Kenya Bong'om, Omotik, Ongamo, Sogoo, Suba and Terik are on the verge of being extinct. This study therefore aims at bringing out how language education can be useful in documenting and preserving the Lubukusu Noun Phrase data. This study's objectives are to: - describe the Lubukusu substantive and derived noun, find out the co occurrence pattern of the Lubukusu head noun and modifiers and finally describe the agreement patterns within the Lubukusu noun phrase. This study is important in documenting Lubukusu and the realization of Chapter 2 section 7 of the 2010 Kenyan constitution. Furthermore, it goes a long way in supporting the language policy on the use of mother tongue in Kenyan lower primary schools. The study was carried out in Bungoma County. From the study it was established that Lubukusu substantive nouns are different from Lubukusu derived nouns, most Lubukusu modifiers occur after the head noun and agreement mostly involves the modifiers copying the head noun's prefix structure.**

### **Background**

#### **The Language**

The Bukusu occupy Bungoma county (the home county) and some parts of Trans-Nzoia and Uasin Gishu counties in Kenya. There are dialectical

variations within Lubukusu. These variations are mainly related to geographical location. Sikuku (ibid) identifies three such groups namely (i) Western (Sudi) (ii) Central and (iii) Eastern (Webuye). He argues that the variations among these groups are primarily phonological and lexical as they do not affect intelligibility. Given that the differences are not grammatical, this study looks at Lubukusu as a homogenous group.

According to the 2009 Kenya census Lubukusu is estimated to be spoken by 1,433,000 people as a first language and a couple of other thousands as a second language. The prefix Lu- in Lubukusu denotes “language”. Bu- refers to the place where the language is spoken, Ba- the speakers of the language and O-mu- denotes a singular form for the speaker of the language.

### **The Noun Phrase in General**

A Noun Phrase (as it shall clearly come out later in chapters four and five) is made up of a noun (as an obligatory element) together with other dependents/ modifiers. A noun phrase, nominal phrase or nominal group (henceforth abbreviated NP) is a phrase headed by a noun, pronoun or other noun-like word(s) (nominal) optionally accompanied by specifiers, complements and adjuncts. Noun phrases normally consist of a head noun which is optionally premodified and/or postmodified. The modifiers include: specifiers which comprise of articles, demonstratives, numerals, possessives, quantifiers and adjectives. Other modifiers include complements and adjuncts. The occurrence of the Lubukusu head noun with the other dependents in Lubukusu is worth documenting thus bringing out its unique features.

There is no clear definition of a noun given that it can be looked at from different dimensions including meaning, function, form, stress and cognitive function. To this end, this study adopts Huddleston’s definition of the noun. This is because this definition among other things carries the backbone for this study as it concentrates on looking at the noun in terms of its morphological and syntactic aspects.

### **Definition of terms**

**Affix-**A grammatical morpheme which cannot stand on its own as an independent word but must be attached to a stem or root of an appropriate kind like noun, verb or adjective.

**Agglutinating language**-A language that ‘glues’ together morphemes

**Lubukusu**-The Bukusu language

**Morphosyntactic structure**-Linguistic units that have both morphological and syntactic properties

**Nominaliser**-A cover term referring to all affixes that change a form from one part of speech to a noun.

**Prefix structure**- A structure comprising of both the preprefix and prefix

### **Statement of the Problem**

According to Ethnologue, there are currently about 7,000 living languages in the world. 90% of the languages, it is believed, will be extinct by 2050. In Kenya Bong’om, Omotik, Ongamo, Sogoo, Suba and Terik are on the verge of being extinct. This study therefore aims at documenting and preserving the Lubukusu Noun Phrase data. The Lubukusu Noun plays a role in agreement marking when it occurs within the noun phrase. It is worth noting from the onset that this study mainly focuses on the Lubukusu noun as it occurs within the Lubukusu noun phrase. In a noun phrase the noun influences agreement marking on the specifiers, complement and adjuncts. Given the agglutinative nature of the language, agreement involves preprefix or prefix copying while in some cases it involves both. How the Lubukusu head noun interacts with the other modifiers within the Lubukusu Noun Phrase is a puzzle to both descriptive and theoretical linguistics. Morphological and syntactic characteristics of the Lubukusu Noun phrase have received minimal attention yet there is need for their documentation and description. The understanding of the characteristics of the Lubukusu noun phrase will go a long way in contributing to the understanding of the universals and parameters of language.

Furthermore, within the Lubukusu Noun there are mysteries that need to be unraveled. One such mystery is the formation of derived nouns: A derived noun in Lubukusu comprises of a noun prefix, a root word and an alteration of the derivational suffix. Such a composition poses interesting questions about how the elements can be theoretically analysed and whether the derivational suffix plays any syntactic role as far as the LNP is concerned. Consider the following structures:

O-mu-subil-ifu o-wa papa

Cl 1-cl 1-believe-Ds cl 1-of dad

Dad's believer

On the overall, the following issues form the backbone upon which this study's problem is hinged: the morphology of the Lubukusu substantive and derived nouns (head of a Lubukusu noun phrase), the agreement properties and patterns of co-occurrence between the Lubukusu head noun and other modifiers.

### **Aim and Objectives**

This study's main aim is to describe the morphosyntactic structure of the LNP. The specific objectives of the study are to:

- describe the morphological properties of the substantive and derived nouns in Lubukusu
- find out the co-occurrence pattern between the Lubukusu head noun and the dependants
- describe the agreement properties and patterns of co-occurrence between the Lubukusu head noun and the dependants

### **Justification of the study**

To begin with, this study is of great importance as it helps in providing LNPs as a set of new data. This new set of data can be used in testing/validating linguistic theories. This leads to some progress in theory development.

Secondly, this study is important given that there is a knowledge gap on the morphology and syntax of the LNP (as is brought out in the literature review section) thus this study is important in adding knowledge in the fields of morphology and syntax. Such knowledge is useful in guiding other scholars interested in studying other morphosyntactic aspects of Lubukusu and the other Bantu languages in general. Furthermore, data used in this study can be used by comparative linguists in the understanding of language typology.

In line with the constitutional requirement (Chapter 2 of Kenya's constitution section 7 sub-section 3) this study helps in the promotion and protection of Lubukusu as a Kenyan indigenous language. This is made possible through the publication and storage of this document. Furthermore, writing the language helps in its development.

### **Scope and limitation**

This study focuses on the structure of the LNP. Emphasis is put on the morphology and syntax of the LNP.

The morphology of the Lubukusu noun is the first area of concern. In this study, focus is put on the morphology of the Lubukusu substantive and derived nouns. The analysis of the two types of nouns in Lubukusu helps in highlighting their similarities and differences. Within the Lubukusu derived noun concentration is centred on the Derivational suffix. This is because it is the main element that uniquely differentiates Lubukusu derived nouns from Lubukusu substantive nouns. Looking at the morphology of the Lubukusu substantive and derived noun is important to this study because, as a head noun, it plays a pivotal role in morphosyntax of the Lubukusu Noun Phrase.

### **Literature Review**

#### **Substantive and Derived Nouns**

Spencer (1991) states that morphology is unusual among the other linguistics sub disciplines in that morphology interacts with and relates to the other branches of linguistics like syntax. Therefore it is not possible to deal with syntax without appreciating the influence of morphology. He gives a distinction of various morphological operations: inflection involves creation of new words that belong to the same syntactic category whereas derivation results to the creation of new words that belong to different syntactic categories. In addition, he identifies affixation, reduplication, cliticization, compounding and incorporation as the other operations that affect the word structure. Finally, he explains how morphology and syntax interact and some of its resultant features like agreement. Most of the data used in his work is mostly drawn from European and Asiatic languages therefore this leaves a gap on such aspects in African languages more specifically Bantu and Lubukusu in particular. This gap can be clearly

filled through this study's description and documentation of the Lubukusu language and bringing forth the various aspects of the LNP. Furthermore, derivation is the word formation process that is heavily employed in this study especially in the analysis of Lubukusu derived nouns.

Stockwell (1977) discusses about the syntactic theory. He discusses about the aims of syntactic theory, syntactic categories that include Nouns which according to him are symbols for entities, abstract or concrete, countable or uncountable (masses), animate or inanimate, human or non human. He also gives a distinction of nominals from nouns in which case he states that nominals refer to noun like words or phrases that are not actually headed by nouns e.g. *the poor* where *poor* is a nominalized adjective. Nominalization, he further explains, is a syntactic process in which words, phrases or clauses are made to function as though the entire group were a single noun. From Stockwell's (ibi) study the concept of nominalization is relevant to this study. To this end a gap exists on how nominalization occurs in Lubukusu. Such a gap is worth this study.

Wamalwa (1997) gave a morphophonemic analysis of the loan words in Lubukusu. She anchored her work within the borrowing-transfer theory. In her findings she noted that sociolinguistic principles govern the Kiswahili lexical absorption into Lubukusu. This, she observed, makes Lubukusu lexically richer. She focused mostly on the morphemes and phonemes of the two languages.

#### Noun Phrase Modifiers Agreement and Cooccurrence

Rugemalira (ibid) further argues that the Bantu Noun Phrase has a number of elements which include determiners, modifiers and post modifiers. Determiners belong to a closed group of words and they pick out the entity denoted by the noun. He notes that all nominal dependents are post head with the exception of the distributive determiners "each/every". Modifiers make up the second set of elements. They are made up of demonstratives, possessives, numerals, ordinals and quantifiers. He argues that it is only the possessive that is strictly fixed immediately after the head noun whereas all the other elements follow the possessive as their ordering is considerably free. In addition, the relative mobility of modifiers gets severely restricted as the structure becomes bigger i.e. with the introduction of the adjective. Other dependents of the head noun include adjectives, the ordinal phrase, associative phrase, relative clause, possessive determiner, a demonstrative and a numeral.



He further notes that to ease competition among determiners the predeterminer position is available in many languages. In addition, the distributive occupies the predeterminer slot. It cannot occur with a demonstrative when the latter is a predeterminer. Rugemalira further notes that there is considerable variation in the ordering of items in the modifier position. This freedom does not exist in any other position. Given its syntactic complexity, the relative clause normally comes last of all modifiers based on the principle of end weight. This information is about the Bantu languages in general therefore a gap exists on how the LNP is structured and thus this study is necessary in filling this gap. The Structure of the Noun Phrase in Bantu (Table 2.1) is very crucial to this study given that it forms the basis upon which the ordering of elements within the LNP is looked at. This, as is brought out in chapter four, helps in establishing whether the ordering of elements within the LNP follows this template or not. No single study ever has brought out how the Lubukusu noun interacts with the distributive determiner, possessive, demonstrative, numerals, associatives/ genitives, quantifiers, adjectives and relative clauses. This study strives to fill this gap.

Tamanji (2000) discusses about the structure of the Noun Phrase in Bantu. He identifies modifiers of the Bantu noun to include determiners (the interrogative determiner, the demonstrative determiner, the definite and indefinite articles, the possessive determiner, numerals). The languages he used in his work include Kiswahili, Pinyin, Bafut, Kom, Yoruba and Anyi. The interaction between the Lubukusu head noun and its modifiers is a gap that this study goes a long way to fill.

Nurse and Philippson (2003) argue that the handling of the noun and its dependents in Bantu languages mainly deals with the agreement system. However, Rugemalira (2007) and Lusekelo (2009) argue that where the analysis of the Noun Phrase in Bantu exists, scholars have rarely paid attention to the syntax of the noun and its dependents. This study comes in handy to fill the syntactic gap as far as the Lubukusu Noun Phrase is concerned.

Lusekelo (2009), the second scholar, points out the fact that intriguing issues among the NP in Bantu languages and Nyakyusa in particular involve the definition of the term determiner. He clearly points out that three propositions are available in the literature. To begin with, Carstens

(1993) argues that Bantu languages do not possess overt articles like those available in other languages like English. Secondly, Hyman & Katamba (1993) claim that an argument functions as a determiner that shows definiteness in Bantu languages like Ganda. Finally, other Bantuists, Polome 1967 and Rugemalira (*ibid*) hold the fact that possessives and demonstratives are determiners in Bantu languages given that they occur close to the head noun. What remains unanswered within the Lubukusu NP is what consists of its determiners. Lusekelo (*ibid*) analyzed the Nyakyusa NP based on the word categories that modify the Nyakyusa noun, categories that co-occur in Nyakyusa NPs and in what order. The concept of determiners is of great relevance to this study given that, as is brought out in chapter five, the Lubukusu noun is headed by a determiner thus the concept of Determiner Phrase.

Givon (2001:2) argues that numerals, adjectives, demonstratives, genitives and relative clauses are noun modifiers and reveal hierarchical orderings. Furthermore, Cinque (2000) notes that such elements occur either before the head noun or after. On the other hand Carstens 1993, Van de Velde 2005 argue that such elements follow the head noun. Rijkhoff (2002:23) is of a contrary opinion that both within and across languages noun phrases vary considerably with respect to their internal organization and complexity. This study's findings are in line with Givon's (*ibid*) and Carsten's (*ibid*) arguments given that the mentioned modifiers occur after the Lubukusu head noun.

Carstens (1993) and Van de Velde (2005) argue that there is "freedom of occurrence" of noun modifiers in Swahili. From the aforementioned, it is clear that in Lubukusu there is no free cooccurrence of modifiers with the head noun. Each modifier has a clear slot that it occupies within the Lubukusu Noun Phrase template. This is therefore contrary to the arguments put forth by Carstens (*ibid*) and Van de Velde (*ibid*).

Thornell's (2004) examination of the Kerebe NP reveals that the ordering of the noun dependents is yet to be fully described. This is brought out by the fact that in her work such dependents are described individually. This leaves one wondering if NPs in Kerebe are only made up of two grammatical constituents-one head noun and one dependent. This study aptly improves on such an analysis by examining how a number of modifiers can interact with the Lubukusu head noun.

Petzell (2008) analyzed the Noun Phrase in Kagulu. His analysis reveals the following: First, the NP in Kagulu is made up of one to three noun dependents in natural settings. Secondly, if more than one modifier or determiner appears in a noun phrase the internal order is that of Noun+Possessive+Demonstrative+Adjectives. Finally, the associative constructions that are used to modify nouns as adjectives are fewer. Such an analysis is of great significance to this study as it provides an understanding of how the Lubukusu head noun interacts with the possessives, demonstratives and adjectives.

A number of other scholars have shed light on the number of noun dependents in an NP in Bantu languages. Rugemalira (2005) argues that upto six different modifiers are attested in Runyambo although four appear to be a normal order. Rugemalira (2007) maintains that the Mashami head noun may have upto seven syntactic positions after the head noun. Ndumba (2006) also observes that there are five positions that co-occur in Matengo NPs. Such analysis is significant to this study in terms of establishing the number of modifiers that can occur within a Lubukusu noun phrase.

Runyambo and Matengo as cited in Lukenzo (2009) argue that the relative category is fixed at the final position of the noun phrases whereas the possessives and demonstratives take the position immediately after the head noun in these languages. They further argue that numerals, ordinals and general quantifiers enjoy freedom of occurrence. On the other, Van de Velde (2005) believes that many Bantu languages are exceptional. This is because they have a lot of freedom in the mutual ordering of post-nominal modifiers. Lukenzo's argument pertaining the position of the relative clause is an area worth investigating using Lubukusu Noun Phrase data.

Lukenzo (2009) argues that the syntax i.e. positioning and cooccurrence of elements within an NP does not occur haphazardly but follows a given order. This results to three orders namely pre-determiners, determiners and modifiers. Furthermore, the possibilities for stacking of several dependents may allow cooccurrence of words which are distinct in either word categories and/or semantic features. In this study there is a deviation from the use of the terminologies pre-determiners, determiners and modifiers to the use of the terms premodifiers and post modifiers.

Following Givon (2001:2) and Mwihaki (2007: 26-27), I analyze the following word categories that appear on a Lubukusu head noun: adjectives, possessives, numerals, demonstratives, quantifiers and intensifiers. Furthermore, relative clauses, distributive as well as associatives/ genitives are looked at. Using data from Lubukusu, I bring out the occurrence of these modifiers with the head noun.

Longobardi (1991) elaborates on the syntax of the Noun Phrases. He states that NPs consist of a head noun which is optionally modified. He identifies modifiers of the Noun Phrase which include determiners (articles, demonstratives, numerals, possessives, quantifiers), adjectives, complements (prepositional phrase, that clause), modifiers (prepositional phrase, relative clause). In addition he identifies the grammatical functions of NPs where he argues that NPs are prototypically used for acts of reference. NPs can also be used for predication although this is found less often. NPs can also be headed by elements other than nouns e.g. pronouns or determiners which have given rise to the postulation of a determiner phrase instead of a Noun Phrase. From Longobardi's analysis my study looks at modifiers within the Lubukusu noun Phrase. Given that Longobardi mainly concentrates on using data from English, there is a gap as far as the analysis of Lubukusu data is concerned. This study comes in handy to fill this gap. Furthermore, the shift from looking at the Noun Phrase as the Determiner Phrase is relevant to this study.

## **Research Design and Methodology**

### **Area of Study**

This study was carried out in Moi University (main campus). The choice of Moi University is four fold: first, its nearness to the researcher helps him to easily get in touch with the respondents. Secondly, time is saved in the process of data collection as the researcher easily moves from one respondent to another. Thirdly, given that the generated data requires verification this makes the choice of literate native Bukusu speakers in Moi University appropriate because they can read and write thus they can easily verify the generated data given that the data requires reading and writing. Finally, Moi University offers a manageable area for sampling the population.

## **Target Population and Sampling Techniques**

This study targeted native adult Lubukusu speakers. The reason for using ten native adult Lubukusu speakers is twofold, they are believed to be competent in the language and secondly their input helped the researcher in explicitly capturing the aspects under investigation in the language. Purposive sampling is used in the selection of the sample. This is because only native adult speakers are picked as respondents. In addition, these respondents must be literate. Ten adult native Lubukusu speakers were chosen to verify the data generated by the researcher. The reason behind the choosing of the ten respondents is because such a relatively small sample size helps in ensuring that the data that is dealt with is manageable. To this end, the researcher first wrote the names of the adult native Lubukusu speakers within Moi University then using simple random sampling ten names were selected. This made it possible for any name to be picked.

## **Data Collection Methods**

Two methods of data collection were employed in this study. These methods are in line with the arguments put forth by (Diercks, 2010 and Sikuku, 2012) on the importance of native speaker competence in the generation of appropriate data. The two methods are as follows:-

- a) The researcher, being a native adult Lubukusu speaker, generates data that is used in the study. The researcher's native speaker competence was used in the generation of the appropriate LNP structures used in this study.
- b) Adult native Lubukusu speakers, as informants, were used in the verification of the generated data.

The basis for using the researcher's competence in self generating data is because the researcher knows what to look for. This helps in guarding against the collection of unwanted data. In addition, this saves time given that only relevant structures useful to the study are generated. In addition, it is not easy to encounter all the aspects of LNP under study in the normal usage of the language.

## **Procedure for Data Collection**

This study required data from Lubukusu containing LNPs in isolation. In addition, it required the structure of the head nouns and their relation with their modifiers. On this basis, the generated data captured the morphological and syntactic characteristics of the LNP.

Data collection was done in two steps. Step one involved the researcher using his native speaker competence to self generate appropriate LNP structures that contain the Lubukusu noun and how it interacts with its dependants. The generated structures formed the basis of developing a verification check list.

The second step involved the verification of the generated data by adult native Lubukusu speakers. In this case, it is only the ten native adult Bukusus that were involved in the verification. Verification involved a list of the generated structures being given to the respondents. The verification check list contained instructions requiring the respondents to either tick or give alternative structures in cases where they did not consider the given structure as being grammatical. At this point, it is only the acceptable structures that were used in the study.

## **The Lubukusu Noun Phrase**

### **The Lubukusu Substantive Noun**

#### **The Prefix Structure and Lubukusu Substantive Nouns**

It has been noted that Lubukusu substantive nouns are made up of a number of elements. The first element that is obligatory in all the substantive nouns is the noun stem. The noun stem can occur either as a bound or free morpheme. It occurs as a free morpheme in cases where the noun in question does not have a prefix structure as is the case in (14) and (15) below.

14. Kuka

*Grand father*

*“Grand father”*

As is brought out in structures (14) and (15) these substantive nouns do not overtly contain a prefix structure. According to Miti (2009) Substantive

nouns in this class include personal names, kinship terms and names of certain animals. Inasmuch as this group of nouns doesn't overtly contain the prefix structure during agreement with other nouns dependents their prefix structures appear on the dependents as is the case in the following structure.

Secondly, Wasike (2007: 34) further explains that in all noun classes, complementizer- agreement is identical to the preprefix.

From the aforementioned discussion, the structure of the Lubukusu substantive noun is as follows:

19. [[PREFIXPref 1 + (Pref 2)] + [STEM]] NOUN

### **The Lubukusu Derived Noun**

The following questions provide a guideline in the discussion of the Lubukusu derived nouns

- i) What are the features of the Lubukusu derived nouns?
- ii) Are there similarities between Lubukusu substantive nouns and derived nouns?

Lubukusu derived nouns can be formed from verbs thus forming deverbalised nouns (as is brought out in 4.3.1) or from adjectives therefore forming deadjectivalised nouns (as is the case in 4.3.2).

### **Lubukusu Deverbalised Nouns**

As far as the Lubukusu deverbalised nouns are concerned, they can either take the agent or the patient positions in a structure.

From the examples given it is clear that Lubukusu deverbalised nouns are formed by the verb stem taking the prefix structure of the noun class it has been classified into. This is followed by the verb stem and finally the Derivational suffix follows. As from table 4.2, in most cases the Fv of the verb stem changes after the formation of the deverbalised noun. Furthermore, there is a difference in the form of the Derivational suffix depending on whether the deverbalised noun formed is an agent or patient. In some cases there is no Fv change. Indeed the primary form of nominalization is prefixation (by the majority of the noun classes just that

they may differ in productivity-some noun classes are more productive than others) and the presence of the derivational suffix. From the above discussion the following is a summary of the Lubukusu deverbalised noun:

20. [[(PREFIXPref 1) + (Pref 2)] + [STEM]] VERB+[[Derivational suffix]]

21. Lubukusu deverbalised nouns which act as agents mostly have the Derivational suffix –i.

22. Lubukusu deverbalised nouns which act as patients mostly have the derivational suffix –e.

23. The derivational suffix in the Lubukusu deverbalised nouns has a syntactic role in the composition of the Lubukusu Noun Phrase i.e. it leads to the deverbalised noun occurring as an agent or patient.

### **Lubukusu Deadjectivalised Nouns**

It is clear that Lubukusu deadjectivalised nouns are formed when the adjective stem takes the prefix (structure) of the noun class it has been classified into. The nominal prefix or prefix structure is then followed by the adjective. From the above discussion the following is a summary of the Lubukusu deadjectivalised noun:

24. [[(PREFIXPref 1) + (Pref 2)] + [STEM]] ADJECTIVE

From the above discussion it is clear that there are a number of similarities and differences between the Lubukusu substantive nouns and Lubukusu deverbalised nouns. Some of the similarities are:

a)Both Lubukusu substantive and deverbalised nouns contain the prefix structure..

b)The conditions (phonological) that affect the occurrence of the prefix structure are common in both types of nouns.

Given the above similarities, a number of differences occur that help in differentiating Lubukusu substantive nouns from Lubukusu deverbalised nouns. Some of these differences are as follows:

a)The Lubukusu deverbalised nouns contain Derivational suffixes. This feature is not present in Lubukusu substantive nouns



b) Whereas the substantive nouns in Lubukusu contain noun stems in the case of Lubukusu deverbalised nouns they contain verbalised stems.

### **Lubukusu Noun Modifier Agreement and Co-Occurrence**

In the following sections an analysis of the occurrence of Lubukusu specifiers is carried out.

#### **Premodification in the Lubukusu Noun Phrase**

In the Lubukusu Noun Phrase there is only one premodifier which is the distributive determiner. In Lubukusu the distributive determiner is *Buli* “Every”. The structures that follow bring out the interaction between the Lubukusu noun and the distributive determiner.

25. *Buli O-mu-ndu*

*Every CII-cll-person*

“Every person”

From the structures above it is clear that the distributive determiner *Buli* “every” occurs before the three head nouns *O-mu-ndu* “person”, *Li-khutu* “Tortoise” and *Ba-khebi* “Circumcisers”. From this the following rule is formulated:-

28 In the Lubukusu Noun Phrase the distributive determiner occurs before the Lubukusu head noun.

From this the following rule is formulated:

29. In Lubukusu, agreement between the head noun and the distributive determiner does not involve the head noun’s prefix structure being overtly marked on the distributive determiner.

#### **Postmodification in the Lubukusu Noun Prhrase**

##### **Possessives**

The following structures bring out the cooccurrence of the Lubukusu head nouns and possessives.

30. *Ku-mu-koye ku-ku-ase*

*Cl3-cl3-rope Agr-Agr-mine*

“My rope”

From the above example it is clear that possessives occur after the Lubukusu head noun. Furthermore, they copy the head noun’s prefix structure thus bringing about agreement. From this the following rules are formulated:-

36. In Lubukusu, possessives occur after the head noun.

37. Lubukusu head noun-possessive agreement involves the possessive copying the head noun’s prefix structure.

### **Demonstratives**

In Lubukusu, the proximal demonstratives co-occur with the Lubukusu head nouns in the following ways:

38. *O-mu-ndu (o)-yu-no*

*Cll-cll-person (Agr)-Agr-this*

“This person)

The second demonstrative is the non-proximal demonstrative. The following structures show the interaction between the Lubukusu head noun and the non-proximal demonstrative.

41. *O-mu-ndu o-yu*

*Cll-cll-person Agr-that*

“That person”

Just like the proximal demonstratives in Lubukusu, the non-proximal demonstratives also occur after the Lubukusu head noun. Furthermore, in terms of agreement, the Lubukusu non-proximal demonstratives copy the head noun’s prefix structure.

The last type of demonstrative is the distal demonstrative which in Lubukusu is brought out by the following structures:

44. *O-mu-ndu o-yo*

*ClI-clI-person Agr-that*

“That person”

Finally, just like the proximal and non-proximal demonstratives, the distal demonstrative occurs after the Lubukusu head noun. Furthermore, its agreement involves the distal demonstrative copying the head noun’s prefix structure

From this explanation the following rules about Lubukusu noun-demonstrative occurrence and agreement are stated.

47. Lubukusu head nouns precede Lubukusu demonstratives

48. Agreement between the Lubukusu head noun and demonstrative involves the Lubukusu demonstratives copying the Lubukusu head noun’s prefix or prefix structure.

## **Numerals**

### **Cardinals**

According to Mutonyi (2000) Lubukusu like most Bantu languages expresses its cardinals in two ways. First is the use of single lexical items to express numbers 1-10 as follows; *n-dala* “one”, *chi-bili* “two”, *chi-taru* “three”, *chi-ne* “four”, *chi-rano* “five”, *si-ta* “six”, *saba* “seven”, *munane* “eight”, *tisa* “nine” and *e-khumi/li-khumi* “ten”. The second way is the use of phrases each of which consists of at least two words to express any number that is greater than ten. In this case the cardinals eleven and above are expressed as follows: *ekhumi na ndala* “eleven”, *ekhumi na chibili* “twelve”, *ekhumi na chitaru* “thirteen”, *kamakhumi kabili* “twenty”, *kamakhumi munane na chine* “eighty four”, *emiaandala* “one hundred”, *emiaandala nandala* “one hundred and one”, *emiandala na chibili* “one hundred and two”, *emiandala na chine* “one hundred and four”, *emiaandala na chirano* “one hundred and five”. The following structures help in bringing out the interaction between the Lubukusu head noun and cardinals.

54. *Chii-mbusi chi-taru*

*Cl 10-goat cl 10-three*

“Three goats”

59. In Lubukusu noun-cardinal agreement, cardinals 2-5 involve the overt marking of the head noun's preprefix whereas cardinals 6 onwards do not have overt marking of the head noun's preprefix.

60. In Lubukusu, cardinals occur after the Lubukusu head nouns.

61. In Lubukusu, cardinals occur obligatorily with the head noun.

### **Ordinals**

In Lubukusu noun ordinal agreement a number of observations can be made. The following structures help in bringing out the interaction between the Lubukusu head noun and ordinals.

62. Chi-ngokho chi-kha-ne

*Cl 10-chicken cl 10-ASSOC-four*

*“(The) fourth chickens”*

67. In Lubukusu noun-ordinal agreement, ordinals 2<sup>nd</sup> -5<sup>th</sup> involve both the copying of the head noun's preprefix and the overt presence of the associative (times) marker whereas the ordinals from 6<sup>th</sup> onwards only contain the head nouns preprefix.

The following structures help in bringing out the occurrence between Lubukusu nouns and ordinals

70. Lubukusu head nouns precede ordinals.

### **Associatives/ Genitives**

Lusekelo (2009) argues that associatives/ genitives modify nouns. He posits that associatives/ genitives are words which can show possession but cannot be categorized together with possessives as brought out in 71-72.

71. *Li-safu li-a kukhu*

*Cl15-leaf Agr-AM grandmother*

*“Grandmother's leaf”*

The following rules can be said about Lubukusu associatives/ genitives.

73. Associatives/ genitives in Lubukusu occur after the head noun.

74. Agreement between the Lubukusu head noun and associatives/genitives involves the noun's prefix being copied on the associatives.

### Quantifiers

Quantifiers are as follows in Lubukusu: *-osi* "all", *-titi* "few/little", *-kali* "many/a lot". The cooccurrence of the Lubukusu head noun with the Lubukusu quantifiers is as shown below.

75. *Ka-ma-khese ka-ma-titi*

*Cl6-cl6-sheep Agr-Agr-small*

"Small sheep"

From this it is clear that:

78. In Lubukusu, quantifiers occur after the head noun.

79. Agreement between the Lubukusu head noun and quantifiers involves the quantifier copying the head noun's prefix structure.

### Adjectives

In Lubukusu noun-adjective agreement and co-occurrence happens in a number of ways, the following structures illustrate how these formations occur

80. *Ku-mu-sala ku-mu-mali*

*Cl 3-cl 3 tree cl 3-cl 3-black*

"(A) black tree"

From these structures the following rules are formulated:-

84. Adjectives copy the prefix structure of the head noun.

85. Lubukusu head nouns precede adjectives.

Furthermore, one to three adjectives may co-occur as the following structures show:

86. *O-mu-ana o-mu-ngau o-mu-lei o-mu-mali ti*

*Cl1-cl1-child Agr-Agr-thin Agr-Agr-tall Agr-Agr-black Int*

“(The) thin tall very black child”

From this explanation the following rule is derived.

87. In Lubukusu, intensifiers occur immediately after the adjective they refer to. The rest of the adjectives are never affected by the intensifier.

### **Relative Clauses**

Relative markers in Lubukusu take the shape of the noun class prefix although the head noun is optional in subject position. Furthermore, the relative markers occur after the head noun. These concepts are brought out in the following structures:

88. *O-mu-soleli o-weba li-toka*

*CII-cll-boy AGr-steal cl5-car*

“(The) boy who stole the car”

From this the following rule is formulated:

90. In Lubukusu the relative clause occurs after the head noun.

### **The Cooccurrence of Possessives and Demonstratives in the Lubukusu Noun Phrase**

In the co-occurrence between the Lubukusu head noun, possessive and demonstrative, as the structures below reveal, the Lubukusu possessive occurs immediately after the head noun as compared to the demonstrative as is shown in the following structures:

91. *O-mu-ndu (o)-yu-no (o)-wase*

*CII-cll-person (Agr)-Agr-this (Agr)-my*

“(This) is my person”

From this discussion the following emerges:

95. There are two determiners within the Lubukusu Noun Phrase namely the possessive and the demonstrative.

96. The cooccurrence of the Lubukusu head noun and the demonstrative is in the order of [Noun+Possessive+Demonstrative]

99. Lubukusu Noun Phrases do not allow more than one possessive or demonstrative to co-occur. Rugemalira (ibid) refers to this concept as the elements being mutually exclusive.

103. The distributive determiner occurs before the Lubukusu head noun.

### **The Cooccurrence of the Lubukusu Head Noun with other Modifiers**

From Rugemalira's (ibid) template, it is clear that in Lubukusu the 01 0 1 2 option is preferred. The following structure brings out the cooccurrence of elements in Lubukusu.

104. [(Dist Det)] + N + [(Poss) (Dem)(Num) (Quant) (A)] + [(Int) (Rel)]

From the early discussion it is clear that the rules for the ordering of the elements within NPs are as follows:

116. Possessives, quantifiers and numerals occur immediately after the head noun.

117. The number of the tokens of the noun phrases decreases as the number of the dependents increase.

This shows that one and two dependents per NP are preferred in Lubukusu though there are possibilities of making use of even up to four dependents. The likely preferred order in Lubukusu is:

118. 01 0 1 2 where a head noun (here labeled 0) co-occurs with the determiners labeled (01 and 1) and modifiers labeled (2).

The Lubukusu head noun selects a determiner and modifier-one modifier from either modifier 1 or modifier 2.

### **Conclusions**

From this study's findings it can be argued that as per hypothesis one derived nouns in Lubukusu have some similarities and differences with the substantive nouns. Secondly, Lubukusu head nouns and their modifiers interact in such a way that they have variations in their patterns of agreement. This is seen in that some modifiers copy the head noun's preprefix whereas others copy the head noun's prefix and finally other

modifiers copy the head noun's entire prefix structure. In terms of co-occurrence, all modifiers (except the distributive determiner) of the Lubukusu head noun occur after the head noun. More than six modifiers can occur the Lubukusu Noun Phrase template. In addition three adjectives can cooccur whereas a number of relative clauses can occur at the final position.



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## **Nurturing Integrity in Management Education with the Development of an Alternative Web of Metaphors**

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### **Abstract**

Management education has set the goal to improve the content of undergraduate and graduate courses so that they broadly integrate concerns for ethics and integrity. In order to reach that goal, management educators must consider how an overreliance on mainstream metaphors (e.g., business-as-war) perpetuates uneasy incorporation of ethics and integrity. They need to be mindful of how metaphors are used and the images that they evoke. Part of the challenge in fostering ethics and integrity is to deal with student preconceptions about the nature of business activities, which is generally in line with these mainstream metaphors. With this paper, our goal is not to find the best metaphor to incorporate praxis of integrity within management education, but to suggest the need for a web of metaphors to grow and develop into an appealing alternative. Exposure to different metaphors can lead to different lines of reasoning and decision-making. By using different metaphors to understand the complex and paradoxical character of management, students could see things in ways that they may not have thought possible before. In short, management education needs some sort of metaphorical pluralism in order to embrace concerns for ethics and integrity.

**Keywords:** *Nurturing, Integrity, Management Education, Web of metaphors*

## Introduction

Since the Enron, WorldCom and other scandals of the first few years of this century it has become axiomatic to say that ethics needs to be part of the business school programme (AACSB, 2004). The financial collapse of 2007-2008 was in large part attributable to a failure of morality on the part of countless graduates of business schools who provided mortgage loans to unqualified applicants and sold those loans in bundles without disclosing the level of risk involved (Holland, 2009, Lewis, 2010, Trevino & Nelson, 2011). The use of mathematical models to the exclusion of other ways of framing their behaviour allowed countless participants in the financial markets to completely ignore the ethical implications of their activities. Given the concern with a lack of ethics, it is puzzling to read comments in the business press such as this “How did integrity become the key characteristic of leaders?” and particular business leaders (Weinberger, 2010). The author quotes Jack Welch, the legendary former CEO of General Electric, as saying he never held a management meeting where integrity was not mentioned. Great leaders of the past Weinberger (2010) notes would more likely be cited for courage, wisdom and steadfast resolve—think of Churchill, Roosevelt and Gandhi—but leaders today, at least in business do not claim those values, they claim integrity.

Our puzzlement arises because integrity, which is cited so often as a quality of a leader, is a term that speaks of moral rectitude. The Oxford English Dictionary defines integrity as; “Unimpaired moral state; freedom from moral corruption; innocence, sinlessness” and further as “soundness of moral principle; the character of uncorrupted virtue, esp. in relation to truth and fair dealing; uprightness, honesty, sincerity” (OED, 2011). If integrity is the commonest trait in leaders, and integrity means that those leaders are morally sound, how is that unethical behaviour occurs with such frequency in business organizations. While not all the blame for the ethical failings of business practitioners can be attributed to business schools they certainly must accept some of it (Podolny, 2009). Business schools have done very well in teaching the techniques, skills and tools of the substantive disciplines—marketing, finance, operations and so forth. But the high proportion of MBAs among the felons behind the scandals suggests that there has been a failure to instill a sense of integrity or moral responsibility into students. This criticism is given peculiar immediacy by the recent collapse, but it is hardly new. Khurana (2009) provides peculiar

a history of the long standing tension within management education between educating students in the technical aspects of management and engaging in the formation of the personal and professional characteristics that are required if business is to fulfill its social responsibility and graduates are to leaders of integrity. Even if the social responsibility of business is solely to increase its profits as Friedman (1970) claimed, it must, as he noted, do so within the laws and the 'rules of the game' Too many graduates of business schools have not adhered to this limitation.

If the current concern for ethical education is not to suffer the fate of previous efforts and quietly fade away then a change of approach, it seems reasonable to claim, is required. Some years ago Piper et al. (1993), in the aftermath of the insider trading scandals of the 1980s, developed an approach to ethics education that was introduced with some success into the program at Harvard Business School. The success was in implementing a mandatory course in ethics into the programme. The more challenging part of their recommendation was the integration of ethics education into the business school experience as a whole. While some progress has been made recent events indicate that an effective approach to nurturing ethical business practitioners is a challenge which is yet to be met. In this this paper we suggest a way in which management education can be reoriented to accomplish that integration and technique. We will present a model for developing in student's praxis of integrity, which is an approach to business practice that incorporates reflection on ethical and social implications as a standard component.

This study demonstrates the strongly negative impact of the war metaphor, commonly used in teaching business strategy, particularly for ethics and sustainability. The results, we suggest, provide strong support for the importance we place on developing in business student's awareness of metaphors as well as a capacity to use a variety of metaphorical frames in developing their mental models of the world. Scholars from the cognitive science (Lakoff & Johnson, 1999; Johnson 1993; 1987; Lakoff, 1987) have demonstrated that humans structure reality by developing a cognitive framework which links ideas and images from one realm, usually a more concrete or experiential one, to ideas that are more abstract. This imaginative activity is an unavoidable feature of the mental modeling by which we make sense of the world we encounter. Metaphor is the term that cognitive scientists have given to this process.

The remaining of this paper is organized as follows. After a brief definition of integrity, we discuss the way in which the metaphors that we use to structure reality have very significant impacts on our understanding of events and ethical analysis thereof. We then briefly describe one experiment on metaphors that give most interesting results. We then suggest a model of “integrity as praxis” that we believe will greatly enhance the process of forming students as business practitioners of integrity. We offer some practical suggestions for how management educators might approach developing in their students a *praxis* of integrity that will form them into management professionals who robustly confront moral and ethical dilemmas with requisite knowledge, sensitivity, and conviction.

### **Integrity in the business world and in management education**

While the term ‘integrity’ is much used, we argue that it is seldom defined with sufficient clarity to provide much guidance for behaviour. Indeed, for a quality that is so important to business leadership and so ubiquitous, integrity is poorly understood. The origins of the word in the Latin root *integer*, which refers to a whole number, suggest the idea of wholeness. The broadest meaning given to the term integrity in the Oxford English Dictionary is “The condition of having no part or element taken away or wanting; undivided or unbroken state; material wholeness, completeness, entirety” (OED, 2011). When used to describe a person’s integrity implies wholeness or the integration of the whole person—physical, intellectual, spiritual, and emotional. In the moral sense in which the word is used when speaking of leadership, a person of integrity knows who they are and what their values are. A person of integrity acts in a way that keeps their values and their actions aligned. Killinger (2007, p.12) defines integrity as “a personal choice, an uncompromising and predictably consistent commitment to honour moral, ethical, spiritual, and artistic values and principles” Killinger (2007), in discussing the development of integrity, links it to the gradual process by which humans acquire a sense of values. Thus integrity seems to involve knowing our values in a way that creates wholeness of the person.

We believe that it may be helpful not to think of integrity as a value in the same sense as most human characteristics that are so labeled. We agree with Carter (1996, p.7), who suggests that integrity requires three steps: (1) discerning what is right and what is wrong; (2) acting on what you have

discerned, even at personal cost; and (3) saying openly that you are acting on your understanding of right and wrong”. What is interesting in Carter’s (1996) definition is that he understands integrity as a process that involves three actions or activities that can be separated in time and space: *discerning* right from wrong, *acting* in accord with the action that has been discerned, and *saying* that your action is based on that discernment.

The first step of integrity involves knowing both our values. Values, as attributes of human beings can be thought of broadly as those concepts or characteristics that we think are important for ourselves and for the broader community. Values motivate us. We move in the direction of that which we value (Grim, 2005). Gentile (2010) suggests that there is a broad consensus that there is broad consensus that such things as wisdom, courage, humanity, justice, temperance, and transcendence constitute values. Kidder’s (2009) list consists of honesty, respect, responsibility, fairness, compassion. By virtues we refer to those moral qualities that Aristotle and subsequent philosophers have catalogued. Virtues are those characteristics to which we as individuals aspire. They define the moral center of our character and guide us in leading a life that we think worthy; a life of value. We do not suggest that integrity requires that we embody list of virtues. Rather integrity requires that we know ourselves well enough to know which virtues are most salient in our own lives.

Knowing our values and knowing ourselves is not the whole of integrity, however. When we say that a person has a conscience we are referring to this type of awareness. But integrity is not just hearing one’s conscience or being aware of one’s values, it is also about making the “right” decision by which we mean at least a decision that is not solely focused on our selfish interests. We need to consider not only ourselves but others as well. As Cicero wrote long ago “We are not born, we do not live for ourselves alone; our country, our friends, have a share in us”

We the second step, *acting*, the individual integrates her or his actions with his or her values—thereby avoiding contradiction, discontinuity and misalignment. In this sense integrity is not a value as such but a catalyst for implementing values in one’s life. Integrity links one’s own values with broader values and both of those with one’s actions. The person of integrity is acting not out of self-knowledge or personal conscience alone, nor on moral principle (e.g., right and wrong) alone. A person of integrity

is rather, constantly seeking to integrate their own values with broader understandings of value and to then act in a way that is aligned with both. A person of integrity does not need to ponder whether to act fairly or compassionately or to exercise wisdom; a person of integrity knows that if they are to live a good life they must seek to embody those values in concrete actions

With the third step, *saying*, one explains why he or she has acted that way. This serves an educative function for the person, the organization and society by exposing to public review the discernment and the action of the individual. This is less an exercise of accountability than it is an acknowledgement that “no man is an island” and that to be a person of integrity requires that our discernment not to be entirely solitary. We can only be persons of integrity if we are willing to test our discernment in society and in so doing to be humble enough to revisit our values and our understanding of the values of others.

We content that business schools have a role to play in helping students to develop and enhance their innate capacity to act with integrity in the challenging and novel situations they will be confronted to upon graduation. In the context of management education, teaching integrity implies to help students be clear on their values. Students do not choose their values through a rational process; rather they discover them as they learn to them holistically. The role of metaphorical thinking and moral imagination are elements of reflection that must be included in that process.

### **Impacts of Metaphors and Cognitive Frames on Integrity**

At least since Morgan’s (1986) *Images of Organization*, management scholars have been active participants in the discussion about metaphors and its treatment in management education. Tsoukas (1993) has identified three perspectives on metaphors in the management literature. Metaphors are depicted as rhetorical device, ideological distortion, or a way thinking. The first perspective views metaphors as merely ornamental and expendable linguist, literary, and (Pinder & Bourgeois, 1982). The criticism is that metaphors used in this way distort facts-facts that should be presented in clear and precise language. Metaphor is familiar to most of us as a figurative device by which a writer invites a reader



to comprehend a given phenomenon in a richer fashion. Metaphor draws our attention to the way in which one thing shares at least some characteristics of a second. Adam Smith's 'invisible hand' is an instance of such a literary or rhetorical metaphor. The second perspective views metaphors as potential ideological distortions (Tinker, 1986). Metaphors viewed from this perspective manipulate social conflict and inequality, at the expense of underprivileged stakeholders (Audebrand, 2010). This usage can undermine the root source of social conflict and manipulate the conflict in order to make it fit in with pre-existing social structures. The third perspective on metaphors views metaphor as a "way of thinking" (Audebrand, 2010). Metaphor constitutes "a basic structural form of experience through which human beings engage, organize, and understand their world" (Morgan, 1983, p.601). To eliminate metaphor would be to eliminate thought and language. Metaphors can go unnoticed by people even though "there is at least one root metaphor lying at the heart of every complex system of thought" (Pepper, 1972, p.96). This is because when we are exposed to a new situation, we try to categorize it as something similar to a concept we are familiar with. Metaphorical thought, or analogical reasoning, is the first level of theorization available to human beings (Llewellyn, 2003). Root metaphors certainly have an impact on the way in which we understand the world, but they are very seldom used with intentionality, because they are so deeply embedded in the structure of cognition that to say we choose them would imply a level of awareness that is not in fact present.

Metaphors can be identified and with considerable effort changed, although to do so would make communication with others who share and retain the original cognitive framework difficult (Johnson, 1987). Rather than change our metaphors, however, we are more likely to add on a new one and move back and forth between the two ways of framing reality in a fashion similar to that in which a native speaker of one language moves back and forth between it and a newly learned language. By and large we are not even aware that we are using such metaphors. In most cases we treat them as objective datum. Metaphors can be identified and the meaning they convey challenged. While it is a chimera of objectivist linguistics to think that language can be free of metaphor and thus describe the world "as it really is", it is certainly important and worthwhile to identify metaphors and the communicative impact they have. We need not accept the metaphors that are imposed on us (Lakoff, 2002).

Business schools, with their emphasis on quantitative calculations develop in students a number of cognitive frameworks using a variety of metaphors that will be helpful in sorting data, making sense of it and making decisions. Metaphors influence the weight that we attach to some features of the world that we encounter and they affect the way in which we think about the alignment of our values and our actions. The metaphor framing a business situation is particularly important in the way that it impacts the values that are highlighted for the person dealing with that situation. Different values, for example, will predominate when the underlying metaphor is business-as-war than when the metaphor is business-as-health or business-as-cooking. If management education is to nurture integrity more effectively in students then it must develop in them an awareness of the process of cognitive framing and of the way in which metaphors impacts on how participants see a situation. Most importantly students must develop a capacity to employ a variety of metaphors in framing the situations they encounter. Only by doing so will they be able to interpret data with the wealth of perspectives that is required to sufficiently enrich their understanding to identify the full range of values that are in play; personal, organizational and social.

### **Of war, health and food**

A study conducted in America shows that metaphors have a significant influence on our understanding of values and ethics; (Audebrand & Burton, 2011). From this study we see that, bringing metaphors to our awareness and developing praxis of integrity that includes discernment and reflection about them is required for ethical competence.

The study was conducted with a group of some 200 undergraduates in the management programme at a major university who were asked to answer a series of questions using a Likert-like scale. The students had first read a scenario describing a business situation facing Kitchen Equipment Company (KEC). The students were divided into three groups, however, and each group was given a slightly different version of the scenario. In the first case a war metaphor was used, in the second health was the metaphor and in the third, food. The scenarios all used the same words as much as possible, except that in key spots language was changed to convey the different metaphor. For example “you are confronted with a new Taiwanese opponent that has started to set up its camp in North and

South America” was changed to “you are facing a new Taiwanese player that has started to train lean and dynamic affiliates in North and South America” or “a Saucy new Taiwanese contender has come to the table, and has started to soup up its affiliates in North and South America”

The students were asked how serious the situation was and how competitive they felt the industry was. Those who read the war metaphor version of the scenario were significantly more likely to view the situation as serious and the level of competition as high. Another question asked students to speculate on what had caused the problem for KEC. Students with the war scenario were significantly more likely to blame regulation, an external cause, rather than inefficiency in the way the operation was run, in other words an internal cause. This result can be attributed to the tendency aroused by militaristic thinking to cast blame on others when facing defeat (Audebrand & Burton, 2011). When students were asked to rate the prospects for a reversal of fortune, those reading the war scenario were the most pessimistic. When they were asked how likely KEC was to engage in ethical misconduct or act in a way that was negative for the environment, it was the war group who thought it most likely. Again the results in all cases were statistically significant. This data confirms that on a number of different levels respondents who read the war scenario constructed a different view of reality and were more likely to make ethical decisions that display a lack of integrity. It is clear to see that the participants who read the war scenario were much more likely to interpret the situation as extremely dire and to assume that KEC’s existence is being threatened. The life or death frame which the war metaphor provides as students construct the reality of this frictional situation conferred a level of desperation that made it more probable for them to assume that unethical actions will take place in order to save the company.

While the study cannot be said to establish that the war metaphor was only factor behind the belief that anything goes in business when your back is against the wall, this study provides a strong caution to business educators who use the war metaphor, consciously and unconsciously, with great frequency to evaluate and explain business situations. The war metaphor brings to mind thoughts of our own safety and survival. When things turn for the worse in a war, as opposed to in a gym or a kitchen, there is a tendency to adopt a “by whatever means necessary” policy to make sure that we will survive. The war metaphor reinforces and legitimates this

willingness to do whatever is necessary to survive. The survival instinct is thereby distorted and life itself is inappropriately equated with financial success.

The war metaphor map onto the realm of business the belief that there are only the most rudimentary rules of engagement. This fosters the belief that there are no rules in business; at least not when survival is at stake. This misconception provides an unhelpful and inaccurate caricature of the nature of both war and business behaviours (Audebrand, 2010). This overly simplistic application of the war metaphor can have damaging consequences on the integrity of individuals and lead to a greater chance of students making unethical choices in their careers.

The KEC experiment looked at how metaphor impacts the way in which different persons frame the same “reality”. Telling the same story three times, changing the metaphor from war to health to cooking, resulted in three different interpretations of the strategic threats and opportunities as well as the likelihood of the organization to engage in behaviour that compromised sustainability or ethics. This study indicates that many business students accept the premise that breaches of ethics or damage to the environment are necessary when profitability is at risk.

### **Implications of this experiment for praxis of integrity**

It is important to develop a practice of critical metaphorical analysis, which includes a conscious construction of a web of metaphors. If students are to be formed into management professionals who robustly confront moral and ethical dilemmas with requisite knowledge, sensitivity, and conviction they need the moral imagination to engage in an active and reflective praxis of integrity. To see the world framed through a single metaphor is like wearing glasses that filter out all colours but one. It may be that there is no pair of glasses—that is to say there is no single metaphor—that will enable us to see the full colour spectrum. To see the full range of colour, albeit one hue at a time, is the best we can accomplish, and that requires a number of different pairs of glasses.

A dictum attributed to the ancient Greek states that “all metaphors limp”. The implication is that all metaphors have their vulnerabilities and that none completely capture the reality they attempt to frame. Identifying the weaknesses, and the strengths of prevailing metaphors of management

education such as “business is war; “will lead to a more balanced perspective on the nature of business. As that web of metaphors is spun and re-spun in every business classroom the ensuing discussion will inevitably be informed by the values that students and academics bring with them. This awareness of the link between our framing metaphors and our values is required if we are to find the best alignment of the two. Awareness of the link is also an important means by which values and actions we take can be made congruent. In other words, aligning metaphors and values contributes significantly to the ability of individuals to act with integrity.

Our suggestion is that management education should focus on the formation of students in a way that develops integrity as *praxis*. Most texts and teachers emphasize to their students that the analytic approach to ethics will not yield clear-cut solutions. Analysis will help to bring clarity, but judgment is required and decisions must be made in situations where there is unresolved ambiguity. Notwithstanding these admonitions the

conventional analytic approach is derived from *a source → path* - cognitive structure. When data is framed linearly the brain focuses narrowly and moves more quickly to identify a solution, perhaps finding clarity prematurely. The metaphoric structure of the process of ethical dilemma resolution is itself a component of our teaching approach and though we are nearly unconscious of that structure its impact on how students frame and think about ethical issues is profound. The impact is all the more powerful because the linear, analytic problem solving approach plays such a large part in management education

Groome (1992) has suggested that the word *praxis* be employed to identify the reciprocal of theory and practice. The latter is not simply action informed by the former; rather *praxis* connotes a melding of the two. The relationship of theory and practice is infused with reflection such that each is always informed by and informing the other. Theory, practice and reflection together constitute *praxis* as a hermeneutic circle for the interpretation of experience. Our suggestion is that it is helpful to conceive of integrity in a similar cyclical manner such that values inform and are informed by action through the process of reflection. We have adapted Groome’s (1992) *praxis* model and represented it in Figure 1 as *praxis* of integrity. In our model *values* replace *theory* as the repository of

ideas that inform action. We have also shown observation and reflection as two steps for greater clarity, although observation is clearly a necessary step in Groome's (1992) model it is implied not explicit. Finally we make identification of metaphors a distinct step in recognition of the key role that cognitive framing plays in our processing our perceptions and the making of value judgments about the reality we construct.

Johnson (1993) and Lakoff (2002) have both written about how the use of metaphors and cognitive frames are foundational to the way in which we do ethics. Nurturing integrity in management education requires that we develop in students a capacity to identify the metaphors that are in use in structuring situations they encounter and capacity to work with a web of metaphors to explore different ways of structuring those realities. In doing so the ethical dilemmas and the outright temptations that they encounter can be readily identified and more importantly different ways of looking at the situation can be articulated. No one claims that students can be inoculated against unethical behaviour, but they can learn practices that will increase their capacity to identify ethical dilemmas and choose action that is aligned with their values. In doingso they may, by offering articulate analysis of the thinking that has led them to their decision, influence others to rethink their own actions in the light of a different metaphor that reframes the situation.

Identifying metaphors and reflecting on the manner in which they impact our framing of the issues we face and how they relate to our values is a key component of integrity as *praxis*. Educators can use examples such as the scenario that was presented in three metaphoric voices in the KEC study (Audebrand & Burton, 2011) as approach to nurturing integrity. Integrity as *praxis* involves reflection in the study begins with the recognition that the war metaphor frames reality leads to a certain understanding of the seriousness of the situation, the possibilities for response and the likelihood of success for the chosen response. When this analysis is framed by the war metaphor it leads to a stronger temptation to act unethically or in a way that is insensitive to environmental concerns. A student or business practitioner who has developed the capacity to name the framing metaphor and suggest a different way of framing the situation, for instance by using the health or cooking or some other metaphor has the capacity to present their analysis clearly and persuasively and offer their colleagues a compelling way of (re)conceiving of the reality with which they are confronted.

If students are to become business practitioners of integrity they need to be nurtured in praxis that empowers them to challenge inappropriate exercises of authority as well as the norms and beliefs that guide our actions in our organizational life. Students presented with a war metaphor were more likely to condone unethical behaviour or environmentally unsustainable behaviour than those presented with the metaphors of health or cooking. A necessary component of responsible decision-making therefore is an awareness of the metaphors that are employed in structuring the shared reality within the organization. The identification of metaphors and the search for new ones are important components of praxis of integrity.

### **Discussion: Praxis of Integrity in Management Education**

It may be objected that having been critical of the overemphasis on analysis that is a feature of the business school approach to ethics teaching we are now exacerbating the problem by suggesting that a further analytic tool be introduced to thinking about ethical dilemmas. It is important, however, to distinguish between the rational approaches of traditional philosophy and the imaginative approach which thinking about metaphor involves. There has been a considerable amount written urging an imaginative approach which thinking about metaphor involves. There has been a considerable amount written urging an imaginative approach to ethics (Werhane, 1999, Johnson, 1993, Somerville, 2006). Imagination in this context is not the fantasizing or unrealistic mental activity that the word sometimes connotes. Imagination as Johnson (1993; 1987) and Lakoff (1987), have demonstrated is a central feature of human cognition because we cannot understand reality, the data received by our senses, without some type ordering mechanism. And so we use metaphors to frame reality by mapping what we know from one domain (e.g. War, health, cooking) onto another domain (business). This process of metaphorical cognition is often invisible to us. If we are to be ethically responsible, however, we must alert ourselves both to its existence and to the ways in which our framing of reality is influenced by the metaphors we employ. Praxis approach to integrity will bring metaphors to our awareness and promote thoughtful reflection on the implications they have for the alignment of our values actions.

Identifying root metaphors helps us to understand how we have constructed our version of reality. Recognizing that we could not understand reality

at all without them relieves us of the impossible task of seeking out objective knowledge of reality from a 'god's eye' view (Johnson, 1987, Lakoff, 1987). More importantly rather than deconstruct and criticize the metaphoric use of language we might understand and reconstruct a richer view of reason and by that means learn to intentionally employ new metaphors (Winter, 1989). If those root metaphors lead inexorably in dangerous directions, we can begin the long process of changing to a more adequate metaphor. Winter (1989) argue we should help students developing their capacity for identifying the metaphors that underlie the ethical dilemmas and ethical temptations as well as the many strategic challenges with significant ethical import that they will face. Moral imagination is integral to the praxis of integrity. The reflection required to assess how actions and values align must include identification of the metaphors that are framing the situation and thus shaping the way in which we understand its ethical import. What is helpful to our understanding of communication and language generally and to the praxis of integrity as we are presenting it is to identify all of the metaphors that we employ and ask whether they further our understanding or obscure it. Then we need to follow that with a consideration of the ethical implications of the understanding so derived.

If business educators accept the responsibility for the formation of students who can robustly confront moral and ethical dilemmas with requisite knowledge, sensitivity, and conviction then management education needs to be significantly enhanced. The first thing that is to give students an opportunity in each of the business school disciplines to practice identifying values and reflecting on how to integrate them into actions that are relevant to that field. When we use the term 'practice' here we are using a sporting analogy (Gentile, 2010). Business practitioners need to develop the strength, the skills and the instincts to swim against the tide when their colleagues or their organization are drifting into morally turbulent waters. A well-developed praxis of integrity as we have outlined it in the preceding section is required if one is to maintain the alignment of one's values and one's actions. Business educators can provide students with the opportunity to develop such praxis by engaging in ethical reflection, learning analytic tools, and practicing engagement in dialogue, discussion and debate about ethical dilemmas. Just as practice in executing plays on the football field provides a powerful assistance to



performance in the big game, so development of praxis of integrity in business school will provide students with the capacity to “make the big catch” and also to engage in business with integrity in all of the routine plays that make up the “game”

The orientation of management education that we are suggesting, and we are not the first to do so, would see a shift from an emphasis on analysis of complex ethical dilemmas as stand-alone course to an emphasis on nurturing praxis of integrity in all disciplines so that it becomes second nature for students, when they become business practitioners; to resist temptation, choose to act on their values and be able to articulate in a forceful and clear fashion why they are doing so. *In the voicing our Values* approach, Gentile (2010) began an important conversation about the need for such a reorientation.

One way to develop praxis of integrity such as we would suggest to engage exercises such as the KEC study (Audebrand & Burton, 2011) that bring to the level of awareness the impact that metaphors have on the mental models of reality that we construct. Simply bringing to awareness the way in which we are influenced by the unconsciously accepted metaphors in our approach to management education will inevitably lead, we believe, to discussion about the efficacy of various metaphors and the relationship between our language, our mental models and the values that we seek to advance through business and economic activity. If as business educators we develop a web of metaphors and encourage students to make that part of their analytic process they will be more conscious of those they choose and those that are used by others. This process in turn provides a helpful tool for action that aligns with one’s values. Our experiment provides an excellent illustration of one approach that business educators might take to introduce both the metaphorical nature of cognition and its impact on how we frame reality. This can be done by employing in the classroom an exercise that would mirror what was done in that study. A discussion of the results that explored the way in which the different metaphors influenced student responses and account for the variations offers rich potential for developing students’ appreciation for the role of metaphor.

Building on such an experience educators might present students with cases, both new and familiar, and invite a discussion of the framing metaphors that underlie the way in which the actors in the case understand

their situation. The moral imagination of students could be exercised by having them examine the impact of framing the situation through a different metaphor. A similar exercise could be undertaken using news stories of current interest from the business press. Students might be asked to reframe the stories using different metaphors. Novels are also a rich source of material for developing the imaginative capacity of students necessary to ethical reasoning. They too provide the opportunity for identifying root metaphors and reflecting on how the situation faced by a protagonist would be viewed differently were the metaphor changed.

The most effective way to develop an understanding of the role of metaphor for students may be to have them reflect on the incident in their own lives where they faced an ethically problematic situation. Having them identify the metaphor that framed the situation and its impact on their ethical thinking will require a fairly developed capacity for self-reflection, but can yield rich results that have more impact because they are personal. Students can go on to reflect on how they might have dealt with the situation differently had they framed it with a different metaphor.

If educators are to teach their students to recognize metaphors and appreciate their impact on thinking and behaviour we need to first develop that capacity ourselves as teachers and as management scholars. The metaphors that we use, often unconsciously, to frame the lessons we impart to our students about the nature of business and the economy, need to be uncovered and their implications considered. In particular we need to consider the limits of those metaphors, and the way in which they distort or colour our understanding of reality (Audebrand, 2010). This approach will require that educators abandon the illusion that they can present to students an objective or literal picture of reality. We must adopt a little humility and recognize that reality is actually always under negotiation. Just as a diamond held up to the light reveals different colours as it is viewed from different perspectives, so it is with the 'hard facts' that we think speak to us with unequivocal clarity. A little shift of direction and we see things in a whole new way. We are not capable as individuals of viewing any datum from all perspectives and thus it is through the web of metaphors developed by all participants that we come to a more complete, though still incomplete, understanding of reality.

## **Conclusion**

In this paper, we presented integrity as an activity rather than a quality of the person. Integrity is a process whereby the individual seeks to integrate their self-understanding, their understanding of what is socially fitting and their actions so that there is no contradiction between those three. Integrity in this understanding is an iterative process requiring constant vigilance in attending to both self-awareness and social awareness. It also requires that individual acknowledge their social embeddedness. A necessary part of the discernment cycle is open reflection with others about one's actions as well as theirs and reasons that underlie them. Engaging in that cycle requires that we be aware of the cognitive process and the impact of the framing metaphors we employ on the way in which we understand the world around us. Those metaphors have a significant impact on the values to which we give most weight and thus on our praxis of integrity.

Management education provides students with metaphors and cognitive frameworks that become tools, often used without awareness, for sorting the data that must be dealt with in the conduct of business and especially in decision-making. Tools such as SWOT analysis and cost/benefit analysis are such devices that are overtly directed at analyzing the data by sorting and weighting it. Students cannot engage in the praxis of integrity-reflection on how their and values align-if they have no awareness that there is even a question of misalignment. Management educators have a responsibility to help students in this praxis of integrity. If management education is to nurture the praxis of integrity in its students so that ethical failures are avoided, one key to doing so is to develop in them the capacity to frame data using a variety of metaphors, some of which will refract financial issues with more clarity, others of which will refract ethical concerns with higher visibility.

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## **Assessment of Coping Strategies by Orphaned Learners and their Academic Achievement in Selected Primary Schools in Kenya**

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### **Abstract**

Orphanhood is a depressing status in life time that one would wish never to occur in any family set up due to its adverse effects. Despite the vulnerable status of the orphaned learners, every child in Kenya has a right to quality education that should lead to good performance and achievement of Universal Primary Education (UPE). Due to their vulnerability, majority of orphaned learners are widely affected and unable to attain good performance. However there are exceptional cases where some orphaned learners perform well and attain high marks which enable them to join good secondary schools and pursue their education very well. The study therefore assessed coping strategies by such exceptional orphaned learners and their academic achievement in Winam Division in Kisumu County. Descriptive survey design was used in the study. The study population consisted of 43 head teachers, 516 teachers and 3042 orphaned learners in 43 mixed public primary schools. Random sampling technique was used to select 13 schools from 43 schools. These are 30% of the total number of study population. Simple purposive sampling technique was used to select 13 head teachers from the 13 selected schools. 3 orphaned boys and 3 orphaned girls from std 6, 7 and 8 were also selected using simple purposive sampling technique. 3 teachers from upper primary were selected using random sampling technique from the selected schools. Data was collected by questionnaire, interview schedule and document analysis. Supervisors from the department of Curriculum Instruction and Education Media

determined the face validity by making adjustments on the items in the instruments. Reliability of the instruments was determined through pilot study in 2 schools which were not included in the study and the weaknesses noted on the instruments were corrected. Quantitative data was analyzed using frequency counts, means, percentages and standard deviation. Data from the interviews were organized into themes and sub-themes as they emerged through the objective. The study established that most orphaned learners (44.06%) in Winam Division stay with older siblings. Orphaned learners in the division lacked some basic needs which had the lowest mean score of 1.843 and lack of guidance from adults with a mean score of 2.633. Hard work, personal ambition, role models from their schools and guidance from teachers were the most outstanding factors that enabled orphaned learners to perform well in their academics. The study concluded that orphaned learners set targets and work hard to achieve the set targets. They also confide in teachers while in school and defy the odds and challenges facing them. The study therefore recommends that grandparents who care for the orphans but are not assisted by the government be supported financially through such programs, the Ministry of Health in collaboration with other stake holders should launch health and nutrition program in schools where the program has not yet been started. Life skills education should be examined like any other subject in the curriculum. There should be a vote head under FPE to cater for orphaned learners' school requirements. School administration should link orphaned learners who perform well with sponsors to ensure that they continue with their secondary education. Future researchers will get baseline information for further research useful to orphaned learners both in primary and secondary schools.

**Keywords:** *Assessment, Coping Strategies, Orphaned Learners, Academic*



## **Introduction**

The state of orphan hood has existed since the “dark ages.”The orphaned children have always been with us either directly or indirectly. Most orphans in the world are as a result of wars, natural calamities, diseases like HIV/AIDS, maternal death in child birth due to neglect and poorly trained traditional birth attendants. Current reports indicate that there are between 143 million and 210 million orphans worldwide (UNICEF, 2000). Every day 5,760 more children become orphans. This renders many children helpless. 2,102,400 more children become orphans every year in Africa alone. 92% of the world’s orphans are in developing countries. According to UNICEF’s most recent “State of the world’s children” report, the number of orphans has continued to grow in many developing countries and third world countries partially due to the spread of famine, violence and diseases in particular AIDS. Out of those 143,000,000 orphans, an estimated 15,000 children die every day of hunger related causes (UNICEF 2001). These incapacitate their learning ability.

It is estimated that by the year 2020 with the rate that children are becoming orphaned, there will be more than 200 million children orphaned around the globe and this is over 2.8% of the world’s population (UNICEF, 2006). In Russia and Ukraine, studies have shown that 10% - 15% of these children commit suicide before they reach age eighteen. Every single child that makes up the thousands or millions is a precious child, just like other children whose parents are alive. The negative effects of orphan hood have important implications for future opportunities in terms of education, employment, health, social support and economic development. Evans & Miguel (2007) find that parental loss decreases school attendance and participation rates of children by seven percentage points. The orphans’ situation in Thailand is worsening with the AIDS pandemic, natural calamities increase. This has in turn led to the establishment of homes for the orphans (WHO, 1995). Orphans are at risk and significantly affected by their inability to meet basic needs such as shelter, food, clothing health care and education (Meier, 2003). There are more orphans in sub-Saharan Africa than all of the children in Denmark, Ireland, Norway, Canada, Sweden combined. This calls for interventions and ways of caring for the orphans in sub-Saharan Africa.

In Kenya the situation is equally the same. Most orphans in Kenya and indeed the highest percentage is as a result of parents dying from the dreaded disease HIV/AIDS (Nation Newspaper, 2006). Over 40 million people have been infected worldwide (Osewe, Habiyambere & Bassi, 2008). Children who have lost their parents due to different attacks have since been left destitute and homeless (Okayo, 2006). Older siblings in the child headed families are left with the arduous task for fending for their younger siblings. As a result they are vulnerable to abuse, suicide, prostitution, slavery, becoming child soldier and immorality (Harvest Ministry, 2010). Girls skip schools in the afternoon to beg for food from their neighbors to feed their brothers and sisters in Turkana but still endeavor to go to school (Standard Newspaper June, 2011). The children are left wondering from house to house looking for food but even the neighbors have nothing to offer. This implies that their schooling and their health are affected. The little they get after begging cannot sustain them both at home and school although some of them make great efforts and continue with schooling. It is evident that mitigating or alleviating some of the problems and risks orphans face would have an effect on improving orphans' academic performance (Evans & Miguel, 2007).

### **Statement of the Problem**

The existing number of orphans in Kenya today is alarming and has continued to escalate in the whole country. Given the evidence that there is an increasing number of orphans in Kenya (UNAIDS, 2004), it is necessary to note that these orphans are part of the population of the country and so they are as important as any other citizen. It is evident from the background information that orphans are deprived group of people. Moreover their increasing number due to various factors continues to cripple the country (Susan 2005). Government statistics reveal that the number of orphaned learners has risen from 20% of the total population of the children in Kisumu East District to 30%. This is from 4,270 to 6,406 orphaned learners in Primary Schools. (Kisumu East District Primary Schools Establishment, 2011). This could be as a result of various factors ranging from diseases, wars, natural calamities and accidents. Orphaned learners are substantially more likely to drop out of school than non-orphans. So the issue at hand is to see to it that these orphaned learners can be well adjusted in their social and personality development so as to

develop holistically. The changes in family circumstances to some extent deprive these orphaned learners of the stimulus resources found in the normal family (Sunday Nation, 2011).

Due to this adverse situation, orphaned children schooling outcomes is significantly worse than those of non-orphaned children. Orphans are at risk and significantly affected by their inability to meet and access basic needs such as food, clothing, and health care among others (Meier, 2003). However, there are exceptional cases where orphaned learners perform well and excel in their academics despite the challenges they go through leaving one to wonder and question the causes and contributors to their achievement and good performance. It is interesting that Winam Division outperforms Kadibo Division in KCPE yearly with 2352 orphans yearly yet Winam with a larger number of orphaned learners of 4054. In the year 2009, 2010 and 2012 Winam Division had mean scores of 267, 262 and 278 respectively while Kadibo Division had 203, 213 and 220 in KCPE (Kisumu East District Examination Analysis, 2011).

The scenario therefore called for a vital question: Are there some strategies employed by orphaned learners which enable them to perform well? Studies which have been conducted on coping strategies by orphaned learners target all orphans especially those orphaned as a result of AIDS pandemic, however there is an information gap when it comes to their survival after parental death and academic performance. Hence it is in view of such gap that the researcher feels it is logical to assess the factors which contribute to such orphaned learners' academic achievement in Winam Division.

## **Materials and Methods**

The study was carried out in Winam Division in Kisumu East District which is one of the districts in Kisumu County. The district shares borders with other districts namely Kisumu North District to the North, Nyando District to the East, Kisumu West District to the West and some part of Rachuonyo District to the South. It occupies an area of 559.2 square km. It has a total population of 473,649 with a 2.1 percent population growth rate (2009 Kenya population and Housing Census). It is sub-divided into two administrative divisions namely Winam Division and Kadibo Division. Kadibo Division performs poorly every year whereas Winam

performs well yearly in the national exams yet with a large number of orphaned learners hence the need to use this division for the study. The district has 58 public mixed day primary schools.

The population of the study consisted of 3042 orphaned learners, 43 head teachers and 516 teachers in mixed public primary schools Winam Division. Only orphaned learners who had completed one year and above in the selected schools were included in the study to enable the researcher trace past academic records and assess their performance in different exams which they had done.

The sample consisted of 234 orphaned boys and girls, 39 teachers and 13 head teachers from the selected public primary schools. Simple random sampling technique was used to select 13 schools from the 43 public primary schools in Winam Division. A simple purposive sampling technique was used to select 3 orphaned boys and 3 orphaned girls from std 6, 7 and 8 in the 13 selected schools. Purposive sampling technique fits the study because the researcher targeted orphaned learners only (Onen, & Oso, 2008). Simple random sampling was used to select 3 teachers in upper primary to participate in the study. 13 head teachers were purposively selected in the 13 primary schools. This was one third of the total number of head teachers in 43 primary schools in Winam Division.

The instruments used to gather information from the sampled respondents were: questionnaires, interview schedule and document analysis. The researcher selected the tools in regard to the nature of the data to be collected and the time available as well as the objectives of the study. Data from interviews was organized into themes and sub- themes as they emerged based on the objectives.

Descriptive statistics including means, mode, and standard deviation were used to enable the researcher come up with clear counts concerning the responses.

## **Results and Discussions**

The respondents were asked factors which contribute to their good performance and their response were as shown in the table below

**Response of Pupils on why they perform well and their mean scores in examination n = 230**

<b>Reasons for Good Performance</b>	<b>Freq</b>	<b>Mean Score</b>	<b>Std dev</b>
Remedial Tuition	1	440	0
Motivation from teachers	44	373.61	21.654
Personal Ambitions	7	342.38	5.845
Hard work	133	339.11	3.658
Discipline	28	298	20.852
Advice from guardian	6	297.19	2.36
Good role models in school	6	278.11	14.328
Support from my sponsors	4	261.46	4.231
Humility	1	260	0__

The data obtained from the orphans who were involved in the study were used to calculate the standard deviation in the mean scores of the orphaned learners. The table shows the relationship between the factors that make orphaned learners perform well and their mean scores in the examinations they do. From the table, it can be observed that all the factors contributed to the performance of the orphaned learners although motivation from teachers, personal ambitions, role models in school and hard work were the most contributors. Those who responded to these factors had mean scores of 300 and above. Majority 133(57.83%) of the pupils agreed that it was due to hard work that made them perform well enabling them to attain an average mean of 339.11. Some indicated in their questionnaires that they wanted to work hard and come out of their current situation. This could be due to the application of the principles of self efficacy Theory. These findings indicate that orphaned learners are aware that they have to work hard in order to perform in their academics.

Forty four respondents who had mean score of 373.61 indicated that motivation from teachers among other factors contributed to their performance with a standard deviation of 21.852. Orphaned learners who had an average mean of 373.61 agreed that this factor created an environment which enabled them to work extra hard. Teachers can

motivate pupils in different ways; the way they teach, handle pupils or even use of material gifts. Poor methods of teaching and unprofessionalism in the teaching fraternity can also demoralize learners. This is an indication that teachers are expected to be warm to the learners at all times so that they are able to confide in them. It was interesting that some orphaned learners indicated in open ended questions that the love provided by the teachers made them like those schools and could be the reason why they confided in their teachers. A study conducted by Ray (1972) confirmed that teachers played a vital role in responding and intervening for orphaned learners. The respondents were happy that even when some guardians were not treating them well, teachers really encouraged and motivated them making them to work extra hard hence perform well. This concurred with the study done by Ogina (2010) which found that teachers contributed a lot and played vital role in responding to the needs of orphaned learners. The outcome of the teachers' role is gain of full benefits of learners' educational experiences by these orphaned learners while in school. It also justifies the theory of self-efficacy used in the study by Gibson & Dembo (1984) which showed that teachers with high sense of instructional efficacy devote more instructional time to the teaching process. They maximize the use of available time while in school. Ray (1972) stated that teachers should encourage and motivate learners in order to work hard and perform well. Unprofessionalism by teachers in the teaching learning process can easily yield undesired results leading to poor performance. It was interesting that only one respondent indicated that remedial teaching contributed to good performance and had a mean of 440. Whereas other orphaned learners confined themselves on other factors, this pupil was enthusiastic that remedial teaching contributed to his good performance.

Personal ambition was also revealed as one of the factors contributing to good performance by orphaned learners as illustrated in Table 4.9. Orphaned learners who scored an average mean of 342.38 believed that what they wanted to achieve in future pushed them to work hard and attain such marks. Some respondents disclosed that despite the fact that they had lost their parents, there was still an opportunity for them to fulfill their dreams. This implies that their attributes enabled them to perform well despite their status. In essence learners should set goals and endeavor to achieve those set goals. This concurred with the story of an orphan who

was quoted in one of the daily news papers as having defied all the odds and made it to University. The Standard Newspaper on Sunday (May 13, 2012). He had to say this, "I want to pull through this last yet very important part of my education and I will be a better person." He was yet to complete his bachelor's degree in Economics in one of the public universities in the country. The fact that one has lost a parent is not the end of everything and therefore orphaned learners should work towards achieving their set goals.

Good role models in schools with a standard deviation of 14.328 also emerged as one of the factors contributing to their performance. This was revealed when some respondents disclosed that they wanted to be like other pupils who had joined very good secondary schools after passing their KCPE examination. In all the progress records observed in different schools in the study, majority of the orphaned learners scored an average mean score of 300 marks and above. The results also found out that the respondents were still eager to do their best and improve on their scores in every examination they are subjected to do so that they join national schools.

Humility appeared to be a lesser contributor since only one respondent cited it and had a mean score of 260. The finding denotes that humility alone without hard work cannot make one perform and get good results and that could be the reason why most respondents did not indicate as a major factor which contributes to good performance by the orphaned learners.

## **Conclusions**

Motivation and assistance from teachers with a standard deviation of 21.654 enabled orphaned learners to work hard and gain full benefits of educational experiences. This makes them to even confide in teachers who are with them most of the time and sometimes solve their problems. They were more open to teachers than their guardians. Again most teachers 60(26%) agreed that they provided both material and educational guidance to orphaned learners.

Personal ambitions and determination had a standard deviation of 5.845 this enabled them to work hard and perform well. At least all orphaned learners included in the study had set goals and what they wanted to

be in future. While others were not performing well, these orphaned learners were highly efficacious such that they were able to act and think differently thereby setting targets and work towards the set goals. Most of them were enthusiastic towards education.

Role models with a standard deviation of 14.328 in the schools inspired orphaned learners making them to put extra effort resulting into high self-esteem. These were former pupils in their schools who had performed well and were pursuing their secondary education in very good schools having been sponsored by either financial institutions or individuals. This enabled them to work even harder despite challenges causing them to defy all the odds they were facing as orphans.

Advice from the guardians with a standard deviation of 2.36 on their education and future life inspired them despite their status. This made them to work hard so that they could come out of their poor and vulnerable situations. Some guardians were found to be concerned hence took the role of parents of the orphaned learners by providing the school requirements as well as their basic needs at home.



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## **Preparing Exemplary Educators for Tomorrow's Schools**

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### **Introduction**

Education is a primary vehicle for economic development, social mobility, and personal well being. Both Kenya and the United States are in a period of intense attention to primary and secondary education, as well as higher education.

Teacher preparation has become a controversial issue all over the world. Questions regarding how much formal preparation is needed and how it should be delivered are the focus of much debate and experimentation. Our countries have seen waves of reform, with the understanding that teachers are critical to student success and educational effectiveness.

We are facing a global need to recruit, prepare, and retain millions of teachers. In addition, large numbers of practicing teachers need to be replaced or retrained. Thus, attention to teacher preparation and the preparation of school leaders could not be more timely for Schools of Education.

### **Current Demands and Challenges of Primary and Secondary Schools in the US and Kenya**

In order to prepare future educators, it is important to consider the current demands and challenges that teachers face in our public schools. Teacher morale is at an all time low in many places due to low pay, challenging working conditions (e.g., under resourced schools and classrooms, increasingly needy students), pressure to increase standardized test scores, and a decline in status and respect. These factors lead to teacher turnover and discontent, which negatively impacts student learning. Teachers are also under pressure to address issues that impact academic

success, including opportunity gaps due to the impact of poverty, racial, ethnic, and gender inequities, and health, social, and behavioral issues.

Observations in US and Kenyan classrooms provide evidence that the “Sage on the Stage” or “sit ‘n git” pedagogy is used prevalently. Student desks are typically lined up in rows (“graveyard classrooms”), and the discourse is heavily teacher centered. Students often demonstrate their knowledge and skills through paper-pencil tasks and assessments rely heavily on short answer, multiple choice, one-shot tests.

### **Schools of Education under Scrutiny**

Schools of Education are being criticized as too theoretical and disconnected from the realities of teaching, lacking rigor, and ineffective in preparing exemplary teachers. Critics include those that believe teachers just need strong content knowledge. Others feel “Good teachers are born, not made,” so dispositions and personal characteristics are the defining and relevant factors when preparing successful teachers. Still others support alternative routes to teaching, with on the job training rather than preservice preparation. In reality, content expertise, pedagogical knowledge and skills, and key dispositions are all important elements of effective teaching.

### **Elements of Effective Teacher Preparation**

Schools of Education need to address the continuum of teacher learning, including preservice preparation, induction, and ongoing professional development. In addition, attention to the beliefs that candidates bring to their preparation program, based on their own experiences in school, can strongly influence how they ultimately teach. Each of these phases will be discussed.

**Pre-service Phase:** In most universities, teacher education programs are comprised of a collection of unrelated courses and field experiences. Coursework is heavily focused on lectures and seat-based learning. Effective preservice teacher preparation requires a comprehensive ‘backward planned’ program of study that starts with the end in mind. That is, core knowledge, skills, and dispositions are identified and backward mapped for each course and field experience. In addition, there must be alignment of course and field components and integration

of content expertise with pedagogy. Students should complete program requirements in sequence and should be engaged in significant clinical practice under the supervision of skilled mentor teachers and university supervisors. Pedagogical approaches should focus on student inquiry and project based learning that promotes relevance (i.e., solving real issues in ones community) and rigor. Formative assessments, including student demonstrations of required knowledge, skills, and dispositions, should be used throughout the program.

**Induction Phase:** This phase involves the first 1-3 years of teaching when beginning practicing teachers adapt to and learn about their roles as teachers. Induction support should include formal mentoring by designated master teachers and school administrators. New teachers need varied levels of support and benefit from sharing with other first year or novice teachers.

**Continuing Professional Development:** Fragmented, “one-shot” professional development, conducted by trainers with little knowledge of what is taking place in the school and classrooms, has proven to be ineffective. Teachers need to continue to hone their skills over time. Communities of Practice or Teacher Learning Communities (TLCs) have been used to promote collaboration and continuous improvement among teachers, rather than isolation and stagnation. Teachers and school leaders work together to observe, share, problem-solve, and develop and improve curriculum and instruction.

### **Future Directions in the Preparation of Exemplary Educators**

**Brain-Based Learning.** All students deserve access to a high quality education that prepares them for a satisfying and productive adult life. The importance of a rich, stimulating early childhood education, including good nutrition and health care, cannot be overstated. Our knowledge of brain development and brain-based learning continues to inform our practice as educators.

**University-School-Community Collaboration.** Addressing the ‘wicked problems’ of society that are reflected in our schools requires “community schools” where services for youth and families are co-located at the school and professionals work in partnership with families and the community.

**Cross-disciplinary Collaboration.** Schools of Education need to blur the lines of our silo'd programs to prepare educators. After all, school leaders, teachers, school counselors, school psychologists and other therapists must all work together on behalf of our youth once they leave our programs.

**Access to Technology.** Technology enhanced teaching can open the door to learning for students throughout the world. Generation X and Y students are increasingly adept at using technology, but our teachers lag behind in the use of technology.

**Culturally Relevant and Responsive Curriculum & Instruction.** Not only do we need teachers who understand their multicultural learners and who can offer a culturally relevant curriculum, but we also need to prepare teachers who can address social justice issues that stem from racism, sexism, ableism, and other inequities that are prevalent in schools and society.

**Accountability for our Graduates.** Schools of Education will be held accountable for the teachers we prepare. Soon, we will be evaluated by the impact that our graduates have on their students and other outcome measures.

## **Summary**

Although we lack a consensus regarding how best to prepare exemplary educators, we have evidence of effective practices from around the world, as well as approaches that have not been successful. The quality of our educational system and student outcomes depend on the quality of the teachers we prepare. Thus, Schools of Education must be continuously improve as we retrain current teachers and endeavor to meet the high demand for new teachers.

## **Challenges in the Allocation of Constituency Bursary Funds and their Effect on Access and Retention of Students in Public Secondary School in Nairobi County, Kenya**

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### **Abstract**

The purpose of this study was to establish the challenges in the allocation of constituency bursary fund. The study was anchored on the theory of distributive justice propounded by Rawls. The study employed mixed methods leaning towards quantitative design. The study population consisted of 291 bursary beneficiaries; 48 secondary school principals, 129 class teachers, and 24 Constituency Bursary Committee members. The respondents were selected using sample size determination table, proportionate and simple random sampling techniques. The instruments for data collection were sets of questionnaire and in-depth interview schedules. Document analysis was also used for data collection. A pilot study in Nairobi County on a small sample of respondents was conducted to validate the instruments. Qualitative data was analyzed by use of qualitative techniques namely; mean and standard deviation and frequencies of occurrence while quantitative data was analyzed using ANOVA, t-test and regression analysis. The study findings indicated that the guidelines stipulated by the government on the award of bursaries are not fully followed. Although CBF has enhanced enrolment in secondary schools, it remains inefficient in achieving the intended objective of enhancing access & retention of the vulnerable group of students as it was attested by inconsistency of support to beneficiaries throughout the four year period of

**study. In order to overcome the challenges and enhance the efficiency of CBF, the researcher suggests that there is need to; increase the amount of bursary allocations to each constituency, enhance consistency of support, and offer Constituency Bursary Fund committee (CBFC) infrastructural development so as to target needy and deserving cases. The study therefore, amplifies that policy makers need to streamline the CBF policy in view of expectations of the Kenyan public and the government in line with the stipulated guidelines so as to enhance access and retention of students in secondary schools.**

**Keywords:** *Challenges, Constituency Bursary Fund, Access and Retention*

## **Introduction**

### **Background to the Study**

The provision of quality education in Kenyan has been a central policy issue since we attained independence. This has been due to governments' commitment to provision of quality education and training as a basic human right for all Kenyans in accordance with the new constitution and the international conventions. Secondary education policies have evolved over time with the Government addressing challenges facing education sector through several commissions, committees and task forces. Immediately after independence, the first commission chaired by Ominde, in 1964 sought to reform the education system inherited from the colonial government to make it more responsive to the needs of the country. The Report of The presidential Working Party on the Second University chaired by Mackey, led to the replacement of A- Level secondary education with the current 8-4-4 education system (GOK, 2005 and IPAR, 2008).

The secondary schools bursary scheme was introduced by the government in the 1993/94 financial year to enhance access, ensure retention and reduce disparities and inequalities in the provision of secondary school education. In particular the bursaries are targeted at students from poor families, those in slum areas, those living under difficult conditions, those from pockets of poverty in high potential areas, districts in arid and semi-



arid lands (ASAL), orphans and girl- child (GOK, 2003). At inception of the fund, funds were disbursed directly to secondary schools from the ministry of education headquarters. Due to lack of clear guidelines to schools on how to identify needy students for bursary awards, beneficiaries were identified through different ways. However, in most cases the head teachers ultimately decided on who was to be awarded the bursary and the amounts to be allocated. In 2003, the fund was modified in line with government policy on decentralization and to respond to complaints of mismanagement and lack of impact. The bursaries also known as constituency bursary funds (CBF) are channeled to various schools through constituencies. The disbursement is done by the constituency Bursary committees (CBCs) guided by the 2005 guidelines of the ministry of education science and technology (GOK, 2005).

Despite the decentralization of the CBF, it has been transformed into a political instrument thus compromising its effectiveness (Wachiye and Nasongo, 2010). In their study, Njeru and Orodho (2003) accused the system of allocating funds to politically correct persons as gift of loyalty at the expense of the needy. Onyango and Njue (2004) observe that the fund is not serving its purpose for it is under direct control of members of parliament who give bursaries to cronies and political supporters who are not necessarily needy. In addition, there are variations in the amount of allocated. Furthermore, the amount is split into portions that do not constitute support.

Odallo (2000) notes that bursary allocation is severely faulted for there are unfairness of awarding undeserving students. Odebero *et al.*, (2007) study confirms these sentiments by asserting that bursary allocation is not equitably distributed among the recipients. Mwangi (2006) posits that the process of sending money from central government to constituencies then to schools take a long time. By the time recipients get the money, many would have been sent away from school. This affects students' retention at secondary school.

A study by Wachiye and Nasongo (2010) in Kanduyi constituency established that there were incidences whereby local Member of Parliament allocated bursaries to supporters and relatives though they did not deserve it. They also observed that there was delay in disbursement of funds. In two constituencies of Nairobi County, the area members

of parliament are said to have taken control of the fund deciding who gets the bursaries and they keep the records as well (IPAR, 2008). These practices have a negative effect on students' access and retention in public secondary schools. It is against this background that the researchers investigated the challenges in the allocation process of bursary funds and propose interventions to policy makers so as to strengthen the bursary fund.

### **Statement of the Problem**

From the background of the study, it is apparent that the government has stated in its policy documents (GOK, 2003; 2005) that CBF was introduced so as enhance access, equity and retention at secondary school level among the poor and other vulnerable groups. In most developing countries and in particular sub-Saharan Africa, the system of awarding bursaries has made it difficult for the poorest to access education (World Bank, 2009; Lewin, 2009; UNESCO, 2010; Nyabanyaba, 2009 & Kanungo, 2004), In Kenya , there has been concerns that bursary is not equitably distributed to recipients. Students from poor families are still unable to access secondary school education despite its availability. The Gross Enrolment Rate for secondary education in Kenya is 29.8 % (GOK, 2006; Odebero *et al.*, 2007; IPAR, 2010 & Wachiye and Nasongo, 2010). Major concerns with CBF revolve around weak administrative systems and questionable allocation criteria where cases of political interference are rampant. As a result of this, most secondary school going children are unable to participate fully in this intermediate education as reflected by increasing (7.1 %) dropout rates (GOK, 2003; Onyango & Njue, 2004).

The bursary fund level is too low to cover the entire tuition fee for the poor (Mwangi, 2006). In the 2007/08 financial year for instance, 84.2 % of the beneficiaries in Nairobi County received minimum allocation or less. This exposes serious inconsistencies and limitations in awarding bursaries in low-income areas of Nairobi particularly slums (IPAR, 2008). A number of studies have investigated the effectiveness of CBF in relationship with access and retention in Kenya. However, a few have zeroed in on its impact on access and retention. This study investigated the challenges in the allocation of Constituency Bursary Funds and their effect on access and retention of students in public secondary school in Nairobi County.

## Literature Review

### **Distribution of bursary to secondary school students**

Odebero *et al.*, (2007) conducted a study on Equity in the distribution of bursary to secondary school students in Busia District. The study established that bursary allocation in Busia District was not equitably distributed among the recipients since Gini Coefficients revealed concentration levels of over 0.5 for all the years studied. The study noted that the criteria set by the Ministry of Education to be used by school administrator to allocate bursary in the district bore some encumbrances that made it difficult for bursary to accurately target support to the really needy students. The criteria according to school heads left room for a lot of discretion which could be subjective. The study further asserted that some of the needy students ended up missing bursary support unfairly through the criteria of poor performance. The next was orphaned and level of need where a resonate proportion of head teachers felt that they were used to deny needy students access to bursary. The study therefore concluded that the criteria was cumbersome and could not be effectively be used by the head teachers to identify the levels of need for differentiated bursary allocation.

In addition to the decentralization of secondary education bursary fund to the constituency level, and gradual increase in allocation and setting of higher minimum allocation per beneficially, Odebero *et al.*, (2007) study opines that it is apparent that the current bursary provisions and cash transfers should be enhanced to sustain deserving students within the system. According to the Welfare Monitoring Survey (WMS) III of 1997, 30 % of the population lived under the core poverty line while 56 % of the population lived below the absolute poverty level. In 2005, about 46 % of the population lived below the poverty line. The bursary allocation should be improved to target deserving students leaving standard 8 (or eighth grade). Under the current system, identification of deserving cases covers only those students already admitted within the secondary education level.

Wachiye and Nasongo (2010) conducted a study on access to secondary school education through constituency Bursary Fund in Kanduyi Constituency. They observed that orphans and good performers were the majority of bursary recipients, leading to confirming that the Kanduyi Constituency bursary fund Committee determined the recipients based

on their parentage and academic performance. The Gini Coefficient Value 0.01 for the bursary allocations to the recipients implied that the allocations were done equitably in constituency. As a matter of fact 80 % of the recipients noted that the criteria used by the committee to identify the beneficiaries were fair enough. The equity in the allocation can be attributed to fairness demonstrated in the criteria for identifying the bursary recipients and uniformly in the bursary amounts. However, the findings of the study revealed that there were problems encountered by the bursary fund committee. These included; inadequate bursary by the government, political interferences and delays in bursary disbursements. The study recommended that there is need for the government to establish a special management structure devoid of political manipulation to run constituency bursary fund. KIPPRA (2005) carried out a study on accountability and performance of constituency funds. Majority (84.3 %) of the respondents expressed high levels of distrust in the constituency bursary fund managers.

Macharia (2011) opines that a multiplicity of social and economic factors has locked out girls from the constituency bursary fund that is meant to enable poor students finance secondary education. This has in turn led to a high dropout rate of girls from secondary schools and puts them at an economic disadvantage in both current and future lives, a new report has said. A report released recently in Nairobi, however, showed that the constituency-based committees use skewed criteria in the selection of beneficiaries, a factor that had seen girls miss out on the kitty, regardless of their social economic background.

IPAR (2008) carried out a survey on, 'public expenditure tracking of secondary Education Bursary Fund,' in Nairobi province. Their findings established that the bursary scheme has limitations on governance, effectiveness and consistency. They observed that as a result of inconsistency in funding, the scheme has not achieved its main objective of retention .And due to low level of funding compared to demand, the survey posits that many stakeholders have negative perceptions about the operation of the scheme. This is because whereas the number of students applying for bursary funds has been on the increase, the amount being allocated to constituencies for bursary has remained static. As a proportion of the tuition fee requirements, the bursary fund hardly meets a quarter of the fee requirements for instance; it was revealed that an estimated

84 % of the bursary beneficiaries got Kshs.5000 as bursary. This is way below the government approved fee for day schools, boarding provincial secondary schools and national schools which is Ksh.10500, Kshs 22,900 and 28,900 respectively. Further much of the allocated to Nairobi province benefited majority of students outside of Nairobi province. The survey estimated that only 29 % of the funds allocated benefited students schooling in Nairobi province. From the number of applicants an estimated 57 %of the demand is not met. School records indicate that 62 % of bursary funds received by schools are from other bursary providers. Also it was established that the allocation to and disbursement of funds from constituencies is not consistent with the school programmes. The allocation of funds from the Ministry of Education to constituencies and from constituency to beneficiaries is not in tandem with school programmed. This makes beneficiaries to receive money in the middle of terms after they have missed classes as they go about looking for financiers to supplement the allocations they receive from CBF.

### **Challenges in the allocation of constituency bursary funds**

IPAR (2003) conducted a study on ‘Education financing in Kenya: Secondary school bursary scheme implementation and challenges’. It was revealed that despite the rationale for the introduction of constituency bursary fund, there are increasing concerns regarding their ability and sensitivity in cushioning the income poor and vulnerable groups against adverse effects of the escalating costs of secondary education. Major concerns are in regard to the MOEST bursary scheme inadequate finances to meet the demand of the applicants. According to Mwai (2007), despite the increase over the years of secondary school bursary fund, the fund remains inadequate. The implication here is that for the objective of bursary to be achieved, the government is supposed to allocate enough funds for it to have an impact.

According to Kosgei *et al.*, (2006), there has been lack of monitoring mechanism; this has given room for systematic flaws that mitigate against smooth implementation of the fund. The prevailing situation has translated into the flaws of the right procedure of awarding bursary funds by bursary committees. Consequently this has led to needy and deserving cases to miss bursary funds. At the constituency level, the data collected by the survey established that area members of parliament have taken

control of the fund, deciding who gets the bursaries and they keep the records. The application procedures were also noted to be cumbersome and hence time wasting.

Following the changes in the allocation mechanism since 2003, claims of misallocation of bursary funds, double awards to “ghost” students, as well as excessive patronage by members of parliament who influenced skewed allocations have been prevalent (Daily Nation, December 4, 2006). This interference of allocation of bursary by politicians was made possible by the fact that they became patrons of the constituency bursary schemes. Most of the members of parliament use the bursary funds in his/her constituency to gain some political mileage in the community. Other stakeholders are involved in the interferences of the allocation of bursaries in schools. These include Provincial Administration, where chiefs and their assistants are known to have some influence, religious leaders and the District Education Officials. While deliberating on the problems facing the education sector, head teachers observed that Secondary Education Bursary Fund was being abused. For example they observed that senior ministry officials force them to ward bursaries to undeserving students at the expense of the needy (Kariuki, 2008).

IPAR (2003) reported that in other cases some District education officer and politicians are said to have put undue pressure on head teacher to allocate bursaries to their relatives, thereby denying the genuinely needy students, access to the facility. This implies that students who did not deserve receive funds at the expense of the needy students. Consequently, this leads to the needy students not accessing the bursary hence risk dropping out.

According to Soy (2007), many parents in Eastern province were dissatisfied with their constituency bursary fund committees. They accused politicians of awarding the fund to cronies. In one constituency, son of a Member of Parliament (MP) pursuing parallel degree at University of Nairobi was one of the beneficiaries. The report adds that in some constituencies, MPs must approve beneficiaries list and amount award. Therefore, unless the bursary kitty is streamlined, it was reported that poor students would not access secondary education. This corroborates the finding by the government survey (2009) that politicians meddled in the award of bursaries by recommending the beneficiaries, and are hurting the poor by delaying school cash (Siringi, 2009).

Njeru and Orodho (2003) argue that other than concerns over limited finances to cater for all eligible and deserving needy students, administration weakness exist in the disbursement of bursary funds at district level. The same argument can be demonstrated by the fact that constituency committee has various administration weakness in disbursing the bursary funds. For instance, the funds are delayed until the needy students are chased home from school for lack of fees. The study recommended that committee should consider the purpose of bursary fund which is to enable a student to continue with education without interruptions.

The delay in the disbursement of bursary funds contravenes the good essential purpose of decentralizing of bursary funds to constituency level. According to a report from the Ministry of Education Science and Technology (2005), bursaries were decentralized to constituency level to enhance effectiveness and efficiency in bursary allocation and disbursement. Also according to economic survey (GOK, 2004); the decentralization of the scheme to the constituency level was aimed at streamlining disbursement to only those who qualify. However, all these reports indicate that there is lack of proper scrutiny of application forms and bearing some interest in the exercise of bursary disbursement.

In agreement with the above assertions, Mugambi (2002) opines that those concerned with awarding bursaries use their positions to assist their undeserving relatives acquire the awards. This results to the needy and deserving not getting the bursary. There is also allegation that members of parliament influence the composition of the committees by nominating their supporters. This is why most of the leaders associate themselves with bursary schemes. Bursary should in this case not be used for personal aggrandizement and selfish ends.

Mwembi, (2012) conducted a study on Challenges on the disbursement of Constituency Bursary Fund (CBF) to public secondary school students in Bobasi constituency Kenya. The main objective of the study was to find out the extent to which the official criteria was followed in allocating the bursaries to students, problems of adequacy, disbursement and equity considerations, leakages and if any, whether there were mechanisms in place to address complaints and issues raised in allocating the bursary fund. The study was guided by the Classical Liberal Theory. Where, it emphasizes on social mobility being promoted by equal opportunity

on education. Mwembi's, (2012) study concluded that the criteria of determining the genuinely needy students had limitations both on governance, efficiency, effectiveness and consistence in support. The fund was also established not equitably awarded among boys and girls and among schools. Further, the fund was found to experience the following impediments: Low and inadequate funding from the government that could not meet the demands of the high number of the needy applicants, Political interference by the local politicians, Delays by the government to disburse these funds which inconvenienced many needy students and Mechanisms of addressing bursary related complaints which were somewhat ineffective. The study recommended that the government should increase through treasury, the Constituency Bursary Fund for it to have any impact on the applicants who expect to be served effectively; it should have a reform mechanism devoid of political manipulation to run the fund. And lastly, the study recommended that policy makers should ensure that bursary awarding process should emphasize on the school teachers' assessment of continuing students' need for financial support/ assistance.

## **Methodology**

### **Research Design**

Research design is a plan and the procedure for research that span the decisions from broad assumptions to detailed methods of data collection and analysis (Johnson & Onwuegbuzie, 2006). The research design adopted for this study was mixed methods leaning towards quantitative design. The study was mixed methods in a single research which allows for pragmatism. The blending of qualitative and quantitative methods in this study neutralized bias, sought convergence of results and produced final product which highlighted the significant contribution of both approaches, where both, therefore used numeric and word data easily. Further, the researcher adopted a mixed methods design for it was useful in helping study meet the criteria for evaluating the "goodness" of the answers better than do the single approach designs. Indeed mixed methods provide the opportunity for presenting a greater diversity of divergent views (Creswell, 2009).



### Target Population

The target population for this study comprised of 1200 students in the 2011 form three cohort who benefited from the constituency bursary fund. In addition, the study targeted 192 class teachers and 48 school principals of the bursary beneficiaries and 120 CBFC members from the eight constituencies of Nairobi County.

### Sample and Sampling Procedure

The sample size for this study was determined using sample size determination formula advanced by Krejcie and Morgan (1970) as cited by Kasomo (2001). The formula is given as:

$$n = \frac{X^2 * N * P(1 - P)}{(ME^2 * (N - 1)) + (X^2 * P * (1 - P))}$$

Where:

n= Sample size

$X^2$  = Chi-square for the specified confidence level at 1 degree of freedom

N= population size

P = population proportion

ME = Desired Margin of Error (expressed as a proportion)

Using the formula, the sample size for a target of 1200 respondents at confidence level of 95 % was 291. The researcher then stratified respondents into constituencies and employed Proportionate random sampling technique to select beneficiaries for each constituency. Thereafter, simple random sampling was used to select samples for the study from each constituency. Class teachers of the bursary beneficiaries as well as their school principals were also selected for the study. Three CBFC members (the chairman, secretary and treasurer) from each constituency were also sampled. These were the committee members who possessed records of applicants and beneficiaries of CBF as well as other information with respect to the modalities of CBF. According to Creswell (2009) randomly selected samples yield research data that can be generalized to a larger population within margins or error that can be

determined by statistical formula. Random sampling also involves a pure chance selection and assignment of subject hence eliminating systematic bias and minimizing the effects of extraneous variable.

### **Sample Size**

The sample size for this study therefore comprised 291 Form three bursary beneficiaries, 129 class teachers 48 school principals and 24 constituency committee members from eight constituencies of Nairobi County. The total sample size was therefore 492 respondents.

### **Research Instruments**

The main data collection instruments included questionnaire and in-depth interview schedules. Document analysis was also used.

### **Validity and Reliability of the Research Instruments**

Validity refers to the accuracy, correctness, meaningfulness of inferences and soundness of results of conclusion, which are based on the research findings (Kothari, 2008). The researcher sought expert opinion on content and construct validity. Comments solicited from them were used to improve the research instrument before commencing data collection. To determine the reliability of the instrument, student questionnaire was piloted on a small sample of bursary beneficiaries in one of the constituencies of Nairobi County who were not part of this research study. Cronbach Alpha Coefficient was used to test on the reliability of the instruments. A correlation coefficient of 0.77 was obtained indicating that the instrument was reliable and acceptable.

### **Data Analysis Procedures**

The raw data was appropriately coded and tabulated in readiness for analysis. The SPSS computer package was used as a 'toolbox' to analyze data related to objectives. Qualitative data was analyzed by use of mean standard deviation and the ranges, percentages, pie charts, bar graphs, and frequencies of occurrences. Descriptive statistics give general opinion with regard to the challenges of constituency bursary fund and its effect on access and retention.

## **Results and Discussions**

### **Delays in Disbursements of CBF**

Research findings revealed that the flow of the funds between the Ministry of Education and the constituencies was extremely slow. Cheques were released to schools months after the funds have been deposited in the CBFC accounts. CBFC indicated that after identifying beneficiaries, memos are written to schools requesting them to keep students as they await the cheques to be signed by the signatories. School principals however, reported that this situation confronted their schools with serious financial strains as they had to keep most prospective beneficiaries in school while they await arrival of cheques. Evidence to back this is drawn from views put forth by IPAR (2008) that when uncertain of beneficiaries' prospects, some principals simply sent the ones with arrears home. This forced students to miss classes as they went about looking for financiers to supplement the allocations they would have received from the CBF.

### **Inadequate Administrative cost**

According to revised guidelines of 2005 for disbursement of CBF, the CBFCs are authorized to utilize up to Ksh.25, 000 in each tranche. This amount is meant for administrative cost such as purchase of stationary, tea, postage and travelling expenses. Interviewees complained that the amount is too little. Many at times, chairpersons of the respective constituencies reported to have been forced to spend extra money from the kitty which could have benefited more applicants or even use money from their pockets. Since there are no sitting allowances, it was reported that some committee members are de-motivated and rarely attend the vetting process hence, affect their efficiency in evaluation and disbursement of the fund since few of them are left with many application forms to go through. This concurs with Siringi's (2009) sentiments that inefficiency in disbursement of CBF is hurting the poor by delaying school cash.

### **Lack of Administrative Offices and Computers**

The committee members are required to keep proper records of their accounts to ease monitoring and audit. However, findings from the study revealed that all the CBFC lacked administrative offices to keep such records. Dagoreti and Starehe CBFC members were lucky to be housed in their CDF offices. All other committee members operate from either

their houses or borrow some space from schools within their constituency during the vetting exercise.

The researcher also established that entire CBF process lacked computers or any systematic automation for purposes of data and information management. This was attested by the fact the researcher had a very rough time in assembling the required data due to poor record keeping. In addition, the data collection, storage, and transfer between the CBFCs and PDE's office remained largely manual. In fact, CBFC reported that the use of software during vetting and evaluation process could significantly eliminate the problem of undue influence in the selection of the beneficiaries. As a result of the lack of computers, it was particularly reported that there was difficult in identifying and targeting previous needy cases and those applicants whose economic status have since changed for the worse since the last application date The findings in this study agrees with Kosgei *et al.*, (2006) assertions that there has been lack of monitoring mechanisms which have given room for systematic flaws of right procedure of awarding CBF by committees.

### **Poor Record Keeping**

The researcher established that there was poor record keeping in all the constituencies of Nairobi County. Records were inadequate or missing in some constituencies like Langata, Embakasi, Dagoretti and Kamukunji. In terms of reporting and filling of returns, records in PDE's registry office revealed that there were no organized tools to be used by CBFCs to file their returns. Each CBFC therefore filed their returns in whichever format they chose as observed by IPAR, (2003). This challenge explains, in part, why the CBFCs and PDE's office lacked complete data on the disbursement of the fund. In the nonexistence of accurate, consistent and credible data, contribution of CBF to access and retention become difficult to ascertain.

### **Inadequacy of Constituency Bursary Fund**

It was overwhelmingly reported that the main reason why CBFC didn't adhere to stipulated rules of bursary disbursement was insufficiency of the fund. The applicants were too many and the money was too little. This finding is not different from the observation by Odundo & Rambo (2006), Mwembi (2012), IPAR (2008), YIKE (2011), Wachiye & Nasongo (2010).

All these findings unanimously established that allocations of bursary funds are inadequate compared to demand of the applicants.

This study finding indicated that in all the eight constituencies, the fund was facing an overwhelming demand gap. The number of applicants by far outstripped the amount of funds allocated to each of the constituencies. For example available data for Kasarani constituency showed that the demand for funding was quite overwhelming. By base year, the 2008/09 financial year, total applications were 3478 with 2,087 boys (60.6 %) and 1,391 girls (39.4 %). The data however show that 504 students benefited for the bursary award. This indicates that only 14.5 % of the applicants benefited from the allocation. In 2009/2010 financial year only 330 beneficiaries received bursaries out of a total of 2306 applicants with 1300 (57.1 %) boys and 1006 (42.9 %) girls representing 14.3 % of the total applicants. In 2010/2011 financial year 466 out of 3001 (2000- boys, 1001-girls) applicants were awarded the bursaries representing 15.5 % of the total applicants. In 2011/2012 financial year, there were 343 bursary beneficiaries against 3450 applicants representing 9.9 % of the applicants.

On average, less than 40% of the applicants in each year benefited from the fund in each of the eight constituencies in Nairobi County. The proportion of those benefiting from the bursary fund rose from 29.34% in year 2008/09 to 36.32% in the financial year 2009/10 before declining to 31.30% in 2010/11 financial year. There was a further decline to 13.24% in the subsequent financial year. On interviewing the Constituency Bursary Fund Committee and school principals, findings revealed that students are not guaranteed of continuous funding in all the four years of study.

It was also pointed out that the patrons of the constituency bursary fund who are the area MPs through their cronies insist that new list of beneficiaries should be considered in each tranche. This would ensure that the fund benefit as many of their supports as possible. This implies that, the fact that a student has been evaluated as poor and needy in one tranche, does not guarantee them subsequent funding. Further, level of award to each beneficiary was based on the decisions of CBFCs depending on the amounts allocated to each constituency. This was blamed on the number of applicants who were reported to be too many and the money allocated to each constituency was too little to cater for all the demand.

Overall, an estimated 24.2 % of the applicants benefited from the bursary fund over the four year period of study indicating that 75.8 % of the demand is not met. In support of this, more than half of the school principals indicated that above 40 % of student population in their respective schools deserved CBF yet they didn't benefit. This implies that the major challenge of constituency bursary fund allocation in Nairobi County is inadequate funds against the overwhelming demand of CBF. This corresponds to observation by IPAR (2008) that from the number of applicants, 57 % of the demand was not met.

The proportion of the total amount received by schools from other bursary providers over the period 2008-2011 was 60.6 % compared to 39.4 % from the CBF. This other bursary providers included; Co-operative bank, The Jomo Kenyatta foundation, UNICEF, Equity group, Madam Ida Odinga Foundation, Methodist church, Youth education support, Kenya voluntary women rehabilitation Centre, The palm house foundation, The giraffe project children's charity, USAID, CDF bursary kitty, Churches, FAWE and LATEF. Out of these bursary providers, The Jomo Kenyatta Foundation is the major provider and the only one that guarantees beneficiaries consistency of support where, in the first term, 50 % of the total fee is paid, 30 % in 2<sup>nd</sup> term and the remaining 20 % in 3<sup>rd</sup> term. Unlike The Jomo Kenyatta Foundation, participants of the study observed that CBF hardly meet 30 % of the fee requirement of the beneficiaries and there is no guarantee of continued support.

### **Political Interference**

Being a political fund, it was observed that patrons of CBF in all the constituencies of Nairobi County are area MPs who have followers/supporters. It was reported that they make sure that CBC members are politically inclined to their side. The study findings established politicians use the fund to gain political mileage. Dagoretti Member of Parliament for instance, was blamed to delay the disbursement of the fund in her constituency where she insists on being present during the issuing of cheques to beneficiaries. It was also reported that one of the MP is a signatory of the cheques in her constituency contrary to the stipulated guidelines by the MoE where the chairperson, treasurer, secretary and PDE should be the only signatories. It was further indicated that because Nairobi is a cosmopolitan area, political rivalry between different ethnic groups was reflected in the allocation of CBF. Senior education officer

in charge of bursaries in PDE's office observed that, majority of the beneficiaries from each constituency belonged to the tribe of the sitting MP. This negates the noble objective of the fund where it is supposed to enhance access and retention of all vulnerable groups of students regardless of their tribe or political affiliation. This confirms the concern fronted by Soy (2007) that in some constituencies, MPs must approve the list of beneficiaries and amount awarded.

### **Corruption and Issuing of Fake Documents**

Interviewees cited instances of corruption in the disbursement channel between the CBFCs and schools where the combined cheque and list of beneficiaries was abused by those who handle the cheques at schools. In some cases, the lists containing the names of real beneficiaries were reported to be replaced by other names favoured by the school bursars and principals. The following observation lends credence to the existence of this challenge:

“Most school bursars are dishonest because they don't release the names of beneficiaries to the responsible persons. They either withdraw the money themselves or allocate it to children of their friends.”

CBFC chairman, Makadara Constituency

“In Kamukunji constituency CBC members are given two slots each. There are also a number of slots reserved for the area MP and the PDE's office.”

*Secretary CBFC, Kamukunji*

“It was alleged that the old CBFC had sat and distributed the money without vetting the applicants or even informing the DEOs office who play an oversight role. Members agreed that new committee to sit and allocate funds afresh since it was not done in a transparent manner.”

*CBFC Chairperson, Embakasi Constituency*

The researcher also established that in desperation to secure the bursary, some parents and guardians forged documents that are used to vet applicants. These include death certificates; report forms as well as principals signatures. This was reported to interfere with the process of identifying needy and deserving cases. Upon identifying these challenges, the researcher went further to seek opinion from respondents on some of the intervention measures that policy makers at Ministry of Education

could employ so as to strengthen CBF meet its intended objective.

### **Intervention Strategies that Strengthens CBF**

All the class teachers in Nairobi County were of the opinion that the current bursary levels should be increased to reasonable amounts to meet the fees requirements of the beneficiaries. 97(78.2%) teachers were of the opinion that there was need to limit political interference. While majority of the respondents are of the opinion that the current bursary funding allocations to constituencies and later to students are not sufficient and therefore the government should increase on the amounts allocated to each constituency and ultimately to each beneficiary in order to support access and retention of pupils in secondary education.

Further 82(66.1%) respondents strongly agreed that there is need to improve the process of targeting and identifying the needy cases. This indicates that all the class teachers in Nairobi County secondary schools are of the opinion that the process of targeting and identifying needy cases should be improved to allow only the needy student to benefit from the Bursary scheme.

### **Conclusions**

Revealed from the findings, it can be concluded that the guidelines stipulated by the government on the award of bursaries are not fully followed. Although CBF has enhanced enrolment in secondary schools, it remains inefficient in achieving the intended objective of enhancing access & retention of the vulnerable group of students as it was attested by inconsistency of support to beneficiaries throughout the four year period of study. The Ministry of education should therefore, improve on its publicity and awareness strategy especially on the dates bursaries are received at the constituency levels and the time of disbursement to students. This will ensure that all the students in the County receive information on CBF bursaries on time and can apply within the stipulated period. 86(69.4%) teachers strongly agreed with the statement that there is need for consistency in funding. Further majority of the respondents indicated that there was need for transparency and accountability mechanisms of the scheme to be enhanced so as to ensure that only needy and deserving students receive the CBF bursaries on time.



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## **Review of the Teachers' Service Commission Pilot Project on Teacher Appraisal and Development: implications for teacher education**

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### **Abstract**

**In Kenya, the Teachers Service Commission (TSC) currently established under Article 273 (1) of the Constitution of Kenya remains the sole employer and quasi professional body for teachers. Under the constitution, the commission is mandated to review the standard of education and training of persons entering the teaching service. In addition, the TSC ACT (2012) has further mandated TSC to formulate policies to achieve its mandate and facilitate career progression and professional development for teachers. In this regard, the TSC has put in place policies and operational structures to enable it to realize the goals and objectives as a constitutional commission. The commission recently rolled out a Teacher Appraisal and Development programme (TAD) which is being piloted in selected secondary schools. It is against this background that this paper highlights the need for institutions that have the mandate to prepare teachers to re-conceptualize teacher education so that their products who are potential employees of TSC exhibit professional performance standards expected of them and the competencies they need to fully meet the expectations of TSC. This paper suggests that the education and professional development of every teacher needs to be seen as a lifelong task, and be structured and resourced accordingly. It is necessary to have both quality initial teacher education and a coherent process of continuous professional**

**development to keep teachers up to date with the skills required in a knowledge based society.**

**Keywords:** *Teacher Education, Teacher Professional Development, Teacher Appraisal*

## **Introduction**

### **The changing world of teaching**

The environments in which teachers work, and the demands placed upon them by society are increasingly complex. Teachers strive to equip learners with a wide range of skills that they will require to take their place in a world that is in constant evolution; this hastens the need for the development of more competence-centered approaches to teaching, together with greater emphasis on learning outcomes. Learners are increasingly expected to become more autonomous and to take responsibility for their own learning. The learners in any class may come from an increasingly wide range of backgrounds and may have a very broad range of abilities. In this context, even initial teacher education of the highest quality cannot provide teachers with the knowledge and skills necessary for a lifetime of teaching. Teachers are called upon not only to acquire new knowledge and skills but also to develop them continuously. The education and professional development of every teacher needs to be seen as a lifelong task, and be structured and

resourced accordingly. To equip the teaching body with the skills and competences needed for its new roles, it is necessary to have both quality initial teacher education and a coherent process of continuous professional development to keep teachers up to date with the skills required in a knowledge based society. As schools become more autonomous, with open learning environments, teachers assume greater responsibility for the content, organization and monitoring of the learning process, as well as for their own personal career-long professional development. Furthermore, as with any other modern profession, teachers have a responsibility to extend the boundaries of professional knowledge through a commitment to reflective practice, through research, and through systematic engagement in continuous professional development from the beginning to the end of their careers. Systems of education and training

for teachers need to provide them with the necessary opportunities. This in turn presents teacher education institutions, teacher educators and schools with fresh challenges when developing or implementing programmes for both student teachers and practicing teachers.

It is most probably against this background that the Teachers Service Commission (TSC) came up with the Performance Standards for Teachers (PST) stipulated in the Teacher Appraisal and Development (TAD) manual (December, 2013). This document spells out a clear understanding of effective teaching which calls on various stake holders to focus on improving teaching and to have a clear vision of what effective teaching looks like.

Performance Standards for Teachers outline what teachers should know and be able to do. These Standards present a comprehensive picture of the elements of effective teaching organized around the domains of professional knowledge, professional practice and professional engagement. Schools and individual teachers are unlikely to be focusing on all areas of the Standards at once. Rather, the Standards should be seen as providing the basis and a common language for coming to a shared understanding of what effective teaching looks like in all schools.

### **The performance standards for teachers**

These are baseline or minimum acceptable performance levels. They recognize the key role played by teachers in implementing government policy and making quality learning a reality. They express the expectations of an individual who is entrusted with the task of supporting learning in primary and secondary schools. The PST are generic in nature, defining knowledge, skills and abilities to apply to all teachers in Kenya. The standards celebrate, articulate and support the complex and varied nature of a teacher's work. They describe what teachers need to know and do to provide relevant and worthwhile learning experiences for individuals and groups of students in schools, and so 'equip young people for the future to enable them to contribute to a socially, economically and culturally vibrant society. As such, the standards:

- provide a platform for teachers to identify their professional development needs and drive their continuing learning and development

- inform program development for pre-service education
- represent the aspirations of the teaching profession.

Teachers employed by the TSC are expected to use the standards to devise and implement learning and development plans. In doing so, it is envisaged that they will ‘dip in and out of’ individual standards and combinations of standards as they consider their strengths and areas for further learning and development. Learning in one area may lead to the identification of a learning need in another area. So teachers, either individually or in collaboration with colleagues and mentors, will use selected standards for reflection when:

- reviewing student learning and teaching practice
- formulating goals to strengthen teaching practice
- establishing personal learning and development plans
- monitoring their achievement of personal learning and development goals.

The TSC is committed to making the standards as valuable and useful as possible for teachers. In working with the standards, teachers are encouraged to collectively examine the culture active in their profession, system and work sites. The standards may support and empower teachers to identify and exert influence within their profession, system and schools by pursuing personal and team professional learning and strengthened practice. Increasingly, the standards are being acknowledged as an ‘umbrella’ that encompasses all aspects of teachers’ work. This means that no matter what the policy, curriculum or initiative, the standards support reflection and development for individuals and teams of teachers. As well, new applications of the standards are considered and trialled as the framework is embedded in systemic processes.

The standards will also serve as an important guide for those seeking to enter the teaching service. These standards, therefore, have a lot of implications for institutions charged with the responsibility of preparing teachers for employment by the TSC. Such providers of pre-service teacher education are encouraged to establish programs that enable their graduates to demonstrate the skills and professional capabilities outlined in the standards. The standards provide considerable guidance both in

terms of the Professional Performance Standards expected of the teachers and the competencies they need to benefit fully from the TAD system. The rationale for the TAD system is:

- Participating in TAD helps teachers become reflective practitioners
- TAD clarifies the teachers tasks and makes them accountable
- Enhances teamwork and relationships

The standards are presented in three domains. Each domain is further split into various performance standards.

### **Domain A: Professional Knowledge**

#### **Performance standard 1: Know the learners and how they learn**

The teacher is expected to demonstrate knowledge of

- Physical, social and intellectual development and characteristics of learners. How these affect learners and core curriculum and co-curriculum nourishes these
- Research/Investigation into how learners learn and the implications of teaching
- Strategies for differentiating teaching to meet the specific learning needs of learners across the full range of abilities
- Teaching strategies that are responsive to the learning strengths and needs of learners from diverse linguistic, cultural, religious and socio-economic backgrounds
- Legislative requirements for learners with special needs
- Legislative requirements and teaching strategies that adopt gender responsive pedagogy

#### **Performance standard 2: Know the content and how to teach it**

The teacher is expected to demonstrate knowledge and understanding of

- Concepts, substance and structure of the specific subject area as well as effective teaching strategies.
- Development in the subject and its relationship with the rest of the curriculum and promote the value of scholarship.

- Content selection and organization.
- National curriculum assessment and reporting as the basis of designing learning sequences and lesson plans.
- The value of ICT and where it can be effectively used to support learning.

## **Domain B. Professional Practice**

### **Performance Standard 3. Plan for and implement effective teaching and learning.**

- Set learning goals that provide achievable challenges for learners of varying abilities and characteristics.
- Produce and implement well structured schemes of work and lesson plans that engage and promote learning.
- Use a range of teaching strategies to develop knowledge and skills.
- Use a range of resources to engage learners in their learning.
- Use a range of verbal and non-verbal communication strategies to support learning and achievement.
- Use various strategies to evaluate personal teaching and learning plans to improve learners learning.

### **Performance Standard 4. Create and maintain a supportive and safe learning environment.**

- Support inclusive learner participation.
- Organize curricular and co-curricular activities that maximise learner time on learning tasks.
- Use child friendly approaches to manage challenging behaviour.
- Use ICT safely, responsibly and ethically.

### **Performance Standard 5. Access, provide feedback on and report on learners learning.**

- Use formal/informal, formative and summative assessment strategies.



- Provide timely and appropriate feedback to learners.
- Make consistent and comparable assessment both written and oral.
- Use learner assessment data to analyse and evaluate learner understanding of subject content and identifying appropriate intervention and/or adjust teaching strategies.
- Report clearly, accurately and respectfully to learners, parents/guardians about learners' achievement.

## **Domain C**

### **Performance Standard 6\_Demonstrate an understanding of**

- The role of Kenya Teacher standard and TAD system.
- Develop effective professional relationships with colleagues knowing when to and how to on advice and specialist support.
- Rationale for continued professional learning and improved practice by evaluating own teaching, learning from effective practice of others and by seeking and applying constructive feedback from supervisors and colleagues.

### **Performance Standard 7**

- Comply with professional/ethical legislative and administrative requirements- TSC code of regulation and code of Ethics for employees.
- Establish and maintain respectful collaborative relationships with the parents/guardians regarding their children's learning and well-being.
- Participate in professional teaching and community networks and forums to broaden knowledge and improve practice.

As mentioned in the introduction and coupled with these performance standards, teacher education needs to be revamped so that all teachers acquire and continue to develop the knowledge and skills they need. The solution, says Linda Darling-Hammond, lies in a transformation — and extension — of teacher preparation and development. A system of teacher development anchored in agreed-upon expectations for what teachers should know and be able to do has to be enacted. Equally important, that

system must encompass the entire teaching continuum, from recruitment through preparation, certification, induction, and the rest of a teacher's career. From her research, Darling-Hammond concludes that governments need to take two key policy steps:

identifying teaching standards that articulate what teachers should know and be able to do at different points in their careers; and

using these standards to develop more thoughtful certification and licensing systems; more productive teacher education and induction programs; and more effective professional development.

### **Progress Toward A Standards-Based System of Teacher Education and Development**

Teaching in Kenya is now at a juncture where the medical profession stood at the dawn of the 20th century, Darling-Hammond believes. Back then, one could prepare to be a doctor by undertaking a rigorous, science-based program of medical training at

one of the few good programs available or, instead, qualify by taking a three-week course and memorizing a list of symptoms and a set of cures. By this, it is meant that the teaching profession in Kenya has not been accorded the seriousness it deserves. So many institutions have been licensed to train teachers without keen supervision for standards. In 1910, however, a landmark study made it clear that, though much was known about the sound practice of medicine, most doctors did not have access to that knowledge. That revelation resulted, over time, in the creation of the now-familiar system of study, internships, residencies, and career-long continuous learning requirements. Darling-Hammond sees the teaching profession today as characterized by “motley” notions of the preparation and ongoing development needed for teachers. New expectations for student learning are clashing with old conceptions of teaching and outmoded approaches and structures for teacher learning. This scenario should purposefully change toward a coherent system akin to that of medicine ( and other professions which have embraced professionalism in totality), intended to ensure that:

- more attention is paid to recruiting those candidates most likely to succeed as teachers;

- teacher education programs be held accountable for offering access to an agreed-upon body of knowledge and providing teacher candidates with practical experience to complement theory;
- licensing, or credentialing, tied to standards based performance;
- standards embedded in an induction process that includes mentoring;
- performance assessment at the end of a probationary period grounded in the same standards as the preservice work; and
- ongoing professional development that targets the kind of accomplished practice that's recognized and rewarded by a body in charge of Professional Teaching Standards.

### **Reconceptualizing Teacher Education**

I beg to begin with a plea that we stop thinking of teacher education as preservice preparation followed by intermittent sessions of inservice training, but to think of it as professional development that is ongoing throughout a teacher's career. It needs to be looked at as the education and support that teachers need during and after their initial preparation. At the center of improving teacher performance there needs to be an attitude of ongoing professional development. It is time to move away from the traditional idea that there is an initial compartment called "preservice" training followed later by some other compartmental training programs that periodically occur called "inservice" training.

Teacher education should be a process, not an event.

This paper takes the view that teacher education means comprehensive growth and support from the time teachers begin any initial preparation and/or teaching. Provision needs to be made for ongoing development of knowledge of subject matter; concrete skills to teach, observe, assess, and reflect; incentives; and career growth. There also needs to be a linkage with other teachers and supervisors to help solve problems and to support each other through discussion, modeling, and coaching, and an involvement with other aspects of school and educational change. The isolation and lack of communication

between all players need to be reduced. The Ministry of Education, the TSC and regional office staff have a responsibility to provide sufficient

teaching and learning materials to support the curriculum, ensure adequate facilities, and provide ongoing support for the issues that teachers face. The following are some of the concerns I would raise as efforts toward a reconceptualized teacher education:

### **Selection of Candidates for Initial Teacher Preparation Programs**

The national system of education uses one criterion for selection of candidates into initial teacher education programs - certificate, diploma and bachelors degree. While this criterion has been in use from time immemorial, it is high time the ministry looked into the inclusion of additional requirements identified frequently in the research literature as ideal criteria for the selection of candidates for teaching positions. These include among others:

- Sitting for an entrance examination that might consist of scholastic achievement and general knowledge;
- Personal interviews to look for such characteristics as communication skills, language proficiency, commitment to teaching, prior preparation, and personality;
- Submission of letters of reference for character and academic checks.
- Command of the subject matter knowledge,

Student intake into teacher training institutions should be determined by government bodies in collaboration with teacher education programs. The number of candidates admitted should be based on the demand for teachers or the funding available to support their time in the program. In the United States and Canada, program size depends on the number of interested candidates meeting entry requirements and the admission policies of individual institutions. In many Canadian provinces, faculties of education have intake quotas for specific areas of concentration (Darling-Hammond and Cobb 1995).

Quality teachers are the key variable in student success, given the complexity of the work, and given the increasing expectations for what teachers will accomplish, recruitment of teacher education candidates is pivotal. The stakeholders must search out those who appear to have

the vision, motivation, and disposition to work effectively with children, particularly those in underperforming schools. Typically, prospective education students need to be screened not only on the basis of their prior academic record, but a more effective program should interview candidates individually to assess the probability that they will become a good teacher (Mitchell et al., 2000; Darling-Hammond & McDonald, 2001; Zeichner, 2001). It is more cost effective — and less harmful to everyone involved — to recruit the right people into the profession and sustain them rather than having to counsel out either preservice or practicing teachers. The importance of having command of the subject matter knowledge, the skills to communicate effectively and create and sustain a learning environment, the language proficiency, and the commitment to teaching are identified frequently in the research literature as ideal criteria for the selection of candidates for teaching positions. In desperate circumstances, a willingness to learn and a commitment to teaching are essential; the subject matter knowledge and appropriate skills can be developed through on-the-job support and inservice programs.

## **Preparation**

The appropriate length of initial preparation courses and their organization is debatable. The reality is that there are a variety of ways to prepare and support teachers in a variety of environments. Just as there is no single type of effective teacher, but there are common

elements associated with successful teachers, there is no single type of effective initial preparation course, but there are common elements that should be discussed and incorporated where appropriate in design and implementation. Not all teacher education programs are created equal. Among the traditional shortcomings of such programs are:

- uncertain goals, for example, lack of clarity about what the program aims for with student teaching;
- individually determined course content, rather than a coherent program of relevant studies;
- disjunctures among areas of knowledge;
- and, uninspired pedagogy

In many programs, candidates learn theory out of context and experience the idiosyncrasies of practice without adequate theory to make sense of them. In the same vein, there tends to be front-loading of coursework, with a dollop of student teaching tacked onto the end of the program, allowing insufficient time for practice to take root.

Extraordinary teacher preparation programs, by contrast, involve these elements:

- strong grounding in content areas to be taught and in how to teach them to children at particular ages;
- focus on curriculum development in the subject area, that is, on how concepts fit together and add up;
- emphasis on learning and the use of assessment to understanding how and what students are learning and what to do if they are not getting it;
- commitment to a broad repertoire of strategies to meet different needs of learners;
- connection of theory and practice, that is, courses and clinical experience are integrated;
- extended study (18-30 weeks of supervised student teaching) with expert mentors in a model setting, for example, professional development schools, which are state-of-the-art settings, similar to teaching hospitals, where all the pieces are in place to allow candidates to emulate good practice; and
- a well-developed relationship with schools.

### **Induction/Mentoring**

Research shows that beginning teachers who have mentoring and other kinds of support are more likely to stay in the profession, will continue to be effective in helping students learn. In the ideal, new teacher programs provide newly minted professionals with feedback, opportunities for guided reflection, and encouragement to experiment with and modify strategies. Good induction programs may include a variety of elements, among them sustained support by veteran mentors during the early years and a standards based

analysis of practice. They may also incorporate peer observation; coaching; local study groups and networks for specific subject matter areas; teacher academies that provide ongoing seminars and courses tied to practice; and school-university partnerships that enrich collaborative research and learning opportunities.

Induction programs that guide and support beginning teachers in their first year or two of teaching are essential to develop sound teaching practices as well as to retain teachers in the system. Some countries prefer school-based induction programs, while others such as Israel, have induction programs run by teacher colleges and the academic schools of education (IBE 1996). Some key guidelines for running induction programs, as summarized by Odell (1989) are presented here:

- Provide continuing assistance for beginning teachers to reduce the identified common problems that typically occur in the early stages of teaching.
- Support development of the knowledge and the skills needed by beginner teachers to be successful in their initial teaching position, and provide resources for instructional materials.
- Integrate beginning teachers into the social system of the school and the community.
- Provide an opportunity for beginning teachers to analyze and reflect on their teaching.
- Accompany reflection time with coaching from veteran support teachers.
- Increase the positive attitudes of beginning teachers toward teaching.
- Provide incentives and compensation to those participating in the program, including the mentor teachers.
- Provide release time for observations of other teachers—coaching and planning is necessary for both mentors and beginning teachers.
- Waive formal appraisals and evaluations during the first year of teaching.

As reported by Darling-Hammond and Cobb (1995), interest and support is growing among APEC members for induction programs as they recognize the first years of teaching as critical for the development of effective skills and positive attitudes. APEC countries such as Hong Kong, the Peoples' Republic of China, the Republic of Korea, the United States, Canada, New Zealand, and Japan have or are developing induction programs, transition periods, and on-the-job support for beginning teachers. In Chinese Taipei, teacher candidates, prior to licensure, undertake a year-long internship following their course work. In mainland China, responsibility for training new teachers

### **Inservice**

During the early 1990s, school-based inservice programs were adopted by several African countries including Lesotho, Ghana, and Swaziland. This is an area that the stake holders in Kenya must seriously consider in teacher education. In most countries, trainers come from a variety of backgrounds including:

- Full time trainers in inservice centers—former teachers who have specialized in training and tend to be responsible for organizing courses, regulating supply and demand, and managing training operations.
- Teachers and trainers in initial and inservice training institutions—tend to provide training in their institutions and are sometimes involved in the training provided in schools.
- University staff, experts, and teacher-researchers—provide training in universities and respond to specific requests from training institutes or schools.
- Teachers with a reduced teaching load in exchange for providing inservice training to their colleagues—“peer” trainers working mostly in schools but also in specialized inservice training institutions.
- Inspectors, education advisors, head teachers, and other administrative staff—provide training, some of which is compulsory and often of short duration, on guidelines related to educational policy or educational priorities, developments, and reforms in their country.



- Trainers and experts from the working world and business—mainly provide training in vocational teaching; lead study visits and supervise teachers providing inservice training in businesses.

### **Job Professionalization**

Associated with job status is teacher professionalization, an important issue in current educational debate. An increasing number of researchers have argued that improving

schools and teaching performance requires professionalizing the job of teaching. Teacher professionalism begins with instructional competence and commitment and extends into a number of related issues dealing with the degree of decision-making autonomy and accountability. Therefore, initial steps in developing teacher professionalization

should focus on helping teachers develop basic instructional expertise. These should be overseen by real professional bodies which as it were now are nonexistent in Kenya. The TSC as well as the Kenya National Union of Teachers (KNUT) purport to be but in practice they cannot be said to functioning in the same ways the Medical and Dentistry board, Law Society of Kenya, Architectural Association of Kenya among others do.

### **Ongoing Professional Development**

To help practicing teachers improve and become increasingly expert over the course of their careers, we must start by recognizing that teaching is a lifelong journey of learning rather than a final destination of “knowing” how to teach. Policies must then ensure that teachers have the support needed to make this journey. Unfortunately, well over half of Kenyan teachers get less than a day’s worth of professional development annually, as contrasted with teachers in many other countries who work on professional development for 10-20 hours a week. Many Kenyan professional development experiences focus on general “training” delivered en masse to large groups of teachers on a given day. There is little or no follow-up that might enable teachers to incorporate what they’ve just learned into their own classroom settings — to continue learning and, in the process, transform their new skills and knowledge into deep understanding and more effective teaching. In Germany,

France, Luxembourg, Switzerland, and Japan, teachers have time in each day or week when they do not work with children but, instead, plan curriculum and lessons and evaluate one another's teaching. Professional development strategies that succeed in improving teaching tend to be:

- experiential, engaging teachers in concrete tasks of teaching, assessment, and observation that illuminate the processes of student learning and development;
- grounded in participants' questions, inquiry, and experimentation, as well as research;
- collaborative, involving a sharing of knowledge among educators;
- connected to and derived from teachers' work with their students, as well as to
- examinations of subject matter and teaching methods;
- sustained and intensive, supported by modeling, coaching, and problem solving; and
- connected to other aspects of school change.

There is need for engagement in practices that support high-quality professional development initiatives and removing constraints so that schools can implement them.

Professional development policies should attend to school structures that stifle teachers' continual growth. The most critical change for supporting high quality professional development is to structure teachers' workweek so they do not spend virtually all their time teaching, but instead have adequate preparation, consultation, and collaboration time. Regular time for teacher collaboration can help ensure that lessons are more highly polished, students' needs are better met, and curriculum is cohesive from year to year. This structural change calls for a radical rethinking of how professional development fits in the organization of schooling, but it can be made without added costs.

## **Conclusion**

Teacher education and professional development needs to be thought of as one phenomenon—a long term process which begins with initial preparation

and only ends when a teacher retires from the profession. The TSC new approach to the standard of teaching expected calls for a transformation of processes and policies that support teachers, their education, their work and growth in the profession. Schools, teacher preparation institutions and other related institutions such as universities must work collaboratively in order to ensure the development of teachers from the very beginning of their careers. Piecemeal teacher development policies, not connected by a common vision, are roadblocks to teaching and learning. What's needed is a cohesive and comprehensive approach aimed at aligning policies and incentives for recruitment, certification, preparation, induction, and professional development under the same set of standards. Do that well, says Linda Darling-Hammond, and extraordinary results from students will follow.

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## **Principals' Definition of School Instructional Mission and Its Influence on Learners' Academic Achievement in Public Secondary Schools in Baringo County, Kenya**

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### **Abstract**

**It is critical for principals to provide effective leadership when their schools formulate shared instructional goals which provide structures that focus schools towards student learning and improved academic achievement at national examination. This study sought to determine teachers' perception of actions taken by principals in defining school instructional mission and goals in public secondary schools in Baringo County. The study was a descriptive cross-sectional survey that adopted a survey research design and employed mixed methods of inquiry in a concurrent procedure. It used a sample of 48 public secondary schools, 12 principals and their deputies, and 253 teachers. Stratified sampling was used to categorize schools, simple random sampling to select the teachers and purposive sampling to select the principals. A structured teacher response questionnaire and unstructured interview guide were used to collect data from the teachers, principals and their deputies respectively. Descriptive statistics were run, and their means and standard deviation presented on tables and a graph. The findings revealed that teachers in Baringo County's public secondary schools agreed at MR=3.99 that their principals formulated and communicated the schools' instructional mission and goals to enhance teaching and learning and improve students' academic achievement at national examination. However, it further showed that teachers agreed at MR=4.01 that principals communicated instructional goals**

**to their schools' constituents compared to framing instructional goals at MR=3.88. They also agreed at MR=4.12, 4.04 that principals developed instructional goals in high and average performing schools compared to low performing school MR=3.88. The study recommends that principals provide leadership when their schools formulate and implement instructional goals, Kenya Management Institute should empower principals in district and low performing schools so as to better their management and instructional leadership in framing instructional mission.**

**Keywords:** *Instructional Leadership, Instructional Goals, Academic Achievement*

## **Introduction**

The success of an organization is determined by its effectiveness and the extent to which it realizes its set objectives (Vathukattu, 2004). According to Chitiavi (2002), school improvement and effectiveness leading to high academic achievement can be contributed by various inputs that include; effective teaching – contributing 75% of good academic results, adequate text books / Tuition (15%), good physical facilities & equipment effectively used (9%) and others e. g; supervision, inspection and community support (1%). However, school leadership (by the Principal) which is second to classroom instruction (Leithwood, et al 2004) facilitate instructional activities and coordinate curriculum in the school. This way, principals play crucial role in providing instructional leadership which ensure quality academic results are achieved every year at national examination in an effective school. The principal, while coordinating school management is expected to run the school effectively and efficiently to produce quality results every year in external examinations (Vathukattu, 2004). The quality of leadership makes the difference between the success and failure of a school, since good performance does not just happen; it is a result of good teaching and overall effective headship (Lydia & Nasongo, 2009). Principals' role in the new education dispensation represents a balance between instructional leadership and management (Botha, 2004).

Instructional leadership establishes the conditions for the possibility of improving teaching and learning where much of the work of school

leaders is done through the development of artifacts that reshape organizational practices around desired instructional goals (Halverson, 2005). To achieve good academic results, therefore, the principal (headteacher) who is the central factor determining academic achievement in a school (Lydia and Nasongo, 2009), should play an active role in instructional leadership by spearheading the formulation of the school's instructional goals. Instructional leadership entails instructional functions of a principal which Hallinger & Murphy's Model groups into three broad dimensions namely definition of the school mission and goals, managing the instructional program, promoting a positive school learning climate (Hallinger & Murphy, 1985) and developing a supportive work environment (Murphy, 1990).

The principal manages the instructional program, which according to Weber, in his model, must be consistent with the mission of the school (Weber, 1996) and where the principal focus on those activities that involve the principal's working with teachers in areas specific to curriculum and instruction. Promoting a positive school learning climate entails the principal establishing a school culture and climate conducive for effective teaching and learning (Republic of Kenya, 1999). This encompasses promoting teachers' professional development (Barber et al, 2010) which is the most influential instructional practice as it is instrumental in furthering the quality of student outcomes (Scheerens, 2009); provide incentives for teachers by recognising and giving them incentives for excellent performance (Barber et al, 2010; Halverson, 2005), and providing incentives for learning (Ballard & Bates, 2008). School leadership should be open, supportive and friendly to the students but should establish high expectations (Leithwood, 2007). However, since effective teaching and learning may not take place in a non supportive work environment, Murphy's (1990) observed that in developing a supportive work environment the instructional leader establishes organizational structures and processes that support the teaching and learning process, creating safe and orderly learning environment, providing opportunities for students' involvement, developing staff collaboration and cohesion.

The principal as instructional leader, frames school instructional goals which contain a school-wide purpose focusing on student learning as being a significant factor of school principalship (Sindhvad, 2009) and communicates them to all members of the school community (Hallinger &

Murphy, 1985). This is meant to establish a strong sense of overall purpose (Mulford, 2003) and the shared goals would provide organizational structures that guide the school toward a common focus (Alig-Mielcarek, 2003). Headteachers play a significant role in determining academic performance in a school due to their tasks and roles (Lydia & Nasongo, 2009) through organizational management of schools. It is for this reason, therefore, that the accountability movement in education placed attention on students' achievement and also placed responsibility on the school leader (UNICEF, 2000).

According to Vathukattu (2004) school leadership which is coordinated by the principal and which is expected to run the school effectively and efficiently to produce quality results every year in external examinations ensures congruence through defining the school mission and goals. A school principal, while influencing and redesigning the activities of the school towards setting goal achievements, is expected to manage the students, teachers and the school community around the common goal of raising the students' performance (Awiti 2009). A principal of a successful school is expected to define the school mission and communicate a clear vision of what the school should be attempting to accomplish to students and staff in such a manner that a shared purpose that unites the efforts of the school members is developed (Hallinger and Murphy, 1985).

Locke & Latham (1990) assert that goal setting is an effective way to increase motivation and performance. They postulate that goals increase attention to obtainment of the task, increase the effort expended on goal relevant activities, increase persistence to achieve, and increase the development of strategies to obtain the goal (Alig-Mielcarek, 2003). Sinha, (2009) noted that the characteristics of principals of effective schools include taking strong initiative in identifying and articulating goals and priorities for their schools, holding themselves and their staff personally accountable for students' achievement in basic skills. According to Meigs, (2008), principals are expected to set a clear vision for the school community, support teachers in the work and at the same time being responsible for all the details that allow a school to function smoothly. Barber, Whelan & Clark, (2010), added that the role which school leaders play include practices and building a shared vision and sense of purpose. A number of studies reveal school goals [containing a



school-wide purpose focusing on student learning] as a significant factor of school principalship (Sindhvad, 2009).

However, despite this fact, the overall Kenya's student performance in KCSE examination is poor. In 2010, 27.17 % scored C+ and above (Makabila, 2011), 2013 (28.3%) and implied that 72.83% and 71.7% of the KCSE candidature failed to get automatic admission into the Kenyan universities. Between 2006-2010 and in 2013 respectively, the same scenario was replicated in Baringo County where 71.54% and 71.1% of the total candidature in public secondary schools scored a mean grade of C and below (28.46 % and 28.9 % got C+ & above); this is despite very high expectations by education stakeholders in Kenya (and especially Baringo County) of public secondary school whose success is measured in terms of good performance in national examinations and belief that principals are the persons responsible for this (Nandwah, 2011).

Little has been done to understand how principals' definition of school goals impact students' academic achievement through instructional leadership practices which is an emphasis everywhere in contemporary leadership literature in the developed world (Mascall, Leithwood & Straus, 2008). Education scholars and practitioners in Kenya need to pay closer attention to what principals do in their day-to-day enactment of leadership (Mwangi, 2009). This is because the principal's leadership can make a difference in students' learning (Hallinger & Heck, 1996) and that there is a link between high quality leadership and positive school outcomes, including student achievement (Grissom & Loeb, 2009).

This study therefore sought to determine teachers' perception of actions taken by principals in defining school instructional mission and goals in public secondary schools in Baringo County. The following objectives guided this study;

- i) To determine teachers' perception of how principals' frame their schools' instructional goals
- ii) To establish teachers' perception of how principals communicate their schools' instructional goals
- iii) To find out the extent to which principals' definition of instructional goals differ in different categories of public secondary schools in Baringo County.

- iv) To establish how definition of schools impact on students' academic performance in public secondary schools.

## **Materials and Methodology**

The study was a descriptive cross-sectional survey research that adopted survey research design and employed mixed methods approach of inquiry in a concurrent procedure. It involved collecting quantitative and qualitative data simultaneously to best understand the research problem (Creswell, 2009). This is because educational institutions are social setups which face various complex challenges that beg for solutions which are appropriately addressed through researches that make use of both qualitative and quantitative research paradigms (Clabo, 2010) and attempts to fit together the insights provided by these empirical research paradigms into a workable solution (Johnson & Onwuegbuzie, 2004). It brings an intersection of pragmatic philosophical worldviews, strategies of inquiry and research methods into the study (Creswell, 2003; 2009). This provides an opportunity for the researcher to utilize the complementary strengths of qualitative and quantitative paradigms to strengthen inferences (Clabo, 2010) and triangulate the research findings.

## **The Population and Samples of the Study**

A population of 24 provincial and 31 district public secondary schools in Baringo Central, Baringo North, Marigat, East Pokot districts, Koibatek and Mogotio districts ([http://en.wikipedia.org/wiki/Rift\\_Valley\\_Province](http://en.wikipedia.org/wiki/Rift_Valley_Province)), 55 principals and their deputies, and 738 subject teachers were accessed. Based on a precision rate and a 95 % confidence level (Kothari, 2004) the sample size calculator (<http://www.surveysystem.com/index.htm>) was used to draw a sample of 48 schools by simple random method, 48 principals and their deputies and 253 subject teachers from provincial and district schools respectively as shown on Table 3.1 below. Quota sampling was used to obtain the two sub-groups basing on their respective population ratio of the school type (Orodho, 2009). The public secondary schools were stratified into provincial and district schools to reduce sample error due to difference in group composition (Gall, Borg & Gall, 1996) since the two categories of public secondary school had heterogeneous characteristics.

**Table 1: Research Population and Sample Sizes**

District	Number of Teachers	Category of Schools		Total Number of Schools
		Provincial	District	
Koibatek	221	10	7	17
Baringo North	128	3	9	12
Baringo Central	241	5	8	13
Mogotio	80	4	2	6
Marigat	50	1	4	5
East Pokot	15	1	1	2
Total Pop.	738	24	31	55
Sample Pop.	253	21	27	48

*Source: District Education Office of the respective Districts (Baringo County-2011)*

### **Instruments**

A structured questionnaire developed to use a set of five response categories of the Likert type scale was used to collect data from teachers and unstructured interview guides from the sampled principals and their deputies. In a concurrent procedure the quantitative data was collected alongside qualitative data (Creswell, 2005), where the structured questionnaire was a superior instrument (QUAN) while the interview guide was a complementary instrument (quali). The instruments were validated by the supervisors and the questionnaire piloted, its reliability calculated, and a reliable Cronbach's Coefficient Alpha of 0.912 obtained and used.

The quantitative data was organized, summarized and descriptive statistics worked out. Their outputs were presented using percentages, frequencies

and contingency tables for easier understand and conclusions drawn based on the research objectives with regard to principals' definition of their schools' instructional mission. The process of analysing data from the principals and their deputies involved breaking down the data, conceptualizing and putting it together in categories and sub-categories (Backman & Kyngäs, 1999) based on the research objectives and the emerging themes reported jointly with the quantitative data.

## Results

The purpose of this study was to determine teachers' perception of principals' definition of school's instructional mission and goals in public secondary school in Baringo County. The quantitative data on the two subscales of the principals' definition of instructional mission and goals is presented below and the qualitative data reported alongside the analyzed data.

**Table 2: Teachers' perception of Principals' Instructional Leadership practices on defining school's Instructional mission and goals**

Subscale	N	M.R	Std Deviation
Framing school's instructional goals	253	3.8827	.80419
Communicating instructional goals	253	4.0183	.73953
<b>Overall</b>	<b>253</b>	<b>3.9896</b>	<b>.68018</b>

Table 2 shows that teachers agreed at MR = 3.88, SD = .80 and MR = 4.02, SD = .74 respectively that their principals frame and communicate their school goals to the relevant members of the school and stakeholders. This agrees to Jacobson (2008), that principals' essential practices include framing school goals that encompasses setting goals that emphasize academic achievement for all students and communicating regularly formally and informally to the school community. This also confirms the fact that the principal should create, communicate and deliver a vision

for the school, taking account of the concerns and aspirations of all stakeholders in the school (OECD, 2007).

If a principal establish and clearly communicate goals that define the expectations of the school with regard to academic achievement and rally a constituency of teachers and students to support those goals, then the motivation to achieve the goals is likely to follow (Deal, 1987). He added that if motivation and academic achievement are to be a definitive part of a school culture, they must be communicated and celebrated in as many forums as possible. On being interviewed, the principals and their deputies were in agreement that schools' instructional mission and goals were formulated in collaboration with students, subject teachers, and teaching staff, Parents and Teachers Associations (PTA) and Board of Management (BOM) at the beginning of the year and every term. This therefore concurs with Musungu (2007) who indicated that at the beginning of every year, session, term or month there is need for collective goal setting and strategizing on a mission to achievement of school objectives. This is because effective instructional leadership establishes clear instructional goals (McEwan, 2000) which enhance teaching and learning.

Principals and their deputies reported that school constituents were informed about the set instructional goals in different forums such during assemblies, principals and other teachers charged with curriculum matters articulate the school's instructional goals, displayed the school goals and policies are on the school and class notice boards. Parents were informed during academic days and the schools' annual general meetings, while the BOM/PTA members were informed during their meetings by the principals who are their secretaries. They added that principals used subject teachers to emphasis the schools' academic goals while teaching students, class teachers and house teachers during class and house meetings respectively, and their schools' director of studies while releasing examination results.

However, respondents agreed at a higher mean response that their principals communicate the school's goals than framing the school's goals. On the overall, respondents agreed at a relatively high MR=3.99 and matched by a low standard deviation index (SD = .68) that their principals frame and communicate school's instructional mission and goals.

An analysis of the responses based on the category of schools (provincial and district) is shown on Table 3 below.

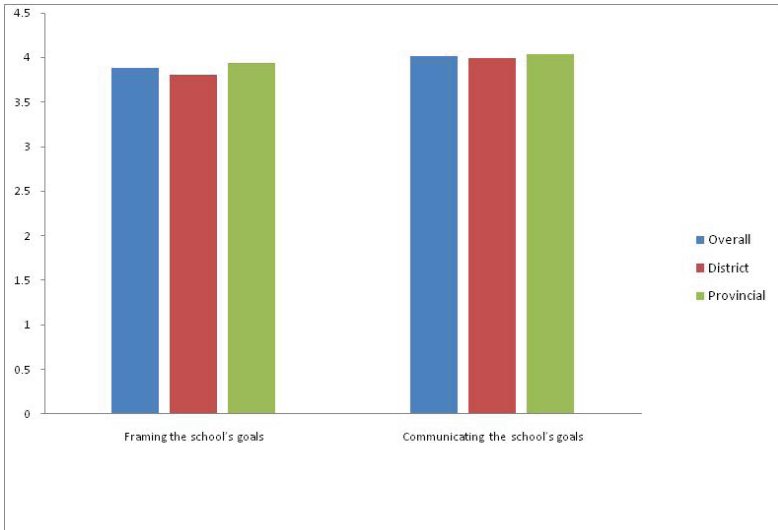
**Table 3: Teachers' perception of Principals' Instructional Leadership practices for Category of schools on setting instructional mission and goals**

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Category of Schools	N	M.R	Std Deviation
Provincial	146	3.9844	.74149
District	107	3.9055	.815645

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The table indicates that teachers agreed at MR=3.98 and MR= 3.91 that principals set instructional mission and goals in provincial secondary and district secondary schools respectively. The table further, shows that principals in provincial secondary schools prevalently set instructional mission and goals compared to their counterparts in district secondary schools at a relatively higher MR=.82 compared to MR=.74. It was established from the interviews that this was an established routine in majority of the provincial school and that in few well established provincial schools, their instructional school goals were guided by the school mission, vision and objectives in their strategic plans which they said have pre-determined projected level of performance and strategies to achieve the academic targets.



This is also shown on Figure 1, which further confirms the data on Table 2 that teachers perceive the principals as communicating more than framing their schools' instructional goals.

However, it was reported that the set instructional goals were not strictly pursued and attained by the principals except in most established provincial and the high performing schools. This concurs with the analysed data shown on Table 3 above and 4 below, which shows that respondents lead in generally agreeing at M.R=3.9844 and MR=4.12 that principals in provincial and High performing schools respectively in defining instructional mission and goals. Most principals and deputies reported that in most schools, principals preside the planning of instructional activities but had weak implementation system of the planned strategies. They added that planning of the instructional strategies every term and communicating them to the school stakeholders is usually done in most schools as a routine exercise that is not effectively implemented to optimize on their outcomes. This was reported to be worse in district secondary schools and the low performing secondary schools which had relatively lower MR=3.9055 and MR= 3.85 respectively as shown on

Table 3 and Table 4. They added that there was also lack of strategic follow up or commitment to implementing the set academic targets among most principals.

An analysis of the responses based on schools' level of performance on defining Instructional mission and goals in high, average and low performing schools is shown on Table 4 below.

**Table 4: Teachers' perception of Principals' Instructional Leadership practices for schools' Level of performance on Defining Instructional Mission and Goals**

Level of Performance	N	M.R	Std Deviation
High Performing Schools	83	4.12	.59
Average Performing Schools	73	4.04	.57
Low performing Schools	97	3.85	.80

Table 4 indicates that teachers agreed that their principals define and communicate schools' instructional mission and goals in their respective schools as showed by relatively high MR= 4.12 (High performing schools), MR=4.04 (Average performing schools and MR=3.85 (low performing schools). However, it is evident that the practice is more in high performing schools at at a higher MR=4.12 and a lower SD= .59 as compared to average and low performing schools with a lower MR= 4.04 and 3.85, and standard deviation in the teachers' response of .57 and 0.80 respectively. This agrees to Bossert et al (1982) who identified that principal's leadership emphasize goals and student achievement where principals in high achieving schools emphasize achievement through setting instructional goals, developing performance standards for their students, and expressing optimism about the ability of their students to meet instructional goals.



## **Summary of the Main Research Findings**

The analysis of the data obtained in chapter four led to several major findings that are summarised below;

Principals play a significant role in defining schools' instructional mission and goals in public secondary school in Baringo County with teachers agreeing at MR=3.99. The respondents agreed at MR=3.88 that their principals frame the schools' instructional goals by developing academic goals in collaboration with teachers (MR=4.05), developing academic and school goals based on clear vision for teaching and learning (MR=3.99), developing school's academic goals using data on students academic performance (MR=3.78) and framing school academic goals to be achieved by the school staff while performing instructional and non-instructional responsibilities (MR=3.71).

On interviewing the principals and their deputies, the researcher established that principals formulate instructional goals in their schools to enhance teaching and learning in collaboration with students, teachers and their PTA and BOM members. During staff meetings chaired by the principals, teachers set targets on the completion of syllabuses, evaluation of students among others. They added that the set goals were presented to the PTA and BOM members during their meetings and their feedback used to revise the goals. In a few well established provincial and high performing schools, their instructional school goals are guided by their school mission, vision and objectives in their strategic plans which they said had pre-determined projected level of performance and strategies to achieve the academic targets.

The respondents agreed at MR=4.02 that once their principals have formulated the schools' instructional goals they communicate them to the school community during school forums such as AGMs, Prize giving ceremonies (4.33), promotes schools' academic goals during forums with teachers (4.27) and students (4.09) and ensure that the school academic goals were strategically displayed on the school notice boards and written on school buildings (3.70). The qualitative data revealed that during students' assemblies, the principals and teachers charged with curriculum matters articulate the school's instructional goals. They added that principals used subject teachers to emphasis the schools' academic goals while teaching students, class teachers during class meetings and their

schools' director of studies while releasing internal examinations. The principals inform parents during academic days and AGMs while B.O.M /PTA members were informed during their meetings.

### **Conclusions**

The following conclusions of the study were drawn based on the main findings of the study;

The findings revealed that principals formulated schools' instructional mission and goals to enhance teaching and learning and consequently boost students' academic achievement by involving students, teachers, PTA and BOM members. The goals were developed based on clear vision for teaching and learning, using data on students' academic performance and to be achieved by the school staff while performing instructional and non-instructional responsibilities.

Principals communicated the formulated goals to the members of their schools and other stakeholders during various school forums with; students (e.g students' assemblies), teachers (e.g during staff meetings, briefs), parents (such as academic days, AGMs), B.O.M /PTA members during school management meetings and the stakeholders during general meetings such as the prize giving ceremonies. The school academic goals were also displayed strategically on the school notice boards and in some schools written on school buildings. The principals used all teachers to articulate the schools' academic goals during all school sessions with students and parents.

All respondents agreed that principals in provincial and high performing schools defined and communicated their schools' instructional mission and goals as compared to district, average and low performing schools. They cited this as accounting for the status in students' academic achievement in the respective categories of school. However, they generally agreed that principals participated more in communicating the defined mission and goals to the school constituents than in defining them.

### **Recommendations for Practice**

Principals need to pay more attention, involve all the school constituents when formulating their schools' instructional goals and effectively

implement the defined goals so as to enhance effective teaching and learning and so to students' academic achievement.

### **Suggestions for Further Research**

There is need to replicate this study in other parts of the country using a bigger population, difference sampling techniques and different approaches to data collection than the ones used in this study.

Studies may be carried out to establish how other principals' instructional leadership practices namely; managing the instructional program, promoting a positive school learning climate and developing a supportive work environment jointly and/or separately influence learners' academic achievement.

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## Resistant to Change Frustrates Maasai Girls' Learning Outcomes in Secondary School Education in Kenya

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### Abstract

The purpose of the study was to investigate why Maasai community continues with harmful Cultural practices and determine their influence on girls' participation in Secondary School Education in Narok County. A questionnaire was given to a sample of 181 teachers out of 400. Focus group discussions were conducted for 180 Maasai girl students and an interview for 20 Principals. The study adopted mixed methods design and pragmatic philosophical paradigm. Data analysis utilizes descriptive and non parametric statistics. The research findings found enrollment of girls in Transmara west decreasing at the rate of 40 % (primary) and 10% (secondary) and Narok North increasing at the rate of 10% in both primary and secondary schools. For every 15 girls enrolled for KCPE, only 1 join secondary school in Transmara West and for every 10 girls, only 1 join secondary school in Narok North. Girls' transition rate to University is 2.4% (Transmara West) and 1.0% (Narok North). Pearson tests reveals significant relationships between the parents' education ( $p=0.04$ ) and mediating cultural factors; FGM ( $P=0.03$ ), Pregnancies ( $p=0.00$ ), Early marriages ( $p=0.03$ ) on girls' participation. The findings demonstrate that the Maasai cling to their customary practices for fear of exploitation, exposure to poverty and teenage pregnancies. The argument for FGM continuation is that the practice is a traditional cultural rite of passage which guarantees girls' marriage. However, the practice has made the girls to shy off or absent in class and consequently

**lower their academic performance. The study recommended for empowerment and enforcement of women and girl's rights through participatory/advocacy for education-in-culture and culture-in- education.**

**Keywords:** *Culture, Change, Resistant, Learning Outcomes*

## **Introduction**

Education is fundamental human rights and precursor for achieving individual self-fulfillment and the national development (GOK, 2005; MoE, 2006). The government of Kenya has been working towards bridging the gender gap in senior government positions by putting a minimum of 30 percent representation of women in all sectors (Republic of Kenya, 2007). The Kenya Constitution (2010, CAP 4, Article 27, clauses 3 and 8) requires that both women and men have the right to equal opportunities.

One issue of great concern in this study is the continual low transition rates and learning outcomes of girls in secondary schools in Narok County. There is no girl who has ever achieved a mean grade of A or A- in KCSE in Secondary Schools in Narok County since the inception of 8-4-4 education system. This demonstrates what is believed to be true or known that the number of girls accessing secondary and university education is at oblivion in marginalized communities. The consequence of this situation is limiting the number of women in leadership positions and inferior economic development.

Arid areas which are dominated by nomadic pastoral communities in Kenya have lower participation and completion rates over the years despite intervention policies (Sifuna, 2005). The challenges facing provision of quality education in Kenya include; ineffective leadership, poverty, hidden Cost, low access, retention and completion rates, negative cultural factors, HIV/AIDS, distance and poor facilities, learners: book ratio, teacher: learner ratio and low individual returns. Primary and Secondary school completion rates have been increasing over the years. The proportion of girls not completing their education is higher than that of boys. There is wide regional and gender disparities in participation in education especially at the Secondary school and University level.

This research explores the influence of socio-cultural practices to Maasai girls' participation in learning institutions in Narok County. It focuses on outlawed cultural practices that are still being practice. These cultural practices include FGM, Early marriages and stereotype gender role dispositions. Okwany (2014) reported that girls are forced to undergo female circumcision. The prevalence is the highest (97.7%) among the Somali in Northern Kenya, Kisii (96.1%) and the Maasai at 73.2%. The study shed lights on the reasons behind their perpetuation and how they constitute barriers to transition rates of girls in the Maasai community. The research findings would inform the action to be taken to ensure interventions or advocacy is available to prevent further violation of rights of girls and women to education.

Aikman and Unterhalter (2006) assert that International declarations on EFA adopted a liberal feminist approach to gender equality in which gender was equated with girls and equality was associated with parity. The declarations continue to focus on achieving gender parity in enrollment, while increasingly, emphasizing the importance of a quality education. For example, the Dakar Framework for Action (UNESCO, 2010) set a goal to eliminate gender disparities in Primary and Secondary education by 2005, and achieving gender equality in education by 2015, with a focus on ensuring girls' full and equal access to and achievement in basic education of good quality. The Millennium Development Goals (2000) also focus on increasing access to Primary school education (Goal 2) and eliminating gender disparities (Goal 3).

The fourth Beijing world conference for women cited in UNESCO (2009) advocated against discrimination of women and girls in governance, skills development and education. The conference demonstrated that 75 percent of children with no access to primary education are girls. While education is widely recognized as a fundamental human right of every individual, in practice the girls face the greatest challenges. It was reported in the same conference that Girls from marginalized groups are often sexually harassed due to neglect by the government. Gurian (2002) argues that most of the girls are forced to travel great distances to the nearest school thus increasing the risks to their security. The conference emphasized that investing in girls is more than a moral obligation since it yield a high economic and societal returns. Despite several international conventions

that address the right to access education by all, including minority groups, discrimination in education is still a global challenge.

Culture and Education are inseparable as the primary definition of education is acculturation. Obanya (2005) asserts that every human society irrespective of its level of technical evolution devotes great attention to transmitting its cultural heritage to the young. Obanya argues that education in its true sense was first threatened by schooling and most societies have been questioning the educational effectiveness of schools ever since they were invented. In the case of Africa, it was not only sovereignty that was lost with colonialism but its education was also lost despite well-documented post colonial reforms. WHO (2006) argues that in traditional African societies education for all was taken for granted while in colonial setting, schooling for all was formal thus became a problem to Africans. What Africans desired was an education that keeps them psychologically in their socio-cultural frame, contrary to education that is equated to schooling. There is a need to take the drastic step of moving from merely “talking culture” to promoting positive cultural practices through advocacy and participatory approach

UNDP (2010) asserts that most African communities engage in outdated cultural practices because the education has not been relevant to their needs. The basic problem is that educational structures were formulated by colonialists who had a cultural background different to that of Africans. Although Africa is politically independent, it remains technologically and economically dependent on countries that colonised it. Reforms in African education were conceived and implemented within the framework of conditions tied to the grants, hence the governments did not go far to develop and foster African Culture. Values, norms and traditions may be different for individuals from different cultures yet these can produce an understanding of potential classroom adaptive skills and conditions under which they can be utilized to enhance learning ( Jagero & Ayodo,2009).

Female genital mutilation (FGM) is recognized internationally as a violation of human rights and women (UN, 2007). The practice reflects deep-rooted inequality between men and women, and constitutes discrimination against women (WHO, 2011). FGM or female circumcision is one of the cultural practices still being practiced in developing nations and has spread to other parts of the world such as Europe and North

America, where immigrant families have settled despite global efforts to abandon the practice (UNICEF, 2005). Some 3 million girls face FGM every year (Aldebero, 2008). The majority of those affected live in 28 countries in Western Asia and Africa. The practice has also been reported among certain populations in India, Indonesia and Malaysia . The argument for FGM continuation is that the practice is a traditional cultural rite of passage (Achoka et al, 2013).

UNICEF (2010) argues that early marriages deny the girl-child the right to education. For a number of poor families, the reward of educating daughters is not recognized as an investment. Some parents believe that girls do not need an education for their roles as wives and mothers. Kimalu (2007) recognizes that without appropriate education policies in place, there can be no effective gender transformation in education system. The government of Kenya has been working towards bridging the gender gap in senior positions by putting a minimum of 30 percent representation of women in all sectors (Republic of Kenya, 2007). The Kenya Constitution (2010, CAP 4, Article 27, clauses 3 and 8) requires that both women and men have the right to equal opportunities in political, economic, cultural and social spheres. Sheila (2006) argues that the target of Education for All by 2015 may not be met unless efforts are made to improve access of girls to secondary school education among the Nomadic groups in Kenya.

The study by the United Nation (UN) special envoy for global education, (Nation Daily Newspaper, 2012), reports that nearly 3 out of 10 girls are having babies and disrupting their schooling in Kenya. Sifuna and Chege (2006) found that women constitute about 42.1% of primary teachers and 35.4% of secondary school teachers in Kenya. They noted that the factors that have depressed women's access to schooling have restricted their entry into the teaching career. The factors include attitudes, financial constraints and cultural considerations. These have led to regional and gender disparities and of concern are the low transition and high dropout rates of girls compared to boys in the Pastoralist communities.

According to Juma et al (2012) family socio-economic status affects children's education and the girl-child is adversely affected. The study concluded that family income, parental education, birth order and family size influenced girls' transition rate. The study also demonstrates that most parents are not adequately meeting the needs of their children. Oloo

(2003) observes that children whose parents are of high educational levels have a better chance of doing well in class work. Yara et al ( 2012) says that female students in pastoralist areas have been victims of diverse and turbulent circumstances that have made them to either drop out of school or obtain low quality academic grades.

Roy and Edwina (2005) argue that the rate of primary school enrolment is significantly low in nomadic communities. Provision of quality education to children in a pastoral community is a nightmare (Kratli & Dyer, 2009). When girls reach sexual coercion, unwanted pregnancy and early marriages may interfere with their academic performance and force them to drop out of school (Yara, 2010). The UNICEF (2010) Report on Education for All (EFA) states that two-thirds of the 759 million adults lacking literacy skills today are women.

The decision to waive tuition fees for all secondary school students and offer free secondary day education in 2008 was a bold step that was expected to address the rising cost of secondary education (Republic of Kenya, 2007). However, the persistent low participation of low income households indicate that the policy have had little impact on the pastoral communities. Levine et al (2008) argue that though many countries have adopted free basic education to ensure girls are retained in school, indirect costs in Kenya continue to be barriers to enrollment and retention of girls in secondary school education. Lee (2008) observes the cause of girls' drop out at secondary school in Kenya is attributed to reluctance of parents to buy essential school materials for the girls.

Tobik (2009) notes that the pastoralist groups during colonial rule in Kenya were the most educationally disadvantaged group. In spite of the government effort to improve pastoral communities in the area of education, the culture orientations were directed to one side development. Tobik observes that the males became the beneficiary of the education system and the female factor was ignored. Analysis of distribution of education on enrolment in marginalized areas reflects disparities between the sexes. The number of girls who were in schools was less than 50% of the total enrolment. The study further found high drop-out rate among the girls as they advance from primary to tertiary levels. The research findings of Tobik showed high education enthusiasm among non-maasai minorities who have migrated to the area

Juma et al (2012) found that parental education is indeed an important and significant unique predictor of child achievement. There is direct effect of parental education as both parental education and income exerted indirect effects on parents' achievement-fostering behaviors, and subsequently children's achievement. The behavioral problems affect young children's opportunities to learn because these youth often are punished for their behavior and might develop conflictual relationships with teachers, thus leading to negative attitudes about school and lowered academic success. Thus, it is possible that low socio-economic status including low parental educational levels could affect negative family interaction patterns, which can influence child behavior problems and in turn lowered academic and achievement-oriented attitudes over time.

Jones et al (2011) note that Parent education and family interaction patterns during childhood also might be linked more directly to the child's developing academic success and achievement-oriented attitudes. In the general social learning and social-cognitive behavior is shaped in part through observational and direct learning experiences. Those experiences lead to the formation of internalized cognitive scripts, values, and beliefs that guide and maintain behavior over time (Anderson et al, 2003)

Obanya (2004) argues that promoting African culture in education and educating the African through culture would require a functional curriculum. Prazak (2007) observes that the psycho-socio status of the girl is radically transformed after the initiation ritual while Messi-Mathei (2008) reveals that tradition dictates and outweighs academic demands. The Maasai girl easily opts for her cultural ways at the expense of educational opportunities. The girls have been encultured with an attitude that formal education through the school system belongs to the little uncircumcised ones not her. Philips and Bhavnagri (2002) notes that parents, especially mothers, favour boys' education because they depend on them during old age. This perception may negatively impact on girls' academic achievements.

Tarayia (2004) says that despite the progress that has been made to rectify gender disparities in Sub-Saharan Africa cultural practices remain barriers to girls' access to quality education in the region. UNICEF (2012) says that as long as girls do not have equal access to education, equality is far from being achieved. Communities should have sensitive environments

that promote equal participation and empowerment. Tobik (2009) states that 60% of the maasai children in rural areas do not attend formal schools and only 8% of all girls in rural areas have had a chance to complete secondary school education. The Maasai Association argues that the greatest hindrance to girls receiving an education is that they are being sold into early marriage after undergoing FGM. The parents neglect the education of the girl child so that she drops from school and get married.

Bunch (2005) asserts that early marriage is a barrier to girls' education as young girls drop out of school to get married which impacts negatively on the future of girls' young generation. The practice stands in direct conflict with the goals of millennium development goals especially the promotion of basic education and fight against gender disparity. Bunch observes that the widespread practice of child marriage makes it difficult for families to escape poverty in the developing world. Clark et al (2004) found that about 30 percent of women in developing counties are married by the age of 18 years with the highest in Sub-Sahara Africa. The study shows that African women in general marry at a much earlier age than their non-African counterparts leading to early pregnancies and child bearing.

International Centre for Research on Women (2010) shows that girls living in poor households are almost twice as likely to marry before 18 years than in higher income households. It also reveals that more than half of the girls in Bangladesh, Mali, Mozambique and Niger are married before the age of 18 years. Girls with higher levels of schooling are less likely to marry as children. In Mozambique about 60 percent of girls without education are married by the age of 18 years, compared with 10 percent of girls with secondary schooling and less than 1 percent of girls with higher education. Educating girls is critical in reducing early marriages in developing countries.

### **Theoretical Framework**

Ogburn (1964) advanced a theory which states that a culture lag occur when one of the two parts which are correlated changes before or in greater degree than the other part does; thereby causing less adjustment between the two parts that existed previously. The theories of cultural lag are grounded on the social change and factors that drive it. The theory describes a society in which both traditional and modern values are in



co-existence.

Ogburn attributed cultural lag to perceived benefit which recognizes that most individuals when faced with a choice would choose the option that carries the greatest potential benefit. The marginalized communities seem to value FGM and early marriages as a source of wealth.

### **Research Methodology**

This study adopts pragmatic world view that allows the use of a mixed methods design, an approach to inquiry that combines or associates both qualitative and quantitative forms in tandem or concurrent so that the overall strength of the study is greater than either qualitative or quantitative. It involves mixing both quantitative and qualitative methods in a single study to understand a research problem (Creswell, 2007).

### **Sampling Procedures and Sample Size**

Purposive, stratified and simple random sampling were used to select the respondents. Purposive sampling was used to pick the two constituencies of Transmara and Narok Norh, Maasai girls' students and the principals in a sample of 20 secondary schools. The schools were stratified per the constituencies. Simple random sampling was used to pick the girls for the study. The researcher identified the names of the Maasai girls in the class attendance register. The three Maasai girls from form 1, 2 and 3 classes were randomly picked giving a total of 9 girls for the focus group discussion in each school. There were a total of 180 maasai girls in the study. The sample size for 200 teachers was determined using the Sloven's formula of determining the sample (n) for finite population while the number of schools was determined using proportionate sampling.

### **Research Instruments**

The researcher used questionnaires that comprise close-ended questions to obtain numerical data for providing the objectivity of the research. The use of focus group discussion and interview schedules provided qualitative data that reflects the actual feeling of the respondents in the community. Since the culture is surrounded by beliefs and theories, it was worth to seek the opinions direct from the participants themselves as regard to the impact of harmful cultural practices on the girls' transitional rates.

## Results and Discussion

### Enrolment of Girls in Narok County

Document analysis schedule was used to capture the data from the County Education office on the enrolment of girls in the County. The results are as shown in table 1.

**Table 1: Analysis of Enrolment of Girls**

Year/Category	Level	2009	2010	2011	Mean
Transmara West	Primary	29956	19961	18556	22824
	Secondary	1581	1580	1418	1526
Narok North	Primary	25407	26667	28168	26747
	Secondary	2462	2695	2718	2625

The enrolment of girls in Transmara West has been decreasing both in primary and secondary schools as shown in Table 1. The decrease for the last three years represents 40% and 10% in primary and secondary schools respectively. What is significant is that the enrolment in Narok North has been increasing over the last three years representing 10% in both Primary and secondary schools. The data revealed high disparity in the enrolment mean of girls in secondary schools as compared to primary schools in both constituencies.

The ratio of mean enrolment in primary and secondary schools in Transmara West is 15:1(22824/1526) while that of Narok North is 10:1(26747/2625). This indicates that Transmara West has got higher disparity of girls' enrolment in secondary schools than Narok North. For every 15 girls in primary school, only 1 girl join secondary school in Transmara West while for every 10 girls in Narok North, only 1 girl join secondary school.

### Transition Rate of Girls in Narok County

The data from the County Education office was collected using Document analysis schedule on the enrolment of girls in primary and secondary

schools in the County. The data were analyzed and the results are as shown in the table.

**Table 2: Analysis of Transition Rate of Girls from Primary to Secondary schools**

Year	Category	STD 8	Form 1	Transition rate (%)
2009-2010	Transmara	840	447	53
	Narok North	1439	448	31
2010-2011	Transmara	879	508	57
	Narok North	1607	657	41
Average (2009-2011)	Transmara	860	478	55
	Narok North	1523	553	36

In both constituencies, the transition rate of girls has been increasing since 2009 as indicated in Table 2. However, the average transition rate of girls from primary to secondary schooling in Transmara West is higher (55%) than Narok North (36%). In average, there are fewer girls (860) who are enrolled for examinations in primary schools in Transmara West than Narok North (1523).

The enrolment of girls in both constituencies is inversely proportional to transition rate. The higher the enrolment of girls in primary school the lower their transition rate. There is lower enrolment of girls in both primary and secondary schools in Transmara west but has higher transition rate. On the other hand, Narok North has higher enrolment in both primary and secondary schools but has lower transition rates.

Once the girls get an opportunity to do examinations in standard 8, there is higher chance (55%) for them to access secondary school education in Transmara West than Narok North(36%).This indicates that more girls drop-out in primary schools in Transmara West before reaching standard 8. But, in Narok North, majority of girls drop out after completing

standard 8, thus access to secondary education is minimal. The transition rate of girls from secondary to University education is shown in table.

**Table 3: Analysis of Transition Rate of Girls from Secondary Schooling to University Education**

Year	Category	No. of Form 4 girls (Candidates)	No. joined University	Transition rate (%)
2009	Transmara	334	6	1.8
	Narok North	495	1	0.2
2010	Transmara	432	8	1.9
	Narok North	336	0	0
2011	Transmara	467	10	2.1
	Narok North	359	16	4.5
Average (2009-2011)	Transmara	411	10	2.4
	Narok North	397	4	1.0

Generally, there are very few girls 14(3.4%) who access direct university education in both constituencies as shown in Table 3. However, the transition rate of girls from secondary schooling to university education has been increasing in both constituencies since 2009. Narok North posed an average transition rate of 4(1.0%) girls to university education for the past three years. Transmara west has a better transition rate 10(2.4%) than Narok North constituency.

Out of 20 head teachers interviewed in both constituencies, 15(75%) said that parents do not pay school fees on time. Only 3(15%) and 2(10%) of the head teachers have parents who are willing to pay the school fees for their daughters. This is in agreement with the reports from the teachers that majority of the parents have negative attitude towards girls' education and do not provide adequate educational resources for them to perform

better. The head teachers reported during the interview that most of the parents depend on bursaries and other donations.

The head teachers further argued that there are some parents who have the ability to pay the school fees but because of their negative attitude towards the girls' education.. Some of the head teachers said that the father finds it difficult to sell the cattle for girls' school fees but he would rather do farming for paying school fees. Access to education by the girls is not the current challenge but quality academic achievements are the main arguable issue among the Maasai community.

**Table 4: Results of Pearson correlation Test on Cultural determinants and girls' participation in schooling**

	Maasai girls engaged in sexual experiences.	Sexual practices by maasai girls lower their academic performance.	Teenage pregnancies in the community is common	FGM influences early marriages of maasai girls
Maasai girls engaged in sexual experiences.	1	.294**	.431**	.376**
		.000	.000	.000
	181	181	181	181
Sexual practices by maasai girls lower their academic performance.	.294**	1	.311**	.219**
	.000		.000	.003
	181	181	181	181

	Maasai girls engaged in sexual experiences.	Sexual practices by maasai girls lower their academic performance.	Teenage pregnancies in the community is common	FGM influences early marriages of maasai girls
Teenage pregnancies in the community is common	.431**	.311**	1	.223**
	.000	.000		.003
	181	181	181	181
FGM influences early marriages of maasai girls	.376**	.219**	.223**	1
	.000	.003	.003	
	181	181	181	181

From the results in table 4, the p-values in all the rows and columns (0.000 or 0.003) are less than the significance confidence interval level of alpha 0.05, thus the paired variables has significant associations. This means that engagement of girls in sexual practices lower their academic performance and leads to teenage pregnancies. The results implied that FGM has linkage to early marriages of the Maasai girls. It also has association to girls' engagement to sexual practices and teenage pregnancies as indicated by the Pearson correlation test of 0.00 or 0.003 which is less than the significance confidence level of alpha 0.05

The research findings revealed that when resources are scarce and the children to be supported in schools are many, the parents ignore the girl-child. The head teachers assert that the Maasai community gives emphasis on the boys because they are seen as a means of continuity in the lineage while the girl is on transit. This in the end may lead to low girls' academic performance which will impact negatively on the society. One of the goals of education is to provide the learning environment in which all the

children have equal chance to achieve their potential. In spite of the goal, girls continue to perform dismally in national examinations.

The study showed that the socio-economic status of the parents in Narok County is generally low hence justifying inadequate provision of educational facilities for improving girls' academic achievements in the county. Majority of the women are house wives and men tend to keep cattle that are rarely sold for girl- child education. This implies that educated parents who are employed are able to provide for their children a better learning environment and pay school fees. This study has revealed that parents tend to be bias towards provision of educational resources for the girl-child thus affecting them psychologically, socially and academically. There is a need for good partnership among the parents, members of the community and the teachers.

Atsiaya (2010) converge with this study as that more girls get pregnant in schools and consequently discourage other girls from pursuing their studies. This research has also demonstrated that parents in Narok County still fear that their daughters may drop out of school due to pregnancy and may also transfer the family wealth to their marital homes. The parents therefore become reluctant to pay school fees and provide less attention for the girl-child education.

Namasaka (2012) found a lot of work at home as one of the problem affecting the girls' academic achievement especially in day schools. The chores the girls are engaged in include cleaning the house, farming, cooking and rearing the young ones. One of the girls had to say "we are given so much work to do at home and we do not have enough time to study". The girls argue that most of their parents engage them in force labour or working on other people farms to get money for their school fees. One of the principal says" This community value girls only for dowry".

Most of the principals argue that the Maasai community does not practice children's rights to education as enshrined in the constitution of Kenya (2010). This assertion is in support to the study of Muola (2000) which established that stereotypic gender dispositions do not favour the girl-child education. The study findings agree with Otero and Coshan (2005) who blame the decline in secondary school enrolment on high subsidized education costs. The assertion of Omoraka (2001) that children whose

parents are poor lack personal effects thus reducing their concentration agrees to the current study. Couple with poverty and attitude, the provision of quality education for girls in marginalize communities are far from the attainment.

### **Conclusion**

The findings demonstrate that the Maasai have fear of exploitation, exposure to poverty and teenage pregnancies. The argument for FGM continuation is that the practice is a traditional cultural rite of passage which guarantees girls' marriage. The high illiteracy level and poverty among the Maasai community further influence FGM and Early marriages. Most parents are reluctant to pay school fees on time forcing the girls to drop out of school and consequently opt for early marriage.

### **Recommendation**

The study recommended for empowerment and enforcement of women and girl's rights through participatory/advocacy for education-in-culture and culture-in- education. The local leaders should be supported in spearheading the advocacy.



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## **Use of Counseling as an Intervention Against Interdiction and Summarily Dismissal**

*Syallow C.M, Mr. Joseph Bii & Mrs. Makila Leunita*

### **Abstract**

The production of quality services in any given organization depends solely on how organization handles its employees i.e the hardworking, the lazy, indiscipline, chronic absentees, drunkards and don't cares. Most organizations are finding it extremely difficult to handle the emerging issues in organizations delivery of quality services and products to satisfy customers. Today there is hue and cry all over in the public domain about the delivery of quality services especially in public sectors. Therefore this study sought to determine the best method of dealing with chronic absentees, drunkards, laziness, troublesome workers through counseling so as to reinstate their aspiration to get committed to quality delivery of services rather than interdicting or summarily dismissing them, yet some could be good workers but due to some psychological problems they get derailed. The study sampled one hundred workers in different departments in different organizations such as Finlays, Uniliver, Highlands, sugar co. firms and public sector such as civil servants and teachers. The study revealed that 75% of the organizations both public and private still use the usual method of interdiction and summarily dismissal rather than counseling the offenders and rehabilitate him or her to his or her usual personality. It is only a small percentage of 15% who try to use counseling as a method of rehabilitating these chronic absentees, drunkardness, trouble shooters and Laizfair. The % either apply counseling or dismissal. Hence some of talented workers end up dismissed or interdicted because of their psychosocial problems.

**Keywords;** *counseling, interdiction, dismissal, rehabilitation, quality service delivery.*

## **Introduction**

The handling of human resources is increasingly becoming a critical issue in the rapidly changing world. Most organizations are facing stiff competition in the production of both “quality services and products” Casco (2010) observes vehemently that when it comes to managing people; managers should be concerned to some degree with the characteristics such as identifying work environment within the organization; determining the number of people and the skills they have ; recruiting, selecting, promoting qualified candidates as well as rewarding; retaining and developing human resources. All these factors may either lead to inspiration; motivation, laziness, frustration or stubbornness. It is believed that conducive environment set by the organization is likely to enhance the production of both quality services and products. It is argued that in money economy the consumer is the king. This is because it is the consumer who dictates what types of services or products that are highly needed in the market demand. Decenzo and Robins (1996) observed that the development of human resource depends on the type of environment that is given to the employees by the organization that if one is found in mistakes; one would realize and either be sorry and ask for forgiveness or take it for granted.

## **Statement of the Problem**

The delivery of quality services and products in any given organization solely depends on the created environment by the management in the organization to satisfy the consumers demands. The delivery of such quality services and products is the result of well laid down system that enables both the management and the employees to interact and share their experiences in handling the highly demanded quality services for the consumer. In case of any shortcoming the organization could look at amiable alternative to help one.

Thus instead of rushing to quick decision of interdicting or summarily dismissing on employees, the management could use counseling to rejuvenate the performance of those who could be either psychological affected various factors in life that may have derailed their performance and delivery of highly demanded services and products.

### **Purpose of Study**

The purpose of this study was to determine whether counseling can be able to assist the workers improve their performance and delivery of quality services and products as demanded by the consumers.

### **Objectives of the Study**

- To determine whether counseling services are used in both public and private organizations to assist workers.
- To examine if counseling in public and private organization can help one reform and perform well in the organization.
- To determine the methods used in both public and private sectors to help their employees who have some psychological problems that cannot make them deliver quality services as demanded by the consumers.

### **Scope of the Study**

The study was consigned to both public and private organizations in Kericho county and Busia county for the employees who work in these organizations.

### **Research Area and Method Used**

This was a descriptive survey study that was carried out in Kericho and busia county. The study sampled one hundred employees randomly. Managers and officers were purposively selected.

### **Data Collection**

Data was collected through structured questionnaires and group focused discussion.

### **Data Analysis**

Data in this study was analyzed by frequencies percentages and kruskaal wallis.

## **Results**

The results in this study show that there are not counseling units in public sectors but have human resource departments which act as counseling units but do not have human personnel that deal with psychological problems. This also applies to private sectors, though some private organizations are trying to start counseling units.

The study also revealed that some of the employees who are chronic absentees, indiscipline, drunkards and don't care attitudes are due to either frustration from families, senior officers, lack of appreciations, stress of the work and lack of promotion. These aspects can be counseled rather than summarily dismissal or interdiction.

The study also revealed that 85 % of the problems that lead to interdiction/ summarily dismissal are either due to some family matters which at times tend to spill over to the working place that need counseling rather than interdicting.

The study also revealed that 65% of the respondents felt that the best way that makes employees open up their inner worlds and improve their productivity is through counseling.

75% of the respondents agreed that counseling brings good relationship between the employees and the management in the organization.

45% noted that fear of the management makes them not open up their individual problems that they have or face, hence at times resulting to unnecessary behaviour that do not allow one to deliver needed quality services/ products.

## **Results and Discussion**

### **The Role of Counseling in any given Situation**

From the results obtained from the study, it clearly shows that both public and private organizations do not use counseling services in their organizations. This failure can be observed in some of the Kenyan parastatals which were very vibrant in 1970s such as Kenya National Assurance company, Kenya cooperative creameries, Kenya farmers association.



Counseling plays a key role in human life. Thus counseling in the organization is meant to play key roles such as careful listening to the employee, developing close relationship with the employees irrespective of the position one holds in the organization, encouraging employees of all levels. But according to these results, it looks like the management in most of these organizations are not close to the employees. (siege et al 1990). Thus as soon as the management notices an employee trying to underperform in his/her duties or showing behaviours that are not related to the delivery of quality services, then an employee can be taken to the counseling unit for counseling. (Scligman Milton 1979). But in case the organization does not have a counseling unit, it can refer an employee to a well established counseling unit around, Decenzo and Robins (1996). Indeed some of the problems that employees experience at work could be a spill over from the family or socio-economic which can easily be handled by qualified counselors. Infact after psychological counseling one could easily regain his/ her effective delivery of quality services.

Thus some of the behaviours that can bring collision between the employees and the organization such as drunkardness, laziness, indiscipline, can be easily minimized and raise up the morale of the workers through counseling and rehabilitation.

### **Dealing with an Employee**

The results of the study showed that whenever an employee makes a mistake, he/she is dealt with immediately either by serious warning or instant interdiction/ dismissal. But it is becoming very difficult for the modern managers in the organizations to deal with employees. This is also due to what is changing in the technological world. Employees are speaking of their human rights. Thus the best solution to such situation is to look for counseling. This is because as pointed out elsewhere in this paper the individual employee could be having a spillover psychological problems either from the family or socio-economic which cannot be shared freely unless one is taken to a qualified counselor that will make him/her open up his/her “inner world”.

Indeed the respondents were open and revealed that part of the problems that make them underperform emanates from family issues as has been observed by Decenzo and Robins in the study carried out by Nandi (1997.)

and Syallow in unpublished thesis note that before any disciplinary action is taken against an employee, oral reprimand which is in essence counseling should be carried out. As has been pointed by counseling psychologists, counseling is a relationship between a counselor and a counselee. This close relationship makes one open up his or her “inner world” which one cannot share with anybody unless one is convinced that the person he/she is sharing his/her deeper feelings will not leak out. Thus an employee would fear to open up to his/ her superior for fear of being reprimanded but will feel free with a qualified counselor. If this is done, one would see an employee who was termed as a drunkard, lazy, rude, absentee change to the delivery of quality services that are highly needed by the consumers.

### **The Role Counseling in A Working Place**

The study also found out that 65% of the respondents showed that counseling is the best option of helping those who find themselves in problems with the organizations since this will bring good relationships between the management and the employees. The delivery of quality services in the organization depends on the good relationships that exists between the management and the employees. The role played by the counseling is immense. We have pointed out that counseling is good and careful listening to the bereaved part. Thus counseling is meant to change the negative attitudes of the employees who could be having some psychological and social problems as they open up to those they trust that cannot leak what they have shared. Someone feels happy when he/she is listened to and appreciated.

Of course most if not all managers may not have been trained in counseling. Most managers were trained as administrators and may not have taken counseling courses. He/she may not be able to know the role counseling plays. Thus when he/she is dealing with an employee, he/she may not be able to understand the psychological problems of the employee. He/she may take drastic steps against an employee that will paralyze him yet a counselor will listen carefully to the employee and help him/her come out of the deep mess that may distract him/her from delivery of quality services that are highly demanded by the customer.

## **Fear of Management**

In the study, it was found that about 45% interviewed expressed that they fear opening up to the management for fear of being reprimanded. As seen in psychological counseling, a counselee is supposed to open up freely without coercion. It is this free open up that makes one feel relieved on the organization. Why do employees fear to open up in the organization. Various aspects come up as to why employees tend to behave so. One could be that the managers are not accessible, arrogant, not friendly, and harsh and so forth. Yet when it comes to counseling one vomits out all that he/she has in his/her mind. Strict rules in the organization could also make the employees fear. Yet what is needed in any given organization is openness for people to work as a team. Psychologists counselors stress “openness”. Indeed as the study showed, many employees fear opening up for fear of being reprimanded and dismissed. At times openness is mistaken to rudeness. But in counseling openness is accepted as a sign of freedom.

A study by Mutemi (2006) insists that counseling should be installed in a working environment. Indeed this is true observations. Some of the psychosocial problems found in working environment can well be handled by counseling. Some of these which include family issues, lack of confidence in one self, drunkardness and yet one is a performer can easily be corrected through counseling. Thus this fear is the result of employees being free and open. When employees are free and can open up, it will make them remove their psychological dirty thoughts and work effectively. At the same time the management should be friendly and interact with the employees freely so that they learn each others psychological temperamental.

## **Conclusion**

In conclusion the study emphasizes the creation of friendly environment that motivates, stimulates the workers. This can easily be done when and if both parties are free and open to each other. Counseling emphasizes friendliness and openness.

The study recommends that in modern world the best way of helping employees is through counseling so that the psychosocial problems can be solved. As such each organization be it private or public should

establish guidance and counseling unit to help and rejuvenate the energy of the employee. Some psychosocial problems can overcome a good worker until he/she derails. Thus good and qualified counselors should be employed.

The human resource personnel should at least have thorough knowledge of counseling since employees fall under their departments. Thus the human resource should have a masters degree if possible in psychology in guidance and counseling to understand human behaviour that he/she is dealing with.

That interdiction and dismissal should be the last resort in dealing with an employee.

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## **Challenges Facing Adoption of Information Communication Technology in Educational Management in Universities in Africa: “an african perspective”**

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### **Abstract**

Information Communication Technology (ICT) has contributed greatly to educational management in schools globally. However, in Africa Universities hardly use ICTs to manage the quality of output, or to raise teacher productivity, or to reduce costs through analyzing spending. This is attributed to a myriad of challenges facing most Universities in Africa with regard to adoption of ICTs in educational management. This has resulted to a slow rate of adoption of technology despite its promise and potential for use in educational management in Universities. As such, this paper analyses the lethargy that has surrounded education management in Universities with respect to acquisition of Information Communication Technology. Education and training sector has a major role to play in the implementation of the ICT policy. First, the sector itself is a major user of ICT, not only in education, training and research but also in the management of the sector. The paper looks at ICT policies must be dynamic, cost-effective, adaptable, and differentiated between sectors and between the various segments of educational management in order to contribute effectively to education management. The recommendations of this paper provide a basis for the urgent need for the integration of ICTs in educational management in Universities.

**Keywords:** *adoption, ICT, management, educational, schools*

## **Introduction**

Today, Universities are expected to contribute to society by widening access to higher education, continuing professional development and applied research, contributing to local economic impact, and improving social inclusion (Beebe, 2012). Universities as institutions for knowledge generation and its transfer to society have been central to development, contributing ideas, skills, technology and expertise in many spheres of human Endeavour (Jega, 2007). They are centre of creative undertakings, innovation and inventions and they impart skills pertinent to these to all those who qualify for enrollment (Jega, 2007).

As at now, universities play a significant role in building up a country's capacity for a mutually beneficial engagement in an increasingly knowledge based global economic environment. Since universities are relevant in national development, information is very important for national development as well. So to help move the nation forward, the use of information and communication technologies should be encouraged and practiced in universities.

According to a recent report by strategic review (2009), it has been emphasized that availability of skilled and employable talent is the responsibility of universities and higher educational institutions. In order to achieve this, concentrated efforts to elevate talent and quality are needed from all the concerned quarters namely the government, the academia and the industry which included use of ICT. At the International level, UNESCO (2007- 08) has prepared a document for Asia– Pacific countries, for the implementation of ICT programs (Roy and Raitt 2003) through the higher educational/ research institutions. In this document, various ICT strategies supporting the core areas viz. learning, teaching (Resta, 2002), training programs and research, driving the higher education towards excellence, have been suggested, therefore African universities. Although ICT has several definitions depending on the nature of its use, for this review ICT (information and communication technology) is used as an umbrella term that includes any communication device or application, encompassing: radio, television, cellular phones, computer and network hardware and software, satellite systems, as well as the various services and applications associated with them, such as videoconferencing and distance learning



## Use of ICT in Universities Globally

A very consistent finding over the past few years has been the high levels of social and recreational use of ICT amongst new and established students, something that found across all European partner universities (SEUSISS Report, 2002). For example, In SEUSSIS survey of established students at Edinburgh University in 2001, found 60% of students reporting daily use of ICT in any form, with under 5% reporting less than weekly use. New students arriving at the university were already used to studying with ICT, for almost 80% said that they used it 2-3 times per week or more, and only 8% that they used it less than weekly. Clearly some of this use was found to be inside school and hence using school equipment and demands, but much is outside school as 74% indicated that they also studied at home with a PC. In contrast, in 1991/92, 60-70% of students reported 'seldom or never' using a PC for their studies, at school or at home. This lack of experience did not result from a lack of interest or willingness, for at that time 70% thought that computers were likely to be 'important or vital to their studies', and 60% were 'looking forward to or were confident' about this

However, the same study found that experiences of advanced or more complex forms of e-learning are quite limited among European university students. For instance in 2001 SEUSISS study at Edinburgh established, although 45% of the students had a course website available to them, only 27% had ever experienced an online discussion, although 42% of student sample had several experiences of course websites with interactive features, 40% had no experience at all, and 67% reported no experience of on-line discussions (SEUSISS Report, 2002, SPOT-PLUS Report, 2004, Macleod *et al.*, 2002).

Many European university students use ICT daily and seamlessly for both studies and recreation and social interactions like many, if not most, of the academic and administrative staff in the university (Prensky, 2001). Their skills with common applications is self-rated as high, as is their confidence about use of these, and they appear to take up new applications and increase their skills and confidence as the application is 'domesticated', as can be seen with web browsers, email and now web authoring. Females appear to do this a little more slowly than males, and their uptake of new tools may be related to its proven utility in their context.

The options for mobile learning among students in European are increasing rapidly as student ownership of laptops expands as the majority of modern laptops have wireless networking built in or optional with much cheaper PCMCIA or USB cards. The presence of such high levels of PC ownership also makes more problematic the decisions as to the student: PC ratio that is sufficient for effective study. The Dearing Report (Dearing Report, 1997) proposed 5:1, twice the level of the earlier proposals, but when the ratio is approaching 1:1 for own PC and many of these are mobile the provision of wireless and other network access plus study locations with power outlets may become more critical.

Students view use of ICT as a beneficial ingredient in modern university education but mainly as a source of information and research materials on-demand rather than as a direct and structured learning option. This may stem from their quite limited exposure to such e-learning opportunities and wider experience of high quality e-learning activities could alter this view. At least at present, students and their association do not regard e-learning as an appropriate substitute for traditional face-to-face methods but rather as a supplement, a situation that may become problematic if the university wishes to avoid an expensive duplicative approach to teaching and learning. It may be that the social and societal drivers on young people in Europe result in substantial homogeneity of views and experiences. One cannot extrapolate these findings to other groups such as older or less academically qualified students.

In Asia, for example, the University Grants Commission (UGC), New Delhi, took steps to establish an autonomous institution, National Assessment and Accreditation Council (NAAC), to undertake comprehensive assessment of various universities in this region and to rank them. NAAC (2007) developed a framework for higher education based on the promotion and sustenance of quality of teaching- learning, research and training programs. Their most significant core value was quest for excellence/ innovations using the latest technological trends and fostering global competence among students. They devised seven assessment criteria namely, curricular, teaching- learning, research and application, innovation, infrastructure, student support and leadership/ governance aspects to capture the micro- level quality indicators by using differential weightages.

ICT developments in some African countries and some other developing nations have reached the level of having their own home pages, with details on the university's admission, faculties and departments. Some others have in addition to having a website provided detailed information on ICT strategic planning and implementation. Some of the countries covered by the report that have ICT implemented in its higher educational institutions in one form or the other are Tanzania, Uganda, South Africa, Mozambique, Nigeria and Ghana and most current Kenya and Rwanda.

In the area of accessibility, ICT via the web has opened opportunities for access to education in Africa for those unable to attend school or college for economic or cultural reasons. Most countries of the world including Kenya and some other Africa countries now have open universities providing education via the internet and other telecommunication devices for people in different environmental settings. There is an indication that the web is a viable means to increase access to education. On the issue of improved learning, Owston (2000) observes that there is debate in the instructional design literature about whether there are any unique attributes of media that can promote improved learning. He proceeded to show that the web appeals to students' learning mode, provides for flexible learning and enables new kinds of learning. The position that ICT can bring about improved learning has also been alluded to by Larose et al. (1999), Luboobi (2007) and Librero (2001). On cost reduction, this may appear possible in the developed world particularly in the USA where web resources are sometimes available for schools at no charge.

In the developing countries, particularly Africa, this may not be the case. Notwithstanding assistance from some donor agencies, the issue of hardware and bandwidth provision still remains hard nuts to crack. ICT can enhance effective teaching, learning and research. It can reduce distances, virtually if not physically, thus providing scholars with easier access to and input into the world of international scholarship – nationally, across the continent and internationally (The Partnership for Higher Education in Africa, 2007b). In the hands of able teachers, the web can play a prominent role in fostering development of such skills as critical thinking, problem solving, written communication, and ability to work collaboratively in students. With the web all imaginable kinds of information can be found and thus teachers can encourage students to explore such opportunities with the view of having sufficient data to

weigh evidence, judge the authenticity of data, compare different view points on issues, analyse and synthesis diverse sources of information (Owston, 2000). However, the issue of integrating ICT into teaching is yet to be given serious considerations by many developing nations of the world, particularly Africa. Until this is done, the unimaginable benefits of ICT will still remain an illusion to many nations.

### **Challenges of ICT in Africa Universities**

Realization of ICT in higher education in general and science and engineering in particular is faced with various challenges and the African Universities are not exception

Cognisant of the substantial opportunities that ICT can provide universities, there are a number of problems and challenges that tend to present themselves. Universities are confronted with outside problems coming from their environment, as well as with inside problems coming from their own structure and culture (Loing, 2005). In Africa for instance, there are issues that have to do with national policies and plans. Many of the countries do not have national ICT policies. This leads to situation where each university has to do what it knows best to do without a central coordinating document. The presence of an ICT policy in a country cannot be overemphasized as it goes a long way to streamline ICT implementation across institutions – private or public. The problem of ICT policy brings to the fore the issue of restrictive regulatory framework. Luboobi (2007) observes that the regulatory frameworks for the telecommunications, ICT and intellectual property rights are still restrictive in most African countries.

Another major outside issue that seems to have plagued ICT implementation in universities is the problem of Bandwidth. The high cost of bandwidth, inadequate and unreliable telecommunication services and applications still remains a major challenge. There is also the problem of insincerity on the part of service provider. Many universities are being made to pay for an amount of bandwidth that is never supplied to them. Until they come to the point of having a dedicated pipe for direct supply the issue of surcharging them may never end. It is hoped however, that with the launching of fiber by Kenya the cost of securing bandwidth might be brought down particularly for Kenyan universities. There is also

the problem of political instability. Luboobi (2007) observes that Africa is the most unstable continent and its countries are still young democracies. According to him political unrest is a major threat to staff retention and institutional stability. Such instability frustrates policies and plans, and therefore, stagnates developments with all its ramifications.

Within universities themselves, Loing (2005) indicates that the implementation of ICT is not an easy task for faculty and staff members, as decision makers and academics are sometimes reluctant to change curricula and pedagogical approaches. Teaching staff and instructors lack incentives and rewards in a system where professional status and career trajectories are based on research results rather than pedagogic innovation. This obvious lack of incentives perhaps underlies the unwillingness to implement initiatives related to ICT implementation in teaching and learning. Other problems/challenges relate to infrastructure, staff retention, and computer illiteracy among staff and students. Luboobi observed that the African continent lack a continent wide-wide broadband optical fibre network. However, he points out that under NEPAD, there are plans to establish the broadband ICT network for Africa. Though some universities in the region like Makerere University and University of Jos have optical fibre backbone they are not linked to any national bank ICT. There is a major problem of acquisition of ICT facilities such as computers and printers and undertaking viable networking (LAN & WAN) activities within university campuses. Most universities are grossly underfunded and therefore not enabled to sustain the infrastructure required for securing viable ICT facilities in the current ICT-driven world.

Developing and retaining ICT human resource is still a major challenge particularly in African universities. The major reason for this is low salaries and poor conditions of service. This situation has very often resulted in brain drain. Most universities in the developing nations, including Africa nations, are still unable to have its staff and students literate in computer usage. With varying policies over the years, the situation has recorded some improvement. For instance in Nigeria there is on-going programme of the government tagged “Computerize Nigeria Project” (CNP). This programme is aimed at making computers available to Nigerians for use in offices and homes. There is the compulsory computer education course for students in higher institutions. This programme has been on now for

close to two decades. On the issue of attitude, specific research dealing with learner or teacher attitudes towards ICT, though few, is a growing field (Brock and Sulsky, 1994; McBride and Nagle, 1996; Aguele, 1997). The stress or anxiety felt by a student faced with the necessity of using computer in a learning or performance context may seem to vary on a number of factors. These factors Larose et al. (1999) observes include the students' degree of computer literacy, whether or not the student has had previous access to a personal computer and for what length of time.

However, no study appears to be available on the subject of illiteracy stress and anxiety as it relates to computer integration into teaching in universities in Nigeria. There also seems to be no documentation relating to the use of ICT in teaching in universities in the country. If they do exist, they are skeletal and without proper documentation in spite of the array of benefits derivable from the use of ICT in teaching and learning. This study therefore attempts to investigate the attitude of teaching staff to computer, use of ICT tools in teaching and learning and the challenges of integrating ICT into teaching and learning in Nigeria universities.

The worldwide spread and evolution of information and communication technology (ICT) during last 40 years has been rapid and challenging to top corporate and ICT management (Applegate, 1994). During this period, new industries have emerged, new structures have been created, new problems have cropped up, new responsibilities have been defined and relocated, and new management strategies have been introduced. New systems have been, and are being developed, which profoundly affect the ways in which organizations operate leading to the need for innovative organizational and ICT management. The effects of the new technology are profound and have been felt far and wide, including public universities in Kenya.

The rapid infusion and diffusion of information and communication technology into public universities in Kenya raise important management issues for top management and the technical staff. Although ICT is employed in organizations to gain an advantage over old ways of doing things (Lucas, 1997), and modern approaches to management of information systems, which recognize distinct arenas of functional areas, application areas and technical areas are used (Looijen, 1998) the establishment of many computer centres in public universities without

clear aims, objectives and control, has led to an alienation of these units from their organizations causing them to operate largely independently of the organizations they are intended to serve. This is due, in part, to misalignment of objectives (Wexelblat, 1999). Based on information gathered by the author from numerous internal reports, minutes of meetings and committee reports, at Moi University (MU); and from national newspaper reports (Kenya's Daily Nation, [DN], East African Standard, [EAS]), complaints from government officials, academics, practitioners, politicians and opinion leaders on declining academic standards, and through observation as a concerned participant in one of the public universities, a lot needs to be done as far as management of ICT in particular, and other resources in general, are concerned.

According to the writer's conservative estimates, each public university now has over 1000 PCs of various makes, types and capacities scattered over several campuses, in administrative offices, computer laboratories, in various faculties and/or departments. Many ICT resources are out of order for lack of management, control and maintenance and vital replacement parts. In a small number of cases, PCs are connected to form local area networks (LANs). The rest are a virtual collection of autonomous islands of technology isolated from other units although they structurally belong to, and should be used to support, the same organizations.

Aiyepetu *et al.*, (1994) state that the strong interest in the adoption of ICT to provide information services emerged in Sub-Saharan Africa (SSA), including Kenya, for three reasons: one, the revolution in ICT has resulted in computer hardware becoming cheaper and, therefore, more widely available. At the core of this development is the ever powerful and ubiquitous microprocessor. Two, the substantial, value added, utility of ICT in the provision of, and access to, information services for improved planning and organizational management has become more widely recognized. Three, the international development agencies and donor countries have exerted significant pressure upon many governments, institutions of higher learning and other recipients of their aid, covertly and overtly, in developing countries to adapt the extensive use of ICT to improve their workforce performance and organizational management. The limited knowledge of ICT found at the level of top management compounds the situation even more, especially on technical issues and investments in ICT. Many senior and influential university officials with

positions of responsibility requiring decision-making received their education and early work experiences well before the advent of, and wide-scale introduction of the computer technology. They also did so in environments where the capabilities of what IT was available, were very limited indeed compared with those of today. It is, therefore, not surprising that these officials lack sufficient grasp of the issues related to ICT resources and its management, and struggle to provide adequate and effective managerial direction and support that is so much needed.

The lack of trained and experienced technical personnel to manage control and maintain the increasingly large numbers of these resources means that their utility values, effectiveness and efficiency, cannot be ascertained. The lack of theoretical knowledge and practical management, control and maintenance skills of ICT staff leads to these units being managed, controlled and maintained virtually on trial and error basis. Looijen, (1998) points out that in the field of education, i.e. universities and high schools, a lack of standards, and pseudo ‘standards’ that differ enormously, introduce real challenges to achieve a decrease in the capacity and effort required to use the facilities optimally. In addition, the rapid increase in quantities of ICT resources and establishment of ICT units in many organizations across the country has created a rapid turnover of the few available trained technical personnel and leading the less financially well endowed organizations to fail to attract and retain competent computer staff. Consequently, this creates huge management problems for the public universities since they depend on the government for staff salaries, which are low.

It must be noted that the manner in which information and communication technology was introduced in Kenyan public universities was initially piecemeal, uncoordinated, and in most cases haphazard. Top university management officials often had little control over the acquisitions of ICT as agreements were largely made bilaterally between external donors and the respective departments and faculties concerned. To- date, there exist very few budgets for the development and management of information and communication technology in faculties and departments. This points to a lack of recognition by the university management of the importance of ICT to their organizations. Often, there are no policy frameworks, at either organizational or national level, to guide the adoption of this technology to realize its full potential benefits (DN, 2001). Within



a short period of time, public universities in Kenya have had to cope with a diversity of new ICT related problems over and above their old 'normal' problems on the economic, social, governmental and political fronts. The new problems, which are closely linked with the introduction of the computer technology, include low computer literacy among staff, securing and installing the information and communication technology (ICT) resources, hiring and training technical personnel, and managing, controlling, and maintaining ICT within a rapidly changing environment. The effects of globalization mean that organizations in Kenya have to deal with more problems than their western counterparts in their effort to catch up with the developed world. The result is that the external supporters (donors) and other stakeholders fail to understand why their financial, material and other forms of aid have not brought about the desired results of enhanced performance.

Little is known about the planning, development, implementation, utilization, exploitation, management, control and maintenance of information systems in many public universities in Kenya. The external donors and other stakeholders have little knowledge of the decision-making processes, university activities, including teaching, research, and administration, which the donated ICT is, in theory, intended to support, nor of the situational or contingency factors that act on the processes and activities in the universities within the milieu that they operate. An examination of Kenyan university documents on ICT reveals in many cases that hardly any policy framework exists to guide the development, adoption and management of information and communication technology. Various parts of a university develop their own information systems independent of others with no common standards. In many cases the technical staff that manage the information systems lack the necessary skills and knowledge and experience required to manage, control and maintain ICT, to support their organizations, effectively and efficiently. One observation in these universities, as in many other organizations, is that, due to their lucrative nature, the top positions in IT projects are currently held by personnel who are themselves non-IT experts, and this poses a major problem in the development, utilization and exploitation of ICT. A lot of these officials have very little knowledge of ICT itself and in most cases have no experience at all of managing ICT projects.

Most of the ICT technical staff train initially, not in computers, but in other technical fields such as electronics, librarianship, or mechanics and only later on switch over to managing computers, creating a continuity and credibility gap between professions. To add to this, users have yet to fully adapt and to internalize the new technology and make it one of their own day-to-day instruments of work. The lack of computer culture in public universities impedes rapid diffusion of the new technology. Very often the aims of the ICT management units and those of the universities as organizations are not aligned, creating autonomous units that consume huge financial resources but which do not result in many benefits for their organizations; however, this argument does not imply that there is lack of appetite for computer technology in Kenya. On the contrary, one may indeed hypothesize that all human societies abhor a technological vacuum, and based on this proposition, the Kenyan society, once it has acquired it, may not be prepared to give it up unless there is a better technology to replace it.

### **Recommendations**

Based on the findings of the study, the following recommendations were made:

- ICT projects are financially demanding. The universities therefore require increased and adequate funding from Government and their proprietors to enable them provide the needed facilities, logistics and technical support required by ICT projects. Such increased funding will also make available to university management the finances to train, develop and retain ICT experts in their institutions.
- Deliberate and sustained approaches should be taken to address ICT staffing. This includes strategies for retention of ICT staff, and for knowing that those who leave must be replaced. Such strategies may include offering ICT training opportunities and pay package.
- There should be adequate preparation of staff and students to improve their literacy level in ICT. This will help to create in them the willingness to embrace the challenges of integrating ICT into teaching and learning processes.

- As a step towards actualizing this, the ICT units in universities should organize orientation programmes/workshops for staff to enhance their literacy level and the mandatory computer programme for students should be reappraised to make it more practically oriented.
- The naughty problem of bandwidth need to be vigorously tackled.
- The universities need to undertake appropriate research to determine how much bandwidth they actually have need for to avoid wastage. Excess bandwidth capacity exists in satellites and fibre optic cables.
- Though expensive to deploy, universities should consider the use of such facilities in their installations.
- Besides, universities should explore the potential of creating consortia to purchase bandwidth at wholesale prices. This calls for collaboration between universities.

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## Managing Change In Education Sector

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### Abstract

Managing change in education requires focused, strategic planning and implementation. This involves learning Practical strategies and techniques for creating a change management plan and executing it throughout the change management cycle. The gap has been increasing between education, with its relatively slow response to the need for change, and the rest of rapidly changing society. Most educational institutions rely on outdated social planning approaches that seek to divide problems into individual pieces, each of which can be solved on an individual basis. This approach is based on the belief that solving the problem incrementally, piece by piece, will address the overall problem. However, to address new societal requirements, there is a need for systems thinking and systems inquiry in education. Systems thinkers realize that optimizing the performance of the component parts of a system does not necessarily result in optimal system performance. Unlike traditional social planning approaches, the application of systems design methodology produces a comprehensive, interconnected, interdependent, interacting, and internally consistent system of solution ideas that can be seen in the design of a new system. Systems theorists distinguish between two types of change: piecemeal change— modifying part of the system and systemic change—replacing or modifying an entire system. Another useful distinction is between systematic and systemic: Systematic implies a linear, generalizable approach and systemic connotes a global understanding of the problem, along with interrelationships and interconnections. This study is aimed at improving management styles in education sector.

**Keywords:** - *management, education, performance, systematic, change*

## **Introduction**

Managing change is about supporting staff during change initiatives. Effectiveness of change can be measured through a number of discrete steps: the ability to present reasons for the change, the ability to argue that the change is necessary, the ability to describe the nature of the change, the ability to document the change process, the ability to achieve the goals of the change, the ability to actually implement the change itself, the ability to review the change process, and lastly the ability to build consensus around the change (Victor & Franckeiss, 2002). One element of successful organizational change is the involvement of employees in the change process (Palmer & Dunford 2002). This covers types of change, working with different cultures across an organization, change strategies, understanding how individuals react to change, dealing with resistance, the stages of adoption, leading change and the importance of communication. Anyone managing a project that will require modification of behavior by staff, students or other stakeholders senior staff who may have overall responsibility or sponsorship roles, both beginners and those who already have some experience the real management task is that of coping with and even using unpredictability, clashing counter-cultures, dispenses, contention, conflict, and inconsistency. In short the tasks that justifies the existence of all managers has to do with instability, irregularity, difference and disorder '(Stacey, 1996). Types of change include developmental, transitional, transformational. Change Strategies include directive strategies, expert Strategies, negotiating strategies, Educative Strategies, and Participative Strategies. Aspects of change include adoption of change, the knowing-doing gap, adoption of change, the transition curve, the transition curve, aspects of change. Change is cyclic and not linear.

## **Objective of the Study**

The way in which change is managed is clearly viewed as a complex issue that evolves and adapts to suit circumstances. Leaders have an increasingly sophisticated understanding of change and all recognize that 'change is everybody business and staff are largely positive about the need for change and are mainly optimistic about their capacity to deal with it. At the same time there is recognition that the amount, scope and pace of change has increased in recent years. Overburdening the



perception that there are too many initiatives and lack of time is seen as the main barrier to implementing and sustaining change. In combination, these change forces have brought many colleges and universities to a watershed. Some argue that if they don't respond appropriately, their very existence, at least in their present form, is threatened. Yet such a situation is not necessarily a cause for despair provided those of us in higher education get smarter about two things. These are identified in Michael Fullan's quote: "Good ideas with no ideas on how to implement them are wasted ideas. "What Fullan said is that if we are to successfully tackle the current situation, we have to get smarter at both the "what" of change (identifying change ideas that will really make a difference for students) and the "how" of change (making sure these ideas work in practice). In both cases, we now have many years of practical experience and research on which to draw. The "What" of Change: Identifying Good Ideas Two developments have been put forward as the best way for higher education institutions to respond to the rapidly shifting context in which they find themselves: 1. Move into "flexible learning." 2. Use more "online learning. Students respond best to learning programs that engage them in productive learning and that optimize their retention and outcomes. These high-quality learning programs share the following key characteristics: They are immediately relevant to the background, abilities, needs, and experiences of the students concerned and are delivered by staff who are accessible, responsive, up-to-date, and effective teachers. They provide more opportunities for active learning than they do for passive learning. In particular, they include frequent opportunities for students to work with each other and with people who are further down the same learning path and to actively search a range of relevant databases. They constantly link theory with practice especially through the provision of guided practice-based learning opportunities, real-life learning, and work-placements. They effectively manage students' expectations, from the outset, about what level of service, support, and contact the students will be entitled to. They ensure that learning precedes indigestible "chunks. "

### **Purpose of the Study**

The study aims at evaluating how successful implementation and control of change rely on strong and effective leadership and a clear school vision. Engaging the committed support and involvement of staff is

also crucial for success and is a way of releasing additional capacity to manage change effectively. Staff feels that managers perceived them to be in many different ways. Teachers and support staff would like more involvement in planning change. Staff is more than happy to implement changes, including new initiatives, provided that there is a clear rationale for them and that they are fully consulted about the proposed changes”

## **Challenges**

There is rapid increase in competition, more universities are coming up, and there is a rapid spread of communication and information technology. There is a great deal of similarity in change challenges and priorities facing schools and the other public sector organizations, despite differences in function, degree of autonomy of local organization's, and roles. Managers in the other sectors are coming under considerable pressure to deliver efficiencies; schools may face challenges in this area in the future and could learn from them. Whereas universities and colleges once had a monopoly on high quality up to date knowledge, this is available for a price in the internet and from all manners of providers.

## **Methodology**

The study involved 6 lecturers from moi, pwani, Mount Kenya and Kenyatta universities. A small number of strategic level interviews in each sector. A large scale school survey of leaders and support staff in universities' was also used. Fifty qualitative telephone interviews with school leaders and the use of questionnaires and journals were also used. The survey tool was developed using a combination of existing scales across three key areas; change management (Victor and Franckeiss, 2002), employee involvement (International Research Group, 1976) and organizational justice (Cobb, Folger and Wooten, 1995 and Paterson, Green and Carey, 2002).

## **Recommendations**

Leaders have more of a perception of 'control' over change than leaders in other sectors, perhaps reflecting the traditional 'autonomy' of a HOD, and this presents opportunities for organization's, especially those that have a strong sense of purpose and direction and are already high performing.

Managers in the comparative sectors report having made more progress in some areas, particularly in working with partners to achieve major change. Although partnership working clearly takes place between schools, working with other services may be a growing change driver, and another area where Learning designs specifically aimed at assisting students to successfully address these learning tasks are then developed. In this way relevant assessment, more than anything, drives learning. They provide students with opportunities to pursue flexible learning pathways. Although students are allowed greater flexibility and choice in the subjects undertaken, careful attention is given to ensuring that students still end up with the same spread and quality of capabilities at graduation. They ensure that feedback on assessment tasks is both timely and focused. Particular attention is given to identifying where students are performing well, where improvement is needed, and how such areas for enhancement might best be addressed. They not only include opportunities for self-managed learning but also actively coach students in how to undertake it. They provide support and administrative services that are responsive to students' needs and that specifically optimize a student's total college/university experience. This includes making access to learning times, locations, and re-sources as convenient as possible. They acknowledge prior learning and make provision for its recognition in both program delivery and program assessment. The most-effective learning programs have successfully engaged in a process of "reading and matching." This process entails identifying the particular backgrounds, abilities, needs, and experiences (BANE) of each group of students, making explicit the relevant capabilities to be developed, checking on available resources, and then matching the optimum combination. Schools could learn from the other sectors.

## **Conclusion**

Change is not an event but is a complex and subjective learning/unlearning process for all concerned. There is a need for enhanced provisions for employee involvement in the management of workplace change and revised change management practices that can provide for organizational efficiency whilst at the same time fostering organizational justice. Whenever a change priority is set, it is important to identify what staff see as being distinctive (different) for them in their daily practice.

The five conditions of influence are capability, value, realization, cost and risk. These capability “gaps” should form the basis for a needs-based, change-specific staff learning strategy. The responsive and flexible approach, identified earlier, for the design and delivery of student learning should be applied as well. Change is Improvement and innovation in teaching and learning. Also it is to see what is different from what student learns on daily practice. This means that effective change management not only should be team-based but also should follow good practice in workplace-action research. This entails the engagement of the team in an ongoing and rising spiral of design, implementation, tracking, and redesign of the desired improvement or innovation. It is a process in which the team concentrates on learning how best to make the desired change by working under controlled conditions, monitoring outcomes, enhancing the change, and then using what has been learned to coach others on how the change might be adapted for use in additional locations. Change does not just happen must be led. It is important to keep in mind, however, that managers are not the only important change leaders. In fact, everyone can be a leader of change in his or her own area of expertise. For example, in education, the most-crucial leaders of change are the teachers, because they are the final arbiters of whether or not a great-sounding change idea (such as the use of IT for interactive Web-based learning) is actually put into practice in a way that works for students. It is now clear that Emotional Intelligence (E.I.) and a “contingent” way of thinking are critical factors in change leadership, in addition to up-to-date skills and knowledge. This now-robust research base should be used more explicitly to guide both recruitment processes and in-service leadership-development programs. Interestingly, the profile of the effective change leader is identical to that of the effective adult educator. Change is a mix of external forces and individual activity. Accept that not all change is voluntary and that, as the Chinese proverb says, “The river we put our foot into today is not the river we put our foot into tomorrow.” Because of this, it is important to work collaboratively in choosing which waves of change to take up and which to let pass through. It is equally important to keep an eye on the future (on the waves of change that are approaching from over the horizon), as well as on the present. We must look outside as well as in-side for viable change ideas and solutions. Therefore, actively develop key, strategic networks; listen also to what staff from within the organization say, but avoid the temptation to “group-think.” Develop

“bench-marking for improvement” projects with like organizations that have the same change priorities, and develop mutually beneficial and complementary educational partnerships with relevant public and private instrumentalities. Education is currently facing a powerful combination of pressures for change. The call for colleges and universities to increase their use of IT for learning and to become “more flexible” is part of this context, even though what these ideas might mean in operational terms still remains hazy for many. The best way to do this is to get a much sharper picture of both the “what” of change (identifying good ideas) and the “how” of change (implementing those ideas). I believe that our skill in successfully combining the “what” and the “how” of change will be most telling in the coming five years, especially in public education. This will be particularly true for the way in which we respond to the call for a rapid scale-up in the use of online learning and other applications of IT and to the call for greater flexibility and responsiveness in the design and delivery of our programs in an increasingly accountable, competitive, and scrutinized environment.

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## **Effect of the Learning Environment on Dropout in Primary Schools in Katilu Division, Turkana County in Kenya**

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### **Abstract**

It is the policy of the government to ensure retention of pupils in school until they complete the primary cycle. The study therefore inquired into the reasons why dropouts existed despite the government effort to increase access to basic education. The purpose of the study was to investigate the effect of the learning environment on dropout in primary schools in arid and semi-arid regions using a case of Katilu Division, Turkana South District in Kenya. The objectives of the study were to; investigate the effect of availability of learning resources, teacher factors and performance in tests on dropout. Survey research design was used in this study. The target population was 12 head teachers, 237 teachers and 830 class six and seven pupils from the twelve primary schools in the division. Simple random sampling was used to sample 250 pupils and 32 teachers, these were 30% of each of the respondents. Twelve (12) head teachers were purposively sampled. Four (4) school dropouts and 4 community members were identified to participate in the study. Questionnaires and interview schedules were used to collect data. Documents at the District Education Office were analyzed to determine the staff establishment and pupil enrolment in the Division. Reliability of data collection instruments was ascertained through test re-test method. Data was analyzed quantitatively using percentages and a chi-square. The study concluded that key determinants of

**dropout were inadequate desks, frequent teacher absence from the classroom, inadequate textbooks, punishment, poor performance in tests, and low teacher to pupil ratio and lack of participation in refresher courses by teachers. The study, therefore, recommends that proper planning for provision of conducive and adequate resources in the learning environment in primary school areas should be implemented in order to reduce wastage in form of dropout.**

**Keywords;** *Access, Dropout, Learning Environment, Learning Resources and Retention*

### **Background of the study**

The problem of dropout has been of great concern to many scholars and education systems world over. According to Education for All (EFA) goal by 2015, and the Dakar framework for action (2000), the United States and 163 other countries were committed to ensuring quality primary education to children world over. According to the report, 72 million children were not in school, 54% of them being girls. Sub-Saharan Africa accounted for 44% of the world with children out of school. It was also reported that fewer than 5% of disabled children were expected to reach the Education for All (EFA) goal of primary completion. Out of most of the girls who do enrol, millions dropout out of school each year, usually leaving without the basics of numeracy and literacy. It was further reported that most children in developing countries live in rural areas. It is therefore not surprising that 82% of out of school children live in rural areas.

According to UNESCO (2010), Sub-Saharan Africa has increased enrolment at five times the rate achieved in the 1990s with Benin and Mozambique registering rapid increases. In South and West Asia, the number of children out of school has been more than halved, with policies aimed at getting more girls into school. The report estimates that donors will have to bridge a financing gap of 16 billion US dollars a year in order to achieve Universal Primary Education by 2015 in poor countries.

Vision and renewed commitment to basic education was sparked off by the World Conference on Education for All (EFA) held in Jomtien, Thailand

(1990). The Dakar Conference of 2000 set as one of the Education For All (EFA) goals, to eliminate gender to enable both boys and girls to complete the whole cycle of primary schooling.

With the introduction of Free Primary Education Policy in Uganda, enrolment has tremendously increased from 2.5 million children in 1996 to more than 7.3 million in 2004. However retaining children is a current challenge, as despite a net enrolment ratio for boys and girls of 91%, only 31% of boys and 28% of girls reach primary 7 ( Karlan & Linden, 2004).

In Tanzania, the government initiative through Primary Education Development Programme (PEDP) was in two phases; 2002-2006, and 2007-2011. The initiative was to ensure that every child gets the best quality education. However the major threat has been increased dropout which is a test of internal efficiency in primary school education.

The government of Kenya has since independence (1963) been committed to the expansion of the education system to enable greater access and participation in order to produce a dependable human capital. The concern was to eliminate ignorance, disease and poverty. In the last four decades the government has established a comprehensive network of schools throughout the country to increase learning opportunities. Tuition fees were abolished in marginal areas following a Presidential Decree of 1971 to increase participation in education. In 2003 the National Rainbow Coalition (NARC) government intervened for the reintroduction of Free Primary Education. A total of Kshs.1, 020 was paid for each child in primary school in that year. Sifuna (2005) observes that, the policy has led to over-enrolment leading to overcrowding; therefore, overstraining the teaching and learning facilities. He states that the process to acquire extra levies from parents have led to serious dropout in that districts which registered an increased enrolment of up to 20% in 2003 did not register even 5% in 2007/8. An efficient education system would considerably reduce this wastage; the resources thereby saved could be used to provide instructional materials and thus relieve households of a heavy burden. It is therefore important that all stakeholders of education take up responsibility in order to improve primary schools particularly those in the ASAL in order to improve their quality with a view to eradicating dropout.

Kenya has undertaken a number of reforms in her education system since independence. The reforms have been geared towards improving the quality of the education and increasing its relevance to the needs of the country including providing manpower in industry, administration and technical sectors (Ominde, 1964). Among the basic rights according to the United Nations Human Rights Charter, is education. The government has therefore since 2003 provided Tuition Free Education in primary schools in order to realize the above goals. The President reiterated the government's commitment to support Free Primary Education (FPE) through provision of instructional materials, teachers and provision of Quality Assurance and Standards Services (Press, 2004). The government's rationale for the Free Primary Education Policy was to increase access, participation, retention and transition rates while reducing wastage in form of dropout and repetition. Dropout and repetition are strong indicators of inefficiency in the education system in developing countries (Psacharo-Paulos and Woodhall, 1985). In arid and semi-arid areas of Kenya, the persistence of dropout has caused gender disparities in primary schools. This makes the education system not able to realize equity and equality in terms of distribution of educational resources.

This study therefore recognizes the previous Studies conducted by United Nations Children's Education Fund (UNICEF, 2008) in North Eastern Province who identified early pregnancy among girls, poverty, nomadism, preference for boy-child education and culture as causes of the dropouts. In Katilu Division, enrolment rose with the re-introduction of Tuition Free Primary Education in 2003. However the dropout rate for 2002 was 10% whereas for 2003 it was 4%, in 2004 the dropout rate equally fell to 3.9%, but in 2005 it rose to 4.8%, in 2006 it was 5.0%, in 2007 it rose to 5.2% and in 2008 to 5.5% (District Education Office, Turkana South, 2008). Katilu Division is therefore among the Divisions that experienced high dropout rates in the District. The study therefore sought to establish the effect of the learning environment on dropout in primary schools in arid and semi-arid areas.

### **Purpose of the study**

The purpose of the study was to establish the effect of the learning environment on dropout in primary schools in arid and semi-arid areas, using a case of Turkana County.

## **Objectives of the Study**

The objectives of the study were:

- To establish the effect of the learning resources on dropout in Primary Schools in Turkana County.
- To establish the effect of teacher factors on dropout in Primary schools in Turkana County.
- To establish the effect of performance on dropout in Primary schools in Turkana County

## **Significance of the Study:**

The study results will document the effects of the learning environment on dropout in primary schools in Kenya. This will form a basis for further studies and utilization by all stakeholders of education. The study findings will provide education planners and implementers with relevant information in addressing the problem of wastage in form of dropout. The study findings will also provide information on further research for scholars who are interested in this area of study.

## **Materials and Methods**

The descriptive survey research design was adopted. The study was carried out in Katilu Division of Turkana District. The division has 12 primary schools most of which have both boarding and day facilities. The target population was 12 head teachers, 237 teachers and 830 class six and seven pupils from the twelve primary schools in the division. Simple random sampling was used to sample 250 pupils and 72 teachers, these were 30% of each of the respondents. This is supported by Kerlinger(1973) who asserts that a sample size of 30% is a representative of the total population. Twelve (12) head teachers were purposively sampled. Four (4) school dropouts and 4 community members were identified to participate in the study. Questionnaires and interview schedules were used to collect data. The researcher administered questionnaires to the pupil's orally in order to clarify questions where possible. Oral interviews was administered to school dropouts, head teachers and the members of the local community. Documents at the District Education Office were analyzed to determine the staff establishment and pupil enrolment in the Division. Reliability of

data collection instruments was ascertained through test re-test method in the neighboring Primary schools. After scoring, the two sets were adjusted by using Spearman Brown formula of prediction: The instruments were considered reliable at a value of 0.5. The computed reliability value of 0.99 is higher than 0.5, showing the data collection instruments were reliable. Data was analyzed using descriptive statistics through percentages and inferential statistics through the chi square.

## Research Findings and Discussions

### The effect of the learning resources on dropouts

The first objective of the study was to establish the effect of the learning resources on dropout in Primary Schools in Katilu Division, Turkana South District. In this objective, the study sought to find out the effect of availability of desks and text books on dropout. Desks are furniture that is used by pupils in the classrooms for sitting and writing while learning. The study sought pupils opinion about the availability of desks in Primary schools. The results of the finding are summarized in table 1.1:

**Table 1.1 A summary of pupils opinions on availability of desks**

<b>Response</b>	<b>Expected (fe)</b>	<b>Observed (fo)</b>	<b>percentage%</b>
Strongly agree	120	105	42
Disagree	120	120	48
Neutral	5	8	3.2
Agree	2	7	2.8
Strongly agree	2	10	4
<b>Total</b>	<b>250</b>	<b>250</b>	<b>100</b>

*Source: Survey data*

The results from table 1.1 shows that, 48% of the pupils disagreed that there were enough desks in the classes, 42% strongly disagreed, 6.8% agreed whereas 3.2% were neutral, that is, they were not sure if there were enough desks in the classes or not. Pupils' responses showed that

the primary schools studied had insufficient number of desks, therefore, making them either to stand or sit on the floor during class hours. Pupils were also asked to buy their own desks, therefore raising the cost of schooling. As a result, pupils from poor socio-economic backgrounds opted out of school for lack of money and means to acquire desks. The finding agrees with the finding of UNESCO (1984) in India that the primary school facilities like benches and desks affect the child’s learning experiences. This was an unfriendly environment for their schooling. The findings were also in agreement with Christenson (2002) who found out that participation in the classroom is an engagement that required a conducive classroom climate, lest that would aggravate dropouts. This implies that inadequacy of desks was seen as one of the determinants of dropouts in primary schools in Katilu Division.

Text books on the other hand are important learning resources in the school. The study investigated from teachers to determine if availability of text books determined dropout, this is shown on table 1.2:

**Table 1.2 Teachers opinion on availability of text books**

Responses	Expected(fe)	Observed(fo)	percentage%-----
Strongly disagree	20	13	40.6
Disagree	10	9	28.1
Neutral	2	1	3.1
Agree	0	7	21.9
Strongly agree	0	2	6.3
Total	32	32	100

*Source: Survey data*

The results from table 1.2 show that, 40.6 % of the teachers strongly disagreed that, the ratio of the text books to pupils was very inadequate, 28.1% said the text books were inadequate, 3.1 % remained neutral, 21.9% said the ratio of text books to pupils was adequate, whereas 6.3% said the text books were very adequate. The study established that lack of text books could easily discourage pupils from going to school due to fear

of being sent away from school by teachers for lack of text books. It was also established that pupils lost interest in learning for lack of text books. Furthermore, teachers were of the view that the nearest text book centers were either in Lodwar town, 150 kilometres away or in Kitale, over 300 kilometres away. According to Smith (2003), classroom practices and lack of resources have an impact on retention of pupils. The finding supports the findings of Alcazar, Rogers, Chaudhury, Hammer, Kremer and Muralidharan (2006) who carried out research in Peru and found out that teacher absence caused pupils to drop out of school. Textbooks ensure that teachers are acquainted with the necessary knowledge to teach. They also ensure that pupils do personal study, practice reading and do exercises. When the proportion of text books per pupil was inadequate, it made it costly for learners to remain in school, hence, likely to drop out of school.

### **Effect of teacher factors on dropout**

The second objective of the study sought to investigate the effect of teacher factors on dropout. Teacher factors were: teacher attendance, teacher to pupil ratio and refresher courses attended by teachers.

The study therefore sought the opinions of learners on teacher attendance. The results of the finding are summarized in table 1.3:

**Table 1.3 A summary of learners opinions on teacher attendance**

<b>Responses</b>	<b>Expected(fe)</b>	<b>Observed(fo)</b>	<b>Percentage%</b>
Strongly disagree	50	19	7.6
Disagree	170	128	51.2
Neutral	10	48	19.2
Agree	10	48	19.2
Strongly agree	10	7	2.8
<b>Total</b>	<b>250</b>	<b>250</b>	<b>100</b>

The results in table 1.3, show that 51.2 % of the pupils disagreed that teachers attended classes regularly, 7.6 % strongly disagreed, 19.2 % of the pupils agreed while 19.2% were neutral. Only 2.8% agreed that teacher



attendance was adequate. They cited reasons such as teachers going for salaries, meeting their family members and laxity on the part of school administrations as causes of teacher absence. The study established that teacher absence aggravated the problem of lack of concentration in studies and therefore lack of meaning in schooling. Teacher absence did not also promote individual pupil attention by teachers. The finding supports the findings of Alcazar et al, 2006, who carried out research in Peru and found out that teacher absence caused pupils to drop out of school. According to Chaudhury, (2005), teacher absence has an implication on the quality of the school. Furthermore, Ghumab and Lloyd (2007) study in Pakistan describe how a shortage of female teachers to teach girls, affected schools in rural areas therefore supporting this finding that teacher absence was a determinant of dropouts.

Adequacy of teachers in a school was seen to be necessary in order to effectively have a pupil- centered approach to learning. This study therefore sought to establish if the ratio of teachers to pupils was adequate. The teacher's opinions are summarized on table 1.4 :

**Table 1.4 Teacher to Pupil Ratio**

<b>Response</b>	<b>Expected(fe)</b>	<b>Observed(fo)</b>	<b>Percentage</b>
Strongly disagreed	20	13	40.6
Disagreed	10	9	28.1
Neutral	2	1	3.1
Agreed	0	7	21.9
Strongly agreed	0	2	6.3
<b>Total</b>	<b>32</b>	<b>32</b>	<b>100</b>

*Source: Survey data*

However, table 1.4 shows that, 40.6% of teachers strongly disagreed that the teacher to pupil ratio was adequate, 28.1% disagreed, 3.1% were neutral, 21.9% agreed and 6.3% strongly agreed. The study established that there were only 72 teachers in the 12 primary schools with a pupil population of 5650. Teacher to pupil ratio is therefore 1:78 above the expected 1:40.

This implies that individual pupil attention by teachers was minimal and that teachers used the lecture method to teach the large classes. The finding agrees with the finding of UNESCO(1987), which established that most primary schools in rural India had inadequate teachers and that led to wastage in form of dropouts. These findings are in agreement with the findings of UNESCO (1987) India which established that many primary schools had inadequate teacher: pupil ratio. This scenario reflected a situation where the teacher was the centre of knowledge as opposed to the learner-centred approach to learning. UNICEF (2005) report states that Kenya still requires 3100 primary school teachers to merge the pupil enrolment. According to curriculum implementers, every teacher is entitled to teach at least 40-45 pupils per session in order to allow for classroom interaction and a pupil- centred approach to learning. The study therefore confirms the findings of UNESCO (1987) that pupils may drop out of school due to lack of individualized teacher attention due to a shortage of teachers.

Refresher courses are trainings or workshops that keep teachers on track or updated or informed on emerging issues in education, subject areas and general life. The study sought teachers' responses about the refresher courses they had attended. Table 1.5 gives the summary of the findings on refresher courses attended by teachers.

**Table 1.5 Refresher Courses attended by teachers**

<b>Courses</b>	<b>Expected (fe)</b>	<b>Observed(fo)</b>	<b>Percentages</b>
None	0	14	43.8
HIV/AIDS training	5	2	6.3
Better health course	2	1	3.1
Child rights	2	1	3.1
Guidance and counseling	5	7	21.9
Dealing with visual impairment	7	3	9.4
Intelligence quotient	0	1	3.1
Primary school basic hygiene	5	1	3.1
Financial management	6	2	6.3
<b>Total</b>	<b>32</b>	<b>32</b>	<b>100</b>

*Source: Survey data*

From table 1.5, 43.8% of teachers had never attended refresher courses whereas 56.2% had attended at least a course. The study further established that 21.9% of the teachers had attended guidance and counseling courses. The results also showed that 6.3% had attended HIV/AIDS training, 3.1% better health courses, 3.1% child rights, 9.4% dealing with visual impairment, 3.1% Intelligence Quotient Education 3.1% Primary School Basic Hygiene whereas 6.3% had attended a Financial Management course. The study established that the teachers who had attended at least one or more of the above courses were equipped with knowledge and skills and were also placed in administrative positions such as class teachers, guidance and counseling teachers, heads of subjects and in charge of extra-curricular activities. Brock and Cammish (1997) study established that the main quality issues which affected school attendance were related to inadequacies in teacher quality (subject knowledge, pedagogy and attitudes to learners). The finding indicates that, those teachers who had not attended the courses were not adequate in management, therefore, likely to cause wastage of pupils in form of dropout.

### **Effect of performance in tests on dropout**

The third objective sought to find out the effect of pupil performance in tests on dropout. Tests provide an evaluation of pupils in order to determine whether they have properly understood what they have been taught. It was therefore important for the study to establish pupil performance in tests using performance records prepared by teachers. Table 1.6, gives a summary of the findings:

**Table 1.6 Performance in tests**

<b>Item</b>	<b>Expected(fe)</b>	<b>Observed(fo)</b>	<b>Percentage</b>
Very poor	5	1	0.4
Poor	40	41	16.4
Fair	140	135	54
Good	55	61	24.4
Very good	10	12	4.8
<b>Total</b>	<b>250</b>	<b>250</b>	<b>100</b>

*Source: Survey data*

The results from table 1.6, show that 54% of the pupils performed fairly in tests, 24.4% were good, 16.4% performed poorly, 4.8% were very good while only 0.4% of the pupils were very poor. This implies that the performance of the pupils in tests was fair. According to Coclough (2000), poor school quality is associated with poor academic results, with higher levels of repetition and dropout. In the target schools, the tests offered include; summative tests, continuous assessment tests, end of term exams, end of year exams and mid- term exams. The study as such established that a small percentage of those who performed poorly could easily drop out of school due to discouragement making this factor one of the determinants of dropouts in the primary schools in the area of study.

### **Hypothesis testing**

The hypothesis stated that there was no statistical significant relationship between the learning environment and drop-outs in Primary Schools in

Katilu Division, Turkana South District. A Chi-square was used to test the null hypothesis . The following variables about the learning environment were tested: Availability of desks, teacher attendance, proportion of text books, teacher: pupil ratio, administration of punishment to pupils, performance in tests, and courses attended by teachers. The results of the analysis are presented in table 1.7 .

**Table 1.7 Chi-Square on the relationship between learning environment and dropout**

Desks			Teachers' attendance			Proportion of text books		
Value	df	Sig	Value	Df	Sig	Value	df	sig
24.25	7	.001	16.61	3	.001	15.5	4	.001
Performance in tests			Teacher: pupil ratio			Courses attended by teachers		
Value	df	Sig	Value	Df	Sig	Value	df	sig
22.54	6	.001	15.5	3	.001	12.69	2	0.01

**The analyzed results of the learning environment above are as follows:**

The computed chi-square value for desks was 24.25. The results computed at degree of freedom 7 gave a significant value of .001 which is below the p value =0.05. The null hypothesis which stated that there is no significant relationship between the number of desks and dropout in arid and semi-arid areas was rejected and therefore the alternative hypothesis which states that there is a relationship between the number of desks and dropout in primary schools in arid and semi-arid areas accepted.

The next variable was teacher attendance of class. The chi-square value was 16.61. The results interpreted at degree of freedom 3 gave a significant value of .001. This was below the value of  $p= 0.05$ . The null hypothesis which stated that there is no significant relationship between teacher attendance and dropout in arid and semi-arid areas was rejected and therefore the alternative hypothesis which states that there is a relationship between teacher attendance and dropout in primary schools in arid and semi-arid areas accepted.

The third variable was the proportion of text books. The chi-square result was 15.5. Interpreted at the degree of freedom 3, the significant value was .001. The null hypothesis which stated that there is no significant relationship between the proportion of text books and dropout in arid and semi-arid areas was therefore rejected and the alternative hypothesis which states that there is a relationship between the proportion of textbooks and dropouts in primary schools in arid and semi-arid areas accepted.

The fourth variable was performance in tests. The chi-square was 22.54. The result was interpreted at the degree of freedom 6. It gave a significant value of .001 therefore rejecting the null hypothesis which stated that, there is no significant relationship between performance in tests and dropout in primary schools in arid and semi arid areas and accepting the alternative hypothesis which states that there is a relationship between performance in tests and dropout in primary schools in arid and semi-arid areas.

The fifth variable was teacher to pupil ratio. The computed chi-square value was 15.5. Interpreted at degree of freedom 3, the significant value was .001, therefore below the value  $p= 0.05$ . The null hypothesis which stated that there is no significant relationship between a low teacher to pupil ratio and dropout in primary schools in arid and semi-arid areas was rejected and therefore the alternative hypothesis which states that there is a relationship between teacher to pupil ratio and dropout in primary schools in arid and semi-arid areas accepted.

The last variable was the courses attended by teachers. The chi-square value was 12.69. It was interpreted at a degree f freedom 2 and gave a significant value of 0.001. The computed value is less than  $p=0.05$ . The null hypothesis which stated that there is no significant relationship between courses attended by teachers and dropout was rejected and therefore the

alternative hypothesis which states that there is a relationship between courses attended by teacher and dropout in primary schools in arid and semi-arid areas.

### **Conclusions**

From the study it can be concluded that the school environment played a major role in retaining pupils in the school and therefore increasing retention and promotional rates. The quality of the school encompasses the teacher qualifications, their administrative skills, the school buildings, teacher attendance, school facilities including classrooms, textbooks and other learning materials. It is important that the quality of the school was maintained because it also affected the performance of pupils in tests. A qualitative school is therefore, more of a home for the pupils and as such they would hardly drop out from such an environment.

### **Recommendations**

The researcher recommends that situation analysis was done again in arid and semi-arid areas in order to develop a curriculum that is responsive to the needs of children in such areas, given their nomadic life styles. Teacher training programmes and the development of school infrastructure should be in tandem with the needs of such a curriculum. The developed curriculum would therefore attract more learners to school hence it would address their needs.

The study, therefore, recommends that proper planning for provision of conducive and adequate resources in the learning environment in primary school areas should be implemented in order to reduce wastage in form of dropout. The non- governmental organizations can also supplement the efforts of the government in this aspect.

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## **Managing Change in Education: Exploring Early Childhood Education Teacher Competencies For' For Sustainable Development**

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### **Abstract**

**In recent years, growing knowledge of the critical importance of childhood development for lifelong learning and growth has led to increased calls for professionalism of early childhood educators including higher standards for training and education. As part of this renewed attention to professional development, professionals in the field should develop the national competence framework for early childhood care and education, with the goal of assuring that all educators of young children have the necessary knowledge and skills to meet children's development needs. This study was done at Nandi County, Rift Valley. The study sought to answer the following research question: Which dimensions of early childhood teacher manifest competences can be observed that contribute to pupil achievement? What resources are available for ECDE program and educators in order to meet new competency standards? This study adopts a cross sectional design in which data are collected predominantly by questionnaire, structured interviews and official statistics and that qualitative content analysis of a set of documents relating to a single period will be used. Respondents' are identified through simple random sampling technique. Data from field was analyzed both quantitatively and qualitatively and presented in form of discussions. The study findings benefits ministry of education, teachers, parents and other education stakeholders in understanding various Early childhood teacher required competencies towards expanded vision of education**

**for life that was first agreed upon at the World conference on Education for all that was held in Jomtein, Thailand.**

**Keywords:** *Competence, teaching*

## **Introduction**

Education is the most important instrument for human resource development. Education is the process of providing information to an inexperienced person to help him or her develop physically, mentally, socially, emotionally, spiritually, politically and economically. It is the process through which individuals are made functional members of their society. It is a process through which Boys and Girls acquire knowledge and realize their potentialities and use them for self actualization to be useful for themselves and others in the society. It is a means of preserving, transmitting and improving the culture of the society. In every society, Education connotes acquisition of something good worthwhile, Ocho (2005).

All Children Should have the right to Education since the child is born helpless and has to rely entirely on the parents and other older members of the society to survive and satisfy their growth needs in their entire ramification. The degree and quality of participation in the life of the society depends to a large extent on this degree and qualifies their education. This will enable them perform their political, social and other citizenship duties and exercise the right pertaining thereto effectively.

Since every citizen benefits from the result of the education of their fellow citizens and since every generation receives its education from an older generation it has a duty to reciprocate by educating the generation that comes after it, Ocho (1988). No nation can afford to toy with the education of her citizens, especially, the child, who will be the father or mother of tomorrow, because education is the bedrock of all facets of development.

## **Role of Education in Society**

Education is a process of equipping individuals with knowledge, skills, values and attitudes to participate fully in social, economical activities meaningfully and being in position of obeying the law and maintain

order, Rodeo, (2002). Acquired skills and abilities by members of society through schools, significantly shape their way of life, Smith (1987). This scholar laid the basis for insight research into benefits of education, Shultz (1961), Deniso (1962), Psacharopoulos (1973). All these scholars undiscovered the need of investment in reducing poverty, increasing individuals earnings plus its spill cover's as enhancing good governance and democracy to mention a few. These are health, nutrition which enrich lives directly e.g. the pleasure of intelligent thought and social development.

The main objective of preschool education is to build a strong foundation for holistic development that will enable the child to maximize his/her learning potential when they get to pre-primary school and primary school. The ministry of education have very brief and in adequate policies on guiding the early childhood teachers on children school readiness. This means that the ECCE teachers are not equipped with the necessary skills, knowledge, attitudes and abilities that will enable them handle the child appropriately and help them cope with their new environment as well as the new school curriculum that is being introduced. There are a number of factors that influences the learners' school readiness and the child's developmental status at kindergarten entry. These include children's skills and prior school related experiences which includes social skills, play behavior and communication skills; children's home lives i.e. parental influences and early childhood programmes and kindergarten classroom environment (McCubbins; 1994)

The environment goes hand in hand with the curriculum. The learners should actively be involved in a stimulating environment which should ensure active participation and also be learner friendly such that learners can adjust and cope in a given environment. As children move from a relaxed learning environment where centre of learning is on play to task related learning as it is in primary schools, they feel uneasy about it as they are not used to the latter way of learning, and this requires a teacher to be equipped with the necessary knowledge, skills and attitudes to aid the children achieve the necessary learning.

### **Teacher competences**

In recent years, growing knowledge of the critical importance of each childhood development for lifelong learning and growth has led to

increased calls for professionalism of early childhood educators including higher standards for training and education. As part of this renewed attention to professional development, India education sector should develop the national competence for early childhood education, with the goal of assuring that all educators of young children have the necessary knowledge and skills to meet children's development needs.

Based on the 5 domains of ECE competences focus on what educators need to know and be able to do to demonstrate that they are all rounded and well prepared to educate and care for the young children.

Competencies should be such as cornerstone of assuring professionalism and stability for early child hood, care and education workforce.

### **'Competence'**

The ministry refers to Hagen & Skule (2004), who emphasise that 'the concept of competence includes knowledge, abilities and attitudes that can contribute to solving problems or completing tasks. The expression 'teacher competence' can, therefore, be seen as 'a combination of something one has (knowledge), what one does in the classroom (abilities) and which values one bases teaching on (attitudes).' (Ibid.2004)

Clearinghouse has pointed out that it can be an advantage to differentiate between 'formal competence' and 'manifest competence'.

1. '*Formal competence*' presupposes that an individual has completed formal education or training and acquired a certificate witnessing to the fact that this has been done satisfactorily. The acquisition of 'formal competences' through formal education or training can, for example, be a prerequisite for having the legal right to practice a teaching profession.

In using the expression

2. '*manifest competence*', Clearinghouse attempts to establish the notion that an individual does, in fact, manifest competence in exercising his/her profession regardless of how that competence has been acquired.

With reference to a study by Thomas J. Kane et al. (2007), showing that no clear link can be observed between the teachers' formal competences

and the pupils' learning, the ministry was looking for 'a comprehensive approach to what is meant by 'teaching staff competence'. In addition to formal qualifications, it is thought that work experience, variables of social background, classroom management, commitment and communicative abilities might constitute aspects of the concept 'staff competence'. The list is in no way exhaustive, and it would be desirable for the ministry to be involved in working to define how the concept 'staff competence' should be operationalised.' (Ibid, 2004)

Therefore, the current investigation solely concerns manifest competences, in other words those dimensions of competences that can actually be registered/ observed in an empirical study.

### **Conceptual framework and definitions**

From the outset the review was governed by the desire to answer the following question:

- Which dimensions early childhood teacher manifest competences can be observed that contribute to pupil achievement?,
- What resources are available for ECDE program and educators in order to meet new competency standards

Teacher competence is understood to mean manifest competences. Competences are given a broad interpretation, i.e. comprising knowledge, abilities and attitudes, as these are evidenced in actions in given contexts.

Children and young people's learning that is linked to dimensions of competences in the teacher does not comprise solely the learning gains acquired by the average pupil but also includes whether particular competences can be shown to have a positive influence on poor pupils or pupils with learning difficulties. Learning in children and young people is given a broad interpretation and comprises knowledge, skills and attitudes.

## **Teacher Competency Model Example**

Domains and Components of the Framework for Teaching

### **Domain 1: Planning and Preparation**

- a. Knowledge of Content & Pedagogy
- b. Knowledge of Students
- c. Selecting Instructional Goals
- d. Knowledge of Resources
- e. Designing Coherent Instruction
- f. Assessing Student Learning

### **Domain 2: The Classroom Environment**

- a. Creating an Environment of Respect & Rapport
- b. Establishing a Culture for Learning
- c. Managing Classroom Procedures
- d. Managing Student Behavior
- e. Organizing Physical Space

### **Domain 3: Instruction**

- a. Communicating Clearly & Accurately
- b. Using Question & Discussion Techniques
- c. Engaging Students in Learning
- d. Providing Feedback to Students
- e. Demonstrating Flexibility & Responsiveness
- f. Using Student Assessment Data

### **Domain 4: Professional Responsibilities**

- a. Reflecting on Teaching
- b. Maintaining Accurate Records
- c. Communicating with Families



- d. Contributing to the School & community
- e. Growing & Developing Professionally
- f. Showing Professionalism

Source: Danielson, C. (1996). *Enhancing Professional Practice: A Framework for Teaching*. Alexandria, VA: Association for Supervision and Curriculum Development.

### **ECDE Core Content Areas**

The areas of competency address the development and learning of the “whole” practitioner and correspond with traditional curricular areas in early childhood education and care. Each content area describes the knowledge and skills practitioners need in order to work with children birth

through age eight and their families. The core competencies are applicable in a wide variety of settings and programs, including child care, family child care, school readiness and preschool, early childhood family education, Head Start, early childhood special education, school age child care, and others. The core competencies recognize the primary and central role of families in the growth and development of children and the strong influence of culture on all areas of practice in early childhood education and care.

I. Child Growth and Development: understand how children acquire language and develop physically, cognitively, emotionally, and socially.

II. Learning Environment and Curriculum: establish an environment that provides learning experiences to meet each child’s needs, capabilities, and interests.

III. Assessment and Planning for Individual Needs: observe and assess what children know and can do in order to provide curriculum and instruction that addresses their developmental and learning needs.

IV. Interactions with Children: establish supportive relationships with children and guide them as individuals and as part of a group.

V. Families and Communities: work collaboratively with families and

agencies/organizations to meet children's needs and to encourage the community's involvement with early childhood education and care.

VI. Health, Safety, and Nutrition: establish and maintain an environment that ensures children's health, safety, and nourishment.

VII. Program Planning and Evaluation: establish, implement, evaluate, and enhance operation of an early childhood education and care program

VIII. Professional Development and Leadership: serve children and families in a professional manner and participate in the community as a representative of early childhood education and care.

### **Levels of Competency**

The levels of competency establish a continuum from the preliminary skills necessary to

enter the field to an advanced level of academic preparation and varied experience. Practitioners progress from one level to another through a combination of formal study and reflection on practice. Depending on the practitioner's role, setting, or experience, she or he may have skills at varying levels in the different core content areas.

The five levels are intended to be cumulative. For example, a practitioner working at Level 3

has knowledge and skills to meet the competencies at Levels 1, 2, and 3. At all levels, adults who educate and care for young children continue their participation in professional development activities and advance their knowledge and skills within each of the core content areas.

**Level 1** includes the knowledge and skills expected of a practitioner new to the early education and care field, with minimal specialized training or education.

**Level 2** includes the knowledge and skills of Level 1 plus knowledge and skills commensurate with a Child Development Associate credential, a certificate or diploma in child

development, or equivalent training, education, and relevant experience.

**Level 3** includes the knowledge and skills of Levels 1 and 2 plus knowledge

and skills commensurate with an associate's degree in early childhood education or child development, or equivalent training, education, and relevant experience.

**Level 4** includes the knowledge and skills of Levels 1, 2, and 3 plus knowledge and skills commensurate with a bachelor's degree in early childhood education or child development and experience working with young children.

**Level 5** includes the knowledge and skills of Levels 1, 2, 3, and 4 plus knowledge and skills commensurate with an advanced degree in early childhood education or child development and extensive experience working with young children.

### **Environments and Materials**

The physical environment provides young children with expectations for behavior. When educators are mindful of the aesthetics, organization, and function of each area in the space, challenging behavior is likely to decrease while constructive, cooperative behavior increases. A program's vision for learning and philosophy of care dictate how an environment is designed. For example, if the curriculum is based on the view that children are competent directors of their own learning, educators develop a physical setting and activities that reflect children's emerging interests and provide easy access to meaningful play materials. Shelves for manipulatives and other materials are near the floor where children can easily reach them. Special areas in the room are designed for individual, small-group, and larger-group interactions. Play materials and other materials are carefully selected to reflect children's emerging interests, as observed in the context of play and conversation. In this environment, adult-child interactions can expand children's questions and comments. This broader vision for children's learning and care thus helps to promote synchrony between the environment, routines, and teacher-child interactions.

High-quality learning environments set the stage for social-emotional exploration and growth. When children are presented with a warm, inviting, and culturally familiar environment, they feel comfortable and secure. The attractive spaces adults prepare for children communicate expectations of responsibility and cooperative care (we all play in and care for this beautiful place together). Preparing a variety of learning

areas with open-ended materials encourages each child to participate in meaningful play experiences that match their individual temperaments and abilities. Incorporating elements from the home creates an atmosphere of community while simultaneously acknowledging the presence of individuals.

A physical environment that supports social-emotional learning has the following characteristics:

**Challenging and developmentally appropriate materials** It provides children with challenging, developmentally appropriate materials that encourage both creative, flexible use (e.g., open-ended materials such as blocks and art supplies) and practice in problem solving (e.g., closed-ended materials such as puzzles and matching games).

**Ample supply of materials** It offers plenty of materials to avoid conflict between children or long waiting for a turn. Materials are labeled in the languages of the children in the group (e.g., using pictures, words, and symbols) to offer children a menu of opportunities for play.

**Organized learning areas** The space is organized with designated learning areas for large-group activities (e.g., circle time), small-group explorations (e.g., a work table or science project), and individual activities from which children can choose, ensuring that all children physically have access to all areas.

**Appropriately sized small-group activities** It limits the size of small-group activities to promote peer interaction and struggles over turn-taking and use of materials.

**A variety of small-group activities** Activities are planned so that a range of adult supervision exists: from activities that children can do with minimal adult supervision (e.g., dramatic play, familiar books, and puzzles) to ones that require close adult supervision (e.g., messy art activities, preparing food, learning to use new toys, materials, or games).

**Aesthetically appealing** The aesthetics (e.g., colors, textures, furnishings, other physical elements of the environment) are designed so that children are comfortable and their energy and attention are focused on the activities. An overstimulating environment is avoided.

**Public and private spaces** There are both public spaces that encourage peer interaction and private spaces where children can take a break from sociability (areas with materials such as storybooks, pillows, blankets, or stuffed toys)

### **Curriculum content**

The domain of “learning environments and curriculum” is intended to include early childhood educator competencies related to the design of classroom or home ECE settings for young children and to the contact of the learning areas.

It is noted that the curricular ‘content’ of learning.

Early childhood education professional need to understand and utilize strategies that are characteristic of high quality early childhood environments such as:-

- Consistant schedules and routines
- Transition activities from one activity to another.
- Interesting materials and
- Activities appropriate for age
- Well arranged classroom to enhance children’s learning.

The ECD educator must know and understand and be familiar with a variety of developmentally appropriate curriculum models to prepare young children for school.

### **Planning framework.**

Follow daily schedule

1. Give children choices
2. Encourage children learning through play
3. Is familiar with and assists with implementing planned curriculum.
4. Supports and encourage children’s participation in variety of activities.

5. Provide an interesting and secure environment that encourages play, exploration and learning using space, relationships, materials as routine as resources.
6. Develops an appropriate schedule that includes a balance of active and quiet, child directed, individual and group, indoor as outdoor activities.
7. Use observations to provide appropriate choices and adapt environment for children.
8. Ensures that the environment facilitates learning for all children in each developmental domain for example:
  - Cognitive
  - Physical
  - Social
  - Emotional
  - Creative domain

Teachers should tell others about development appropriate curriculum.

Plans, implements and evaluates learning environments and curricular to maximize learning potential.

Advocates for appropriate curricular and learning environment.

Articulates, analyzes, evaluates and applies current research and effective practice on use of technology.

Other general competency includes:

- Participating with learners and communicates in robust dialogue for the benefits of the learners achievements.
- Actively engaging in respectful working relationships with learners, parents and the community.
- Showing integrity, sincerity and respect towards children's beliefs, language and culture.

- Affirming and providing contexts for learning where language, identity and culture .....
- Taking responsibility for their own learning and their students.

#### Professional competencies

- Acting ethically and responsibly in the performance of functions
- Becoming involved in an individual and collective project of professional development.
- Acting critically as a professional, interpreting the objects of knowledge, or culture in performing ones functions.

#### School competency

- Cooperating with the school staff, parents and with various social agents.
- Working in cooperation with other members in the pedagogical team.

*Source: mastinet Raymond, and gauthier (2001.)*

Evidence shows that high quality teaching is the most important influence the education system can have on high-quality outcomes for students with diverse learning needs. Evidence also shows that effective teaching and learning depends on the relationship between teachers and learners and learner's active engagement.

### **Methodology**

Mixed method approach has the intention of understanding “the world of human experience” (Cohen & Manion, 1994) The aim of adapting the mixed method approach in this research will be to gain deeper understanding through discovering meaning that may be difficult to convey quantitatively. Thus, the use of both quantitative and qualitative methods will be appropriate in this study because the quantitative measures will adequately describe or interpret the research problems, it is framed in “how” and “why” questions that will support discovery of new information. This study will adopt a cross sectional design in which data are collected predominantly by questionnaire, structured/

unstructured interviews, official statistics and diaries at a single point in time and that both quantitative and qualitative content analysis of a set of documents relating to a single period will be used. The researcher will adopt purposive sampling to identify the respondents'. All the 56 pre-school teachers in the school were involved in the study. This design is appropriate for the study because it will enable in-depth generation of information on ECDE teacher competencies' for teaching young children. Stratified simple random sampling was used to select ten 3 to 4year olds and ten 5year olds children and gave questionnaires to take them to their parents/guardians caretakers / to participate in the study. The study did not cover the whole population of children, due to the limited time and resources available.

### **Scope of the study**

This study was conducted at Nandi County ECDE school

### **Population and Sample**

The target population of this study consists of 20 school principals, 30 Preschool teachers and 16 Parents/guardians/caretakers. Preschool school teachers were chosen because they interact with their learners directly and have records of their growth and development. The school head were chosen since they understand their learners' progress through their teachers and are they interact with the children's parents/ guardians/ caretakers. Parents/caretakers have deep knowledge on the children.

The study adopted a Non-probability sampling technique which is useful in exploratory research where the aim is to find out if a problem or issue exists. Critical case sampling will also be used. Critical case sampling is a type of purposive sampling technique that is particularly useful in exploratory qualitative research, where a single case (or small number of cases) can be decisive in explaining the phenomenon of interest.

### **Research Instruments**

Both quantitative and Qualitative data collection techniques will be used for the study. This method will provide a richer base for the analysis. The methodology will be viewed as complementary, each contributing to a better understanding and interpretation of the data generated and to the



ultimate findings (Yin, 1994 & Breitmayer et al., 1993). The main data collection instruments will include Interview schedule, questionnaire and document analysis.

### **Questionnaire**

Silver (1983), defines questionnaires as measuring instruments that are self administered in that the respondents are responsible for reading and responding to the items prepared. Questionnaires were administered to 80 questionnaires were given out during the research process. 60 respondents' were to take part in the study while 20 questionnaires were to ensure the target of 60 respondents were attained, the researcher wanted to examine the opinions of parents/guardians/caretakers on children competency in learning.

### **Interview Schedules**

An open ended interview schedule was used to gather information from the school principal. The interview schedule were administered to 20 respondents' during the of the research process. 20 respondents' were involved because the researcher wanted to examine the opinions of head teachers, parents/guardians/caretakers on children competency in learning.

### **Document Analysis**

This study used institutional records showing enrolment, dropouts rates and children's school entry behavior. These were found in admission records, monthly reports, class registers and end of year results. While perusing through these documents, unstructured interview was used to pose questions to officers who were custodians of the same records. The questions were meant to seek for clarity through interpretation of the documented information about ECCE teacher competencies in handling young children.

### **Administration of Research Instruments**

To ascertain the validity and reliability of the research instruments, the researcher undertook a pilot study in Uasin Gishu county, with subjects reminiscent of those to be observed in the actual research exercise

in Nandi county. This process proceeded as follows: The researcher identified particular primary schools in 2 zones in Nandi county, provided questionnaires to both head teachers and classroom teachers purposively because they had a wealth of experience about the ECDE. The QASOs were chosen for interviews because they were qualified enough and they are also custodians of documents kept in their offices for all the schools in the division. On the actual dates of the study, the researcher visited individual schools in Nandi County to conduct the research.

### **Ethical Considerations**

The researcher explained to the respondents the purpose of the study and all the respondents were assured of the confidentiality of the information they gave. The researcher assured them that the name of the school and all the respondents' names would not be revealed. The respondents were also assured of getting the feedback from the researcher if they needed it after the study. This was aimed at securing cooperation from them. The researcher also established a rapport with the respondents which facilitated the collection of data.

### **Data Analysis and Presentation**

#### **Procedure for data collection**

The study will use both primary and secondary data. The secondary data will be sourced from journals, internet and other educational reports. The primary data will be obtained from the study which will investigate the ECCE teacher competencies by the use of questionnaires and interview schedule which will be administered to the respondents. The questionnaire was objectively constructed and particularly will be a 5 point likert scale. where 1 will represent strongly disagree and 5 will represent strongly agree (Appendix II) Questionnaires is a key tool to the study since it will be an inexpensive tool and helps in collecting data from a potentially large group.

#### **Data analysis and Interpretation**

Data will be collected using a 5 point likert scale questionnaire which will be coded and entered into a computer using the SPSS (Statistical Package for Social Scientists) programme. Multiple regression model will be applied to analyse the relationship between single dependent variable and several independent variables (Hair et al, 2005).

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## **The Higher Education Crisis In Kenya: dilemma and options**

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### **Abstract**

**This paper discusses the crisis that is confronting university education in Kenya based on review and analysis of governmental documents and publications and institutional documents on higher education. Public resources available to higher education are declining. Higher education is, therefore, in a deep crisis with far reaching quality and equity implications. The crisis is caused by the problem of uncontrolled growth in enrolments and seemingly uncontrolled and unplanned expansion of university education in an environment of constrained national budget, shifting government funding priorities and without donor support. This transition to mass higher education has been exacerbated by expansionary educational policies adopted by the government in the last three decades to democratise access to university education. Declining government funding amidst increased public demand for university education is undermining quality of teaching, learning and research in universities. Facilities, infrastructure, staffing, library resources, and scientific equipment and teaching materials are inadequate to support this expansion. There are also justified concerns about equity, efficiency and relevance of university education. There is therefore need to rethink the role of the state in this rapidly changing higher education environment.**

**Keywords:** *Higher education, crisis, government funding, enrolment*

## **Introduction**

University education in Kenya is in deep crisis. The crisis is threatening to undermine Public universities capacity to effectively fulfil their core activities. The root of the crisis is the problem of uncontrolled growth in enrolments and a consequence of unplanned expansion of university Education in an environment of constrained national budget and shifting government funding priorities(Saint, 2005; Ziderman and Albrecht, 1995).

The “recipe” for the crisis that is confronting University education in Kenya today is attributed to the expansionary educational policies adopted by the government in the last three decades aimed at democratising access to university education.

Reduced government funding is undermining quality of teaching, learning and research in universities. It has also resulted in inadequate educational facilities, infrastructure, staffing, library resources, and insufficient scientific equipment and teaching materials. There are also justified concerns for equity, efficiency and relevance of university education.

The remarkable efforts to expand university education have been spurred by a number of factors which include: increased social demand for university education; the desire of government to expand educational opportunities for all Kenyans in order to redress imbalances in university education; and the recognition that human capital formation is necessary for economic growth, for national and individual development, and for political and social stability (GOK, 1994, Psacharopoulos, 1985, Todaro, 1992).The expansion which is often supply-driven has occurred with very little direct or indirect costs to students.

There is pressure for university education.The dilemma is how to increase university education places to meet the social demand while maintaining quality and ensuring equity and affordability. University education is seen as a public good which government must finance and provide because of the marginal social benefits that accrue to the society as a whole. According to a report by Kinyanjui (2007) unless university opportunity are increased by 2015 over 1000,000 eligible students out of 180, 000 potential applicants will miss the opportunity to join university. Is quantitative expansion of public universities the answer? a panacea? Are

there other options that could be explored? What are the consequences of the current expansionist policy?

## The Crisis

### Expansion of university opportunities

The number of universities both public and private increased from 28 in 2009/2010 to 66 in 2012/2012 comprising 22 public chartered universities, 9 university constituent colleges and 35 private universities consisting of 17 chartered private universities, 5 private university constituent colleges, 11 private universities with letters of interim authority and 2 registered private universities.

This has seen university admission rise from 177,735 students (144,181 in public universities and 33,554 students in private universities) in 2009/10 to 361,147 students (271,143 in public universities and 90,004 in private universities) in 2011/2012 .The majority of university students today are in the public universities despite there being more private than public universities in Kenya.

**Table 2-1: Admission Trends to Public Universities: 2007/08-2011/12**

Academic Year	Number Qualified (C+ and above )	Joint Board Admissions	Percent Admitted
2007/08	68,040	12,261	18
2008/09	62,853	<b>16,134</b>	25.7
2009/10	72,590	<b>20,073</b>	27.07
2010/2011	81,000	<b>24,216</b>	33.4
2011/2012	91,134,	<b>34,648</b>	33.6

*Source: Joint Admissions Board*

## **Consequences of University expansion**

Kenya has witnessed very impressive quantitative growth of university education systems over the last three decades or so. University education is often responsible for benefits that include political and social stability, economies of scale, equity, and increased access of students of rural origins among others (Psacharopoulos and Woodhall, 1985; McMahon, 1987; World Bank, 2000). As already noted, university expansion in Kenya is occurring in a period of tight budgetary resources and without donor support. The scenario of constraint resource environment combined with rapid increase in student enrolment has had a number of adverse effects on University education. These include: a) shortage of academic staff; c) shortage of funds;d) falling academic standards; and e) misallocation of funds.

### **Shortage of academic staff**

There is inadequate academic staff at all levels in all public universities. The universities are now relying heavily on an “army” of part-time staff mostly Master’s degree holders from secondary schools and teachers training colleges to deliver their programmes. There is also a serious shortage of qualified persons particularly at PhD. level from which universities can recruit. This is particularly critical as it affects postgraduate teaching and supervision following the recent directive by Commission for University Education that lecturers with masters degree qualifications will not be allowed to teach postgraduate programmes. To narrow the staff shortage gap universities are recruiting from their postgraduate mainly (M.Phil.) programmes. This ‘in-breeding’ phenomenon can create a vicious cycle of mediocrity particularly when the standard of postgraduate education is low. The multiplier effect of which can have lasting consequences of untold proportions on the quality of university education with the ripple effects being felt throughout the whole economy(Boit, 1998). There is also a serious shortage of staff at the level of professor for, research, mentorship and academic leadership. The 2013 Commission for University Education data show that the number of full professors working in Kenya’s seven oldest public universities has risen by a measly 10 percent over the last three years while student numbers by 56 percent further stretching an already stretched workforce resulting in a varying lecturer to student ratio. At Kenyatta University



staff student ratio was 1:65, Moi University, 1:47, the other universities between 1:31 to 1:39. By 2013 the University of Nairobi had the highest number of professors at 124, up from 110, Moi University 42 down from 49, Kenyatta University 27 down from 29, Maseno University 22 up from 17, Jomo Kenyatta, Egerton and Masinde Muliro Universities had 22, 12 and 15 professors respectively each from 11. The lecturer shortage is the greatest challenge in provision of quality university education. This indeed was the experience of India in the wake of the rapid expansion of their higher education system in the 1970s and 1980s (Singh, 1988; Jayaram, 1991).

### **Shortage of funds**

According to the Education Sector Report of 2012 Higher Education Loans Board (HELB) was allocated an extra KES 253M instead of KES 500M which they had requested to cater for the increased number of student admitted by JAB in 2011/2012. Moreover, increased demand for the loans and to meet the increased cost of living for the students HELB still required additional funding of KES 1 Billion per year for which they were not funded. Similarly, the institutions that were established through legal orders by the government as university constituent colleges in financial year 2012/13 were not adequately financed. All these examples illustrate the typical case scenario of shortage of funds. The consequences are universities that are overcrowded with inadequate teaching space, laboratory facilities, library resources, accommodation space and scientific equipment. University funding is declining and budgetary allocations from the exchequer is far below their financial needs.

### **Falling academic standards**

Quantitative expansion of University education has led to the deterioration in the quality of education. Instances are reported of lecturers skipping classes or to supervise postgraduate students and hence comprising standards due to exhaustion and burnout as a result of shuttling between many different universities and campuses teaching to make extra money, a practice known as “moonlighting”. Others are said to appear on the commencement of the degree course, give the course outline and only reappearing during exams.

There are also complaints that lecturers are failing to administer the required number of continuous assessment tests (CATS) as stipulated in the examination rules. However, where CATS are given they either take too long to be marked or are not marked at all. The case of “missing marks” where students have incomplete marks on their transcripts is a wide spread problem in Public Universities. This is a phenomenon where students’ examination results on one or two units cannot be traced by the course lecturers which often delay a final year student from graduating. The process of retrieving the “missing” marks is sometimes so bureaucratic, tedious and time consuming that marks that the lecturer eventually comes up with often appear to have been “cooked” by the lecturer. A number of factors are attributed to the missing marks syndrome and these include; Large number of students taking university wide common courses; because of large classes students are able to smuggle out their exam scripts from an examination room unnoticed, overlapping academic years – back to back due to accelerated intake and hence lecturers do not have the time to immediately mark examination scripts.

### **Misallocation of resources**

The pressure for expansion of higher education has also led to gross misallocation of resources, in favour of a less socially profitable sub-sector of the education system (university education) and with little or no cost to the beneficiaries. Funding of higher has been on an upward trend since 2009/10 from KShs 22.721B, KES 27.217B and KES 49,829 in 2009/10, 2010/11 and 2011/12 respectively. This is an increment of 19.79% and 83% between FYs 2008/09-2009/10 and 2009/10-2010/11 respectively. This misallocation is exemplified by allocation to education sector in the 2014 budget where Kshs. 28.2 billion was given to free day secondary, Kshs 13.5 billion to free primary education and Kshs. 55 billion for university education (Daily nation, Friday 13 June, 2014). This is despite evidence that by the World Bank studies that indicate that despite equity reasons for expanding higher education more prosperous families are still disproportionately represented in higher education.

## **Conclusion**

### **Weighing the policy options**

The governments must formulate and adopt appropriate policies to effectively respond to the challenges posed by the higher education crisis. The critical issue of policy within the context of higher education is to develop a socially equitable and efficient higher education system that optimises resource utilisation.

The following broad policy options are suggested to be either implemented individually or in combination to address the challenges confronting university education provision in Kenya. These measures provide some promising avenues for reducing costs and increasing equity and efficiency in the utilisation of limited resources thereby allowing increased quality output of the higher education system:

- Harnessing technology to deliver education through Open Learning Initiative (OLI) does making university education affordable and accessible;
- Supporting private sector participation in the development of higher education institutions through deliberate government policies, public-private partnership initiatives (PPPI), collaborations and incentives such as provision of land, sewage, access roads, water, security, electricity and introduction of the voucher system of financing university education to accommodate excess demand for higher education without much fiscal effort to the government. Diversifying the higher education systems through a network of private institutions will increase opportunities for greater access for a larger proportion of the population while alleviating financial pressures on public expenditure for higher education;
- Constraining quantitative expansion of public universities in the short term and output constrained especially in those areas or programmes that private universities can handle and targeting specific programmes with heavy capital outlay that are relevant and have greater impact on socio-economic development needs of the country such as medicine, engineering and the sciences. In other words, there must be well planned and targeted public spending in higher education;

- Reforming the current education system in order to make it more efficient and responsive to the needs of a country aspiring for industrial take-off by 2030 by reducing the number of years it takes to acquire a basic degree qualification from the current four years to three. The net effect of a shorter cycle programme is the reduction in recurrent costs of providing higher education;
- Taking advantage of economies of scale and resultant benefits by rationalizing programmes and faculties/schools. Course programmes that do not attract sufficient student numbers could be consolidated, improved or phased out altogether as the case may be in order to avoid potential wastage of resources. Courses offering skills that meet the specific needs of the labour market or that are socially useful and fulfill specific government policy objectives should, however, receive all the necessary support. Higher education must, in other words, be flexible, market driven and focused in order to maximize scarce resources and;
- Differentiating curriculum costs so that those who benefit the most are made to pay proportionately more through implementation of the unit cost.

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## **Gender Equity and Access in Kenyan Public Universities: an examination of affirmative action policy in practice**

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### **Abstract**

This paper presents the results of analysis centering on the impact of affirmative action policy that seeks to enhance the proportion of female enrolment in public universities as a means of achieving gender parity in university admissions. Despite progress that have been towards equality of opportunity between female and male, there are several indicators that show the persistence of gender inequality in universities. Analysis of enrolment data and review of Joint Admissions Board documents and government reports and policy debates show that, gender parity in public university education is still elusive despite decades of affirmative action policy implementation. Female students continue to be disproportionately represented at 38% and are effectively excluded from physical sciences and technologically oriented degree courses such as mechanical engineering, geospatial engineering, mathematics, computer science, microprocessor technology and instrumentation where their participation rate is below 8.0%. Affirmative action policy which has become the policy-of-choice in the gender parity debate should be seen as one of the strategies that can be used to correct gender imbalances but not as a panacea for achieving gender parity. It has to be supported with other multi-sectorial policies and legislations (The Kenya Constitution 2010). As a temporary intervention measure, affirmative action is to be discontinued once the inequalities and inequities experienced by a particular gender group, in this case female students, as a result of longstanding cultural and structural barriers, leading to

**inadequate access to educational opportunities is corrected. The analysis of the gender gap allows us to understand the scope of gender inequalities in provision of university education and what could be done about it.**

**Keywords:** *Affirmative action policy, gender, equity, access, universities*

## **Introduction**

One of the main concerns of progressive minded organizations, institutions and governments is how to eliminate gender discrimination that exists in all aspects of life. It has become a major objective of both educational and social policy and educators have advanced educational arguments supporting affirmative action (Padula, & Miller, 1999; Levin 1976). Although gender inequity has slightly narrowed down over the years the imbalances between female and male is evident in all spheres of life. The debate on gender equity and access to university education is nothing new among scholars, practitioners, educators and policy makers. In the educational context equity means fairness and impartiality in the distribution of education opportunities and benefits. It is about how benefits of education are equally distributed among different regions, females and males, different socio-economic and ethnic groups with the aim of reducing and ultimately eliminating disparities, inequalities and discrimination among individuals and social groups in economic, political and social life. Determination of equity issues in education therefore involves not only facts but normative judgments as well (Psacharopoulos and Woodhall, 1985; OECD, 1972; McMahon, 1997). Kenya has continued to periodically review the philosophy and objectives of its education system through commissions and working parties established by the Government with the principal objective of providing an effective and efficient education that serves well the wider interests of society devoid of social injustices and disparities between regions, sexes, social and economic groups and that equalises economic opportunities among all the citizens.

The education reviews have been guided by a number of important policy and statutory documents which together with various Acts of Parliament constitute the legal framework of Kenya's education system.



These landmark documents that continue to shape the present and future trends of education include: The Sessional paper No., 1 of 2005 on Policy Framework for Education, Training and Research; the Sessional Paper on African Socialism and its Application in Kenya of 1965; the National Committee on Educational Objectives and Policies(NCEOP) of 1976; the Presidential Working Party on the Second University in Kenya Report of 1982; Sessional Paper No.6 of 1988 on Education and Manpower Training for the Next Decade and Beyond; and the Report on Totally Integrated Quality Education Training (TIQET) of 1999 amongst others. The debate on equity and equality of educational opportunity is not about to go away any time soon. The Kenyan constitution that was promulgated in 2010 acknowledges the need to legislate for gender equity through affirmative action in order to ensure “that not more than two-thirds of the members of elective or appointive bodies shall be of the same gender”. The Constitution, 2010 further defines gender as the difference between a man and a woman and continues to further assert under article 27(30) that “Women and men have the right to equal treatment, including the right to equal opportunities in political, economic, cultural and social spheres”. Benefits associated with access to education opportunities should accrue to all without arbitrary discrimination. According to Kinyanjui (2007) there is lack of systematic and comprehensive studies on equity in provision of higher education. Accordingly policy research oriented as to who gets higher education in Kenya and the impact of affirmative actions at various levels is needed.

### **The gender dimensions of educational participation.**

Gender Parity Index (GPI) figures (the ratio of female net enrolment ratio (NER) to the male NER) reveal a near gender parity enrolment between boys and girls at primary school level. In 2005 for example primary GPI was 0.99 (Otieno and Colclough). This demonstrates a very insignificant marginal difference between male and female net enrolment ratios (NERs) at this level. However, proportion of girls’ enrolment begins to decline progressively as the girls’ transit to the secondary and university systems. In 2005 for example, transition rate of girls to secondary was 54.2 and that of boys stood at 57.7. Female enrolment begins to seriously lag behind that of males by a disproportionately large margin by the time students enroll in the university. The phenomenon of declining female enrolment

as they move up to the education ladder is a feature not unique to Kenyan education system but appears to be the case as well in education systems of other developing countries. This makes aggregate distributive impact of the education transfer from secondary to university regressive.

It is not lost to the public that despite increase in public spending in university education disparities in female access still persist making social and educational objectives of equity and equality of educational opportunities hard to achieve. This means that more male continue to enroll in publicly subsidized, labour-market rewarding university education. According to Levin (1976) this kind of bias means that female persons are denied equality of educational access, the equality of educational participation, the equality of education results and equality of educational effects upon life chances.

### **Equalizing Opportunities in University Admission**

Serious efforts to address the gender equity and access problem in public universities can be traced the Joint Admission Board (JAB) of 1989. A sub-committee specifically to address the issue of equity in admission to public universities was appointed under the Chairmanship of Prof. F.J Gichaga when it was realized that enrolment particularly of students from disadvantaged socio-economic backgrounds, disadvantaged districts and gender (female) was lagging behind those of other groups and were in danger of effectively being excluded from university education. Several other JAB sub-committees were later constituted to address this perennial and tenacious problem of inequality in university participation notably: the Prof. F. A Karani committee of 1995; 1997; Prof. B.A Ogot committee of 2001; Prof. J.T. Kaimenyi committee of 2005; Prof. Barasa Khwa Otsyula, committee of 2006; Prof. Josephine Ngaira committee of 2007; and the Prof. J.T. Kaimenyi committee of 2011. These committees determinedly recommended implementation of gender Affirmative Action in university admissions and came up with criteria for doing it. They recommended lowering of university entry cut-off points by two points and subject cluster points to specific degree programmes until sufficient compensation has been made and female representation is at least more than 30% of enrolment.

The application of affirmative action in modern day discourse has its beginnings notably in President's Kennedy Executive Order 10925 of March 6, 1961 that led to the creation of the Commission on Equal Employment Opportunity with the view to ensuring that hiring and employment practices were free from bias (Dastoor and Ippolito, 2006). Within the context of University admission affirmative action policy is understood to mean "a deliberate policy that gives special privileges to certain groups of people in order to correct the inequalities and inequities which they have experienced, usually as a result of longstanding cultural and structural barriers, leading to inadequate access to opportunities. It's a temporary policy measure, which is specifically designed to correct the imbalances and should be withdrawn when sufficient compensation has been made' ( Prof. Ogot's Committee Report, 2001) . The Kenya Constitution 2010 defines affirmative action as".....any measure designed to overcome or ameliorate an inequity or the systematic denial or infringement of a right or fundamental freedom."In compliance with the provision of the Kenya Constitution 2010all public universities are demanded by law to ensure that that students admitted into the university and those that are enrolled in various degree programmes are not only based on merit but also achieve "*the not less than one third rule of either gender*" requirement in order to achieve legal equality between men and women. Despite progress towards equality of opportunity between female and male, there are several indicators that show the persistence of gender inequality in the universities as examined below.

### **Impact of affirmative action criteria on gender enrolment**

According to JAB records the overall enrolment ratio of male to female students in public universities before implementation of affirmative action was 75:25. After its implementation, the ratio steadily increased and currently stands on average at 62: 38. This scenario is demonstrated by gender enrolment trends at Moi University since its inception in 1984 presented in table 1 below.

**Table 1**

**Gender Enrolment Trends - 1984/1985 - 2013/2014**

S. NO	ACADEMIC YEAR	MALE	FEMALE	TOTAL	%BY GENDER	
					M	F
1	1984/1985	76	7	83	92	8
2	1985/1986	42	6	48	88	12
3	1986/1987	108	13	121	89	11
4	1987/1988	552	146	698	79	21
5	1988/1989	887	302	1189	75	25
6	1989/1990	725	331	1056	69	31
7	1990/1991	1154	356	1510	76	24
8	1991/1992	1171	512	1683	70	30
9	1992/1993	1275	492	1767	72	28
10	1993/1994	1175	518	1693	69	31
11	1994/1995	1189	558	1747	68	32
12	1995/1996	1224	685	1909	64	36
13	1996/1997	1150	612	1762	65	35
14	1997/1998	1591	806	2397	66	34
15	1998/1999	1817	959	2776	66	34
16	1999/2000	1646	892	2538	65	35
17	2000/2001	1807	929	2736	66	34
18	2001/2002	2246	1161	3407	62	38
19	2002/2003	2046	1231	3277	63	38
20	2003/2004	1459	862	2321	61	39
21	2004/2005	1077	683	1760	62	38
22	2005/2006	1267	788	2055	66	34
23	2006/2007	1281	673	1954	59	41
24	2007/2008	2023	1381	3404	63	41
25	2008/2009	2079	1200	3279	56	44
26	2009/2010	1893	1486	3379	57	43

27	2010/2011(KCSE 2009)	2123	1604	3727	55	45
28	2011/2012(KCSE 2010)	2236	1839	4075	55	45
29	2012/2013(KCSE 2011)	2622	1883	4505	58	42
30	2013/2014(KCSE 2012)	3142	2650	5792	54	46
<b>TOTAL</b>		<b>43083</b>	<b>25565</b>	<b>68648</b>	<b>63%</b>	<b>37%</b>

Source: Moi University Admissions office 2014

The effect of affirmative action on the proportion of female students enrolled in various degree programmes in public universities can be demonstrated using 2011 Kenya Certificate of Secondary Education (KCSE) candidates. Table 2, 3&4 below show the impact of affirmative action criteria in which female candidates with two points below the cut-off points were admitted to public universities. As indicated 41, 996 candidates who qualified for admission for having attained cut off points of 63 and 61 for females and were eligible to enroll in 778 degree programmes offered in 31 public universities and affiliated constituent colleges. However, 35,147 candidates who had complete choices were used for the purposes of this analysis.

**Table 2**  
**Placement by Gender before Application of Affirmative Action, 211**

Progra mmes	Candidates with choices	Candidates Placed	Male Placed	% Male	FM placed	%FM Placed
778	35, 147	28,986	18,585	64	10, 401	36

Source: Joint Admission Board Records 2011

In this admission scenario either gender achieves more than one third placement, with female being disproportionately represented at 36% and

male at 64%. When affirmative action criteria is applied by lowering the cut-off for female candidates by 2 points while maintaining that of male candidates at 63 the number of female candidates entering university increases marginally by 1% from 36%(10, 401) to 37%(11,156) as indicated in table 2 below.

**Table2: Placement by Gender after Application of Affirmative Action of 2 points, 2011**

---

Programmes
Candidates
with choices
candidates Placed
Male
Placed
%Male
Female placed
%Female Placed
778
35, 147
30, 224
19,068
63
11,156
37

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*Source: Joint Admission Board Records 2011*

A detailed examination of candidates admitted into various degree programmes, however, reveals a skewed distribution as shown in table 3 below.

**Table 3: Degree Placement by Gender into Programmes, 2011**

Category	Number of programmes	Percentage
Programmes with placement of either gender >30%	348	45%
Programmes with female candidates <30%	294	38%
Programmes with male candidates <30%	73	9%
Programmes without any candidates	74	9%
Programmes with excess placement	327	42%
<b>Total</b>	<b>778</b>	<b>100%</b>

*Source: Joint Admission Board Records 2011*

Table 4 presents admission to seven public universities according to gender for 4 academic years (2006/2007, 2008/2009, 2011/2012 and 2012/2013). It shows that there was a successive increase in the proportion of female students enrolled in each public university that is largely attributed to affirmative action and partly to increasing number of students that qualify for university admissions year after year.

**Table 4:**  
**Student admission according to gender, 2006/2007-2012/2013**

	2006/ 2007		2008/ 2009		2011/ 2012		2012/ 2013	
	M	F	M	F	M	F	M	F
	Freq. (%)	Freq. (%)	Freq. (%)	Freq. (%)	Freq. (%)	Freq. (%)	Freq. (%)	Freq. (%)
<b>University of Nairobi</b>	1819 (67)	914 (33)	2723 (70)	1167 (30)	2626 (59)	1821 (41)	3022 (63)	1810 (37)
<b>Kenyatta Univ.</b>	1558 (66)	819 (34)	2123 (68)	1005 (32)	2293 (55)	1898 (45)	2543 (58)	1833 (42)
<b>Jomo Kenyatta Univ. Of sc &amp; techn</b>	512 (78)	148 (22)	880 (76)	279 (24)	1033 (67)	518 (33)	1175 (67)	587 (33)
<b>Maseno Univ.</b>	551 (67)	275 (33)	604 (67)	293 (33)	1272 (65)	680 (35)	1550 (64)	867 (36)
<b>Moi Univ.</b>	1281 (67)	623 (33)	2070 (63)	1200 (37)	2236 (55)	1839 (45)	2622 (58)	1883 (42)
<b>Egerton Univ.</b>	977 (72)	384 (28)	1269 (68)	655 (32)	1684 (61)	1076 (39)	1862 (62)	1143 (38)
<b>Masinde Muliro Univ. Of S c.&amp; Techn.</b>	283 (79)	74 (21)	389 (77)	117 (23)	734 (68)	343 (32)	984 (69)	446 (31)

Source: Joint Admission Board Records 2011

The additional number of undergraduate female students who got admitted into public universities due to affirmative between 2006/2007-2010/2011



academic years was 529 in the 2006; 1070 in 2007; 1378 in 2008; 1694 in 2009; and 1943 in 2010.

### **Gender imbalances in academic programmes**

Despite the application of affirmative action, females appear to be effectively excluded from physical sciences and technologically oriented degree courses such as mechanical engineering, geospatial engineering, mathematics, computer science, microprocessor technology and instrumentation which clearly remain masculine. Enrolment data for 2011/2012 admissions shows, for example, that electronic and computer engineering at Jomo Kenyatta University of Agriculture and Technology had a male/female ratio of 95.24:4.76 while mechanical engineering at the University of Nairobi had a ratio of 91.8:8.2. In a recent advertisement carried in the Daily Nation Newspaper on Friday, 9<sup>th</sup> May 2014 the Chairman of the newly established Kenya Universities and Colleges Placement Service, a successor of JAB, Prof. David Ndeti took cognizance of the equity issue when he noted that' ...."Under the new admissions procedure, attempts will be made to ensure gender and regional equity. For example, deliberate attempts will be made to ensure that more female students join courses such as engineering, medicine and other technology-based disciplines, which are dominated by males", He further added... "Our admissions system has been designed to ensure equity and fairness in terms of gender, region, physical abilities and course. The objective is to give each qualifier a chance to pursue a course of his or her interest and ability without discrimination". The agency appears set to continue with the affirmative action policy started by JAB and has lowered entry requirements to B- for females and B for males with a cut-off of 58 and 60 respectively.

### **Conclusion**

Affirmative action is a concept that has been accepted by universities as one of the strategies that can promote equal opportunities for both genders, female and male and is a temporary measure which is to be discontinued once existing inequalities and inequities experienced by a particular group or groups have been corrected. The current affirmative action policy in admission of female students into public universities has achieved some measure of success in increasing the overall proportion of

female enrolment from a male/female ratio of 75:25 a decade ago to the current ratio of 72:38 gender equity. However, gender parity still remains elusive.

Also enrolment of girls in physical sciences and technology based courses is still very low despite decades of application of affirmative action criteria. Recent enrolment figures show that this is as low as 7.69% in Bachelor of Science (Electrical and Electronic Engineering) and 8.00% in Bachelor of Science(Computer Technology) at Jomo Kenyatta University of Agriculture and Technology; 8.2% in Bachelor of Science(Mechanical Engineering)at the University of Nairobi; 13.4% in Bachelor of Science(Software Engineering)at Kenyatta University;0.0% in Bachelor of Technology(Technical and Applied Physics), 4.17% in Bachelor of Technology(Mechanical Engineering Technology) and 5.00% in Bachelor of Technology(Industrial and Applied Chemistry) and 6.06% in Bachelor of Engineering(Civil Engineering) all at Kenya Polytechnic University College.

There are also other strategies which could be considered in support of the current gender affirmative action efforts. Socio-economic equity strategy can assist to reduce existing regional gender imbalances. This can be achieved by giving priority when university campuses are being established to counties in socio-economically disadvantaged areas such as those in Arid and Semi-Arid regions. In this way not only more universities places will be created but it will also attract and give opportunity to disadvantaged students from minority groups, gender, poor and marginalized communities access to university education that they would not otherwise get in the highly competitive degree programmes such as sciences, medicine, engineering and law offered in older universities. Establishment of the Open University of Kenya will enable flexible online courses to be offered without students taking up residence in the residential universities as is the case now with most public universities. Other gender equity intervention measures that will enhance participation of females in university education include mentorship programmes, targeted scholarships, and introduction of flexible admission criteria and progression structure in universities, mainstreaming gender in university curricula, and affirmative action for students with special needs such as physically, visually and hearing impaired students.

The problem of gender equity and access is a much broader issue and cannot be effectively corrected at the point of entry into the university. Far greater constraint of equity and access to higher education is due to selectively with respect to progress through primary and into and through secondary education. It is a systemic problem which requires a multi-faceted approach and intervention that addresses female access, retention, completion rates and gender disparities in school outcomes at lower levels of the education system, that is, at both primary and secondary school levels. Barriers such as poverty, remoteness, environmental handicaps, early marriage practices, higher opportunity cost of the girl child, gender stereotyping in economic roles and other cultural, social and religious related barriers need to be effectively addressed at both national and county levels of government.

To sustain these initiatives the government should create appropriate mechanisms to monitor progress towards realization of equality of opportunity between female and male in support of the attainment of gender parity objective.

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## **The Position of Research in Uganda Christian University A Case Of UCU Mbale Campus**

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### **Abstract**

**Uganda Christian University – Mbale Campus is one of the higher learning institutions in Uganda whose major purpose is to train learners on how to carryout research, developing research policies and also providing solutions to address societal problems. The university policy of optionalisation of research by students seems to undermine the above mentioned purpose thus the need for the study. The main objective of this study was to examine the general issues that face the research department and how they relate to the various stakeholders. The study employed two research designs namely descriptive and case study research design which provided a fair and intensive examination of research issues at**

**UCU – Mbale Campus. The findings established a number of challenges ranging from research policies, staff recruitment, human resource development, staff motivation, and infrastructure, attitude towards research by staff learners and the community and lastly finance issues. Arising from the above findings, the researchers recommended for the development of a research policy with emphasis on staff recruitment, staff development strategies, research grants, research and publications, motivation strategies such as promotions, infrastructural improvement, non- optionalisation of research by all students and creation of a university consultancy firm.**

**Keywords:** *Research, Research policy, and optionalisation*

## **Background**

The place of research within a contemporary University has never been more pervasive but in two different almost contrary causes. The first is that research performance or at any rate, research prestige, which is not necessarily the same, has become the dormant criterion of institutional and individual success. Global league tables are discriminated almost exclusively in terms of research ratings as one national hierarchies of Universities while individual careers are made and unmade by research reputations. Research looms larger in the mass higher education systems of the twenty first century, it seems that it ever did in the elite university systems of the past. But the second sense in which research has become pervasive is that it has infiltrated university teaching even in the first years of undergraduate courses which now expect students to be able to demonstrate “research” skills and habits. Research (and, in particular, its applications) has also become the principle channel through which universities demonstrate their utility to their communities and to wider society; older cultural linkages have atrophied to be replaced by research technology – innovation chains. Teaching has infiltrated research back no longer simplify in terms of research training but within the wider arenas of evaluation and disseminations (Nowotony et al 2001).

The main aim of this research (paper) was to investigate empirically and theoretically the position of research and a phenomenon in Uganda



Christian University with specific focus on Uganda Christian University Mbale Campus. The study highlights challenges and contradictions arising from investigations into different facets of research at Uganda Christian University – Mbale Campus. It explored what is potentially a considerable field of study, presents snapshots of the nature of research work carried out and raises issues that underscore research challenges at this Campus.

### **Methods/Materials**

The study employed two research designs namely descriptive and case study research design which provided a fair and intensive examination of research issues at UCU – Mbale Campus. The research instruments used were questionnaires for all respondents, oral interviews with lecturers and students, focus group discussion for students in their respective strata.

### **Discussion of Results**

The study came up with the following results as indicated in the respective tables.

**Table 1: Study and sample population category of respondents, sample size and sampling technique used by researchers:**

Sample population	Category of respondents	Sample size	Sample technique
Senior management	Director	1	Purposive sampling
	University College Secretary	1	
	University Academic Registrar	1	
Middle management	H.O.D's	06	Purposive
Teaching staff	Lecturers	92	Simple random
Learners	Students across all departments	219	Stratified random sampling
Total		320	

Source: questionnaires, (2014)

The study applied purposive sampling for the three senior administrators of the University namely: The Director, University College Secretary and University Academic Registrar. They were purposively selected because of their privileged positions, virtue of their offices and special qualifications. This technique was also applied to the six heads of department because of the same reasons mentioned above. Simple random sampling (SRS) using lottery method was also used to sample 92 lecturers for the study. The sample population was also got using stratified sampling. Each strata was based on the courses offered by various students and year of study. This helped in increasing the precision of the study.

**Table 2: Factors considered when recruiting staff:**

Qualification/Experience	Frequency	Percentage
PhD	00	0.0
Masters	258	80.6
Publication	00	0.0
Lecturing experience	27	8.4
Research expertise	6	2.0
Professional expertise	11	3.4
Others	18	5.6
Total:	320	100

Source: *Questionnaires (2014)*

The table above shows the study regarding factors which are considered in staff recruitment.

Analysis revealed that the factors considered included majorly qualifications and experience. The qualifications were majorly two but the study found out that it was only Masters' qualifications that dominate others in recruitment of teaching staff with about 81%. The other factors as found out by the study was experience which constitutes 8.4%, lecturing professional expertise 3.4%, research expertise 2% and others 6%. This revealed that the position of research in the University and the value attached to it in the University programme in general is very wanting as reflected by the expertise of staff as well as staff qualifications.

**Table 3: To establish the existence of a research policy**

Response	Frequency	Percentage
Yes	02	0.6
No	215	67.2
I don't know	103	32.2
Total:	320	100

Source: *Questionnaires (2014)*

Research policy is a very important tool in shaping and positioning research in any credible University. The researchers therefore went out to establish the existence of a research policy at UCU – Mbale Campus. Findings indicated that 0.6% of the respondents were aware of its existence. This response came from only senior administrators of the University. It also established that the majority of the respondents – 67.2% were not aware of the existence of research policy meaning that their research operations were up-hazard thus undermining its position among other programmes.

32.2% of the respondents expressed total ignorance about the policy and this greatly affects the implementation of research work to meet the required standards.

**Table 4: Qualifications for one to handle research activities:**

Qualifications	Frequency	Percentage
PhD	3	0.9
Masters	309	96.6
Bachelors	8	2.5
Others	00	00
Total:	320	100

*Source: Questionnaires (2014)*

The interview question asked the academics about the qualifications that warrant one to handle research activities at the University. Findings established that only 0.9% of the staff handle research activities at this University. Further investigations revealed that this was because the University had only 3 PhD holders, 2 of whom were holding administrative positions while 1 was an adjunct lecturer and therefore had very little time for research at this University. The study however noted that the majority of research lecturers and supervisors (96.6%) were Masters' holders which by implication puts the research position at a baseline stage compared to other Universities.

Findings from the study further revealed that 2.5% of staff who handled research were Bachelors degree holders who were also ongoing Masters' students. This state of affair definitely undermines the position and status of research at this University.

**Table 5: Quality of research work produced:**

Response	Frequency	Percentage
Excellent	11	3.5
Good	67	20.9
Fair	219	68.5
Below standard	23	7.1
Total:	320	100

*Source: Questionnaires (2014)*

The study focused on the quality of research work produced by both the leaders and their lecturers. The following parameters were used to bring out the quality of research produced, thus excellent, good, fair and below standard. Findings as reflected in the table above established that only 3.5% of the respondents were of the view that the quality of research work produced was excellent. This depicts the quality behind this kind of research work. It also showed the level of commitment to research work at institutional level as being low. The study further indicated that about 21% of the research work produced was good. This still reflects the position of research at UCU to be below average. Further finding indicating that the quality of research was simply fair (68.5%). This was an indication that the position of research was far below average and therefore calls for immediate remedies to revamp the situation.

**Table 6: Capacity building programme/support offered by UCU**

Programmes	Frequency	Percentage
Research scholarships	-	0.0
Workshops		
Seminars	233	73.0
Paper presentation	71	22.0
Sabbatical leave	9	3.0
Others		
	7	2.0
	-	0.0
Total	320	100

Source: *Researcher (2014)*

To establish the position of research in Uganda Christian University Mbale Campus, the study also analysed the extent to which various programmes which are meant to promote research are implemented. Findings established that the University had no research scholarship awards for both its students and lecturers. This definitely puts the position of research at this University at a baseline a phenomenon which is unacceptable of any modern University. However, it was noted that much of the University effort was zeroed on workshops (73%) and seminars (22%). Through interviewers these seminars and workshops were noted to be facilitated by peers having same qualifications (Masters level), training and experiences; and therefore had very insignificant input on the improvement of the position of research at this Institution. The study further established that paper presentation (3%) was a new phenomenon which had just started in the University and therefore had not yet created any significant impact on the position of research. Sabbatical leaves (2%) were also insignificant to the improvement of research at this university.

**Table 7: Other factors which hinder/hamper research activities at UCU**

Factors	Frequency	Percentage
Part time by lecturers	127	40
Ill stocked library	96	30
Internet challenges	32	10
Lack of role model	19	6
Little interaction between lecturers/ students	16	5
Problem identification skills	30	9
Total:	320	100

*Source: Researcher (2014)*

The table above shows the findings of the study with regard to factors envisaged to hinder research in one way or the other at UCU Mbale Campus. The responses above indicated that 40% of the lecturers are part time lecturers or involved in part timing which impacts negatively on research work. The study also established that 30% respondents were of the view that the library was not well stocked to facilitate research work.

Findings also established that 10% of the respondents were of the view that internet challenges also hampered such activities at this Campus in terms of limited computer facilities, and network fluctuations. 6% of the respondents indicated there is other lack of role models in research work which would propel research activities to higher levels. 5% of the respondents expressed the concern that research at UCU Campus is affected by limited interaction opportunities between lecturers and students given that learning is not only in class but also out of class. Lastly, 9% of the respondents were of the view that lack of problem identification skills is a major hindrance since research is a problem focused and solution oriented.

## **Summary of Findings**

The study established that Uganda Christian university-Mbale campus lacked capacity building programs for its staff and as a result most of its academic staff lacks scientific training in methodology of research which renders most of the research findings unrealistic.

The study also established that there was insufficient interaction between the university research department and its lecturers, university community, government department, NGO's, other universities and research institutions. This disables the university from identifying the basic contemporary areas for research.

The university also lacks a university research policy and this results into lack of guidance and motivation by both lecturers and students in the filed of research.

The study further established that the university library lacked copies of old and new government acts, rules, reports and other government publications. This greatly affects the quality and validity of the research findings made by this university as a contribution to national development.

The library was also found wanting in many areas and fields of research as it either had very old text books. It was found to be having management problems amongst its library staff i.e. scholars take a lot of time tracing out books, journals, reports etc.

Finding further discovered that there was no clear staff equipment policy regarding research staff at UCU and yet this key to having a competent research oriented department.

The study further established that lecturers had little time for research since most of them have a teaching load of over sixteen hours, besides handling large classes. It was also established that most lecturers had part time lecturing jobs at the university. This greatly impacts negatively on the status of research at UCU-Mbale campus.

Lastly the study established that promotion of staff at the University was not based on the contribution of research and paper presentations made by its staff, this definitely undermines the significance of research work at this campus by staff thus putting the positions of research at a baseline.



### **Recommendations:**

The aim of the study was to bring together work that can provide valuable insights into the complex circumstances and vexing questions impacting on the position of academic research and researchers with a hope that it might come up with important recommendations in the field of intellectual inquiry at UCU Mbale Campus. To revamp the above research trend, the researchers came up with the following recommendations:

- Before undertaking research projects, researchers should be well equipped with all the methodological aspects. The University should provide short duration intensive courses to meet this requirement.
- The University should develop a mechanism of interacting with various stakeholders who are consumers of research such as NGOs, Government, Innovators, etc, so as to come up with relevant areas of research. The research carried out by the University could also be provided to the practitioners to apply.
- The University should also develop research policy to guide the discipline and its activities.
- University grants should be provided to staff towards carrying out research.
- The University should also promote its staff basing on the number of research projects, write-ups and publications. This will encourage research work and people will feel their work is valued.
- UCU Mbale Campus should also make efforts for regular and speedy supply of all government and NGO publications to reach its library.
- There is need to improve on University Library Management staff in terms of training and number.
- University needs to involve research experts such as professors, Doctors and publishers to help in running University workshops and seminars.
- When recruiting staff, the Human Resource Manager should focus on areas of specialty, interests, previous teaching experience, vis-à-vis research and publication experience.

- The university should develop a staff retention policy which promotes retention of its research expatriates.
- The University should also organize seminars and plan for University academic journal.

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