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Theme

**Rethinking Constitutionalism, Resource Management,
Information Technology, Culture and Educational Change: A
Global Perspective**

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Journal of Education and Social Sciences

Editorial

The editorial board of the Journal of Education and Social Sciences is proud to present to its readers the third issue following the successful publication of the first and second issues produced in May 2010 and June 2011 respectively. The major topics in this publication include politics and ethnicity in contemporary Africa; place of culture in the modern world; morphological changes and language shift in the African context; advocacy for technology in institutions of higher learning; effectiveness of Science Process Skills in secondary schools; local resource management and the nature of African environment in the 21st Century.

The broad topics listed above, suggest the diversity and openness of our journal to include issues that cut across various fields. It is hoped, that this will contribute to our readership as well as an encouragement for the scholars to submit quality articles and chapters which are in line with our vision, mission and research policy.

There are a lot of issues in the field of research that need to be uncovered and be circulated among interested audience. For example, there is a cry for qualitative research in African Agriculture, practices in the science field, health and disease studies, cost sharing and sustainable education projects, the general shift to cross border higher education in the eve of globalization and the ability to approach different learning approaches that produce and reproduce the status quo to liberatory approaches that empowers readers and learners to take up ownership of their learning and master the learning process.

Scholars are encouraged to team up with their peers and mentors to become creators and disseminators of new knowledge. On this basis the skills and knowledge generated will become commonly owned. Consequently this may lead some of the potential authors to select conceptual topics that focus on solutions needed in the challenges facing the modern world.

Ruth Nyambura,
For the Editorial

Keynote Address

*Prof. Stanely Waudu
Vice Chancellor, MKU*

Institutional Branding

Introduction

Branding is a type of product that has a particular name or design . Branding has merits such as, Development of competitive advantages, Image enhancement and Transformation of an institution into a centre of excellence.

Discussion

In order to come up with a brand for an institution, there is need to have a strategic plan for the following purposes:

- Guides institutional operations and growth.
- Ensures that assembly of academic resources and development of programmes are based on planned projects and activities rather than on emerging need.
- Ensures co-oriented growth where resources are matched with programmes.

Branding consists priorities that enhance development. The priorities are also known as strategic plans.

The major Institutional Strategic Priority Development Areas are:

- Teaching and learning
- Research, innovation and extension
- Information and Communication Technology (ICT)
- Physical infrastructure and facilities
- Governance
- Student welfare
- Human resource development
- Marketing and corporate image
- Financial resource management
- Quality management

Teaching and Learning Processes are the Key components of any University Mission. They aim at transforming learners from consumers of information to generators of knowledge and creators of employment.

What are the Ways of achieving the aim of the Effective Teaching and Learning Practices?

- Ensuring relevance and quality of curricula.
- Strengthening quality assurance processes.
- Adoption of innovative modes of teaching and learning.
- Having efficient and effective staff.
- Strengthening research capacity.

Research is a key component of the University mission. It serves as a source of Knowledge, Discoveries, Innovation, Invention, Technologies, Industrialization and Wealth. Knowledge is Information, skills and understanding gained through learning or experience. While Knowledge economy is an economy in which the production of goods and their distribution are knowledge based. Knowledge and technology are the main drivers of wealth creation.

Then what is Research Capacity? This is a function of: Human resource (competencies, skills and attitude) financial resource, Attitude, Human resource, Research infrastructure. A combination of competency, Skill, Attitude which leads to Efficiency.

Conclusion

Branding MKU is a Strategic plan for 2008 – 2018 and needs Competitive advantages, Academic character, Transformation of learners, Critical thinkers and innovative and responsible professionals. Knowledge and technology are the drivers of the global economy.

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Ethnicity and Social Change in Contemporary Africa: An Overview

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Abstract

This paper provides an overview of ethnicity and its implications on social change in post-colonial Africa. The article is descriptive and relied largely on published works. It contends that ethnicity is one of the major challenges that bedevil contemporary African states. Although ethnicity can be both positive and negative, in Africa it has been largely negative thus contributing to various forms of conflicts ranging from state collapse to genocide in several African states. For instance, the 1990s new democratic openings in Africa have been characterized by unprecedented inter-ethnic rivalry and struggle for political power, domination and control of national resources in many African states. The political elite have used the state to serve their own vested and ethnic interests, thereby exacerbating ethnic animosity and rivalry. Drawing from a multidisciplinary approach (history, political science and conflict resolution), the issue of ethnicity is analyzed and situated within the modernization perspective to analyze the nature of the African state. The theory posits that underdeveloped countries must follow the same historical trajectory that the developed countries followed in order to achieve social and economic development. In the African case it was believed that modernization would lead to the emergence of a core elite group who would be the catalyst of change in their countries. Many post-independence African leaders were greatly influenced by the Modernization school and they became more preoccupied with the issue of development of the new states, believing that traditional values and institutions were incompatible with modernity and should be replaced by modern values and institutions. The paper concludes that since ethnicity continues to be a key aspect of Africans' social life a key aspect of managing it is to ensure that all groups within a state have equal access to resources and opportunities.

Key words: Democracy; Ethnicity, governance, ethno-political conflicts, multipartyism, political pluralism, power sharing.

Introduction

This paper provides an overview of ethnicity and its implications on social change in post-colonial Africa. Although ethnicity can be both positive and negative, in Africa ethnicity has been largely negative thus contributing to various forms of conflicts ranging from civil war to genocide in several African states. In some African countries the state administrative structures have totally collapsed as the case of Somalia clearly demonstrates. It is evident that the 1990s new democratic openings in Africa have generated un-precedented inter-ethnic rivalry and struggle for political power, domination, and control of national resources in many African states. It is apparent that the western liberal democracy models seem to have been somewhat unsuccessful as far as facilitating political stability in Africa is concerned. Since almost all African states have heterogeneous ethnic composition ethnicity is a major factor in national politics.

In post colonial Africa the state has become the centre of attraction for all ethnic groups because it controls political and economic resources. The political elite have used the state to serve their own vested and ethnic interests, a fact which tends to create ethnic animosity and rivalry. Ethnicity therefore is one of the major challenges that bedevil contemporary Africa. Managing ethnicity constructively, therefore, still remains an important ongoing political task for African governments. Many earlier scholars dismissed ethnicity as an irritant, dangerous and that it should be repressed. Such paradigms informed and justified nation-building strategies followed by post independence governments. Under such a situation, ethnicity was sacrificed at the altar of nation building and national unity. Current studies see ethnicity as a problem to be managed rather than repressed.

The word “ethnicity” is used in this paper to refer to the 42 cultural and language groups in Kenya. Language and culture are key components of ethnicity. The phrase “ethnopolitical conflict” (Gurr, 1993) is applied in the paper to refer to any form of intense interethnic or intergroup dispute, which has a political connotation. The term “power-sharing” is defined as a form of political system that provides opportunity for almost all significant ethnic groups with representation and decision-making abilities through practices and institutions” (Sisk, 1996: 4). “Multipartyism” and “political pluralism” are used interchangeably in the study to denote a political system that legally allows the existence of more than one political party (Sisk & Reynolds, 1998).

Methodology

This paper is largely descriptive and exploratory in nature. It has used written texts to examine the issue of ethnicity and social change in contemporary Africa. The

main objective of the paper is to illuminate our understanding of the dynamics of ethnicity by addressing the following five key issues: (1) what's ethnicity? (2) What is the role of ethnicity in African politics? (3) What are the dynamics of ethnicity in Africa? (4) How does ethnicity impact on African states social life? (5) What are the challenges of ethnicity to the social stability of African states?

The Post-Colonial African State

African states are largely a colonial creation. The artificially created colonial state boundaries often incorporated into the same political entity diverse ethnic groups that hitherto had very little cultural or political links (Joseph, 1999; Zartman, 1995). Some social scientists have referred to African countries as “quasi-states” (Joseph, 1999: 303), and most of the regimes have been labeled “pseudo democracy,” characterized by weak and fragmented institutions, factitious, and ethnic-based parties (Sandbrook, 2000: 25). Jackson and Rosberg (1982) as well as Thomson (2000) have pointed out that the post-independence African states do not meet Weber’s model state since these states have weak legal-rational institutions, which have collapsed under the onslaught of centralization of presidential power and the emergence of personal rule.

This paper which attempts to analyze the nature of the African state is informed by the Modernization perspective (Rothchild & Olorunsola, 1983). The Modernization approach was spearheaded by a number of Western scholars and colonial apologists in the 1950s. Proponents of the theory assumed that modernization would provide a foundation for African states to create the necessary conditions for growth, social acceptance and political stability (Chazan, et al., 1999; Smith, 2003). Further, these scholars contended that underdeveloped countries must follow the same historical path that the developed countries followed in order to achieve social and economic development. It was believed that modernization would lead to the emergence of a core elite group who would be the catalyst of change in the African states. Thus, politics was expected to create the necessary conditions for growth, social acceptance, and political stability (Chazan, et al., 1999: 16). Failure to achieve these objectives was attributed “either to poor judgment, to mistaken ideologies, to the conflict between competing goals, or to an inability to overcome cultural impediments deeply rooted in African societies” (ibid: 16).

Many post-independence African leaders were greatly influenced by the Modernization school and they became more preoccupied with the issue of development of the new states, believing that traditional values and institutions were incompatible with modernity and should be replaced by modern values and institutions (Ogot & Ochieng, 1995; Smith, 2003). Development was seen as

synonymous with westernization. Accordingly, these leaders sought to promote new national identities in nation-building efforts, believing that ethnic diversity was an impediment to state integration (Carment & James, 1997; du Toit, 1978) hence the institutionalization of the single-party system in Africa. It is apparent that these leaders institutionalized the one-party system, not for the sake of national unity and development, but for selfish and ethnic gains. Nabudere (1999) has observed that the political elite have used the ideology of 'national unity' as a camouflage to serve ethnic interests. In short, in Africa ethnicity is still the basis of most political parties since it provides a platform for the various communal groups to articulate their interests and to base their political appeals (Anyang'-Nyong'o, 1994; Atieno-Odhiambo, 1998; Ndegwa, 1997).

Jackson and Rosberg (1982) have claimed that the post-colonial African states lacked appropriate political institutions that could promote democratic governance since the newly adopted alien western institutions proved problematic. Such a state of affairs led to the emergence of "personal rule" in many African countries (Jackson & Rosberg, 1982; see also Bayart, 1993; Hyden & Bratton, 1997; Thomson, 2000). Under such a personalized rule the leader is synonymous with the state, and therefore rules, regulations, and institutions are often manipulated to serve the whims of the leader. Similarly, Chabal and Daloz (1999:16) have argued that the state in Africa is not properly institutionalized. They further contend that the African state has failed to consolidate on the foundation of the colonial legacy but rather has disintegrated because of internal struggles. In addition, Chabal and Daloz argue that the weakness and ineffectiveness of the state is beneficial to the elites who are able to use it to serve their vested interests. On the other hand, Reno (1998) has developed the concept of "shadow state" in reference to African countries. He posits that African leaders generally tend to use state power and institutions to promote their own interests or those of their ethnic groups. This is achieved through intimidation, violence and other forms of terror against real and perceived enemies.

Lonsdale (1994) contends that under colonialism ethnic competition became more pronounced as people competed for the same scarce resources. Nnoli (1989) also attributes contemporary ethnicity to the colonial urban settings and the post-colonial urban society. The urban setting made it possible for individuals from different ethnic backgrounds to come together, which in turn created competition and rivalry. Similarly, Darby (1998) has argued that as a culture of politics or as a political resource, ethnicity is a phenomenon of the post-colonial African state. He points out that ethnicity often involves the creation and then politicization of past and newly invented primordial sentiments. The political elites or 'ethnic missionaries' play an important role in raising ethnic feelings in the competition

for national resources of the modern state. It is worth noting that in Africa the state is the determinant in the production and distribution of material and social resources (Bayart, 1993; Nnoli, 1989). Therefore, there is often strong competition among ethnic groups for political power since access to the state apparatus is the key to the acquisition of material and political resources.

Ethnicity and African Politics

Ethnicity or 'tribalism' still pervades nearly all aspects of African peoples' lives. Despite its denunciation as retrogressive and archaic in a modern world, ethnicity persists in Africa. Interestingly, as they ritually denounce 'tribalism', African political elites ensure the perpetuation of the ethnic networks of patronage that are the foundation of their power. During the colonial period the colonial government had adopted a policy of 'divide and rule,' which largely institutionalized ethnic consciousness among the African communities (Ogot & Ochieng, 1995). For example, in Kenya the colonial state made very little attempt to create a 'nation' from the myriad ethnic communities; instead each ethnic group was encouraged to become inward looking. The colonial state discouraged and prohibited the formation of country-wide political parties, but rather it permitted the mushrooming of rival district or ethnic-based political associations (Ogot & Ochieng, 1995). Such measures made it difficult for Kenyan people to have a common front in the fight for independence. It was only in 1960 that the government allowed Africans, for the first time, to form country-wide political parties. However, the seeds of ethnic distrust and rivalry had already taken root, as was clearly manifested in these new political parties.

It is worth noting that in the 1950s and 1960s, African nationalists waged a protracted struggle for their countries' self-rule. This struggle was a great success, and by the mid 1960s almost all African countries, except the former Portuguese colonies, Rhodesia, Namibia and South Africa, were under African majority rule (Chabal, 1986). During the struggle for independence ethnicity was downplayed as the people were largely united against a common enemy. In fact, after independence, Africans, especially the political leadership were very conscious of their new 'nationhood' and hard-won freedom, which they wanted to defend by all means (Oyugi, Gitonga, Chege & Atieno-Odhiambo, 1987). Understandably, these post-independence African nationalists regarded ethnicity as one of the main threats to the new African 'nation-states' believing that 'tribal' and ethnic claims were "incompatible with national unity and hence the adoption of the one party system on pragmatic grounds" (Mafeje, 2002:16). Mafeje further observes that there was fear that national unity could not be achieved in the "face of cultural and linguistic diversity" (ibid: 17).

Apparently, most pioneer post-colonial African leaders dismissed ethnicity as a relic of the past and therefore they adopted policies to suppress ethnicity in the interest of nation building (Rothchild & Olonsurola, 1983). As Samora Machel of Mozambique stated, “for the state to live, ethnicity must die.” Yet, the stubborn persistence of indigenous cultures, their ability to challenge modernity is still mind boggling. The salience of ethnicity in African social life is a clear pointer that modernity is yet to become entrenched in Africa. Ethnicity was seen as a false consciousness, a relic of the past, a social construct exploited by the colonialist to divide and rule the Africans. According to Rothchild and Olorunsola, pioneer African leaders supported centralization of state institutions and power probably to ward off ethnic claims (ibid: 6). These leaders hoped and assumed that by denying it legitimacy, ethnicity would cease to exist. However, the upsurge of ethnic conflicts in Africa over the last twenty years clearly shows that ethnicity is still a potent force. As Chabal and Daloz (1999:58) posit, “ethnicity, like nationality, can become politically salient at times, but it does not mean that it is, *per se* and all times, the only significant aspect of African identity.”

Some scholars contend that African ethnicity and its relationship to politics is largely a new response to capitalist modernity of yore. For instance, colonial institutions, power relations and identities in post-colonial states have shaped the nature of state-society relations in Africa. Thus the modern ethnicities of Africa originate in the colonial period although they are both derived from the character of pre-colonial societies and profoundly influenced in form, scope and content by the social, economic, cultural and political forces of colonialism. Ethnicity has continued to be the bane of African politics (Bayart, 1993). Historically, since independence the struggle for political and economic power in African states have largely assumed ethnic characteristics as examples of Nigeria, Congo DRC, Rwanda, Uganda and Kenya, among others clearly demonstrate. For example, each ethnic group regards access to state power as an excellent opportunity to ‘enjoy’ state economic and political resources. This is basically because the state controls almost all aspects of economic and political dispensations of the state. In post-independence Africa, especially under the one-party political system, it was quite common for any ethnic group in control of state power to use all means possible to retain that power and to keep away other ethnic communities (Bayart, 1993: Nnoli, 1989; Throup & Hornsby, 1998).

The political elite have played a significant role in raising ethnic feelings. For instance, Kenyans always use the euphemism “it is our turn to eat” (Wamwere, 2008; Wrong, 2009). Thus, access to state power for any ethnic group is regarded as a ‘golden opportunity’ (Osamba, 2001). In other words, ethnic groups who are in control of political leadership at a given time feel that they should be the

key benefactors in terms of economic development of their region, government appointments, and so forth. Ethnic groups, therefore, tend to mobilize together to ensure or safeguard that access (Nnoli, 1989). This mobilization in turn inevitably exacerbates ethnicity and ethnic consciousness. For example, ethnic entrepreneurs often convey ethnocentric message for ethnic mobilization. Such leaders may achieve this objective by activating their power and desire or by whetting the political and economic appetite of their people (Atieno-Odhiambo, 1998).

Since the 1990s ethnopolitical conflicts have destroyed a number of multiethnic African states, hence the need to understand the dynamics of ethnicity. Such conflicts destroy interethnic mutual trust, socio-cultural relations and political interactions, which are essential for the attainment of full democratization, effective governance and national cohesiveness. Although the economic liberalization measures and the adoption of multiparty politics in Africa in the 1990s elicited a wide range of societal changes, the new democratic openings on the political front generated a strong struggle for political power and control of national resources. Political leaders used ethnicity as a political tool to serve selfish and ethnic interests. Ethnic-based political mobilization in multi-ethnic African states still constitutes a major threat to political stability of the African states. For example, the previous “winner-take-all” electoral model in Kenya made political competition between political parties and ethnic groups in Kenya almost a matter of life and death. Such a political system has tended to create political animosity and mistrust among ethnic groups, political actors, and parties, which are excluded from power.

Lijphart (1977) has observed that because of African countries’ ethnic heterogeneity liberal democracy could be a threat to national stability. The drive toward western model of democracy in African states seems to have engendered group polarization because political parties have crystallized mostly on the basis of ethnic interests rather than in terms of common political principles. In many African states, political and economic goals are largely viewed not in terms of individual welfare and happiness, but in terms of collective ethnic security and welfare (Ogot & Ochieng, 1995). During general elections, each ethnic group tries to rally itself with a presidential candidate or political party that is likely to promote its interests and any member of the group who prefers to support a different candidate is regarded as a traitor by the group (Wambui-Otieno, 1998). For example, since independence Kenyan leaders have tended to use state power and institutions to promote their own personal interests or those of their ethnic groups by concentrating more economic and political resources in their political enclaves. Overall, groups assess their well-being through comparisons with other significant groups (van Dijk, 1987). This was the case in Kenya where in the

early 1990s the major ethnic groups such as the Kikuyu and the Luo realized that the numerically weak Kalenjin group was controlling a disproportionate larger share of economic and political dispensations in the country (*Daily Nation*, June 24, 1993; Nowrojee & Manby, 1993; Throup & Hornsby, 1998), a situation that generated feelings of frustration and a desire to ameliorate it.

The 1990s in Kenya's history was a period characterized by violent ethnopolitical violence in the country. The violence coincided with the holding of general elections in the country, for example, the 1992 and 1997 elections (Southall, 1999). The fear of possible political and economic marginalization, for example, made the *KAMATUSA* communities feel justified in using violence as a political tool, against real and perceived enemies (Nowrojee & Manby, 1993). Such ethnic tensions culminated to the 2007 post-election violence in the country. Ethnic and cultural subjectivity are still important factors in African politics. Following the re-introduction of multiparty politics, ethnic communities viewed each other with suspicion. As such, the democratization process that was hoped would avail opportunities to the citizens to self-realization and self assertion either through political parties or other forms of associations, ironically fuelled volatile ethnocentric feelings, jealousies and confrontational politics. African political elites have used 'politics' to fan the embers of ethnic competition and rivalry. Economic and political marginalization of some ethnic communities in some of these states have produced a feeling of alienation that finds expression in ethnic rivalry.

To some extent, multi-party politics has contributed to exacerbating ethnic politics in African states as the case of Kenya and Cote d'Ivoire clearly demonstrate. Ethnic consciousness has become more explicit since the advent of political pluralism. It is worth noting that class-consciousness has not yet fully emerged in most of the African societies. Consequently, people tend to resort to their ethnic "cleavages" for socio-political succor. Ethnic politics thus still remains a big challenge to the process of 'democratization' and 'good governance' in Africa. Political parties in Africa are based largely along ethnic lines or regional alignment because of social, ethnic and political considerations. Salih (2003: 6) contends that "ethnic political parties have become vehicles for the expression of the political elite and the interests of the political elite are often misconstrued as the interests of their ethnic groups." In sum, ethnic politics in Africa is a reflection of historical and contemporary interethnic struggles for political and economic power, domination and control. Rothchild (1983: 87), for instance, contends that to adequately address ethnic competition, "regional and ethnic institutions could be built into constitutional structures and the maximum degree of autonomy granted to local decision-making bodies."

The Dynamics of Ethnicity in Africa

Over the years, a number of studies have been conducted on various aspects of governance, ethnicity and ethno-political conflicts as reviewed below.

Theorists have suggested two major approaches to explain the persistence of ethnicity and ethnic conflicts in the world (Gurr & Harff, 1994). The first perspective is the primordial approach. The primordial explanation regards ethnic identity as a powerful psychological factor that influences perception and actions in the political struggle (Ferguson, 2003; Kaufman, 2001). In other words, proponents of primordialism perceive ethnicity as “an immutable set of emotionally charged biological, cultural and religious givens that are the primary sources of identity” (Scarritt, 1993: 275). They further posit that peoples’ ethnic identities are deeply entrenched in their social interactions, history and way of life (Gurr & Harff, 1994; Kaufman, 2001). As such, ethnic diversity within the same polity is bound to lead to conflicts. In such a situation as Gurr and Harff (1994) point out, the threat of change may make groups try to stick together and mobilize to defend their culture and way of life from potential threats.

The second approach is the instrumentalist perspective. This approach regards ethnicity as socially constructed and therefore a product of dialectical interaction with other groups (Ferguson, 2003). Ethnicity as socially constructed is a product not of a fixed primordial identity but the outcome of the continuous and generally conflictual interaction of political, economic and cultural forces both from within and without in a given socio-political entity. In addition, it explains ethnicity in terms of an identity that is used to obtain political and material advantages in competitive or conflictual situations. Proponents of the instrumentalist perspective hold that the goals of any group are usually related to the material and political mileage they envisage to achieve from ethnic mobilization (Monshipouri, 1995). Ethnicity therefore is a socio-political construct.

Nabudere (1999: 90) has argued that ethnicity is “class manipulation and mobilization of ethnic sentiments for purely narrow and self-serving interests of small minority elites who continuously struggle for positions in the states.” To seek ‘legitimacy’ for their intra-class struggles, the political elite ‘mobilise’ their own ethnic or ‘tribal’ groups “to back up their claims for power or a share of power from the group occupying it.” (ibid: 90). For example, due to the fact that modernization tends to create major economic disparities between groups the weaker group may view the competition with the dominant group as a form of internal colonization (Hechter, 1976). For instance, political elites often exploit ethnic differences to serve their own political interests by mobilizing their ethnic groups. As Kaufman (2001:12) has observed, “ethnic prejudice and hostility make people more likely to see the other group as threatening. While feelings

of threat and insecurity contribute to the success of efforts by elites to stir up ethnic extremism.” On the other hand, Horowitz (2000) posits that the nature of interethnic relations differs from one country to another, and is dependent, *inter alia*, on the relative size of ethnic groups and the history of peaceful or contested relations. Further, Horowitz has demonstrated that there is a difference between the so-called “ranked societies” where one ethnic or racial group is superordinate and in “unranked” states where no single group is dominant and therefore horizontal and not hierarchical groups represent the political divide. Thus, under the unranked societies, intergroup relations are marked by the problem of inclusion or exclusion from political power (ingroup vs. outgroup).

Bates (1983: 161) has argued that in Africa “ethnic groups persist largely because of their capacity to extract goods and services from the modern sector and thereby satisfy the demands of their members. Insofar as they provide these benefits to their members, they are able to gain their support and achieve their loyalty.” As such, “ethnic groups are, in short, a form of minimum winning coalition, large enough to secure benefits in the competition for spoils but also small enough to maximize the per capita value of these benefits” (ibid: 165). Likewise, Bayart (1993:55) has asserted that in contemporary states, “ethnicity exists mainly as an agent of accumulation, both of wealth and political power.” On the other hand, Chabal and Daloz (1999: 58) contend that ethnicity in Africa was not a colonial creation although “it was the colonial state which formalized the ethnic map and conspired to define the relationship between ethnicity and politics-both of which influenced directly the complexion of post-colonial politics.” Chabal and Daloz thus argue that the current state of post-independence Africa can be seen as “the working through of the practical consequences of the colonial ‘politicization’ of invented ethnicities” (ibid: 58).

Volkan (1998) points out that the intensity of group identity may hinge on the feeling of a group that it is being treated unequally. Such a feeling often leads to the “us-them” dichotomy. Further, Volkan argues that in time of conflict people tend to develop a strong collective consciousness and to exhibit strong ethnic consciousness. Such consciousness may become embedded in a people’s history and tradition. For example, perceived or real discrimination may strengthen the resolve of a group to fight back. Bienen (1983), Rothchild (1983) and Stone (1983: 113) have rightly observed that in Kenya, Senegal, and Ivory Coast, there is strong evidence of some sort of ethnic cleavage and tension since “these are not societies which are homogeneous or cohesive by language, culture or ethnic identification.” Nnoli (1989) demonstrates how the “in-group and out-group” dichotomy in terms of parochial cultural sentiments provide an occasional rallying point for African communities, which leaders often exploit for their own

selfish political motives. He argues that since the level of class-consciousness in Africa is low, ethnicity becomes the group identity for mobilization. On the other hand, Osaghae (2001) posits that diversity is not synonymous to ethnicity although he notes that the re-introduction of multipartyism in Africa without adequate preparation, for example, seems to have opened a Pandora's Box of ethnic conflicts and differences.

Ethnicity is the cornerstone of African politics. Since the re-introduction of multiparty politics in Africa, ethnic suspicions and hostility have become more pronounced groups embark on an intense struggle for political power, which have increasingly taken on sharp ethnic dimensions (Ogot & Ochieng, 1995). Although proponents of democratic theories have argued that a multiparty political system can lead to political stability, such theories cannot adequately explain the rupture of violent ethnic conflicts and hostile interethnic relations in Africa (Cheema, 2005; Monshipouri, 1995; Reilly, 2001). For instance, while multiparty democratic systems are supposed to manage ethnic animosities and "tribalism," the introduction of such a system in Africa in general, was followed by ethnopolitical conflicts.

Many scholars contend that to a large extent modern African ethnicity is a social construction of the colonial period through the reactions of pre-colonial societies to the social, economic, cultural and political forces of colonialism. Ethnicity is the product of a continuing historical process, grounded in the past and perpetually in creation. The colonial legacy of bureaucratic authoritarianism, pervasive patron-client relations, and a complex ethnic dialectic of assimilation, fragmentation and competition has persisted in post-colonial societies and has given impetus to the patron-client system. Chabal and Daloz (1999) point out that since almost all African states are multiethnic "the only appropriate political order is one which makes space for a political framework grounded in this multi-ethnic reality. In other words, "politics must be based on, rather than avoid, the ethnic dimension of the present African nation-state" (ibid: 62).

A number of scholars have argued that internally driven power sharing may be more successful than an externally imposed one as the case of South Africa clearly shows (Diamond & Plattner, 1999). Some of these scholars have contended that national or unity government is the most appropriate for transitioning democracies (Zartman, 1995). Ethiopia, for example, has implemented a political system of ethnic federalism, which has somewhat made it possible for representatives of ethnic groups to partake more effectively in politics (Salih, 2003:353). Proponents of power sharing assert that a power-sharing arrangement may be the best way to guarantee democracy in multiethnic states since multiparty may result in

excluding other groups or marginalizing them just as the case in the one-party system (Harris & Reilly, 1998; Sisk & Reynolds, 1998). This assumption is based on the fact that power sharing may ensure an inclusive government in which all major ethnic groups are included in government and minorities especially are assured influence in policy making on sensitive issues such as language use and education.

Conclusions and Implications

Ethnicity continues to be a key aspect of Africans' social life. The driving force of ethnicity in Africa is competition over the control of political and economic resources of the state. As such, a key aspect of managing ethnic conflict is to ensure that all groups within a state have equal access to resources and opportunities. It is worth noting that since ethnicity is constructed or invented it can be deconstructed (Anderson, 1991).

Ethnic competition in Africa can be addressed through the expansion of social and political space such as the creation of appropriate socio-political institutions that would promote equal and just political and economic frameworks, allowing free association, democratic, inclusive, and participatory political processes as well as the opportunity for different groups to focus unhindered on their own local development. For example, political tolerance is a key principle in intergroup coexistence. It is important to note that recognition and accommodation of ethnic identities does not *ipso facto* destroy national unity, but rather it can help promote unity in diversity.

African states have faced many new challenges in the light of the re-introduction of multiparty politics in the 1990s (Barkan & Ngethe, 1999). However, the paper contends that multiparty political system is still appropriate for Africa. Nevertheless, because of the identified weaknesses and fears about a multi-party political system under a 'winner-take-all' model in a multi-ethnic state, a power-sharing arrangement may offer better opportunities for peace and democratic growth in such states. As highlighted in the paper, African political parties do not have any ideological inclinations, but rather they are mostly based on ethnic considerations. This fact can be attributed to the low level of political consciousness of the majority of the people in terms of their understanding of the principles of western democracy. Thus, restructuring the political institutions and relationships could be an effective means to manage ethnic-based conflicts in African states.

In Africa the ethnic-based parties can be the building blocks of political unity in the state. In most instances, ethnic groups tend to be represented by a single set

of leaders or have only one party representing their interests. The inclusion of “ethnic kings” in a power-sharing arrangement will translate into ethnic support from the concerned ethnic groups. Such political inclusion will provide the ethnic groups with, if nothing else, psychological satisfaction that they are part and parcel of the government. Rothchild (1983) has rightly observed that since ethnic competition for the control of state resources is a major cause of inter-ethnic conflicts in Africa, to address the feeling of “relative deprivation,” there is a need for power decentralization to distribute power between groups so that local people participate in some level of decision-making.

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Evolution of Handbags Culture

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Abstract

The variety of handbag and purse designs keeps getting bigger, more unique and interesting. The recent trend is away from backpacks style to oversized handbags. Women want a more fashionable handbag that can also be used as a briefcase, laptop case and even baby bag. Handbags go back to the beginning of time and have become a practicality and a fashion statement for women of all ages. Thus this paper analyses the history of the handbags from ancient trends to the present. The study was based on secondary data and observations. The findings revealed that bags are getting bigger and bigger to meet all of the needs, and carry all of the stuff. This means of course, that carrying a bag is getting more problematic as the bags get heavier.

Key Words: bags, women, symbol

Introduction

Handbags play an important role in a woman's life. It is hard for a woman to go without the company of a handbag. Many women may never think of the reason why they carry handbags (Critchell, 2000). However, handbags reveal a person's personality, People can tell your social status, taste and personality. Whereas the inside of one's bag is supposed to be personal and intimate, the outside is practically a billboard advertising one's place in the world. An inventory of a woman's handbag can reveal her age, a glimpse of her soul and completes her beauty. Not just a fashion statement any more, handbags must be large, sturdy and functional to support the many needs of today's lifestyles. Another revolutionary change is that many women carry more than one bag. This has become a vital necessity (Roseann, 1999).

Judging from archaeological excavations, our ancient ancestors used the bags

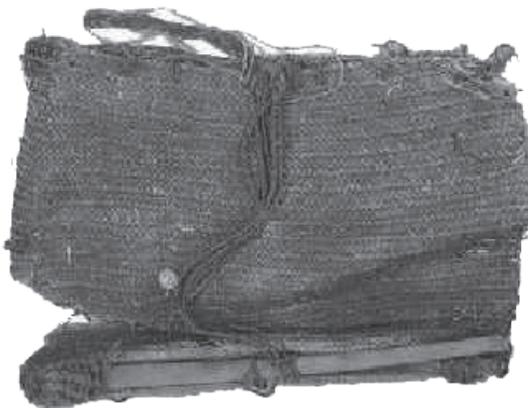
sewed out of leather or fur, and they served to carry weapons, flint, tools, food and eventually money. Double handled handbags designed to be suspended from sticks, as well as bags made from linen and papyrus were found in Egyptian burial chambers of the Old Kingdom (2686-2160 BC) (Roseann, 1999). The ancient Greeks used leather bags to carry byrsa as coin pouches and this is the English word “purse.” The rise of coin currency gave birth to the drawstring purse which was either worn close to the body mostly suspended from the belt or secreted within folds of clothing. Judas sealed the fate of Jesus with a purse full of silver coins (Barbara, 2000).

In New Guinea, centuries ago, both men and women carried large knit bags which looked like nets decorated with feathers, seashells and other mementos. The more shells a person had was a sign that you knew people on the seashore, and you had a lot of social relationships, and all your friends were willing to give shells to you (Critchell, 2000).

Handbags in early Civilizations

Handbags have evolved through the years from the pre-colonial technique of basketry. Basketry is one of the most ancient crafts. The raw materials widely available were grasses, sedges, reeds, stalks such as flax, twigs, animal hide, bamboo, leaves, most frequently of the date and palms, and occasionally leather. There were various techniques used like weaving, coiling, twining, plaiting and tying together strands of materials. Such techniques were predominant in Ethiopia, Burundi and Rwanda (Margaret, 2000).

Early civilizations in the world used the basket for various purposes. For example, the few possessions an ancient Egyptian family had, were therefore mostly kept in baskets. The baskets were decorated with beads and a bronze ring. The basket was oval or rectangular shaped with woven patterns on the sides and a ridge lid (Wilcox, 1999).



Ancient Egyptian Basket

Baskets were used to as a decorative item. This was done through additive materials like leather, beads, cowries shells and metal wire. Marriage customs of the Agikuyu for example dictated a bride's mother to give her daughter a large basket to symbolize the new role of a caretaker. A basket played a crucial role in divination. Among the most West African communities a basket full of first harvest was dedicated to gods to appease them. Apparently, the basket still illustrated the 'tribe' to which the owner may have belonged. For many it was an item behind which they could hide, the basket provided a mask to hide behind or a symbol of success or cultural belonging (Wilcox, 1999).

Handbags were created as essential component of human transit since the 13th Century. For example in Egyptian hieroglyphics show the ancestors carrying bags attached to the waist called "pockets". They were used to carry flint or money. The bags then were made from provisions of skin and hides. These bags were used by males than females. The purses were fastened to belt like girdles and embroiled with jewels, which just as today's designers' fashions added a sense of prestige to the bags. Similarly, during the pre-colonial caravan trade in Angola, porters carried provisions and goods in woven bags (Donald, R. 2001).

By the 1400's both men and women were using handbags, which gradually became a status symbol. People would adorn their handbags with jewelry or embroidery to reflect their wealth, and use expensive materials such as silk. Then it became fashionable for women to wear their handbags under their skirts, and handbags literally disappeared for several decades with little development in design. Embroidery and jeweled accents were abandoned for practical, everyday materials like leather. Men also abandoned using handbags because of development of built-in pockets in pants (Roseann, 1999).

In the 16th and 17th Centuries, handbags took on more of an air of practicality with the use of everyday materials such as leather with a drawstring fastener on top. During this period, cloth bags were used that were made larger and used by travelers and carried diagonally across the body. We also have emergency of purses with complex shapes. Young girls especially in the Caribbean were taught embroidery as a very necessary skill to make them marriagable and we see the rise of beautiful and unique stitched artwork in handbags. Pockets, called bagges were also introduced into clothes around the same time and allowed people to carry small personal belongings (Critchell, S. 2000).

Neo-classical clothing became popular in the 18th century with a reduction in the amount of underclothing worn by women. Wearing a purse would ruin the look of this clothing so fashionable ladies started carrying their handbags which were called reticules. Women had a different bag for every occasion and every fashion

magazine had arguments on the proper carrying of these purses. In reticules one would find rouge, face powder, a fan, a scent bottle, visiting cards, a card case, and smelling salts (Cox, 2007).

In the 1900's, more varieties of handbags emerged in terms of designs, materials, accents and colours. In fact, some of the most popular handbags from that period reflected Egyptian art, a tribute to the discovery of the tomb of Tutankhamun. When it became fashionable for women to carry dolls wearing miniature versions of their outfit. Designers of handbags would make two sizes of their designs capturing even the smallest detail in the dolls' tiny handbags. During the Second World War there was a shortage of metal and leather, manufacturers of handbags began using plastic and wood. It was the beginning of many decades of exploring non-conventional shapes and material (Wilcox, 1999).

The 1920's saw a revolution in fashion with varying hemlines and lighter clothing. Bags no longer needed to match the outfit perfectly and the rage was for the stylish lady to carry a doll dressed exactly like herself, complete with matching bag for her miniature companion(Ann, 2002).

The 1940's saw new austerity in clothing, including handbags with the war effort in mind. Metal frames, zips, leather, and mirrors were in short supply so manufactures used plastic and wood. The 50's saw certain designers gaining reputation for creating bold, beautiful and elegant handbags. This signaled the emergence of important designer houses including Chanel, Louis Vuitton, and Hermes. Up to this day, handbags carrying their labels command a higher price. The last half of the century saw a leap in technology and the introduction of new materials and textiles for handbags such as waterproof canvas, synthetics and faux reptile skin (Cox, 2007).

The 60's saw the breakdown of old notions of the classical and the rise of youth culture. Handbag fashion went through a short slump in the early 1960's when the hip new youth culture rejected handbags as too formal for the new swinging style. Ever versatile, designers soon came up with funky new designs, using modern materials and bright colours and the handbag's new casual interpretation evolved with the times, regaining its special place close to the heart of every woman, young and old (Wilcox, C. 1999).

As time passed from the 20th Century and the use of staff, both personal and professional declined, the need for more personal (and lightweight) luggage arose. This, combined with the advent of air travel and the associated weight restrictions begat a universal reduction in the weight, size and structure of luggage. Louis

Vuitton a British Prime Minister had a bag designed in his name The material included vulcanised fibre, raffia, and reptile skin. The early 80s saw a vogue for clutch handbags in many colours with matching shoes. But the bags with style were the quilted Chanel bags or Louis Vuitton luggage. Millions bought copies of the quilted Chanel shoulder bag with its golden chain. Alternative street wear day bags were the bum bag and the Prada nylon bag. None would have been complete though without a Filofax filling it (Cox, 2007).

Role of Handbags in Women's Lives

There are fundamental reasons why handbags have remained so important in women's lives. Change in the world of style, technology and culture have greatly influenced what you might find residing in a handbag today. Today, as E-mail replaces letters it becomes ever apparent how much society and the world around us has changed. As hair nets and embroidered handkerchiefs disappeared from the handbag, credit cards and electronic devices have taken its place (Roseann, 1999).

A handbag plays a number of roles in a woman's life. In the earliest stages of passage a young girl carries a small purse with a shoulder strap. It is for style than functionally. Inside you will find a brush and some sweets. By the time she is an adolescent, the purse changes in size to the fancy type. Inside you will find the sunglasses, lipstick and a tiny address book with telephone numbers of all her friends and a change purse. When she is in college, the purse has a wallet inside that holds not only money but photographs of her friends and relatives. No credit card or checkbook yet. More cosmetics are added to the purse. When she is on her own, the fancy sort of purse slowly begins to change and enlarges in size. Now there is a checkbook, credit cards, laptop, notebooks, car keys, medicine, tissues and pens (Critchell, S. 2000).

Along with motherhood comes further transmutation of a woman's bag. Inside can be found a diaper, more tissue, rash ointment, water bottle, books, wallet and laptop, by now the bag is heavier and similar to a suitcase. When her children grow to teenage the bag shrinks slightly. The keys and wallets are there and the makeups. Finally, the mature woman carries the smallest bag of all. Inside there is a small note book, few tissues and a key. The checkbook stays at home. When she travels she never carry an extra bag at all. A woman's bag thus is a measure of her personal growth. In each stage of her life she puts inside all the things she thinks are necessary to carry (Wilcox, 1999).

Handbags can also reveal the owners' personality and personal style in some way. People tell your social status, taste and personality from the handbags

you are carrying. Handbags which are smaller and fit tightly underneath the shoulder indicate class and sophistication. A woman working in an upscale office or someone of high stature would choose this form of handbag. Big, bulky and oversized bags are casual and are often associated with younger individuals. These are used for individuals who carry a number of things like binders and books and require a lot of space. Down-to-earth, lower-maintenance women would carry this type of handbag. Designer handbags often expensive and therefore are usually associated with high-maintenance females. Women who carry a cigar box purse like to be unique and stand out from the crowd. These women have minds of their own and cannot be told what to do. They are comfortable in their own skin and tend to be very independent (Cox, 2007).

Women who choose leather purses with lots of buckles and zippers are leashing out their wild sides. These women tend to act before they think and are always ready for a good time. The extra buckles and zippers tend to signify a “bad girl” image. Bright coloured handbags like pink, purple, bright blue, orange, yellow and green indicate that the woman is fun, friendly and approachable. Women who are out-going and sociable will tend to choose these colours. This is the type of woman who will strike up a conversation with a complete stranger. Women who choose black or brown handbags tend to be more reserved and are often mistaken as being snobby or restricted. These types of handbags are often associated with down-to-earth women, who are shy at first, but open up after a while. They tend to exude a shy confidence, which is sometimes mistaken as someone who thinks she’s better than others (Steele, 2000).

Types of Handbags

Handbags come in different types and shapes, styles, fabric and colour. Shoulder bags are large to hold cell phone, books, note pads, cosmetics and much more. They are designed to be worn over the shoulder. Sometimes they have compartments and different pockets inside and outside.



Shoulder Bag

Wedding bags are a long, rectangular shape, small easy to carry and often made of satin material along with crystal. Wedding purses were a traditional gift from groom to bride through the 15th century, in the Greek Culture. The bags typically were elaborately embroidered with an illustration of a love story (Foster, 1982).



Wedding bag

The Bucket bag as its name implies, is shaped like a bucket with four rivets for two short straps so that the purse sits just under the shoulder. This is a roomy, slouchy style. They provide a lot of room and have pockets (Cox, 2007).



Barrel or duffel bags are elongated, stretched out style with lots of horizontal room. The style usually has long handles to hang over the shoulder. The hobo bag is one of the most popular styles out there today. It is defined by its oval shape and small handles which are just big enough to carry by shoulder. A top zippered style, these are popular for their ease of use for any occasion for they are designed to carry everything you need for the day, plus what you might buy along the way. This bag can actually be used as an overnight or weekend bag as well (Ann, 2002).



Barrel/duffel bag

A clutch purse is a small purse designed to be carried or “clutched” in the hand. Some have a detachable chain or leather strap so they can also be worn hanging from the shoulder. It is also known as evening bag (Kaminsky, 2010)



Clutch Purse

A Hobo bag is a style of [handbag](#) or purse that is typically large and characterized by a [crescent](#) shape, a slouchy posture and a long strap designed to wear over the shoulder. Hobo bags are made out of soft, flexible materials and tend to slump, or slouch, when set down. There are many different sizes and shapes of this popular woman’s [fashion accessory](#). This style of purse is called a hobo bag because it

resembles the shape of the [bundle](#) on a stick that [hobos](#) are portrayed as carrying over their shoulder in drawings and cartoons (Donald, 2001).



Laptop purse is a large and contains a padded interior compartment or sleeve for protecting a laptop computer. The Envelope bag as the name implies, is shaped like an envelope and is a popular, basic purse that is smaller, neater and feminine, often used for more formal occasions though these are available in casual designs also (Wilcox, 1999).



Envelope bag

Messenger Bags are more like backpacks, and in fact many students now use these instead of the traditional backpack for books and school supplies. This design grew from the actual bags that messengers on bicycles in the cities of Europe and America used. This design is also popular with men as an alternative to a traditional briefcase (Ann, 2002).



Messenger bag

Cosmetic bags are a small and convenient and one that you can carry around makeup and beauty products. They're often small enough to be carried inside of another larger bag, and are great to take when on vacation (Cox, 2007).



Cosmetic bag

Currently we have different companies designing handbags. Examples include Marc Jacobs, Chloe and Miu Miu companies.



Conclusion

Today handbags are not just a fashion statement and they are not just for practical purpose, the need to be both. Sometimes, women carry more than one bag at the same time, especially those with a long day ahead and a need to be prepared for the office, class, the gym and a dinner party all by the time they leave the house in the morning.

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Beads and Beadwork in Africa

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Abstract

Since ancient times, Beads have been a common object of material culture for most African societies; but each culture has used them with their own cultural meanings and functions. Nonetheless, Beads have played an important role in the personal and communal lives of Africans. For instance, they have been used in the courts of ancient kingdoms. They have been valued as currency, identification of status and as an artistic medium. This paper focuses on how beads are produced, their uses and symbolism in the African culture. The method applied in the study was largely qualitative research. This was done through library searches, internet sources and observation. Based on the findings, it is evident that beads are used in all aspects of African lives and actually vibrate the culture. This study will be of help to historians, artists, ethnographers, anthropologists and the general public as a body of knowledge and reference material on the uses and symbolism of beads among Africans.

Key Words: Beads, Symbolism, Culture, Africa

Introduction

Beads are small, perforated, and often rounded objects found throughout the world. The word ‘bead’ is derived from the Anglo-Saxon word *beade* or *bede* meaning “prayer,” and was originally applied to prayers beads. Prayer beads are aids to prayers. They enable a worshipper to count the prayers he or she is praying. The use of beads to count prayers started with the Hindus of India in the 6th Century BCE. As religious artifacts, they are also used in the Christian and Islamic faiths

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(Encarta, 2009). 2.5 million years ago, the *genus homo* were distinguished by their ability to fashion stone tools. These beings were nomadic pastoralists and hunter gatherers. They literally carried everything they owned with them. This included tools and large numbers of decorative and beautiful ornaments. Archeologists have found evidence that as early as 20,000 years later people did not just exist, they were living well. This was referred as “Upper Paleolithic Revolution.” By this time, man had stopped concentrating on obtaining food and turned to production of ornaments. As Fernandes, 2001:1 writes:

One reason is that they now had enough time on their hands....could obtain enough food for several days within five or six hours. This gave them time to think and dream and a desire to give those dreams form in tangible objects....Needles and pins were needed for sewing, blades were used for carving, cutting and shaping. Those with the talent to do so could now create objects like strings and hang things whose sole purpose was aesthetic beauty....

Evidence proves that the oldest beads discovered in Africa were drilled ostrich egg shells from Southern Africa, carved bones, seeds. These have been dated to the Middle Stone Age 280,000 to 45,000 years ago (Carey, 1986). In addition to ancient beads in Southern Africa, prehistoric paintings of humans wearing elaborate beadwork adornments made from natural materials like shells, plant branches, bones and stones have been discovered on cave walls in Egypt. These materials were strung with the thread of plants like flax and the hairs of a cow and worn around the neck (Imran, 2005). These ancient beads were not only a means of adorning the human form but also an expression of social identity or religious practices. For example there are beads carved into the form of a woman’s breast as a symbol of motherhood (Francis, 1993).

Africans later learnt to make beads using other materials. For example, stone beads have been found in several places in Africa. Some, dated to the first millennium B.C., have been found near Nok, Nigeria; others, dated from the fifth to fifteenth centuries A.D., have been discovered at Djenne’, Mali. There is conclusive evidence that among the Yoruba, a bead making industry flourished in Ilorin, Nigeria, beginning in the 1830s. The bead-makers acquired agate, carnelian, and red jasper stones through the Trans-Saharan trade and shaped them into beads (Francis, 1993). Jackson (2008) States that, clay was also used to make beads. Bead makers of the Baule in Cote d’ Ivoire modeled and fired clay to create exquisite terra cotta beads. The artists impressed the entire surfaces of the beads with regular, parallel grooves. Metal was locally obtained and used to produce beads. Tin beads in the shape of cowrie shells have been found at Nok.

To this day, the Akan of Ghana and Cote d' Ivoire wear gold beads, which their artists cast using the lost-wax method (Morris, 1994).

Glass, originally in the form of imported beads or bottles, is another important raw material in African bead making. The bead makers ground up or broke the glass, melted it, and produced new beads. At Ife, Nigeria, the spiritual home of the Yoruba, a major glass bead industry developed by the ninth century A.D. Glass for this industry was obtained in large quantities from medieval Europe and the Near East (Alden, 2008). A bead industry also existed in Mapungubwe, South Africa, from A.D. 600 to 1200. It is not known whether the glass for these beads was produced locally or imported (Francis, 1993). Glass beads became a precious commodity in their own right and became a symbol of the status of the people who crafted them into a variety of objects worn according to custom. These glass beads were transported by the Phoenician mariners who carried cargoes to every port along the North African coast and the ancient kingdoms of West and Central Africa (Jackson, 2008). Glass beads, in particular, are a common element of African adornment today and are widely used in African clothing and regalia (Carey, 1991). In Egypt sand (silica), soda and lime, cobalt was added to create a blue shade, copper for green, tin was used to produce a milky white colour while the addition of gold created red. Incorporation of gold indicates that glass was not merely considered a substitute for something precious but valuable too (Shafrin, 2008).

Africa's "Golden Trade Era" stretches from 1700 to 1920; a period which saw the highest levels of trade and economy in history. In this period, other kinds of materials and beads were imported that extended the bead workers' palette to include amber from the Baltic; ceramic glazed beads from China; agate and carnelian from India; and glass beads from Rome. Brass, imported from Europe beginning in the fifteenth century, was a precious metal used in bead production that continued for centuries in West Africa. By the sixteenth century, spun, drawn and molded glass beads from the famous Murano glassworks in Venice found their way to Africa. In the late nineteenth century, beads from Moravia and Bohemia, now the Czech Republic, flooded the west, central and southern African markets. These kinds of imported beads were acquired at great cost and regarded as signifiers of wealth and prestige (Appiah, 2009).

Beadwork Techniques

The techniques of African beadwork vary. Beads may be strung on fiber cord or metal wire to create bracelets and necklaces. Beads may be stitched to a backing of fiber, canvas, or leather as among the Ndebele. Apprenticeship is the only primary

source of education for Africans who wants to enter into the bead industry. There are few formal educational institutions for studying beads in Africa. Apprentices learn through observation and instructions from their mentors and masters (Appiah, 2009). There are two types of beadwork specialists; bead makers and bead workers. Bead makers produce beads from various materials. Depending on the culture of the ethnic group concerned, bead making was structured along gender lines. In making stone beads, men did the main part of the work in West and South Africa, leaving the finishing touches of polishing and threading to the women; likewise, with metal beads. In contrast, the ostrich eggshell beads made by the San (Bushman) were made by women (Stevenson, 2000).

Bead workers are artists who create jewelry, garments, and regalia from beads that are made locally or are imported from Europe, the Near East, and India. Artists must carefully consider the materials, colours, textures, shapes, and sizes of the beads so as to choose those that complement or contrast with one another. Bead working tends to be carried out according to the complexity and the prestige value of the work involved. In Yorubaland, Nigeria, professional male bead workers were employed to make the beaded crowns, robes, and other regalia worn by the city kings. This skill was the virtual monopoly of one extended family, whose members traveled about the country to carry out their commissions. Men also made ritual beadwork such as diviner's bags and necklaces, since things to do with royalty and religion were generally a male preserve. Bead working was usually a social activity, during which designs were shared and taught to the younger headers (Francis, 2003).

Discussion

Symbolism of Beads

Culture is partially based on symbols which represent certain ideas, beliefs or behaviours that people of a particular culture understand and are able to communicate effectively with. Wearing a certain kind of bead can tell whether a person is happy, their social status, beauty, spiritual status within the community. Beads can also be associated with a particular group or tell a period of life of an African (Orser, 1996). Additionally, beads define the concept of a woman's beauty. Generally, a beautiful woman in Africa is one with a well defined figure, protruding buttocks and hips. The only way to achieve this is to wear beads from infancy to old age.

In Eastern Africa, men wore relatively little beadwork, while women would wear beaded ornaments on their heads and around their necks. Also, their leather garments were usually embellished with beadwork. When a girl reached puberty, it was an occasion for celebration, as she was now of an age to marry and bear

children; her most important role. The maidens of the Iraqw of Tanzania, during their seclusion in the bush, while learning a woman's duties, made back skirts of beaded leather. These skirts are among the most spectacular examples of beadwork from Eastern Africa (Carey, 1986).

Among the Kalahari, girls attend a "coming out" ceremony at which they wear numerous massive coral beads, which may have to be borrowed from members of the extended family. Something similar still happens in Ghana, where, at the *Dipo* coming of age ceremony, girls of the *Krobo* and *Ga* ethnic groups wear almost nothing but a mass of beads. This is designed to enhance the girl's charms and to improve her chances of finding a good husband. If the family does not have enough beads, extra ones will be rented from another family that has the beads, but doesn't have a girl of the right age (Stevenson, 2000).

The use of beads as protective charms originates from a belief system in West and Central Africa that people could be harmed or become sick through natural illness, curses or evil spirits or ghosts entering the body. Thus if one became sick, the healer would prescribe both herbal remedies and a protective charm to wear and also perform a counter curse (Martha, 2011).

Personal charms were worn underneath a woman's cloth for only her husband or significant other to see. Waist beads were believed to make a woman feel feminine and beautiful. They were made of fragrant materials like sandalwood or anointed in oils. Traditionally, waist beads were constructed in the "fattening houses" of the Old Kongo Empire which were female initiation lodges. The waist beads were supposed to symbolize the beginning of the reproductive cycle of womanhood and admitted young girls into the lodge of female mysteries. African folklore also attributes the wearing of beads to the waist, meaning that it helped a female to "hold" their figure or shape (Kinmore, 2011).

African waist beads were the source of the belly dancers adornment in Mijikenda. Some beads were adorned with a bell, which were a signal to let the man know that the woman was clean (at the proper stage where sexual intercourse was allowed in that culture) (Djenra, 2006). West African men were believed to enjoy sex with a woman who had waist beads. Among the Central Africans, waist beads were a symbol of a woman's confidence in her body and her sexuality. The waist beads give the waist a round and oval shape which is characteristic of beauty in Central Africa (Kinmore, 2011).

Similarly, in Tanzania, even after a woman has married, she may wear a string of beads round her waist. Such beads are private between her and her husband, and

she may rattle these beads as a “come on” signal. Prostitutes in parts of Western Africa could also use the same signal as an advertisement; while in Zambia, a woman who wore her string of waist beads visibly round her waist was regarded as a loose woman (Djenra, 2006). Krobo women of Ghana females used the waist beads to check their weight. Women wore waist beads and any time the beads became tight, it meant that they had gained more weight and that their body had become bigger. On the other hand if they realized that the beads were slipping off, it meant the woman was losing weight and had to do something about it (Appiah, 2009). Dynamic strategies of beadwork communication used in and across cultures are traceable. This is most clearly seen in Zulu beadwork used to convey messages to lovers as an important form of marriage negotiation. By the 19th Century, this form of negotiation had developed into a highly sophisticated courtly art. The beaded panels, commonly known today as “love letters,” were originally composed of geometric abstract shapes in various configurations but by the mid 20th Century, this visual system gave way to using written text (Vessel, 2009).

In African societies, marriage is considered an important part of the initiation rites that usher one to adulthood. Beads are useful and symbolic. Among the Krobo of Ghana, beads are presented to the wife - to - be as her wedding gift by the husband - to - be (Appiah, 2009). Among the Maasai and Samburu of Kenya, the wedding ceremony itself is symbolized by coloured beads. A variety of beads are worn around the neck and wrist. Beads of different colours are worn by both the bride and groom as well the family representative present. The colour of beads that the couple wears matches the colours of their dress (Kyoko, 2005). Traditionally amongst the Ndebele certain beaded items were worn to distinguish young girls from their more senior sisters, to identify girls engaged to be married, or to adorn brides and young mothers after the birth of their first children. Among the Xhosa of the Transkei, special beadwork marks off peer groups of different age-sets while distinctive regalia is reserved for the bride and groom at weddings and for guests closely associated with them (Morris, 1994).

Beads were/are used to decorate the corpse of a dead person. Among the Krobo of Ghana, beads are placed on the corpse as decoration during the funeral rites, especially when the dead person is laid in state. The beads were not buried with the corpse but were kept in the family of the dead person to be used for another occasion (Appiah, 2009). In addition, a deceased wife of Aawambo, in Namibia removed all the beaded ornaments she wore. She had to stay with a bare neck and waist until the dates for mourning the husband were over. This was an expression to indicate that the husband who by tradition must dress and provide the wife with all the precious ornaments was no longer there (Shigwedha, 2004).

For the Akhan, beads are worn by political and religious office holders to indicate their status in the community. Beads are worn on the right hand wrist in the case of a chief or on the wrist of either hands in the case of a traditional religious priest and priestess. The beads are believed to protect them against evil and also give them power to perform their spiritual duties. During festivals, chiefs, queen mothers, priests become the centre of attraction because of the kind of beads they wear and the colour of the beads worn around the neck, arm calf and ankle. Yellow or gold depict wealth and high social standing. The queen mothers wear small and big beads around their necks and wrists (Francis, 1993). The West African kings of Ghana, Songhai, Mali and Nigeria are known to have worn beaded regalia so heavy that they had to be supported by attendants when rising from their thrones to move about in the course of their duties (Carey, 1986). A Maasai warrior wears strings of beads across his chest and back plus bands of striped beadwork around the neck. When a warrior becomes an elder he surrenders his beaded attire, but he may still use beaded objects such as a tobacco container or the traditional *rungu* stick as a symbol of authority (Carey, 1986).

Among enslaved blacks, beads were culturally dynamic objects typically made of glass, metal, precious stones and shell. They were strung, sometimes singly, and worn on various parts of the body, including the ears, hair, neck, wrist and waist. On occasion, beads were used as barter, gaming pieces, sewn to cloth or hide as part of a garment, or grouped together with an anomalous assortment of objects into a spiritual cache or ancestral altar. The use of beads among the enslaved blacks can be traced to their ancestral origins in West and Central Africa, where beads were interlaced with nearly all aspects of society, including beautification, age, kinship, marital status, gaming, rank and religious beliefs. Beads were worn around the neck of many enslaved individuals or used in other decorative ways. When the Trans-Atlantic slave trade began in the 16th Century, European made beads, particularly from Venice, were already being commonly worn by women in West and Central Africa. They were used in daily adornment and was rarely removed except for re - stringing. They served as an under belt to tuck and secure a wrapper, a style of garment in West Africa worn around the woman's waist to conceal her body shape. This specific waist strand may have travelled with her during the Middle Passage and may symbolize cultural ties to kinship and ethnic African identity (Rawick, 1978).

Conclusion

African beads still continue to be used and to be held in high esteem. In East Africa, beads are made of ostrich eggshells which are common around the Kalahari Desert. In West Africa beads are made from gold and these are known as soul money and they are used in different ceremonies of child naming, adolescence

rites and funerals. One other popular substance for beads is glass. Bottle glass is melted and recycled into a variety of colors and patterns. These types of beads are irregular and signify a sense of luxury for the individual wearing it. In North Africa the Berber tribal women make large numbers of colorful beads. The beads function as a family possession. When the family earnings are bad then the beads are sold. The price of the bead is established on its weight. Bead materials provide amber, coral, amazonite, silver and glass. The various kinds of beads convey various meanings. Amber safeguards against illnesses while coral and silver are good luck charms. Beading is a strong part of the African heritage and is used not only to create useful or decorative items but also as a means of communication. Beads unite African communities, thus reinforcing common understanding, handed down through generation.

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Kenyan Media Discourse: A Critical Discourse Analysis of News Headlines on 2007 Election Campaigns

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Abstract

The Kenyan media plays a significant role in conveying news to the public and is rated as one of the most trusted institutions in Kenya. Thus, the media shapes people's worldview about political actors and their parties, determines the pace of democratization and development of a country. The Kenyan news reports have the potential of determining what the audience should know and how to react to the news. This is achieved through a deliberate choice of thought-provoking words in the news headlines. This paper examines the linguistic construction of newspaper headlines in the run-up to the 2007 election campaigns. The paper aims to identify the emotive words and phrases used by the mainstream local dailies, describe the linguistic strategies used to construct the phrases and outline their implications for constitutionalism and ethics. A theoretical framework anchored in Critical Discourse Analysis (CDA) is applied in the analysis of 14 newspaper texts purposively sampled from the four Kenyan mainstream local dailies (The Daily Nation, The Standard, The Kenya Times and The People Daily). The findings indicate that the Kenyan print media employs referential, predication, perspectivation, argumentation and intensification or mitigation strategies in constructing thought-provoking news headlines. The paper observes that journalists contravene the journalistic art of objective news reporting and moderation in the lead-up to the general election. In conclusion, the paper argues that the Kenyan media reportage has adverse implications in expressing and legitimizing unequal power relations, ethnic animosity and personalized politics. There is a compulsive need for a comprehensive legal framework to regulate the language and content of news reporting before the 2012 general elections and any other poll are held to avoid election-related violence.

Key Words: Kenyan Media Discourse, News headlines, Election Campaigns

Introduction

Mass media is a collective term for television, radio, cinema, and the printing press (magazines, newsletters, journals and newspapers) whose prime role is conveying news for public consumption. The term 'Kenyan media' refers to both the print and electronic means of relaying information to the audience that operate locally (Oriare, 2008). The discourse of the media implies the language the press employs in constructing the news headlines and subsequent stories whose persuasive power is far-reaching. Myriad views have been advanced regarding the subjectivity and partisanship of the Kenyan media in line with their reportage of the 2007 election campaigns (CIPEV, 2008; IREC, 2008). The focus of this paper is to critically examine the language the Kenyan mainstream newspapers used in constructing the news reports in the run-up to the 2007 general election. This is aimed at identifying and describing the linguistic strategies used in constructing the news headlines as well as highlight their implications for constitutionalism and ethical issues.

Newspapers are paper-based publications issued daily. They carry main headlines that dress the cover page and other pages. The headlines are reduced versions of text stories printed at the top of an article. They are usually packaged in a hierarchical order of importance. Crystal and Davy (1967) argue that the language of newspaper headlines contains a clear, succinct and captivating message which arrests the attention of the passers-by. Kaplan (1990) adds that the press does not merely reflect people's reality but is crucial to creating new reality. As such, the words used in the news headlines are hardly neutral since they carry power that reflects the interests of those who speak or write the news reports (Fowler, 1991).

Newspapers play a key role in initiating discourse on key national issues by picking on statements and actions of prominent national figures, celebrities and happenings in the country and exposing them to their readership (Taiwo, 2005). The process of initiating, advancing and sustaining discourse is often characterized by some embellishments (rhetoric devices). These processes are determined by the newspaper perspectives in reporting the news. Hodge and Kress (1979) argue that newspapers present a partial or distorted view of the world. Thus, the local dailies select, reorder, transform, distort and suppress certain news stories as others are given prominence. This paper is divided into five main sections: introduction, theoretical framework, data analysis, summary of findings, recommendation and conclusion. The introduction gives a rationale of studying news headlines and situates the study in the Kenyan socio-political context.

Rationale of studying Kenyan newspaper headlines

Certain characteristics justify the need to pay attention to Kenyan newspaper headlines. First, headlines acquire prominence through diffusion. This feature makes them reach an audience considerably wider than those who read the articles. This is particularly true of front-page headlines that make use of eye-catching linguistic features (Develotte and Rechniewski, 2001). Such stylistic features that give prominence that make headlines memorable and effective include puns, alliteration, choice of emotive vocabulary, large and bold font illustrated by coloured photographs et cetera. This paper examines how the press reported 2007 campaigns.

Second, headlines play a crucial role in orienting the readers interpretation of subsequent “facts’ contained in the article (in terms of perspective). Therefore, the headline is a newspaper’s opportunity to stamp its individuality on what is otherwise a mass produced product (Abastodo, 1980:149; cited by Develotte and Rechiniewski, 2001). This means they set the nation’s agenda by structuring a particular view of the world. Besides, they set a hierarchy of importance from the top to the bottom of the page. This aspect has far-fetched implications in moulding national consciousness and identity. Hence, this paper explores how Kenyan press reported 2007 poll.

Third, newspaper headlines evoke shared socio-political and cultural context. They are certainly a rich source of information about the field of socio-political and cultural references. This is because the titles ‘stand alone’ without explanation or definition. In other words, they depend on the reader to instantly recognize the field, allusions, issues, and other references necessary in understanding the context of the articles. References to political parties like ODM, PNU and ODM-K, ‘the three big guns’, ‘titanic battle’ and so on situate the readers within a national framework. This was particularly so in the run-up to the 2007 general election.

Fourth, following the 2007 post-poll crisis, the Kenyan media was severely indicted by numerous reports issued by NGOs, European Union, and Kenya National Commission for Human Rights (KNCHR). This calls for in-depth media research to ascertain the extent, if any, the Kenyan media contributed to the post-election violence. Considering also the power of the written word, it is important to study newspaper headlines because they are easily retrievable and combine both written and semiotic elements in contrast to other forms of mass media. The findings will be useful in revealing the relationship between language and ideology. This will show that news headlines are never neutral and inform the readers of their emotive power.

Political background

Kenya gained independence on 12th December 1963 with Mzee Jomo Kenyatta as the first president. In the years preceding independence, there were two main political parties, namely: the Kenya African National Union (KANU) and the Kenya African Democratic Union (KADU). The two parties merged into one, viz, KANU, immediately after independence (Ogot, 1995). Oginga Odinga, Kenya's first vice president formed an opposition party, the Kenya Peoples Union (KPU) in 1966 because of his divergent views on KANU's policies. The Kenyatta government banned KPU in 1969. Its leaders were sentenced to jail. In effect, Kenya became a *de facto* one party state (Matu, 2003).

President Kenyatta died in August 1978 and was succeeded by, the then vice president, Daniel arap Moi. During Moi's tenure, Kenya remained a *de facto* one party state until 1982. A constitutional amendment was done by inserting section 2A that recognized KANU as the only political party. This made Kenya a *de jure* one party state (Ogot, 1995). Despite the constitutional amendment, opposition to Moi's rule never ended. Political pluralism had wide support in Kenya contrary to KANU's propaganda. More Kenyans began to speak openly and defiantly against the excesses of the state. Oginga Odinga teaming up with five other veteran politicians launched the Forum for the Restoration of Democracy (FORD) in August 1991. This was a pressure group that championed for the restoration of democracy and human rights (Ajulu, 1997). Ultimately, KANU government succumbed to the citizens' demands following the 1991 parliamentary amendments of section 2A of the constitution, which made Kenya a *de jure* multi-party state (Ogot, 1995; Ajulu 1997).

KANU emerged the winner in the civic, parliamentary, and presidential elections held on 29th December 1992. Five years later the next elections were held in 1997. Various registered political parties that participated in the 1997 elections were: KANU, FORD-Kenya, FORD-Asili, FORD-People, Democratic Party (DP) National Development Party (NDP), Social Democratic Party (SDP), Kenya Social Congress (KSC) and Kenya National Democratic Alliance (KNDA), Safina, et cetera. Still Kanu won the election despite claims of mass vote rigging by the opposition (Matu and Lube 2003).

In the 2002 general elections, KANU was dethroned by a united opposition that formed National Rainbow Coalition (NARC) which brought Hon. Mwai Kibaki to power against Moi's successor, Uhuru Kenyatta. However, the contentious Memorandum of Understanding (MOU) between National Alliance of Kenya (NAK) and Liberal Democratic Party (LDP) led to the break-up of NARC in the aftermath of the rejected 2005 constitutional referendum. This led to the formation

of the Government of National Unity as Raila Odinga and his lieutenants were sacked. This set the stage for a competitive presidential election ahead of the 2007 poll.

In the campaigns for the 2007 election, the unfulfilled promises of the Kibaki government coupled with the combined forces under Orange Democratic Movement (ODM) led by Raila Odinga gave Kibaki's Party of National Unity (PNU) a run for its money. The presidential results were highly disputed. The Electoral Commission of Kenya (ECK) bore the brunt of rigging claims and manipulation of the final vote tallying process at KICC. This culminated into spontaneous violence that brought the country to a standstill till Kofi Annan spearheaded the mediation process. He brokered the National Accord and Reconciliation pact on 28th February, 2008. The accord gave birth to the formation of the office of the Prime Minister, currently occupied by Raila Odinga, in the grand coalition government.

Brief history of Kenyan newspapers

The Kenyan media has played a fundamental role in reporting the political developments in Kenya since the introduction of multi-party politics in 1992. Kenyan mainstream newspapers have specifically been at the forefront. This was particularly evident in the run-up to the 2002 general election whereby the media were instrumental in propelling NARC to power. By 2007, there were four major local dailies: *Daily Nation*, *Standard*, *Kenya Times*, and *People Daily*. All these newspapers are written in English. The *Standard* is the oldest newspaper that was launched in 1902. It was formerly known as the *East African Standard*. As a colonialist newspaper, the paper was founded and owned by the London-Rhodesia Company (LONRHO). It was later sold to an international investor who happened to be a member of the ruling party, KANU (Matu and Lubbe, 2003).

The Daily Nation was founded in 1960 and is partly owned by His Highness, the Aga Khan, who holds 45% of the shares while the Kenya Public owns 55% of the shares. *The Kenya Times* was founded by KANU in 1983 as a party paper to articulate the government's position on all key issues and closed shop in 2010. It was also considered to be the 'mouth-piece' of the ruling party (before and up to 2002 elections). On the other hand, the *People Daily*, founded in 1992 by Kenneth Matiba – an opposition, was formerly called *The People* issued after every fortnight (Collender, 2007).

The Daily Nation and *The Standard* have a wider nationwide circulation than *The Kenya Times* and *The People Daily*. Nation Media Group Statistics (2005) indicate that *The Daily Nation* has a daily readership of five million seven

hundred thousand people making it the largest circulating local daily in Kenya. *The Standard* comes second with at least five million readers. The remaining two papers have barely one million readers. In their reportage, *The Daily Nation* for a long time has been regarded by majority of Kenyans to be objective whereas *The East African Standard* and *Kenya Times* were inclined towards the ruling party, KANU in the run-up to the 1992, 1997, and 2002 general elections (Matu, 2003). However, their reporting has tremendously changed. The *Daily nation*, formally a champion of the people during Moi's rule, is regarded as leaning towards the government since the 2002 elections leaving *Standard* as the main critic of government policies (Collender, 2007).

Theoretical framework

This study is modelled on the approach of Critical Discourse Analysis (CDA). Fairclough (1995) posits that CDA is the critical study of discourse that views language as a form of social practice. It focuses on the ways social and political domination are reproduced by text and talk. The author also stipulates that any analysis of discourse is three-dimensional: the analysis of text (written or spoken), the discursive practices entailing production, consumption and interpretation of texts, and the social practice in which the text is embedded. CDA approaches discourse as a circular process in which social practices influences texts, via shaping the context and mode in which they are produced. In turn, texts (such as newspapers) help to influence society through shaping the viewpoints of those who read or otherwise consume them.

CDA is an interdisciplinary approach of analyzing texts as objects of study. It primarily studies how social power, abuse, dominance and inequality are enacted, reproduced and resisted by text and talk (van Dijk, 1997). CDA is preferable to other methods like Content Analysis (CA) because it is interpretative, explanatory, self-reflective and constructivist (Fairclough, 1995). CDA examines texts (such as newspapers) which have a great influence on the people. It is both a theory and method of analysis. CDA's notion of context embodies psychological, political, ideological and historical components. As a result, CDA offers an interdisciplinary procedure to the study explicated by this paper.

Data Analysis

The data constitutes 14 headlines purposively sampled from the four local dailies (*The Daily Nation* (DN) – three texts, *The Standard* (STD) – five texts, *The Kenya Times* (KT) and *The People Daily* (PD) – three texts in each case, as shown below:

- T1: VOTERS KICK OUT BIG GUNS (DN: 18/11/07)
- T2: Titanic battles ahead (DN: 26/11/07)
- T3: Propaganda war (DN: 03/12/07)
- T4: My style, his style (STD: 07/11/07)
- T5: RUNGU DEMOCRACY (STD: 17/11/07)
- T6: HANDOVER Is Kenya ready for transition? (STD: 09/12/07)
- T7: NO RETREAT No surrender (STD: 02/12/07)
- T8: 'Behaving badly' (STD: 18/12/07)
- T9: AG, Kivuitu face off over poll violence (KT: 01/11/7)
- T10: PNU, ODM draw daggers (K/T: 28/11/07)
- T11: Lucy: Arrest Raila (KT: 11/12/07)
- T12: Moi on warpath (PD: 01/11/07)
- T13: ODM poll plot (PD: 18/12/07)
- T14: Is Kibaki avoiding Raila's turf? (PD: 19/12/07)

Identification and description of headline words

Text 1 (VOTERS KICK OUT BIG GUNS – DN: 18/11/07) used two thought-provoking and referential key phrases: 'kick out' which meant to expel or throw out somebody in a forceful manner and 'big guns' which implied influential or powerful people. The headline referred to the voters' removal of powerful politicians during the party nominations exercise. The two phrases emotively alluded to a forceful rejection of wealthy veteran politicians by the electorate in the preliminaries. The text would have been constructed as 'Veteran politicians voted out'.

Text 2 (Titanic battles ahead – DN: 26/11/07) used three key words: 'titanic', 'battles' and 'ahead'. 'Titanic' is a Mid-19th C Greek word referring to being extraordinary powerful/strong. It alludes to Greek legendary fights between titans and minnows. 'Battles' refers to large-scale armed fights between armies. Hence, the phrase referred to tough contest between veterans and newcomers in the run-up to the 2007 poll particularly in six constituencies: Mvita, Funyula, Ugenya, Kiambaa, Makadara and Nyaribari Masaba. It was emotively constructed.

Text 3 (Propaganda war – DN: 03/12/07) used 'propaganda' and 'war'. The first is a Latin word that means propagation of faith. It refers to deceptive or distorted information that is systematically spread to disparage a group or a person. 'War' is an armed fighting or a bloody tussle between armed groups or persons using lethal weapons. The headline implied the intensified war of words between ODM

and PNU in the run up to the 2007 poll. This text created a tense atmosphere that portended trouble if either side lost the battle.

Text 4 (My style, his style – STD: 07/11/07) employed four key words and the word ‘style’ was repeated for emphasis. The possessive adjective ‘my’ stood for Raila whereas ‘his’ represented Kibaki. The referential terms referred to Raila and Kibaki’s bipolar campaign strategies – a form of in- and out-group categorization. The text had a partisan perspective.

Text 5 (RUNGU DEMOCRACY – STD: 17/11/07) used ‘Rungu’ and ‘democracy’. ‘Rungu’ is a Kiswahili word which refers to a lethal weapon and ‘democracy’ is Greek word meaning rule of people by the people for the people. The term is a sharp contrast or contradiction (an oxymoron) that indicted Kenya’s political immaturity based on the jungle-rule. The headline implied the campaign violence that characterized the nomination exercise ahead of the general election. This text used emotive words that could elicit sharp reactions on the readers.

Text 6 (HANDOVER: Is Kenya ready for transition? – STD: 09/12/07) employed two thought-provoking words: ‘HANDOVER’ (printed in capital letters) and ‘transition’. The first word means surrendering or transferring to somebody while the latter is a 15th Century Latin word that refers to the process of change. This text drew direct references from the 2002 general election in which there could have been a crisis had president Moi refused to hand over power to the united opposition party: NARC. This could be interpreted to mean that Raila was likely to win the presidency. By extension, this text alluded to the constitutional loophole that would have affected the country if the incumbent president declined to hand over power if the opposition presidential candidate had won the presidency. This text used argumentative strategies.

Text 8 (‘Behaving badly’ – STD: 18/12/07) used the catchphrase ‘Behaving badly’ implying being naughty/morally perverted. The phrase is a citation of Kenya National Commission Human Rights (KNCHR) report that documented details about the government’s misuse of state resources (by cabinet ministers and parastatal chiefs) in bolstering Kibaki’s campaign machinery.

Text 9 (AG, Kivuitu face off over poll violence – KT: 01/11/7) employed two catchphrases used are ‘face off’ meaning confrontation and ‘poll violence’ meaning the use of excessive force during election campaigns. The predicative terms showed that the government officers were antagonistic and engaged themselves in a public backlash.

Text 10 (PNU, ODM draw daggers – K/T: 28/11/07) employed four screaming words: the acronym ‘ODM’ and ‘PNU’ which were two most competitive political parties, ‘draw’ meaning to pull a weapon from a sheath in order to use it, and ‘daggers’ implying a short pointed knife used as a weapon. The choice of the words was deliberate to spark off strong feelings among the electorate in regard to how the two arch-rivals were facing each other head-on.

Text 11 (Lucy: Arrest Raila – KT: 11/12/07): the illocutionary imperative is a citation of the First Lady’s utterances while on a campaign trail. The headline used predicative and referential term ‘Arrest Raila’ which implies Raila was the villain inciting people to cause chaos.

Text 12 (Moi on warpath – PD: 01/11/07) used referential and predicative term ‘warpath’: a route taken by Native North Americans on the way to war. ‘Moi’ is the ex-president of the republic of Kenya. ‘On the warpath’ is an informal word that implies being angry and in the mood for a confrontation. The former president was depicted as an aggressor meddling in the country’s politics. Invoking Moi’s name was bound to evoke mixed reactions from the electorate among his admirers and detractors.

Text 13 (ODM poll plot – PD: 18/12/07) used the acronym: ‘ODM’ and other key words: ‘poll’ and ‘plot’. ‘Plot’ in Old French means secret scheme or hostile plan. The phrase meant that ODM was hellbent to use all means to win the general election. The partisan and negative portrayal of ODM party was a strategy to suppress anything good that may have accounted for its high popularity. The text used mitigation and/or intensification strategy to appear somewhat neutral. The referential and predicative headline appeared superficially less harmful but heavily loaded in meaning as exemplified by the sub-headline summary: ‘Accentuate anti-Kikuyu sentiments’ and ‘promote majimboism as a means to contain Kikuyu’.

Text 14 (Is Kibaki avoiding Raila’s turf? – P/D: 19/12/07) carried five catchwords and was phrased as a rhetoric question to provoke the thinking of the readers. The word ‘turf’ refers to a territory, geographical area under one’s control or area of one’s expertise. This headline portrayed Kibaki as having been apprehensive of penetrating Raila’s home ground (Luo-Nyanza). On the other hand, this text indirectly referred to certain stereotypes about Raila and his Luo community regarding their intolerance and violent behavior against people perceived to be their political enemies (using the Kenyan political or historical context). This dates back to the rivalry between Jomo Kenyatta and Oginga Odinga in the mid-1960s. This rivalry was heightened in 1969 when Kenyatta’s convoy was stoned

in Kisumu following the assassination of Tom Mboya. The rhetorical question alludes to the idea that Raila had formed an impenetrable tribal enclave. The text posed a question as an argumentative strategy to voice its message.

Generally, the four local dailies used emotive, thought-provoking and sensational or screaming words that referred to armed conflict. They intensified the bitter rivalry between contestants particularly those who vied on ODM and PNU tickets. The texts were constructed from partisan perspectives aimed at provoking or eliciting certain reactions from the readers.

Linguistic strategies used in constructing headlines

These are systematic ways of using language at different levels of linguistic organization and complexity to achieve social, political, psychological or linguistic aims (Wodak and Meyer, 2001). They entail referential, predication, perspectivation, argumentation and mitigation/intensification strategies as illustrated below.

a) **Referential/Nomination:** This refers to the use of naturalizing and depersonalizing terms to name and refer to the persons to construct in- & out-groups. This is apparent in Text 2 (Titanic battles ahead – DN: 26/11/07) used referential Noun phrase ‘titanic battles’ to describe the stiff election contest. Text 4 (My style, his style – STD: 07/11/07) used the possessive and referential adjectives: ‘my’ to refer to Raila whereas ‘his’ represented Kibaki. The referential terms referred to Raila and Kibaki’s bipolar campaign strategies – a form of in-and out-group categorization.

b) **Predication strategies:** Labelling social actors more or less +vely or –vely, stereotypical, implicit and explicit predicates/terms. Text 9 (AG, Kivuitu face off over poll violence – KT: 01/11/07) employed two predicative catchphrases: ‘face off’ meaning confrontation and ‘poll violence’ meaning the use of excessive force during election campaigns. The predicative terms showed that the government officers were antagonistic and engaged themselves in a public backlash. Text 12 (Moi on warpath – PD: 01/11/07) used referential and predicative term ‘warpath’: ‘on the warpath’ which implied that the immediate former president was angry and in the mood for a confrontation. The former president was depicted negatively as an aggressor meddling in the country’s politics.

c) **Argumentation Strategies:** justification of positive or negative aspects – topoi to justify political inclusion or exclusion, discrimination or preferential treatment. Text 6 (HANDOVER: Is Kenya ready for transition? – STD: 09/12/07) posed a rhetoric question but went further to give a case study of the 2002 general election which exposed a transitional dilemma had president Moi refused to surrender the

seat to NARC's winning presidential candidate against Moi's preferred successor (Uhuru Kenyatta of KANU). This was a persuasive strategy to sway the readers. Text 13 (ODM poll plot – PD: 18/12/07) argued through its banner headline that ODM was hellbent to use all means to win the general election. The partisan and negative portrayal of ODM party was an argumentative strategy to suppress anything good pertaining to the opposition party.

d) Perspectivation or Framing: reporting, narration or quotation of events & utterances. Text 8 ('Behaving badly' – STD: 18/12/07) used the catchphrase 'Behaving badly', a citation of Kenya National Commission Human Rights (KNCHR) report that documented details about the government's misuse of state resources (by cabinet ministers and parastatal chiefs) in bolstering Kibaki's campaign machinery. The text was framed from the human rights watchdog. Text 14 (Is Kibaki avoiding Raila's turf? – P/D: 19/12/07) carried five catchwords and was phrased as a rhetoric question to provoke the thinking of the readers. This headline portrayed Kibaki as having been apprehensive of penetrating Raila's home ground (Luo-Nyanza). On the other hand, this text indirectly referred to certain stereotypes about Raila and his Luo community regarding their intolerance and violent behavior against people perceived to be their political enemies (using the Kenyan political or historical context). The text was framed from Kibaki's viewpoint.

e) Intensification/ Mitigation Strategies: This involves the use of terms which emphasizes or lessens illocutionary force of an utterance. Text 11 (Lucy: Arrest Raila – KT: 11/12/07) is a citation of the First Lady's utterances while on a campaign trail. The headline used predicative and referential term 'Arrest Raila' to imply that Raila was the villain inciting people to cause chaos. The text intensified the campaign propaganda against the leading opposition presidential candidate. T3 (Propaganda war – DN: 03/12/07) used 'propaganda' and 'war'. The headline implied the intensified war of words between ODM and PNU in the run up to the 2007 poll. This text created a tense atmosphere that portended trouble if either side lost the battle.

Summary of Findings

From the analysis of the data various observations have been made. First, Newspaper headlines utilize a few keywords for ideological construction of news stories. The headlines under study utilized short-key words. This is in tandem with Crowell (1969) who asserts that the space for writing news headlines is often limited and there is the compulsive urgency to arrest the attention of the passers-by.

Therefore, newspapers use a few words as possible to dress up the front pages. This is exemplified by texts like “Propaganda war” and “ODM poll plot”.

Second, the headlines in our corpus were constructed using various linguistic strategies, namely: referential, predication, perspectivation, argumentation and intensification devices. The strategies were employed in order to advance the newspapers’ diverse ideological and political perspectives. Headlines used highly emotive and persuasive words to sway reader’s opinions. The Kenyan newspaper headlines fell short of political neutrality for they took uncritical and biased perspectives. Hence, they fell short of the principle of objectivity and moderation. Their language perpetuated the culture of violence, personality cult or hero worship and ethnic or regional balkanization.

Third, there were two views to most of the electioneering issues: those whose interests were being served and those whose interests were being undermined. For example, text 11 (Lucy: Arrest Raila – KT: 11/12/07) advances the interests of the then incumbent president and his PNU party. Raila and ODM’s interests were undermined by framing him negatively. Text 4 (My style, his style – STD: 07/11/07) foregrounded Raila’s campaign strategies and backgrounded Kibaki’s. These bipolar views typified power relations and struggles between Kibaki’s PNU and Raila’s ODM. This polarized the country along ethnic/regional blocks thus hindering unity.

Fourth, the headlines offer powerful insight into national consciousness and identity. They capture the nation’s socio-political representations in the run-up to 2007 polls. The character of Kenya’s socio-political issues were revealed by the following texts: Text 5 (RUNGU DEMOCRACY – STD: 17/11/07) and Text 6 (HANDOVER: Is Kenya ready for transition? – STD: 09/12/07). These two texts indicate a nation at crossroads, devoid of sound democratic ideals and in a transitional dilemma due lack comprehensive legal frameworks. They portray the culture of impunity, politics tied to personality cultism and vindicate the stereotype that Kenyan politics is a dirty game; a preserve of the rich as well as cantankerous politicians.

Recommendation

Considering the findings of the above study, this paper recommends that the Kenya government and other concerned stakeholders should establish an affirmative legal framework that benchmarks objectivity, neutrality and moderation in news reporting.

The Media Council of Kenya (MCK) and Communications Commission of Kenya (CCK) should draft a code of ethics that guide the conduct of journalists to be distributed to journalism training institutions. The media laws should also be aligned in line with the new constitution.

Conclusion

Headlines used highly emotive and persuasive words to sway reader's opinions. The Kenyan newspaper headlines fell short of political neutrality for they took uncritical and biased perspectives. Their language perpetuated the culture of violence, personality cult and ethnic balkanization. The implications of the reportage are legion for constitutionalism and ethical issues in news reporting. Newspapers are powerful tools at the editor's hands that can destroy or build a society. Members of the Fourth Estate ought to be cautious in reporting sensitive national issues. A comprehensive law should be established to regulate reportage of news stories especially on poll campaigns for moderation and objectivity. This paper draws from and informs discourse on hate speech in the wake of the 2007 poll. As we head towards the 2012 general elections, the Kenyan media ought to sensitive to their mode of reporting and operate on a firm legal pedestal that regulates the reportage of election campaigns.

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The Morphological Changes of Borrowings from English to Kuria Language

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Abstract

This study sought to examine the morphological changes that loan words from English go through to adapt into Kuria since the two are very different in their morphological and phonemic inventories. The fact that words borrowed from English to Kuria undergo some adaptation and modification and are used as if they were Kuria words motivated this study. In addition to this, though studies have been conducted on Kuria as a language, nothing is known yet about the changes that English loan words go through to fit in the Kuria sound system. The study therefore examined the morphological structure of loan words both in English before borrowing takes place and in Kuria after borrowing has occurred. It identified and described the phonetic changes that loan words from English go through to fit into Kuria system of speech. The study was guided by the Natural Generative Phonology as its theoretical framework. Purposive and random sampling procedures were used to get the sample of Kuria speakers from the population of those who practice the selected domains in Ntimaru Division of Kuria East District. The data for the study was an inventory of sixty loan words from English which are used in Kuria. These were drawn from the fields of education, religion, health, the police force, motor vehicle mechanics and the domestic domain. Data were collected using focus group discussions and recorded on an audio tape-recorder. Loan words were written in gloss and then transcribed using the IPA symbols; this was in preparation for morphological analysis which was done using the generative framework. From the findings it was revealed that Kuria employs such processes as resyllabification, sound epenthesis, sound deletion and substitution to customize English loan words into its lexical inventory. These processes are employed to break the syllable structures and vowel sequences found in English words but are not acceptable in Kuria, and to nativise consonant clusters and other sounds not permitted in Kuria language. No single word maintained its initial form when borrowed from English to Kuria. This study will contribute to linguistic scholarship. By drawing examples from Kuria language, the study will be an addition to the repertoire of knowledge on morphological adaptation of loan words.

Key Words: Borrowing, Integration, Loan words, Morphemes, Morphology, Nativization, Phoneme, Segments.

Introduction

This paper focuses on the changes that English loan words have had to go through in order to fit into the Kuria sound system. The paper reports on the findings of the research (Thesis) Titled: *An investigation of the morphological adaptation of borrowings from English to Kuria Language*. Kuria and English have been in contact since the coming of missionaries and colonial administration. English being the strongest international *lingua franca* and the only world language of politics, entertainment, and technology (Crystal, 1997), is viewed to be the most prestigious language on earth and promptly a donor language (Trask, 1996). This is true with the English Kuria situation where Kuria borrowed from English which did not borrow from Kuria because it had less prestige.

Following colonization, the Abakuria were exposed to extensive contact with western science, technology, military, religion and education. Due to interaction with the missionaries and colonial administrators, the Abakuria borrowed a lot of western items of material culture and values for which they did not have words in their language; hence, the borrowing of lexicon for the new phenomena became inevitable. The borrowed words have since become part and parcel of the Kuria sound and lexical system, and are used in a nativised form such that, some of the Kuria speakers use the words without realizing that they were once English words. Although several studies have been conducted on Kuria phonological and morphological aspects such as tone, tense and aspect, reduplication of nouns, verbs, and adjectives, the morphological adaptation that English loan words undergo to fit into Kuria speech system had not been investigated prior to this research. There had been a dearth of research information on the changes that occur during nativization of the loan words yet Kuria and English language have had contact for over a century.

The researcher therefore set to find answers to the questions on what determines the phonological shape of the loan words, what determines the choice of Kuria speakers to substitute, or delete incoming foreign segments. After the analysis the researcher was in a position to account for the various ways in which Kuria handles incoming segments that are totally alien to its phonological system, after which the principles which offer reliable predictions as to whether Kuria will opt for substitution, deletion or devoicing of foreign segments in a given case were established.

With regard to the main aim of this study, the research objectives included;

1. To identify the phonetic changes of words borrowed from English and used in the Kuria language.
2. To describe the processes which guide the adaptation of English loan words to fit into the Kuria sound system.

Literature Review

Thomason and Kauffman (1991), studied borrowing, which they view as the incorporation of foreign features or words into a group's native language by speakers of that language. They observe that the borrowing language is maintained but it is changed to some extent by the addition of the incorporated features. Invariably, in a borrowing situation, the first elements to enter the borrowing language are nouns. Thomason & Kauffman (1991:57) also observe that, "the borrowing of a word from one language to another requires some form of phonological and morphological adaptation." This is relevant to this study because it implies that nativization of the new elements makes them pronounceable according to the rules of the borrowing language. Thomason's study is related to the current study since both are concerned with borrowing of words from one language to another. However the current study goes deeper since it examines the strategies put in place by the receiving language to make the loans fit into its structure.

Holmes' (2001) is an explication of the restructuring of borrowings into the Maori language system. His study gives an example of the Hebrew case noting that, words borrowed into Hebrew language are often integrated and nativised to fit into its structure, for instance, the loan word "bank checks" in Hebrew *check-im* uses the Hebrew plural suffix –im. In studying Maori, Holmes (ibid) notes that a word like 'komihana' which is borrowed from the English word 'commission' is adopted to fit the Maori sound system. [h] is substituted for [ʃ]. [h] is the usual fricative substitution for most sibilants and in the above Maori word, it has been used instead of [ʃ]. The final vowel [a] has been inserted in the borrowed word to fit the Maori sound structure.

There is always a vowel since Maori is a language in which all syllables end in vowels, therefore words change in the following manner; 'treaty'-*tiriti*, snake-*hineke*, plough-*parau*, biscuit-*pihikete*'(p 32). Holme's work is related to this study since for the two studies, the borrowings are words used to name foreign and exotic concepts, values, and objects and both look into how the borrowings are nativised to make them pronounceable in the borrowing language.

Mwihaki (1998), writing on English loan words in Gikuyu, also concludes that phonological adaptation involves replacement of phonological properties of the source language with the equivalent elements in the target language. She

maintains that the target language substitutes the most similar native sound, for any foreign segment not in the target language.

The process of remodeling loanwords in order to conform to the receiving language's word paradigms involves vast changes in the structure of the loanword including segmental and vowel changes, metathesis, elision, addition and modification of stress patterns (Sahib, 1987). Some loanwords are morphologically naturalized and may undergo a process of derivation in line with the receiving language's derivational patterns in inflectional affixes (Holden, *ibid*). Holden further notes that modifications may be sanctioned by the receiving language's phonotactics and morphological paradigms. Most morphophonemic adaptations are regular and consistent.

Mwita (1996) gives the Kuria noun classification. He observes that, like other Bantu languages, Kuria uses affixes extensively. Each noun belongs to a class which is indicated by a prefix on the noun. Plurality or singularity is indicated by a change of the prefix. He further notes that, Kuria has a syllable structure whereby consonants, vowels and units of length combine to form syllables which in turn combine to form words. In Kuria, there are several types of syllables found i.e. V, CV, VV, CVV, and CCV. The common syllable type is CV i.e. a consonant followed by a single vowel. Like Cammenga (1994), Mwita's work represents a formalisation of an aspect of Kuria structure.

Theoretical Framework

The study was pegged on NGP (Natural Generative Phonology) as its theoretical framework. NGP is part of the Generative Phonology (GP) which began with Noam Chomsky's effort to describe the morphonemics of Modern Hebrew. NGP was developed in the 1970s by Vennemann and Stampe to examine the features and the natural character of segment classes and the processes that apply to them. This theory was chosen because it enables the analyst to make concrete predictions about sounds of natural languages (Hooper, 1976). NGP also looks at phonology with full recognition of morphology.

The theory helped in the following ways;

In NGP, there are a number of rules which are deemed very important for this study. The first category of rules refers to phonetically motivated rules. These take into account only phonetic information in their environments, such as syllable boundaries. These rules are not only natural but also universal, they are regular and productive; they apply whenever their structural description is satisfied. They consist of natural rules such as assimilation rules, strengthening and weakening rules. For example as Hyman (1975; 156-161) reports, such rules include the

tendency of velar non continuants to palatalize before high front vowels. For instance, in a word like ‘gill’, the velar non continuant sound /g/ is likely to palatalize when it comes before a high front vowel /i/, in English. These rules were useful in identifying the morphophonemic rules that the English loan words abide by to fit into Kuria.

The second category of rules is called the morphophonemic rules. They take into account morphological and syntactic information such as morpheme boundaries, morpheme classes, and lexical categories and they are language specific. For example, the regular morpheme marker for the plural in the English language is in word final position as in ‘bags’ with ‘s’ denoting the plural. In Kuria, the plural morpheme marker is in word initial position as /itsibagi/ with the /itsi/ in the initial position denoting the plural.

The third category of rules in NGP is that of Via rules. These rules relate one lexical item to another without having to claim that one is derived from the other. They express phonological relations between lexical items. For example; /aj/, -/i/ relating the words ‘divine’ and ‘divinity’. The forms ‘divine’ and ‘divinity’ are entered in their full form in the lexicon and assumed to be linked by the Via-rule above. Hooper (1976) reports that the forms related by Via rules are entered as separate items in the lexicon and the rules exist to show that there is some relationship in the two terms although there can be no claims that one is derived from the other.

The fourth category is that of word formation rules which specify what morphological elements can constitute a word and the nature of arrangement within the word. These rules were used in explaining the word formation processes that the loan words from English to Kuria undergo in order to be integrated into Kuria lexicon.

Finally, the fifth category is that of syllabication rules. These rules assign syllable boundaries to the phonological string or sequence. These came in handy when looking at the syllabic modifications that take place when loan words are nativised into Kuria lexicon.

Research Methodology

Data Collection

The data consisted an inventory of words of English origin that are used in a native form by Kuria speakers in their day to day interaction. A list of sixty English words that have been borrowed into Kuria, was collected from six domains

namely; education, religion, health, domestic life, the police force, and motor vehicle engineering. The domains were selected due to the exotic and formal nature which renders them more receptive to loan words. The words were from the noun class only; this is because nouns are used to refer to basic aspects of human life, and are, therefore invariably prone to borrowing whereas function words like pronouns and numbers, are usually not borrowed. The borrowings were collected in the field where each of the domains is practiced.

Area of study

The study took place in Ntitaru Division, Kuria East District. Kuria East District borders Kuria West to the North, Transmara District to the South, and Tanzanian Republic to the East. The district was chosen because Kuria, the native language, is widely used. Kuria East is made of two divisions: Ntitaru and Kegonga. Either of these would have yielded the required results. However, Ntitaru was chosen rather than Kegonga because it is in an urban setting and hence provided easy access to the places where the domains are being practiced, whereas Kegonga is more of a rural setting.

Population

The target population consisted of native Kuria speakers who practice in the six fields of occupation in Ntitaru Division of Kuria East District. This enabled the researcher to realize a representative group of the native Kuria speakers. From this, a sample was selected. It's from this sample that the loan words were got in the form in which they are used in Kuria language.

The sample and sampling procedure

The study made use of thirty subjects; five subjects were selected from each of the six domains. The key factor employed was that they were Kuria native speakers. The researcher employed both random and purposive sampling procedures to select the sample from the population. Purposive sampling enabled the researcher to get the cases with the required information as stated in Mugenda and Mugenda (1999). It also enabled the selection of the specific places where the domains were practised. Within each of these locations, simple random sampling was employed in getting the actual subjects. This was done by assigning numbers to the subjects in the domain in each of the specific places where a particular domain was being practised, and picking the numbers randomly. Each subject was given equal chance to be part of the sample.

Instruments

Data was collected by use of focus group discussions and tape recording. The two tools were selected because Kuria has not been extensively studied, therefore it

was realized that the required data could not be found in books but with people in their workplaces.

Results

The research established that English and Kuria sound inventories vary; English has some consonants not found in Kuria thus when English words are borrowed into Kuria, such consonants are dropped or they undergo changes and adopt Kuria consonants to fit into the Kuria sound system. This also happens with vowels. This way the research findings confirm and support the hypothesis of this study that there are changes which take place through linguistic processes and that no single word maintains its structure when borrowed from English to Kuria.

Discussion

This section, handles how different sound systems, from English to Kuria are manipulated to account for the way Kuria speakers articulate English loans. English phonological system is different from the Kuria phonological inventory. As a result, specific phonological processes that account for how first language Kuria speakers adapt English loans into their language, without necessary breaching their language rules are discussed.

Resyllabification

This is a process of reorganizing the syllable tiers (CV and segment tiers) from the English pattern to a pattern acceptable by the Kuria phonology. Kuria accepts CV syllables while English recognizes CVC, CCV and other syllable structures. This implies that nativisation of English loans in Kuria entails reorganization of tiers that characterize English syllables to suit the Kuria syllable typology. Resyllabification entails handling complex clusters for instance /CCV/ not recognized in Kuria.

In this regard, words of English origin are therefore resyllabified to fit into Kuria structure as follows:

English	Gloss	Kuria	Gloss
/gləʊv/	glove	[iguroβu]	igurobu
/tʃeɪndʒ/	change	[itʃentʃi]	ichenchi

Epenthesis

Epenthesis is the “intrusion or insertion of an extra sound, medially or finally in a word.” In Kuria there is vowel epenthesis during adaptation of loan words of English origin. In the following sections, epenthesis of different sounds occurred in the following ways.

Epenthesis of /i/

The vowel /i/ is epenthesised to break the consonant clusters in English loan words as demonstrated below.

English	Gloss	Kuria	Gloss
/glɑ:s/	glass	[iʔitasi]	igirasi

The introduction of a new CV – pattern changes the English CVC typology to a CV typology, which is acceptable in Kuria.

Epenthesis of the palatal approximant [j].

In order to break diphthongs and triphthongs, not necessarily having [+ round], [+ back], [u], the alveo–palatal [j] is epenthesised. To nativise English words with such complex peaks, breaking the diphthongs and triphthongs is done. The rule that supercedes all processes is that epenthesis of the alveo-palatal approximant is done when there is a V element that has the same feature configurations with the glide [j].

English	Gloss	Kuria	Gloss
/trei/	tray	[etureʔji]	ethureyi

The above examples demonstrate breaking diphthongs by inserting the alveolar palatal approximant [j]. The general pattern is that [j] can be preceded by [i] as in /ai/, /ei/, /oi/, /ui/.

The glide is also epenthesized when it is preceded by the vowel /i/ as in /io/, /ie/, /ia/ and /iu/. as in;

English	Gloss	Kuria	Gloss
/giə/	gear	[iʔija]	igiya

By breaking diphthongs, the study demonstrates how CVC syllabic words (English) are changed to CV syllabic (Kuria) words. This is because Kuria does not recognise CVVC or monosyllabic words that have vowel sequences and the insertion of the glide [j] enables the breaking of diphthongs to make it easy for words to adapt into the Kuria language.

Phonological processes to handle consonant clusters

Kuria language does not recognize consonant clusters. It only recognizes consonants in a CC sequence articulated as a unitary segment. When words that are borrowed from English have CC clusters, then there should be co-articulations

for them to be recognized in Kuria).

English words are borrowed into the Kuria phonological environment, vowel epenthesis is done to come up with phonologically acceptable words.

In the examples below, the consonant sequence is broken because it is not acceptable in Kuria. Vowels are then inserted mid word and others at the end as shown below.

English	Gloss	Kuria	Gloss
/dIgrI/	degree	[itiyiri]	ithigiri

The insertion of [o] alters the syllable structure from the CVC to CV acceptable in Kuria. The closed English syllable changes to the acceptable open CV Kuria syllable. Apart from that, English words borrowed into Kuria language with a consonant at the initial position have a vowel being inserted before the consonant to fit into Kuria prefixation rule structure. The data below illustrates this;

English	Gloss	Kuria	Gloss
/petr□l/	petrol	[eβetetoti]	ebetherori

Consonant deletion

Loan words entering Kuria language may introduce unacceptable consonant clusters which may be considered marked by the native system. Kuria makes such structures conform to the native system through processes like deletion. Deletion involves a consonant becoming Ø (zero). It is totally eliminated from its original position and not replaced by any other. Sounds that undergo deletion are those that do not occur in Kuria sound system. For instance the /h/ sound in English is normally deleted from words borrowed into Kuria as shown below;

English	Gloss	Kuria	Gloss
/hβspItl/	hospital	[isiβItati]	isibithari

Vowel Deletion

Vowel deletion occurs when English words are borrowed into Kuria language, because of the differences in sound inventories between the two languages. Some vowels are deleted word medially while others are deleted word finally. The most affected categories are those that occur as diphthongs or triphthongs. Such vowels take the syllable form CVV or CVVV. Since Kuria has no triphthongs; and since most syllables occur in CVCV forms, such structures are broken down and the words are customized to acquire the Kuria syllable structure.

English /rɛɪdiɛɪtə/	Gloss radiator	Kuria [ɛɛtɪtɪ]	Gloss erethitha
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The general rule states that, a vowel is deleted when it appears in sequence with another vowel. Thus instead of having two vowels in a sequence only one remains.

Sound substitution

Substitution refers to the replacement of one linguistic item by another at a particular place in a structure. Segments that were not recognized in Kuria were replaced by those that were recognized. On the contrary, English has both voiced and voiceless sounds which are paired into phonological oppositions. For instance, the voiced bilabial stop [b] is paired with its voiceless counterpart [p], /s/ with /z/, /v/ with /f/ /g/ with /k/ and others.

When borrowing occurs, English words with voiced sounds have these sounds being substituted for the voiceless ones. It is notable that, there are other sounds in English which are not found in Kuria, in such a case those sounds are substituted for those close to them in terms of characteristics. There were two ways in which substitution is done, in the process of nativising English loans entering into Kuria. These are consonant and vowel substitution.

Consonant Substitution

Substitution is done to replace English consonants that do not exist in Kuria. There were a number of English consonants that do not exist in Kuria, examples are, [p][b][h].

The English [p] is substituted for the Kuria [β.] This is because both are bilabials, as a result they can substitute each other. They are regarded as equivalent. The words change in the following way;

English /bʌs/	Gloss bus	Kuria [ɛβasɪ]	Gloss ebasi
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The English voiceless bilabial stop /p/ also changes to the voiceless bilabial fricative [β] when the words are borrowed into Kuria as shown in the following examples;

English /zɪp/	Gloss zip	Kuria [ɪsɪβʊ]	Gloss isipu
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When English words bearing the voiced palatoalveolar affricate sound /dʒ/, are borrowed into Kuria, they have the sound being substituted for the voiceless palatoalveolar affricate /tʃ/, as shown below;

English	Gloss	Kuria	Gloss
/gæɾadʒ/	garage	[eɣɛɾɛtʃi]	egerechi

When English words with the voiceless palatoalveolar fricative /ʃ/ are borrowed into Kuria, the /ʃ/ sound is substituted with the voiceless alveolar fricative [s] as shown in the following data;

English	Gloss	Kuria	Gloss
/mæʃɪn/	machine	[emasini]	emasini

/s/ is also used whenever a loan word has the voiced alveolar fricative /z/ as shown below;

English	Gloss	Kuria	Gloss
/zip/	zip	[isiβu]	isibu

English words with the voiced alveolar stop /d/ sound have it being substituted for a voiceless alveolar /t/ sound as shown by the data below;

English	Gloss	Kuria	Gloss
/diɡrɪ/	degree	[itiɣiti]	ithigiri

Vowel substitution

Vowels were substituted in the same manner as consonants, substituting those in the English language that are not recognized in the Kuria language. The major challenge was that English has many vowels that include monophthongs, diphthongs and triphthongs, whilst Kuria has only seven simple vowels which were to be equated to all those in the English language.

English /ɛi/ for Kuria /ɛ/

English words with the diphthong /ɛi/ have it substituted for /ɛ/ when borrowed into Kuria as shown below;

English	Gloss	Kuria	Gloss
/pəreɪd/	parade	[eβaɾɛti]	ebarethi

English /ʌ/ for Kuria [a]

English loan words with the open mid front vowel /ʌ/ have it substituted for the open low front vowel [a]. this is because the two share similar features.

The data below presents this;

English	Gloss	Kuria	Gloss
/bʌs/	bus	[eβasi]	ebasi

The above examples demonstrate how the English vowels were handled by the Kuria speakers to make English words fit into the Kuria phonological inventory. The general trend found was that the substitution was not done randomly but rather systematically. The underlying principle was that those vowels that shared similar feature values could substitute one another.

General rules Changes and processes

From the data discussed above the following general rules are formulated. It is noteworthy here that these rules can apply cross linguistically, the key determining point will be that the lending language has the same features as English while the borrowing language has a similar structure as Kuria.

Rule 1: Syllable reorganization

English loan words with the syllable structures CVC, CCV have this structure being reorganized to the Kuria CV; CVCV structure through resyllabification. This is a process of reorganizing the syllable tiers from the English CVC, CCV to a pattern acceptable by the Kuria phonology. Resyllabification entails handling complex clusters for instance /CCV/ not recognized in Kuria.

Rule 2: Peak breaking

When English words, with complex peaks, (in particular diphthongs and triphthongs) are loaned to Kuria, the complex peaks are broken to fit into Kuria structure as follows;

English	Gloss	Kuria	Gloss
/gləʊv/	glove	[iγutoβu]	igurobu

Rule 3: Vowel epenthesis

When English words with the CCV, CCCV structure are borrowed into Kuria language they are customized by inserting vowels between consonants.

Examples;

English	Gloss	Kuria	Gloss
/sɒks/	socks	[itʃisoyisi]	ichisogisi

The English loans that do not conform to the syllable structure of the Kuria language because of the consonant clusters have the clusters being broken and

vowels being inserted in between the CC clusters.

Rule 5: Sound deletion

English loans that contain sounds which were not recognized in Kuria have these sounds being deleted completely. As in;

English	Gloss	Kuria	Gloss
/pəreɪd/	parade	[eβaɾeti]	ebarethi

In consonant deletion, sounds that undergo deletion are those that do not occur in Kuria sound system. For instance the /h/ sound in English is normally deleted from words borrowed into Kuria as shown below;

English	Gloss	Kuria	Gloss
/hɒspɪtl/	hospital	[ɪsɪβɪtari]	isibithari

Rule 6: Sound substitution

Segments that were not recognized in Kuria were replaced by those that were recognized.

English	Gloss	Kuria	Gloss
/kʌbəd/	cupboard	[ɛɾaβatɪ]	egabathi

Rule 7: Noun prefixation

Noun entering into Kuria are prefixed (CV) in order to make them acceptable grammatically. this is because Kuria is generally a prefixal language while English is both a prefixal and suffixal language. For instance;

English	Gloss	Kuria	Gloss
/paːstə/	pastor	[omɔβasita]	omobasitha

Rule 8: Plural markings

English loan words adapt to the Kuria morphological structure by dropping the final position plural marker and having the initial position marker attached to them. For instance the morpheme **-s** that marks number in English occurs at word final position while in Kuria, the number marker, for instance **-tɪ-**, is at the initial position, therefore, when borrowed, the loan word takes the Kuria structure by having the Kuria morpheme conjoined to it.

Conclusion and Recommendations of the Study

In summary, English and Kuria languages differ widely in terms of their phonemic inventories and morphological structure. As a result, Kuria speakers customize borrowed words from English language in different ways for them to fit into their sound system. The main reason why borrowing took place is because the Abakuria borrowed western aspects of material culture and values from the English speakers who were viewed to be more powerful and their language more prestigious because of the opportunities it had to offer in the colonial and post colonial set up in Kenya.

Since Kuria speakers did not have words for the borrowed items, they borrowed the English words too. These words have since been nativised to fit into Kuria sound structures through different adjustments on the sound segments; the consonants and the vowels. Such changes are governed by various processes and have been formalised through rules in this study. This study has shown that though languages are never the same, when two different languages are in contact, one can borrow words from the other and the loan words are nativised to become part and parcel of the borrowing language and be used as if they were part of its lexicon.

This study was based on the linguistic area of language contact and borrowing. It was found out that a determinant of adaptation of loan words is the structural difference between English and Kuria. The major areas of study which were presented in the objectives of the study included an investigation on: whether words borrowed from English language to Kuria undergo morphophonemic changes and if so, to find out if these changes were based on morphophonemic processes and rules that are stipulated in the Natural Generative Phonology theory which was the theoretical framework for this study.

The findings validate the position already taken by other scholars and researchers who have done historical and comparative studies in different languages. Researchers such as Arlotto (1972) report that, words undergo changes from donor languages to fit into recipient languages because of the differences that accrue between the two languages. On his part Hock (1986) observes that a loan word is nativised to fit into the receiving language and thus be used like other words in it. In view of the aforementioned, the objectives of this study were achieved.

It is recommended that more studies be conducted on the phonology and morphology of Kuria language using modern theories of morphophonemic description. This is because during the study it was realized that very few studies

have been conducted on Kuria language and none has been on language contact and borrowing. It is also recommended that further studies focus on the other aspects such as size and gender modifications in borrowed words, because this study only focused on number modifications.

This study focused on the segmental changes only. That is, the sound changes that occur when words are borrowed from English to Kuria language; much emphasis was put on the segmental level. It is recommended that further studies deal with the supra-segmental and auto-segmental changes that take place during borrowing of words from English to Kuria language.

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Semantic Derogation in Ekegusii Discourses: Implications for Girl Education

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Abstract

This paper examines semantic derogation in Ekegusii language, with a view to showing how an awareness of the derogation affects girls' self concept, world view and attitude towards education. The findings of an empirical study conducted in southern Kisii, Kenya were used to validate the arguments presented in this paper. This paper shows not only how the spoken word can be used to perpetuate the semantic devaluing of women, but also insights into the strategies used to manipulate ideological beliefs, hence distorting realities surrounding the text. The paper suggests that the discursive use of derogatory terms has the potential not only to polarize the social relations between men and women, but also, the power to impact negatively on girls' self-concept, world view and attitude towards education.

Key Words: Semantic derogation, referential strategies, discourse, critical discourse analysis, metaphorical language.

Introduction

This paper focuses on the influence of semantic derogation on girls' self-concept and world view. The paper is interested in the derogatory terms in the Gusii speech community that serve to shape and impair the Gusii girls' self-image and attitude towards formal education. Semantic derogation refers to the debasement of words and expressions which refer to a given group of persons in society. It entails the negative meanings associated with certain words and / or expressions, and how they are used to designate women (Muriel, 1990). Therefore, semantic derogation is a situation in language, where terms and expressions used to designate women are given negative overtones that reflect the stereotyped differences in language behaviour between men and women in society.

Notably, each language has terms with negative semantic implications. This study focused on semantic derogation in Ekegusii language. This selection was based on the view that Ekegusii language remains a linguistic deviation with contemptuous and derogatory terms used to devalue women in society (Choti, 1998). Considering language as a product of social reality that reflects the thoughts,

opinions, attitudes and Culture of its users (Thirumalai, 2001), the study selected semantic derogation as reflected in Ekegusii language because this has the potential to reveal the prejudices and / or biases in words and phrases designating women, besides accounting for their effect on girls' low self concept and general world view. Also, considering that language reflects the culture that constructs that language (Muriel, 1990), our study of derogatory terms and expressions in Ekegusii language has the potential of revealing the Gusii peoples' sexist and prejudiced feelings, opinions and attitudes towards women which were found in this study to affect the Gusii girls' self image and world view.

With regard to the main aim of this study, the research objectives were:

1. To find out whether the Gusii speech community has derogatory terms against girls and women
2. To investigate how an awareness of this derogation affect the Gusii girls' self-concept and worldview
3. To determine the implications of semantic derogation on girls' attitude towards formal education.

Theoretical Framework

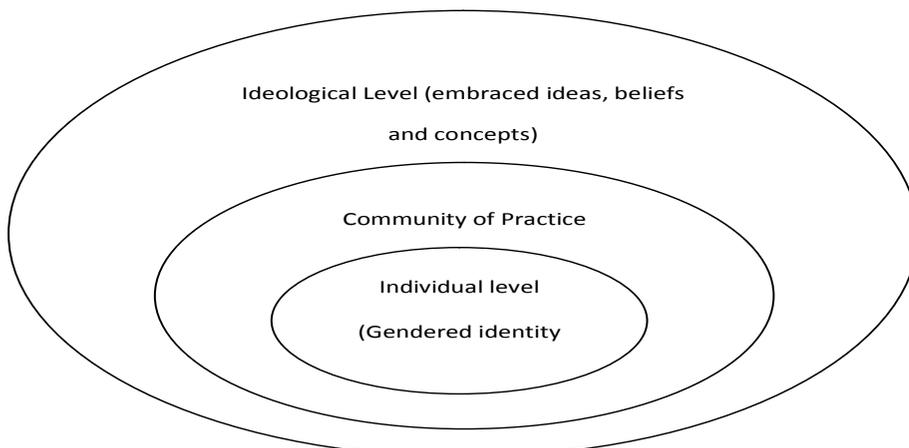
This study adopted Critical Discourse Analysis (henceforth CDA) theory, and Bandura's Social Learning Theory. CDA is a type of discourse analytical research that primarily studies the way social power abuse, dominance and inequality are enacted, reproduced and resisted by text and talk in the social and political contexts (Van Dijk, 1998). The study adopted CDA by virtue of the fact that it dwells on issues of power, ideology and discourse, in its evaluation of issues of language, gender and girl education within the Gusii speech community. CDA was very useful in helping the researcher understand and expose issues of gender inequality as they relate to issues of girl education.

CDA includes both the use of linguistic structures and non-linguistic elements (semiotics), as part of discourse (Hodge and Kress, 1998). In this respect, the scholars posit that semiotic inquiry cannot be divorced from society or socio-political thought but analysis has to focus on the social processes that surround the text. In other words, discourse cannot exist without social meanings, hence the need for a strong relation between linguistic and social structures. This framework suited the present study in that the research did not just strive to analyze Ekegusii derogatory terms but also the cultural aspects and meanings linked to these terms.

This way, CDA helped the study to transcend the grammatical structures that account for the surface level examination of this kind of discourse, to unearth the hidden complex relations of power and inequality as they relate to gender and issues of girl education.

The study also operated within the framework of Bandura's social learning theory, which was nested within CDA as the overall interpretive and theoretical framework. In this theory, Bandura (1986) suggests that children's minds are structured by the environment and by the models and social training practices that the environment provides. That is, children's behaviour is the result of a conscious interaction between personal and environmental variables with environmental conditions shaping behaviour through the process of learning. Bandura notes further that our self-efficacy appraisals exert powerful effects on our levels of motivation; children frequently learn through observation of the behaviour of both sexes though they usually perform only the behaviour appropriate to their own sex because this is what they have been socialized and reinforced to do.

The perspective given above was of value to the current paper that sought to examine how girls observe and acquire specific social identities that characterize their lack of interest and concern towards educational achievement. The same standpoint is expressed by Marger (1999), who asserts that socialization involves not simply learning the rules and beliefs of the society, but also internalizing them and making judgments about the world; learning and accepting the socially defined rights and wrongs of thought and action. The same perspective is echoed by Butler (1990), when she asserts that individuals come together and perform their gender identity in the specific contexts of communities of practice, where individuals become implicated in the construction of themselves as gendered and sexual and work only to achieve what may be an ascribed status. Butler's perspective can be summarized using the three dimensional framework below.



Source: Adapted from Butler (1990)

Figure 1: An integrated framework for the language and gender studies

Notably, the community of practice ellipse is contained within the overarching, ideological level, where an individual's self-concept and worldview may be constrained at a wider societal level. Further, the three levels in the three-tier framework above are interconnected and can only be understood in conjunction with one another; the three levels are interconnected in the sense that the link between textual and sociocultural levels is made by way of discourse practice (Fairclough, 1995). In the three tier framework, an individual's self-image is presented as a social construct (Butler, 1990), identified within the individual level, where the individual engages in spoken interaction within the community of practice. In this regard, the Gusii girls' sociolinguistic identities can only be analyzed within the community of practice (contained within the overarching, ideological level), because only this practice permits us to draw on the linguistic and social information necessary to understand their shared ideological beliefs, values and concepts. Therefore, the three-tier framework provided this study with a firm theoretical grounding for analyzing the discursive use of Ekegusii discourses using CDA.

Research Methodology

A descriptive research design was adopted to plan and build the content and form of this study. The descriptive research design helped the researcher to describe the possible behaviour and attitudes of his subjects (Mugenda and Mugenda, 1999). Similarly, the study made use of the qualitative methods of data analysis to analyze data depending on the findings of the study. Qualitative methods of research enabled the researcher to analyze and explain his research findings more deeply and exhaustively (Mugenda and Mugenda, 1999). Besides, qualitative research methods of data analysis helped the researcher to better understand the subjective perspectives of his subjects by collecting data (verbatim responses), that enabled him develop a descriptive, rich understanding and insight into their attitudes, shared beliefs, aspirations and culture that define their view of the world.

The study also used quantitative methods of data analysis to tabulate the teachers' responses into percentages to give the overriding opinions and attitudes.

Sampling Procedures

The study sampled the schools, respondents and derogatory terms in the following order:

Sampling Schools

Using convenience-sampling procedures (Stewart and Shamdasani, 1990; Mugenda and Mugenda, 1999), the study selected schools for the study. Convenience sampling procedures allowed the researcher to select schools (cases) that were available and convenient with easily and conveniently available subjects for the study. Six secondary schools were selected: two public girls' secondary schools, one public mixed boarding secondary school, one public mixed day secondary school and two private mixed day and boarding secondary schools in Southern Kisii District were used for this study. More public secondary schools were picked for the study than private schools, because public schools were expected to reflect a wider population of girls compared to private schools that have fewer students.

Sampling Respondents

The study purposefully selected forty-eight girls aged 14 to 19 whose first language is Ekegusii. The selected sample was taken to be representative of typical Gusii girls in secondary schools anywhere in the larger Gusii community. Thus, eight girls were purposefully selected from six secondary schools in southern Kisii District, where focus group interviews were carried out. Therefore, the researcher used a table of random numbers to select girls from each class for this study. Similarly, the study purposefully selected twenty-four teachers from the six secondary schools in which girls were interviewed.

Sampling Derogatory Terms

Following the practice of CDA where there is no set list of linguistic devices for use in any analysis (Meyer, 2001), the study selected those derogatory terms which were relevant to the research aims and whose analysis could allow relevant conclusions to be drawn. Also, considering that language is the vehicle through which people express their attitudes, opinions thoughts, ideas and feelings (Choti, 1998). The derogatory terms for this study were identified and isolated through a critical examination of the teachers' and girls' responses (words and statements), that reflected constructive and destructive attitudes of the Gusii people against women.

The derogatory terms for this study were selected with the belief that they are part of language, hence their potential to express the Gusii people's social practices, feelings, opinions, attitudes and thoughts about women. Therefore, through purposeful sampling procedures, the researcher selected five derogatory terms from the Gusii speech community for this study. The five terms were chosen for this study with the view that they are the most highly loaded with ideological beliefs and bias, hence their analysis could help to reveal the discursive use of

language among the Gusii people. Also, this number of structures was taken to be adequate for the study, owing to the awareness that a single text may generate large volumes of data after undergoing a critical discourse analysis (Van Dijk, 1997).

Data Collection

Considering that the study adopted CDA as the overall theoretical and interpretive framework and that CDA allows for triangulation, the study used focus group interviews and questionnaires as methods for data collection. In this regard oral responses (words and statements) that reflected on constructive and destructive attitudes were collected. These were collected from eight girls interviewed in each group, where six focus groups (one in each school), were carried out, involving two girls from each class (form one to form four). This represented all classes and ages of girls in secondary education. Focus group interviews were selected for data collection considering that the interaction between participants in focus groups highlights their view of the world, the language they use about an issue and their values and beliefs about their situation (Kitzinger, 1994). Further, questionnaires were used as supplementary tools for data collection, therefore, twenty-four teachers purposefully selected for this study responded to the questionnaires.

Data Analysis

The data for this study was analyzed at two levels. This was done as follows:

Qualitative Data

Using qualitative data, a critical discourse analysis of the data collected was done, with the knowledge that there is no set procedure for doing discourse analysis (Fairclough, 1992). Therefore, CDA was done by analyzing the text as follows:

- (i). First, the researcher identified the different responses that reflected the form and nature of derogatory terms.
- (ii). Next, the textual form of the derogatory terms was analyzed to help the researcher mediate informed interpretation of the content of the discourses under investigation. Here, textual analysis sought to make a connection between gender representations in the text and their social cultural context.
- (iii). Further, These were then described and their function in the text analyzed. That is, in order to critically understand the use of semantic derogation in Ekegusii language, a detailed textual analysis of their form and content was imperative, considering that form and content are intrinsically related (Fairclough, 1999).
- (iv) The linguistic strategies that were used to construct the girls' self concept and world view were identified and discussed.

This way, the denigrating terms that represent women negatively were identified, in place of alternative presuppositions.

Quantitative Data

Simple descriptive statistics through the use of percentages was used to analyze the quantitative data. That is, the teachers' responses from filled in questionnaires (words and statements / expressions that reflected on the constructive and destructive attitudes were identified, categorized and converted to percentages to help reflect on the overriding opinions and attitudes about the influence of denigrating terms on girls' self-concept, world view and attitude towards education.

Results

The study confirmed the existence of various denigrating terms in the Gusii speech community. This was done by identifying and analyzing the different responses (words and statements) that reflected the form and nature of gendered Ekegusii discourses. These existed in the form of foregrounding, backgrounding, presuppositions, insinuations and metaphorical references among many others. Regarding the influence of semantic derogation on girls' self concept and attitude towards formal education, it was found out that the discursive use of Ekegusii derogatory terms serves to construct the Gusii girls' perverted self concept and world view that are incongruent with their educational aspirations. That is, out of a total of 816 responses collected from the field for this study, 615 responses constituting 75.4 percent were of the opinion that the discursive use of denigrating terms serves to pervert the Gusii girls' self image and attitude towards formal education. This way, the highest percentage of respondents agreed that the use of semantic derogation serves to impair the Gusii girls' self-concept and attitude towards formal education.

Discussions

Presentation and Description of Derogatory Terms

It was prudent to give a brief description of the linguistic images analyzed before any detailed analysis was made. The summarized description highlights on the Gusii derogatory terms and as perceived by the swte easy understanding. The derogatory terms described in this research are summarized in the table below and in the ensuing discussion.

Table 1:

The Ekegusii Derogatory Terms

Examples	Ekegusii Ideological Meanings according to Usage	English Translation
4.1	<i>Semantic Derogation</i>	
1	<i>Rirogo</i>	a prostitute
2	<i>Ritinge</i>	a concubine
3	<i>Mokabaisia</i>	boys' wife
4	<i>Engoko</i>	a hen / girl or woman with loose morals
5	<i>Maiso abakungu</i>	women's eyes / evening hours approaching dusk

Source: Field Data

Semantic derogation was reflected in the use of denigrating terms as shown below.

Example 1

Rirogo

A prostitute

The term *rirogo* is crafted from the word *ekerogo* (a chair). However, the term *rirogo* is here used to refer to a promiscuous woman. In normal usage, the term *rirogo* refers to a dilapidated chair normally sat on by anybody; it is not reserved for specific persons. Therefore, if a Gusii woman has more than one sexual partner, it is assumed that she no longer belongs to any specific man just like the dilapidated chair that is sat on and / or used by anybody. This way, *rirogo* refers to a promiscuous woman and one who practices commercial sex (Choti, 1998). However, if a man has more than one sexual partner, we cannot say: *John nerirogo* (John is a prostitute). Instead, we are expected to say: *Mary nerirogo* (Mary is a prostitute), simply because the term *rirogo* is only used to apply to women. This way, Ekegusii Language does not assign equivalent words to describe and/ or refer to men that are promiscuous. Other terms (synonyms) negatively used in

place of *rirogo* to refer to women only in Ekegusii language include, *rikembi*, *ribaita*, *riraya* and *ekiabusu* (a broom). Therefore, according to the Gusii people, the term *rirogo* (a prostitute), suggests that only women are and / or become prostitutes.

Example 2

Ritinge

A concubine

The term *ritinge* is used discursively in Ekegusii language to imply a woman who cohabits with men temporarily. That is, if a woman marries and divorces now and again, it is assumed that she cannot make a good wife and she is labeled *ritinge*, as in: *Josephine ne'ritinge* (Josephine is a concubine). This further suggests that a woman is restricted to one husband whereby her former title / status (as somebody's wife) holds. Thus, in case of separation and / or divorce, a woman has no option other than to go back to her former husband lest she be labeled *ritinge* (a concubine). On the other hand, even if a man marries and divorces several times until this becomes more of his career, it is not in order for one to remark: **John neritinge*. (John is a concubine). This practice however reflects open bias against women because men are not restricted over how many sexual partners they should have even outside marriage as is the case with women. wThis way, the term *ritinge* is used in the Gusii speech community to exclusively refer to women and evoke negative images about them.

Example 3

Mokabaisia

Boys' wife

In the Gusii speech community, the term *mokabaisia* (boys' wife) is used discursively to imply a girl with loose morals. In this respect, if a girl has a boy friend (lover) and her parents or friends come to discover it, then they can refer to her as *mokabaisia* to imply that she is a girl with questionable morals hence the negative reference to rebuke her. However, when a boy that has not attained the age of marriage is found to have sexual relationships with members of the opposite sex, such a boy is not labeled: *Mokabaisia gose mokabisagane* (boys' wife and / or girls' wife). Under such circumstances, one cannot say; **Richard imokabaisia* (Richard is boy's wife). Instead, it is the norm to say; *Grace imokabaisia* (Grace is a boys' wife). It is in this regard, that the present linguistic investigation endorses the stance that Ekegusii language reflects and perpetuates discrimination against women. The term *mokabaisia* (boys' wife) in Ekegusii language is reserved exclusively for girls in the minds of many people.

The fact that Ekegusii language does not use the same derogatory labels for men with similar tendencies as women suggests and confirms censorship of women in all matters to do with sexuality, simply because they are women.

Example 4

Engoko

A hen or girl and / or woman with loose morals.

In normal language usage, *engoko* means an adult female chicken and / or a fully grown female bird. Normally, hens are raised and slaughtered for their meat, which is considered a delicacy. However, the term *engoko* is used figuratively in Ekegusii language to denote a woman known and / or suspected to have multiple sexual partners; hen is used metaphorically to represent the lack of morals on the part of women. In this regard, it is a common practice to say: *Flora nengoko* (Flora is a hen). This implies that her morals are not good. However, a man with similar tendencies as Flora above cannot be referred to as: **Richard nengoko* (Richard is a hen). Instead, if a man or boy has multiple girl friends or women friends, he is referred to as *etwoni* (a cock). This suggests that such a boy or man is a conqueror of women thus a superior person. In this case, the use of such terms to denigrate women reflects Ekegusii language as one entrenched with prejudiced cultural beliefs pegged on patriarchal ideologies. Such terms not only reflect the lexical gaps in Ekegusii language but also confirm that sexist attitudes towards women may come to condition their way of thinking.

Example 5

Maiso abakungu

Women's eyes / evening hours approaching dusk

The phrase, *maiso abakubngu* is also used by the Gusii people to refer to evening hours approaching dusk. It implies that women's sight begin to fall at this time. Indirectly, the phrase, *maiso abakungu* (women's eyes) is figuratively used to imply that women lack foresight. In this respect, one cannot say: **maiso abasacha* (men's eyes), to imply evening hours approaching dusk. This suggests that the phrase *maiso abakungu* (women's eyes) is solely used to denote experiences to do with women. This way, the phrase is used in the figurative sense of opposing the abstract reality. From such observations, the research on Ekegusii language found out that living in a world permeated by such sexist words and expressions, may present the ordinary means by which girls and women get information and ideological knowledge with which they form judgments on issues affecting them in society (Thompson, 1995).

Linguistic Features of Ekegusii Derogatory Terms

The researchers focused on the various linguistic features of Ekegusii derogatory terms, as highlighted below. Here, the discussion centered on reflecting the various distinct features of the Gusii language and the likely purpose of those features.

Foregrounding and Backgrounding Techniques

Foregrounding entails the giving of unusual prominence to one element or property of a text, relative to other less noticeable aspects. In this study, foregrounding has been used to mean language deviation from the normal usage in the text by giving emphasis to certain concepts through textual prominence. According to Hakemulder (2004), foregrounding (in a purely linguistic sense) refers to new information, in contrast to elements in the text which form the background against which the new elements are to be understood by the listener or reader; foregrounding is a deviation from intrinsic norms (Hakemulder, 2004). That is, foregrounding breaks up the listener's or reader's routine behaviour and perspectives and replaces them by new and surprising insights and sensations thus making him or her aware of his or her automatized actions and preconceptions

Foregrounding is aimed at making particular expressions and words in the text more prominent than others, whereas backgrounding is aimed at de-emphasizing given issues in the text thus denying them public scrutiny and / or criticism. Backgrounding shows how language in a text serves to de-emphasize given issues of concern in the text. The ultimate form of backgrounding is omission, which entails leaving certain things completely out of a text (Huckin, 1997): That is, omission is often the most potent aspect of tantalization, because if the speaker or reader does not mention something, it often does not enter the listeners' mind and thus is not questioned and/or subjected to his or her scrutiny (Huckin, 1997). Foregrounding creates renewed perceptions that create a fresh awareness (Van Peer, 1986) and (Hakemulder, 2004) foregrounding plays a role in the actors' mind by enhancing their aesthetic appreciation of the text besides helping to change their perceptions of the world outside the text (Van Peer, 1986). This way, foregrounding technique was selected for this study considering that it has the potential to influence girls' perception of the world. Besides foregrounding was assumed to help the researcher establish the link between Ekegusii derogatory terms and their contexts of use within which they are situated. This is in line with the view that foregrounding can be used to evaluate texts, situate them historically or explain their importance and cultural significance. This means that foregrounding and its consequent textual meanings must often be deduced from the context in which the term is used (Van Peer, 1986).

Overall, our research utilized both foregrounding and back grounding techniques considering their potential to influence girls' perceptions through renewed awareness beyond their routine behaviour use. In other words, the researcher hoped that the use of foregrounding and back grounding techniques could enable him present the new ways in which meanings are brought about and experienced among the Gusii people, hence the Gusii girls' perverted self -concept and perceptions of the world. The concepts of foregrounding and back grounding are better elucidated in the examples below, which highlight the use of denigrating terms in Ekegusii language. The term *ritinge* (a concubine) is used discursively by the Gusii people to imply that only women are and / or become concubines. That is, if a woman marries and divorces several times, then she is referred to as *rirogo* (a concubine). In this way, it is common to hear references like: *Jeria neritinge rigotu* (Jeria is an old concubine). However, it is odd for one to remark: *Geoffrey neritinge rigotu* (Geoffrey is an old concubine). That is, the derogative term *ritinge* (a concubine) is exclusively used to denigrate women.

Such derogatory terms serve to put women's presupposed evils at the fore so as to portray them negatively hence giving them a negative image in society. Women's moral backbone is put into the fore whereas that of men is hidden (back grounded) because no equivalent terms used to refer to men are given in Ekegusii language. The reference *rirogo* (a prostitute) is discursively used in Ekegusii language to refer to a promiscuous woman. *Rirogo* is also used to mean a promiscuous woman who practices commercial sex (Choti, 1998). However, Ekegusii language does not assign equivalent terms to refer to men who are immoral. Thus, saying: *Tom nerirogo* (Tom is a prostitute), is unacceptable while saying: *Jennifer nerirogo* (Jennifer is a prostitute) is the norm and the formula. This portrayal is in effect meant to make women's presupposed negative image more recognizable compared to that of men. This way, a critical examination of semantic derogation in Ekegusii language reveals that once a word is associated with women, it often acquires semantic stereotypes that are negative. Similarly, the Gusii people discursively use the term *engoko* (a hen) to exclusively refer to a promiscuous woman. However, there is no direct equivalent term in Ekegusii language to denote an immoral man.

The equivalent term for *engoko* (a hen), is *etwoni* (a cock) which is however used in this instance to give glory and reflect a man with several sexual partners as a conqueror of women. Thus, the consistent use of derogatory terms to denigrate women serves to make their implied negative character more recognizable than their achievements. In this regard, if a woman's morals are questionable, she can be referred to as; *Janet nengoko* (Janet is a hen). Metaphorically, equating a promiscuous woman to a hen has semantic implications. It presupposes that

women are just like hens (inferior and dirty birds). In the same vein, a promiscuous man cannot be referred to as: *Jeremiah nengoko* (Jeremiah is a hen). Instead, he will be praised as in: *Jeremiah netwoni* (Jeremiah is a cock). This reveals open discursive discrimination in Ekegusii language against women. Such derogatory terms serve to foreground women's negative image. Consequently, all the above mentioned derogative terms present women as victims on the spotlight and not on those pushing them to these acts (presumably, men). The omission (back grounding) of men's evils from the texts serves to present women as subject to moral depravity and men as not being guilty of such offences.

Therefore, women's moral situation as depicted in Ekegusii language is meant to create an ideology and fallacy that persuasively implore women and girls to feel inferior and subordinate to men. Further, the derogatory terms investigated showed that biased attitudes and opinions towards women have a negative effect on girls' self-definition and way of thinking. In the same light, discursive use of derogatory terms and expressions with negative semantic implications point towards girls' low self-concept and negative attitudes towards education. Also, the use of derogatory references in this text serves to signal how language is used to promote and perpetuate negative images of women in society. Indirectly, this portrayal serves to discredit and demean girls and women in society. It is for this reason that the study noted that the socialization of girls in communities with prevalent use of highly gendered language is highly likely to condition their way of thinking. Evidently, all the examples above make it easier for us to focus our attention on women's implied weaknesses, because of their given prominence in the texts. Speakers create and reinforce a gendered perspective that is meant to influence women's worldview.

Presuppositions and Insinuations

Presuppositions entail the use of certain words that take certain ideas for granted in the text; they refer to the use of persuasive rhetoric, normally to convey the impression that what one (an agent of power) says carries more weight in the text (Huckin, 1997). Presuppositions entail the use of language in a way that appears to take certain ideas for granted, as if there were no alternatives. They (presuppositions) are notoriously manipulative because they are difficult to challenge (Huckin, 1997). According to Dilts (1998), presuppositions relate to unconscious beliefs or assumptions embedded in the structure of an utterance, action or another belief and are required for utterance, action or belief to make sense. In this regard, linguistic presuppositions occur when certain information or relationships must be accepted as true in order to make sense of a particular statement.

On the other hand, insinuations refer to comments that are slyly suggestive. Like

presuppositions, insinuations are hard to challenge (Huckin, 1997). Presuppositions and insinuations constitute beliefs that form the foundation of a particular system of knowledge (Dilts, 1998). Therefore, it is with this understanding that presuppositions and insinuations were selected for this study, considering that they could help the researcher gain insight into the shared knowledge of the Gusii girls that is taken to influence their self concept and perceptions of the world. Also, the present study presupposes that when girls let presuppositions to pass outside their awareness, they usually accept them. That is, considering that presuppositions are notoriously manipulative and difficult to challenge (Huckin, 1997), the researcher presupposes that girls may tend to focus on the outermost layer of meaning and overlook the presupposition deep inside. Presuppositions and insinuations were taken to be relevant for this study considering their indirect and latent meanings characteristic of those sexist meanings that are common in Ekegusii language. This was evidenced in the text as follows.

The terms *rirogo* (a prostitute), *ritinge* (a concubine) and *engoko* (a hen / girl or woman with loose morals), suggest that only women are subject to moral probity. In other words, the terms above, *rirogo*, *ritinge* and *engoko* are used discursively to make the listener feel that women are spoilt and inferior to their male counterparts. *Rirogo* (a prostitute) is taken to refer to women only, thus suggesting that only women become prostitutes. *Ritinge* (a concubine), is also used to refer to women implying that men are free from such negative references. In other words, it is highly unlikely for the Gusii people to say: **Tom nerirogo* (Tom is a concubine). We are in this respect supposed to say: *Janet nerirogo* (Janet is a prostitute) or *Janet neritinge* (Janet is a concubine). Likewise, *engoko* (a hen) is used to suggest that only women's morals are bad. This explains for example why nobody can remark: *Geoffrey nengoko* (Geoffrey is a hen). Such references entail the manipulation of Ekegusii language by using selective voices to convey the message that women's moral depravity is real and that their implied inferior social position is correct and legitimate.

Metaphorical Language

Metaphors entail comparative constructions in a language in which an entity's attributes are transferred onto another entity in the text (Pecheux, 1982). In this regard, a word, expression or proposition does not have meaning of its own; meaning does not exist anywhere except in the metaphorical relationships (realized in substitution effects, paraphrases and synonym formations) which happens to be more or less provisionally located in a given discursive formation. The study of metaphorical relationships in which meaning is located within the boundaries of a discursive formation can lead to insights into the ideological dimension of meaning (Pecheux, 1982). Metaphorical use of language was

therefore appropriate for this study considering that Ekegusii language has several metaphorical references used to reinforce assumptions held about the forms of meaning related to the Gusii beliefs and hence attitudes and ideologies that sexist men enact or express when talking about women.

Metaphors correspond to a world outside language itself (the social cultural issues in society). A metaphor is seen in terms of properties of attribution, which are alluded to. That is, texts are seen to contain pragmatic presuppositions which exist at the pragmatic level (Lennon, 2004). Thus, for us to gain analytical insights into the discursive use of linguistic structures to downplay and subjugate women in the Gusii speech community, analysis of metaphorical language was imperative considering its advantage in calling attention to the semantic problem of reference, meaning and truth in Ekegusii language. In this regard, it is worth nothing that Ekegusii language has several metaphorical references. However, the study utilized only those metaphorical references that are discursively used to talk about women. Also, metaphors entail comparative constructions in a language in which the attributes of an entity are transferred onto another entity in the text. Ekegusii language has numerous metaphorical references used to reinforce assumptions held about the forms of meaning that sexist men express when talking about women. Examples of metaphorical references in the text include:

Similarly, the text on semantic derogation has denigrating terms that are metaphorically used to invoke negative attitudes towards the female gender. These include *engoko* (a hen / or girl/woman with loose morals). In this example, a woman or girl with loose morals is metaphorically compared to a hen (a bird) to suggest an inferior (lesser) being and a morally deprived person. In this text therefore, girls and women are negatively portrayed. In the same vein, the phrase *maiso abakungu* (women's eyes / evening hours approaching dusk), is also used metaphorically; women's eyesight is indirectly compared to evening hours approaching dusk. Ironically, the choice of such negative terms to refer to women communicates the fact that women are the victims of aggression in the text. They (women) are projected not only as a people who are inferior, but also as persons who lack foresight. The choice and use of terms in the text thus imply a form of morally or legally reprehensible harassment and abuse of power. Such words and expressions contribute to the overall polarization of the conceptual structure of the text and to the formation of a biased and polarized model of events where women and girls are clearly portrayed as the bad and men as the good. Therefore, conceptual polarization is implemented in the text by the use of the above said forms of metaphors; the semantic polarization of this text serves to construct and express biased models of girls and women. These mental models

also represent personal beliefs, knowledge, attitudes and ideologies which are held in our society about women.

Context of Gendered Derogatory Terms on Girl Education

The context of denigrating terms on girls' view of education was looked at by focusing on the linguistic strategies for constructing women and girls' self concept and world view, and the implications of derogatory terms on girls' self-definition and attitude towards education.

Linguistic Strategies for Constructing Women and Girls' Self Concept and World View

Self concept refers to the sum total of an individual's knowledge and understanding of his or herself (Purkey, 1988 and Lucky, 1945). In other words, a person's self concept is the way an individual views and / or perceives himself or herself hence the means by which he or she interacts with life in a way that makes him or her meet his or her basic needs. The self-concept is not innate, but it is developed or constructed by the individual through interaction with the environment and reflecting on that; it is also possible to change one's self-worth (Brigham, 1986). Likewise, many of the successes and failures that people experience in many areas of life are closely related to the ways that they have learned to view themselves and their relationships with others (Mc Adam, 1986, Ryan et al. 1986). It is from this understanding, that the study views the Gusii girl's academic performance in education as being generally based on values internalized from their speech community rather than from their own valuing. This means that the Gusii girl's self conceptions differ from the reality of their experiences in which case, a state of incongruence exists. This evaluation is further made clear by Mugui (2004), who argues that self concept entails a process by which individuals ignore, deny, distort or perceive experiences that define them. The paradigm of self-concept is thus relevant for this study which purports that the use of gendered linguistic images serve to distort and / or present the Gusii girl's self concept thus perverting their perception of the world; the study presupposes that the Gusii girl's ever diminishing interests for academic success and achievement results from their distorted self-concept.

By the same token, there are several different components of self-concept; physical, academic, social and transpersonal. Our academic self-concept relates to how well we do in school or how well we learn and it is the basis for all motivational behaviour (Franken, 1994). There is a relationship between one's self concept (knowledge of one's self) or self-esteem (one's subjective evaluation of his or her value/worth) and academic success (Bandura, 1997). This viewpoint

is relevant for the present study considering that it sought to investigate how semantic derogation affects the Gusii girl's self concept, world view and attitudes towards formal education. On the other hand, worldview is taken in this study to mean the framework of ideas and beliefs through which girls interpret the world and interact in it; worldview consists of basic assumptions and images that provide amore or less coherent way of thinking about the world (Wallace, 1970). In other words, worldview entails a person's internal framework about reality and life; implying it encompasses the personal insight about reality and meaning. Much of a person's worldview is shaped by his or her culture and upbringing (Wallace, 1970). It is from this understanding that the researcher sought to investigate how the use and internalization of gendered linguistic images within the Gusii speech community serves to socialize girls to embrace a perverted view of both the self and the world around them. This study sought to establish the dialectal relationship between the discursive use of linguistic structures and girls' self-concept and world view.

The linguistic strategies (referential strategies) used to construct girls' self concept and world view were discussed. In this study, strategies entail the systematic way of using language adopted to achieve a particular aim (Wodak, 2004). bIn this regard, the study utilized referential strategies and argumentation strategies to analyze how the Gusii girls' self concept and world view are constructed and presented via the discursive choice and use of derogatory terms.

Table 2:
Linguistic Strategies used in Constructing Women and Girls' Self Concept and World View

Linguistic strategies	Objectives	Linguistic devices employed
Referential	Creation of girls' self concept and world view	-Presuppositions - Insinuations -Selective lexical choices

Source: Adapted from Marube (2005)

Referential Strategies

In this research, Referential strategies entail the systematic ways of using language to construct and represent the girls' self-image and world view; referential strategies are realized and / or actualized in the form of linguistic structures through which girls are referred to or named (Reisigl and Wodak, 2001). Therefore, referential

strategies were selected for this study considering that any form of reference or naming often involves an evaluation (characterization) of that which is named (Reisigl and Wodak, 2001). This way, referential strategies were particularly significant in this study because, the way girls are categorized influences the way we perceive and relate to them; the discursive use of linguistic structures imply the characterization and / or evaluation of girls by the Gusii people.

In the same vein, referential strategies were selected for this study based on the nature of the present linguistic investigation which necessitated the analysis of semantic derogation, whose use reflected how girls are presented and represented in the Gusii speech community. The use of referential strategies to construct and present girls' perception of the world is better explained in the ensuing discussion regarding gendered derogatory terms that help to construct and impair girls' self-image and way of thinking.

The term *rirogo* (a prostitute) presents women as prostitutes and as persons without sound morals. It depicts women as less dignified in comparison with their male counterparts, whose negative attributes have been concealed from public scrutiny. This portrayal communicates an ideologically complex perspective that women are inferior to men. However, the term *rirogo* does not have its direct equivalent term used to describe men. Therefore, the term *rirogo* paints a one sided picture that favours the male folk at the expense of the female folk. This is further evidenced in the text from one of the girls interviewed. She argued: '... when you call me *rirogo*, I feel hated, useless and dishonoured'. Further to this, another respondent argued: 'if you refer to me by the term *rirogo*, I feel dirty, hated and discriminated against on sexual grounds'. This way, girls' self image is constructed for them in that they are made to evaluate themselves as being spoilt and dishonoured, considering that they are part of the female folk whose morals are presupposedly rotten.

The metaphorical use of the term *rirogo* (a prostitute) to refer specifically to women, confirms the underlying ideological belief in the Gusii speech community; only women can become prostitutes, thus rendering their morals questionable. This belief is further reflected in the use of the term *engoko* (a hen), where women and girls are further equated with an inferior bird, *engoko* (a hen) which is used in the text to refer to any woman with loose morals. This is seen from the reaction of one of the respondents who argued: 'when you call me *engoko*, you make me feel dirty and immoral'. Arguably, the use of such gendered terms signal the stereotyped and prejudiced attitudes that the the Gusii people harbour towards women. Arguably, such depiction can make some girls to conclude that only boys matter and are supposed to participate in the mainstream activities.

This can create a false image. This further shows how language can be used discursively to implant the ideology of fear and insecurity among women and girls by presupposing that women's morals are bad.

The reference *mokabaisia* (boys' wife) further illustrates the fact that girls do prostitution with boys which in effect serves to debase their morals. *Mokabaisia* refers to girls with multiple sexual partners. The fact being stated conveniently is that only girls do prostitution with men and not vice versa. Similarly, the phrase *maiso a bakungu* (women's eyes / evening hours approaching dusk), presents yet another metaphor which implies that women are evil and lack foresight. Metaphorically, women are associated with darkness (the night) to imply that they do not see far at night; night hours are however normally associated with evil. Ironically, the metaphor presupposes that women are not only evil but they also lack foresight. Therefore, women are presented as people who have negative attributes. This constructs them in a negative way. Our linguistic analysis of semantic derogation in Ekegusii language revealed that gender stereotyping is capable of distorting girls' perception of the world, besides disadvantaging them as learners.

Implications of Derogatory Terms on Girls' Self-Definition and Attitude towards Education

Girls' inability to participate and complete secondary school education is presented as a barrier to their survival and success in society. The discursive use of derogatory terms and their effect on girls' self-image and worldview was taken to constitute a linguistic barrier to girl education. In this respect, girls' inability to participate and complete secondary school education was also presented as hampering the girls' survival and progress in society. The influence of denigrating terms on girl education was first looked at by analyzing the linguistic barriers to girl education, then the statistical analysis of data on derogatory terms. This was done as follows.

Derogatory Terms and Girls' Morale for Education

The use of derogatory terms was found in this research to present women as a people with questionable morals: these denigrating terms make many girls and women to feel hated and discriminated against hence their low self-esteem that characterize their ever diminishing participation in the public domain. This evaluation is elucidated below. The term *rirogo* (a prostitute), presents women as people with tainted morals. This was revealed from one respondent who remarked: 'these abusive words may make girls to think that women are the cause of all evils in society especially sexual immorality. If you refer me by the term *rirogo*,

I feel dirty, hated and discriminated against on sexual grounds.’ This way, the discursive use of derogatory terms in Ekegusii language serves to alienate girls and women’s thinking from important issues in society like education.

The discursive reference to a woman solely as *ririgo* presents an assumption that being a man is protection enough against moral degeneration. This way, the gendered use of derogatory terms in Ekegusii constitutes a barrier to women’s education, more so, for women and girls who succumb to this psychological warfare. The above said state of affairs is further presented in the use of the term *engoko* (a hen or woman with loose morals), to which one of the teachers affirmed:

In fact, it is embarrassing to be called *engoko*. These references are seriously biased that only women are immoral. I am foreseeing a situation where girls’ efforts will continue to be affected because of the way they are perceived.

In other words, the use of denigrating references may force girls to make subjective evaluation of their self worth thus socializing them to patterns of behaviour related to their gender but to their disadvantage in education. This understanding is in line with Shapiro (1989), who asserts that a student’s personal orientation and approach to learning is guided by the nature of his or her image of the self. Also, the terms *ritinge* (a concubine) and *mokabaisia* (boys’ wife), are capable of making some girls to feel inferior, degraded and dishonoured. This may in turn lower their self-esteem and morale for active participation in the mainstream activities including education. This understanding was echoed in the following response:

Such abusive words and phrases define girls as immoral people and make them feel embarrassed. This embarrassment hinders them from engaging in eye catching issues in society like education and leadership.

The study discovered Ekegusii language to be lacking the understanding that a good image is the concern of each one of us; there is nobody who doesn’t need to be portrayed correctly. Therefore, it is like women and girls are the disposal site for anything evil or ugly in society. This portrayal thus denies women and girls of their self-confidence and sense of purpose appropriate for academic success

Representation of Statistical Significance of Data on Semantic Derogation

Inability to participate and complete secondary school education is presented as a threat to the individual’s survival and success in society. To determine the

effect of gendered images on girls' attitudes, respondents were asked to respond to questions in a questionnaire. The question was whether gendered linguistic images affect the Gusii girls' self-concept and attitudes toward education. In this respect, the research aimed at ascertaining the teachers' perceptions and interpretations of the extent to which the use of derogatory terms impair the Gusii girls' self concept and world view. The respondents were supposed to respond to five categories of responses namely: strongly agree, agree, disagree, and strongly disagree and not sure. Similarly, there were a total of 816 responses and twenty-four respondents (teachers), each of whom made thirty-four responses. The responses are discussed below.

Out of a total of 816 responses, 301 responses showed that some respondents strongly agreed that the use of denigrating terms does influence girls' self-concept and general attitudes towards education. These responses constituted 36.9 percent of the total responses collected from the field. Similarly, a total of 312 responses revealed that majority of the respondents were of the opinion that the Gusii girls were persuasively compelled to embrace a perverted self concept which in turn influence their attitudes toward active participation in the mainstream activities, education included. This self concept is based on the construction of the girls' self-image. At this point, we can affirm that the girls are predisposed to agreeing with the message of the text. A total of 615 responses were in agreement with the view that the girls' self-definition and world view are influenced by the use of semantic derogation in the text and thus have their concept of the self constructed for them. This number of responses show that a high percentage which is a clear confirmation that semantic derogation does affect the Gusii girls' self-concept and general attitudes towards education. Also, the girls' self image being constructed is not to the advantage of the girls. That is, the powerful groups in society do use such like discourses to entrench ideologies which serve to take power away from the girls by sustaining suppression and domination. This shows how discourse and language can be used to make unbalanced power relations and prejudiced portrayal of social groups in society (Fairclough, 1985; Tator and Henry, 2002), besides shaping society by constituting knowledge and social identities (Van Dijk, 1997). This way, the ideologies serve to create girls world view based on the creation, consumption and acceptance of prescribed gendered self image.

The fact that the Gusii girls embrace and confirm that their self concept and world view is constructed for them implies that they have to think along the lines prescribed by the producers of these gendered linguistic structures. The girls passively accept to be grouped as being inactive and inferior members of the Gusii speech community. This standpoint confirms that the use of derogatory terms indeed affect the Gusii girls' self-concept and general attitudes towards education. A number of respondents disagreed with the idea that girls have their

self image and world view constructed for them by the powerful members of society. There were 112 responses that strongly disagreed. This was 13.7 percent of the total responses. Similarly, 69 responses were in general disagreed which constituted 8.5 percent of the total responses. In total, therefore, a total of 181 responses were in disagreement. This constituted 22.2 percent of the total responses. By disagreeing, the respondents had refused to accept the presentation of the girls' attributes which presuppose their future perceptions of the world. This means that they do not embrace the belief that the use of derogatory terms affects the girls' self-image and manner of thinking. This implies that not all girls are affected and / or influenced by the use of semantic derogation in society. They have taken their ground and are against such discursive practice of gendered discourses. This confirms the need to create awareness in girls and women of how they are deceived about their own needs thus bringing them to identify what their true needs and interests are (Fairclough, 1993). This way, the present research sought insight into the mechanisms by which social processes exclude and marginalize (Rhoads, 1994 and Thomas, 1993). A total of 20 responses were not sure of where they belonged. This was 2.4 percent of the total responses. This could be a signifier of their not being aware of the presence of such discursive processes in society.

These responses reveal the truth behind the observations made by Fairclough (1985), and Henry and Tator (2002) that discourse and language can be used to make unbalanced power relations and portrayals of social groups appear to be common sense, normal and natural, when in fact the reality is prejudice, injustice and inequality. That is, some people seem to lack the necessary critical understanding of the deterministic role played by such discursive practices in shaping girls' self definition and general world view. This state of affairs confirm the aim of this research which sought to unpack and unveil the truth behind Ekegusii discourses with the aim of making unwary members of society, more so girls and young women to be aware of such inequalities, and specifically as they relate to their academic and intellectual pursuits. This objective was in line with the emancipatory aim of CDA which is to spur people to corrective action by making them aware, not only of the existing power imbalances, social inequalities and other non-democratic practices, but also by bringing them to identify what their true needs and interests are (Fairclough, 1993) and (Van Dijk, 1998).

Therefore, we can conclude that the findings of this study are in agreement with the view that derogatory terms do impair the Gusii girls' self-definition and attitudes towards formal education. Consequently, only a systematic analysis of the Gusii gendered derogatory terms can help to reveal how girls and women are constructed as gendered beings with ascribed statuses. The findings of this research are summarized in the table below.

Table 3:

Responses to the suggestion that semantic derogation impacts negatively on girls' self-definition and attitude towards education.

Response	Frequency	Percentage
Strongly agree	301	36.9%
Agree	312	38.5%
Strongly disagree	69	8.5%
Disagree	112	13.7%
Not sure	20	2.4%
Totals	816	100%

Source: Field Data

From the table above, it is evident that out of a total of 816 responses, 301 responses constituting 36.9 percent of the total responses showed that some respondents strongly agreed that semantic derogation does influence girls' self-concept and general attitudes towards education. Also, a total of 312 responses constituting 38.5 percent were in general agreement that the Gusii girls were persuasively compelled to embrace a perverted self concept which in turn influences their attitudes towards formal education. Thus, a total of 615 responses were of the opinion that the Gusii girls' self- image, world view and attitudes towards education are generally influenced by the use of denigrating terms. Similarly, total of 181 responses constituting of 22.2 percent of the total responses were in disagreement with the idea that the use of semantic derogation affects the Gusii girls' self- concept and attitudes towards education. Therefore, the highest percentage of respondents agreed that the use derogatory terms impair the Gusii girls' self-concept, way of thinking and attitudes towards education.

Recommendations from the Study

The study recommends for a replication of this study in another speech community, to help find out if the use of semantic derogation actually impairs girls' self image and worldview, which is found in this study to affect their attitude towards education. This will in effect help ascertain the extent to which the findings of this study are generalizable to other research findings on the same issue. The study further suggests that the Gusii people ought to adopt a new culture embraced in a language of love and respect, to eliminate

the verbal stereotyping prevalent in Ekegusii language which is responsible for girls' low self concept and perverted attitudes towards education.

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Effects of Science Process Skills Mastery Learning Approach on Secondary School Students' Chemistry Achievement in Koibatek District, Kenya

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Abstract

*The study investigated the effectiveness of Science Process Skills Mastery Learning Approach (SPROSMALEA) on secondary school students' achievement in Chemistry. It was carried out in Koibatek District, Kenya where there has been persistent low achievement in the subject. The Solomon Four Group, Non-equivalent Control Group Design was used in the study. Four co-educational schools were purposively selected from the District and randomly assigned to serve as experimental group (E_1), experimental group (E_2), control group (C_1) and control group (C_2). Each school provided one Form Two class for the study giving a sample of 160 students. All groups were taught the same course content on salts for a period of four weeks with the experimental groups receiving their instruction by use of SPROSMALEA approach and control groups using the conventional teaching method. The researchers trained the teachers in the experimental groups on the technique of SPROSMALEA before the treatment. The Chemistry Achievement Test (CAT) was used for data collection. Pre-test was administered to students in the experimental group (E_1) and control group (C_1) before teaching commenced and after the teaching a post-test was administered to the four groups. The Instrument was pilot tested to ascertain its reliability. The data collected were analysed using *t*-test, ANOVA and ANCOVA. Hypothesis of the study was tested at $\alpha = 0.05$ level of significance. Results indicated that students in the experimental groups outperformed the control groups in the Chemistry Achievement Test. This showed that SPROSMALEA instructional approach facilitated students learning better than the conventional teaching method. Chemistry teachers should be encouraged to incorporate this approach in their teaching. It should be included in regular pre-service and in-service training of chemistry teachers in Kenya.*

Keywords: Science Process Skills Mastery Learning Approach (SPROSMALEA), Achievement in Chemistry, Conventional Teaching Method.

Introduction

One objective of science education is to develop student's interest in science subjects as today's society depends largely on output of science and technology. Effective science learning depends on the method and techniques employed by the teachers during instructional process (Das, 1985). Students learn science best when the instructional approach enables them to get involved actively in class activities. They should participate actively in performing experiments, carrying out demonstrations, class discussion and other relevant learning experience. The way science is taught in schools seems to either enhance or hamper learners' interest in the subject and hence affect overall performance of school education (Ogunniyi, 1999). Knowledge of science and technology is a requirement in all countries and all people globally due to the many challenges that are experienced. These challenges include emergences of new drug resistant diseases, effect of genetic experimentation and engineering, ecological impact of modern technology, dangers of nuclear war, explosions and global warming among others (Wambugu, Changeiywo & Wachanga, 2007).

Chemistry occupies a central position amongst the science subjects. It is a core subject for the medical sciences, textile technology, agricultural sciences, and chemical engineering. In spite of the importance of the subject, student's still shun it (Jegede, 2003). According to Keeves and Morgenstern (1992), students anxiety towards the learning of chemistry makes them to loose interest in it. Sola and Ojo (2007) argued that chemistry teaching should develop in the students manipulative and experimental skills to make them competent and confident in conducting experiments. Students should do practical work of conducting experiments, reporting their observations and making inferences, thus developing their scientific knowledge, experimental skills and at the same time arousing and maintaining their interest in the subject. According to Omwu (1981), teachers of chemistry are expected to make the subject more relevant, enjoyable, easy and meaningful to students. Teaching methods need to be improved and appropriate teaching strategies developed as teaching-learning situation may demand. In addition, it is worth noting that different topics in chemistry may require different approaches depending on their complexity and structure.

In Kenya, researches have been done on various strategies of teaching chemistry in order to improve the performance. Wachanga and Mwangi (2004) found that Cooperative Class Experiment Teaching Method facilitated students' chemistry learning and also increased students

motivation to learn. Wachanga and Gamba (2004) studied the effect of Mastery learning approach on secondary school students' achievement in chemistry and found that it enhances learning than the conventional method. In spite of attempts to improve students' performance in chemistry national examinations, their performance has remained below average. For example, the 2008 Kenya Certificate of Secondary Education (KCSE) examination results indicated that performance in chemistry was poor (Nation, correspondents, 2010). Students' performance may be improved by changing the teaching approach.

This study aimed at examining the effects of Science Process Skills Mastery Learning Approach (SPROSMALEA) on students' achievement. This approach is an integration of Science Process Skills and Mastery Learning leading to a new approach (SPROMALEA). Effects of this teaching approach on students' achievement have not been studied. It is hoped that the approach may contribute in improving students' achievement in chemistry.

Mastery learning is an approach to teaching and learning that involves the students reaching a level of predetermined mastery of a unit of instruction before being allowed to progress to the next unit (Davis & Sorrell, 1995). On the other hand, Science Process Skills are acquired by learners when they engage in scientific investigation (Arena, 1996). The Science Process Skills that were focused on this study were experimenting, observation and making inferences. This study was based on the chemistry topic on Salts in Form Two class. Learners were taught in such a way that they mastered skills one at a time as recommended in mastery learning approach.

Purpose of the Study

The purpose of the study was to determine the effects of Science Process Skills Mastery Learning Approach (SPROSMALEA) on Students' Achievement in Chemistry.

Objective of the Study

The specific objective of the study was to compare the achievement of students who are taught Chemistry through SPROSMALEA and those who are taught through conventional teaching methods.

Hypothesis of the Study

The following null hypothesis was tested in this study at significance level of 0.05.

Ho1: There is no statistically significant difference between student's Chemistry achievement of those who are exposed to SPROSMALEA and those who are not.

Conceptual Framework

The conceptual framework used in the study was based on the theory developed by Bloom (1981) and Levine (1985) for mastery learning. For science process skills, the theory was derived from the works of Padilla, Cronnin and Twiest (1985) and Brotherton and Preece (1996). In mastery learning, the blame for a student's failure rests on the instruction and not lack of ability on the part of the student. The challenge becomes providing enough time and employing instructional strategies so that all students can achieve the same level of learning. Process skills theory states that the learning of skills increase levels of skills performance and this improves students' achievement. In this study the instructional strategy used was SPROSMALEA which incorporated both mastery learning and science process skills.

Figure 1 is a representation of the framework.

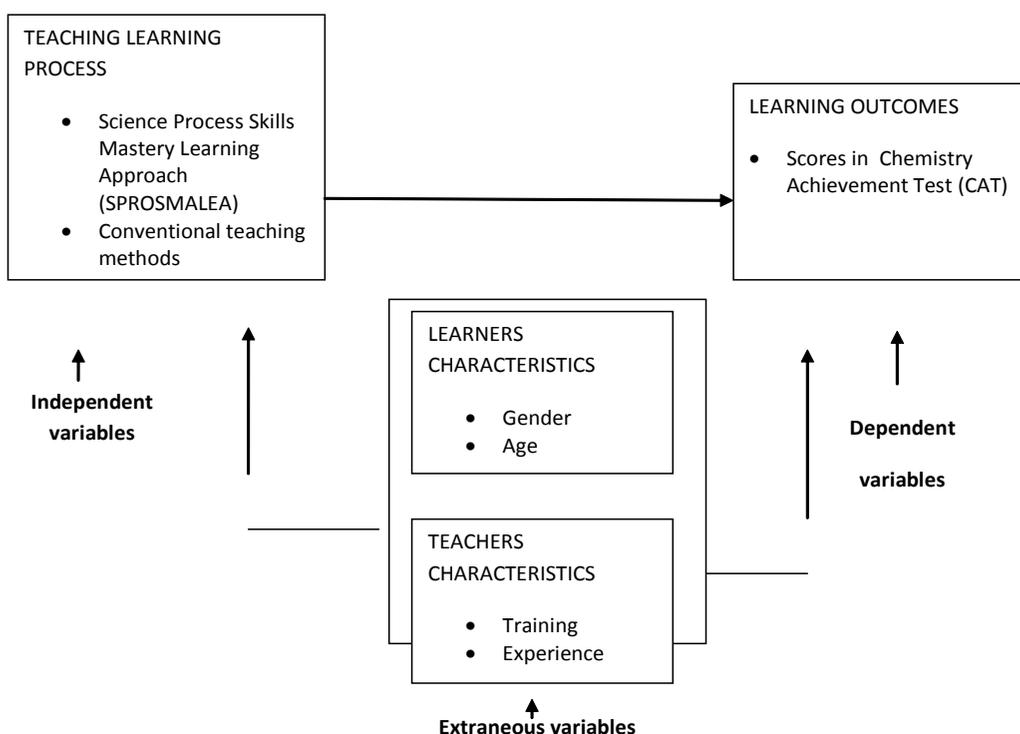


Figure 1: Conceptual framework showing the relationship of variables for determining the effects of Science Process Skills Mastery Learning (SPROSMALEA) on student's achievement

The independent variables include SPROSMALEA and conventional teaching method. The researchers manipulated the independent variables during the research in order to determine the effect on students' achievement. The teacher characteristics were controlled by involving trained teachers with teaching

experience of two years and above. Learner's age was controlled by involving Form Two students who were approximately of the same age. Student gender was controlled by use of co-educational district secondary schools in Koibatek District.

Research Methodology

The study used Solomon Four Non-equivalent Control Group Design. This is because there was non-random selection of students to the groups. Secondary school classes exist as intact groups and school authorities do not normally allow the classes to be dismantled and reconstituted for research purposes (Fraenkel & Wallen, 2000, Wachanga, 2002).

Table 1:

Solomon Four Non-Equivalent Control Group Design

Group	Pretest	Treatment	Post-test
E ₁	O ₁	X	O ₂
E ₂	---	X	O ₃
C ₁	O ₄	-	O ₅
C ₂	---	---	O ₆

- (O) - Indicates observations or outcomes
- (X) - Indicates treatment
- (---) - Indicates the use of non-equivalent groups.

The Table 1 shows four groups of participants, the Experimental Group One (E₁), the Experimental Group Two (E₂), The Control Group One (C₁) and the Control Group Two (C₂). Groups E₁ and E₂ formed the experimental groups which received treatments (X), while C₁ and C₂ were the control groups which were taught through conventional methods. Groups E₁ and C₁ received pre-test (O₁ and O₄), while O₂, O₃, O₅ and O₆ represented the post-test.

To avoid interaction of students from different groups that may contaminate the results of the study, one class from a school constituted one group of subjects, hence four schools were required for this study. In addition, the schools were sufficiently wide apart. The selected classes were randomly assigned to the experimental and control groups (Mugenda & Mugenda, 2003; Borg & Gall, 1989; Mutai, 2000).

Sampling Procedure and Sample Size

Sampling Procedure

Purposive sampling was used to select the four district co-education secondary schools in Koibatek District. This is because not all schools possessed the required characteristics. Only schools with laboratories, apparatus, at least a trained experience teacher teaching chemistry and accessibility of the school from the road. The sampling frame comprised schools with minimum enrolment of 35 students in form two chemistry classes. The researchers visited the schools to ascertain that they were suitable for research and obtained information on class composition, learner and teacher characteristics. For schools that had more than one stream taking chemistry, simple random sampling was employed to pick one stream per school as advocated by (Borg & Gall, 1989). Selected classes were randomly assigned to experimental and control groups.

Sample size

Mugenda and Mugenda (2003) argued that the sample size depends upon the number of variables in the study, the type of research design, the method of data analysis and the size of accessible population. For experimental studies at least 30 students per group is recommended. In this study four schools were sampled and one stream from each school included in the study. The actual sample size that participated was 160 Form Two students as shown in Table 2.

Table 2:

Sample Size of the Study

Groups	Number of Students
E ₁	38
E ₂	39
C ₁	46
C ₂	37
Total	160

Instrumentation

Chemistry Achievement Test (CAT) was used to assess the learner's mastery of content in the topic on salts in secondary school chemistry. It contained fifteen short answers and structured items on salts. The instrument was given to six experts in science education for validation. It was pilot-tested in two secondary

schools in Koibatek District, which were not part of the study but having similar characteristics as the sample schools. Reliability was estimated using Kuder-Richardson (K-R21) method because items were scored as right or wrong (Borg & Gall, 1989; Fraenkel & Wallen, 2000). The reliability coefficient of the instrument was 0.96. Thus the instrument was reliable enough for use in the study as the threshold was set at $\alpha = 0.7$ (Fraenkel & Wallen, 2000).

Data Collection

The pre-test was administered to the two schools in groups (E_1) and group (C_1). The treatment took four weeks and post-test was administered to all groups. The researchers supervised the teaching and scored the pre-test and post-test student scripts.

Data Analysis

To test for differences between two means, t-test and ANCOVA were used. However, for more than two means, ANOVA and ANCOVA were used. The hypothesis was tested at $\alpha=0.05$ level of significance.

Results

The pretest was administered to groups E_1 and C_1 to determine the students' entry behavior before teaching started. Table 3 shows the pretest results on the pretest.

Table 3:

Independent Samples t-test of the Pre-test Scores on CAT

TEST	GROUP	MEAN	SD	t-value	P-value
CAT	E1	17.18	9.53	1.48	0.14
	C1	20.02	8.62		0.14

Mean difference not significant at 0.05

The results in Table 3 revealed that the difference in students scores in the CAT were not statistically significant $t(82)=1.48, P>0.05$. This indicates that the groups used in the study exhibited comparable characteristics and therefore suitable for the study

Effects of SPROSMALEA on Students Achievement on Salts in Secondary School Chemistry

To determine the relative effect of SPROSMALEA on students achievement in Chemistry, an analysis of the students post-test CAT scores was carried out. The

hypothesis of the study sought to find out whether there was any statistically significant difference between achievement of students who were exposed to SPROSMALEA and those who were not. Table 4 shows the mean scores of the four groups.

Table 4:
CAT Post-test Mean Scores obtained by the Students in Four Groups

Group	N	Mean Score
E ₁	38	37.89
E ₂	39	41.05
C ₁	46	27.20
C ₂	37	32.27
Total	160	34.60

Results shown in Table 4 indicate that experiment groups E₁ and E₂ achieved higher mean scores than control groups C₁ and C₂. This shows that SPROSMALEA had an effect of improving performance as compared to the conventional teaching method. ANOVA was also carried out to establish whether the differences in mean scores were significant. The results are shown in Table 5.

Table 5:
ANOVA of the Post-test Mean Scores on the CAT

Test	Group	SS	DF	Mean Square	F	P-Value
CAT	Between groups	4146.46	3	1382.15	9.79	0.00
	Within groups	20620.36	156	141.24		
Total		24766.82	159			

Mean difference is significant at 0.05 level

Results in Table 5 indicate that a statistically significant difference exists between the posttest mean scores $F(3,156)=9.79, P<0.05$. A Least Significant Difference (LSD) post hoc analysis was carried out to establish the mean scores which were statistically different. The results are shown in Table 6.

Table 6:
Post Hoc Comparisons of the CATs Post-test Mean Scores for Four Groups

I Group	J Group	Mean differences (I-J)	P-value
E ₁	E ₂	-3.16	0.25(NS)
	C ₁	10.64*	0.00
	C ₂	5.62*	0.04
E ₂	E ₁	3.16	0.25(NS)
	C ₁	13.80*	0.00
	C ₂	8.78*	0.00
C ₁	E ₁	-10.64*	0.00
	E ₂	-13.80*	0.00
	C ₂	-5.02	0.07(NS)
C ₂	E ₁	-5.62*	0.04
	E ₂	-8.78*	0.00
	C ₁	5.02	0.07(NS)

* Significant at P<0.05 level
 (NS) – Not Significant

Table 6 shows that CAT means of groups E₁ and C₁, groups E₁ and C₂, groups E₂ and C₁ and groups E₂ and C₂ are significantly different at 0.05 α level. However, there was no significant difference in the means between groups E₁ and E₂, and groups C₁ and C₂

From this result, the students in the experimental conditions outperformed the students that were in control groups. The researchers conclude that the SPROSMALEA approach used by the experimental groups led to a relatively higher achievement in the learning of the chemistry of salts than the conventional methods used in the control groups. Since the the study involved non-equivalent control group design, there was need to confirm these results by performing analysis of covariances (ANCOVA) using students Kenya Certificate of Primary Education (KCPE) scores as Covariate. Analysis of covariance reduces the effects of initial group differences statistically by making compensating adjustments to the post-test means of the groups involved (Borg & Gall, 1989; Wachanga, 2002). Table 7 shows the adjusted mean scores for ANCOVA test while Table 8 shows the ANCOVA results.

Table 7:
Adjusted CAT Post-test Mean Scores for ANCOVA with KCPE scores as Covariant

Group	N	Mean Score
E ₁	38	37.91
E ₂	39	41.00
C ₁	46	27.05
C ₂	37	32.35

Table 8:
Analysis of Covariance (ANCOVA) of the Post-test Scores of CAT with KCPE as Covariate

	Sum of Square	DF	Mean squares	F	P-value
KCPE	668.06	1	668.06	4.39	0.04
Group	3525.72	3	1175.24	8.08	.00
Error	22552.90	155	145.50		

F=8.08, DF=3, P<0.05 Covariate KCPE Marks = 279.48

Table 8 shows that ANCOVA results are similar to the ANOVA one $F(3, 155) = 8.08, P < 0.05$. The pairwise comparisons are shown in Table 9.

Table 9:
Pairwise Comparison's Post-test Mean Scores of CAT

I Group	J Group	Mean differences (I-J)	P-value
E ₁	E ₂	-3.09	1.02(NS)
	C ₁	8.76*	0.01
	C ₂	5.56*	0.03
E ₂	E ₁	3.09	1.02(NS)
	C ₁	11.85*	0.00
	C ₂	8.66*	0.02
C ₁	E ₁	-8.76*	0.01
	E ₂	-11.85*	0.00
	C ₂	-3.20	1.00(NS)
C ₂	E ₁	-5.56*	0.03
	E ₂	-8.66*	0.02
	C ₁	3.20	1.00(NS)

* Significant at P<0.05

(NS)= Not Significant

The post hoc pairwise comparisons based on the ANCOVA Table 8, shows that there is a statistically significant difference in the following groups.

- (i) Groups E₁ and C₁
- (ii) Groups E₂ and C₁
- (iii) Groups E₁ and C₁
- (iv) Groups E₂ and C₂

Difference between groups E₁ and E₂ and groups C₁ and C₂, were not significant. It is evident the SPROSMALEA had similar effects to both experimental groups. But the control groups C₁ and C₂ denied of this treatment had lower mean scores. The results of ANOVA and ANCOVA show that there is a statistically significant difference in the mean scores of the experimental and control groups. Therefore Ho1 is rejected.

Discussions

The researchers found that students who were taught through SPROSMALEA achieved significantly higher scores in CAT compared to those taught through conventional methods. This implies that the use of SPROSMALEA is effective in enhancing students' achievement than the conventional method. These results

are consistent with findings of similar studies on mastery learning. Smith (1989), cited two districts that successfully integrated mastery learning along with thinking skills into their curriculum. Each district showed considerable increase in students' achievement.

Wachanga and Gamba (2004) found mastery learning teaching approach to enhance students' learning in chemistry better than regular methods while Wambugu, Changeiywo and Wachanga (2007) established that the approach facilitating students' learning in secondary school Physics. The requirement of mastery learning that students achieve mastery of a unit before proceeding to a new unit in the strength of the approach. In this study, students had to master a skill before making progress thus enhancing acquisition of the skill and achievement in the chemistry topic.

Brotherton & Preece (1996), investigated the effect of teaching science with special emphasis on science process skills and found that there were subsequent gains in science achievement. This study supports this finding. Since this study emphasized mastery of content and selected science process skills, the result was improved achievement.

Conclusion

Based on this study the researchers conclude that SPROMALEA facilitates students learning in Chemistry better than the conventional teaching method. Therefore, the approach should be used in Chemistry teaching at secondary school level. Achievement is likely to improve and performance at KCSE examinations would be better. Chemistry teachers are encouraged to incorporate this method at their teaching. The content of SPROMALEA should be included in the regular in-servicing of teachers.

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Integration of Information Technology for Effectiveness and Efficiency in Educational Institutions

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Abstract

Information Technology (IT) has permeated every aspect of society in the world today. Therefore, for any educational institution to survive in today's rapidly expanding technological world, it must integrate IT in its daily operations and procedures. Information Technology systems can be used in today's working environment in various ways and they also have numerous benefits for the institution and the institutional managers. Thus, Educational managers today recognize that they can use (IT) to improve their informational role and the overall efficiency and effectiveness of their institutions. However, the use of IT can also bring various problems to the working environment. This paper critically outlines how educational managers could benefit by integrating Information Technology (IT). The paper discusses the different Information technology systems available for integration and their specific benefits, and the functions that educational institution managers can perform using these systems. The paper also discusses the problems and issues in integrating Information Technology, in an educational institution.

Key Words: Integration, Information Technology, Effectiveness, Efficiency

Introduction

The role of an educational institution's manager is to direct tasks and organize resources so as to achieve the institutional goals. As Townsend (2011) points out, the main functions of an educational manager, in achieving institutional goals, are planning, organizing, leading, controlling and decision-making. Mintzberg (2002) further identifies the informational role as one of the crucial roles performed by any manager so as to achieve institutional goals. This means that managers have formal access to information from virtually every internal staff member as well as from extensive external sources, which they may choose to pass certain information to peers and subordinates. Educational managers today recognize that they can use Information Technology (IT) to improve their informational

role as well as the overall efficiency and effectiveness of their institution. Byrnjolfsson and Lorin (2000) define Information Technology as the acquisition, processing, storage and dissemination of vocal, pictorial, textual and numeric data by a micro-electronics based combination of computing and telecommunications. Information Technology can also be simply described as any technology that helps to produce, manipulate, store, communicate and disseminate information. This basically means that the three major components of IT are computers, microelectronics and telecommunications. IT integration, thus, implies the ability to use all these three components simultaneously so as to achieve more efficiency and effectiveness in communication. IT has transformed people's ability to acquire, store, use and disseminate information; thus revolutionizing the way people communicate and conduct business by enhancing efficiency and effectiveness in production and service delivery. In analyzing empirical research reported in more than 1,000 issues of recent research journals between 1987 and 2000, Danziger and Anderson (2002) report that almost half of the 230 specific findings identify changes in the capabilities of people and units to perform functions with the highest proportions of positive impacts from IT associated with efficiency of production and service delivery. However, to effectively integrate IT, educational managers need to access the right data, the right technology, and the right communication environment.

Information Communication Systems and their Benefits to an Educational Institution Manager

Much of life's essential activities including communicating, storing information and processing data is done with the help of technology. Lee et al (1995) argue that combining hardware, software, data and people to create Information Systems is so successful that the term synergism is often used to describe this relationship. A synergistic relationship, as Perez and Sanchez (2005) further argues is one in which the combined efforts of all the parts is greater than the sum of the efforts of each part operating independently. Hence, a person working alone to input data in an Information System is slower than a computer and more prone to errors. A computer can input data faster and more accurately than humans, but it can only input data that people have found a way to put in computer readable forms. Thus, humans and computers working together can input huge amounts of data with a high degree of accuracy within a very short time.

Information systems serve three main purposes. The first of these is to improve efficiency, that is, doing things right. According to Williams et' al (1997) computer-based information processing systems have supported efficiency by automating routine paperwork processing tasks.

For instance, an efficient educational manager can update hundreds of documents

per hour, whereas an efficient information system can update thousands of students' and staff records per hour. Secondly, information systems serve to improve effectiveness; that is, doing the right things or doing the things that need to be done to achieve results. Williams et al (1997) argue that information systems help managers to be more effective by focusing them on the things that need to be done to achieve institutional goals. Finally, information communication systems aid in transformation, that is, changing procedures and the way an institutional manager operates. For instance, an educational manager using a portable personal computer can perform administrative tasks even when away from the work station.

An educational manager can integrate IT in the institution in various ways. As Danziger and Andersen (2002) stipulate, information technology can be utilized as Office Support Systems for various uses. The first of these uses is in text handling. For instance, word processors are a common feature in most offices. Venkatesh et al (2003) define word processors as software packages that allow the user to manipulate documents consisting of text; such as letters, reports and manuscripts. The software enables the typed input to be displayed, altered or manipulated at will and then transferred to the printer any number of times, or stored in a disk for future use. Venkatesh et al (2003) further points out that word processors are invaluable for producing 'individualized' standard letters or for lengthy reports which require extensive editing and revision. An educational manager can use this software to produce individualized standard letters for his staff or students by simply changing names of the employee or student before printing each letter. Word processors have the benefit of eliminating typing mistakes and organizational problems since portions of the text can be easily deleted, inserted or moved. Footnotes can also be inserted at the bottom of the pages and pages can be numbered automatically. Further, spellcheckers compare each word in a document with the contents of an online dictionary.

Photocopiers have also become more flexible as text handling tools and in addition to the routine copying of office paperwork, the more modern machines have become miniature printing systems whereby high quality reports and booklets can be produced within the office. Lucey (1997) also observes that developments in software and Laser printers have enabled the growth of Desk Top Publishing (DTP). DTP systems are versatile word processors with extensive layout and graphics facilities which enable good camera-ready copies to be produced using laser printers. Thus, traditional typesetting is eliminated. This means that professional, quality newsletters, reports, books, brochures and other documents can be produced in-house. This application is especially designed for groups that must produce such forms of communication quickly and inexpensively.

Educational managers are ideal users of this application with their need to communicate regularly with many audiences like the school board, parents, community groups, sponsors, state and other education officers.

Lee et al (1995) point out that a number of potential benefits are available for users of DTP systems. This includes lower costs of producing the material, in-house control of the information being produced, high productivity, more rapid access to information and quality professional results as the material produced is very neat and has few chances of error in it. The quality of the printed output is nearly as good as that produced by a professional typesetter, while the work is much cheaper and faster than professional services. Most important of all, the educational manager has maximum control of the work. For instance, if a deadline creates the need to work even over weekends or holidays, there is no problem as the equipment is readily available.

Information systems can also be used as office support systems for data storage and referencing. Perez and Sanchez (2005) stipulate that the ability to store and access vast volumes of data is an undoubted benefit of information technology in educational institutions. This facility is invaluable for current operations and for internal information. Byrnjolfsson and Lorin (2000) further note that file managers can be designed to duplicate the traditional methods of filing. Computerized record keeping makes it possible for procedures and methods of recording, filing and updating data to be converted from paper file folders and file cabinets to computer software and storage devices. These computerized files can be accessed faster and by more than one person at a time. A more sophisticated form of electronic filing is the Document Image Processing. Lucey (1997) explains that using this system, a document is passed through a scanner, translated into digital form and a digitized image is then stored electronically. The main advantages of document image processing include space saving, faster retrieval, greater security and multiple simultaneous use.

Information systems can also be used as office support systems for telecommunications. Cole (2004) defines the term telecommunications as communicating over a distance. In technical terms, this means transmitting information by means of electric cables or by radio waves. Research in recent decades has focused on how to make such transmissions faster, clearer and multifunctional. Telecommunication facilities that can be used by an educational manager to this end include electronic mail, voicemail, networks, teleconferencing and data or facsimile transmission. Electronic mail (E-mail) is a system in which messages are communicated by electronic means rather than by paper-based communication. Reiser (2001) points out that that e-mail communication

has the advantage of enabling written messages to be passed speedily between individuals and around institutional networks, and for responses to be returned just as quickly. Hence, there is considerable time saving and the inherent safeguard to certain delivery. The voicemail system, on the other hand, enables a caller's spoken message to be recorded in a 'voice mail box'. This can then be accessed by telephone by the user. According to Lee et al (1995), the main advantage of the voicemail is its cheapness, but the system does not allow two-way conversations.

Network systems allow for the linking or interconnection of different departments within an institution. Perez and Sanchez (2005) define a network as a system of computers linked together to allow users to easily transfer and share information. Lucey (1997) in his definition of networks says that networks are communication systems which link together computers, storage devices, word processors, printers and even the telephone system of an institution. Within one institution, networks are known as Local Area Networks (LANs). LANs form the vital links which allows distributed processing to take place while at the same time allowing users to share resources such as disks, printers and files. When networks are extended over a wider geographical area, they are referred to as Wide Area Networks (WANs). WANs usually make use of the general telecommunications network. There is also the internet, an international network of computers that enables millions of computer users to communicate with each other. As Reiser (2001) points out, the internet allows access to an enormous range of social, current affairs and reference information. Network connections are essential if electronic mailing is to be used. Teleconferencing or video conferencing allows numerous people to be simultaneously connected so that discussions can take place even though they do not meet. This can take place either within the institution or externally. Facsimile allows the transmission of an exact copy of an original document including diagrams, pictures, and text. It is a reliable and speedy method of sending duplicates.

Perez and Sanchez (2005) observe that an educational manager can use these telecommunication facilities to link the various departments within the institution and also to link the institution to the outside world. For instance, documents drafted via word processing are sent via electronic mail or facsimile transmission to other persons. The mail that arrives in the institution's central computer can be routed to various destinations and get posted on electronic bulletin boards to be prioritized and accessed according to importance. Networks can also allow people to work with one another everyday over great distances, even around the world, without ever being personally face to face. Therefore, it is apparent that an interactive telecommunications system facilities information exchange, group

decision-making, work scheduling and computer-mediated group meetings. In teleconferencing, for instance, two or more decision rooms connect geographically distant groups of problem solvers. This has the positive impact of saving travel costs and speeding up decision making. This type of linkage also helps group members to focus more intently on the data displayed on their computers or on a common screen. This can reduce tendencies towards ‘dueling egos’, where people concentrate more on the people making points rather than on the substance of the points themselves.

A practical example of this linkage in an educational institution is for examinations analysis. The computers in the different departments in an educational institution can be linked together and the test scores from these departments channeled to the examinations officer’s computer. The main computer of the school can also be linked to computers of other schools in the locality using LANs to allow for an analysis and grading of the performance of the schools within the area. The computers of these schools can further be linked to the District Education Office which will in turn be linked to the Provincial Education Office and finally to the main computer in the Ministry of Education to allow for a determination of the overall performance of the schools in the country.

Information Technology can also be used by an educational institution manager as Data Processing Systems. According to Lucey (1997), these systems perform the essential role of collecting and processing the daily transactions of the institution. These include all forms of ledger keeping, accounts receivable and payable, credit control, and invoicing. These functions are essential for keeping the operations of the institution running smoothly and provide a base for all other internal support. These systems are pre-specified; that is, their functions, decisions rules and output formats cannot usually be changed by the end user. The systems are related directly to the institution’s data.

In addition, Information Technology can be applied by an educational institutional manager for Database Management Systems. Lucey (1997) posits that a database management system is a complex software system which constructs, expands and maintains the Database. A database is simply an integrated collection of data. Each type of record is represented as existing in a table or file of like records. This system enables the storage and access of vast amounts of data in an efficient manner. Byrnjolfsson and Lorin (2000) explain that in a database management system, data that could conceivably be put into several files are integrated into a single database. For example, instead of putting a particular student’s information, like, name, class, home address courses taken, grades obtained and health/medical history in different files or folders, all this information can be put together in a

single database. This makes the retrieval or access of any kind of information about the particular student quick and easy.

The other systems that an educational institution manager can make use of are the Decision Support Systems (DSS). An educational institution manager can make use of DSS to make crucial decisions regarding their institution since as Turban et al (2005) stipulate, the most important task of managers in any institution is making decisions. Lucey (1997) explains that the objective of DSS is to support managers in their work, especially decision making. DSS tend to be used in planning, modeling, analyzing alternatives and decision-making. Using a variety of tools and procedures, an educational manager can develop his own systems to help perform his functions more effectively. DSS are especially useful for semi-structured problems where problem solving is improved by interaction between the manager and the computer system. However, the computer does not replace the manager's judgement nor does it provide pre-determined solutions. The decision-maker's judgement and insight is still needed to control the process. Kalicharan (2002) points out that the existence of the database means that an educational manager can interrogate and access a mass of data that can be used in exploring alternatives and making decisions.

An example of a package that can be used to support decision making in an educational institution is the spread sheet. Basandra (1999) defines a spreadsheet as an electronic worksheet where data can be stored and manipulated at will. A spreadsheet is especially useful in performing financial calculations and recording transactions. This facility allows a series of outcomes to be explored, providing answers to the 'what if' questions which are so essential to the manager. Spreadsheets can be used for budgeting, which is one of the important tasks that an educational institution manager has to perform. Spreadsheets can be of great assistance in exploring the effect on a budget of different values and assumptions so that the manager can make more effective decisions.

According to Kalicharan (2002), a computerized decision support system may be needed by an educational manager to make speedy computations as it lets the decision maker perform many computations quickly and at a low cost. Such computations lead to timely decisions which are critical for many situations. In addition, DSS leads to improved communication because several decision groups can communicate and collaborate readily. DSS also leads to increased productivity since computerized DSS can reduce the size of the group and save travel costs, increase productivity of the support staff such as financial and legal analysts, and increase overall productivity. Finally, data that supports decision making can be stored in different databases and at web sites anywhere in the institution

and even possibly outside the institution. This provides the technical support needed by the educational manager. In addition to these, DSS technologies can change the manner in which many decisions are being made and consequently change managers' jobs. Turban et, al (2005) give other positive impacts of DSS as automation of routine decisions or phases in the decision making process, less expertise or experience required for making many decisions, faster decision making because of the availability of information and the automation of some phases in the decision making process, less reliance on experts and analysts to provide support to the managers since the managers can do it themselves with the help of intelligent systems and support of complex decisions, making them faster and of better quality.

Basandra (1999) posits that educational managers can also make use of Executive Information Systems (EIS). EIS are forms of data retrieval systems that provide selected and summarized information for senior executives on the overall performance of the institution. The information provided can be easily retrieved and can provide varying levels of detail. Lucey (1997) points out that EIS assist top management by providing information on critical areas of the institution's activities drawn from both internal and external databases. The EIS enables the manager to monitor how well the institution is doing in terms of its objectives and critical success factors. Among the key features of the EIS that would make it appropriate for an educational manager is that it is easy and extremely simple to use as it is fast, access to data is unhindered and rapid permitting vertical and horizontal exploration, it allows for data analysis and it also allows for quality presentations using colour, graphs and diagrams. A typical way in which EIS works, as highlighted by Basandra (1999), is by exception reporting and drilling down to investigative causes. For example, the educational manager may be alerted that a particular department is operating well over budget. The manager would then drill down the data by pursuing lower and lower levels of detail. The manager might seek a breakdown of the department's budget and actual expenditure. If the manager discovers that the major overspend was in overheads, he would then access the detailed expenditure on the various items of the overhead costs such as tuition, salaries, and contingencies. In this way, the executive can explore at will and is thus provided with better assistance in planning and controlling.

Functions of Information Technology Systems for an Educational Manager

Educational managers at all levels face daily tasks that can be accomplished much more efficiently and effectively when they use the information systems discussed above, especially if the systems are computer based. As Lee et al (1995) observe, combining a computer and software application package provides educational managers with most support needed to complete any job likely to occur. Computer

based information systems have expanded and developed into information systems that include all types of applications from record keeping to operational functions to strategic planning. Lucey (1997) appreciates that information system is part of a wider management system in any institution. A good information system must provide support and assistance to management and facilitate planning, control, decision making and other management functions. According to Danziger and Anderson (2002) an effective information system can be used by an educational manager to improve effectiveness in various ways.

One of these is in accounting. For instance, IT systems can be used for payroll preparation. Payroll, essentially a record-keeping function, is a common application of information systems in the accounting departments of any educational institution. A payroll system is designed to compute the wages for the staff of the institution. A typical payroll system also computes taxes and appropriate deductions, like loan repayment, NSSF and NHIF for each employee. A payroll system must also accommodate changes in employee information. Although these information requirements are complex, most systems break them into phases so that they may be performed without error.

In addition, Budgeting can also be done using IT systems. Budgeting, a subsystem of finance, is an indispensable function in any educational institution. An information system designed for budgeting can process data and generate reports that are used to manage the institution's financial resources. Reports in cost accounting are used to determine how and where money is spent. It is important for educational managers to have this information whether they are planning their payroll or the purchase of new materials or equipment. A budgeting system receives input from several sources and then produces a projected budget. The institutional manager can use the projected budget to keep track of actual spending and identify discrepancies in spending before expenditures get out of control. This is because accurate control of funds and documentation of expenditures are major goals of any set of financial procedures. Various types of reports can be generated at the discretion of the educational manager including expense details, cost reports, individual school budget activity analysis, substitute teacher costs and payroll expenditures. The main advantage of computer accounting packages is that they are rapid, accurate and flexible. They provide administrators in the education system with the ability to use financial data to create custom reports and meet their needs.

Human Resources and Personnel Management is another area that can benefit from IT integration. Personnel record keeping is a functional area ideally suited to computerization because the volume of processed information is large and

records must be updated frequently. Most institutions keep employee records in a centralized database to which additions, deletions, and other changes can be made. Each record may include information such as employee's name, address, phone number, date of hiring, job assignment and performance ratings or appraisal.

Students' records can be kept and tracked using IT. An institution's enrollment for each year can easily be added to the enrollment information of previous years. Class lists and registers can also be easily updated since the one in charge does not need to re-write the class lists but simply inserts the new name in the list. Thus, all the particulars of a student or students can be stored in a computer's hard disk which occupies a very limited space. The information stored cannot be easily tampered with because, in most cases, one would need a password to access the information. An information system can also aid in maintaining students' health records. A computerized system for maintaining health records adds the ability to quickly bring up an on-line data file. This is especially important in an emergency situation. The purpose of any computerized health record is to maintain comprehensive health information including notes and comments, test results, and medical alerts. Such an on-line information database also provides the health staff with the ability to analyze health data for the student population. Any package purchased to manage health data must have features that allow the institution to maintain proper security for the information on file.

A more recent and logical administrative application for computer-based information systems in educational institutions is Library management. Various educational institutions now utilize computer based library management systems. The vast majority of these systems are computerized circulation programs, but a number of them offer on-line catalogues so that users can do a computer search for a particular author, title or subject. This speeds up the difficult task that faces libraries in the distributing, cataloging and circulation of reading materials. Such a system also helps library users in selecting, retrieving and reviewing reading materials. Potential benefits for implementing an automated system include speedier cataloging of new material, the easy identification of students with overdue materials, the complete inventory of the library's collection and the ability to do on-line searches of the catalogue.

Finally, an effective IT system can be used by an educational institution for marketing purposes. As Basandra (1999) notes, educational institutions, especially colleges and universities, need to maintain enrollment. One of the marketing strategy colleges can use is to distribute to high schools and the community a CD-ROM that enables the student to see the campus, hear students and lecturers talking about the institution, and learn about financial aid opportunities available

in the college. Many colleges also have home pages on the World Wide Web (www) to inform prospective students about their campuses. College computers are beginning to feature information kiosk's that provide maps, listing of college activities, and personal enrolment information to students. The programs displayed by the kiosks can be updated regularly to provide students with current information.

Problems and Issues of Integration of Information Communication Technology

One of the major issues in the integration of ICT that educational managers have to contend with is the increase in institutional expenditure. Most computer programs are expensive to install and maintain and they require specialized expertise to handle them. As Cole (2004) points out, the cost of computer software remains relatively high, as it is this that drives the hardware, and needs to be frequently updated to maintain the efficiency of office systems. Some institutional managers also feel compelled to always buy the latest technology, whether or not it is needed and this can be quite expensive for the institution. Secondly, use of ICT can lead to loss of a lot of information at once. Computers, networks and electronic databases like soft and hard disks must always be protected from a variety of threats. As Danziger and Anderson (2002) rightly states, ICT systems can, and do fail and the results can be chaotic and costly. Among the things to be concerned about are computer viruses; troublesome software programs that use computer codes to enter other programs and alter or destroy them.

The educational manager is also faced with the challenging task of cutting back on the institution's labour force as information technology gradually replaces manpower requirements. As Danziger and Andersen (2002) observe, the higher incidences of negative impacts of IT tend to involve the more subjective effects of IT on people and their roles as employees. Thus, fewer people are now needed to perform tasks that were once performed by several people. Institutions now rely on information systems rather than people to move information from one part of the institution to another. Hierarchies are also becoming flatter, as few management levels are now required in institutions. Many educational managers have also fallen prey to what is called the 'replacement myth'. This is the false assumption that computers replace the need for group and one-on-one meetings that are necessary for the exchange of information. As Venkatesh et al (2003) argues, institutional managers are gradually losing the 'personal touch' with other members of the institutions they work for and are unable to read non-verbal messages and miss the shared exuberance of spontaneous and creative meetings. Such interpersonal contacts with other members of the institution, for instance through staff-meetings, remain indispensable to the management process.

Computer based information technology can also be misused as e-mails and databases may be accessed by unauthorized users thus violating privacy and confidence issues. For instance, a teacher with the appropriate password to the principal's computer may access confidential reports about himself and other members of staff and may pass this information to the rest thus creating hostility and animosity towards the school principal. Venkatesh et al (2003) and Coopey (2004) thus argue that some aspects of the use of information technology require monitoring to prevent undesirable or unlawful use by staff, whether deliberate or accidental. The institutional manager should thus ensure, so far as is practical, that data of a personal nature is used with appropriate safeguards against loss of privacy or personal abuse, and is only processed for lawful purposes. As Reidenberg (1998) users of IT infrastructure confront an unstable and uncertain environment governing laws, changing national rules and conflicting regulations on IT use. Additionally, IT integration means that educational managers may suffer from an overabundance of irrelevant information. Most of them receive much more data (not information) than they can possibly absorb. For instance, Cole (2004) observes that the excessive use of e-mail can overload certain individuals resulting in relatively trivial items being read, and replied to. The ready facility for forwarding items to a number of people simultaneously can also produce a situation where many individuals receive mail that is not strictly relevant to them.

Conclusion

The integration of Information Technology is dramatically and continually changing the way information flows and is utilized in educational institutions. Typical office functions previously dealt with separately and often by specialized sections, can now be handled as a whole by flexible teams using comprehensive information systems which link previously separate documents. This ability to integrate office functions easily and speedily is one of the greatest advantages of IT. Thus, the benefits of IT to educational institutions have been considerable. Secretarial, clerical and administrative workers have learned to handle integrated software, which has enabled them to write letters, reports and memos, access records, handle calculating tasks, and search relevant databases all from one work station. The speed at which information can be placed on a database, retrieved, updated as required, and then forwarded to other recipients is altogether faster than in the pre-information technology era. Also, the drafting of reports and other documents is greatly assisted by the powerful editing facilities of word-processing software, supported by the integrating facilities of combined software. This enables financial reports, statistics and other items that are used in making decisions about the institution to be readily available. Ongoing developments of

high-powered software and networks only further accent the changes brought about by IT. Thus, IT should overly increase performance efficiency and effectiveness in educational institutions.

However, this can only happen if the information systems are properly designed for users and the educational managers understand their management and organizational implications and are committed to their effective utilization. This is because the mere fact of using ICT does not mean that work is done more efficiently or better information is produced. Too often, information systems are introduced in an attempt to solve a technical problem when the real problem is one concerned with management or a lack of clear objectives or poor co-ordination. Therefore, to maximize the advantages of using IT, it is essential that information needs are clearly identified before an information system is introduced. It is also important, when considering the introduction of IT, to consider the reactions of the users and the people who would be affected by the system. This is because, in general, people dislike change and can feel threatened by new systems, especially those that use technology with which they are unfamiliar. This might lead to inertia and, consequently, a slower rate of acceptance of new information technology based systems.

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Relationship between Parents' Level of Education and Pupils' Highest Science Education Level Aspiration

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Abstract

National results of Kenya Certificate of Primary Education over the years have shown gender disparity in science achievement among Kenya's primary school pupils. This study investigated the relationship between parents' level of education and pupils' highest science education level aspiration. The research design used was a cross-sectional survey. The target population was pupils in public day primary schools in Nakuru municipality, while the accessible population was the class seven pupils. A sample of 160 pupils was used in the study. Simple random sampling was used to select one school in each of the five zones within Nakuru municipality. Purposive sampling was used to select class seven. Simple random sampling was used to select 32 class seven pupils from each of the five participating schools. Two instruments were used for data collection, Science Achievement Test (SAT) and Pupils Questionnaire (PQ). Cronbach's Alpha Coefficient was used to estimate reliability. The reliability of PQ and SAT was found to be 0.79 and 0.75 respectively and therefore adequate for data collection. The instruments were administered by the researcher with assistance from the science teachers in the participating schools. Both qualitative and quantitative methods of data analysis were used. Statistical analysis was done using t-test and Pearson Product Moment Correlation Coefficient (PPMCC). The alpha level of 0.01 was used. The findings of the study indicate a significant gender difference in science achievement among pupils. The study found no relationship between parents' level of education and pupils' highest science education level aspiration. The study concludes that the parents' level of education did not hinder a pupils' ambition to achieve the highest education level possible. It is recommended that parents should continually sensitize pupils on the importance of learning and achieving highly in science. It is recommended that parents' and especially fathers should dedicate more time to do studies with their children.

Key Words: Science, Technology, Results, Schools

Introduction

Science, technology and innovation are central to economic prosperity and to reaching the international development goals (UNESCO, 2006). Female education

at primary and secondary level increase women's productivity and participation in scientific fields leading to enormous social gains. Sifuna and Chege (2006) agree with this observation that women with basic education understand health and nutrition better which reduces mortality rate.

Girls tend to perform poorly in science subjects compared to boys right from primary school (KNEC, 2008). Aksornkool (2003) proposes that this could be so, because prejudices and stereotypes follow learners from home to the places they go to learn. In order to enhance girls' learning and performance in science, science education materials need to be redesigned to focus on the role of science and technology in societal development and more specifically on its usefulness and relevance in everyday life rather than on the capacity of man to master machines (Rathgeber, 1995). Rathgeber points out that an understanding of basic scientific concepts and the ability to apply them would enable girls to make informed personal decisions on birth control as well as deciding whether the new technology being introduced would be harmful or beneficial. Both girls and boys should be helped to acquire basic scientific knowledge early in their lives when they are being socialized because gender perception strongly affects a child's orientation (UNESCO, 1999).

Tsuma (1998) argues that, every child must receive an education containing science sufficient for the duties of his citizenship. Such an education should ideally be adequate both as regards content and as regards training in the scientific method. The Strengthening Mathematics and Science Subjects in Education (SMASSE) Project has been assigned the task of encouraging learners to study science in secondary school by Kenyan government working in collaboration with government of Japan (Oywecha, 2000). SMASSE gives a lot of emphasis on girls' science achievement and encourages them to choose and study science in secondary school. Such an intervention should be introduced in primary schools for anyone who abdicates an interest in science today is tantamount to walking with open eyes towards slavery.

Year after year Kenya National Examination Council (KNEC) releases primary examination results that show girls performing as well as boys in Kenya Certificate of Primary Education (KCPE). Girls compete for the overall top positions with the boys but close scrutiny at KCPE national examination results reflects the gender difference in science achievement among primary school pupils (Table 1). However the mean scores for both boys and girls are low. Kithaka (2004) explains that the low science performance among pupils is as a result of poor performance at national level examinations. This makes pupils anticipate negative outcomes therefore blocking learning efforts leading to low achievement.

Table 1
KCPE Science Mean Scores by Gender in Nakuru Municipality 2005-2010

Year	Raw mean mark	
	Male	Female
2005	26.13	22.66
2006	26.73	23.54
2007	29.46	25.96
2008	27.52	24.75
2009	30.89	27.32
2010	30.52	26.97

Source: (KNEC KCPE 2005, 2006, 2007, 2008, 2009, and 2010 Newsletters)

Table 1 show boys' science performance in Nakuru Municipality primary schools was better than that of girls. It is clear that the pupils' science performance was low far below the average mark. The better science performance of boys is probably due to the tendency of parents to occupy girls with house chores that consume their out of school time. With minimal or no house chores after school, boys do their private studies and this perhaps disadvantages girls who get little or no time for private studies.

Through socialization an individual learns and accepts roles. It works by encouraging wanted and discouraging unwanted behaviour (Wikipedia, 2011). Agents of socialization such as the family, schools and the media make it clear to the child what is expected of the child by society. Mostly, accepted behavior is not produced by outright reforming from an accepted social system. In some other cases, various forms of coercion have been used to acquire a desired response or function.

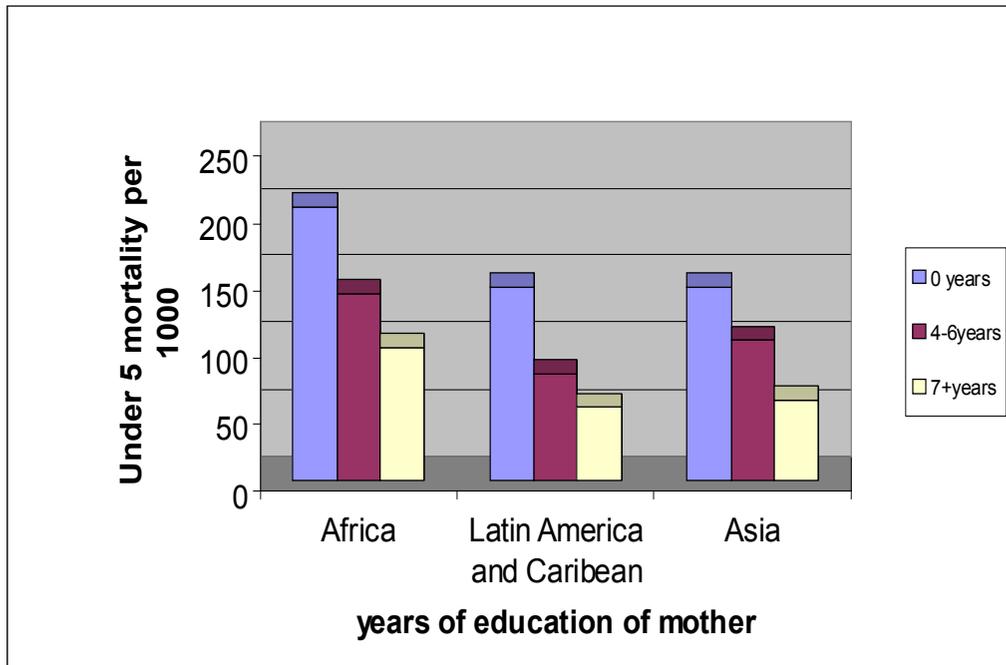
Home and family have differential effects on girls' and boys' achievement and participation in science as expressed by Oywecha (2000). Aksornkool (2003) observes that, this leads to female preoccupations, often belonging to the world of mothers and wives which eventually grow into low paid jobs related to women's role as nurturers, such as kindergarten teachers, secretaries and nurses. Karanja (2004) concurs with these schools of thought which suggest that from childhood women are socialised to do easy things and accept subordinate positions while men are exposed to more challenging activities.

One would expect today's parents especially those who are educated to be gender sensitive and encourage their children both (boys and girls) to explore

science from early childhood. Any cultural education that propagates teaching of prejudices should be a thing of yester years and its effects negligible in 21st century. Abagi, Olweya and Otieno (2000) note that this is not the case as conservatism increase with the level of education and people have become more rigid with increased education. This implies that education has not made people gender sensitive especially in Africa where teachers and elders play a big role in our socialisation process and act as role models to young people (Onyango, 2004). As a result negative early socialization into gender roles continues where children internalise the idea that boys are the bosses and only they can manage science and technology. This attitude is unknowingly brought into science class and its effects felt in science education. Boys continue to achieve higher than girls even at primary school level (KNEC, 2008). Abagi *et al.* (2006) observes the gender difference exists at professional level where women are under-represented in science oriented careers like ICT careers, and when they are represented, they are primarily in stereotypical roles.

The education of women and girls is seen as essential in the drive by nations to achieve equitable development (EYC, 2003). Mwiria (1997) cited compelling reasons to invest in the education of women. They include; educated women are more likely than illiterate ones to promote the education of their children and to ensure gender equity as they have more access to formal employment than illiterate women. Mwiria also argues that educated women serve as role models for their children thus encouraging the latter's chances of enrolling in schools. Educated women also add to the pool of human resources available to nations confronting the difficult challenges related to environmental degradation, ignorance and disease. Evidence show that, increasing female literacy by 10%, has the potential to lower infant mortality by the same % point or more as shown in

Figure 1. Mortality rate by levels of years of mother’s schooling



Source: EYC (2003).

Children born by women who never attended formal schooling are more likely to succumb to death as shown in Figure 1. Mothers with over 7 years of formal education have had opportunity to go through primary science and therefore better equipped to take care of themselves during pregnancy and their babies have higher chances of survival.

Statement of the problem

Science subjects are an important part of a school curriculum and thereafter, the world of work. Of the many fields of education, students show gender disparities in science achievement. Females are greatly underrepresented in science and technology, which are typically correlated with high lifetime earnings (University of Virginia, 2009). For this reason, researchers in many parts of the world are studying gender stereotyping and differences in achievement in science subjects (*Science Daily, 2009*). Asimeng-Boahene (2007) observes that Africa still lags behind other continents in terms of provision of science and mathematics education for girls. Female education and training in Africa is generally characterized by lower performance and achievement levels than those of boys, especially in mathematics, science and other technical subjects. Early researchers into gender differences in science subjects concentrated on innate differences in visual-spatial

abilities. Although there are no physiological differences between males and females to attribute to these gaps, researchers urge that mathematical problem solving abilities can be equally attained, undeterred by gender, given certain circumstances (Adeleke, 2007). Researchers have argued that a socialisation process in which children are engaged in have a strong influence on the way they participate in the pedagogical routines of school classrooms (Davis, 2007).

Objectives of the Study

- i) To determine if there is a gender difference between male and female pupils in science achievement.
- ii) To determine if parents' level of education is related to pupils' highest science education level aspiration.

Hypotheses of the Study

The following null hypotheses were tested:

H₀ 1 There is no statistically significant gender difference between male and female pupils in science achievement.

H₀ 2 There is no statistically significant relationship between parents' level of education and pupils' highest science education level aspiration.

Conceptual framework on various variables that could contribute to differential gender performance in science

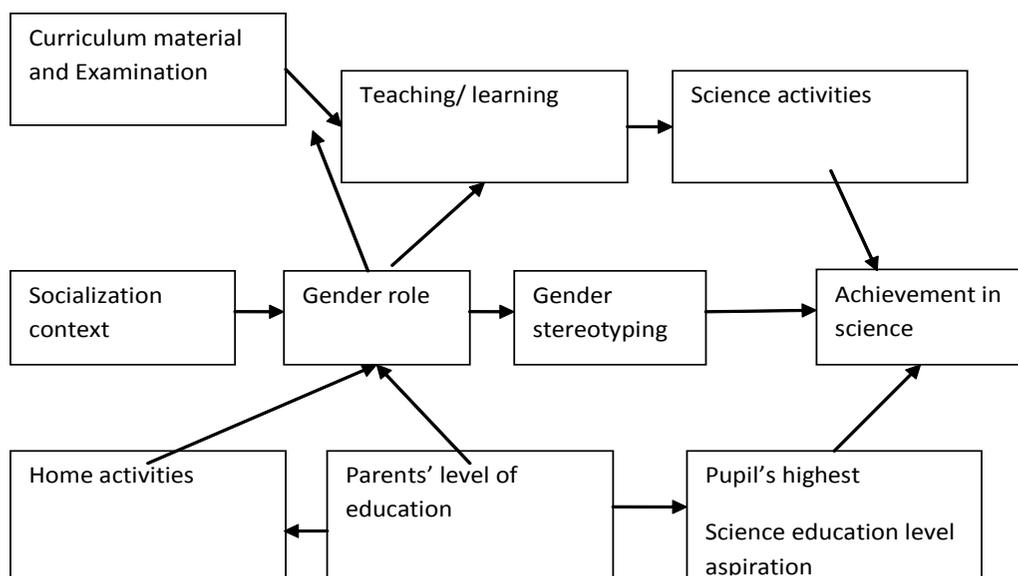


Figure 2. A model for relationships among various variables that could contribute to differential gender performance in science

Source: Duncan, W. (1989).

Home factors such as traditions and pastoralist way affects science performance (EYC, 2003). EYC notes that education of women and girls is seen as essential in the drive by nations to achieve equitable development. Mwiria (1997) cited compelling reasons to invest in the education of women. They include; educated women are more likely than illiterate ones to promote the education of their children and to ensure gender equity as they have more access to formal employment than illiterate women. Mwiria also argues that educated women serve as role models for their children thus encouraging the latter's chances of enrolling in schools. Educated women also add to the pool of human resources available to nations confronting the difficult challenges related to environmental degradation, ignorance and disease.

Methodology

The research was carried out in Nakuru municipality, Nakuru district, in Rift valley province, Kenya. The target population was public day primary school pupils within Nakuru municipality. Dealing with all members of even small accessible populations would involve tremendous amount of time and resources and hence purposive sampling was done and allowed selection of a sample with the required information (Mugenda & Mugenda, 2003). Class seven was purposively selected from each of the five randomly selected schools to be included in the study. This was done because class seven pupils had the information required to achieve the objectives of the study. 160 class seven pupils participated in this study. The sample size was determined by adopting Nassiuma's (2000) formula.

Two instruments, Science Achievement Test (SAT) and Pupils' Questionnaire (PQ) were used in this study. Section A comprised of four closed-ended questions. Question one gathers information on parents' level of education. The researcher developed Science Achievement Test (SAT) and used it to assess pupils' knowledge on science concepts. The test was set from content learnt in class 7 (human body, health education, environment and plants). The items were selected from topical KCPE science question papers of 2003-2009. The instrument comprised of 30 items. All the participating pupils in the five schools sat for SAT and filled the PQ on the same day. Each sampled school was visited on different days therefore data collection took five days. Both quantitative and qualitative data were obtained. To establish if there is a relationship in pupils' highest science education level aspiration and their parents' education level,

PPMCC was used. T-test (for independent samples) that has superior powers to detect differences between two means was used to compare SAT mean scores of boys with that of girls.

Results and Discussion

Gender Differences in Science Achievement

The following steps were taken to test the first null hypothesis that there is no statistically significant gender difference between male and female pupils in science achievement. The pupils' SAT items were scored on the basis of 1 point for correct answer and 0 points for incorrect answer. There were 30 items and maximum score was 30 and minimum score a pupil could score was 0. Every pupil's score was expressed as a percentage and SPSS Programme used to compute means, standard deviation and t-test for independent sample means (Table 2.)

Table 2

Pupils' Gender Difference in Science Achievement.

Group	N	Mean	Std. Deviation	Std Error	Df	t-value	p-value
Male	80	46.84	15.72	1.82	155	2.80	0.006
Female	80	40.28	13.60	1.50			

Results in Table 2 show that the males had a SAT mean score of 46.84 and females SAT mean score was 40.28. $df=155$, $t_{cri}=2.36$, $t_{cal}=2.80$; $t_{cri} < t_{cal}$, $p=0.006$, $p < 0.01$. H_0 1 was therefore rejected implying that there was a significant gender difference in science achievement among primary school pupils.

Discussion of Results

These findings strengthen the work of University of Virginia (2009) that arrived at the similar conclusion. In that study, it was found that males and females, at age 9, have quite similar math and science scores. At age 13 the gender gap is quite apparent and at age 17 the gap is even wider. MOEST (2009) recommends class one pupil entry age of 7 years. Class seven pupils in Kenyan primary schools are therefore about 13 years old and they were the participants in this study. According to the study findings there is a gender difference in science achievement among the class seven pupils and this finding concurs with the findings of Bhanot and Jovanovic (2005). Bhanot and Jovanovic came up with similar conclusions that there is gender difference in science achievement among girls and boys of ages 13 to 17 years. They found out that many factors undoubtedly contribute to the

negative attitudes toward science and the lack of interest expressed by many female students. These factors include, but are not limited to, parental and societal attitudes, lack of adult role models, myths about female aptitudes, classroom patterns, stereotyping, and overt discrimination.

Parents also endorse the stereotype that math and science is a male domain and hence their daughters underestimate their math and science ability (Bhanot and Jovanovic **2005**). To boost girls' confidence in math and science it must be understood how girls perceive messages from parents and other adults about their abilities. Girls need help so that they can learn to interpret these messages to their advantage. Teachers can assist in reversing this situation by offering hands-on activities, and holding high expectations for all students. Some strategies include: structuring activities so girls play an active, rather than passive role in laboratory and field experiments, and showcasing female role models. Putting females in a situation where they're not preoccupied with negative gender stereotypes, they can significantly reduce the gender gap in standardized.

Relationship between Parent's Level of Education and Pupils' Highest Science Education Level Aspiration.

Tables 3-8 present the data obtained from the pupils' responses to items in PQ section one. Table 3 shows frequencies of the parents' education levels while Table 4 shows the frequencies of the pupils' expected highest science education level. Table 5 shows a comparison of frequencies of parents' level of education and pupils' expected highest science education level while Table 6 presents results of the parent who influences the pupils most in science. Table 7 present results of how the person influences the pupils in science achievement while Table 8 presents correlation between parent's level of education and pupils' aspired highest science education level.

Table 3:

Frequency and % of the Parents' Level of Education

Level of education	Father		Mother	
	Frequency	%	Frequency	%
Never been to school	6	4.2	12	8.1
Primary	14	9.9	23	15.4
Secondary	43	30.3	54	36.2
College	39	27.5	36	24.2
University	40	28.2	23	15.4
Total	142	100.0	149	100.0

Table 4:
Frequencies and % of the Pupils Expected Highest Level of Science Education

Level of education	Frequency	%
Standard 8	1	0.6
Form 4	4	2.5
College	8	5.1
University	144	91.7

Table 5:
Comparison of Frequencies of Parents' Level of Education and Pupils' Expected Highest Level of Science Education

Level of education	Father %	Mother %	Average %	Pupils %
Never been to school	4.2	8.1	6.2	
Primary	9.9	15.4	12.7	0.6
Secondary	30.3	36.2	33.4	2.5
College	27.5	24.2	25.9	5.1
University	28.2	15.4	21.8	91.7
Total	100.0	100.0	100.0	100.0

Table 6:
% of The Parent Who Influences the Pupil Most in Science

Person/persons who influences me most in sciences	Frequency	%
Father	38	24.2
Mother	45	28.7
Both parents	62	39.5
Neither father nor mother	12	7.6

Table 7:
How the Person Influences Me in Science Achievement

How the person/s influence my achievement in science	Frequency	%
Helps in homework	34	22.4
Explains concepts I don't understand	104	68.4
My parents do not help	14	9.2

To investigate relationship between the parents' education levels and pupils' expected highest level of science education, parents' education level was converted to quantitative data to give parents' education scores. Scores were obtained from the first section of the pupils' questionnaire. The relationship between parents' and pupils' education scores was investigated by computing PPMCC with the help of SPSS Version 11.5 programme. The findings are presented in tables 15.

Table 8:
Relationship Between Parent's Level of Education and Pupils' Aspired Highest Science Education Level.

		Mother's level of education	Father's level of education
Pupil's expected Highest level of science education	r	0.144	0.089
	p	**0.000	0.292
	N	136	142

** Correlation is significant at 0.01 level (2-tailed).

Table 8 show that the relationship between fathers' education and pupils' expected highest level of science education is not significant ($r=0.089$, $p=0.292$, $p>0.01$). The H_0 4 was therefore accepted. Table 8 also indicates that mothers' level of education and pupil's expected highest level of science education is statistically significant ($r = 0.144$, $p=0.00$, $p< 0.01$).

The results show that pupils hope to achieve highest level of science education possible (Table 4). 91.7% of the pupils aim at university education compared to 21.8% of the parents who are university graduates. Most parents dropped out after secondary school (Table 5). This gives a challenge to all concerned including parents, educators and the government policy makers to facilitate and provide resources to make the pupils expectations achievable.

This study finding strengthens conclusions by Woods and Hammersley (1993). Woods and Hammersley found that parental level of education is significantly related to pupil's liking of science but no significant impact upon science achievement. Tsuma (1998) noted that, parents who have received some general education in science will be more willing to call upon the advice of experts for their children than the one who knows nothing in science. 86% of fathers and 75.8% of mothers have secondary education and above (Table 5). This implies that these parents are academically capable of assisting the pupils with primary

school science. However the results show that mostly it is the mothers who influence the pupils' science achievement (Table 6). This perhaps is because fathers are frequently away from home due to distant work places.

The findings therefore suggest that it is important that parents and especially women to attain highest level of education and continually update their basic science knowledge for positive influence on children from early age (3 years). The findings that 90.8% of the parents (Table 7) influence the pupils' science achievement by helping with homework and explaining concepts that pupils do not understand concur with Mweru (2000) who observed that children born and bred by parents who are scientists end up more often in scientific disciplines.

Opportunities offered to the pupils by their parents, is a major contributing factor to academic success. Children and families from different social economic levels have access to different resources for interacting with schools. Middle class parents have always been more involved in schools than low-income parents (Dembo, 1994). Middle class parents are part of the educated society, which is set within the context of its dependence upon the achievements of science, technology and industry and its responsibility for maintaining and developing these. Dembo further argues that middle class parents have experienced more schooling than low income parents and understand curriculum better, hire tutors when their children need help and may feel more comfortable interacting with teachers. Active participation by middle income parents has led to academic success of their children than the passive strategy of low income parents who depend on teachers to make right decisions concerning their children. Table 7 presents findings that indicate the parents support the pupils by assisting with science assignments and explaining some science concepts.

Conclusion and Recommendations

Based on the findings, the study concluded that there is a gender difference in science achievement among primary school pupils. The study also concluded that the parents' level of education did not hinder a pupils' ambition to achieve the highest science education level possible. This implies that there are other factors that hinder pupils from reaching and pursuing science in highest institutions of learning. These factors need to be identified and measures put in to place by the stakeholders to help pupils achieve their education goals.

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Influence of Domestic Chores on Absenteeism and Punctuality Among Students in Mixed Day Secondary Schools in Kisii Central District, Kenya

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Abstract

The purpose of this study was to determine the influence of domestic chores on absenteeism and punctuality among students in mixed day secondary schools in Mosoch Division of Kisii Central District, Kenya. The research was ex-post facto with the specific use of the co-relational research design. Data was collected from 119 boys and 100 girls in Form Three, randomly selected from 14 mixed day secondary schools in the division. In addition, 14 class teachers as well as 14 Parents – Teachers Association (PTA) members were purposively involved in the study. Questionnaires and interview schedules were used to collect data whereas end of term exam results provided data to be analyzed. The findings linked absenteeism and unpunctuality among students due to participation in domestic chores to low academic achievement. The study concluded that the students' low academic achievement could be attributed to involvement in domestic chores. The study recommends that the domestic chores assigned to the students be reduced, allow students to attend school regularly, provide lunch to students in mixed day secondary schools as well as offering guidance and counseling to the affected students with intent to boost academic achievement.

Key Words: Chores, Achievement, Data, Academic

Introduction

The involvement of children in domestic chores has for long been associated with dismal academic achievement, particularly in the developing nations. Various studies hold that as in other developing countries, children in Kenya are engaged in domestic chores, often to the detriment of their education (FAWE, 2003; ROK,2003; World Bank,2003; Oxfam, 1999).According to Oxfam(1999), large numbers of children among some communities in Kenya, especially girls are denied education as they either miss days of school, are kept at home or even sent to other households to be domestic workers. The widely held view is that such work is useful training for girls, whether paid or unpaid (Nyabera, 2004; Mondoh, 2001).

Another study conducted by the Sinaga Women and Child Labour Resource Centre in Nairobi, which was established by ILO in 1995, showed that girls from large and poor families in rural as well as urban slums tend to be involved more in domestic labour compared to their counterparts from economically stable homes (Oxfam, 1999). Further, a number of studies (Kadenyi and Kamuyu, 2006; Chepchieng and Kiboss, 2004; UNICEF, 2004; World Bank, 1989) point to the view that the engagement of children in domestic chores not only contributes to dismal performance but also leads to the gender differentials in academic achievement.

A survey conducted jointly by Kenyan and Japanese researchers and sponsored by the Strengthening Mathematics and Science in Secondary Education (SMASSE) project implied that students' involvement in domestic chores is associated with low academic achievement in mixed day secondary schools in Mosocho Division (SMASSE, 2000). However, there was no systematic study that had been carried out to establish this. Stakeholders in education had also kept citing domestic chores as contributing towards poor academic achievement in the Kenya national secondary school examinations. Against this background, this paper sought to determine the influence of domestic chores on absenteeism and punctuality among students in mixed day secondary schools in Mosocho Division of Kisii Central District.

Purpose and objectives of the study:

The study was designed to determine the influence of domestic chores on absenteeism and punctuality among students in mixed day secondary schools in Mosocho Division with a view to generating policy recommendations on how to manage their effects.

The study had the following specific objectives:

- i. To establish whether participation in domestic chores influenced absenteeism and punctuality among students in mixed day secondary schools in Mosocho Division.
- ii. To find out whether there was a gender difference in the way domestic chores affected absenteeism and punctuality among students in mixed day secondary schools in Mosocho Division.
- iii. To determine whether there was any gender difference in students' academic achievement in mixed day secondary schools in Mosocho Division.

Research questions:

- i. To what extent does participation in domestic chores influence absenteeism and punctuality among students?
- ii. Is there a gender difference in the influence of domestic chores on absenteeism and punctuality among students?
- iii. Is there any gender difference in students' academic achievement?

Methodology

Research Design

The study involved *ex-post facto* research with the specific use of the co-relational study design which is useful in identifying the antecedents of a present condition (Cohen & Manion, 2000). The cause or independent variable in *ex-post facto* research defies manipulation since it already exists. Since this study embarked on determining the influence of domestic chores on absenteeism and punctuality among students, this research design was considered appropriate. In particular, inferences were made without direct intervention of the independent variable which was domestic chores.

Sampling

Simple random sampling and purposive sampling were used to select the sample size. Simple random sampling ensured that all the Form Three students from the defined population had an equal and independent chance of being selected as a member of the sample. The Form Three students were considered appropriate for this study because they had spent at least two years in secondary school hence the influence of domestic chores on absenteeism, punctuality and academic achievement could easily be ascertained. A total of 120 boys and 100 girls were selected from the 14 mixed day secondary schools in Mosoch Division. However, one boy did not fill his questionnaire and therefore 119 boys were involved in the actual study. One Form Three class teacher from each school was purposively included. In addition a total of 14 Parents – Teachers Association (PTA) parents were purposively selected and interviewed by the researcher to gather information relevant to this study. The 14 PTA parents and 14 Form Three class teachers were considered important in providing vital pieces of information pertaining to the assignment and subsequent involvement of both boys and girls in domestic chores as well as their academic achievement.

Instrumentation

Questionnaires and interview schedules were developed and used in this study. Questionnaires for students and teachers sought information on the influence of domestic chores on absenteeism and punctuality among students. The PTA parents were asked how they allocated various domestic duties to the boys and girls, their perception of boys' and girls' education as well as the privileges enjoyed by both boys and girls. While questionnaires were considered useful in obtaining objective data, interviews were conducted so as to give in depth information relevant to this study. Validation of the instruments was carried out bearing in mind both the objectives and purpose of the study. This was followed by pilot testing of the instruments in one mixed day secondary school in a neighbouring division which had similar characteristics to those of the schools involved in the actual study. The reliability coefficient was calculated using the Cronbach's alpha which was considered appropriate since it can both be administered once as well as assess multiple response items (Kathuri & Pals, 1993). The reliability coefficients for both the students' and teachers' questionnaires were at least 0.77 which was acceptable for this study. The validity and reliability of the exams that were used in this study were assumed to have been established before they were administered by the concerned teachers.

Data Collection and Analysis

The researcher travelled to each of the schools under study for familiarization purposes as well as requesting for the end of term exam results before the instruments were administered. After administering the instruments, particularly the student questionnaires, the researcher collected them so that students could not discuss and modify their responses. The interviews for the parents were conducted after the questionnaires had been filled. This was done deliberately so as to seek more information or even clarification from the interviewees on the issues not adequately addressed in the questionnaires (Mugenda & Mugenda, 1999). After receiving the data, it was classified according to their sources; boys, girls and teachers as well as PTA parents. According to Kothari (2004), raw data should necessarily be condensed into a few manageable groups and tables for further analysis. Thus, the researcher classified the raw data into purposeful and usable categories. The data was analyzed quantitatively using descriptive statistics.

Background Information

Domestic chores, School Attendance and Academic Achievement

According to the Global Monitoring Report (2002), children who have no access to quality schooling often enter the workforce, particularly if they are from poor families that need additional income.

As per the report, some children may try to work and attend school at the same time, but find that they do not have enough time to study, are forced to miss classes, are frequently tired in class, and eventually fall behind or drop out.

According to the ILO/IPEC (2003) report, of the students who worked in farms and attended school in El Salvador and Indonesia, at least 45% reported having difficulties with their studies because they had missed days of class hence found it hard to catch up or were tired after working in the cane fields in the morning. The report also revealed that children working in farms often did not attend school during harvesting time, which could run through several months of the academic year causing them to fall far behind their classmates.

Generally, many children from all developing regions, but especially from Africa, combine working on family-run farms and enterprises with attending school (Global Monitoring Report, 2002). Therefore, the quality of the school experience for such working children is undermined not only by their more irregular attendance but also by their responsibilities outside it. On this basis, this study attempted to avail data regarding the influence of domestic chores on absenteeism and punctuality among students in mixed day secondary schools in Mosoch Division of Kisii Central District.

Further, a study carried out by the Human Rights Watch in El Salvador found that domestic labour interferes with children's schooling when they do not have time to do homework, fall asleep during class or miss lessons. Of those still in school, several explained that they often missed school to work (Human Rights Watch, 2005). According to Guttman (2001), child farm workers who spend long hours in the field do not have time to study, are often tired during class and are more likely to be tardy or absent. This study attempted to find out how involvement in domestic chores affected attendance among students in mixed day secondary schools in Mosoch Division since no such study had been carried out there.

In Ghana, girls often start working early and for more hours than boys, a difference which is more pronounced if hours spent on household chores are taken into account. According to the Ghana Statistical Service (1995), of the children who were engaged in either paid or unpaid work and also went to school in 1992, 90% of them were involved in household chores. These trends are similar to what has been observed in other developing countries for which data is available (ILO, 1996). Similarly, according to the national statistics estimate, almost half of all Ethiopian children are engaged in some form of productive or household work, and for many children workers, this hampers their education (Elson, 1996).

The National Child Labour Survey (2002) and Ersado (2003) found that the main reasons given for non-attendance in schools included helping in household chores and generating household income. According to King and Hill (1993), household duties are a primary reason for keeping boys out of school in Ethiopia.

On the other hand, in Jordan and Nepal, girls drop out of school to help with domestic tasks, especially the care of siblings. According to Chernichovsky (1985), a higher endowment of livestock showed negative effects on enrolment in Botswana, while Walters and Briggs (1993) found a higher probability of school enrolment for children from households who owned land. Ownership of livestock tended to reduce the probability of school attendance among younger boys because animal herding is regarded as being more important than crop production activities. Dolphyne (1991) argues that absenteeism from school among girls who are particularly vulnerable to domestic labour is more rampant than acknowledged.

Further, UNICEF (2004) and Wanjohi (2002) observe that after a series of such absence from school, a girl has difficulty in catching up with the rest in the class and in due course gives up school completely. Clark and Millard (1998) concur with this finding. This formed the basis for ascertaining the degree of absenteeism among boys and girls in mixed day secondary school in Mosoch Division, as a result of being engaged in domestic chores. The above studies, however, had not attempted to recommend means of managing the effects of domestic chores in as far as school attendance among boys and girls is concerned. Thus this study hoped to fill this knowledge gap.

Issues Related to the Effects of Domestic Chores on Education in Mosoch Division.

The involvement of children in domestic work within the family setting is both an expected as well as an accepted practice in all African societies and therefore, is a common practice among the Abagusii community (Owiti, 2006). Accordingly, children are expected to help their parents and guardians in some work, as per their ability. This way, such children are expected to acquire skills to become useful in adulthood. However, the noble societal efforts to introduce children to work, thus enabling them to acquire skills for use in adulthood has changed as many parents and guardians now perceive children's work as an economic asset to the family (Owiti, 2006). Indeed, a survey carried out in 1998 by Kenyan and Japanese researchers in Kisii Central District, including Mosoch Division (SMASSE, 2000), revealed that boys were engaged in such domestic tasks as feeding and milking cows whereas the girls performed such tasks as cooking, collecting of firewood and water. Some students involved in the survey said that

engagement in such domestic tasks made them to sleep late, wake up early, report late and even miss days of school. Students also lamented that their participation in domestic tasks never left them with enough time for doing school assignments and also conducting private study. But since the survey did not provide empirical data to show the extent to which domestic chores influenced school attendance among students, this study made an effort to fill this knowledge gap in mixed day secondary schools in Mosoch Division. Similarly, Owiti (2006) asserts that cultural practices, family disintegration, early marriages and discrimination in the allocation of domestic roles, against the girl child among the Abagusii community has continued to disadvantage girls' education compared to that of the boys. On this basis, this study made an effort to ascertain whether there was any gender difference due to the effect of domestic duties on students' academic achievement in mixed day secondary schools in Mosoch Division.

Theoretical Framework

In an attempt to understand the influence of domestic chores on school attendance among students, Bandura's (1977) social learning theory was used. The theory lays emphasis on the learning that occurs within a social context. It holds that people can learn the behaviour of others as well their outcomes. It also holds that learning can actually take place without necessarily bringing about change in behaviour. Accordingly, awareness and expectations of future reinforcements or punishments can have a major effect on the behaviour that children exhibit. Although the social learning theory has been criticized for its failure to predict what the learner will regard as positive and yet Bandura argues that theories must demonstrate predictive power (Keith, 2000), it nevertheless demonstrates the effect of the environment on a child's learning, especially in relation to intellectual development and achievement. Thus in regard to this study, the amount and or type of domestic chores undertaken by boys and girls in their respective homes was likely to influence their attendance in school.

Results and Discussions

The results are mainly presented in tabular form followed immediately by an interpretation after every table. A brief discussion of each finding then ensues.

Influence of Domestic Chores on Punctuality

Students were asked to indicate the average number of days they go to school late due to participating in domestic chores. They indicated as reporting to school late either in one day, two days, three days, four days or five days in a week. The average numbers of days as per the students' responses were then computed.

Figure 1 presents the results.

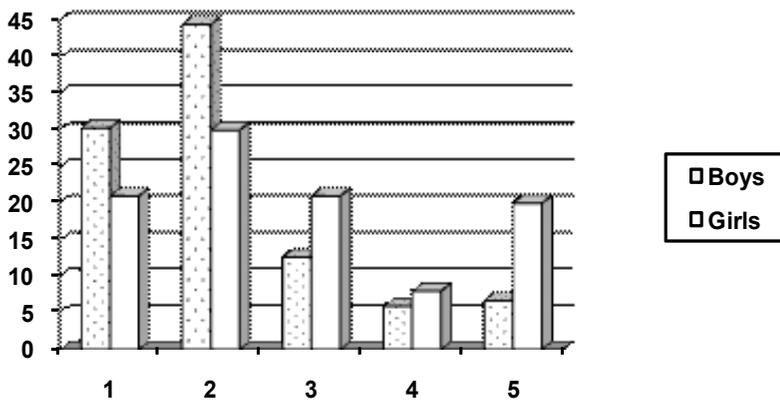


Figure 1: Students' responses on reporting to school late.

Results in Figure 1 reveal that on average, most students went to school late in two days a week (44.5% of the boys and 30% of the girls), followed by one day (30.3% of the boys and 21% of the girls), three days (12.6% of the boys and 21% of the girls), five days (6.7% of the boys and 20% of the girls) and four days (5.9% of the boys and 8% of the girls), in that order. Perhaps this explains the students' dismal academic achievement. These findings tend to reinforce similar studies (Human Rights Watch, 2005; ILO / IPEC, 2003; Global Monitoring Report, 2002) which found that some students were actually involved in either farm work or household chores before reporting to school for classes, especially in the morning during school days. Indeed, the chances that such students could be late for school as well are most likely to be high.

Further, class teachers were asked to indicate how often students, by gender, cited particular domestic duties as contributing to getting late to school. These domestic chores included: milking cows, preparing meals, sweeping, feeding animals, selling milk, fetching water and washing utensils. The mean scores of these seven items were derived from students' responses on closed – ended items on a 5-point Likert Scale, namely: Very Frequently (VF)=1; Frequently (F)=2; Sometimes (S)=3; Rarely (R) = 4 and None of the above (NA) = 5. The information is presented in Tables 1 and 2.

Table 1:
Reasons cited by boys for being late to school.

Reason	N	Minimum	Maximum	Mean	Std. Deviation.
Milking cows	14	1.00	5.00	3.8571	1.46009
Preparing meals	14	1.00	5.00	3.0714	1.59153
Sweeping	14	1.00	5.00	3.4286	1.34246
Feeding animals	14	2.00	5.00	3.8571	1.0945
Selling milk	14	1.00	5.00	3.2857	1.32599
Fetching water	14	2.00	5.00	3.2857	.99449w
Washing utensils	14	2.00	5.00	2.9286	.99725
Valid N (listwise)	14				

Table 1 shows that boys sometimes went to school late due to involvement in domestic duties at home. Domestic chores that contributed most to reporting late to school included washing utensils, preparing meals, fetching water and selling milk with mean values of 2.9286, 3.0714, and 3.2857, respectively.

Table 2:
 Reasons cited by girls for being late to school.

Reason	N	Minimum	Maximum	Mean	Std. Deviation.
Milking cows	14	1.00	5.00	3.3571	1.44686
Preparing meals	14	1.00	5.00	3.2857	1.26665
Sweep	14	2.00	4.00	2.8571	.66299
Feeding animals	14	1.00	4.00	2.2857	1.20439
Selling milk	14	1.00	4.00	2.4286	1.22250
Fetching water	14	1.00	4.00	3.1429	.94926
Washing utensils	14	2.00	5.00	3.0714	.82874
Valid N (listwise)	14				

It can be observed from Table 2 that girls often reported to school late for being engaged in domestic tasks. The table reveals that compared to the boys, girls were more often reporting late to school for being engaged in cleaning the house, selling milk and fetching water which had mean values of 2.8571, 2.4286 and 3.1429, respectively. This could imply that girls were likely to register lower academic achievement against that of the boys. This finding also seems to reinforce Nyabera's (2004) assertion that girls are still considered to belong to the kitchen and selling such items as second hand clothes and vegetables. It also

supports findings by Bredie and Beeharry (1998), ILO (1996), Ghana Statistical Service (1995), King and Hill (1993), World Bank (1989), Eshiwani (1985), Greenhalgh (1985), Rosenzweig and Schultz (1982) and Smock (1981) which hold that most societies are characterized by gender differentials in domestic labour participation.

Influence of Domestic Chores on Absenteeism

Similarly, asked to state the average number of students, by gender, who missed going to school due to being engaged in domestic duties in a week, class teachers gave the information contained in Table 3.

Table 3:
Class teachers' responses on students' absenteeism from school

Gender of students	N	Minimum	Maximum	Mean	Std. Deviation
Boys	14	1.00	6.00	3.0714	1.94004
Girls	14	3.00	10.00	5.4286	2.47182
Valid N (listwise)	14				

From Table 3, it can be noted that more girls than boys missed going to school as indicated by the means of 3.0714 and 5.4286, respectively. This finding is in agreement with the Global Monitoring Report (2002), Bhalotra and Heady (1998), Coulombe (1998), Grootaert (1998), ILO (1996) and Tilak (1989) which found that more girls than boys were most likely to be absent from school due to involvement in domestic chores. Also, all the 14 PTA parents interviewed concurred that students who missed going to school to do domestic duties were most likely to register dismal academic achievement, reinforcing studies done by Human Rights Watch (2005), ILO / IPEC (2003), UNESCO (2003) and Guttman (2001). Majority (57.1%) of them observed that such students were likely to be lowly motivated in their pursuit of education due to scoring low marks in exams or being punished for missing school. One of the PTA parents noted that such a demotivated learner could even quit school for good. This assertion also reinforces those of Nairesiae (2006), UNICEF (2004), Wanjohi (2002), Clark and Millard (1998) and Dolphyne (1991).

The class teachers were also asked to indicate how often certain reasons contributed to students, by gender, being absent from school to undertake domestic tasks at home. These reasons were: weeding crops, caring for their younger siblings, doing housework, caring for the sick, picking coffee, attending to animals as well as plucking tea. Other reasons included preparing land, caring for tea leaves at

the buying centre, selling items in the market, harvesting crops and buying goods from the market. The mean values and standard deviations for each of the above reasons were then determined using responses based on a 5- point Likert scale. The responses were: Very Frequently (VF)=1; Frequently (F)=2; Sometimes (S)=3; Rarely (R)=4 and None of the above (NA)=5. Tables 4 and 5 present this data.

Table 4:
Reasons given by boys for being absent from school

Reasons	N	Minimum	Maximum	Mean	Std Deviation
Weeding crops	14	2.00	5.00	3.1429	1.02711
Caring for young siblings	14	1.00	5.00	4.0714	1.14114
Doing housework	14	2.00	5.00	4.0000	.67937
Caring for sick	14	1.00	5.00	4.6429	1.05090
Picking Coffee	14	3.00	4.00	3.2857	.63332
Attending animals	14	1.00	5.00	3.9286	1.58980
Picking tea	14	2.00	5.00	3.5714	.99725
Preparing land	14	2.00	5.00	3.8571	1.15787
Caring for tea at the buying centre	14	2.00	5.00	3.7143	1.02711
Selling items in the market	14	2.00	5.00	3.0714	.91387
Harvesting crops	14	2.00	5.00	3.0714	1.07161
Buying goods from the market	14	2.00	5.00	3.6429	1.15073
Valid (listwise)	14				

Table 4 reveals that sometimes boys missed going to school so as to perform domestic duties at home. This is evidenced by the mean values of harvesting crops (3.0714), weeding crops (3.1429), caring for the sick (3.2143), attending animals (3.2857), preparing land (3.5714), buying goods from the market (3.6429) and selling items in the market (3.7143). In particular, these findings support those by Chernichovsky (1985), who found out that a higher endowment of livestock among families had negative effects on enrolment among boys in

Botswana. Accordingly, ownership of such livestock is regarded as being more important compared to attending school. These findings are also in agreement with those of Coulombe (1998) who established that cultural norms had an impact on child labour independently of income and education if specific tasks are culturally designated as girls' or boys' work, such as cattle herding or water collection in the case of Ethiopia. Accordingly, more boys were found to drop out of school due to participation in domestic labour while in Brazil, Nicaragua and Chile boys perform a larger share of domestic labour. King and Hill (1993), Greenhalgh (1985), Rosenzweig and Schultz (1982) concur with these findings. Such a scenario could as well explain the weak academic achievement among both the boys and girls in mixed day secondary schools in Mosoch Division.

Table 5:
Reasons given by girls for being absent from school.

Reasons	N	Minimum	Maximum	Mean	Std Deviation
Weeding crops	14	2.00	5.00	3.2857	1.13873
Caring for young siblings	14	1.00	4.00	2.6429	.92878
Doing housework	14	1.00	5.00	2.5714	1.28388
Caring for sick	14	1.00	5.00	3.0714	1.14114
Picking Coffee	14	2.00	5.00	3.0714	1.07161
Attending animals	14	2.00	5.00	4.0714	1.01905
Picking tea	14	2.00	5.00	3.5000	1.08182
Preparing land	14	2.00	4.00	3.6429	.73005
Caring for tea at the buying centre	14	1.00	5.00	3.0714	1.39268
Selling items in the market	14	2.00	5.00	3.3571	.86444
Harvesting crops	14	1.00	5.00	2.8571	1.01635
Buying goods from the market	14	2.00	4.00	3.4286	.86444
Valid (listwise)	14			2.8571	

Table 5 illustrates that girls often missed going to school to undertake domestic tasks at home. As indicated by the mean values, the domestic chores that affected

girls most in this respect were doing housework (2.5714), caring for young siblings (2.6429), selling items (2.8571), buying goods from the market (2.8571), caring for the sick (3.0714), preparing land (3.0714), weeding crops (3.2857), harvesting crops (3.4286) as well as attending animals (3.5000). These findings seemed to concur with those by Nairasiae (2006) that more girls than boys stayed at home to perform domestic duties. The above findings also concur with the Global Monitoring Report (2002), World Bank (1998) and the Ghana Statistical Service (1995) which established that most unrecognized labour is performed by women and girls. This includes domestic duties like caring for younger siblings, cooking, laundry, fetching water as well as informal and agricultural labour that is centred around the home. Similarly, Rock (1985) established that the proportion of women aged 15 years and over working regularly on aspects of food and cash crop production generally exceeds the proportion of men. In addition to planting, weeding, harvesting and marketing of food and cash crops the women are also heavily involved in the transporting of crops home from the fields and the drying and storing of certain crop products (Rock, 1985).

Gender differences in academic achievement

In this study, academic achievement referred to the mean scores obtained by the students, calculated from the marks in the seven subjects they were tested on in both first and second term, 2007 exams. This is summarized in table 6 below

Table 6:
Summary of students' academic achievement

Gender	N	Mean	Std Deviation
Boys	119	39.9471	9.97141
Girls	100	37.5880	10.87537
Total	219	38.8699	10.43637

Table 6 indicates that students' academic achievement was below the average of 50 marks, considering the fact that each subject was marked out of 100 marks. The overall mean score was 38.8699. The boys' mean score was slightly higher (39.9471) than that of girls (37.5880). This scenario seems to agree with previous studies (Human Rights Watch, 2005; ILO / IPEC, 2003; UNESCO, 2003; Global Monitoring Report, 2002; Guttman, 2001; Oxfam, 1999) which found that students' involvement in manual labour sometimes hampered their schooling as they had inadequate time to study or do homework, were tired or even slept in class as well as missing school to work. These results also reinforce the assertions

of Kadenyi and Kamuyu (2006), Fawe (1996) and Sarah (1993) that girls' involvement in heavy domestic work could lead to poor scholastic performance.

Conclusion and Recommendations

Respondents in this study including the students, class teachers and PTA parents agreed that the involvement of students in domestic chores had a negative impact on school attendance and hence academic achievement. Thus the low mean score in exams among boys and girls involved in this study could be attributed to the effect of domestic chores. There was a slightly higher mean score in favour of the boys compared to that of the girls, a situation that could be attributed to the latter being more frequently engaged in domestic chores compared to the former. It could also be concluded that traditional beliefs and practices have continued to promote stereotyped gender roles as cherished by the Abagusii community, as girls were found to undertake more domestic chores compared to the boys. Stakeholders in education, including the government, parents, students and policy makers have an obligation to provide solutions to this situation in order to boost academic achievement. This study recommends that the domestic duties assigned to students be reduced, provide civic education to parents and the community on the need to allow students to regularly attend school, provide lunch to all students in mixed day secondary schools as well as offering guidance and counseling to the affected students.

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The Impact of Adolescents' Social and Emotional Behaviour on Academic Performance among Public Day Secondary School Students in Nakuru Municipality

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Abstract

Records from the Nakuru District Education Office show that the academic performance of public secondary schools in Nakuru Municipality is poor and erratic. Adolescents from these schools often come with contact with social behaviour such as internet browsing, interaction with students from other schools, among other factors, which influence their social and emotional behavior and might have a negative impact on their academic performance. This research sought to investigate the impact of adolescent social and emotional behaviour on academic performance among public day secondary school students in Nakuru Municipality. The study used descriptive survey design. The target population composed 1,892 form three students from 16 public day secondary schools in Nakuru Municipality. The accessible population was 944 form three students drawn from 5 secondary schools that were purposely sampled due to their large population. The schools gave a sample of 273 students who were stratified according to gender. The study also included 5 teacher counselors who were purposively sampled. Two questionnaires one for students and another for teacher counselors were used to gather information. Data gathered was analyzed using frequencies, percentages and Ch-square. The statistical package for social sciences (SPSS) version 15.0 for windows was used to analyze data.

Introduction

Adolescent social and emotional behavior have been issues of concern to scholars for Centuries, Aristotle the Greek philosopher described adolescents as emotionally impulsive, prone to exaggeration and lacking self restraint. Positively, they are trusting, sure of their statements and have aspirations. Qureshi (2004) explains that the modern adolescent is different from those of earlier times due to changes in the society and the exposure to variety of intellectual pursuits. Advancement on technology has brought the world together beyond time and space. This can be a reflection of adolescents in urban areas like Nakuru Municipality who spend most of their time with computers and television either at home or many cyber cafes found in town; Andrews (2000) observes that there is a high probability that the social and emotional competencies of these adolescent may be poorer than those of previous generations and may lead to psychological problems and

a drop on their academic performance. Studies done in Kenya by the Kenya demographic House Survey reveal that some adolescents are sexually active by the age of 13-19. Globally sexually transmitted infections including HIV/AIDS infect one in every twenty young people (KDHS 2003). Santrock (2005) Argues that youngsters growing up in conditions such as those found in slums or without parental supervision are “primed” to boost their chances of having genes survive into the next generation by initiating motherhood early. Observation indicates that majority of students in public day secondary schools in Nakuru Municipality come from low social and economic backgrounds where they might be exposed to sexual behavior early. An adolescent who is a mother may drop out of school or loose concentration in class leading to a drop in their grades.

Further studies by the international society for addiction medicine reveal that students in Kenyan schools were abusing drugs and alcohol. The students confessed that this social behavior gave them emotional relief, helped them deal with peer pressure, anxiety and to adjust to the school environment (Sunday Nation team, 21st 2008). Most of these students were from the middle social economic class contrary to the view held that this kind of behavior is found in adolescents from the lower social class (Belsky 1997).

During the month of July 2008, over 300 secondary school went on rampage burning down their schools and in some cases led to loss of life as was the case in Upper Hill Secondary school in Nairobi Kenya (Ngare, 2008). In January 2012 three students committed suicide due to school and examination related issues. Sadker and Sadker (2000) explains that adolescents who feel pushed beyond their abilities and alienated from family and community get involved in anti-social behavior to draw attention. These adolescents develop a sense of uniqueness that no one cares or face their kind of problems. Students in day public secondary schools are in every day contact with the above conditions, which might shape their social and emotional behavior and have an impact on their academic performance.

Statement of the Problem

Academic performance of public day secondary school students in Nakuru Municipality has been poor and inconsistent. These students are exposed to social activities such as browsing the internet, drugs and alcohol taking among others on their way to school and sometimes at home. They are in adolescence stage of human development as a result, they are experiencing physical, psychological changes together with the search for identity. Their social and emotional behavior might be shaped by these experiences and might have an impact on their academic performance.

Objectives of the Study

The study was guided by the following objectives:

- (i) To identify adolescence social behavior manifested by students in public day secondary schools in Nakuru Municipality.
- (ii) To determine adolescent emotional behavior manifested by students in public day secondary school in Nakuru Municipality.
- (iii) To investigate the impact of adolescent social and emotional behavior on academic performance among public day secondary school students in Nakuru Municipality.

Research Methodology

Research design

The study used the descriptive survey design which according to Mugenda and Mugenda (1999) collects data from members of a population in order to determine the current status of that population with respect to one or more variables such as behavior. This design was appropriate because the social and emotional behavior of adolescents already had an impact on the academic performance of students.

Location of the study

The study was conducted in Nakuru Municipality because it is a cosmopolitan town with adolescents from diverse cultural, ethnic and social economic backgrounds. The town has many activities that might lure the adolescents and could influence their social and emotional behaviour.

Population of the study

The target population was 1892 form three students from public day secondary schools in Nakuru Municipality. Mugenda and Mugenda (1999) define target population as that to which the researcher wants to generalize the results of the study. The accessible population was form three students from 5 secondary schools with a large number of students. Form three students are mostly in mid adolescence and so are likely to give a better picture of adolescents' social and emotional behavior.

Accessible population of form 3 students

The Table below indicates the accessible population from the five public day secondary schools that have the largest population in Nakuru Municipality and 5 teacher counsellors.

Table 1:
Accessible population of form 3 students

School	F 3 Pup	Male	Female	Teacher Counselor
Afraha Secondary School	214	126	88	1
Langalanga Secondary School	154	98	56	1
Nakuru Day Secondary School	149	103	46	1
Kenyatta Secondary School	149	91	58	1
Menengai High School	278	164	114	1
Total	944	582	362	5

Sampling Procedure and Sample size

The total sample size was determined by a formula given by Kathuri and Pals (1993). The researcher picked the schools with the largest population of students. Proportionate sampling was used to get the students sample. They were then stratified according to gender. The student sample was 272, in addition to five teacher counsellors, the total sample size was 277.

Instrumentation

Two questionnaires, one for students and another one for teacher counselors were used to gather information on the impact of adolescents' social and emotional behavior on academic performance among public day secondary school students in Nakuru Municipality. The students' questionnaire elicited information from the students on their gender, grade attained at the end of the first term form three examination, their social and emotional behavior. The questionnaire for teacher counselor enquired on the social and emotional behavior that they have encountered among the students and the kind of help they have offered to the affected students.

Data Analysis

Descriptive statistics which included frequencies and percentages and inferential statistics i.e. chi-square were used to analyze data. Statistical package for social sciences (SPSS) version 15. used.

Results and Discussion

General Information on the students

The findings revealed that there were more male students than female students in public day secondary schools in Nakuru Municipality. The few number of girls could be an indicator that parents prefer enrolling girls in boarding schools where they might perform better. This agrees with the assertion that girls in girls only schools perform better academically than girls in mixed schools because they develop a collectivist model of self, are committed and interdependent with others (Quatman & Watson, 2001)

The study established that the academic performance of students in public day secondary schools in Nakuru Municipality range between poor and average. Descriptive statistics were used to analyze data. Most of these students have little time to do their home work and might lack the right environment to carry out their studies outside the school compound because they come from congested and sometimes noisy neighbourhoods. To make the most of their study time students need silence and organized environment, an atmosphere of confidence and constant emotional support (Melgosa, 2000).

Table 2:

Overall grades obtained at the end of term one examination in form three

Grade	Frequency	Percentage
A to A-	2	7
B+ to B	50	18.5
C+ to C-	186	68.6
D+ to D-	33	12.2
Total	271	106.0

Adolescent social behaviour

The first objective of the study sought to identify the adolescent social behavior manifested by students in public day secondary schools in Nakuru Municipality. The respondents were presented with eleven items that were meant to identify the adolescent social behavior and their responses were analyzed on a likert scale. The study revealed that peer acceptance is important to both male and students and can affect their academic performance. This view is supported by Zanden (2003), assertion that social pressures to conform to a peer group cause some adolescents to experience anxiety, depression and even question authority. The study also revealed that these students, about 30% of students did not ask questions in class, preferred exchanging with their friends music disks instead of books. These students revealed when at home they watched television instead of doing their home work. Melgosa (2000), explains that adolescents want the opportunity to experience sensations more interesting than studies and for this reason their attention is focused on other interests such as music, clothes among others.

The respondents indicated that boy/girl relationships are going on in public day secondary schools and a large number of them were intimate with their friends of the opposite sex. These findings agree with the studies carried out by the Kenya demographic house survey (2003), which revealed that some adolescents are sexually active by the age of 13-19 years of age.

Adolescent Emotional Behaviour

To establish the adolescent emotional behavior the sampled respondents were presented with eleven items. The influence of peers on adolescent emotional behavior came out clearly when 23.2% male and 20% females strongly agreed that they were happier when chatting with their peers.

This concurs with Bridges (2000) assertion that emotional behavior is a key predictor to adolescents' ability to make suitable peer relations, have a well balanced life and reach their academic potential at school. The effects of negative emotional behavior was revealed when 10.5% of students strongly agreed that when excited they are unable to concentrate in class, the 9.5% agreed that they panic during examinations. Andrew (2008) asserts that educators, teachers and parents are acknowledging the role of emotions and the ability to understand, use, regulate and manage them as determinants to success in life.

Sadker and Sadker (2000) explain that adolescents think that other people are as admiring of them as they are of themselves, they view the world as a stage in which they are the principal actors and the other world as their audience. This view supports what the respondents said when asked if they were confident of their physical appearance. 35.4% males and 24% females strongly agreed.

Melgosa (2000) further states that teenagers place physical attractiveness at the top of their value scale. Those who do not consider themselves attractive enough reflect this dissatisfaction in their emotional behavior. Worrying that they might be less attractive than their peers might affect their academic performance negatively.

The role of parents/guardians in adolescents' academic performance also came out when 2% of both female and male students admitted that they performed poorly in examinations to get their parents/guardian attention. Santrock (2005) explains that some adolescents may perform, poorly academically with the intention of 'punishing' their parents. Coercive, instable or inconsistent parenting in early adolescence lead to anti-social behavior.

Research findings by the international society for addiction medicine (2008) revealed that many high school students in Kenya were abusing drugs and alcohol. On the contrary the study established that only 24.5% males and 7.7% in public day secondary schools in Nakuru Municipality had tasted alcohol and drugs. Teacher counselors agreed with the research findings as they said that not many students were abusing drugs and alcohol in their schools.

The impact of adolescents' social and emotional behavior on academic performance

The researcher with the help of class teachers from the five schools extracted from the school mark books the grades the students attained at the end of first term from three examination. Chi-square was used to analyze the data at 0.05 level of significance. On the basis of the calculated χ^2 being greater than the critical value, the stated null hypothesis was rejected. This means that there is a significant impact of adolescents social behaviour on academic performance, the same case applied in the case of emotional behavior. These findings agree with Qureshi (2004) who explains that improper socialization of adolescents can negatively affect their academic performance Kaschaw (1995) also asserts that emotional adolescent behavior and when the adolescent is not counseled properly may affect their academic performance.

Conclusion

The major focus of the study was to determine the impact of adolescence social and emotional behavior on academic performance among public day secondary school students in Nakuru Municipality. From the findings it can be concluded that adolescence social and emotional behavior have contributed to deteriorating academic performance among public day secondary school students in Nakuru Municipality.

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Management Effects of Mergers and Acquisitions on the Financial Performance of Companies in Kenya

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Abstract

This paper provides a systematic empirical analysis of management effects of mergers and acquisitions on the financial performance of companies in Kenya. It explores the impact of corporate restructuring on firm and review of the trend of amalgamations of companies in Kenya. Our results indicate that there is determination on the significance of mergers and acquisitions which is on the increase on the market of companies. It is established that the extent to which the mergers and acquisitions assist in the attainment of returns and benefits on investments. There is quite a number of mergers and acquisitions and their importance as related to their impacts on company performance. Mergers and acquisitions enable firms to increase their market shares, enter new geographical areas, diversify business growth, acquire state-of-the-art technology, comply with new legislation, acquire brand loyalty, overcome entry barriers as well as attainment of return on investment. There exists positive relationship between mergers, acquisitions, and predictor factors, which are market shares, profitability of the company, diversification of risk, achievement of synergy and return on investment.

Key Words: Mergers, Acquisitions, Market Capitalisation, Amalgamations, consolidation

Introduction

In a competitive corporate financial world, integration of companies is the real thing, it is inevitable. Kenyan companies cannot be exceptional for trends where consolidation and universalisation of companies through mergers and acquisitions create vibrancy and competitiveness, standardization of companies notwithstanding. Consolidation includes technological progress, retention capacity, emerging opportunities and financial strength (Tiwari, 2011).

Productivity in the long run and financial strength creates a competitive edge to form the core objectives of mergers and acquisitions. Reduction in cost, efficiency gains, economies of scale, enhancement of consumer base and innovations and other objectives which enhance strengthened financial performance in companies (Tiwari, 2011).

The existing capabilities of a firm influence the kind of acquisition activity that will make business and economic sense. The central strategy for most firms seeking Mergers and Acquisitions (M&A) is to seek to become the leading player in the product/market area of the strategic business unit.

The ever-changing environment and the new forms of competition have created new opportunities and threats for business firms. The change imperatives are strong, and firms must adjust to new forces of competition from all directions. This has forced many of them to adopt forms of restructuring activity. Twenty years back, few companies made mergers a key element of their growth strategy. Mergers were an afterthought or episodic. Today, many companies look to achieve over 50 percent of their growth from M&A. Thomas and Weston (1992).

Focus of the study

The main issues under review were; the nature of mergers, types of mergers and acquisitions, motives of mergers, importance of mergers in company performance, performance measures, and market based valuation and the conceptual framework. At this time of globalization, competition is increasing rapidly and to face the challenges and explore the opportunities, companies are going for inorganic growth through various strategic alternatives like mergers and acquisitions and strategic alliances. Kumar and Bansal (2008).

Literature Review

In today's market, the main objective of the firm is to make profits and create wealth for the firm. Company growth can be achieved by introducing new products and services or by expanding with its present operations on existing products. Internal growth can be achieved by introducing new products, however external growth can be achieved by entering into mergers and acquisitions (Gosh & Das 2003).

Adoption of mergers and acquisition as a method of creating financial strength leading to performances in order to create value for shareholders of the acquiring firm; whereas, mergers and acquisitions are viewed as creation of value to stakeholders, they, on the other hand are seen as failures in the creation of value to acquirers. Equally, there is a huge variation in acquisition outcomes, from very positive to very negative which suggests that acquisition execution can play a significant role in creating value (Hazel Koon et al. 2004).

Mergers and acquisition (M&A) represent a popular strategy used by firms for many years, but success of this strategy has been limited. On average, firms create little value or no value by making acquisitions (Hitt et al. 2001).

While there has been a significant amount of research on mergers and acquisition, there appears to be little consensus as to the reason for outcomes achieved from them (King et al. 2004)

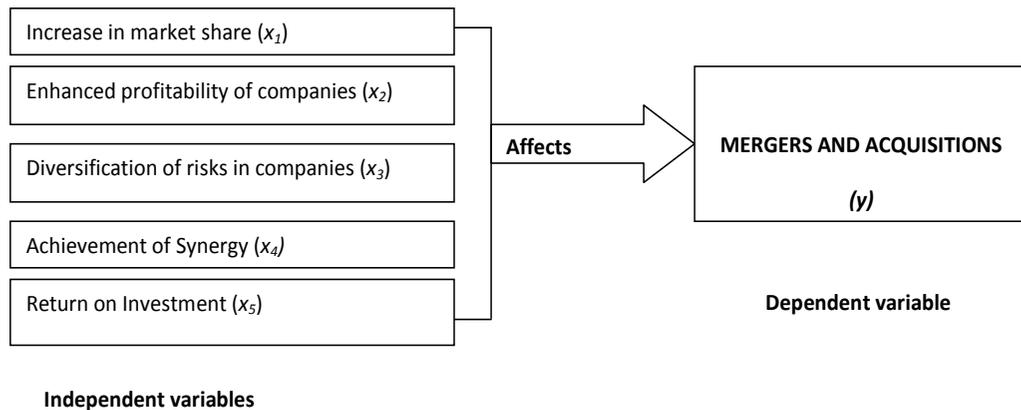
There are primary reasons as to why executives of companies delay to go for mergers and acquisition as matter of divestiture of poorly performing businesses that were acquired (Hitt et. al. 2009).

Mergers and acquisition as an external growth strategy gained ground because of increased deregulation, privatization, globalization and liberalization adopted by several countries. They have become an important medium to expand product portfolios, enter new markets and acquire new technology, gain access to research and development and gain access to reforms which would enable the company to compete on a global scale (Yadav & Kumar 2005).

Conceptual Framework

The study is based on the assumption that the independent variables affect the dependent variable. The independent variables will be extensively discussed in the literature review. Mergers and Acquisitions (y) Contribute to {Increase in market share of companies (x_1)} + {Enhanced profitability of companies (x_2)} + {Diversification of risks in the companies (x_3)} + {Achievement of Synergy (x_4)} + {Return on Investment (x_5)}

$$(y) = (x_1) + (x_2) + (x_3) + (x_4) + (x_5)$$



Source: Own conceptualization

Objectives of the study

Following the aforementioned background and statement of the problem, this study sought to respond to the following objectives :

1. To determine the significance of mergers and acquisitions in the increase of market prices in Kenya
2. To find out the role that mergers and acquisitions play in achieving enhanced profitability of companies in Kenya.
3. To establish the extend to which mergers and acquisitions assist in the attainment of return on investment in companies in Kenya.
4. To determine the benefits of synergy achieved once companies adopt mergers and acquisitions.

Research Questions

The following study research questions were focused:

1. What determines the significance of mergers and acquisitions in the increase of market prices in Kenya?
2. What role does mergers and acquisitions play in achieving enhanced profitability of companies in Kenya?
3. To what extend do mergers and acquisitions assist in the attainment of return on investment in companies in Kenya?
4. What determines the benefits of synergy achieved once companies adopt mergers and acquisitions?

Research Methodology

This present research is based on exploratory research. The major emphasis of exploratory research is on the discovery of ideas. Through exploratory research, the researcher develops concepts early, establishes priorities, develop operational definitions and improve the final research design. This research is both quantitative and qualitative which is based on the data collected through questionnaires.

Research Design

The data has been grouped into two main categories – primary and secondary. Secondary data has been computed from journals, web links, books, and research papers. Primary data has been collected through an exploratory research with user and non-user of mergers and acquisitions on financial performance suitable for interested parties basically being businessmen, corporate people, policy makers, financial practioners, professionals, students etc.

Results and Discussions

Following the objectives and research questions specifically designed for this study, this section precisely presents findings and discussions on the Management Effects of Mergers and acquisitions in financial performance of companies:

Personal data

According to the research data the following organizations were investigated: Bidco(K) Ltd. & Elianto (K) Ltd, Crown Berger & Barclays Holdings, Securicor Security Services Ltd & Express Escorts, Smith Kline Beecham & Glaxo Wellcome (K) Ltd, Lonrho Motors E.A. Ltd & Toyota E. A. Ltd, Lelkina Dairies Ltd & Brookside Dairies Ltd, Africa Online Ltd & Net 2000 Ltd , SCB & Bullion Bank, Paramount Bank & Universal Bank, Unilever & Best Foots Ltd, Barclays Trust Investment & Old Mutual As Asset Managers, Bank of India & India Finance Ltd among others. The study established their various designations and identified them as respondents in their capacities as: accountants, operations managers, human resource managers, clerks, customer service officers, financial analysts, finance managers, directors and procurement officers.

Pie chart 1 :

Responses Per Gender

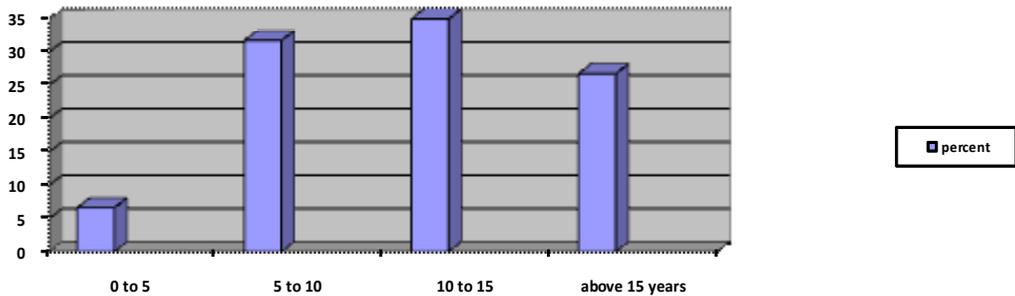


Source: Field Data

Majority of the respondents were males (60%) while females were 40%.

Bar graph1:

Number of Years in Service



Source: Field Data

Thirty five percent(35%) of the respondents had served their organization for a period of 10 to 15 years whereas those who had served their organizations for a period of 5 to 10 years were represented by 32% .27% of the respondents had served their organization for a period of more than 15 years as compared to 6% who had served for a period between 0 to 5 years.

Table1:

Educational Level

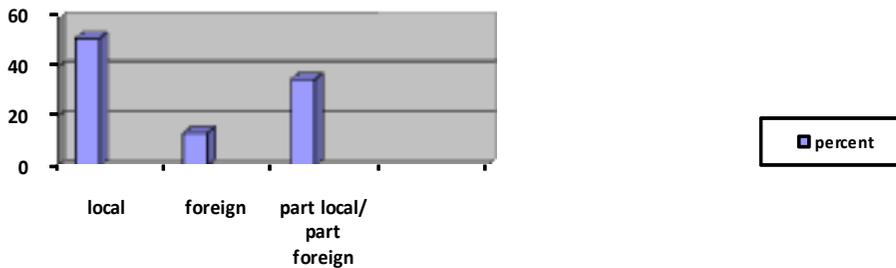
	Frequency	Percent
Diploma	6	12
Degree	26	52
Post graduates degree	18	36
Total	50	100

Source: Field Data

Majority of the respondents had a university degree(52 %) whereas, 36% of the respondents had a postgraduate degree and 12% of the respondents were diploma holders. Most of the organizations had their main offices located in Nairobi. The organizations were established between 1960 to 1993.The study established that organization outlets ranged this ranged between 5 to 13 outlets.

Bar graph2:

Ownership Composition of the Company



Source: Field Data

Majority of the companies are locally owned (51%). Those that were locally and foreign owned were 38% of respondents, while those that were foreign owned were at 11% of the respondents.

Table 2:

Type of Company

	Frequency	Percent
Privately owned	8	16
Part private/part public	27	54
Publicly owned	15	30
Total	50	100

Source: Field Data

Majority of the companies were partly private and partly public(54%) while 30 % of the companies were publicly owned . Sixteen percent whereas (16%) were privately owned.

Firms profile

Identified firms were; Bidco(K) Ltd, Elianto (K) Ltd, Crown Berger Ltd , Barclays Holdings, Securicor Security Services Ltd, Express Escorts, Smith Kline Beecham , Glaxo Wellcome (K) Ltd, Lonrho Motors E.A. Ltd , Toyota E. A. Ltd, Lelkina Dairies Ltd , Brookside Dairies Ltd, Africa Online Ltd , Net 2000 Ltd , SCB , Bullion Bank, Paramount Bank, Universal Bank, Unilever, Best

Foots Ltd, Barclays Trust Investment , Old Mutual As Asset Managers, Bank of India and India Finance Ltd .

The date of incorporation ranged from 30th June 1968 to 23rd September 1990. On the names of the companies after merger or takeover, the study found that these names were; Bidco (K) Ltd, Crown Berger, Securicor Security Services, Smith Kline Beecham & Glaxo Wellcome (K) Ltd, Toyota E. A. Ltd, Brookside Dairies Ltd, Africa Online Ltd, SCB & Bullion Bank, Paramount Bank, Unilever Ltd, Old Mutual Trust Investment, Bank of India Ltd. The study revealed that all the companies had completed the merger and acquisition to its conclusion.

Table 3:
Legal Structure of the Firm

	Frequency	Percent
Partnership	9	18
Part private/part public	27	54
Publicly owned	14	28
Total	50	100

Source: Field Data

Majority (41%) of the firms were partly privately and public owned (54%), twenty eight percent (28%) publicly owned while 18% were partnerships.

Table 4:
Classification of Organization in Terms of Ownership

	Frequency	Percent
Locally owned	27	63
Both Local/Foreign Owned	16	37
Total	43	100

Source: Field Data

Majority of the firms were owned locally owned(63%) while 37% of firms were both locally and foreign owned.

Table 5:
Sector of the Organization

	Frequency	Percent
Manufacturing	22	51
Agricultural	8	19
Service	13	30
Total	43	100

Source: Field Data

Majority (51%) of the organizations were in the manufacturing sector, 30% were in the service sector while 19% of the firms were in the agricultural sector.

Table 6:
The Sort of Merger or Acquisition That the Company Undertook

	Frequency	Percent
Horizontal merger	28	56
Vertical merger	17	34
Conglomerate merger	5	10
Total	50	100

Source: Field Data

Companies undertook a horizontal merger as shown by 56% of the respondents while 34% indicated vertical merger and 10% of the respondents indicated conglomerate merger.

Table 7:
Reasons Why the Organization Undertook the Merger

	Yes	No
Increase market shares	78	22
Acquire state- of -the art technology	60	40
To diversify in a growth business	66	34
Overcome entry barrier	51	49
Acquire brand loyalty	52	48
Enter to a new geographical area	68	32
Comply with new legislation	60	40

Source: Field Data

Seventy eight percent (78%) of the organizations were for the increase market shares, 68% to enter a new geographical area, 66% to diversify in a growth business, 60% to acquire state- of -the art technology, 60% to comply with new legislation, 52% to acquire brand loyalty, while as 51% undertook a merger in order to overcome entry barrier.

Duration taken to Receive an Approval from the Commissioner of Monopolies and Price.

According to the findings, the study found that it took the firms a minimum of four and a maximum of 13 months to receive an approval from the commissioner of monopolies and price.

Table 8:
Subjecting firms to an Appeal to the Tribunal

	Frequency	Percent
Yes	38	76
No	12	24
Total	50	100

Source: Field Data

Seventy six percent (76%) of the firms were subjected to an appeal to the tribunal while 24% of them were not subjected to appeal to the same.

Duration It Took For the Appeal to Be Concluded By the Tribunal

Table 9:
Appeal to the High Court

	Frequency	Percent
Yes	31	62
No	19	38
Total	50	100

Source: Field Data

The study established that it took a minimum of five and a maximum of 12 months to conclude an appeal by the tribunal.

Reasons for Appeal

The reasons why firms appeal to the high court include; where the authority blocks a merger, the parties can appeal its decision to the High Court; appeal against a board decision; the merging parties challenging a merger decision imposing a remedy; complains by the minority shareholders of the involved firms.

Table 10:
The Degree of Involvement of Managers in the Acquisition and Merger Process

	Frequency	Percent
Very little	5	10
Moderately	8	16
A lot	37	74
Total	50	100

Source: Field Data

Seventy four percent (74%) of the firms involved their managers a lot in the merger and acquisition process, 16% moderately involved the managers, while 10% involved them to a very little extent.

Table 11:
Whether the Merger or Acquisition Undertaken by the Firm is a Success

	Frequency	Percent
Yes	47	94
No	3	6
Total	50	100

Source: Field Data

Ninety four percent (94%) of the merger and acquisitions were a success, while only 6% reported that the merger and acquisitions were not successful.

Table 12:

Recommendation of a Merger or an Acquisition

	Frequency	Percent
Yes	36	72
No	14	28
Total	50	100

Source: Field Data

Seventy two percent (72%) of the firms recommend whereas 28% did not recommend a merger and acquisition.

Regression Analysis

A multivariate regression model was applied to determine the relative importance of each of the five variables with respect to establish the effects of mergers and acquisitions on financial performance of companies.

The regression model was as follows:

$$y = \beta_0 + \beta_1 X_1 + \beta_2 X_2 + \beta_3 X_3 + \beta_4 X_4 + \beta_5 X_5$$

Where:

y = Merger and Acquisition

β_0 = Constant Term

β_1 = Beta Coefficients

X_1 = Market Shares

X_2 = Profitability of the Company

X_3 = Diversification of Risk

X_4 = Achievement of Synergy

X_5 = Return on Investment

Table 13:
Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate	Change Statistics				
					R Square Change	F Change	df1	df2	Sig. F Change
1	.87(a)	.90	.881	4.223	.09	.09	1	1	.938

Source: Field Data

Predictors: Constant market shares, profitability of the company, diversification of risk, achievement of synergy and return on investment. Adjusted R^2 is the coefficient of determination and tells us how mergers and acquisitions varied with the market shares, profitability of the company, diversification of risk, achievement of synergy and return on investment. The value of adjusted R^2 is 0.881. This implies that there was a variation of 88.1% on mergers and acquisitions with market shares, profitability of the company, diversification of risk, achievement of synergy and return on investment at a confidence level of 95%.

Table 14 :
Coefficients Results

Model		Unstandardized Coefficients		Standardized Coefficients	T	Sig.
		B	Std. Error	Beta		
1	Constant	0.833	1.156		1.839	.317
	Market Shares	0.771	.061	.097	.097	.938
	Profitability of the Company	0.216	.018	.094	.094	.923
	Diversification of Risk	0.358	.311	.090	.090	.978
	Achievement of Synergy	0.574	.418	.097	.097	.967
	Return on Investment	0.314	.319	.087	.091	.312

Source: Field Data

There is a positive relationship between mergers and acquisitions and the predictor factors, which are market shares, profitability of the company, diversification of risk, achievement of synergy and return on investment.

The established regression equation was:

$$Y = 0.833 + 0.771 X_1 + 0.216 X_2 + 0.358 X_3 + 0.574 X_4 + 0.314X_5$$

Therefore, mergers and acquisitions of companies would be 0.833, holding the predictor's factors constant. Further, a unit increase in the market shares would cause an increase in merger and acquisition by a factor of 0.771, a unit increase in profitability would cause an increase in merger and acquisition by a factor of 0.216. A unit increase in diversification of risk would cause an increase in merger and acquisition by a factor of 0.358 whereas a unit increase in achievement of synergy would cause an increase in merger and acquisition by a factor of 0.574. In addition, a unit increase in return on investment would lead to an increase in merger and acquisition by a factor of 0.314.

This infers that there exists a positive relationship between mergers, acquisitions, and predictor factors, which are market shares, profitability of the company, diversification of risk, achievement of synergy and return on investment.

Conclusions and Recommendations

From the above discussion the study concludes that mergers and acquisitions increase the market shares of companies, firms entered into new geographical areas, diversify business growth, acquire states of art and technology, comply with new legislation, acquire brand loyalty and overcome entry barriers. As a result of mergers and acquisitions the company acquired larger market shares thus increased profitability.

Mergers and Acquisitions assisted in the attainment of returns on investment in companies, achieved the benefits of synergy, acquired state of the technology, complied with new regulations, acquired brand loyalty and overcame entry barriers. The study established a regression equation for the study as;
$$Y = 0.833 + 0.771 X_1 + 0.216 X_2 + 0.358 X_3 + 0.574 X_4 + 0.314X_5$$

This infers that there exists positive relationships between mergers, acquisitions, and predictor factors, which are market shares, profitability of the company, diversification of risk, achievement of synergy and return on investment.

It is therefore recommended that firms should adopt mergers and acquisitions, as this will help them; Enter into new geographical areas where they were hitherto not operating, Diversify their business growth in a fast changing economy, state-of-the- art technology which may be very difficult and expensive to acquire as a single unit, Comply with new legislation in a fast changing world, Acquire brand loyalty from their ever cynical, informed, choosy and demanding customers,

Overcome entry barriers whether economic, political or otherwise and Increase their profitability and return on investment.

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The Role of Industry and Technical, Vocational Education and Training Institutions (TVET) in Industrial Attachment Programme in Kenya

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Abstract

Training institutions and industry play various roles in their pursuance of their daily business endeavours. In enhancing appropriate skills for industrial placement, each of these stakeholders needs to play their part in order to achieve the desired objective of student industrial attachment programmes. Adequate and well organised collaboration between Technical and Vocational Education and Training (TVET) institutions and relevant industries in providing the industrial attachment programme would lead to proper management of the programme and provision of relevant practical skills to assist students in their transition from school to the world of work. This study was undertaken to find out the roles played by TVET institutions and industries in Nairobi Province of Kenya in their collaboration in offering the industrial attachment programme. This was in view of challenges experienced in student placement and management of the programme. Survey research design was adopted for the study. The population for the study included the third year students, higher national diploma students and TVET providers in the six public post-secondary TVET institutions in Nairobi Province and training managers from industries in Nairobi Province. Simple random sampling technique was applied to select 340 respondents from the study population and questionnaires were used in the collection of data. Data collected was analyzed using descriptive statistics in SPSS and results presented in tabular and graphical forms. The study found out that the major role industry plays is provision of placement (56%) while TVET obtained insurance cover (48%) and facilitated supervision (38%). The study made relevant recommendations to improve the programme.

Key Words: Industrial attachment, Technical and Vocational Education, Industry

Introduction

There has been increased concern on linking TVET and industry in many developed and developing countries. This is due to the demand for relevant training appropriate for industrial placement needs of various economies in the world. Kenya has had a fast growing TVET sector providing a wide range of programmes relevant to the growing economy. Different categories of school leavers find themselves with several options of entry points to TVET institutions. There are currently two polytechnic university colleges, two national polytechnics and one technical teachers training college. There are nineteen technical training institutes (TTI's), 17 institutes of technology (IT's), over nine hundred other vocational training institutions operated by private sector (Kerre, 2010). There are also other tailor-made vocational and technical training programmes for school leavers run by Government ministries, state corporations, non-governmental organizations and industrial firms. (Republic of Kenya, 1988).

Due to this rapid expansions, its important to keep in check the quality of training to ensure it meets the industrial needs of the country. The TVET institutions and industry must all take part in achieving this objective. According to Misko (2001), linking TVET and industry is essential for provision of adequate and relevant skills.

The developed countries TVET sectors and industries have adopted various roles and strategies towards developing well co-ordinated student placements in industry. In Germany, one column of the TVET scheme is the apprenticeship training of skilled workers in the dual system where there is combined training received in the company and part-time vocational school (Balsam, 2003). In the dual system, the larger part of the learning process takes place in production facilities or service enterprises in industry, commerce, home management and agriculture. The students are trainees in a company and are released from work for the purpose of attending school. Two days are spent in school and three days in the workplace (Trembley and Le Bot, 2003). Co-operation between industry and training is subject to legal regulations and has proved successful. The theoretical technical education in the vocational schools is the responsibility of the state, while the practical training is the responsibility of the company. The costs of company training are borne by the private sector while the costs of vocational schools are catered for from public funds. The regional Chambers of Commerce and Industry ensure that firms comply with the training regulations.

In Australia, the Australian National Training Authority (ANTA) is responsible for establishing an industry-led vocational education and training sector (Misko *et. al.*, 2005). To provide extra opportunities for students to undertake a variety of industry programmes, schools have clustered together to pool and share resources which are used to pay salaries of work placement co-coordinators who are charged with the responsibility of establishing industry linkages and placements. Co-ordinators also have the ongoing task of locating ongoing placements, explaining to employers the training required, and establishing guidelines for assessment and reporting (Misko, 2001).

According to Choi *et. al.* (2001), in South Korea students go to vocational school for two years but spend the third year in industry. Most developing countries like Senegal and Ghana are still putting into place measures that can help better achieve relevant industrial placement for students. The purpose of this study was to find out the roles played by the TVET institutions and industries in Nairobi province of Kenya.

Methodology

Research Design

This study applied constructionism as its epistemology. Constructivist epistemology holds that there is no objective truth waiting for us to discover it. Truth and meaning come into existence in and out of engagement with the realities of our world. There is no meaning without a mind. Different people may construct meaning differently even in relation to the same phenomena (Crotty, 1998). According to Creswell (2003), the goal of research carried out in this spirit is to rely as much as possible on the participants' views of the situation being studied.

In this research the researcher relied on the views of the participants' to assess the situation that existed in Nairobi as pertains to collaboration between TVET and industries. From the participants' views, analysis was done and conclusions made. In this study, survey research was the methodology chosen. A survey is an attempt to collect data from members of a population in order to determine the current status of that population with respect to one or more variables (Mugenda and Mugenda, 2003). According to Babbie (1990), it can apply questionnaires or structured interviews for data collection. Survey design was chosen because it's economical and has a rapid turn around in data collection. It also has the advantage of identifying attributes of a large population from a small group of individuals (Babbie, 1990 & Fowler, 2002).

Target Population

The population for this study constituted a universe of approximately 3,100 constituting of 1280 third year and higher national diploma students of the 6 public Post- secondary technical institutions in Nairobi, 450 TVET providers and finally 1370 co-ordinators from the industry.

Sampling and Sample size

A sample of respondents was picked from each of the groups above and the sample size was determined using the table by Mitchell and Jolley (1988) which gives the required sample sizes for various population sizes against selected confidence levels and sampling errors.

Confidence level	95%	90%	85%	80%	95%	90%	85%	80%	95%	90%	85%	80%
Sampling error	5%	5%	5%	5%	3%	3%	3%	3%	1%	1%	1%	1%
Size of Universe												
50	44	42	40	39	48	47	46	45	50	50	50	49
100	79	73	167	63	92	88	85	82	99	99	98	98
200	132	116	102	92	169	159	148	140	196	194	193	191
500	217	178	147	126	343	302	268	242	476	466	456	417
1,000	278	216	172	145	521	434	365	319	907	873	838	809
2,000	322	242	188	156	705	554	447	380	1661	1550	1443	1357
5,000	357	261	199	163	894	664	516	429	3311	2897	2545	2290
10,000	370	268	203	166	982	711	545	448	4950	4079	3414	2970
20,000	377	272	205	168	1033	737	560	459	6578	5124	4117	3488
50,000	381	274	207	168	1066	754	569	465	8195	6055	4697	3896
100,000	383	275	207	169	1077	760	573	467	8926	6445	4929	4054
1,000,000	384	275	207	169	1088	765	576	469	9706	6842	5157	4207
100,000,000	384	275	207	169	1089	765	576	469	9800	6889	5184	4225

Source: Mitchell and Jolley 1988: 303

From the table, since the population size was about 3,100 and the researcher wanted 95% confidence and 5% sampling error, a sample size of 340 was deemed appropriate since it lies between 322 and 357 which correspond to 2,000 and 5,000 size of universe. The sample size of 340 was distributed such that 140 were students, 150 were industrial training co-ordinators and 50 TVET providers.

The study employed simple random sampling to select the respondents. The simple random sampling technique refers to selection of samples without bias from the target population. It's mainly used to select a random (representative) sample. In the study it was preferred because it was to ensure that each member of the target population had an equal and independent chance of being included in the sample (Kothari, 1985).

Data Collection Instruments

Two research instruments were applied in this research. A self-administered questionnaire in which the respondents complete the questionnaires themselves and a Researcher administered questionnaire where the researcher uses the questionnaire to interview the respondent (Mugenda and Mugenda, 2003). For the third year students a self-administered questionnaire was used because of their numbers and the possibility of finding them in one place while for the TVET providers and industry coordinators, a researcher-administered questionnaire was used because they were located differently and each had to be visited individually. Both questionnaires were having structured and unstructured questions. The questionnaires were pre-tested for reliability using third year students from Eldoret Polytechnic and industrial coordinators from Raiply and Coca cola companies in Eldoret.

Data was analyzed using the Statistical Package for Social Scientists (SPSS). The objectives were analyzed using descriptive statistics and results presented in form of frequency tables and graphs. The SPSS was chosen because it was time saving and accurate in performing computation on data. It was used to code the questionnaire responses, tabulate the data in form of frequencies and percentages.

Findings

Roles Played by Industry

A sample of 150 respondents was picked from the industries in Nairobi Province and was asked to outline the roles they played in their linkages with TVET institutions. The responses were analyzed using descriptive statistics and table 1 shows the results of the analysis.

Table 1:

Roles played by industries in their linkage with TVET institutions in Nairobi Province

Role	Response		Percentage (%)	Rank
	Yes	No		
Provision of placement	84	66	56	1
Certification	4	146	2.7	6
Giving feedback to institutions	25	125	16.7	2
Promotion of latest technology	7	143	4.7	5
Give allowances to attachees	11	139	7.3	4
Others	16	134	10.7	3

The results showed that 56% provided placement to students, 2.7% gave certificates to their attachees, 16.7% gave feedback to the respective TVET institutions, 4.7% used this as an avenue to promote latest technology, 7.3% gave allowances to their attachees while 10.7% played other roles which included curriculum development and sponsoring of some programmes in TVET institutions. Provision of placement for students had the highest percentage (56%). Figure 1 presents the results.

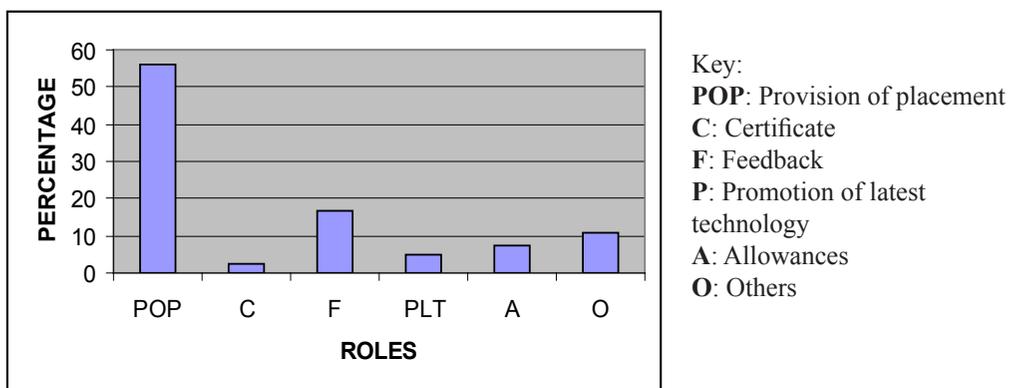


Figure 1: Roles played by industries in Nairobi Province

Roles Played by TVET Institutions

A sample of 50 respondents was selected randomly from the TVET providers and were asked to outline the roles they played in their linkages with industries. The responses were analyzed using frequencies and percentages as shown in table 2.

Table 2:

Roles played by TVET institutions in their linkage with industries in Nairobi Province

Role	Response		Percentage yes (%)	Rank
	Yes	No		
Facilitation of supervision	19	31	38	2
Signing of contract forms	8	42	16	3
Obtaining insurance cover	24	26	48	1
Informing industries on attachment periods	7	43	14	4
Others	5	45	10	5

The results showed that 38% facilitated supervision, 16% signed contract forms which students picked from DIT, 48% obtained insurance cover for their students, 4% informed industries on attachment periods while 5% played other roles which included seminars for students and finding placements. The major role played by the TVET institutions is obtaining of insurance cover for their students (48%). Figure 2 presents the results.

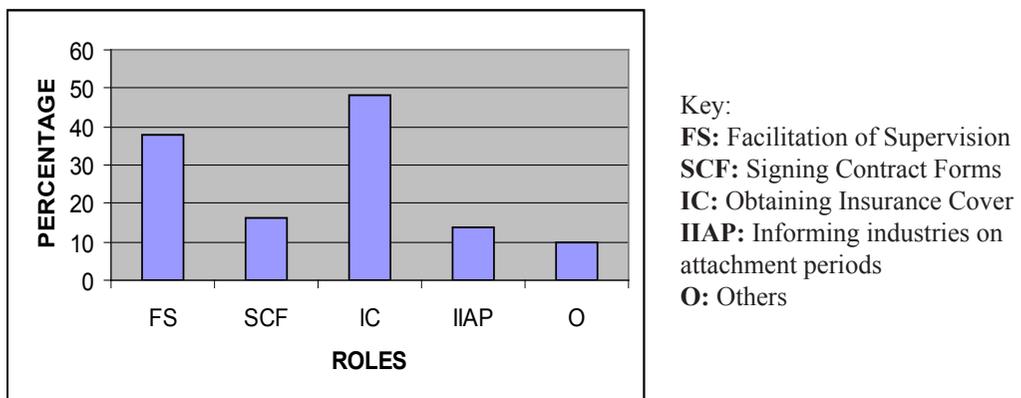


Figure 2: Roles played by TVET institutions in Nairobi Province.

Discussion

Roles of Industries

The findings indicate that the industries major role was provision of placement to students on attachment (56%). The findings reveal that there are other major roles like involvement of the industry in curriculum development and review

which have not been ventured into by almost all industries yet this would be the backbone for Kenya being industrialized by the year 2020. This also explains why there is a mismatch between skills needed in the world of work and skills received in the TVET institutions. The findings also reveal very minimal collaboration in sponsorship of specific programmes by industries in TVET institutions.

It's emerging therefore from these results that some vital roles which are supposed to be met by the industries are being overlooked by the policy makers and this situation needs to be rectified. These findings differ from the German context where the Private Sector is responsible for funding the industrial programme for the trainees. Kenya needs to revitalize the role played by these two stakeholders in order to achieve better results in the industrial attachment programme.

Roles of TVET Institutions

The TVET institutions in Nairobi played various roles like facilitating supervision, signing contract forms for students, obtaining insurance cover and informing industries on attachment periods. The major role played by TVET institutions was obtaining insurance cover for their students (48%).

These findings differ from studies carried out by Misko (2001) in Australia which pointed out that institutions played a role of pooling and sharing resources with other institutions within their cluster and these resources were used to pay salaries for work placement co-ordinators who were charged with the responsibility of establishing industry linkages. The study by Misko also found out that TVET institutions through their staff actively participated in developing and maintaining informal networks with the industry. This difference may be attributed to the difference in economies between Kenya and Australia. Studies from Korea also differ with the findings of this study since TVET also plays a role of developing and providing training programmes for existing workers in the industry (Choi, 2001). Korea has undertaken many studies in the past few years to reform its TVET sector and this could be why its seen to be way ahead of Kenya in TVET industry partnerships. TVET institutions in Nairobi should therefore check on their role in the industrial attachment program especially in areas of preparation of students and supervision not forgetting cooperating with industry to help equip students the required skills.

Conclusion

The findings have show that TVET institutions and industries are still far below the expectations in their roles in providing the industrial attachment programme as compared to the developed countries that should be emulated in many respects since their systems have attained desired results. For Kenya therefore to have a

TVET sector tailored to meeting the demands of the country and also be abreast with the global changes in technology, major reforms need to be carried out especially in managing the industrial attachment programme to benefit students.

Kenya will only be industrialized by the year 2020 if a match is obtained between training and industrial needs through formalized links fostered by policies laid down by the government in consultation with the respective stakeholders. Success in promoting the industrial attachment programme offered by technical institutions will depend on the ability of these three stakeholders (institutions, industries and government) to uphold a common vision and shared conviction and commitment for the future of our country. All this will be achieved if enterprises are actively involved in theoretical and practical training of those preparing for occupations through linking up with educational institutions regarding such training as noted by UNESCO (2002).

The TVET sector should set up a formal forum which should constitute of representatives of the three stakeholders and expatriates in the technical education field to come up with a well organized plan addressing the roles which each stakeholder should play in the industrial attachment programme in order to adopt best practices as can be seen fit and applicable to the Kenyan context. If this is done, Kenya will not only have a well organized TVET system but also will be on its road to achieving industrialization by the year 2020.

Recommendation

Following the findings of this research the following recommendations were made:

- i. The Kenya government through the Ministry of Higher Education Science and Technology should create forums for industry and TVET to meet and share ideas in order to establish a working framework for industry placement skills development.
- ii. TVET institutions should prepare more comprehensive documents for each course that detail the nature of industrial experience required for students on attachment.
- iii. TVET institutions should send their industrial liaison officers to industry in order to explain to employers the training required in areas where their students are often attached.

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An Assessment of the Effects of Education and Training of Entrepreneurs to Performance in Micro and Small Enterprises (MSEs) in Nakuru Town

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Abstract

This study investigates the effects of education and training of entrepreneurs to their performance in MSEs within Nakuru town. The MSE sector is an economic venture employing many casual labourers. Usage of cheap and locally available resources occurs in innovative ways. Recycling of some resources (like scrap metal, wood, papers, wax, plastic, rubber and clothing materials) is implemented. This reduces the cost of production. The operations require entrepreneurial skills in both formal and informal training. The paper is addressing how these skills affect the performance. MSEs operators with different level of education and training in the line of operations are assessed and their performance in terms of growth in capital recorded. Descriptive sample survey research design was adopted. Questionnaires were used to collect data and analysed using Statistical Package for Social Science (SPSS). Formal education and training offers skills of improving the quality and quantity of the goods and services produced financial and labour management which in turn improves the performance. Ways of improving the level of skills in the sector should be identified to enhance higher productivity as recommended.

Key Words: Micro and Small Enterprises (MSEs), entrepreneurial skills, productivity.

Introduction

Nakuru is the fourth largest town in Kenya after Nairobi, Mombasa and Kisumu. It's an important regional trading and market centre and the capital of the district and of Kenya's largest province Rift valley province (formerly known) due to the subdivisions into small plots for residential use, this stretch is now largely a sub-

urban area. The total area of the municipality is about 292 Km². Sexton and Smilor (1997) define entrepreneurship education as a formal structured instruction that conveys entrepreneurial knowledge and develops in students, focused awareness relating to opportunity, recognition and the creation of new ventures. Mauchi et al (2011) cited in Jones and English (2004) gave the definition of entrepreneurship education as the process of providing individuals with the ability to recognize commercial opportunities and the knowledge, skills and attitudes to act on them. Therefore, formal education can be seen as a way of imparting learners with entrepreneurial knowledge, skills and attitudes through a formal structured instruction. A formal structured instruction is usually guided by well defined aims, goals and objectives of a specific program. School and education system play a critical role in identifying and shaping entrepreneurial traits (Ibrahim and Soufani, 2002). Other studies have pointed out that formal education, especially education that provides technological training is crucial to enhance entrepreneurs' innovation skills in an increasingly challenging environment.

The government saw the need to provide a practical oriented curriculum that would offer a wide range of employment opportunities. Graduates of the 8-4-4 system at every level of the education cycle are expected to have some scientific and practical knowledge that can be utilized for either self-employment, salaried employment or for further training. Primary education not only imparts numeracy and literary skills to the students but is also aimed at providing the employable skills to learners who do not afford to move to the next level of education. At this level primary skills are taught to facilitate direct employment, self employment or employment of school leavers in the informal sector.

The government also introduced further changes at the secondary level. Secondary schools in Kenya today have technical subjects such as agriculture, home-economics, music, art and craft typewriting etc within the curriculum This reflects government efforts to introduce more practical subjects into the secondary school curriculum. The introduction of entrepreneurship education in technical training colleges in Kenya represents an innovation in tertiary education institutions that is relevant to the informal sector.

According to Haan (2006) entrepreneurship education programmers helps develop attitudes favorable to starting one's own business and provide knowledge and skills for running a business, e.g. business law, accounting and bookkeeping, credit and finance, and marketing. Skills development encompasses a broad range of core skills (entrepreneurial, communication, financial, management and leadership) so that individuals are equipped for productive activities and employment opportunities (wage employment, self-employment and income

generating activities). Farstad (2002) acknowledged that the more traditional route to self-employment starts with an initial period of apprenticeship or wage employment to gain practical experience and build professional self-confidence. The technical education provided a skill that was then honed on the job with an apprenticeship and wage employment before setting out to start a new business. Cooperation between training institutions and private enterprises in curriculum development and training delivery was found to add value in his study. The low educational background of many of those employed in the informal sector opens opportunities for greater attention of public sector institutions to adult education and literacy programs and to the offering of what is becoming known as *second-chance education* tailored to the needs of those who have missed opportunities for early education (World Bank 2007, Adams 2007). Where found, these programs have provided low-cost education to open doors for employment, but have not been carefully evaluated for their impact on further training and earnings.

Private providers of skills

While the public sector has been slow to respond to the changes in demand for skills brought about by growth of the informal sector, private institutions have been more responsive to this demand (Brewer August 8, 2008). These institutions are of two types: profit and non-profit institutions. The profit institutions have grown in numbers in the 1990s with the decreased capacity of public providers (Atchoarena and Esquieu 2002). While many are registered trainers and follow official curricula and prepare trainees for government trade tests like their public counterparts, a large number are unregistered, small in scale, and part of the informal sector themselves. They appear as storefront operations that can be observed in any African city. They are responsive to demands for skills, adjusting quickly to changing needs. The programs offered often require limited investment in equipment and facilities and provide easy market entry and exit for the providers. Quality varies widely where standards are left to the provider (Johanson and Adams 2004). The term non-governmental organization (NGOs) generally refers to a range of non-profit organizations that include providers of training (Haan 2006). Churches and international agencies play an important role in this capacity along with national and local community-based organizations. Their training activities tend to have social and cultural rather than economic objectives with the result that their training is of limited value in helping participants enter into self-employment (Haan 2006). According to him, NGOs are larger in size and specialized in skills training. Don Bosco schools are an example.

Enterprise investment in skills

Enterprises are a source of demand for and supply of skilled workers. They train and provide needed skills and experience for employees to promote competitiveness and profitability. Their training tends to be short-term in nature and use the firm's own skilled workers or engage external vendors for its delivery. The training may be offered on-site in the enterprise, such as an apprenticeship might be, or off-site in an institutional setting. RPED surveys in Kenya, Zimbabwe, and Zambia found that the training of workers was selective with those having higher levels of education more likely to be chosen by the enterprise for training (Nielson, Rosholm, Dabalen 2007).

Smaller enterprises, especially those with fewer than ten employees, a proxy for the informal sector, are less likely to train. Only 4.6 percent of firms in Kenya, Zimbabwe, and Zambia with 10 or fewer employees trained in comparison with 81 percent of firms with 151 employees or more (Nielson, Rosholm, Dabalen 2007). The impact of this training was favorable on the output of enterprises and wages of workers. A one percentage point increase in the workers trained from the sample average of 9 percent translated into a 60 percent increase in value added for all firms and a 99 percent increase for micro and small enterprises. Training was estimated to increase wages on average by 15 to 21 percent (Biggs, Shah, Srivastava 1995).

Employers and traditional apprenticeship

Traditional apprenticeships are by far the most important source of skills training in Africa for the informal sector with these apprenticeships concentrated in West and Central Africa (Haan 2006, Filipiak 2007). Liimatainen (2002) estimates that up to 70 percent of urban informal sector workers in Africa have been trained through the traditional apprenticeship system. Traditional apprenticeships in the informal sector consist of private contractual arrangements between a parent or apprentice and a master crafts person who agrees to provide practical training in the workplace, ranging from several months to three or four years in duration and subsequently, certify the training in return for a fee or reduced earnings while learning. Haan (2006) reports that apprenticeships are less evident in Eastern and Southern Africa than in West and Central Africa with youth sometimes described in the former merely as helpers. Still, in countries like Kenya, Tanzania, and Zimbabwe, he finds large numbers of youth who are acquiring skills in informal enterprises under the guidance of a master. In Kenya, available information indicates that some 40 to 60 percent of informal sector operators acquire their skills through apprenticeship.

Statement of the problem

The existence of the informal settlement areas in Nakuru town makes the access of proper education difficult. Many residents do not get adequate education to equip them with skills which are necessary for business operation. The low level of education affects the management and techniques of operations. This affects the products quality and quantity which eventually affects the prosperity of the casual labourers.

Objectives of the study

The general objective; to assess the effect of the level of education and training of operators to the performance of the SMEs in Nakuru town

The specific objectives of the study were:

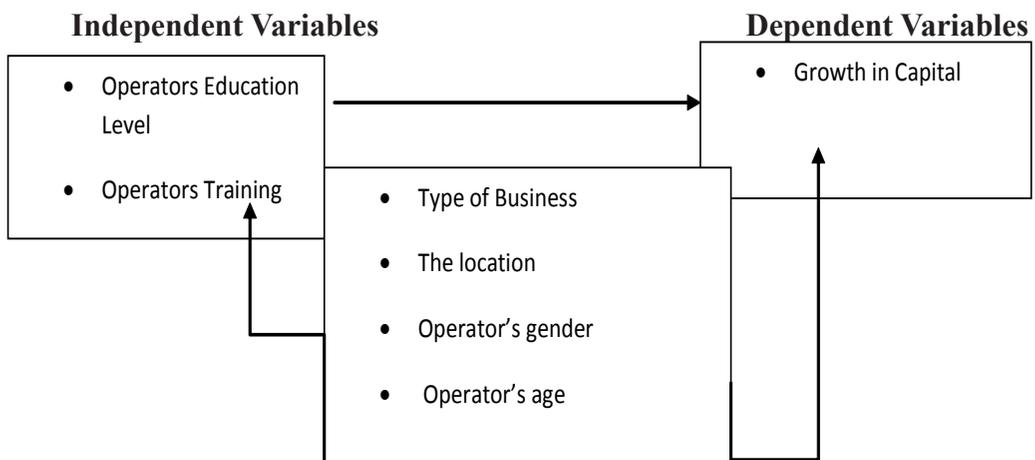
1. To find out how the MSEs are operated within the Nakuru town
2. To identify what triggers individuals to join the informal sector.
3. To assess the level of education of most operators within the town

Hypothesis

Ho 1: The level of Education of business owners affects the performance of their Small and Micro Enterprises.

Ho 2: Training in the line of the business operation has a significant impact on the performance of the MSEs.

Conceptual Framework



The conceptual framework illustrates the relationship between the level of education and training of the operators and the performance of the businesses in terms of growth. The business types were controlled by stratification. The location of the business was controlled by selecting a 1 km² area within Nakuru town. The

difference in gender and age of the operators is captured in the data analysis and the extent of their effects to the dependent variable clearly indicated. The analysis stipulates clearly that the extent of influence of the independent variables on the dependent variable surpasses that of the extraneous variables.

Methodology

Research design

The study adopted a descriptive sample survey research design. This is a method of collecting information by interviewing or administering a questionnaire to a sample of individuals. It helps in collecting people’s opinions and habits (Oronho and Kombo, 2002).

Sample size and sample selection

The study was targeting the MSE operators within Nakuru town . A region of 1 km² was selected purposively in Nakuru town. According to C. Kothari (2004), population elements are selected for inclusion in a sample on the basis of the ease of access. It is also called Convenience Sampling. A Census of all the Small and Micro Entrepreneurs operating in the region was conducted. The total number of operators in the selected area was found to be 1200. The population was further recorded in a stratification design. Three sub-populations (strata) were developed on the basis of activities they involve themselves in the operation of the MSEs; trade, manufacturing (artisan) and service (tertiary).

Table 1:
Population and Sample Distribution

Business Type	Number of Operators	Sample	% of Sample
Trade	690	69	10
Manufacturing	190	19	10
Service	320	32	10
Total	1200	120	

Source: field data

Random Sampling was conducted within each stratum. This implies that Purposive, Stratified and Random Sampling techniques were applied. The sample size was determined on percentage basis. A sample of 10 %(which lies between 5 – 30 %) was selected in each stratum. Mugenda and Mugenda (1999) indicate that the purpose of sampling is to secure a representative group.

Optimization was attained by maximizing the collection of the information about the entire population while minimizing time, funds and energy applied in conducting the research.

Research instruments

Questionnaires containing both structured and unstructured questions were presented to the operators. The questionnaires were used because of the simplicity in their administration, scoring of items and analysis of data (Mugenda and Mugenda, 1999). The purpose of the questionnaires was to capture core information and supplementary information. The validity of the instruments was ensured by checking the format and content of the questionnaire by qualified personnel. The questions asked were polite, relevant, logical and appropriate for the accomplishment of the study. The reliability of the instruments was verified by conducting a pilot test in Naivasha town. Pre-test enabled the adjustment of the questionnaire accordingly to make it more relevant by incorporating the missing information, omitting irrelevant questions and paraphrasing questions that appeared ambiguous to the respondents.

Data collection procedures

Data was collected using the drop and pick procedure. The questionnaires were delivered to the operators and an allowance of five hours given for the respondents to have enough time to answer the questions.

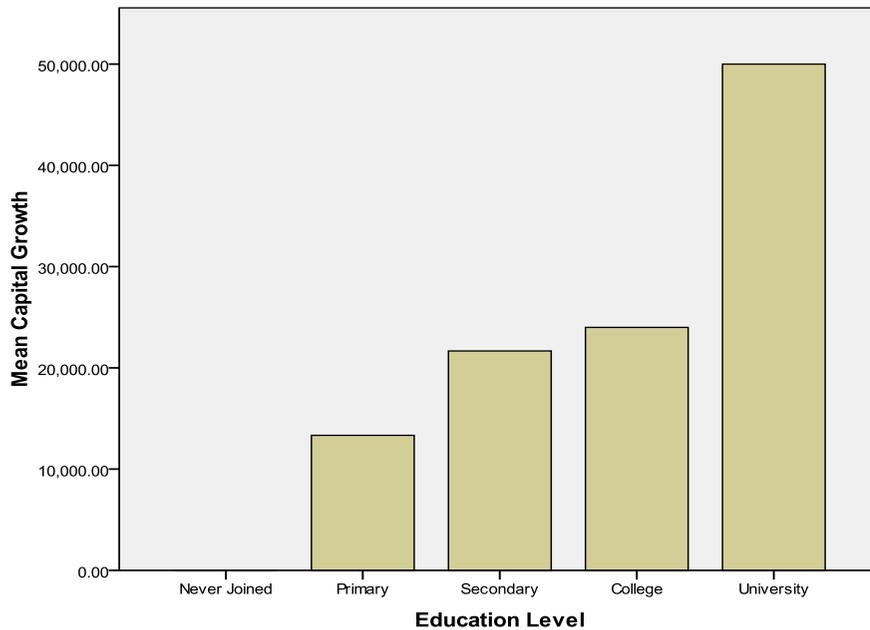
Data Analysis and Presentation

The data being descriptive was coded, keyed into the computer and analyzed using Statistical Package for Social Sciences (SPSS) and Ms- Excel. Qualitative statistical techniques were used during the analysis to summarize data. The results of the analysis was presented and interpreted in the form of descriptive statistics (frequencies, percentages and mean). The finding was presented in tables, percentages and bar graphs.

Findings

Chart 1:

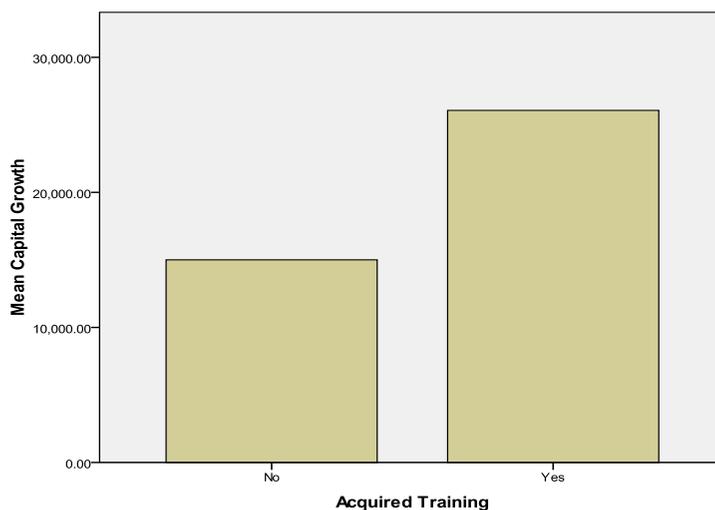
Mean Capital Growth against Level of Education



Source: field data

The results show that the more educated the operator is, the higher the growth in capital of the MSE. This indicates that formal education improves the performance of the MSE operators. As they go up the academic ladder, they learn widely. This instills knowledge in many fields giving them skills to make logical decisions.

Chart 2:
Mean Capital Growth against Training



Source: field data

The results showed that the dominating age (in years) in the SMEs operation in Nakuru Town was 26 – 35 (42.1%), 36 – 45 (28.9%), above 45 (18.4%) and 18 – 25 (10.5%) respectively. The domination of the operators at the age of 26 – 35 years is because they are more flexible and well established in matters concerning capital rising.

Table 2:

Growth in Capital With Regard to the Difference in gender

	10000	15000	25000	35000	40000	5000	50000	70000	Total
Female	3	18	5	7	9	15	0	3	60
Male	0	21	3	6	6	15	9	0	60
Total	3	39	8	13	15	30	9	3	120

Source: field data

The equality in the numbers of males (50%) and females (50%) in the SMEs sector in Nakuru town indicates the progress of the community since there is no gender discrimination.

Average growth in sales for:

1. Females was Ksh. 21,916.67
2. Males was Ksh. 22,750.00

The result was a difference of Ksh. 833.33 with males recording a slightly bigger growth in capital than females. This indicates that males perform slightly better than females in the operation of MSEs within Nakuru town.

Table 3:

Growth in Capital V/s Age

		10000	15000	25000	35000	40000	5000	50000	70000	Total
Age (years)	18-25	0	6	3	0	0	4	0	0	13
	26-35	0	22	5	12	9	3	0	0	51
	36-45	0	9	0	1	6	13	6	0	35
>45		3	3	3	0	0	6	3	3	21
Total		3	40	11	13	15	26	9	3	120

Source: field data

Average growth in sales for different age groups:

1. 18-25 years was Kshs. 14,230.77

2. 26-35 years was Ksh. 24,509.80
3. 36-45 years was Kshs. 22,142.86
4. Above 45 was Kshs. 25,714.43

The results indicate fluctuating growth in capital with the increase in age. This means that age is not a determinant in the growth of capital.

Conclusion and Recommendations

Based on the survey findings and available literature, the research propose the following guidelines and strategies that SMEs can use to boost their performance. It is appreciated that each business has its own unique combination of critical success factors, but some are important for all businesses. First small businesses should have a ‘global outlook’. Businesses of all sizes across the globe can interact and share information, technology and products. Small businesses should consider what global trends are affecting availability of resources, increasing or decreasing demand for products or service and where there is an unfilled need one might be able to meet. This may prove a challenge to SMEs but the government can step in here to provide information on business trends. There is also need to get trained in an area that is relevant to the business being carried out. This survey has clearly shown managers with relevant training run successful businesses compared to their untrained counterparts. Furthermore, there is need to improve ways of gathering customer information for the purpose of personalized marketing and service. The more a business owner knows about his customers, the better they can meet their needs.

For Kenya to take off, it must achieve much higher investment rates and increased exports. This can only be realised by the formal sector. Investments in informal firms are generally modest, and the sector hardly exports at all. Also, for the economy to grow faster, publicly provided goods and services such as infrastructure, education, and law and order must be delivered. This can only be done if the government is able to increase tax revenues. And these can only be collected from the formal sector. Therefore we argue that the policy must aim to make informal firms get absorbed into the formal sector. A complete merger between the sectors is, of course, the long-term goal as envisaged already by Lewis in his analysis of the development of the dual economy.

The government needs to appreciate that informal firms surpass formal firms in terms of employment. This means that the assets of the informal firms are crucially important for welfare in the short term, at the same time as the shift of those firms or their labour into the formal sector is crucial for economic take-

off in the longer term. Policy towards the informal sector should therefore be mainstreamed in the government's development policy. Informal sector policy can no longer be an 'extra' that is done on the side. Formal firms in Kenya have been confronted with all kinds of problems in dealing with authorities. These troubles relate to regulatory red tape, corruption, and lack of security. Thus, part of a policy to bring about a shift of firms to the formal sector must be to clean up the way the government deals with formal sector firms in order to reduce the incentives for firms to take shelter in the informal sector.

To bring about informal sector growth and absorption into the formal sector the government needs to design its general policies so that they are relevant also for informal firms, and design specific programmes targeting these firms. The skill level and policy environment of the latter need to be improved to make it possible for them to graduate to the formal sector. Since a large part of the population will continue to depend on the informal firms for their sustenance for a long time to come, it is important that these firms are helped to become more productive, quite apart from helping them to graduate to the formal sector. Informal sector projects by donors and governments in Africa have so far focused on the important issue of immediate poverty reduction. We believe this strategy needs to be complemented by supporting the informal firms to graduate into the formal sector. There are, of course, other long-term advantages with formal sector production. Labour rights can be protected more effectively, and consumers can challenge enterprises in court if they do not deliver as promised. The Kenya infrastructure such as roads, electricity, and water supply is in bad shape, and in its efforts to improve it the government should also take into account the needs of the small informal firms.

The government should also try to link up informal firms with the formal economy through, for example, government contracts, which could be used as an incentive for informal firms to formalise operations. Measures to stimulate demand for informal sector goods and services from the private sector could also be considered. One should also try to stimulate the formation of supporting networks among informal African entrepreneurs as well as between them and formal sector organisations. Since the ultimate aim of the policy is to absorb the informal firms into the formal sector, there is need to work on several fronts that have potential for bridging the gap between the sectors

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Utilization of Research Findings for Sustainable Management of Lake Naivasha Basin

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Abstract

Lake Naivasha is one of the fresh water lakes in the Kenyan Rift Valley. The population and human activities within the basin has experienced rapid growth, placing enormous strain on the ecosystems within/around the Lake Naivasha Basin. The basin has been faced by a myriad of environmental challenges leading to serious consequences for the already fragile ecosystem. Several research activities have already been conducted, with others underway, to capture and document the ecosystem health status within the Lake Basin. In spite of these efforts, ecosystem health degradation is continuing at an alarming rate. Clearly a gap exists between the research conducted on one hand, and utilization of the findings for sustainable development, on the other hand. This paper reports on a study which sought to understand the underlying reasons for continuing environmental resources' degradation for a region that has had more than a fair share of research undertakings. The study employed a social survey methodology targeting qualitative and quantitative data. A sample of 304 households was derived and used for collecting data from primary stakeholders. A questionnaire was administered to this group to elicit their views and experiences. In addition, focus group discussions and key informants in-depth interviews Data collected from primary stakeholder was analyzed by SPSS. Results show that in spite of a wide range of research work conducted in the study area, a significant amount of the output has not reached the stakeholders. Moreover, stakeholders decried the language used in disseminating scientific research, arguing it was not comprehensible for use by the ordinary stakeholder. This suggests that much as they would be interested in using the findings to address environmental resources'

conservation issues, most stakeholders are disadvantaged from this double problem. Arising from the findings, this study suggests a number of mitigations – the need to digest research findings and make them easily available and accessible to stakeholders; the formation of a stakeholder advisory board to serve as a link between the research community and local stakeholders, and in particular to synthesize, simplify (and where necessary translate), store and disseminate research findings, as and when required for informing decisions and practices aimed at sustainable management of resources in the Lake Naivasha basin.

Key Words: Utilization of research findings, Sustainable management, Stakeholders

Introduction

Lake Naivasha is a fresh water lake located within the Kenyan section of the Great Rift Valley. The lake derives its name from a ward *Naiposha*, a Maasai word meaning “rough water” in reference to sudden storms which commonly occur in the area. The lake has a surface area of 139km², and is surrounded by a swamp which covers an area of 64km². It is situated at an altitude of 1884meter (6180ft) above sea level. The lake has an average depth of 6 meters (20ft) with the Crescent Island as the deepest end, at a maximum depth of 30 meters (100ft) Francesca et al (2011)

The lake provides habitat to a variety of wildlife, with over 400 different species of birds that include; water fowls, fowls, penguins, flamingos, falcons, eagles, hawks, cranes, doves, parrots, cuckoos, owls, kingfishers, woodpeckers, mouse birds and many others(Francis 2010). A sizeable population of hippos also exists within the lake. Two smaller lakes are found within the vicinity of Lake Naivasha, namely Oloiden and Sonachi. The latter lake shore is known for its population of European immigrants and settlers.

Since Kenya’s independence in 1963, Lake Naivasha basin has undergone rapid land use transformations characterized by commercial ranching, and small-scale agricultural activities. In the last two decades, the area has become an expansive commercial flower-growing zone, largely by foreign companies. It is one of the contributors of Kenya’s export of approximately 134,000 tonnes of cut flower, fresh fruits and vegetables (HCDA 2007). This has increased demand for the scarce ecosystem resources and services, especially water and land. The results have been significant water abstraction from both the Lake and underground sources by the floriculture industry, a major ecosystem health problem. In the absence of any meaningful controls e.g. metering, water is “free for all”.

Accelerated water abstraction through direct and indirect methods poses immediate and long-term risks to the ecosystem and the existence of the Lake. The demand on water for flower growing is compounded by the needs of the fast growing population. The likelihood of increased ecosystem health degradation is certain unless mitigation measures are put in place. What is not immediately clear is whether or not the water users such as flower growing companies are aware of the ecosystem consequences of their actions. Or could it be that they lack essential research based information on the basis of which they could make more informed decisions on management of the basin's resources?

Other harmful practices in the basin include rampant discharge of raw sewage into the Lake, resulting in eutrophication and high demand on available oxygen in the Lake. The consequences of such practice are disastrous for the ecosystem health. A related problem is rampant use of pesticides by flower farms and chemical fertilizers among small scale farmers in the upper catchment area of the Aberdares. It is alleged that some flower farmers are using unacceptable chemicals such as organo-chlorine pesticides and some of these pesticides have been detected in Lake Naivasha. Through biomagnifications, such chemicals could affect bird species at the top of the food chain. These activities have the potential to adversely affect the health status of a growing number of people and other life systems within the Lake Naivasha Basin (Lake Naivasha Management Plan, 2004). Evidence of the emerging ecosystem health degradation is the decline in the number of bird and fish species found on the lake Abiya (1996).

The quantity of data and research on Lake Naivasha and its drainage is overwhelming (Robert *et al.*, 2006). According to Trick the number of basic research done to generate knowledge is 123 and applied research 55 (Personal communication 19/04/2010). Despite all these, ecosystem health degradation is still a threat to Lake Naivasha basin. Strategies for bridging the gap between ecosystem health research findings and utilization by stakeholders to address the ecosystem challenges are still lacking (LNROA, 2000).

There are many players with different, and many times, competing needs and influence within Lake Naivasha Basin. These have disruptive effects on the water balance, quality of water and air, sustainability of ecosystem including fish, vegetation, birds etc (Aberdares) (LNROA, 2000). However, it is not quite clear how each of these stakeholders can contribute towards sustainable management of the Lake's basin. It was in view of this that, this study carried out stakeholder analysis to understand the main players in Lake Naivasha basin, and their influence and role in ensuring sustainable use of Lake Naivasha. Similar important studied was how to disseminate ecosystem health research findings

information in a simplified way, and participation in the formation of a stakeholder advisory board.

Research Methodology

The study was conducted in Hell's Gate Location, which is located in Rift Valley Province of Kenya (figure 1). The basin extends 60° North from the equator and lies between 36°07' and 36°47' east of Greenwich meridian. The population in the area surrounding the lake has rapidly grown from 7000 in 1969 to about 300,000 by 2007 (Food and Water Watch 2008). It is estimated that the population will be close to one million by 2025, in consonance with sub-Saharan estimated urban population growth rate of 6.9% per annum as compared to 3.1% of the total population of the region (Ayenew *et al.*, 2007).

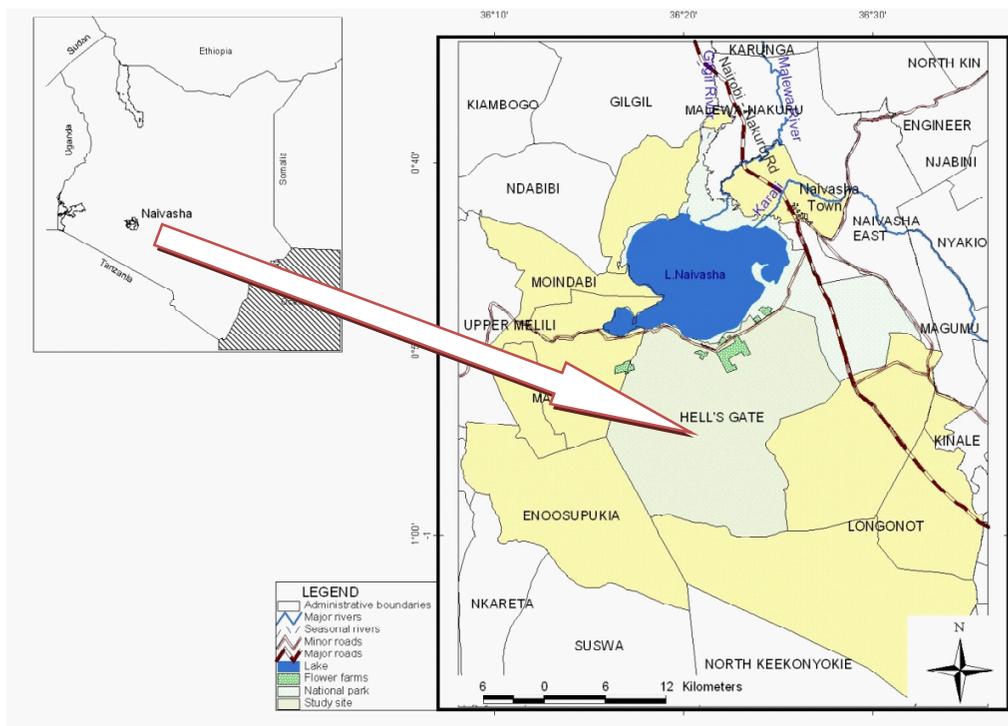


Figure 1: Map of Kenya and Naivasha Basin showing the Study Area

The data from the study area was collected through a variety of instruments such as questionnaire administered to individual respondent, Focus Group Discussions, in depth interviews as well as observation schedules. Stakeholder analysis tool was also used to understand the various stakeholders competing interests and influence.

Results and Discussion

Stakeholder analysis of different communities and organizations living and working within Lake Naivasha Basin with a view to assessing their knowledge of ecosystem health.

The first objective of this study focused on assessing the knowledge of various stakeholders on the status of ecosystem health. Discussion was participatory where five groups were established.

From the deliberations, it became clear that, the Lake had many users who pose many threats to its existences, people knowledgeable about the Lake existed, good will existed for the support of the sustainability of the Lake, so long as they were involved since they faced same or different challenges on utilization of research findings information for sustainable management of the resource. For those who will not support the conservation effort will be made to win them. This relates closely with Closs *et al.*, (1994) suggesting that utilizing research findings was a highly complex task, requiring a positive attitude towards research for its success during the time of implementation.

Grid was used to categorize the stakeholder within Lake Naivasha Basin to show how their power and interest is at play. From the grid the stakeholders were categorized based on power and interest (Figure 2).

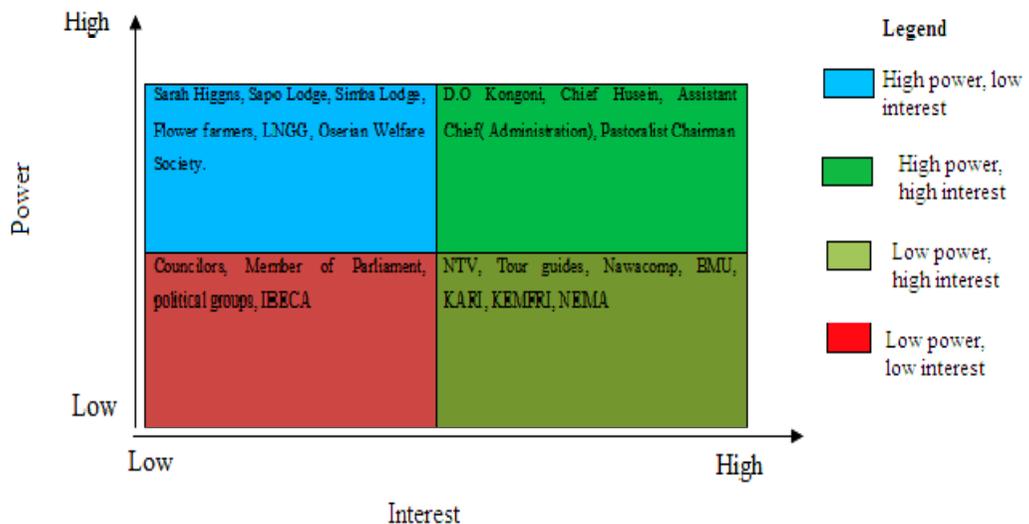


Figure 2: Stakeholder power-interest matrix

From the same discussions, it was agreed that the stakeholders should form Stakeholders Advisory Board (SAB) to manage sharing of the ecosystem health research information and the resource centre with a view to sustainable use the lake. It was suggested that SAB should comprise 15 members board drawn from

WRUA, Pastoralist, Lake Naivasha Grower Group, Small scale farmers, C.S.O forum, Eco-tourism, BMU, CFA, LNRA, Naivasha municipal council, Business community, other local authority, youth groups, women representatives and government ministries. This compares well with study done (Kostas and Kostas 2011) where all the stakeholders were involved in the management of the Greek Municipality success which was achieved through consultation, deliberations, co-operation with important organizations and the use of international best practices. Issues brought on board were social, economic and cultural. The benefit has been good economic growth, productivity, competitiveness, social inclusion and sustainable development.

To determine factors influencing utilization of ecosystem health research findings by various stakeholders towards sustainable management in Lake Naivasha Basin

In response to question on whether the respondents were aware of researches going on within Lake Naivasha Basin, the study found that majority of the respondents indicated that they were not aware. Leading in lack of awareness were the pastoralist (86.7%), followed closely were self employed (79.1%), farmers (75.7%) and employed (63.4%). Only the fishermen (54.5%) indicated that they were aware of the researches which were being carried out around the lake. This was attributed to the fact that many fishermen interacted with the researchers as they carry out their activities in the lake. Lack of awareness among the pastoralist can be attributed to migratory life style where they move from one place to another in search of pasture for livestock and that has reduced their awareness of research activities since they probably don't meet or interact with researchers. Lack of education or low level of education as noted elsewhere on this study has also contributed to lack of awareness since they can't tell whether research is going on or not. The self employed lack of awareness can be attributed to probably most of them are tied at their place of business where they do not get time to interact or meet the researchers. The same situation is probably applicable to the employed respondents where most of them are tied at their place of work where they do not get opportunity to meet or interact with researchers. As for farmers lack of awareness can be attributed to most of the farming are done on the outskirts of the town where their interaction with researchers is very minimum since most of research activities are concentrated long or inside the Lake.

In responses to the question as to how much knowledge the respondents had on effect of chemical on the environment and human health. The study found that indigenous farmers had "above average" knowledge as indicated by (35%) of the respondents. It was also found that only (5%) had "average knowledge" on the effect of chemicals on environment and human health. This can be attributed to

their farming activities which does not involve the use of chemicals or interacting with chemicals. For the fishing community, the study found that (59%) of the respondents indicated that they had “above average” knowledge of effect of chemicals on the environment and human health. This is probably due to the fact that the fishing community interact more with the Lake and during the process they have seen the fish die at some point in time and may be they attribute it to the effect of chemicals. They may also be interacting with many researchers who they may be sharing with information. Regarding the knowledge of the pastoralists, the study found that (35%) of the respondent indicated that they had “most knowledge” followed by “some knowledge” (27%), “above average” knowledge at (24%). This can be probably attributed to them keeping large number of livestock and they interact with environment very closely, where they have seen cattle die due to poisoning, grazing land reduced or polluted and hence that explain why they are very knowledgeable. Among the employed respondents, the study found that (35%) of the respondents indicated that they had “above average” knowledge and (32%) had “some knowledge” on the effect of chemicals on the environment and health. This can be attributed to the environment which they work in, where they come into contact with chemicals directly or indirectly. They had probably seen what these chemicals can do to our surroundings and health. From the response of the self employed, (36%) had “above average” knowledge, followed by “least knowledge” at (22%), “average knowledge” and “some knowledge” was less than (15%). This was probably due to their socioeconomic activities which does not involve the use of chemicals (Figure 2.)

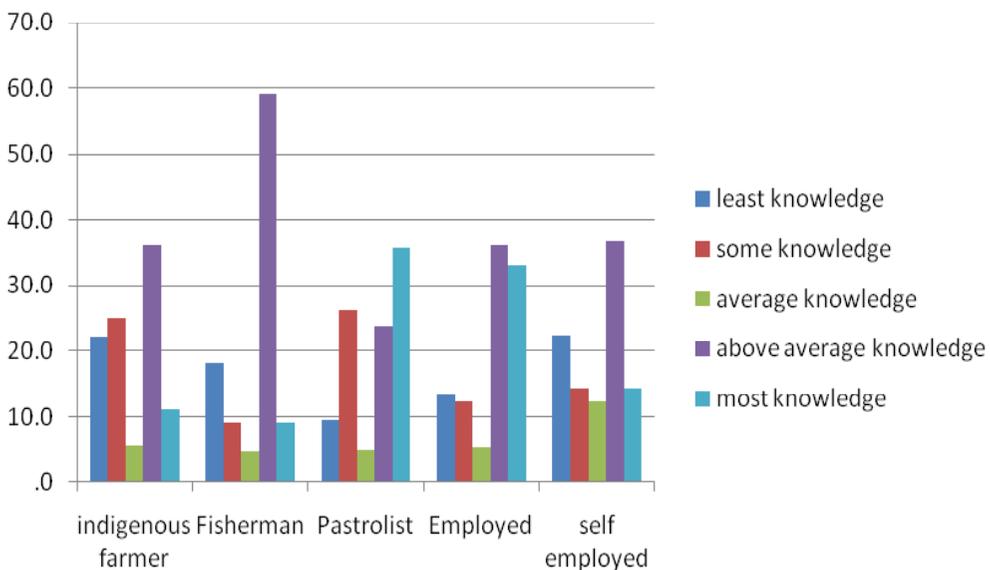


Figure 2: Knowledge of the respondents on effect of chemicals on environment and health

To test the knowledge of respondents, they were asked to define environment. The study found that (79.2%) defined the environment as their surroundings. The study also found that (7.1%) don't know, (3.7%) defined it as trees and animals, (3.0%) defined it as water, trees and animals, (0.7%) defined it as pasture and livestock. From the findings of the study, it can be said that majority of the respondents had an idea of what the environment was. With the majority of the respondents knowing the definition of the environment this can be used to help educate and conserve the environment.

Having tested the knowledge level of respondents on definition of environment and awareness of research going on in Naivasha, they were asked the usefulness of ecosystem health research findings. Leading in "usefulness" of research findings were Fishermen (39.1%), followed by Farmers (35.1%), Pastoralist (22.5%), Self employed (10.3%), and finally Employed (8.8%). "Above average" usefulness of research findings leading was Self employed (48.7%), followed by Employed (41.8%), Fishermen (34.8%), Pastoralist (32.5%) and Farmers (21.6%). "Very useful" leading was Pastoralist (25%), followed by Employed (24.2%), Fishermen (13%), Farmers (10.8%) and finally Self employed (10.3%). These results elaborate probably the fact that ecosystem health research findings are useful to respondent in one way or the other and this had strong link with their socioeconomic activities (Figure 3).

For the Self employed (48.7%) the result show that research findings are "above average" useful to them, this can be attributed to the fact that they interact with Employed, Pastoralist, Fishermen and Farmers, they have seen or witnessed how chemicals affect them in one way or the other. This probably explains why the research finding is above averagely useful to them to try to explain some of the challenges. For the employed (41.8%) research findings are above averagely useful to them due to the fact that most of them are employed in flower farms and they have probably also seen or witnessed how people are affected by chemical and may want to know why that is the case. With regard to the pastoralist (32.5%) the research finding is above averagely useful to them probably due to the fact that they are very close to nature and they have seen some of their livestock die as a result of chemical poisoning. That explain why they are probably seeking answers through research findings. Just like the Pastoralists the Fishermen (34.8%) the research findings are above averagely useful to them and this probably attributed to the fact that they have seen fish die in the Lake and seen/interacted more with researchers carrying out research in the lake. That explains the curiosity to seek for answers through research to explain the deaths of the fish. For the Farmers (21.6%) research findings are above averagely useful to them, this was probably attributed to the fact that most farming is done in the outskirts of Naivasha and

hence less interaction with effects of chemicals. That explains low usefulness of research findings to them.

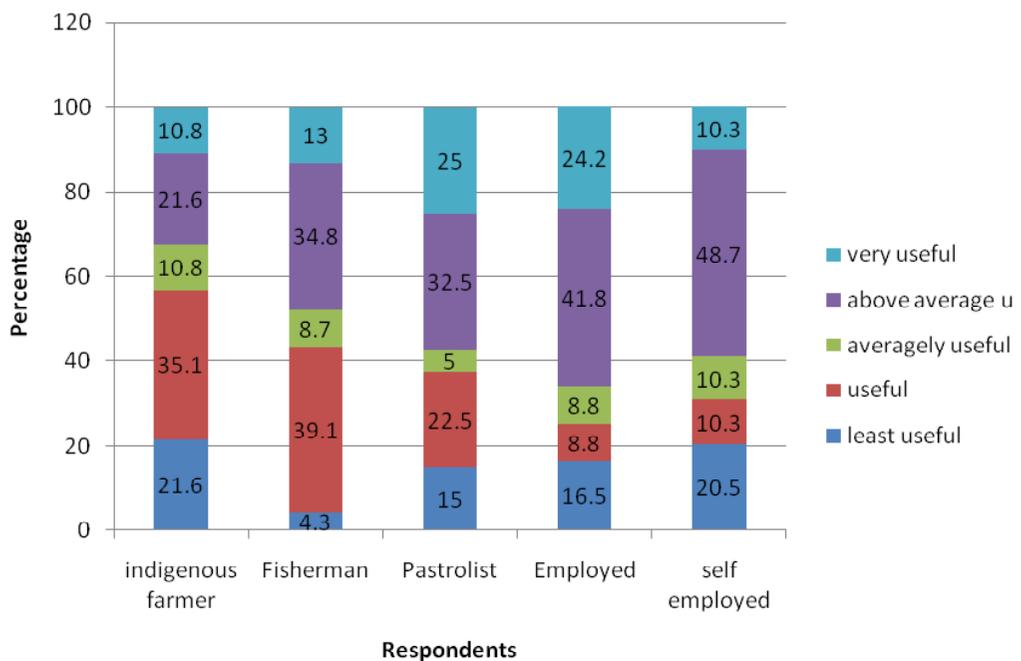


Figure 3: from respondents

On probing further the respondents who had idea of the research going on within Lake Naivasha, they were asked to mention the kinds of researches going on within Naivasha which they know. The study found that indigenous farmers mentioned that the leading researches they know were on environmental issues (38%), followed by chemicals in lake (25%), pollution (12%) and human health (12%) respectively. The farmers were probably more concern with their immediate environmental where they do most of the farming activities and a few were concern with pollution of the Lake and human health. Fishermen mentioned the researches which they knew; starting with water (66%), followed by pollution of lake (16%), chemicals in lake (8%) and environmental issues (8%) respectively. This probably explains that fishermen are more concern about state of water and pollution of the lake by nearby flower farms since they have witness fish dying in the lake as noted earlier.

The study further found that pastoralists were aware of researches as follow; environmental issues (40%), water (20%), human health (20%), chemical in lake (20%). The pastoralist being migratory people with their livestock they are very close to nature where they use pasture from the surround environment for their livestock, use water from the lake to water their livestock and they are equally

concern about human health since they drink that water directly without treatment too. They see themselves as being vulnerable to all this challenges and hence the concern in all areas. Employed people mentioned the researches which they were aware done; leading was environmental issues (39%), followed by human health (19.5%), pollution of lake (16%), water (10%), chemical in lake (6%), cultural issues (4%). Employed respondent were aware of many type of researches going on within the study area and this can be probably be attributed to them working in different work environment such as flower industry, tourism, government, and schools. Self employed respondents mentioned the researches which they were aware done were as follow; starting with water (34%), human health (34%), environmental issues (22%) and pollution of lake (11%). Most of the respondents connected research activities in Naivasha with their socioeconomic activities. In other words they probably viewed research as coming to solve some of the problems affecting them for instance the fishing community were keener on clean water and to reduce the deaths of fish which will improve their livelihood. The pastoralists were more concern with the health of pasture and water for livestock and hence reduce death of animals and that means more income to them.

In response to the question on whether the respondents had access to ecosystem health research information, the study found that most of the respondents had no access to ecosystem health research information. This was evidenced by the fact that pastoralists (80%) had no access to the information. The study also found that fishermen (70%), indigenous farmers (64%), self employed (60%) and employed (58%) had no access to ecosystem health research information. This can be attributed to their level of education which is probably low as noted elsewhere on this study. Among the employed the findings can be attributed to the probability that most of them are either primary school leavers or secondary school leavers who understand what is going on around the environment and hence they had some access to ecosystem health research information. This demonstrates probably that either the people did not know where to get the information or they did not know how to go about the process of getting the research information which can help them solve some of the environmental problems.

Since most of the respondents who were interviewed had no access to ecosystem health research information, they were asked to mention some of the sources of ecosystem health research information they use for conservation of environment. The study found that the major source of the information for the respondents was radio (Figure 4). This was indicated by farmers (51%), fishermen (61%), pastoralist (50%), employed (64%) and self employed (75%). This was probably attributed to the fact that radio is cheap and can be afforded by most household. The study also found that television was a source of ecosystem health research

finding as indicated by farmers (26%), fishermen (18%), pastoralist (23%), employed (27%), and self employed (33%). This percentage was probably lower than that for radio because most household find television set expensive hence low use.

The study further found that some of the respondents accessed research information from printed media as indicated by farmers (0%), fishermen (5%), pastoralist (2%), employed (15%) and self employed (8%). This was very low probably due to the fact that cost of printed media is expensive to most respondents and low level of education prevents them from using it. Use of internet to access ecosystem health research information was even lower as indicated by farmers (0%), fishermen (9%), pastoralist (0%), employed (15%) and self employed (0%). This can be attributed to low level of education of the respondents, cost of using internet may be high to most respondents and lack of computer skills. Use of research institutions to access ecosystem health research information was low as indicated by farmers (11%), fishermen (0%), pastoralist (6%), employed (11%) and self employed (11%). Probably this was due to lack of awareness that research institutions have ecosystem health research information needed by respondents. Use of *Baraza* to access ecosystem health research information was also very low as indicated by farmers (4%), fishermen (4%), pastoralist (19%), employed (2%), and self employed (3%). The low usage of *baraza* can be attributed to lack of awareness by the respondents of the importance of *Baraza*, or probably most respondents have not be sensitized why *Baraza* are important.

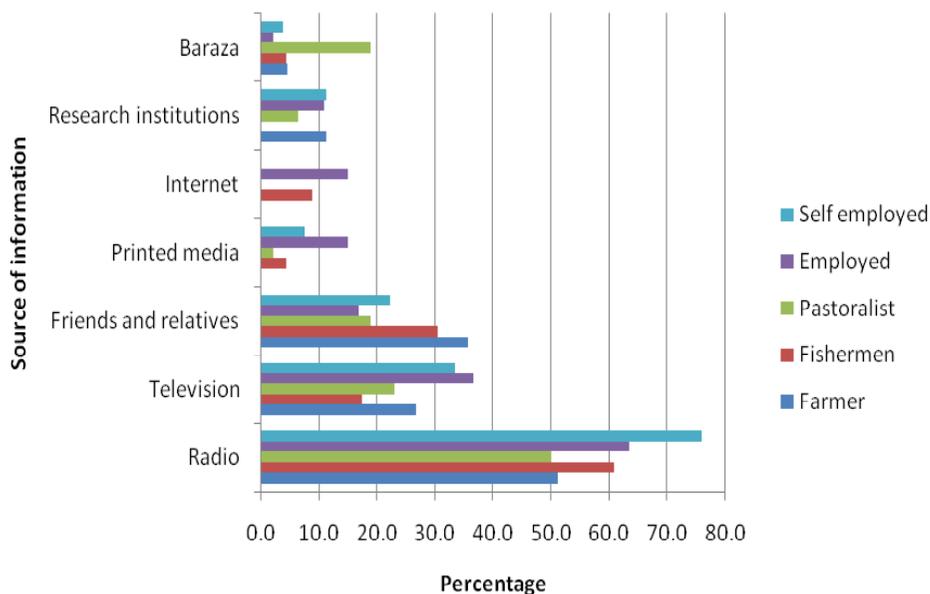


Figure 4: from respondents

In establishing the importance of research information accessed by the respondents, they were asked to indicate the most important information they were interested in. The study found that fishermen (65%) indicated that the most important information for them was that which highlights on concentration and type of pollutant in Lake Naivasha, followed by human health (26%), watershed hydrology (4%), ecosystem health (4%) and management of solid waste (4%). Since the livelihood of fishermen revolves around the lake that probably explain why they are concern about pollutants in the lake and how it can affect the human health. The study also found that the importance information for farmers was ecosystem health (28%), followed by concentration and type of pollutants in the lake (22%), human health (20%), watershed hydrology (18%) and management of solid waste (11%). Among the pastoralists, the important information was found to be concentration and type of pollutant in Lake Naivasha (32%), followed by watershed hydrology (29%), ecosystem health (23%), human health (14%) and management of solid waste (10%). The study finally found that among the employed and the self employed population interviewed watershed hydrology was important as indicated by (29%) and (30%) respectively. From the findings of the study, it can be said that all the respondents valued the information got from the ecosystem health researches done around lake Naivasha but the degree of importance varied with the lines of their socioeconomic activities in the ecosystem (Figure 5).

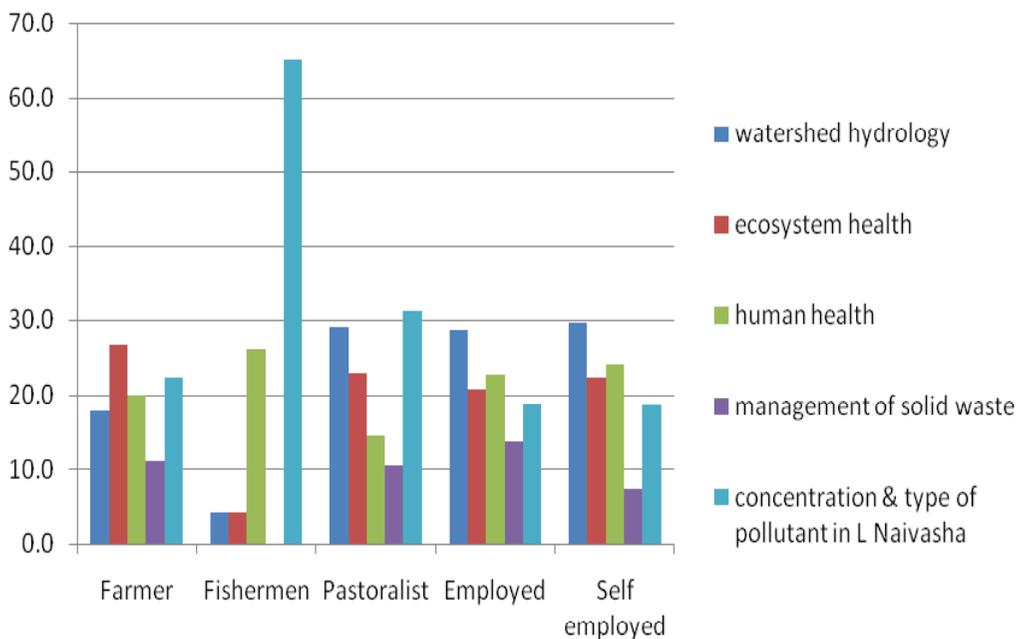


Figure 5: information by respondents

The findings of the study clearly show that people who live around Lake Naivasha need ecosystem health research information on various issue based on their socio-economic activities. Problem influencing access to ecosystem health research information include lack of resource centre leading were farmers (26.7%), followed by self employed (20.4%), employed (13.9%) fishermen (13.04%) and finally pastoralist (12.5%). Cost of accessibility; leading employed (20.8%), followed by farmers (8.89%), pastoralist (8.33%), self employed (7.41%) and last was fishermen (4.35%). With regard to level of education leading was pastoralist (8.33%), followed by employed (6.93%), self employed (5.6%), farmers (4.4%) and finally fishermen (4.35%). Use of technical language leading fishermen (13.04%), employed (10.9%), self employed (7.4%), and farmers (0%). Lack of interest; leading was pastoralist (8.33%), followed by employed (6.93%), self employed (5.56%), farmers (4.44%) and fishermen (4.35%). Lack of resource personnel was also a problem; leading was employed (15.84%), followed by fishermen (8.7%), pastoralist (8.33%), self employed (7.41%) and finally farmers (6.67%). Lastly lack of proper translation was also a challenge as indicated by fishermen (8.7%), employed (7.92%), pastoralist (6.25%), farmers (4.44%), self employed (1.82%).

Based on the level of education of the respondents where the majority of the respondents were either primary or secondary school leavers as noted elsewhere in this study, this probably contributed to problem of accessibility of ecosystem health research information (Figure 6). Since most of the respondents had no access to ecosystem health research information as noted elsewhere in this study, this explains probably why they were not able to tell whether the language used was technical hence the low percentage response. On the other hand most respondents were probably interested on accessing ecosystem health research findings as demonstrated by low response of those who are not interested on research findings. Lack of resource centre came out very strongly since most respondents wanted a place they can visit and access the ecosystem health research information they need which was lacking. Given the fact that there is no resource centre, the respondents probably could not tell whether the ecosystem health research information generated needed personnel to management them or they need to be translated into a simple version for them to understand hence the low percentage response. This is applicable to the cost of accessing ecosystem health research findings, how can they know that cost is involved? When in the first place they had no access to research information hence the low percentage in response.

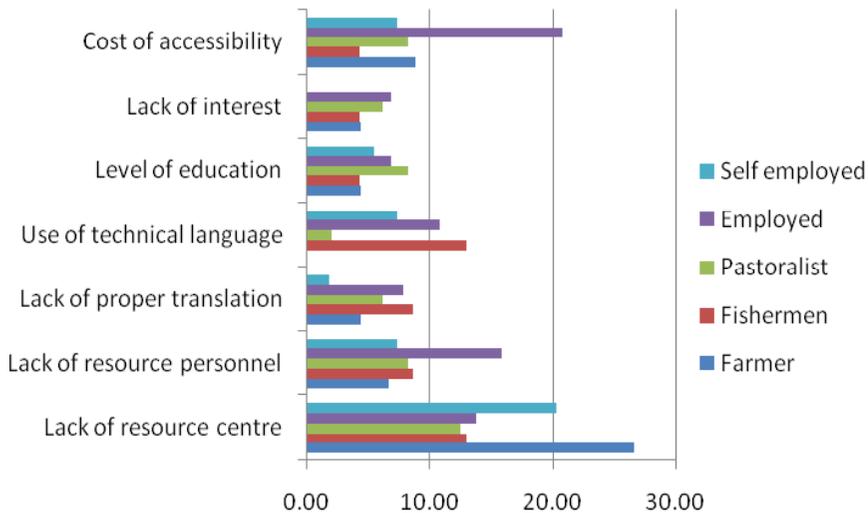


Figure 6: Problems in accessing research information by respondents

Related to accessibility of ecosystem health research information was awareness. The major factor limiting access to ecosystem health research information (Figure 7) was lack of awareness on the existence of ecosystem health research information as indicated by farmers (65%), self employed (50%), fishermen (42%) employed (42%) and pastoralists (40%). Another factor which limited the accessibility of ecosystem health research findings was lack of education as indicated by farmers (30%), fishermen (56%), pastoralist (40%), employed (40%) and self employed (25%).

These factors which limit utilization of research findings concur with the findings of a study done by Michael *et al.*, (2007), where he found that the factors influencing the utilization of research findings by all stakeholders include access to information, relevance of the research, use of the research perceived as a time consuming process, trust in the research, authority of those who present their views, competency in research methods, and priority of research in policy process and accountability. This also compares with study done by Thomas (2010) where reasons for failure of research finding to translate into utilization include historical, social, economic, cultural, organizational factors slow or impede the transfer, high cost, intensive time demanded, high level of staff expertise required, difficulty to learn or understand, not developed to suit the users need, not designed to be self sustaining and highly specific to a particular setting.

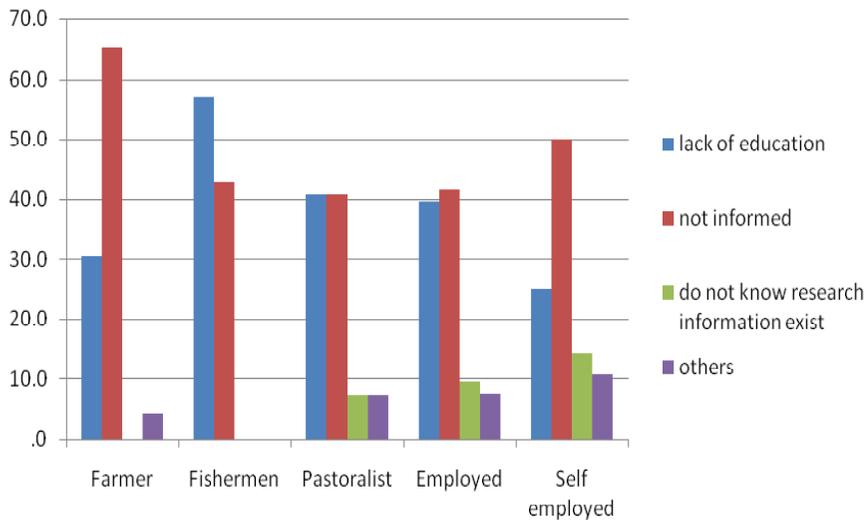


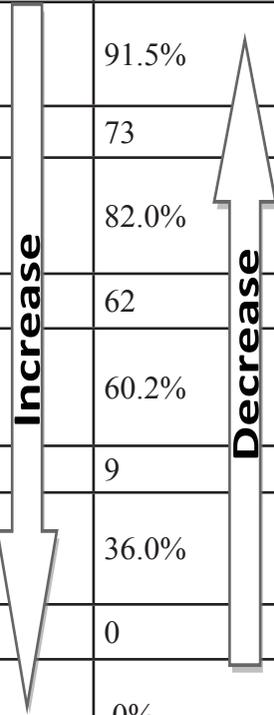
Figure 7: Problems that limit accessing research information by respondents

To establish the link between awareness, accessibility and usefulness of ecosystem health research information to respondents with education, a cross tabulation was done. This was to see if there is a relationship between awareness and education level, usefulness and education level and accessibility and education level.

Table 1:

Cross tabulation of Level of education and awareness of research activities

		Is respondent aware of research activities		Total
		Aware	Not aware	
No formal education	Count	4	43	47
	% within Highest level of education	8.5%	91.5%	100.0%
Primary	Count	16	73	89
	% within Highest level of education	18.0%	82.0%	100.0%
Secondary	Count	41	62	103
	% within Highest level of education	39.8%	60.2%	100.0%
College	Count	16	9	25
	% within Highest level of education	64.0%	36.0%	100.0%
University	Count	1	0	1
	% within Highest level of education	100.0%	.0%	100.0%
Total	Count	78	187	265
	% within Highest level of education	29.4%	70.6%	100.0%



At 95% confidence interval the relationship between education and awareness of research activities was statistically significant ($p < 0.05$ ($\chi^2=37.644$, $P=0.00$, $df=4$)). Therefore there was a strong relationship between level of education and awareness of research activities. From (Table 1) level of awareness increases with increase with the level of education. This is attributed to the fact that people’s aware of the importance of ecosystem health research activities was due to exposure which is brought about by their level of education.

Table 2:
Cross tabulation of level of education and access to research information

Highest level of education		Do you have access to research information		Total
		yes	no	
No formal education	Count % within Highest level of education	10 20.4%	39 79.6%	49 100.0%
Primary	Count % within Highest level of education	32 32.3%	67 67.7%	99 100.0%
Secondary	Count % within Highest level of education	51 45.5%	61 54.5%	112 100.0%
College	Count % within Highest level of education	17 60.7%	11 39.3%	28 100.0%
University	Count % within Highest level of education	1 100.0%	0 .0%	1 100.0%
Total	Count % within Highest level of education	111 38.4%	178 61.6%	289 100.0%

At 95% confidence interval the relationship between level of education and access to ecosystem health research information is statistically significant ($p < 0.05$ ($\chi^2=18.159$, $df=4$, $p=0.001$)). From the result (Table 3) it confirms there was a strong relationship between level of education and access to ecosystem health research information. This was attributed to the fact that the higher the level of education one has the more access to research information they had, since they know the importance and how to access it.

Conclusions

From the findings of the study, it can be concluded that Lake Naivasha Basin is composed of many types of stakeholders who have different amount of resources and power. They all use the lake resource in different ways to satisfy their needs. The lake is threaten by sewage discharge into it, over abstraction of water, extraction of natural environmental resources such as wildlife, trees for charcoal burning. People who are knowledgeable about the Lake are WRMA, Fisheries, BMU, LGG, Municipal Council of Naivasha, Naivasha Water and Sewage Company. The depth and breadth of knowledge varies from group to group and depend on how the resource is used. Many research initiatives have been done and no full involvement of all the stakeholders there in research and sharing of ecosystem health research findings. In this regard there is need to share the research findings to empower all the stakeholders for sustainable management of Lake Naivasha Basin. This information need to be simplified and disseminated in Kiswahili which everybody can understand through the Radio, Poster, *Baraza*, Pamphlets, Drama and Music.

Factors contributing to the utilization of ecosystem health research findings included: lack of awareness of the existence of ecosystem health research finding information and inadequate access to research findings. The only sources of ecosystem health research finding were through Radio, Television and Friends and Relatives. Other factors included: lack of resource personnel, use of technical language and inadequate education among the stakeholders.

Recommendations

There is need to form Stakeholder Advisory Committee which can bring in all stakeholders representative from those with less influence to those with more influence. This will help the stakeholder develop mechanisms to manage the generated ecosystem health research findings. To manage the information better a resource centre should be established where all the ecosystem health research findings will be stored for access to the researchers and public. The information can be in the form of hard copies or soft copies. In this regard,

there is need to employ/engage/volunteer qualified personnel who can manage the resource centres. Going hand in hand with the resource centre, there is need to link the resource centre to the internet to allow it accessed by the rest of the world. Finally researchers should be encouraged to share the information on the findings of their studies and to allow access by other researchers and member of public for better decision making with regard to the ecosystem.

Results of the findings of the studies done in the ecosystem health should be simplified and summarized in a simple form to allow the local people to understand (Swahili). Panel of experts to simplify the findings of the studies should be formed to allow for easy translation and dissemination of the findings among the stakeholders. This can then be produced in the form of flyers, posters and brochures.

Develop simple programs/documentaries based on ecosystem health research findings information generated. This can be done in partnership with local media houses such as Nation TV, Citizen TV, Radio stations which are accessed by many local people. The information will reach Naivasha and the whole country which are facing the same challenges like Lake Naivasha. To further facilitate the process of dissemination of research information people will need to be mobilized through the help of local chiefs, political leaders to attend *Baraza*, seminars, conferences and workshops for purpose of educating them on ecosystem health research findings. Lastly local NGOs and CBO need also be involved in the advocacy for legislative and policy change at local and national level. They can only be engaged once suggested policy briefs have been prepared by stakeholder's advisory committee. Through this advocacy the agenda of ecosystem health research findings of concern will be able to reach national level to push for more allocation of resources to sustain the environment.

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A Historical Perspective of Forest Destruction in Meru District, Kenya, 1920-1999

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Abstract

Forest destruction has been a major problem in Meru District since the 1920s. There have been numerous cases of forest destruction due to tree logging, charcoal burning, shamba-system, marijuana cultivation and forest burning. Despite the magnitude of the problem, no historical study has been conducted in the district. This study therefore examined the history of forest destruction in Meru District in the period 1920 to 1999. The study analysed the nature and causes of forest destruction in the district over the period stated above. To achieve this objective, the political ecology perspective was used. This perspective examines interactions between political, economic, social and environmental factors over time. The research relied on both secondary and primary sources. The former included published works that were obtained from various resource centres, while the latter were obtained from the Kenya National Archives (KNA) and field interviews. Sources from the KNA included annual reports from the provincial administration and the Ministry of Wildlife and Tourism. Oral interviews were also conducted in the study area. Purposive sampling was used in selecting the informants. This ensured that only knowledgeable informants were interviewed. Data analysis involved usage of “data cards” that were useful in sorting out data. The cards were categorised according to the themes highlighted in the study objectives. The periods of study were also used in the categorisation of “data Cards.” In the analysis, the data were tested against the objectives of the study. The findings of the study will assist policy-makers to formulate forest conservation policies that could help ameliorate forest destruction in the district.

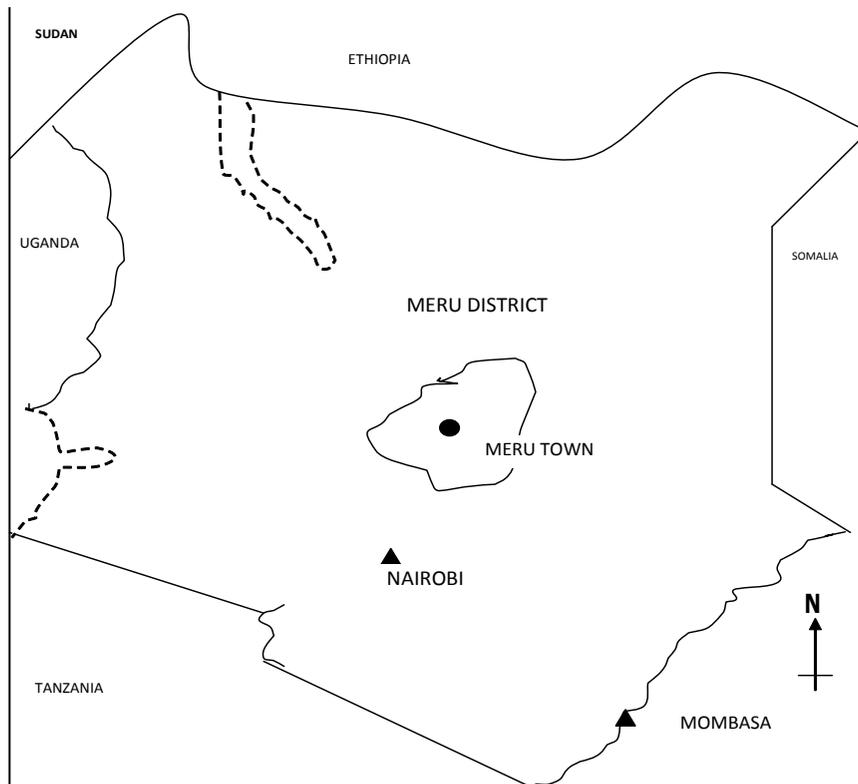
Key Words: Forests, Communities, Centres,

Introduction

Forest destruction in Meru District shown in map 2 has been quite rampant. This has been the case owing to the presence of expansive forests in the district which endowed indigenous trees. The district extends from Thuchi River in the south

to the Meru National Park in the north. It slopes down from both the Mount Kenya and the Nyambene Hills up to its lowest points in Tharaka extending up to Igamba Ng'ombe further south.

Map 1: Location of Meru District in Kenya



The district's forest blocks cover a total area of 86,955 hectares. The main species in the gazetted indigenous forests include: *Brachylaena sp.*, *Calodendrum capense*, *Catha edulis*, *Cordia africana*, *Croton macrostachyus*, *Croton megalocarpus*, *Ficus thonningii*, *Hagenia abyssinica*, *Juniperus procera*, *Lovoa swynnertonii*, *Markhamia lutea*, *Milicia excelsa*, *Ocotea usambarensis*, *Olea capensis*, *Olea europaea ssp. africana*, *Premna maxima*, *Prunus africana* and *Vitex keniensis* (KWS, General Report, 1999). The plantation forests in Meru cover a total area of 4302 hectares comprising: *Cupressus lusitanica*, *Pinus patula*, *Pinus radiata* and *Eucalyptus species*. Native species, *Vitex keniensis* and *Cordia africana* have also been planted in designated plantation areas (Ministry of Natural Resources, General Report, 2000). Large-scale charcoal production and illegal tree logging continue to impact heavily on the natural forests. Some of the most targeted species include: *Ocotea usambarensis*, *Juniperus procera*, *Olea europaea ssp. africana* and *Hagenia abyssinica* (KWS, General Report, 1999, Mutegi, 2012).

People in the areas between Chuka and Chogoria lived deep inside the Mount Kenya Forest in what were their ancestral lands. There is still visible evidence in the forest that clearly shows how people utilised the forest resources. At Kiria which is about twenty kilometers deep inside the forest for instance, remnants of old pots, building post and baskets locally referred to as *miruru* (traditional baskets) can still be found. The place which is called Kiria came from the features of the place. The terms itself means a pool of water. Thus, the place was named Kiria because it consisted of a pool of alkaline water in which animals drank from, and another for human beings. People tended to prefer settling near it because of its importance.

Like other traditional African communities, the Meru people highly depended on traditional medicine to cure illnesses. Such medicines were derived from particular trees that were mostly found in the Mount Kenya Forest. One good example was the neem tree locally referred to as *mwarubaini* (see figure 1). Every part of the tree was important in making a particular medicine. Despite the bitterness, the tree was known to cure virtually all human diseases experienced at the time.

Figure 1: Neem Tree (Mwarubaini)
Source: Mutegi, 2012



Results and Discussion

The Rise of Forest Destruction in Meru District

An increase in human population from the 1920s made the residents to clear up many bushes to create space for crop cultivation. Due to lack of appropriate farming implements, many people used fire to burn down the shrubs. This method was more common in Tharaka areas.

Before the 1920s, there were hardly any cases of forest destruction in the whole of Meru District. For instance, according to the Meru District Commissioner, the area under “native” forest was approximately 5000 acres by 1916 and it was in good condition without any cases of forest depredations by the natives (KNA/DC/MRU/1/1, Meru District, Annual Report, 1919, p3). From the 1920s however, cases of forest destruction started being reported in the district. People engaged in various anti-conservation practices as they attempted to continue their old ways of wildlife utilisation. Some cases of violation of wildlife regulations were purely motivated by the desire to revenge over the discrimination in the utilization of wildlife resources. In 1929 for example, ten people were convicted over the violation of game and forest ordinances in the district (KNA/DC/MRU/1/1, Meru District, Annual Report, 1919, p3).

Tree logging in the district by licensed saw millers started officially in the 1920s. In 1924 for instance, Messrs Young and Ayre Company was granted a concession to cut timber within a large area of forests in “native” land reserve. A broad grass strip which was to be patrolled by forest guards was made around the whole concession area in order to prevent encroachment on the forest by the “natives”. The inhabitants of the areas that were brought under concession were no longer allowed to live within the areas or graze their livestock without special permission from the Forestry Department. This not only denied the residents their usual source of income but also contributed to intensified conflicts between them and the conservators. The residents were unanimously against such concessions which they felt were part of their problems. They felt cheated in the utilisations of the resources that were formally theirs. In 1925 therefore, there was an extensive forest fire that caused much damage to olive and cedar trees in areas under the Young and Ayre concession (KNA/DC/MRU/1/2, Meru District, Annual Report, 1925, p.7). In 1927, another forest fire was lit by the residents in protest of what they called; “stealing of our resources” by the government was started at Kithangari area (KNA/DC/MRU/1/2, Meru District, Annual Report, 1927, p.1).

Such revenge actions were as a result of the bitterness the residents had towards the conservators and the timber sawing companies. They often felt oppressed by the authorities as they were forced to participate in work that they believed was aimed at benefiting particular people rather than the community. In 1925 for instance, under the supervision of the Assistant Conservator of Forests, the residents of Nthimbiri Location were ordered to work in lieu of a fine under the Collective Punishment Ordinance in the demarcation of the Young and Ayre’s concession area by placing beacons and cutting a line around the whole area (KNA/DC/MRU/1/2, Meru District, Annual Report, 1925, p.3).

Human encroachment into conservation areas in the 1920s was another factor that contributed to the escalation of forest destruction in the district. To deal with the problem, the government was forced to put up boundaries between the ‘native’ reserves and the forests. In an attempt to control further encroachment into the forest in both 1924 and 1929 for instance, a line of black wattle trees was planted along the edges of various forests in the district. The ‘natives’ were also allowed to cultivate on the farms they had created in the forest on condition that they would replant trees on them. Further, the Forestry Department during the October to December rains in 1930, planted a line of *Eucalyptus globules* trees along the portion of the native forest reserve boundary. The “natives” caught cultivating in the forest always gave excuses that they did not know where the boundary was (KNA/DC/MRU/1/2, Meru District, Annual Report, 1925, pp.2 and 5).

Tree logging by licensed saw millers was a major cause of adverse climatic conditions that prevailed in many parts of the district in the 1930s. The government driven by the need for money, continued to give licenses to private saw millers. In 1930 for instance, Monchouguy was given permission to start a saw mill at a place that was situated in the elephant grass land at the Mbeyu Forest (KNA/DC/MRU/1/4, Meru District, Annual Report, 1930, p.4). In 1931, the government granted a tree cutting concession to Monchouguy in Thura and Uringu Forests (KNA/DC/MRU/1/4, Meru District, Annual Report, 1931, p.3). The residents strongly resented the Monchouguy concession as it was bound to destroy the places they traditionally depended on for livestock grazing. Besides that, the residents heavily relied on wildlife resources during periods of famine for survival. In protest, the residents stole wood from the forests and released their livestock into the forests to graze putting them into direct competition with the Forestry Department. As a result, thirty people were arrested and convicted over the violation of forest ordinance (KNA/DC/MRU/1/4, Meru District, Annual Report, 1931, p.3).

In an attempt to curb the destruction of the forests in the district, the Forestry Department moved in to put up measures that were expected to regulate the utilization of forest resources by the residents. However, many people strongly objected to the conservation policies introduced by the Forestry Department. The residents’ displeasure is best illustrated in the following extract from the District Commissioner’s Annual Report of 1937:

There is little doubt that the Meru have in the past divided their country of forest to at least as great an extent as any other Kenyan tribe. It is also

undoubted that the tribe in general has little sympathy for the Forestry Department which to them is little more than a power which prevents them collecting fuel and building timber in the forests (KNA/DC/MRU/1/4, Meru District, Annual Report, 1925, p1).

In 1939, many incidences of tree logging were reported in the district. The most affected were the Upper and Lower Imenti Forests. The Kikuyu squatters who had moved into the district in the early part of the decade were the biggest menace. For instance, concerning the forest destruction, the District Commissioner in his report said the following concerning the Kikuyu:

...the Kikuyu colonist, who relying on the European's apparent inability to budge him from anywhere he cares to settle, proceeds to do what he has represented as so reprehensible on the part of the protector - take land apparently unoccupied and appropriate it to his own use. The Kikuyu have a get-rich-quick mentality, who care nothing for the preservation of [nature] for posterity (KNA/DC/MRU/1/2, Meru District, Annual Report, 1939, p.1).

During their spell in Meru District, the Kikuyu squatters had caused immense damage on the region's forests. The Meru indigenous authorities were very well aware of the Kikuyu problem but could do little to arrest the situation as their original authority as the custodians of their land had largely been reduced and bestowed to the Local Native Council. The Kikuyu in the district who were either *Aciarua* (born in Meru) or *Arombi* (tenant at will) were believed to be followers of the *Watu wa Mungu* sect which was organized by Musa Muchai in 1931. In 1931, the Kikuyu attacked a police post at the Ndaragu Forest. As a result, some moved to the Fort Hall District while others penetrated into Chuka and settled first in Muthambi, south of Chogoria and north of Chuka (Mwimbi division) areas (Ibid). In order to create land for cultivation, the Kikuyu immigrants cleared large areas of the forests in the region.

In 1939, the Kikuyu immigrants were reported to have caused a lot of destruction to the forests around Mwimbi and Muthambi areas. The destruction was said to be out of their entrepreneurship spirit as they aimed at reaping the most out of the natural resources in the area. For instance, in his annual report of 1939, the Meru District Commissioner noted the following concerning the Kikuyu immigrants:

Unfortunately there are parts of the district (particularly upper Mwimbi and Muthambi) where Kikuyu influence; directly or indirectly, has encouraged a spirit of individualism which tries to override tribal control for purely selfish ends. It is this spirit of animals which describes the man who hacks

down tribal forest for immediate gains... It might be said with truth that there is to all intents and purposes a Kikuyu colonist association in Meru whose objects are to grab as much Meru land as they can and to alienate all land to their own tribesmen, and to squeeze all exploitable wealth out of the Meru forests and put it into Kikuyu pockets as fast as possible. There are numerous Kikuyu living in the Meru native reserve. The two principal settlements are at Naari and Chuka, but there are other families scattered here and there in all divisions. As a rule, they get on well with the Meru and apart from their inclination to the indiscriminate cutting of trees, cause little troubles. But at Naari some of the settlements have ploughed up large portions of Meru grazing land and in Chuka, their destruction of forest has gone beyond all bounds (KNA/DC/Meru/2/4/55, Meru District, Annual Report, 1939, p.4).

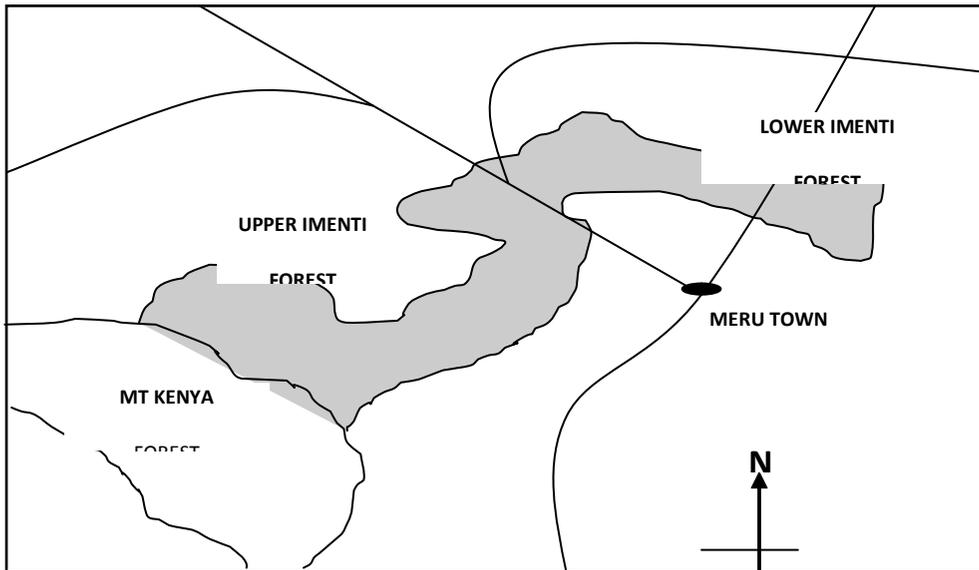
Forest destruction in the district had risen to immense proportions by 1940. The following table for instance, provides an illustration of the quantities of timber cut by the Thaic Saw Millers in the Upper Imenti Forest from 1934 to 1940 (KNA/DC/Meru/2/4/55, Meru District, Annual Report, 1940, p.2, Mutegi, 2012).

Table 1:
The Saw Millers timber quantities in the Upper Imenti Forest

Year	Quantity (Cubic feet)
1934	12,165
1975	13,435
1936	14,351
1937	16,832
1938	32,037
1939	46,044
1940	54,170

The government continued to lease out forests to timber sawing companies over the period. In 1946 for instance, twenty pit sawyers were given permits around Mwimbi and Chuka areas in the Crown Forest under the control of the Assistant Head of Forestry Department. In 1948, the government leased four acres of the Imenti Forest to the Kenya Timbers (PTY) Ltd for a lease period of thirty three years. The once thick forest with a good canopy of camphor trees was eventually reduced to shrubs. At the present, trees in the forest can hardly cover the back of an elephant.

Map 4: Imenti Forest



Source: Mutegi, 2012

Other causes for forest destruction included political reasons. Many forests faced destruction after many years of reforestation due to political disturbances. As political temperature heightened in the country in the late 1940s, many elders in the Igembe areas seized the opportunity to incite people against the restrictions imposed on them over the utilisation of the forests in the region. The desire to have the forests back was driven by a feeling that the forests naturally belonged to the Meru. For example, the District Commissioner in his 1947 annual report noted:

In regard to the closed areas - given the slightest opportunity, they [residents] would undoubtedly return to their destructive activities; this did in fact happen during the political disturbances in August, when very serious damage was done on the protected hills and forest of Igembe by hundreds of people (KNA/DC/MRU/1/4, Meru District, Annual Report, 1947, p.13, Mutegi, 2012).

During the Emergency Period, the crown forest was declared a prohibited area in May 1953 thereby locking out many pit sawyers out of the crown forest. In September 1953, all squatter contracts were cancelled and the workers re-engaged as casual labourers. However the problem was that, they were not able to work efficiently due to long distances involved between the places where they lived

and the forest. As a result, elephants got a chance to do considerable damages to the tree plantations that had been established. Eventually, due to competition for land between the squatters and the local people at their new relocation areas, many people were forced to occupy land at the edges of the Crown Forest.

Due to a rapid increase in population in the 1950s, many people engaged in tree logging in the forests that existed in the district to create land for cultivation. The residents also tried to have parts of the land under conservation which they claimed was theirs given back to them. With regard to this, the District Commissioner reported the following in 1959:

It is sad to report that the Meru's traditional respect for and appreciation of the importance of trees is on the decline and not only were there indications of large scale felling with a view of making money, but there were demands for the return of parts of both the Crown Forest and the ADC Forest for cultivation purposes (KNA/DC/MRU/2/4/5, Meru District, Annual Report, 1955, p.2).

The most affected forests were those around the Nyambene areas. The period also witnessed various incidences of forest fires. The *Miraa* illegal trade was one of the factors that contributed to various outbreaks of forest fires. In connection to this, the DC reported the following in 1958:

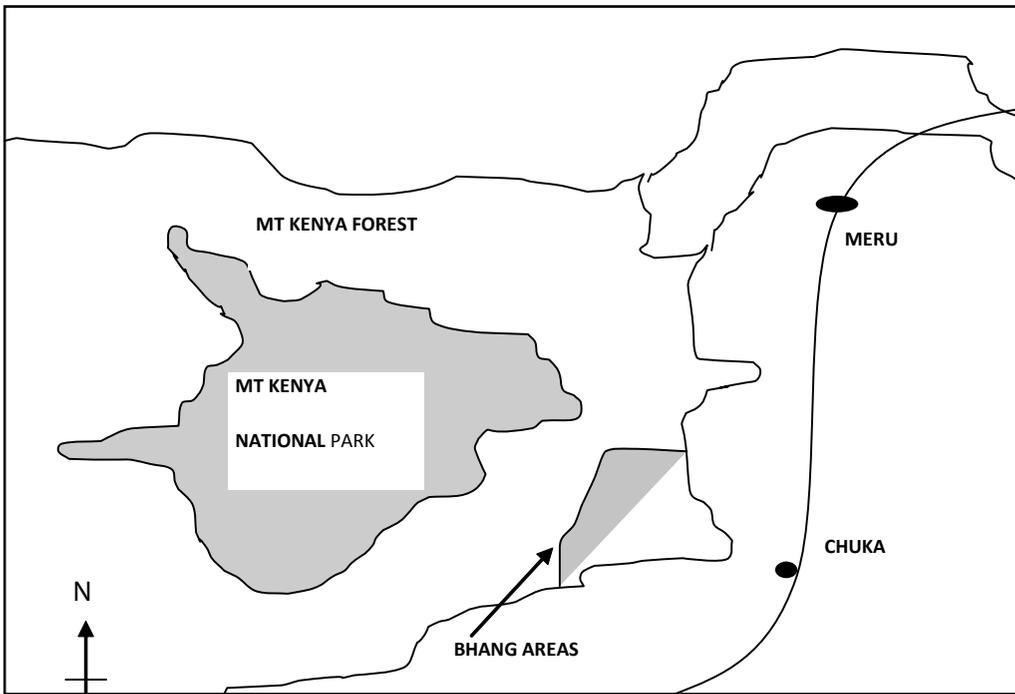
It is difficult at present to check smuggling which besides bringing the law into contempt, is believed to lead to the grass fires which have burnt off large part of the Meru North Grazing Area. The smugglers line the Wajir road at night and light fires as signals to lorries and also to keep themselves warm (KNA/DC/MRU/2/14/1, Meru District, Annual Report, 1958, p.4, Mutegi, 2012).

Tree logging by licensed saw millers continued in the 1960s. Pit sawing in the district intensified so rapidly over the years such that by 1964, the amount of pit sawyers that were in operation was 746 which was an equivalent of an average of sixty two sawyers in a month. In 1964 also, the total volume of timber sawn was 109,664.72 cubic feet (Disperati, Bocchi, and Gitau, 2006). This was significantly high compared to the volumes of timber sawn in the 1930s. About thirty pit sawyers were in operation by 1964.

After independence, the government set out to boost wildlife conservation for the sake of the tourism industry. All forms of wildlife utilisation were prohibited. The government became more vigilant on wildlife protection. However, tree felling

continued to intensify. It was so difficult to effectively protect the vast Mount Kenya Forest from human activities. There were also claims by the residents that bhang (*Cannabis sativa*) cultivation went on unnoticed in the Mount Kenya Forest from the 1960s. Large portions of the forest around Chuka as shown in map 5 were cleared to create space for the cultivation of bhang.

Map 5: Bang Cultivation in Mount Kenya Forest



Due to rapid population growth in the 1960s, land shortages had begun to be experienced. This led the residents to intensify their demand for the strip of land in the Crown Forest that was taken away from them in the 1930s. Owing to constant agitation by the Chuka people for their land, it was agreed in 1964 to have the Chuka bulge excised on the advice of the Agricultural Department and the Kenya Tea Development Authority (KTDA). To clear the area completely, it was also agreed that potatoes or any other suitable cash crop should be planted there for the first three of four years before planting tea. However, due to lack of urgency and consensus between the Forestry Department and the Agricultural Department, the land was not excised. This therefore led to a renewed wave of forest destruction by the residents as they protested (KNA/DC/MRU/2/14/2, Meru District, Forestry Annual Report, 1964, p.5, Njeru, Oral Interview, 2008).

Moreover, the politics also provided impetus to the people to agitate further for more land. For instance, the tenure-ship of positions in the ADC was becoming

intensely coveted thereby making the aspirants to engage in “dirty” politics of inciting the residents against various conservation programmes in the region. Consequently, the residents did all they could to acquire the land they were agitating for. In 1963 for instance, all grassland areas and some bracken areas were reported to have been burnt by the residents (KNA/DC/MRU/2/3/1, Meru District, Monthly Report, 1963, p.16).

The lack of consideration of the residents’ feelings made them to lose all interest in preserving forest. The conservators did not involve the local people, who had formally protected the same resources in decision making. The licensing of private saw millers to operate in the Mount Kenya Forests and also the act of prohibiting the residents from utilising the forest resources was responsible for the hard feelings among the residents to a point of logging trees indiscriminately. Concerning this for instance, the 1964 Forestry Department annual general report pointed out the following:

In the old days, it has to be said that trees were highly respected by people... probably it has to be said that the Forestry Department made a mistake when they established their functions in Meru...and concentrated on developing them (natural resources) but local people were not told the benefits of the forest at all... natural forests were made a paradise of some kind which made people to hate forest. And it is because of this reason why we always face great problems in trying to convince people that forests have importance. In view of lacking understanding on the importance of forests, it is the reason why forest excisions are demanded by even the County Council (KNA/DC/MRU/2/14/2, Meru District, Forestry Annual Report, 1964, p.8).

To hamper the re-forestation work that was going on at the Muthara area, the residents pulled out the tree seedlings at night. Many people associated the establishment of conservation areas with land grabbing. The residents felt that the replanting of the areas under conservation with more trees would eventually diminish any hope they had of reacquiring the pieces of land that they felt were grabbed from them. This therefore motivated them to engage in various aspects of anti-conservation practices. As a result of continued agitation for land by the residents, about 507 acres of the Nyambene Forest were excised to create the Nyambene Tea Estate in 1963 (Ibid).

Cases of forest fires continued to be experienced in the district in the 1960s. Many of them were deliberately started by residents as they attempted to clear up old grass cover for a new one to grow. Others were started by people while harvesting honey. In other instances, people started forest fires in protest over the

establishment of protected areas in the region as it led to the shortage of land for grazing their livestock. The 1964 forest fires for example, ended up consuming huge areas of grassland thereby forcing wild animals to move into human settled areas where they caused a lot of damage to property. During the months of February, March, August and September 1964, many fires were reported in many parts of Tharaka as the residents protested over the government's prohibition of farming and other operations on the hills as a way of soil conserving. The residents started fires under the pretext that they were clearing up old grass from the fields so as to allow a new cover to grow. Some fires even extended into the demarcated forests especially in the areas bordering Meru National Park KNA/DC/MRU/2/14/2, Meru District, Forestry Annual Report, 1964, p.13).

Figure 2: Forest Fire



Source: KWS, Survey Report, 1999

From the 1970s going to the 1990s, seven categories of forest threats were identified. These include: Shamba-system, charcoal production, livestock grazing, logging of indigenous trees, growing of marijuana (*Canabis sativa*), landslides and fire occurrences. Over 6,700 Camphor (*Ocotea usambarensis*) trees were destroyed through logging whereas in the overall 14,662 indigenous trees were cut (KWS, Survey Report, 1999). A large area of the natural forests in the Lower Imenti was destroyed and put under crop cultivation. In the lower part of the Upper Imenti forest, extensive charcoal production was observed throughout this area, leading to extensive destruction of the indigenous forest. Marijuana (*Canabis sativa*) cultivation was quite extensive totaling 200 hectares.

The forests on the south and south eastern slopes of Mount Kenya suffered serious

destruction through extensive illegal logging of Camphor trees in the 1990s. Logging activities affected most of the broadleaved mixed forests extending up to the bamboo belt. Over 6,700 logged camphor trees were counted, in addition to 5,500 hectares where heavy logging made it impossible to count felled trees individually (KWS, Survey Report, 1999). Alongside the Ruguti and the Thuchi Rivers up to over 21 kilometres deep into the forest, 138 marijuana fields were spotted covering a total area of some 200 hectares (KWS, Survey Report, 1999). The Upper Imenti Forest Reserve was also heavily impacted by large scale charcoal production and illegal logging. Over 1,800 charcoal kilns were counted in that forest (KWS, Survey Report, 1999).

In 1991 there were 40 illegal privately owned sawmills in the Forest Reserve while the Forest Service was markedly under-equipped and underpaid (Bussmann, 1994). Most of the valuable timbers such as camphorwood and yellowwood were extracted. In his influential report based on the 1999 survey of the Mount Kenya and Imenti Forests, Gathara stated that 14,662 indigenous trees had been felled, 46 percent of these being valuable camphorwood, and 8,279 hectares had been extensively damaged; 76 percent of clear-cut farms had been cultivated but not replanted; 622 charcoal kilns, 2,187 head of livestock and 200 hectares of marijuana fields were seen on Mount Kenya, 21 forest sites had been burnt, often to clear land for farming, and there were 120 landslides in logged areas, 76 in the more heavily logged camphorwood forests (Gathara, 1999).

Conclusion

Forest destruction has been a major issue in Meru District from the 1920 following the settlement of the colonialists in the area and the subsequent introduction of wildlife conservation policies. Most destruction emanated from Shamba-system, charcoal production, livestock grazing, logging of indigenous trees, growing of marijuana (*Canabis sativa*), landslides and fire occurrences. While the residents destroyed forests on retaliation to what they thought was discrimination in the utilisation of wildlife resources, much damage was caused by government licensed saw milling companies.

In 2000, Mount Kenya Forest was gazetted as a national reserve. This was in an attempt to have the Kenya Wildlife Service (KWS) help the Forestry Department with the Conservation of the Forest. Nevertheless, cases of forest destruction continued to be experienced in the district.

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All contributions should be formatted to be compatible with Microsoft Word. Note only English spelling is acceptable for consideration. The font, pagination and general appearance of the paper should be organized as follows:

Typing

The paper should be typed (10-15 pages)

Font

The paper should be written in Times New Roman font size 12 point.

Line spacing

The paper should be 1.5 spaced.

Pagination

The page number should be set at the bottom and at the centre of each page.

The Title Page of the Paper

The title of the paper should be bold –faced and should be centred and placed at the top of the first page of the paper. It should not be capitalized in its entirety. The initials of the first and last words should be capitalized, as should all other words except conjunctions, articles and prepositions. A space should be skipped, followed by the authors name, also centred but without any space in between, should be placed some of the author’s particulars. The institution and the department of the author should be indicated.

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It should be written in italics beneath the title “abstract” which should be bold and set at the left-hand margin.

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The paper should include an introductory passage, under the sub-title “Introduction.”

Discussion

The body should consist of discussion, conclusion and recommendations, implications and references. All discussions should be referenced. Full references should be listed at the end of the paper conforming to the APA format. For example:

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