

# THE LANGUAGE FACTOR IN THE QUEST FOR TRANSFORMATIVE TEACHING AND LEARNING IN KENYA

**Miriam B. Mwita**

University of Eastern Africa, Baraton, P. O. Box 2500-30100, Eldoret, Kenya

Email address: bagenim@gmail.com

Language is not only the greatest endowment given to mankind. It is also central to human communication, collaborations, relations, teaching and learning in every aspect. Despite this fact, many of us limit the meaning of language to being a means of communication. However, this notwithstanding, the true meaning of language can truly be understood and appreciated only by identifying the role of language in society and how life cannot be meaningful without language. When referring to formal education, teaching and learning in Kenya, the language factor emerged as early as 1909 when the missionaries who operated schools wrote to the colonial government seeking to know the language that would be used in their schools. It took the colonial government twenty years (20) to respond in 1929. This duration of time confirmed how weighty the matter was. Consequently, this article proposes that there be serious considerations regarding the choice of language(s) to be used in transformative teaching and learning in the 21st century. This will be a fundamental matter because Kenya, like many other African Countries, colonial languages remain core in educational systems. This article underscores the importance of choosing the language(s) to be used in the quest for attaining transformative teaching and learning at a time when a polycentric world is envisaged. Similarly, this article attempts to give recommendations on how some Kenyan languages can be engaged in technological innovation to bring about transformative teaching and learning.

**Keywords:** Language(s), education, transformative, technology, innovation, teaching and learning

## Introduction

Indigenous education reigned in all African communities before the introduction of formal Western education system. The medium of instruction was various African languages and education was generally communal in nature and responsibility for learning was dictated by the age grade and sex structure in society (Murenga, Chacha, & Bageni, 2013; Sheffield, 1973; Njoroge & Bennaars, 1986; Sifuna, 1990). The indigenous education was relevant to the African conditions and way of life because the language of the people was used to provoke thought and creativity. The function of indigenous education became different from the Western formal education introduced in Africa in the nineteenth century by the Christian missionaries.

According to Sifuna (1990), the Western education was introduced in Africa for purposes of serving the colonial states and advancing European civilizations. Sifuna further explains that the function of education to the state was to provide junior servants and for Christian missionaries to strengthen church membership and enhance evangelization. With these as the main functions of education, the missionaries

since 1909, found themselves in a situation where they could not avoid discussing the language factor. This was inevitable because Kiswahili was used as the main language of instruction together with some indigenous languages. English could not be used due to the lack of teachers and other learning facilities such as text books.

Kiswahili as an indigenous language, continued to be the main instructional language until when some missionaries learnt indigenous languages and begun preparing books and teachers who could be used to teach in their schools. During this time, they turned against Kiswahili saying it was propagating Islam, a religion which was against Christianity. For the colonial government, Kiswahili was seen as a threat due to its potential of uniting Kenyans. Consequently, they fought against its advancement and in its place, English was introduced right from class one in the New Primary Approach (NPA). With New Primary Approach, English was emphasized and given every priority in every activity. It should be noted that, this is what was inherited in 1963 as Kenya got her independence. This is the reason why the language policy which favour the use of English



as a medium of instruction in Kenya has remained to date. However, in the 2010 Constitution, English and Kiswahili are both official languages with Kiswahili doubling as a national language.

By enshrining the language component in the constitution, calls for serious consideration on the development of the official and national language, with an aim of engaging the same in transformative teaching and learning. We are aware that English is not a Kenyan language, hence our concern and focus is automatically on Kiswahili and other indigenous languages.

If the language factor was colossal and crucial in 1909, how much more will it be now when language and culture are protected in Article 44 of the Kenyan constitution? Kenyans have a right to transformative teaching and learning using a language of their choice. These rights notwithstanding, there is need to identify language(s) that best suit Kenyan learners in the 21st century where technology and innovation is key in all spheres of life. Before we delve into the choice of language in transformative teaching and learning, let us try to understand the meaning of language.

### What is Language?

Many linguists and language scholars such as Sapir (1921), Bloch and Trager (1942), Chomsky (1957), Lyons (1970), Todd (1987), Jindal (2001), Mgullu (1999), and Habwe and Karanja (2004), to mention a few among many, who have tried to define language. Though their definitions do not outright state clearly the meaning of language, they serve as a springboard for various language researchers who analyze each definition to see what properties of language are included or excluded. This is why Jindal (2001) states that it is not possible to have a single definition that brings out all the properties of language. Language properties when listed and discussed lead to the understanding of the meaning of language. Bearing this in mind, I shall sample out some language definitions that will enable us continue with the aim of this articles.

In the simplest sense, language is a set of signals by which we communicate (Todd, 1987). Language is better understood as only belonging to human being and is non-instinctive (Sapir, 1921). This means that language cannot be passed from a parent to a child. Children must learn to speak the language of their various communities. Language is therefore a

vocal system of communication which can be expressed in writing with the result that it is not limited in time or space. Each language is both arbitrary and systematic. Language though an abstraction, can be realized as writing. In the context of this article, speech and writing are considered important although some linguists have elevated speech by saying it is primary in language.

According to Todd (1987), speech is primary since writing is a relatively recent development in human societies; because thousands of speech communities rely solely on speech; that people speak a great deal more than they write; and that although people acquire speech without conscious effort, learning to read and write is usually less spontaneous and less automatic. For purposes of teaching and learning in formal education, speech and writing are not in competition. Both are extremely important to the teacher and the learner. Speech and writing complement each other. Both of them are necessary in a technologically advancing or advanced society.

Language therefore consists of symbols that convey meaning plus rules for combining those symbols, that can be used to generate an infinite variety of messages. Language also is a system of communication using sounds or symbols that enables people to express their feelings, thoughts, ideas and experiences (Crystal, 2001; Weiten, 2007; Goldstein, 2008) These observations agree with Sapir (1921) who stated that language is a purely human and non-instinctive method of communicating ideas, emotions and desires by means of a system of voluntarily produced symbols. Similarly, Robins (1985) say that language is a symbol system based on pure or arbitrary conventions ... infinitely extendable and modifiable according to the changing needs and conditions of the speakers. The Encyclopedia Britannica state that, language is a system of conventional spoken or written symbols by means of which human beings, as members of a social group and participants in its culture communicate. The functions of language include communication, the expression and emotional release. Similarly, Lyons (1970) explained that, languages are the principal systems of communication used by particular groups of human beings within a particular society (linguistic community) of which they are members.

Looking at the sampled definitions, it is crystal clear that it is not possible to have a single definition of language. However, the meaning of language can be grasped by understanding the characteristics or

properties of language. This is the reason why, in the definitions of language given earlier, scholars seem to have emphasized one or more characteristics of language. In order for one to completely understand the meaning of language, all of its properties or characteristics must be explained. These properties can also be seen as the role of language in a society.

### **Properties of Language**

Language is a means of communication. Human beings use language to communicate amongst themselves. Ideas, emotions, beliefs and feeling are best understood where people share a common code which constitute a language. Language as a means of communication gives shape to people's thoughts. It also guides and controls every activity of people in a particular society. Language serves as a conduit of civilization and culture since human thoughts and philosophy are passed from one generation to another using language. Language like air is everywhere yet extremely important. Language is present everywhere in all activities taking place. Language remains the most valuable endowed to man. Language is specific to humans only. Because of language, we can talk of linguistic communication, where words and the combination of words into sentences are put into use. The properties or characteristics of language can be summarized as follows: language is arbitrary; it is a system of systems, it is primarily vocal, it is specific to humans, it is a form of social behavior and it is a symbol system.

### **Transformative Education**

Education can be defined as the process of giving intellectual and moral instructions to an individual. It involves the transmission of knowledge from one person to another. At all times education has extrinsic value to the individual who is being educated. It has been noted and agreed upon that education is one of the fundamental factors of development. No country can achieve sustainable economic development without substantial investment in human capita. Education enriches people understanding of themselves and the world. Education improves the quality of their lives and leads to broad social benefits to individuals and the society at large. Education raises people's productivity and promotes entrepreneurship and technological advances. It also plays a very crucial role in securing economic and social progress together with improving

income distribution.

Similarly, the creative function of education many times goes against the conservative functions, where development of cognitive capacities that lead to the challenging of the existing beliefs and norms is emphasized. Education therefore is not confined in school alone. It takes place through the influence of different social agents such as religion, media and the internet. In this light, education involves transmission of knowledge from one generation to another. Up to this point, I have made an effort to define education without defining transformative education. First and foremost, we need to ask, what is transformative education? Transformative education is an education that puts the gaining of experience and team work of students first. This means that more emphasis is placed on collaboration and negotiation of meaning become mandatory amongst colleagues. Transformative education demands active and engaged students who ask critical questions as well as search for additional information to add to that given in their curriculum. The students are trained and become adapted in information literary, thus being able to search and critically assessing the information they acquire. The acquired information is analyzed and then synthesized contextually before it can be used to solve a problem. In other words, transformative education is about problem solving.

In summary, transformative education is student centered. Students are involved in all aspects. It is an education that seeks to put all issues being handled in the context of the surroundings and people as part of the learning process. Transformative education thrives on listening, dialogue, and action and reflection. This being the case, the language factor becomes crucial especially where second languages are used as medium of instruction. As if this is not enough, the technological advancement has compounded the problem of language in Kenya and other African countries south of the Sahara. The language issue will be handled later, for now let us turn to transformative teaching.

### **Transformative Teaching**

Transformative teaching is a multi-layered practice grounded on democratic leadership. It is a practice of protecting all and fostering equitable treatment often through activism or negotiation with school systems. Transformative teaching relies on



emotional intelligence and is cultivated through mindfulness, hope and compassion. Expounding on transformative teaching (Slavich & Zimbardo 2012) say transformational teaching involves creating dynamic relationships between teachers, students and a shared body of knowledge to promote student learning and personal growth. Slavich and Zimbardo further explain that in transformational teaching, instructors are intellectual coaches who create teams of students who collaborate with each other and with their teacher to master bodies of information. In other words, teachers do more than just standing before their students. Teachers enhance students' personal development and attitudes toward learning.

Similarly, Lohe (2013) refers to transformative teaching as that teaching that transforms. It is thus teaching that changes people, altering fundamentally the way learners understand themselves and others, the way they engage in and contribute to their larger world. In transformative teaching, the learner and the teacher are both changed. If this explanation is correct, then the perception of teaching as an act of giving a lesson or subject to a class or pupils, aiming at showing them how to do something is far removed from transformative teaching.

Transformative teaching according to (Slavich & Zimbardo 2012) depends on six methods which are: establishing a shared vision for a course; providing modeling and mastery experiences; intellectually challenging and encouraging students; personalizing attention and feedback; creating experiential lessons and promoting pre-reflection and reflection. These methods if adhered to, are likely to assist the teacher realize transformative teaching instead of aspiring to attain it. However, it should be clear in our mind that the methods and strategies and even theories proposed to bring about transformative teaching are not applicable to different communities found in the world due to various challenges. In East Africa for example, English is used as the medium of instruction. Being a foreign language to many, not everybody can use English effectively. This become a major concern of achieving efficient interactive and collaborative learning strategies and transformational teaching which (Slavich & Zimbardo 2012) define as expressed or unexpressed goal to increase student mastery of key concepts while transforming their learning-related attitudes, values, beliefs and skills. We shall now look briefly at the meaning of transformative learning.

## Transformative Learning

Learning can be defined as a process of acquiring knowledge. Learning is undertaken by people who want to broaden their understanding of various concepts in various disciplines. In other words, learning is a process where knowledge is acquired; this knowledge includes information, skills behavior and values. People engage in the process of learning from birth up to when they die. This is the reason why learning is not confined to formal education in schools. Learning takes into consideration the experiences in life also. Learning can be a conscious effort as well as an unconscious effort. During the learning process, motivation can come from within the learner or from external factors. Up to this point, we have tried to define learning in a general sense without linking it to transformation. Let us now look at transformative learning.

It is interesting to note that transformative learning has so much to do with transformational teaching. This is because; teaching is based on the idea that an instructor's purpose is greater than delivery of information. Instead of being content focused, transformational teachers make a deliberate move to help students become meta-critical participants in the learning process and well trained at critical thinking, goal setting and reflection (Fulgei, 2014). The point being made by Fulgei, can be linked to language in that, without mastery of a particular language, students may fear to critically think and solve problems. They may also fear to make contribution in a formal discussion where solutions are sought. Transformative learning therefore, is the opposite of what has been going on in the education sector for many years. Instead of transmitting knowledge from teachers to the learners, transformative learning becomes a deliberate choice that requires dedication and commitment. The learners are always ready and excited to come to class and engage with teachers and their work, and the result of their labour can be world changing (Fulgei, 2014).

Equally, the concept of transformative learning has caught the attention of UNESCO. According to UNESCO's five pillars of education, the big question is this: How could we create educational environments that are authentic, relevant, integrative and more relevant for the 21st century? In 2012 the UNESCO's Education for Sustainable Development Initiative presented a conceptual framework for

ongoing, lifelong learning. This framework sufficiently summarizes transformative learning as follows:

- i) Learners should learn to know. .
  - ii) Learning to do.
  - iii) Learning to live together.
  - iv) Learning to BE.
  - v) Learning to transform oneself and society.
- These five pillars are crucial to everyone who intends to bring sustainable development in Education. Reflecting on them and applying them will lead to the development of learning of communities that greatly influences how students learn and how faculty and other institutional staff support their learning. As suggested by (Slavich & Zimbardo 2012) a social constructivist approach becomes unavoidable. According to this approach, learning is an active social process where individual's new acquisition of new knowledge and skills are heavily influenced and supported by the social environment in which the learning occurs.

Focusing on the five pillars, it is evident that transformative learning can only succeed if various learning styles are employed using a language that is fully understood by the learners. While in the developed countries there are languages such as English, and other foreign languages which can be employed in various activities, the language factor needs to be revisited. One cannot simply assume that English will be the best placed language for Kenya in matters regarding to teaching and learning. Kiswahili and others need to be involved in transformative teaching and learning because they define better the learner's environment both at home and school.

Considering the fact that, more teaching and learning technologies are demanding more innovative ways of teaching and learning. Innovative ways of carrying out educational duties are unstoppable, because innovation is an extraordinary way of thinking and doing things. However, this cannot be possible without revisiting the language factor in Kenya. The government of Kenya has started to revisit the language factor. For instance, in 2016 the Ministry of Information, Communication and Technology released the Languages of Kenya Policy. In this document, Kiswahili is both a national and official language of Kenya. It is hoped that this policy will be adhered to and Kiswahili will be given every necessary support by the government of Kenya in terms of resources, time and goodwill. There has to be deliberate measures if Kenya and other African countries will

realize transformative teaching and learning using their own languages. Some people say that, since English is available, why bother? There is reason to bother because, language controls our thinking contextually. People's world view and perceptions is imbedded in the languages they speak hence giving them identity. By using their languages, they are able comprehend various social contexts. This is the reason why linguistic independence should be fought using every possible means.

In Kenya for example, there are 43 languages. Amongst these, Kiswahili stands out as the most developed and advanced. According to the Kenyan Constitution (2010), Kiswahili is both a national and official language. Consequently, it can rightly be expected that Kiswahili will be accorded the responsibility of carrying out all educational, technological and innovative functions which include technological interaction in education and other spheres. In this way, Kiswahili will serve as a pillar for transformative teaching and learning in the 21st century.

### **Why Advance and Develop Kiswahili?**

There are many reasons that have been given by renowned Kiswahili scholars and researchers. Many of them have delved into these reasons explaining why Kiswahili should be a regional, continental and global language. For example, it has been said that Kiswahili is powerful enough to even handle globalization issues (Moshi, 2006). Also, it has been said that Kiswahili as an indigenous language, was used as the main instructional language in 1900 to around end of the 1950s. During that time English could not be used due to lack of teachers and books (Sifuna, 1990). Similarly, Moshi (2006) states the power of Kiswahili as follows: that Kiswahili has gained ground as a language of choice by millions of people in East Africa and beyond. It is found in other parts of Africa and the west due to the migration which could be voluntary and as a result of ethnic wars. Consequently, Kiswahili is used in various organizations such as those dealing with law enforcement, hospitals, legal services, immigration services, airline companies and schools.

Kiswahili is being used in institutions of higher education in various parts of the world such as USA, China, Britain, Sweden, Russia, Germany,



to mention a few are learning Kiswahili. According to Moshi (2006), in Europe and Asia, the study of Kiswahili is intense and purposeful. European institutions offer serious programs of African languages, and Kiswahili is on top of the list. It is interesting to note that nearly all their objectives are pegged on development projects that are sponsored by the European Economic Market and specific agencies such as DANIDA and NORAD. Also, Kiswahili is captivating many local and international learners because of its potential in performing and verbal art. These days YouTube has changed the world of hip-hop and Kiswahili hip-hop is gaining much audience and popularity all over the world. Considering that composing and singing electronically, Kiswahili is cutting an edge for itself in the world of technology.

Moshi (2006) further explains that, Kiswahili is being used to shape the understandings of the world about Africa. In the 21st Century, it is impossible to understand anything without the knowhow of computer technology. Kiswahili has taken the lead in the world of Computer use. Kiswahili is the most viable indigenous African language which can be accepted easily. It has served East Africa as a lingua-franca since the 19th century and today it has gained recognition beyond East Africa. It has a long history of literal tradition, and its use in education begun since colonial days, a time when many books were published for use. The long literal tradition is well documented, and it has continued to increase with more recent publications for both schools and public readership (Ryanga, 2002). Currently, Kiswahili has realized some technological advancement and interactions pertaining communication and education. Due to these, Kiswahili has the capability and capacity to handle transformative teaching and learning which rely heavily on information communication technology (ICT).

### **Kiswahili and Technology**

Transformative teaching and learning is a matter of innovation. It calls for different ways of thinking and methods of delivering content. The learners no longer depend on the teacher to get the necessary information. The learners are encouraged to look for information which they analyze and synthesize with an aim of applying the same within their various contexts. The application of the newly acquired information calls for creativity, tact and vision. This is very much possible when someone is able to interact with

a large number of people from different parts of the world using minimum expenses. Today, this has been made possible by the use of computer technology via the internet. Mohochi, as quoted by Kamau (2007), states that the spread and use of computer technology highly relies on Information Communication Technology (ICT) which depends on language. It means that technology reaches its consumers through language as the main medium.

In Kenya and other African countries, language in most cases will mean English or other foreign languages which were left by the colonial master as his legacy. It is also a fact that technology originates from countries famously referred to as developed or first world. Since the ripples of computer technology are a reality in Kenya and all over Africa, it is important we interrogate the situation by asking whether there is an African language that can take up the challenge of taking the place of English and its counter parts in matters of communication, teaching and learning. It is in this light that we find ourselves proposing Kiswahili to be that language. Technologically, Kiswahili is in a good position to serve Kenya and the East African region and beyond as the medium of instruction in transformative teaching and learning. We shall now highlight the major computer technology advancement in Kiswahili. These and others being worked on have made Kiswahili a leading African language for transformative education, teaching and learning.

In Africa, Microsoft and Linux have localized their software using Kiswahili language. According to (Kamau, 2007) they have doing this in a bid to bring Information Communication Technology (ICT) access closer to most Africans especially in the East and Central African region. There are efforts of using Kiswahili to spread ICT in Africa for example by using the Kiswahili text to speech (TTS) program. Also there is Kiswahili Google's search engine and the Kiswahili email project. Because these projects have been certified as viable, Kiswahili then becomes the most suitable indigenous language that Africa has for spreading ICT. It also qualifies to be the language that will enable transformative teaching and learning.

Microsoft has entered into this project because of five major reasons as follows:

1. Because Kiswahili has carved itself a place in institutions of higher learning all over the world more than any other African language (Moshi, 2006; Ryanga, 2002;

Kiarie 2004). Kiswahili has served as a lingua Franca for East Africa and the main instructional language since the 19th century (Sifuna, 1990) and it has gained popularity and support in America, Europe, and the Far East. In these parts of the world, Kiswahili is taught in many universities (Moshi, 2006).

2. Mwaro, Mucemi et al., Katembo, and A mutabi as quoted by Kamau (2007) have pointed out that Kiswahili is an easy language to learn due to its phonetic set up. It has less spelling and pronunciation complications. Also, Kiswahili has an ability to assimilate and incorporate linguistic mechanisms such as words from other languages Kiswahili can easily coin new terminologies (Mazrui & Mazrui, 1995). Institutions such as Yale in America and Helsinki in Finland are preparing Kiswahili for computer use (Ryanga, 2002; Kiarie, 2004; Moshi, 2006).
3. Kiswahili is an international language because it is the only African language that has been used internationally in broadcasting and publishing. According to Moshi (2006), Kiswahili is used in world media such as voice of America, Radio Deutsche Welle, BBC Radio and Television and Asia Radio and TV Programs. Equally Kiswahili has manuals in literature, language, textbooks and computer assisted programs for language and literature.
4. Kiswahili has approximately 60 million speakers in East and Central Africa and in some countries in the southern part of the Sahara Desert. It is also estimated to have 100 million users worldwide Kamau (2007) quoting Katembo.

The reasons mentioned above have justified the choice of software developers' start with Kiswahili in localization projects. Kiswahili is part of a localization project by Linux. This is good news for Kenya and other countries in East and Central Africa. Though many Africans still have negative attitude toward Kiswahili, it has a chance of being the instructional language in transformative teaching and learning. Linux's decision to use Kiswahili as a medium of spreading computer technology is commendable. The educational stakeholders especially should be thankful to Linux because, today e-learning is fast becoming pivotal element in tertiary and higher institutions of higher learning. Also the localization projects will help reduce

the linguistic dependency which has for a long time short changed learners in the regions where Kiswahili is used in different contexts. The Linux Kiswahili Localization Project is known as Kilinux (Klnx) jambo open office 1.1.3. This is an open Kiswahili localization project of Linux operating systems (Klnx, 2004). It is important that all Kiswahili scholars, educators and computer science engineers familiarize with this program. It is our duty to disseminate this great information.

It is encouraging to note that the Linux localization project involved University of Dar es Salaam (UDSM), where the department of computer science and the Institute of Kiswahili Studies worked together. The Institute of Kiswahili studies worked with a Swedish IT consultancy company IT+46. The Swedish Development Agency (SIDA) and University of Dar es Salaam funded this project. The outcome of this project is the creation of English- Kiswahili glossary of the common computer terms. The glossary has a total of 700 terminologies. Linux has also completed the second phase of Kilinux Jambo Open Office 1.1.3. This is available and in use by Kiswahili speakers in East Africa and other parts of the world.

Together with the above, the Kilinux Jambo Open Office 1.1.3 similarly has software for children in Kiswahili language. It is a complete Swahili adaptation of Tux-paint, a drawing program for children (Kamau, as quoted from Klnx, 2004). There is Kiswahili Test to Speech (TTS) program. This is another software project using Kiswahili language in computer (Kamau, 2007). It uses computer technology to change written text into speech when the text is fed into a computer which is installed with the software.

According to Kamau (2007) the Kiswahili TTS software has several benefits to the Kiswahili speakers in East and Central African region and beyond. These benefits include:

- i) TTS used as a Kiswahili teaching aid for students learning Kiswahili words for the first time. It is very helpful in learning Kiswahili words pronunciations.
- ii) It can be used in aiding blind people in reading of Kiswahili texts
- iii) It can be used in Automated Teller Machines and cell phones to read aloud Kiswahili text messages such as SMS texts in cell phones and operating instructions in Automated Teller Machines. (ATMs)



By effectively using TTS technology, Kiswahili joins the league of other developed languages in the world that have been using the TTS technology. There is also other Kiswahili advancement in computer technology that favour it as a language for transformative teaching and learning in Kenya and beyond. As early as October 2004, the Kiswahili version of Google's Search engine was officially launched in Kenya under the .ke domain. This search engine joined other search engines under the local domains such as South Africa (.za), England (.uk), German (.de), and Japan (.jp). The launch of a Kiswahili Google's Search Engine means that Kiswahili speakers have joined other digital people. It also means that the search engine will store and disseminate Kiswahili via the internet. This amounts to a lot of learning by various learners from all over the world. According to Kamau (2007), the .ke domain has volumes of Kiswahili materials online. According to Khayesi (2002), Mail Africa International together with ISP Kenya has made it possible to have a Kiswahili e – mail since 2001.

### Conclusion

In this paper we argue that, the language factor cannot be wished away in transformative teaching and learning in Kenya and beyond. The paper has also explained the meaning of language, transformative education, teaching and learning. Explained also is innovation and technology. Possible reasons for suggesting that Kiswahili be the instructional language for transformative teaching and learning have been outlined with emphasis on computer technology strides that Kiswahili has achieved. Considering the challenges that African languages face, Kiswahili has managed to evolve to become a world language. Despite, the grand development of Kiswahili, there are still many challenges.

### Recommendations

1. That Kiswahili is made the instructional language for transformative teaching and learning in the 21st Century in Kenya.
2. That there be serious political will which will lead allocation of resources and time to matters pertaining to developing Kiswahili and other African languages. This will encourage collaboration between educationists, computer scientists and African languages linguists to

work together to put local languages into computer technology use

3. That the negative attitude towards Kiswahili and other African languages be fought with a vengeance.
4. Each institution of higher learning teaching computer science should endeavor to collaborate with the School of Education and School of Arts and Social Sciences.

### References

- Bloch, B., & Trager, G. L. (1942). *Outline of linguistic analysis*. Baltimore, MD: Waverly Press.
- Chomsky, N. (1957). *Syntactic structures*. The Hague: Mouton.
- Crystal, D. (2001). *A dictionary of language*. Chicago: University of Chicago Press.
- Fulgei, M. (2014). Featured Stories. Retrieved from <http://education.cu-portrtland.edu/category/blog/news/>
- Goldstein, B. (2008). *Cognitive psychology: Connecting mind, research and everyday experiences* (2nd ed.). Thomson: Wadsworth.
- Habwe, J. H., & Karanja, P. (2004). *Misingi ya sarufi ya Kiswahili*. Nairobi, Kenya: Phoenix Publishers.
- Jindal, D. V. (2001). *An introduction to linguistics: Language, grammar and semantics*. New Delhi: Prentice-Hall of India.
- Kamau, S .N. (2007). A digital Africa holds the key. *Journal of Language, Technology and Entrepreneurship in Africa*, 1(1), 133-143.
- Khayesi, M. K. (2002). Kiswahili and information technology (IT) in public university libraries in Kenya. *Kiswahili Journal*, 65, 24-31.
- Kiarie, W. (2004). Language and multiparty democracy in a multiethnic Kenya. *Africa Today* 50(3), 56-73.
- KInX. (2004). *Jambo open office: Swahili version of open office*. University of Dar es Saalam, Tanzania: Department of Computer Science.
- Moshi, L. (2006). The globalized world languages: The case of Kiswahili. In O. F. Arasanyin, & M. A. Pemberton (Eds.), *Selected proceedings of the 36th annual conference on African linguistics* (pp. 166-175). Somerville, MA: Cascadilla Proceedings Project.
- Lohe, D. (2013). *What is transformational teaching*,

- and how do I do it?* St. Louis University, Missouri: Reinert Center for Transformative Teaching & Learning.
- Lyons, J. (1970). *New horizons in linguistics*. Cambridge: Cambridge University Press.
- Mazrui, A. A., & Mazrui, A. M. (1995). *Swahili state and society: The political economy of an African language*. Nairobi: East Africa Educational Publishers.
- Mgullu, R. S. (1999). *Mtalaa wa isimu: Fonetiki, fonolojia na mofolojia ya Kiswahili*. Nairobi, Kenya: Longhorn Publishers.
- Murenga, H. M., Chacha, B. K., & Bageni, M. (2013). Social factors influencing educational attainment among Muslim women in Mumias District, Kakamega County, Kenya. *Baraton Interdisciplinary Research Journal*, 3(2), 77-85.
- Njoroge, R. J., & Bennaars, G. A. (1986). *Philosophy and education in Africa*. Nairobi: Trans-Africa Press.
- Ryanga, S. (2002). The African Union in the wake of globalization: The forgotten language dimension. *Kiswahili Journal*, 65, 1-15.
- Sapir, E. (1921). *Language*. New York: Harcourt Brace.
- Sheffield, J. R. (1973). *Education in Kenya: A historical study*. New York and London: Teachers College Press.
- Sifuna, D. N. (1990). *Development of education in Africa: The Kenyan experience*. Nairobi: Initiative Publishers.
- Slavich, G. M., & Zimbardo, P. G. (2012.) Transformational teaching: Theoretical underpinnings, basic principles and core methods. *Education Psychology Review*, 24, 569-608.
- Todd, L. (1987). *An introduction to linguistics*. London, England: Longman.
- Weiten, W. (2007). *Psychology: Themes and variations* (7th ed.). Belmont, CA: Thomson Wadsworth.