# Free Primary Education in Kenya and its challenges in fighting Illiteracy

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# Abstract

For a country to realize full economic potential education is paramount. A population with ability to read and write compounded with technology savvy is key ingredients for growth. One of the pillars identified in the MDG is among others universal primary education for all. It is within this pretext that the government of Kenya introduced free primary education in Kenya. The main aim of introducing free primary education was to fight illiteracy; five years down the line a lot of facts still have to be addressed so that the appropriate scheme could be addressed in real time to fight the real problem at hand. Though a noble gesture, it has had its share of challenges and pitfalls. The current study highlights the challenges of free primary education in fighting illiteracy. Some of the challenges identified included Under Staffing, Poor working conditions, inadequate funding, Kenya's primary Education system and acquisition of literacy and Lack of school libraries.

The study concludes that a clear policy on FPE implementation that defines the roles and responsibilities of different stakeholders must be stipulated. For the program to succeed there must be continuous dialogue with stakeholders such as parents, school committees, and local communities to inform them from the onset of their specific roles in supporting the policy.

**Keywords:** Literacy, Illiteracy, Free Primary Education, Education for all, Kenyan Primary Education, Millennium Education Goals.

#### Introduction

The foundation for modern education in Kenya was laid by missionaries who introduced reading to spread Christianity and who taught practical subjects such as carpentry and gardening, which at first, were mainly useful around the missions, (Chakava 1982). These early educational activities began around the mid 1800s along the coast. Expansion inland did not occur until the country's interior was opened up by the construction of the Uganda railroad at the end of the century. By 1910, thirty-five mission schools had been founded.

In 1902, a school for European children was opened. A similar school for children of Asian workers opened in 1910. A British government-sponsored study of education in East Africa, known as the "Frazer Report of 1909" proposed that separate educational systems should be maintained for Europeans, Asians, and Africans.

A system for native Swahili speakers and Arabs was later added, and education followed a four-system pattern until independence. At independence, the new national government faced a dilemma in education. The pressing need to train Africans for middle-level and upper-level government service and for the commercial and industrial sectors of the economy called for a restructuring of secondary and higher education. Many Kenyans believe that the goal of formal education is to prepare the student for work in the modern sectors of the economy.

Schooling in today's Kenya consists of eight years of primary school, four years of secondary school, and four years of college. Primary grades, commonly called "standards", give instruction in language, mathematics, history, geography, science and religions. Secondary grades, called "forms", emphasize academic subjects, especially science and vocational subjects at the upper secondary level (Kilemi 2005). The academic year runs from January through December. The language of instruction is English throughout the school system, although in some areas instruction is provided in indigenous languages in the first three grades.

#### **Primary Education**

It usually starts at six years of age and runs for eight years. The main purpose of primary education is to prepare children to participate fully in the social, political and economic well being of the pupils. The Kenyan primary school curriculum has been designed to provide a more functional and practical education to cater for the needs of children who finish their education at the primary school level and also for those who finish to continue with secondary education.

Prior to independence, primary education was almost exclusively the responsibility of the communities concerned or non governmental agencies such as local church groups. Since independence the government gradually took over the administration of primary education from local authorities and assumed a greater share of the financial cost in line with the political commitment to provide equal educational opportunities to all through the provision of the free primary education.

Almost all primary schools in Kenya are in public sector and depend on the government for their operational expenses.

There has been a remarkable expansion in primary education, both in terms of the number of schools established and in the number of children enrolled, over the past years that is from the year 2003, this was after change of government when now they introduced free primary Education.

#### **Free Primary education**

What is free primary education? Many countries in the world have failed to introduce free primary education not because they are unable but because they do not know what it all means? Take example water, it has been campaigned time and again that water is a basic human right just as education but does it necessarily mean that it should be free of charge? Free primary education was enshrined in 1948 as a fundamental human right. But it remains elusive in many countries, and the goal has underlying complexities. The qualitative challenges which have accompanied 'big bang' campaigns have called into question their value.

In Kenya free primary education was introduced in 1963 after Kenya attained its independence but it was not implemented due to lack of funds and other factors until 2003 when there was a political transition from the then KANU to NARC. Just before the election, the major opposition parties formed a coalition (NARC) that eventually won. During the campaigns, NARC promised to offer free primary school education. And true to its promise, after taking over in December 2002, through MOEST, the NARC government introduced Free Primary Education in January 2003. And as was expected in a country where a substantial

proportion of children were out of school, the response was overwhelming. In many schools, the head teachers found themselves with more children to enroll than their capacity could hold. Due to the limited space and facilities, the heads turned many children away. Of course, many parents were disappointed and they kept on moving from one school to another as they sought places for their children.

Prior to the implementation of the Free and Compulsory Primary Education, the rates of enrolment at the primary level were below 50%. Much as enrolment rates soared after the government's declaration of this program, there were still cases of some children not attending school. This prompted the government to declare that any parents not sending their children to school, for whatever reason, would be prosecuted. However, what remains unclear to most people is that there are additional underlying factors responsible for children not attending school.

# **Objectives of Free Primary education**

With the abrupt implementation of free primary education most parents, stakeholders, teachers, students were confused of the goals and meaning of free primary education. According to UNESCO 2005 it observed that majority of teachers, parents and school committee members were first informed about free primary education through the media during the political campaigns for the 2002 General elections. There was total confusion and there is still confusion over the meaning of free primary education and in particular the role of the stakeholders. At the onset parents and teachers understood free primary education as a system whereby children go to school and learn without paying or buying anything. Some felt that free primary education is a political move or gimmick- a political venture by the government to fulfill its election promise and comply with international conventions.

The main rational for the free primary education in Kenya was to meet the following;

- Eliminate illiteracy and create an educated citizenry that can be able to participate effectively in the social, economic and political development of the nation.
- It was aimed at improving living standards and fighting and eradicating poverty.
- Bridging the gap between the rich and the poor in terms of access to education which was seen as a vehicle for social and economic upward mobility.
- A means towards realizing the children's Act that provides for compulsory and free primary education
- Act as a step towards education for all (EFA)
- Free primary education aimed at catering for the children from poor families and orphans
- Creating self reliant citizens thus contributing towards improving the economy and eliminating poverty this is with the rational that there is no development where there is no education
- To reduce school dropouts, reduce the number of street children and child laborers, boost girls education and increase the quality of education through the provision of learning materials to schools

Since-the government had not given an age limit, even those who were 'over-age'

Were enrolled and this worsened the congestion in schools. Given this background, scholars and policymakers raised pertinent issues relating to the FPE policy. While there was a consensus that this is an appropriate policy addressing the problem of declining primary school enrolment in Kenya, a serious concern was raised on the way the NARC government implemented the policy. For example, after the (political) declaration of the policy, school heads were expected to implement it without prior preparations. On the ground, school heads and education officers were caught unawares. Indeed, the government was itself unprepared for the policy because it was started on a short notice.

#### **Illiteracy level in Kenya**

What is literacy? A lot has been said about the fight of illiteracy and the role of Free Primary Education in the fight. Nevertheless, very little is known about the illiteracy level in Kenya, it's even harder to evaluate who is literate or more literate than the other.

Makenzi (2004:2) argues that illiteracy, the converse of literacy is difficult to measure and although statistics on the world's illiterate populations are relatively easy to obtain, little is known about the millions of literate adults who rarely pick up a book or open a magazine, or about school children for whom reading has come to mean textbooks and little else. Kilele (2006) on the other hand points out that the last literacy survey carried out in Kenya by the Central Bureau of Statistics was in 1988 that covered only rural areas and the concept of literacy only considered ability to read and write in any language. The 1999 Population and Housing Census attempted to assess literacy status in the country and came up with an estimated 4.2 million adults as illiterate (Kilele 2006). The estimates have however been disputed because they were based on self-confessions of those "never-attended school" and no literacy tests were administered.

So what is the Meaning of literacy? Kilele (2006) has defined Literacy as the ability to read and write simple sentences of every life in any language, he further emphasis that It's the ability to identify, understand, interpret, create, communicate and compute using printed and written materials associated with varying contexts. From that context, we can deduce that literacy is the ability to read and write.

People who cannot read and write are called illiterate. The term literacy also refers to the possession of enough reading and ability to function in society. People are called functionally illiterate if they cannot read and write well enough to carry out activities that are common in the social settings they encounter. Such activities may include employment, schoolwork, voting or workshop. There are different ways to measure literacy in one method people are considered literate if they have completed a certain number of years in school. In another peoples skills are tested to determine whether they are literate or illiterate. The various measures of literacy however are not exact and cannot be easily compared.

#### How can literacy be measured?

Chall (1998) identified level of literacy. Knowing these levels could help one understand literacy and illiteracy also readers and reading. There are different ways of measuring the literacy level of individuals that have been used. Chall (1998) came up with the two most common ways of measuring literacy these are;

- 1. Reading competency Levels
- 2. Numeracy Competency Levels

#### 1. Reading competency Levels

Level 0: Cannot read and write

Level 1: Can match word to picture

Level 2: Match words and simple phrases

Level 3: Can link words such as a phrase or short sentences for meaning

Level 4: Can deal with longer passages of text that contain a sequence of ideas and content and able to read forward

Level 5: can read forward and backward through a text in order to confirm understanding

# 2. Numeracy Competency Levels

- Level 0: Cannot read and write
- Level 1: Recognize simple shape or number

Level 2: Can recognize simple fractions in both numerical and graphical forms

Journal of Education and Practice ISSN 2222-1735 (Paper) ISSN 2222-288X (Online) Vol 2, No 3 www.iiste.org

Level 3: Can convert measurement units when making simple single step calculations Level 4: Can combine operations in order to link information from tables and charts Level 5: Can make calculations and interpretations linking data from tables and graphs

#### Who therefore is literate?

Being literate involves more than the rudimentary skills of reading and writing- it requires the ability to perform a range of literate behaviors. These literate behaviors include a set of cognitive and linguistic accomplishments which have their own precursors and their own developmental pathways and pace (Snow & Dickinson 1991). According to Chall (1998) observes that a respondent is considered literate or numerate if he or she attains a score equivalent to at least competency level 3. At level 3, a person has acquired the essential basic knowledge and skills of reading. In Kenya Literacy surveys and national censuses are the two major literacy-measuring strategies that have always been used to measure the Literacy and Illiteracy level in the country.

# Free Primary education and the fight of Illiteracy

The main aim of introducing free primary education was to fight illiteracy, though this was a noble idea a lot of fact still had to be addressed so that the appropriate initiative could be addressed in real time to fight the real problem at hand. With the introduction of free primary in Kenya, it attracted very many people to enroll; the most surprising of all was the enrolment of an eighty year old pupil (Maruge the late) he was written in the world book of records as the oldest student ever to attend the elementary level (primary School).

Literacy and the development of literacy is not easy affair, the development of reading competency range from one age to the other, it also ranges from an individual to the next. The development of literacy skill is time consuming and a lot of factors ought to be put in mind otherwise if not taken carefully a country can end up producing a lot of avid readers rather than lapse readers.

In Kenya, the introduction of free primary education was abruptly introduced many saw it as a political move to gain power but to the surprise of many it was immediately introduced after NARC won the 2003 elections. With the abrupt introduction it brought a lot of confusion, though it was a good Idea, a lot of factors are hampering the success of free primary education in fighting illiteracy.

Generally, considerable challenges face free primary education program not only in Kenya but also other countries in sub Africa. This is because FPE is associated with an alarming increase in primary school enrolment. According to UNICEF (2005) Malawi's abolition of fees for primary education in 1994 simulated enormous enrolment. In Tanzania in 2002 the abolition of school fees saw enrolment jump from 1.4 million to 3 million. In Kenya the pupil's population started at 6,078,100 in 2000, at 6,081,900 in 2001, 6,131,000 in 2002 and jumped to 7,208,100 in 2003 after the FPE was introduced. (MOEST & GoK 2004).

With the introduction of free primary education many parents and members of the community completely misunderstand what FPE entails. They believed that all responsibility is taken by the government and have therefore refused to participate in school development projects. Parents have even stopped buying books and other basic school requirements to their children.

# CHALLENGES FACED BY FPE IN FIGHTING ILLITERACY

Bunyi (2006) points out that in spite of FPE over 1.3 million children are still out of school. Most of this children include the vulnerable children such as street children, orphans whose numbers continue to rise due to HIV/AIDS pandemic, children engaged in child labor and children under extreme poverty in urban slums and in the rural areas. Refugee children and those of nomadic communities are other who remains largely excluded. Other than the vulnerable children, the free primary education is also faced with other challenges that have greatly inhibited the fight against illiteracy, some of them are as follows;

# **Under Staffing**

With Massive enrolment the pupil teacher ratio increased tremendously this resulted into heavy workload for teachers and in the end school pupils lack personalized attention. This is a disadvantage to pupils especially those who are termed as slow learners. The classes have become so huge to handle by one teacher effectively. This does not only contribute to poor performance of pupils but a hindrance in the fight of illiteracy and also reduce the morale of teachers. In some schools, high pupil-teacher ratios are not matched by an increase in the number of recruited teachers. The PTR increased from a national average of 34:1 in 2002 to 40:1 in 2003. Besides overstretched resources, which threaten the quality of education, other difficulties include teacher shortages in some areas, which mean that pupils receive fewer assignments as teachers have no time to mark papers. Increased enrollment at the primary school level has created serious understaffing in a majority of schools, forcing SMCs in some areas to hire untrained teachers whose qualification and competency are questionable.

# Poor working conditions

Working environment contributes so much to productivity of employees in any organization. Due to the huge number of pupils, classes are bursting up with pupils, to an extend that in some schools, pupils are taught under trees. This is a very de-motivating and dissatisfactions to both teachers and pupils. Although the Kenya National Union of Teachers was supportive and even participated in the FPE Task Force, they opposed the larger class sizes, arguing that the government should have first hired more teachers to handle the increased workload rather than burden head teachers and classroom teachers with increased teaching and bookkeeping responsibilities. At the same time, the teachers' union has always and is still demanding the immediate implementation of the negotiated increase in teachers' salaries in lump sum. The government therefore faces a dilemma as to what it should implement first. Even before the declaration of FPE, the country had faced a teacher shortage caused by a public sector– employment freeze ordered by the government in 1997. This shortage of teachers was, however, aggravated by massive enrollments in public primary schools after the declaration of the free primary education policy.

#### **Inadequate funding**

The funds set aside for FPE program is viewed by many as being inadequate hence contributed to lack of enough information resources. In primary schools, several pupils share a text book which has become a big issue to pupils, parents and teachers. Pupils cannot even be able to do homework when given. The immediate announcement and implementation of FPE was done without prior consensus building and consultation among the relevant stakeholders on the mechanics of rolling it out. In addition, there was lack of preparedness by both implementers and stakeholders on how best to manage the immediate demands of the program. The government required additional time to release the emergency grants to schools. A majority of Kenyans were anxious about the success of FPE. It was felt that the troubled economy would not be able to sustain the demands of the program. Furthermore, FPE was launched in the middle of a financial year by a new government; there were no funds allocated to the program in the 2003/04 budget.

#### Kenya primary Education system and acquisition of literacy

The primary school curriculum is too demanding and rigid; it gives more emphasis on examinable subjects than development of literacy. At the lower classes for instance, the pupils should be engaging in more reading for fun than being introduced to the examinable subjects. It should be noted that whether or not children acquire literacy in school to a large extent depends on how long they stay in school and on the quality of the literacy curriculum. This outcome is demonstrated in performance across various types of assessments and not examinations. Unfortunately, primary school dropout rates in Kenya are high. To date, less than half of the children who enrol in first grade complete the eight years primary school cycle. Dropout rates vary considerably from region to region.

# Lack of school libraries

Kenya has no literacy policies; there is also lack of sectoral policies in form of legislation, regulation or guidelines. Even though schools are mandated to fight illiteracy, there are no guidelines on how to go about the activity. This explains why very old pupils e.g. Maruge could not be denied access to learn with pupils who are equivalent to their grand children. Furthermore primary schools have no official policy requiring them to have libraries. In other words, the school libraries are not given any official support from the government. With the introduction of free primary education in Kenya, the government assists public primary schools in the acquisition of textbooks and other informational materials for the schools, but the development of the school libraries is left in the hands of the schools, parents and well-wishers. On the contrary, most private schools in Kenya have well equipped and purposeful built libraries. Most Public primary schools normally convert their classrooms into temporary library buildings.

# CONCLUSION

Literacy affects the long-term productivity of a country. People with low levels of literacy have a harder time than more literate citizens in finding and keeping a job. They also earn less money. Illiteracy goes beyond career, however. It can harm our ability to live full lives to read to our children, enjoy a book, try a new recipe, or plan a vacation. The first step in solving such a problem as illiteracy is recognizing the extent of the problem.

The emphasis, therefore, of fighting illiteracy in Kenya is of importance least the country lag behind economically, technologically and socially. For Kenya to develop and keep at the cutting edge of technology and advancement it is important for it to recognize that information is the nerve centre of development and literacy is the repository of information; it is the quest for self-discovery. It is necessary, therefore, to create awareness in schools and the general public on the importance of literacy for leisure and not necessarily to pass exams.

It is generally felt that a situation in which large number of Kenyan citizen who cannot read either because they lack the skill or simply because they do not care enough to take the time to consult will pose Kenya a serious problem in future. This negative trend for instance, can eventually lead to a split in the population between those who have access to information and book and those who do not. This as a result can seriously affect participation in culture and society and might eventually pose a threat to democracy and our national culture. For example, how can a Kenyan voter make a carefully considered political choice if he/she is illiterate? How can one promote the cultural heritage without the written word?

The FPE program has been an opportunity for countless Kenyan children who would not otherwise have had access to education. The smooth implementation of FPE may be attributed to various factors, including sustained political goodwill, foresightedness in leadership, and consistency in the application of rules of implementation. Pragmatism is essential to the success of such a program. The government is determined to use all alternative teaching and learning approaches to reach all children and in particular those who are hard to reach. The success of FPE can only be guaranteed if disbursements are divorced from political considerations and manipulations.

Despite encountering some teething problems such as shortages of teaching staff and other necessary education inputs, FPE has significantly boosted Kenya's chance of realizing universal primary education as stipulated in the Education for All and the Millennium Development Goals.

A clear policy on FPE implementation that defines the roles and responsibilities of different stakeholders

must be stipulated. For the program to succeed there must be continuous dialogue with stakeholders such as parents, school committees, and local communities to inform them from the onset of their specific roles in supporting the policy.

# References

Bunyi Grace W. (2006). Real options for literacy policy and practice in Kenya, in Paper commissioned for *EFA Global Monitoring Report 2006, Literacy for Life* UNESCO

Carr-Hill, Roy A., Almaz Eshete, Charlotte Sedel, and Alba de Souza. 2005. *The Education of Nomadic Peoples in East Africa: A Synthesis Report*. Paris: UNESCOIIEP (United Nations Educational, Scientific and Cultural Organization International Institute for Educational Planning).

Chakava, H. (1982) Books and reading in Kenya. Fontenoy: UNESCO.

Chall, J. (1999) Reading: an introduction to reading. London: Bacon.

Cook, G. (1997) Key Concepts in Early Learning and Teaching: Schemas. *Early Learning and Teaching Journal*, 51(1): 86.

Drummond, D. & Wignell. (1979) Reading: a source book. London: Heinemann.

Fuller, B. (1986) Raising school quality in developing countries: What investment boosts learning. In *Discussion paper No. 1*. Washington: World Bank.

Goldman, et al., 2000. Structural aspects of constructing meaning from text. In : M. L. Kamil, ed. *Handbook of reading research.* Mahwah: Erlbaum.

Goodman, K. (1980) The Psycholinguistic Nature of the reading process. Wayne: State University press.

Gordon, E. (2003) *Literary in America: historic journey and contemporary solutions*. Praeger: Westport.

Guthrie, J. & Wigfield, M. (2000) *Reading engagement: Motivating readers through integrated instruction.* Newark: International Reading Association.

Guthrie, J. & Seifert, M. (1984) Measuring readership: rationale and technique. Fontenoy: UNESCO.

Guthrie, J. T. et al. (1996) Growth of literacy and engagement: Changes in motivations and strategies during concept-oriented reading instruction. In: *Reading Research Quarterly*, 31(3), pp: 306 - 332. Guthrie, J. T. (1997) Educational contexts for engagement in literacy. In: *The Reading Teacher*, 49(6),

pp: 432 - 445.

Guthrie, J. T. et al. (2000) Engagement and motivation in reading. In: M. L. Kamil, ed. *Handbook of Reading Research*, Mahwah: Erlbaum.

Hannabus, S. (1998) Research Interview. In; New Library World, (97)1129, pp:22-30.

Hugo, C. (1996) Classroom libraries. In: J. Karlsson, ed. *Contemporary Reading Research*. Mahwah: Erlbaum.

Kenya National Library Service. (2000) *Strategic plan for the revitalization of Kenya National library services*, (2001-2010) march 2001, A project funded by the Carnegie corporation of New York. Nairobi: KNLS.

Koul, M. (1990) Methodology of Educational research. 2<sup>nd</sup> ed, New Delhi: Vikas.

Makenzi, M. (2004) Reaching out to the less advantaged: reading tents in Kenya. *World library and information congress:* 70<sup>th</sup> *IFLA General Council*, Available at : <u>http://www.ifla.org/iv/ifla 70/prog04.htm</u>. [Cited 16<sup>th</sup> June 2005]

Mchombu, K. (1998) African librarianship: reality or illusion. *African journal of library, Archives and information Science*, 3(1): 150-156.

Manzo, A. et al. (2001) *Content area literacy: interactive teaching for active learning*, 3<sup>rd</sup> ed. New York: John Wiley.

Ministry of Finance and Planning. 2000. *Second Report on Poverty in Kenya*. Nairobi, Kenya: Ministry of Finance and Planning. MoEST (Ministry of Education, Science and Technology). 2005. "Sessional Paper No. 1 of 2005 on a Policy Framework for Education, Training, and Research." Available at <u>www.un-</u> kenya.org/ThemeGroups/**SessionalPaper**Finaljan.doc.158 • Abolishing School Fees in Africa

Mugenda, O. and Mugenda, M. (1999) *Research Methods: quantitative and qualitative approaches*. Nairobi: Act Press.

Odini, C. (2000) Teachers Advisory Centers: Kenya. In: D. Rosenberg, ed. In: *Books for schools: improving Access to supplementary reading materials in Africa*. London: Association for Development of Education in Africa.

Odini, C. (2002) The book chain in Kenya. In D. Rosenberg, ed. In: *The book chain in Anglophone Africa*. London: International Network for the Availability of scientific publication.

Patton, M. (1990) *Qualitative Evaluation and Research Methods*, 2<sup>nd</sup> ed. Sage: Newbury park.

Pritchard, R. (1990) The effects of cultural schema on reading processing strategies. In: *Reading Research Quarterly*, 25(4): 273-295.

Rosenberg, D. (2000) The research: rationale, methodology, limitation. In: D. Rosenberg, ed. *Books for schools: improving Access to supplementary reading materials in Africa*. London: Association for the Development of Education in Africa.

Snow, CE & Dickson, DK. (1991) Skills that aren't basic in a new conception of literacy, in Jennings, EM & Purves AC (eds). *Literate systems and individual lives*. New York: State University of New York Press.

# LIST OF ABBREVIATIONS

EFA	Education for All
FPE	Free Primary Education
GoK	Government of Kenya
KANU	Kenya African National Union
MoSET	Ministry of Education, Science and Technology
NARC	National Rainbow Coalition
PTR	Pupil: Textbook Ratio
UNESCO	United Nations Educational, Scientific and Cultural Organization
UNICEF	United Nations International Children's Emergency Fund

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