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Schooling is not Learning: A Case Study of Kenya's Primary

Education

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Senior Seminar: Class of 2016

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Abstract

The government of Kenya adopted Free Primary Education (FPE) in January 2003 with a main objective of this program is to provide education to all primary school children regardless of their economic backgrounds. Academic performance in Public Primary Schools in Kenya has been declining over time since the introduction of FPE. This research investigates the effective enrollment in the wake of FPE. A case study analysis is used which includes both primary and secondary sources of data. Primary data from Kenya National Bureau of Statistics between the years 2002-2014 and a survey conducted in March 2016. Secondary data sources include written documents such as books, journals, newspapers among others. They form the basis of the discussion and analysis of the research. In this study, factors of school quality are investigated to find out if free primary education program is yielding optimal results, in line with Vision 2030, a government strategy to improve and sustain the economic growth. This research confirms previous findings that the free primary education policy has led to a decline in the educational quality. Hence for pupils to receive high-quality education that will help them, their families and their communities fully and truly to realize the promise of Free Primary

Education, teacher pupil ratio needs to be lowered by hiring more teachers and building more classes.

INTRODUCTION AND BACKGROUND

'Schooling that does not improve cognitive outcomes is of limited value: it does not expand the range of possibilities available to children or yield national economic benefits.'

Spaull and Taylor, 2012, p.15)

The aim of this research is to add to the existing body of literature which addresses the challenges of the new free primary education program (FPE) in Kenya. The reason for the emphasis on primary education and not any other level of education is due to the fact that any level of education beyond primary school heavily relies on the knowledge, skills and attitudes acquired in primary school progressively and accumulatively by the individual. Education is a vital tool in the economic development of any country including Kenya; it plays a key role in economic, social and political development of a country (Munene, 2015 & Ojiambo, 2007). This belief has made countries like Kenya invest immensely in education so as to foster economic growth, productivity, contribute to national and social development. The Kenyan government has committed to the expansion of education opportunities through education reforms and policies since the adoption of Millennium Development Goals in 2000 (Ndung'u et.al 2009).

Kenya has a population of about 44.5 million people (Kenya Bureau of Statistics, 2014). The country has 42 ethnic groups, each with its own language commonly known as tribal language. English is the official medium of instruction in schools but Kiswahili and other local tribal languages are also used, especially in the lower primary grade levels (grade 1 to grade 3). In Kenya, examinations are generally acceptable as valid measures of achievement. Kenya's

education system is dependent on the examination-oriented teaching, where passing examinations is the only benchmark for performances as there is no internal system of assessing learning progress through various levels within the education system. This dependence has even worsened with the introduction of FPE. Currently, in the 8-4-4 education system, a child is supposed to start primary education at the age of 6 and continues for 8 years. As shown in table 1, the expectation is 11 years of schooling and mean as of 2014 is 6.3 years year of schooling, this is an increase compared to the year 2000 in which the expected years of schooling was only 8.4 years. The public expenditure on education as a percentage of GDP is 6.6% whereas in 2000 it was only 5.19%, whereas the annual GDP growth in 2000 was only 0.6% while in 2014 it was 5.3%. Kenya has therefore intended to improve the lives her citizens even when the economy was not doing so well. There is improvement in dropout rate as shown in the table 1, last year the dropout rate in primary school was 22.4% compared to 2004 which was 34%.

In the 2002 General Elections, as part of their main campaign, the National Alliance Rainbow Coalition (NARC) party, promised to introduce the FPE, a change they enacted within a week of winning the election. As a result of the FPE program, school management was centralized and the parents were no longer involved in decision making. Historically, parents were highly involved in committees that would hire local teachers on a contract basis whereby the contracts were renewed yearly and paid from the school fees. In addition to larger enrollments rates, the contract teachers were no longer retained since the parents were not required to pay fees. This combination of lack of funding strained the resources of the school, a survey conducted by Duflo et.al (2014) in 2004 showed that 80% of 300 Kenyan schools did not

have contract teachers (i.e no locally-hired teachers) and instead relied on the few teachers on government payroll. It's unclear how the change in class size with the proportion of funding allocated for the program will impact the educational outcomes.

Table 1. Kenya's Outlook

	Year:2014	Year: 2000
GDP annual % growth	5.3	0.6
HDI	0.548 (Rank 145)	0.447
Expected years of schooling	11	8.4
Life expectancy at birth	61.6	50.8
Mean years of schooling	6.3 years	5.3
Pupil teacher ratio(number of pupils per teacher)	56.6	34.4
Primary School dropout rate	22.4	34
Public expenditure on education (% of GDP)	6.6	5.19
GNI per capita (2011PPP\$)	2,762	2123

Source of data: United Nations Development Programme and Kenya National Bureau of Statistics

VISION 2030

The Kenyan government formulated a new long-term development blueprint called Vision 2030. This main aim of the strategy is to transform Kenya into a newly-industrializing,

middle income country providing a high quality of life to all its citizens in a clean and secure environment by 2030. This similar strategy has been used successfully by countries like South Korea and Malaysia that created visions for development. Vision 2030 has three pillars: economic, social and political. Education plays the main role in achieving the social pillar that seeks to create “a just, cohesive and equitable social development in a clean and secure environment”. The Vision 2030 was planned and structured in three pillars namely: Economic, Social and Political pillars. Vision 2030 is popular among citizens and even it comes up in informal discussions. From my personal experience even miles away from home, Vision 2030 comes in discussions everywhere in social media. This shows how the public are engaged and committed for joints efforts in achieving the vision.

Economic pillar aims “To maintain a sustained economic growth of 10 percent per annum for 25 years”. It aims at raising Kenya’s economic development and standards to all Kenyans. It is therefore tailored to bring development focusing on agriculture as it is one of the main contributors to GDP. The agriculture sector remains a key pillar of the Kenyan economy contributing about 25 percent of GDP (Ndungu et.al, 2009 and World Bank, 2014). In order to increase agricultural yield, agricultural education and training from primary, secondary and university must be emphasized. There is a need to align the goals of the Kenyans with the education especially the fact that 80% of Kenyans are in the rural (Ndungu et.al, 2009 & Husbands et.al 1996). The current primary school curriculum does not consist of agriculture as a subject, in secondary school most of the schools no longer offer the subject either. Kenya is very ambitious with the goals mentioned above. However, in the last decade Kenya shows a

promising economic growth and might achieve it 2030 Vision even sooner.

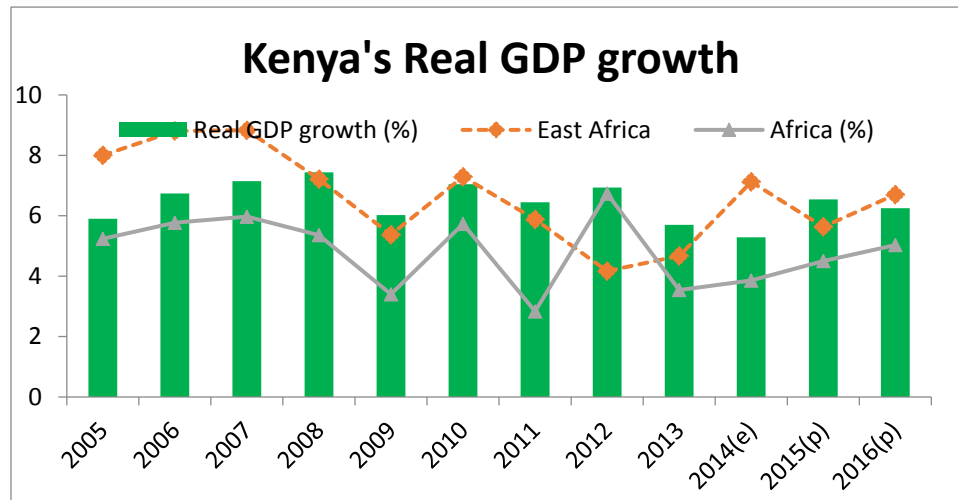


Figure 1. Kenya Real GDP Growth (%) Source: World Bank (2015)

Figure 1 shows the GDP annual growth between 2005 and projected 2016 in comparison with East Africa and Africa in general. In the last decade, GDP growth has been increasing GDP growth is expected to increase at 6% in 2016. The GDP growth is giving the idea that Kenya government has the funds that could be allocated on education sector only of it's the priority. Ghering et.al (2011) argues that for African nations to achieve the goals of primary education, they need to spend 4% of their GDP on education. The worrying scenario is that the allocations of resources within the education sector seems to be ineffective as the increasing expenditure on education is recurring (i.e. to pay teachers' salaries). Already, Kenya is above 4% hence the allocation of the funds on time needs addressed and better planning on how the funds should be spent.

Literature Review

The aim of this literature review is threefold: firstly, to contextualize the importance of education within the framework of economics, secondly to understand the concept of quality

and lastly to survey and summarize the studies which have evaluated the free primary education program in Kenya

I. Theoretical links between economics and education

Education is a tool that has been widely believed to combat poverty. In 2000, poverty and education were the top two goals that were being targeted by the UN. The first goal aimed at reducing poverty and the second goal was to increase access to education. Several economists and policy makers have examined the role of education on development for developing countries. Human capital theory has been the theoretical framework commonly used as a justification for the adoption of education and developmental policies. According to research by Schultz (1971), and Psacharopoulos and Woodhall (1997), Sakamoto and Powers (1995) human capital theory relies on the assumptions that formal education is highly instrumental and even necessary to improve the production capacity of a population. To sum up, the human capital theorists claim that an educated population is a productive population.

Future earnings, economic development and the eradication of poverty are highly correlated with knowledge and skills of the workforce and not just their mean years of schooling (World Bank, 2014). Education development would lead to accelerated economic growth, decline in population growth, longer life span, better health outcomes, lower crimes rates, national unity and political stability (Otiato ,2009): Sifuna& Sawamura,2008: Ndungu et al, 2009) and Lucas et.al 2012). Over the past fifteen years, primary education has been a top priority amongst governments and international agencies, mainly due to the perceived role in reducing poverty. Previous research has indicated, for instance, that primary education is important for the improvement of economic and agricultural productivity (Avenstrup, 2006:

Colclough, 1982 and Husbands et.al 1996. This is particularly vital as contributes to GDP of Kenya by approximately 28% (Kimenyi et.al 2006). Furthermore, education, particularly of girls, has been found to be highly correlated with improvements in health, as well as decrease in fertility and infant mortality rates (Chicoine,2012: Duclos et.al 2013 and Somerset,2009). Continued commitment from the government and donor partners in both policy and financing remains key to free primary education sustainability (Avenstrup, 2006). Policies that improve the quality of teachers should be implemented. He warns that for such policies to be fully functional, patience is needed because you can't fire all current teachers and hire new ones. He criticizes the policies like the free primary education in Kenya that solely aim at the quantity and not the quality.

II. Concept of quality

Spaull and Taylor (2012) created a composite measure of educational access and educational quality known as 'Effective enrolment'. Their main aim was to expose the current practice of reporting enrolment statistics that ignore quality, or quality statistics that ignore enrolment differentials. They argue that the current methods are misleading as they provide incomplete picture. They propose a new measure that provides the most accurate description of the performance of sub-Saharan Africa compared to the existing ones that focus only on quality or quantity and not both. Effective enrolment calculates the threshold of numeracy and literacy proficiency of age-appropriate children. They use household data and survey data from SAMCEQ for ten African Countries, Kenya was one of them. They found students finish six years of schooling yet they do not have the most basic numeracy and literacy skills. The Sub-Saharan countries need to invest in education with the mission of achieving both quality and quantity.

The current education systems are not working hence an urgent need in changing the system.

The system in which the pupil/ teacher ratio is lower, the learning materials are available in abundance, repetition of grades is abolished, teacher wages is increased, teacher quality is facilitated and given the right training. In 2010, 1.3 million children were still out of school.

Issues related to educational quality prevail, especially at the primary level, with illiteracy rates increasing with six years of primary schooling.

The article, *"Rates of Return to Education: Does the Conventional Pattern Prevail in Sub-Saharan Africa"*, Bennell Paul (1996) provides a useful summary of the rate of return to education in sub-Saharan Africa. To determine the trend, he employs basic Mincerian earnings function in his research. Mincerian equation shows the correlation between the education, experience, training and earning (Mincer, 1970). Benell, 1996 uses the extended earnings function method to estimate the rate of return to education by level of education by converting the continuous years of schooling variable into series of dummy variables for each educational level. The private and social rate of return to education are highest for primary education, followed by secondary education. He hypothesized that the pattern of rate of return to education remains stable as countries develop with only relatively minor declines. He assembled data from 18 countries that included Kenya. His studies connected the relationship between the government investment on education and rate of return to education expected. There was variability of rate of return to education at the country level which is determined by the investment priorities of each country. Kenya with 9 other countries made investment recommendations in favor secondary schools whereas Ethiopia, Senegal, Sudan and Uganda prioritized primary education. He explains this difference in investment priorities with the fact

that Kenya for instance has seen obvious social profitability of primary education. Bennell (1996) concludes by stating that public investment in education is reasonably attractive simply because actual social rate of returns to education are relatively high in comparison to other forms of investment. Based on the findings of his research, it is clear that primary education deserves top priority further supported by Heckman's curve in which the highest rate of returns of education is during early childhood and primary school level.

Hanushek Eric (2005) examined the economics of school quality in Germany. The performance on standardized PISA tests suggests that there is direct relationship between student cognitive skills and both individual earnings and national growth. He uses annual test score data on all public school students in Texas State to estimate impact of teacher quality on student achievement. There is evidence that the impacts of school quality results in large economic effects. Two dimensions to quality improvement that are used to measure the impact of improved quality are: how much improvement in quality is considered and how fast is any change to be actualized. He argues that majority of the policy makers ignore the speed of change. "If the student achievement is to be raised by improving the quality of schools, it will take time to introduce the school programs, it will take for students to gain the new knowledge and skills and it will take time for them to enter the labor market and have impact felt". He explains with the idea that education of each individual has the possibility of making others better. His argument is based on the human capital model that a more educated society may lead to higher rates of invention, hence making everyone more productive. His research shows a positive correlation between students' performance and economic gains only if the teaching quality is improved.

III. Understanding the Kenya's free primary education program

Otieno et.al (2009) provides a descriptive account and analysis of the implementation of FPE program by the government of Kenya to increase the enrollment rates toward national and international goals of basic education for all. The citizens responded happily by enrolling massively. However, as the supply of facilities and the number of teachers were not prepared in advance, there is a big problem of extremely large class size resulting in overcrowding especially in the rural areas, high pupil/teacher ratio and eventually, a difficult teaching and learning environment. Additionally, during the implementation of the program, the government had frozen the recruitment of teachers for purposes that are not explained, this crippled the FPE program from the beginning as the number of children was increasing. Otieno et.al (2009) therefore claim that this may not have been the best time to implement this policy.

Sifuna and Sawarum (2008) and Adwear et.al 2013 argue that in an effort of Kenya to implement a long-standing goal of achieving universal primary education targeted since independence, the government introduced free primary education in 2003. Since then, enrollments rates have increased sharply while the quantitative goal has not been accompanied by any clearly articulated policy for maintaining quality. Adwear et.al (2013) argues that the government solely focused on the quantitative expansion of education but paid less attention to the value, significance and effects of education for individuals. They found that in rural Kenya, primary school is a tool to exit traditional society which aligns with Dakar Framework for action. It states, "It is an education geared to tapping each individual's talents and potential, and developing learners' personalities, so they can improve their lives and transform their societies". Using the transitional level for primary to secondary education as an indicator of

quality, the researchers suggest further that in order to achieve the actual educational goal it is necessary to tackle the issue of quantitative and qualitative performance in the system as linked. They further call for the immediate need to focus on the different dimensions that are encompassed in quality by paying particular attention to the qualitative growth of individuals for the community. They conclude by emphasizing the need to address educational policies of reaching universal enrollment in comprehensive terms, aiming to promote sustainable educational development so that such individuals can contribute in a holistic manner to develop their communities.

The Ministry of Education (2004) defines assessment as the process of determining pupil's level of performance in a particular skill or subject. National examinations are the biggest form of assessment that determines the future of the pupil. This system has been criticized and has recently received a lot of attention from the public because of poor performance and rampant cheating. Before the FPE program, apart from the examinations, there were other forms of assessments for instance assignments and tests and class debates discussions. After the implementation of FPE, printing tests for over 100% pupils to take in the middle of the term is no longer possible because they are expensive and the government funds are often delayed. As a result, teachers cannot determine the progress of learning until the end of the three-month long term (Maiyo and Ashioya, 2009). Consequently, the cheating of exams has become a tradition in schools, because teachers cannot deliver to their expectations due to lack of resources and the high pupil-teacher ratio. It is a competitive yet unfair to crowded schools and mostly those in rural. Teachers are forced to prepare students on taking the exams but learning is not taking place. The terrifying examination is the national examination Kenya

certificate of Primary Education (KCPE) usually taken at grade eight, this determines the continuation of the pupil to secondary level. KCPE lasts only for three days and it is very intensive. The KCPE acts as a gatekeeper for and limiting transition to secondary level. As a result, demand for private schools has increased and parents are willing to pay for it as it guarantees quality (Lucas and Mbiti, 2014 and Bold et.al, 2013). Since the introduction of FPE, the performance of the pupils in KCPE has gone down. The poor performance is due to large classes that have made it impossible for teachers to assess, grade pupil's work and give feedback on their progress of learning, if any. The emergence of private schools is not surprising to many Kenyans, it's a result of poor quality of public primary schools that has made the transition rate to secondary school harder for the pupils in public schools. Therefore, all stakeholders should pay attention to the low transition rates and contribute by eliminating the factors contributing to this rate. The gender gap is also reflected in this transition rate, in which majority of the 4.6% are boys and girls are left behind (Bold, 2011: Ojiambo et.al 2009 & Somerset, 2009).

Mathooko,2009 and Bell at.al 2006 outlined some major challenges facing FPE program. The challenges range from lack of adequate facilities, few teachers, over-age children, street children, no books, lack of finances and socio-cultural hurdles like HIV/AIDS. All these factors determine the quality of FPE that the children receive. They find that actual learning is not taking place at the expected level because of the all major challenges. They focus on the issues hindering the actual instruction in the FPE program. The existing language policy neglects mother tongues as tools of passing knowledge especially that the FPE is viewed as a God sent opportunity in the rural communities. To make the language case strong, Mathooko (2009)

provides a list of pros and cons that support the use of mother tongue as a language of instruction as well as a list against the use of mother tongue. He strongly suggests that teachers need to be trained to receive the skills in mother tongue instruction. The government has failed by providing money for schools without providing books. There is a need to put in place structures that enhance, promote and develop mother tongues for the purposes of actualizing the free primary education program. African philosophers are pushing for use of native languages arguing that is a step to decolonizing the African minds (Higgs, 2012: Breidlid, 2009 and Labe et.al,2013). On the contrary Green and Little (2008) argues that the use of English as a language of instruction contributes significantly to nation-building in Kenya. Again language of instruction is debatable and further research needs to be done on this matter to find the extent to which it affects the child's learning.

Sabates et al (2010) conducted a study on school drop out for the Education for All Monitoring Report 2011. Their study focuses on patterns of participation, age-specific dropout rates and the link between over age enrolment and dropout rates. They strongly state that there is no single cause of drop out and that it is a process as opposed to the belief is caused by one single event. According to their findings, there are demand and supply driven factors associated with drop out and are entrenched in cultural and contextual scenarios. For instance, poor health, malnutrition and children's household situations like child labor and poverty. Also if the quality of the school is poor increases pressure to drop out. Many children are dropping out of school without acquiring most basic skills and even in their few years of schooling, learning opportunities were limited due to overcrowding classrooms and insufficient learning materials and under-qualified teachers. They found common patterns of participation and

dropout rates and based on that come up with three different profile categories for sub-Saharan countries. Kenya falls in the second profile of participation and school progression with high enrolment rates in the first year of primary schooling. As a result of FPE policy that aimed at increasing access and achieving the universal primary education, gross enrolment rate was over 100%. This rate was an indication that there is high grade repetition, over age as well as under age children. In fact, in 2003 45% of 16 and 17 years olds in Kenya were still in primary yet the official age of a primary school child is between the age of 6 and 14.45% is a high number and these pupils are at a high risk of dropping out. However, net enrolment rate drops by the end of primary school cycle and this is an evidence that the dropout rate is moderate to high in primary school. In conclusion, they suggest measures that are school related and financial related based on the demand and supply factors that determine if a child will complete primary school not. This report contributes to my research on how FPE policy can be improved in order to achieve its optimal results.

This research investigates how can pupils receive high-quality primary education that will help them, their families and their communities fully and truly to realize the promise of Free Primary education. In the end, policies recommendations that will improve the primary school experience will be suggested. For pupils to receive high quality of the primary education, Kenya has to align its goals to its local context and not international context. Ideally, the government needs to hire more trained teachers and build more classes to accommodate large enrolments.

THEORITICAL FRAMEWORK

In general, the total cost of sending a child to school includes direct and opportunity costs whereby direct is monetary. A common way to measure the direct cost of schooling is by using household survey data of a country. FPE policy eliminated the direct costs but hidden costs like uniform costs are still there are parents have to pay. On the other hand, opportunity costs reduce a child's availability for work in and outside the home. If a child makes huge contributions to family income, or plays a significant role in supporting other working family members, then the opportunity cost becomes high and as a result lessens the chances of the schooling option. In Kenya, opportunity costs and value a child's time will depend on age and sex. It's highest in communities in the rural areas and nomad communities hence the enrollment rates before FPE was really low. Many Kenyan parents evaluate the total benefits associated with school attendance. The main benefit linked with attending school is the expected addition of a child's human capital. In Kenya, test scores are used determine the expected benefits from attending school. When the child performs poorly in the tests, the parents hold them back and would rather have them contribute to the manual labor at home. When the child is told to repeat a grade, this is a signal for the parents to judge the value of attending school

An understanding of human capital theory and human development index are central to this research on education quality in Kenya. Theories such as Heckman theory, Mincerian theory and signalling theory are also used to explain education and its role in the economy. Since this research focuses on primary education, mincerian and signalling theories are less relevant as they are mainly used in the job market (Spence, 1973). Mincerian theory is an

emerging approach to explain wage differentials. Mincerian approach states that education, training and experience determines the distribution of income in the society. Hence, in the equation income is modelled as function of years of education and experience (Bennell, 1996). Heckman theory proves the value of investing in human potential. I will use Heckman theory and equation in my policy recommendation section. The economic prosperity and functioning of a country depends on its physical and human capital stock. Whereas the former has traditionally been the focus of economic research, factors affecting the improvement of human skills and talent are increasing figuring in the research of social and behavioral sciences. It is believed that, human capital represents the investment people make in themselves that enhance their economic productivity.

Human capital theory reiterates how education increases the productivity and efficiency of workers by increasing the level of cognitive set of economically productive human capability. Given the fact that it is a product of innate abilities and investment in human beings. By providing formal education, it is considered a constructive investment in human capital. Additionally, Heckman Curve is built on this theory hence continues to show the importance of investment on education especially in the younger age as it yields more than when the individual is older. The highest returns are observed during the early childhood stage followed by when the child is at primary school. Kenya like many other developing countries are doing the right thing by investing heavily on the primary school, the second highest stage of returns. Table 1 shows a snapshot of Kenya's progress for the last fifteen years.

Human development index emphasizes that people and their capabilities should be the ultimate criteria for assessing the development of a country, not economic growth alone. Kenya

is ranked 145th out of 188 countries in the HDI index with a value of 0.548 which put the country in the low human development category, an improvement from 0.447 in 2000. Life expectancy has also increased from 50.8 years in 2000 to 61.6 years in 2014. All the three indicators of HDI weigh in positively in my research and that education has a positive impact on the development of a nation.

DATA & METHODOLOGY

This research uses data from the Kenya National Bureau of Statistics (KNBS) to determine the trend of enrolment and quality of primary schools. KNBS is the principal government agency that collects and analyses the data. I must say that Kenya has made a lot of progress in making data available at least for the last decade. It was impossible to conduct a time series quantitative research since the minimum number of observations must be 30 and the fact that FPE program has been in place for only 13 years. Data from KNBS are accurate and latest hence reflect the reality on the ground. KNBS is a principal and official government agency that was established in 2006 and is incorporated under the Ministry of State for Planning, National Development and Vision 2030. In my first draft, I used data from World Bank like many other previous literature and many reports, however I found this to be problematic. The numbers used were not matching and it was misleading. For instance, the latest available data for education indicators are from 2012. The teacher/pupil ratio as well as the gross enrolment and net enrollment rate in the World Bank database are different with the ones in KBNS. Also some data for some indicators are not available at all. Unfortunately, majority of the previous studies used in the literature have used World Bank data except Spaul and Taylor (2012) study. Instead, Spaul and Taylor (2012) used data from Southern and Eastern African

Consortium for Monitoring Educational Quality (SACMEQ). To rectify the problem of unreliability and inconsistently, I settled down to use only one source that served the purpose of my research of providing the reality on the ground of the FPE program. The results from the KNBS data used in the analysis are far more congruent with the existing body of knowledge on primary enrollment in Kenya.

This research will use qualitative case study analysis approach to answer the research questions, how can pupils receive high-quality primary education that will help them, their families and their communities fully and truly to realize the promise of Free Primary education?, and to what extent has free primary education program affected the educational quality in Kenya? Under the same rationale as Spaul and Taylor's, 2012, I merge latest data and surveys that reflect the reality on the ground. Qualitative approach allows to understand the complex experience of FPE that aims to change the society. This study mainly analyzes existing but recent literature. I conducted a survey in March via social media. The survey consisted of 24 questions and most of the questions were opinion questions on a 1-7 bipolar scale. Some of the questions and responses are found on the appendix of this paper. 83% of participants were male. The age of the participants range between 18 and 54. I will use the data from the survey to compare with the findings in the literature review section. I will use some of the responses from the survey to support the policies and initiatives I recommend.

FINDINGS & ANALYSIS

Graphs below show the dramatic trends as a result of FPE.

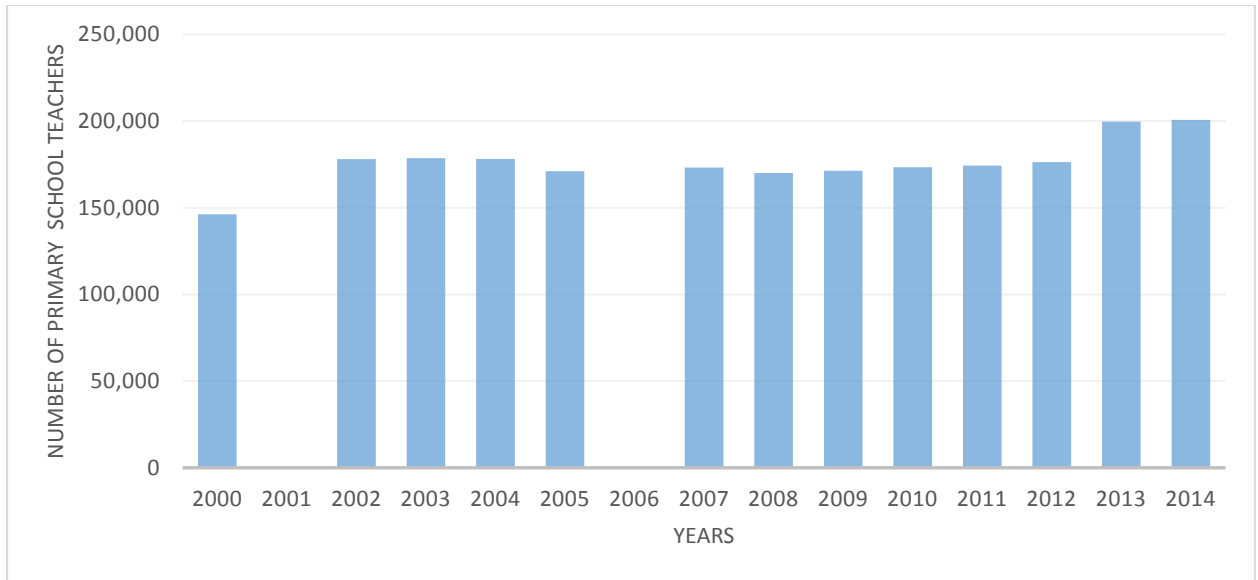


Figure 2. Number of Primary School Teachers between the years 2000 and 2014

In 2008, there was a decrease of number of teachers by 1.8% yet the total enrolment rate increased by 2.8% as seen in figure 3.

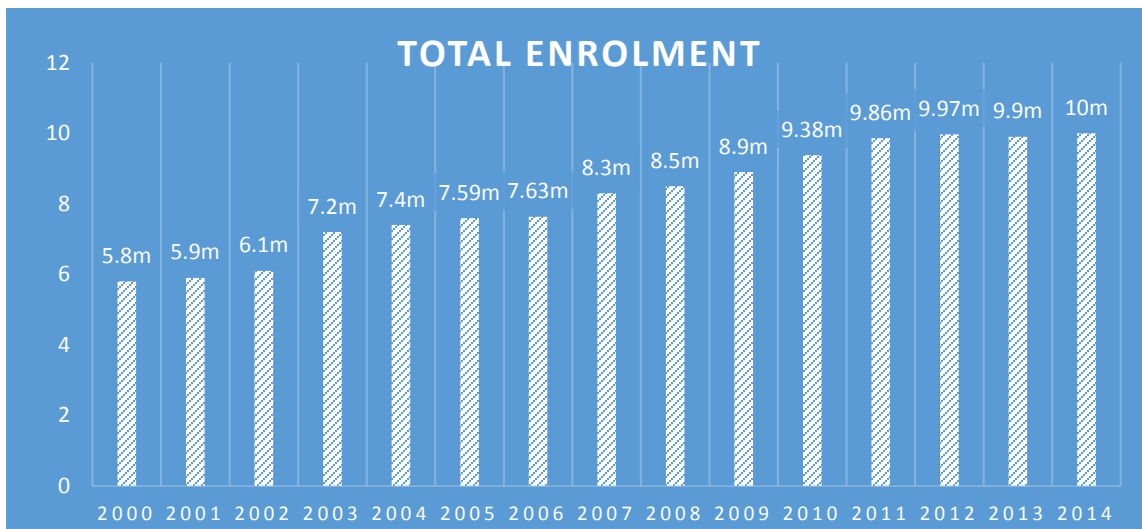


Figure 3. Total enrolment of primary pupils regardless of age

Figure 3 show that there has been an increase enrolment in every year. FPE was implemented in January 2003, as seen in the graph the total enrolment increased by 18% and has continued to increase to 10 million pupils as of 2014.

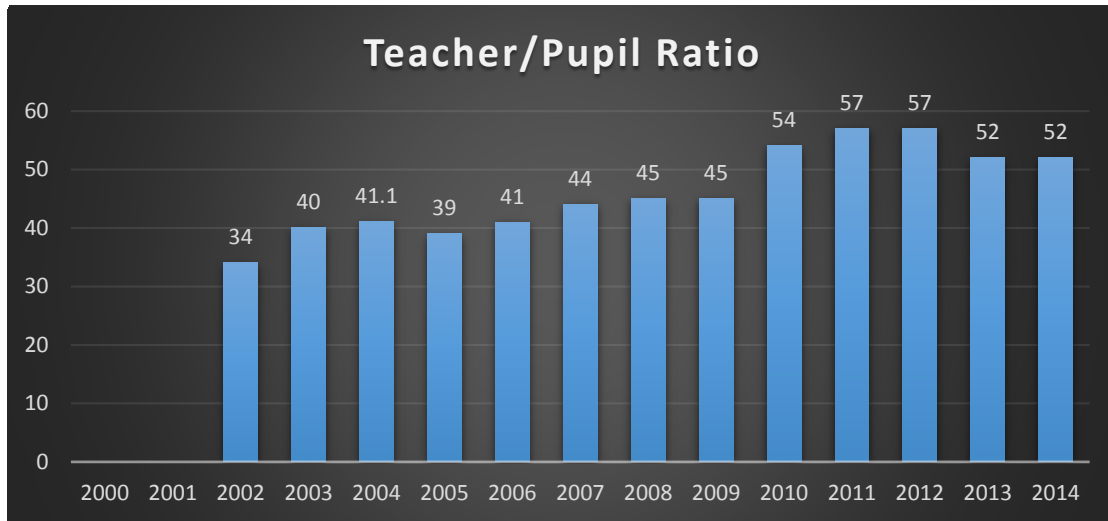


Figure 4. Teacher/Pupil Ratio

Looking at figure 4, the highest pupil/ teacher ratio was in 2012 with 56 pupils per teacher, while the lowest was in 2002 with 34 pupils per teacher before the FPE was introduced. In question 3 of the survey in the appendix, 91% of the participants responded that there were not enough teachers compared to the number pupils in class. There was 100% response saying that the supplies like textbooks were not enough for the pupils. 60% agreed that primary school helps the child to become a productive and respectful member of society but 8% disagreed.

Now one can imagine the situation in the classrooms and the schools with over 110% turn out. The government has not build more classes nor employed teachers despite this massive turn out. Pupils are learning in cramped conditions and teachers cannot provide adequate individual attention to pupils. Performance in schools measured by the mean score

no longer serves the purpose due to the deteriorating quality of education. High pupil/teacher ratio is the main factor that results in poor performance of the pupils hence contradicting the main purpose of education as found by research done Lucas and Mbiti (2014). Increase in total enrollment of the pupils implies an increase in the work and responsibility of the teachers. Consequently, teachers are forced to opt of teacher-oriented teaching style as opposed to pupil-oriented method hence compromising the quality of instruction. Also, a significant number of children attending primary school are outside the official Kenyan age range of 6-14 as reflected in the difference between net and total (gross) enrolment rates in table in appendix.

The survey contributed to the analysis of the FPE program by the Kenyan people, something that I didn't come across at all in the literature. The voice of the people on the ground is very important for policy research that aims improving social product like education. The first question gave a general feeling on the effectiveness of the program and the last question gave room for comments.

"I think the free education system in Kenya should be scraped off and the government just subsidize the cost of educating a child. The change in curriculum should have happen like yesterday, to help our children learn not only the abstract knowledge offered by the current system but also get some technical knowledge through the proposed technical approaches."
(Participant in the survey in the appendix, Q.24)

The comment above clearly states that that FPE is not yielding its optimal results and that a different strategy of maybe subsidizing cost of attending school and not entirely abolishing fees is worth looking.

Q1. Are you satisfied with the free primary education program? Fafanua

Text Response
No, It has lowered the quality.
Not at all. The free primary education came with it a lot of challenges. Many pupils admitted but school classrooms were not enough
no
No,,the students has outnumbered the teachers,,,classes are congested,,,
No, It has come with some many challenges that has lead to the lose of it's core objectives. Teachers have been subjected to too much work to offer yet they Struggle with their pay. Cheap is expensive.
No. How free is the free pry education when there are no books in schools?
NO. The quality of education has been compromised since the government delay in the allocation of monies to fund this programme and hence smooth flow of studies is normally interrupted with.
Nop. Funds are delayed hence projects
Yes , It offers a great oppportunity to children who's family can't afford to pay the school fees.
Hapana, shida ni kuwa wanafunzi ni wengi na hawana vifaa vya kutosha
Very satisfied. It changed the lives of the poor.

(Fafanua-Swahili word means, explain)

From the responses above, majority of the participants felt that the FPE has failed and it's mainly because of the delayed funds. They acknowledged the existence of the program but also highlighted the negative effects on the quality of education. 'Cheap is expensive', another way of saying that FPE paved way for access at the expense of quality. From the supply side, lack of enough infrastructure is the biggest challenge that both the pupils and teachers go through. The classes are crowded and the books are not enough. Consequently, the pupils perform poorly and has led to drop out rates going up. On the demand side, overtime the parents have started holding on to their children at home because of poor performance. Many Kenyan parents evaluate the total benefits associated with school attendance by looking at test scores. When the child performs poorly in the tests, the parents hold them back and would rather have them contribute to the manual labor at home. In the city and slum areas the street children are starting to drop out and go back to their street life because of lack of interaction with the teachers as a result of high pupil-teacher ratio. Teachers have been forced to provide students

with answers during the national exams. No wonder in March 2016, the Ministry of education declared cheating as a crisis and as result, dissolved the national examinations council.

Personal Contribution.

As citizen with first hand experienced this program, the fact that the government implemented this program while the recruitment of teachers was on hold is not a surprise at all. This is because the FPE program was a fulfilment of a political promise. Also the relationship the Kenya National Teachers Union (KNUT) and the government is always changing depending on the government in power. KNUT fights for the rights of the teachers and asks for the salary to be increased but the government has been reluctant even before the implementation of the FPE. My mother being a primary school teacher for instance is in a year because of organized strikes, she doesn't go to school to teach for minimum of ten days. This has worsened especially after the introduction of FPE. And because national exams are the only indicator to measure learning in Kenya, cheating has become rampant. Three months after FPE was introduced my parents transferred my siblings and I to a private boarding school that offered good quality. Looking back at those years, it's interesting that my mother as a teacher decided to make this decision. The quality deteriorated so fast that my mother acted as fast as she could. When I sat for the national exam, KCPE, I did so well better than all the 150 pupils in my former public school. I was fortunate enough and with my high score I secured a spot in one of the best high schools in Kenya. On the other hand, my peers whom I left in that primary school less than 25% of them transitioned to secondary school. The reality on the ground is not captured by the literature because of methodology and data used as mentioned by Spaul and Taylor (2012)

CONCLUSIONS

The central finding of our analysis is that the implementation of FPE has increased access to schooling but not learning. FPE has contributed to a decline in the quality of education in the public primary schools in the Kenya. This is seen as the teacher /pupil ratio increases dramatically for the entire 15 years of the program. However, it remains that education is a key to Kenya's development. For education to play this role, all the future education reforms must be comprehensive and clearly planned out. Periodical assessments should be carried out and evaluated on a reality perspective and not theoretical.

The findings show a strong relationship between pupil/teacher ratio and the quality of education. The higher the ratio the poor the quality. FPE was implemented as fulfillment of a political pledge hence lack of involvement of stakeholders like parents and teachers. Teachers were not prepared at all prior to the implementation of the program hence they did not change to change their attitudes towards this universal education goal. However, if teachers have been prepared by undergoing some kind of training on how to handle impromptu big classes maybe they would have felt appreciated because they contribute the most in making this program work. Recommendations based on the findings and conclusions of this research are in the following section.

POLICY RECOMMENDATIONS

The analysis and the literature and surveys shows that the free primary education program has been beneficial to some extent but has not achieved its optimal results. The findings show for pupils to receive high-quality education that will help them, their families and their communities fully and truly to realize the promise of FPE, class size has to be reduced hence lowering the teacher pupil ratio. This research recommends policy recommendations

that can solve the critical challenges both in the short and long term. I use case study approach to ensure that similar initiatives have worked in other countries and can be replicated in the Kenyan context. It is crucial for all stakeholders to understand the rates of return of education at different levels. Awareness needs to be raised on the high the rates of returns of primary education and for this to happen education should not be treated as a political agenda. Figure 2 below shows the rates of returns to education at different ages, highest returns are seen between birth and age 7, followed by age 7 to 18. This is during mostly during the primary school.

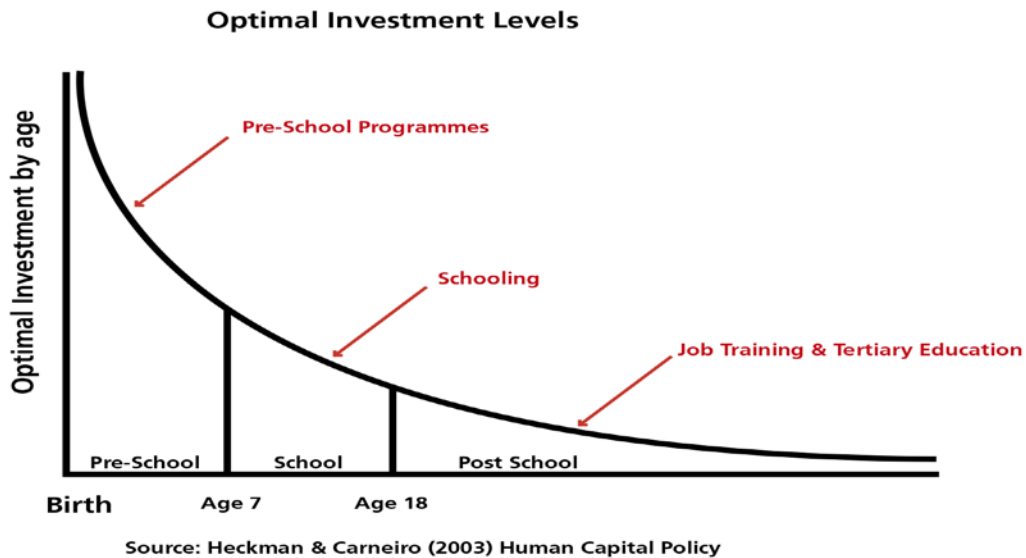


Figure 5: Rates of returns to human capital at different ages

The policies recommended below all aim at improving the effectiveness of the free primary education. The government has done its best but all stakeholders need to put effort in order to see optimal results.

Tutor for Kenya

Firstly, the main factor that affects the school quality is the pupil/teacher ratio. Since the government has not increased the salaries for the civil serving teachers nor added more teachers, alternative options need to be explored. In the US for instance, **Teach for America** has been claimed successful especially in areas that suffers from shortage of teachers. A study on the impact of Teach for America shows that corps members who taught pre-k through second grade boosted student reading scores by an amount equal to 1.3 months of additional instruction in comparisons with other teachers in same schools (Teach for America,2016). Furthermore, in a study conducted by Glazerman et.al (2006), they found that the TFA teachers had a positive effect on math achievement and no effect reading achievement. The impact on math scores was about 15% of a standard deviation which is equal to about one month of instruction. The study did not find any impact on other outcomes like attendance. Based on the effectiveness of TFA, Kenya should adopt a program which I name, Tutor for Kenya (TFK). TFK is viable for various reasons. Currently, high school graduates are forced to take 1.5year gap year before joining university, this is as result of a change in higher education system that took place two decades ago. I had to take 1.5-year gap year too but I found an opportunity to travel and participate in a program abroad. TFK will be a national program that gives platform for the high school graduates to volunteer in tutoring at primary schools. This is a way to give back to the society to their society and be involved in developing their own regions. The tutors will be volunteering in their own home towns, villages or cities hence no cost of relocation. In the survey that I conducted last month, 98% of the Kenyans who filled they survey supported the idea. The question in the survey stated, *“Do you think Form Four leavers should provide tutoring sessions during the weekend for upper class pupils? If Yes, Why? If No, why not? ’*, some of the

responses that captured my attention some like, *“Yes, as a way of giving to the society and mentoring those behind them”*, *“Yes- sharpen their own minds while imparting knowledgeable to their siblings. The hard questions not addressed by teacher may reoccur for resolution”* and *“Yes. Especially for those who got the best grade. It's a good idea and we make their minds busy while they are in holiday”*. The responses showed that the participants understood that TFK is not an after school program and will not to replace teachers at all. In the long-run, the government is expected to hire more teachers and should set a minimum pupil-teacher ratio.

Promoting Informal Schools

Secondly policy recommendation I suggest is one that will reduce the high dropout rates as found in Spaul and Taylor (2012) as well as Sabates et.al (2010) studies. Children drop out for many reasons, some especially in the slum areas is because of the broken relationship between pupil and the teacher which is mainly associated with adolescence and peer pressure. The street children are mostly vulnerable to this, recently the number of street children as increased again yet FPE had reduced the number. The worst case is that these pupils drop out without even the basic skills of numeracy and reading. In Jordan, Questscope is a successful program that offers non-formal education to the pupils who have been out of school for over a year (World Economic Forum Report, 2014 pg.55). Over 10,000 pupils have benefited Questscope in Jordan and many more in countries like South Sudan that have replicated this strategy. This program is very unique as it eventually brings the pupils to the formal systems and it is flexible for individual cases. For instance, if a pupil picks up and excels in tests, the pupil is allowed to skip a grade. This initiative solves the over-age and repetition issues that has become a major challenge in Kenya since the FPE was implemented. This study strongly

recommends that Kenyan government adopts this program. In addition to this, increase of pupils in primary schools especially public parents should reconsider collaborating with teachers in ensuring that children complete their homework, monitor their performances as way of also reducing indiscipline in schools. Similarly, in the rural areas where opportunity costs are high and parents decide if their children should go to school, programs to raise awareness on the importance of education is very crucial. Majority of the parents only look at the short term benefits for instance for sending their children to primary school with programs like free lunch, their children come home healthy and as a result their can participate in the labor and farm. No wonder parents in the rural areas still hold their children and prefer them to work in farm fields than going to school. Tostan a Senegalese non-profit, initiated non-formal education program in the rural areas (Diop, 2009). This program is well received by the communities and it has promoted a platform for the members to talk about the importance of education. Most of the people who attend these non-formal programs look to join the formal system. This program has brought social change to Wolof Communities that now view education as empowering and not a waste of time. Tostan fits perfectly to communities in the remote areas. Along with initiatives like Tostan, governments should build boarding schools to reduce the daily unsafe walking distance to school.

Innovation

Thirdly, the lack of resources can be improved by incorporating technology which is a big thing in Kenya. Kenya is one of the top 3 that uses technology and mobile phones in everyday life compared to other African countries. An organization in South Africa called Yoza started a program that provides e-books at a very low cost. Their research found that 51% of

households did not have books and only 7% of the public schools have functional libraries.

South African. They experimented for six months to analyze of people were actually reading the books/stories on their mobile phones. Their findings were positive and many people use the program now especially those who have no access to physical books. This idea of using technology is also mentioned in the survey I conducted.

Furthermore, to realize 2030 vision through education the following should considered; the education system needs to be reformed by tailoring the curriculum to the local context. Also the system should improve on co-curricular activities by establishing schools that focus on activities such as football schools, athletics, drama, theatre, music, fashion industry schools. Reform must aim on quality education, curriculum, and relevance; broaden the curriculum not basing on science and mathematics alone, as KNEC does in Kenya. Curriculum delivery system should be based on project and inquiry methods not the outdated lecture method that does not make the pupils involved or lead to any curiosity beyond what the teachers knows. Instead, it should have emphasized on educational trips, field trips and involvement learning. These are crucial for the realization of Vision 2030. Therefore, schools should be developed qualitatively and quantitatively in line with Vision 2030. With the recent increase in national exams cheating encouraged by the teachers themselves, it is clear that they learning isn't taking place and the teachers themselves know this. Cheating in exams is a crisis in Kenya as declared in March 2016 by the Ministry of Education. Dissolved the National Examination Council is not the answer if the same pupil/teacher ratio will remain. Instead, national exams should be abolished and a different assessment of learning be established.

Appendix

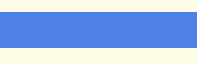

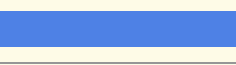
Year	% GDP Annual Growth	Tot enrollment	NER	T/P	# of pri sch teachers
2000	0.2	5.8m	66.03		146,239
2001	1.20	5.9m	67.54		
2002	0.5	6.1m	62.68	34	178,037
2003	2.9	7.2m	75.16	40	178,622
2004	4.9	7.4m	74.31	41.1	178,184
2005	5.7	7.59m	76.10	39	171,033
2006	6.4	7.63m	76.01		
2007	7.1	8.3m	87.09	44	173,157
2008	1.7	8.5m	82.89	45	170,059
2009	2.6	8.9m	84.01	45	171,301
2010	5.8	9.38m	91.4	54	173,388
2011	4.4	9.86m	95.7	57	174,267
2012	4.6	9.97m	95.3	57	176,273
2013	5.7	9.9m	95.9	52	199,686
2014	5.3	10.m		52	200,697

Data Source: Kenya National Bureau of Statistics

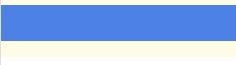



Question 3: The school has enough teachers compared to the number of pupils in each class.

#	Answer		%
1	Strongly agree		0%
2	Agree		0%
3	Somewhat agree		0%
4	Neither agree nor disagree		8%
5	Somewhat disagree		8%
6	Disagree		25%
7	Strongly disagree		58%
	Total		100%

Question 4: Pupils have adequate supplies, materials and textbooks

#	Answer		%
1	Strongly Agree		0%
2	Agree		0%
3	Somewhat agree		0%
4	Neither agree nor disagree		0%
5	Somewhat disagree		42%
6	Disagree		8%
7	Strongly Disagree		50%
	Total		100%

Question 10: I am satisfied with my child for learning in a second/third language i.e in English and not mother tongue

#	Answer		%
1	Extremely satisfied		50%
2	Moderately satisfied		17%
3	Slightly satisfied		17%
4	Neither satisfied nor dissatisfied		0%
5	Slightly dissatisfied		17%
6	Moderately dissatisfied		0%
7	Extremely dissatisfied		0%
	Total		100%

Question 15: The school helps my child to become a productive and respectful member of village/society

#	Answer		%
1	Strongly agree		0%
2	Agree		55%
3	Somewhat agree		36%
4	Neither agree nor disagree		0%
5	Somewhat disagree		9%
6	Disagree		0%
7	Strongly disagree		9%

Question 18 :Do you think Form Four leavers should provide tutoring sessions during the weekend for upper class pupils? If Yes, Why? If No, why not?

Text Response
Yes, this is a way of motivating the juniors.
Yes, as a way of giving to the society and mentoring those behind them
No
Yes, giving back to the society should be MUST .
Yes- sharpen their own minds while imparting knowledgeable to their siblings. The hard questions not addressed by teacher may reoccur for resolution.
yes.. to guide the students on their next level of education
No. They lack the necessary expertise to offer such sessions and again to understand the psychology of the pupil. Only trained teachers should be tasked with these works.
Yes, this is form of mentorship which will help them improve in weak areas
Yes, they should help to build the society
Yes, to mentor others
Yes. Especially for those who got the best grade. It's a good idea and we make their minds busy while they are in holiday.

Question 24: Other Comments

Text Response
"I yearn for Education for all"
"The students to teachers ratio need more attention"
"Good research topic but more relevant questions were left out"
"free primary education is good for our country..this will lead to reduction in poverty and illiteracy.
"I think the free education system in Kenya should be scrapped off and the government just subsidize the cost of educating a child. The change in curriculum should have happen like yesterday, to help our children learn not only the abstract knowledge offered by the current system but also get some technical knowledge through the proposed technical approaches."
"We should uplift the standards of the pupils"
"Let us join hands to build a better society"
"Our schools are doing better than our time. There are alot of improvements."

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