Impact of Free Day Secondary Education Funding on Student Enrolment KCSE Academic Achievement in Gucha South Sub-County, Kenya

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ABSTRACT

Aims: To determine the impact of subsidized Free Day Secondary Education funding on student enrolment and Kenya Certificate of Secondary Education (KCSE) academic achievement in Gucha South schools.

Study Design: Descriptive survey research design.

Place and Duration of Study: Public day secondary schools in Gucha South Sub-County, Kisii County, Kenya. Study was conducted during January 2016 to April 2016.

Methodology: A descriptive survey research design was used to collect data from public day secondary schools in Gucha South Sub-County. Study population comprised of 323 subjects: 35 principals, 280 teachers, one Sub-County Director of Education and 7 Zonal Quality and Standards Officers (ZQASOs) in the Sub-County. 30% of the study population subjects were randomly sampled to give 11 principals, 84 teachers, 2 ZQASOS and one Sub-County Director of Education (SCDE) hence a total of 98 respondents. Structured questionnaires and Interview schedules were used to collect data from the sampled respondents. Qualitative data collected from

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Interviews and open-ended questions were analysed using meanings and implications coming from respondents. Quantitative data was analysed using descriptive statistics in the form of frequency counts, means and percentages. Impact of the Free Day Secondary Education (FDSE) funding on academic achievement was measured in the KCSE grading whereby a lower to higher level reflected a positive impact.

**Results:** Student enrollment rose from an average of 117 per school in 2008 to 212 in 2012. KCSE achievement improved over the years from a mean score of 3.25 in 2008 to 4.50 in 2012.

**Conclusion:** FDSE policy is a worthy initiative for it enhanced access to education, increased student enrollment as well as improved the academic achievement of learners through a positive deviation of the mean in KCSE from lower to upper grades.

**Keywords:** Secondary education; enrolment; academic achievement; student enrollment.

**ABBREVIATIONS**

- **KCSE**: Kenya Certificate of Secondary Education
- **ZQASOS**: Zonal Quality and Standards Officers
- **SCDE**: Sub-County Director of Education
- **FDSE**: Free Day Secondary Education

**1. INTRODUCTION**

Secondary school education has higher rates of return compared to primary school education [1]. This is due to the fact that at secondary school students develop reasoning and thinking skills, learn a way of life that enables them to be valuable citizens and promote nationhood. To expand quality secondary education is therefore critical for a better educated workforce [2]. In Africa, the governments of various countries have been committed to promoting Education for All (EFA). This has led to increased demand for secondary education and hence increased budgetary allocation [3]. In Kenya, secondary education aims to prepare the learners to make positive contribution to the development of society. It also helps learners to choose with confidence as well as cope with vocational education after school. Furthermore, education helps in the acquisition of attitudes of national patriotism, self-respect, self-reliance, cooperation, integrity, adaptability and sense of purpose [4].

In developed countries such as Australia, Britain, France and Sweden, secondary school education is financed by governments [5]. In Kenya, secondary education has grown steadily since independence in 1963, commanding a huge proportion of budgetary allocation (40%) from the government [6]. This is attributed to the fact that education is widely recognized as key to national development [7]. An increase in access and quality of education, relative to the national population is critical to social, cultural, political, religious and economic growth. Secondary education in Kenya aims at equipping learners with knowledge, skills and attitudes for development of self and the nation at large [8]. Secondary education also has large effects on human capital, reducing low-skill self employment, and increasing formal employment [9].

The provision of education to the country's children has been and will continue to be an expensive investment to the government and individual households. This is why the Kenyan Ministry of Education aptly states that the provision of education is a collaborative effort between it, and a diverse group of partners and stakeholders including individuals, non-Governmental organisations, local authorities, faith or religious based organizations, development partners, local communities and parents [10].

The issue of financing education has been addressed by the Government through the evolution of education policies since the 1963 independence with the production and publication of educational reports. The Ominde Report of 1964 proposed an education system to foster national unity and development. The Gachathi Committee Report of 1976 focused on changing the structure of education. It was followed by the Mackay Report of 1981 that led to the establishment of the 8-4-4 system of education. The Sessional Paper No. 6 of 1988 addressed financing of education as its running theme and was an outcome of the Kamunge Report leading to cost sharing [11].

Free Day Secondary Education (FDSE) introduced by the Kenyan government in 2008 as a strategy to increase access, lower household costs and improve academic performance in
public secondary schools through an annual Kenya Secondary School. In Kenya, education being centrepiece of the Government’s Vision 2030, an ambitious plan has been put in place to transform the country into a middle- income country by 2030. Free Primary Education (FPE) and Free Day Secondary Education (FDSE) policies are part of this vision and have produced a dramatic response in an effort to attain the Millennium Development Goals. The Government in 2003 introduced Free Primary Education (FPE) to ensure access, retention, equity, and relevance, internal and external efficiencies within the education system [8]. This led to the increase of pupils in public primary schools from 5.9 million in December 2002 to 6.9 million in January 2003 and 7.2 million in 2004. As per the year 2007, there were 7.7 million children in primary schools [7]. This increased enrolment needed a way for these children to further their education after KCPE. Therefore, the Kenyan government in 2008 as part of the fulfilment of the campaign pledges of 2007, increased its support to public secondary schools through the Free Day Secondary Education (FDSE) policy. The policy aimed at enhancing enrolment and improving quality in secondary education. Funds disbursed to all public secondary schools were to cater for personal emoluments, activity, strengthening mathematics and sciences, medication, repair, maintenance and improvement and tuition as examination material costs. This study sought to supply enough learning materials and required infrastructure to all public secondary schools. The funds were also meant to enhance curriculum implementation, timely syllabus coverage, access to education, retention of students and academic performance.

In Gucha South, the KCSE performance in public day secondary schools had not been satisfactory (Table 1) before the introduction of FDSE. The poor KCSE achievement before the introduction of FDSE was attributed to lack of learning resources, student absenteeism as a result of lack of fees and poor school infrastructure.

<table>
<thead>
<tr>
<th>Year</th>
<th>Mean</th>
</tr>
</thead>
<tbody>
<tr>
<td>2003</td>
<td>3.45</td>
</tr>
<tr>
<td>2004</td>
<td>3.42</td>
</tr>
<tr>
<td>2005</td>
<td>3.61</td>
</tr>
<tr>
<td>2006</td>
<td>3.51</td>
</tr>
<tr>
<td>2007</td>
<td>3.49</td>
</tr>
</tbody>
</table>

With the FDSE funding, the relationship between FDSE funds and students academic achievement as well as enrolment in public day secondary schools in Gucha South Sub-County has not been established, a gap that this study sought to address by examining the impact of FDSE on student enrolment and academic achievement in public day secondary schools in Gucha South Sub-County, Kisii County, Kenya. Objectives and research questions for this study were to find out how FDSE affects students’ enrolment and academic achievement in KCSE in public day secondary schools in Gucha South Sub-County.

2. MATERIALS AND METHODS

2.1 Location of the Study

The study was conducted in public day secondary schools in Gucha South Sub-County, Kisii County, Kenya. The Sub-County is located at a latitude of 0°55' 54 S and longitude 34° 08' 11 E. It has four Educational Divisions namely; Nyamarambe, Tabaka, Moticho and Etago and seven educational Zones. These Zones are: Nyakembene, Omogenda, Suguta, Tabaka/ Rigena, Mochengo, Et ago and Moticho. It has 44 Public secondary Schools whereby 35 are mixed day secondary schools. Tabaka Division consists of Tabaka ward where Tabaka/Rigena zone is situated. Nyamarambe Division comprises Bogetenga and Boikanga wards with Nyakembene and Mochengo Zones. In Etago division, there is Chitago/Borabu ward with Omogenda and Etago zones. Moticho division has Moticho and Getenga wards with Moticho and Suguta zones.

2.2 Study Population, Sample Size and Sampling Techniques

The study population consisted of three hundred and twenty three (323) subjects made up of: 35 principals, 280 teachers from the 35 Public day secondary schools in Gucha South Sub-County, one Sub-County Director of Education and 7 ZQASOs. Based on the 30% recommended sample size [12-14], 11 principals, 84 teachers, 2 ZQASOS and one Sub-County Director of Education were randomly sampled from each of the individual study population to give a total of 98 respondents (Table 2). Saturation sampling technique was used to select the Sub-County Director of Education for he was the only one.
Table 2. Population, sample size and percentage of the sample size to population

<table>
<thead>
<tr>
<th>Description</th>
<th>Population</th>
<th>Sample size</th>
<th>Percentage (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>Principals</td>
<td>35</td>
<td>11</td>
<td>30</td>
</tr>
<tr>
<td>Teachers</td>
<td>280</td>
<td>84</td>
<td>30</td>
</tr>
<tr>
<td>ZQASOs</td>
<td>7</td>
<td>2</td>
<td>30</td>
</tr>
<tr>
<td>DEO</td>
<td>1</td>
<td>1</td>
<td>100</td>
</tr>
<tr>
<td>Total</td>
<td>323</td>
<td>98</td>
<td>30</td>
</tr>
</tbody>
</table>

2.3 Data Collection

The tools for data collection in this study were questionnaires for principal and teachers. Interview schedules were administered to the SCDE, ZQASOS to gather data on the impact of FDSE policy on academic achievement in public day secondary schools. In-depth interviews were as well administered to ten teachers and four principals for collection of quality data through the process of probing. The interview schedules for the SCDE, ZQASOS, principals and teachers centred on students' enrolment as well as KCSE performance. The researcher next visited the sampled schools to individually administer the questionnaires to teachers and principals that were filled and collected on the same day to avoid falsification, losses and time wastage. The questionnaires were self-administered. The interviews were conducted in the schools, education offices of the Sub-County, ZQASOs and in schools using the developed and piloted interview schedules. The interview data was audio recorded using a phone. The respondents were informed prior to the interview and assured that the information they gave was to be treated confidentially and used only for purposes of the study.

2.4 Methods of Data Analysis

Qualitative data collected from interviews and open-ended questions were analysed using meanings and implications coming from respondent information. Responses from open ended questions and interviews included quoted words. The quoted words were put as they were expressed. The responses from interviews were transcribed and then organised into themes and sub-themes that emerged and were complimented by the data from questionnaires. Quantitative data were analysed using descriptive statistics in the form of frequency counts, means and percentages.

3. RESULTS AND DISCUSSION

3.1 Demographic Data

The demographic data of the respondents included gender, level of education and work experience. The study was carried out in public day secondary schools in Gucha South Sub-County, Kisii County amongst 84 teachers and 11 principals. The female teachers comprised 25% of the teachers' population and 75% male teachers, while the female respondents were 8% for the principals and 92% males. There was one male Sub-County Director of Education; two ZQASOs.

3.1.1 Education level

Results (Table 3) show that a majority of the principals that is 63.6% had a Bachelor's degree while 36.4% had Masters Degree. None of the principals was a diploma holder. 72.6% of the teachers had a Bachelors degree, 16.7% had a Masters degree and 10.7% with diploma certificates. On the other hand, 50% of interviewed ZQASOs had a first degree with the other 50% having a diploma in education. None of the ZQASOs was a masters holder. The one SCDE had a master of education degree.

3.1.2 Respondent’s work experience

Results (Table 4) show that the working experience for the principals was as follows: 18.2% had an experience of between 1-5 years, 45.4% had 6-10 years and 36.4% had 11-15 years. As for the teachers: 11.9% had a working experience of 1-5 years, 40.5% 5-10 years, 30.9% 11-15 years and 16.7% of 16-20 years. The two ZQASOs and the Sub-County Director of Education had both worked for 6-10 years.

The data in Table 4 show that a majority of the principals that is 45.4% had a working experience of over six years. This meant that they had a vast experience on management of schools that helped in the administration of the
Table 3. Education Levels of the principals, teachers, zonal quality and standards officers and sub county director of education

<table>
<thead>
<tr>
<th>Education level</th>
<th>Principals</th>
<th>Teachers</th>
<th>ZQASO</th>
<th>SCDE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n=11</td>
<td>n=84</td>
<td>n=2</td>
<td>n=1</td>
</tr>
<tr>
<td>Masters</td>
<td>4</td>
<td>36.4</td>
<td>16.7</td>
<td>0</td>
</tr>
<tr>
<td>Bachelors</td>
<td>7</td>
<td>63.6</td>
<td>72.3</td>
<td>1</td>
</tr>
<tr>
<td>Diploma</td>
<td>0</td>
<td>0</td>
<td>9</td>
<td>1</td>
</tr>
<tr>
<td>Total</td>
<td>11</td>
<td>100</td>
<td>84</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 4. Work experience of respondents

<table>
<thead>
<tr>
<th>Work Experience</th>
<th>Principals</th>
<th>Teachers</th>
<th>ZQASO</th>
<th>SCDE</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>n=11</td>
<td>n=84</td>
<td>n=2</td>
<td>n=1</td>
</tr>
<tr>
<td>16-20 Years</td>
<td>0</td>
<td>0</td>
<td>14</td>
<td>0</td>
</tr>
<tr>
<td>11-15 Years</td>
<td>4</td>
<td>36.4</td>
<td>26</td>
<td>0</td>
</tr>
<tr>
<td>6-10 Years</td>
<td>5</td>
<td>45.4</td>
<td>34</td>
<td>2</td>
</tr>
<tr>
<td>1-5 Years</td>
<td>2</td>
<td>18.2</td>
<td>10</td>
<td>11.9</td>
</tr>
</tbody>
</table>

Schools. The greater percentage of the teachers that is 40.5 percent had a teaching experience of over six years. The SCDE and the ZQASOs both had a working experience of 6 to 10 years. This experience enabled the respondents to have the ability to give credible responses.

3.2 School Enrolment

3.2.1 Student enrolment in the schools

The study aimed at presenting the enrolment in the schools for the period before and after the introduction of FDSE policy. Table 5 shows the enrolment trends of students between the years 2008 to 2012 in the schools.

Table 5 shows that the average number of students in the sampled schools increased steadily from 117 in the year 2008 to 212 in the year 2012. The total enrolment for sampled schools rose from 1289 in 2008 to 1644 in 2009, 2036 in 2010, 2303 in 2011 and 2339 in 2012. This shows that the schools recorded improved enrolment after the introduction of FDSE policy. This is commendable in that more students had access to secondary education in Gucha South Sub-County. The increased enrolment had an effect as the Government capitation to schools also went higher which enabled the schools to procure more learning materials, improved physical facilities which had a bearing on KCSE achievement.

3.2.2 Number of students in class

The study also asked the teachers to indicate the number of students in each of the classes they taught. Table 6 shows the responses of the teachers in regard to students in their classes.

Table 6 shows that in form four, 6% of the teachers attended to classes of between 21-30 students, 19% of the teachers attended to between 31-40 students in class, 53.6% attended to class sizes of between 41-50 students while 21.4% of the teachers attended to class sizes of over 50 students. In form three, 23.8% of teachers attended to between 31-40 students in class, 53.6% attended to class sizes of between 41-50 students while 22.6% of the teachers attended to classes of over 50 students. In form two, 29.8% of teachers attended to between 31-40 students in class, 52.4% attended to class sizes of between 41-50 students while 17.8% of the teachers attended to classes of over 50 students. In form one, 28.6% of teachers attended to 31-40 students in class, 50% attended to class sizes of between 41-50 while 21.4% of the teachers attended to classes of over 50 students. There is an indication from the data that 73.2% of the teachers had students in their classrooms of over forty meaning that the classrooms had the required number due to FDSE policy.

3.3 Learner Academic Achievement

3.3.1 Frequency of internal examinations

The researcher sought from the principals the frequency of administering internal examinations after the introduction of FDSE funds. Table 7 shows the frequency with which the internal examinations were administered.
Table 5. Number of students enrolled in the eleven schools (2008-2012)

<table>
<thead>
<tr>
<th>School</th>
<th>2008</th>
<th>2009</th>
<th>2010</th>
<th>2011</th>
<th>2012</th>
</tr>
</thead>
<tbody>
<tr>
<td>A</td>
<td>189</td>
<td>247</td>
<td>360</td>
<td>400</td>
<td>419</td>
</tr>
<tr>
<td>B</td>
<td>94</td>
<td>109</td>
<td>110</td>
<td>127</td>
<td>129</td>
</tr>
<tr>
<td>C</td>
<td>110</td>
<td>142</td>
<td>165</td>
<td>189</td>
<td>194</td>
</tr>
<tr>
<td>D</td>
<td>99</td>
<td>120</td>
<td>139</td>
<td>164</td>
<td>178</td>
</tr>
<tr>
<td>E</td>
<td>130</td>
<td>148</td>
<td>194</td>
<td>200</td>
<td>209</td>
</tr>
<tr>
<td>F</td>
<td>89</td>
<td>101</td>
<td>130</td>
<td>149</td>
<td>151</td>
</tr>
<tr>
<td>G</td>
<td>143</td>
<td>183</td>
<td>207</td>
<td>229</td>
<td>210</td>
</tr>
<tr>
<td>H</td>
<td>115</td>
<td>148</td>
<td>188</td>
<td>210</td>
<td>213</td>
</tr>
<tr>
<td>I</td>
<td>90</td>
<td>138</td>
<td>160</td>
<td>193</td>
<td>198</td>
</tr>
<tr>
<td>J</td>
<td>110</td>
<td>128</td>
<td>148</td>
<td>162</td>
<td>158</td>
</tr>
<tr>
<td>K</td>
<td>120</td>
<td>180</td>
<td>235</td>
<td>280</td>
<td>280</td>
</tr>
<tr>
<td>Total</td>
<td>1289</td>
<td>1644</td>
<td>2036</td>
<td>2303</td>
<td>2339</td>
</tr>
<tr>
<td>Average</td>
<td>117</td>
<td>149</td>
<td>185</td>
<td>209</td>
<td>212</td>
</tr>
</tbody>
</table>

Table 6. Number of students in a class (2012)

<table>
<thead>
<tr>
<th>No. of Students</th>
<th>FI</th>
<th>%</th>
<th>FII</th>
<th>%</th>
<th>FIII</th>
<th>%</th>
<th>FIV</th>
<th>%</th>
</tr>
</thead>
<tbody>
<tr>
<td>1-20</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>00</td>
</tr>
<tr>
<td>21-30</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>00</td>
<td>05</td>
<td>06</td>
</tr>
<tr>
<td>31-40</td>
<td>24</td>
<td>28.6</td>
<td>25</td>
<td>29.8</td>
<td>20</td>
<td>23.8</td>
<td>16</td>
<td>19</td>
</tr>
<tr>
<td>41-50</td>
<td>42</td>
<td>50</td>
<td>44</td>
<td>52.4</td>
<td>45</td>
<td>53.6</td>
<td>45</td>
<td>53.6</td>
</tr>
<tr>
<td>Over 50</td>
<td>18</td>
<td>21.4</td>
<td>15</td>
<td>17.8</td>
<td>19</td>
<td>22.6</td>
<td>18</td>
<td>21.4</td>
</tr>
<tr>
<td>Total</td>
<td>84</td>
<td>100</td>
<td>84</td>
<td>100</td>
<td>84</td>
<td>100</td>
<td>84</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 7. Frequency of administering internal examinations

<table>
<thead>
<tr>
<th>Frequency of internal exams</th>
<th>No of principals (n=11)</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Thrice a term</td>
<td>6</td>
<td>54.5</td>
</tr>
<tr>
<td>Twice a term</td>
<td>4</td>
<td>36.4</td>
</tr>
<tr>
<td>Once a term</td>
<td>1</td>
<td>9.1</td>
</tr>
<tr>
<td>Yearly</td>
<td>0</td>
<td>0</td>
</tr>
<tr>
<td>Total</td>
<td>11</td>
<td>100</td>
</tr>
</tbody>
</table>

Table 7 shows that 54.5% of the principals indicated that their schools did evaluation examinations three times a term, 36.4% of them had their schools examinations twice a term and 9.1% once a term. This indicated that most of the schools did two or more examinations in a term thus enhancing KCSE academic achievement.

3.3.2 KCSE performance

The study also sought to establish the effect of FDSE on KCSE academic achievement. The principals were to indicate if the introduction of FDSE policy had led to improved KCSE performance in their schools. Table 8 shows the response of the principals.

Table 8 shows that 81.8% of the principals indicated that their school KCSE means had improved with the introduction of FDSE policy while 18.2% indicated that their school results had not improved. Thus for most of the schools, FDSE policy led to improved KCSE results. For the principals, whose KCSE performance had not improved attributed it the large number of students in class, staff shortage as well as poor syllabus coverage.

Table 8. KCSE performance

<table>
<thead>
<tr>
<th>Improved KCSE performance</th>
<th>No. of principals (n=11)</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Yes</td>
<td>9</td>
<td>81.8</td>
</tr>
<tr>
<td>No</td>
<td>2</td>
<td>18.2</td>
</tr>
</tbody>
</table>

The principals were also to indicate KCSE performance for their schools from 2008-2012 as shown in Table 9.

Table 9 shows that the performance of the sampled public day schools in KCSE improved from an average of 3.25 in 2008 to 3.794 in 2009, 4.037 in 2010, 4.214 in 2011 and 4.502 in 2012. From these findings it is clear that the performance in public day secondary schools improved with the introduction of FDSE policy. Hence FDSE had a positive impact on academic achievement in public day secondary schools in Gucha South Sub-County.
Table 9. School KCSE Performance from 2008-2012

<table>
<thead>
<tr>
<th>School</th>
<th>Mean score</th>
<th>Years</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>2008</td>
<td>2009</td>
<td>2010</td>
<td>2011</td>
<td>2012</td>
</tr>
<tr>
<td>B</td>
<td>3.259</td>
<td>4.145</td>
<td>4.894</td>
<td>5.22</td>
<td>5.894</td>
</tr>
<tr>
<td>C</td>
<td>3.457</td>
<td>4.647</td>
<td>4.814</td>
<td>4.902</td>
<td>5.45</td>
</tr>
<tr>
<td>D</td>
<td>3.913</td>
<td>4.392</td>
<td>4.549</td>
<td>4.710</td>
<td>4.78</td>
</tr>
<tr>
<td>E</td>
<td>3.107</td>
<td>4.0</td>
<td>4.34</td>
<td>4.849</td>
<td>5.15</td>
</tr>
<tr>
<td>F</td>
<td>3.56</td>
<td>3.871</td>
<td>3.971</td>
<td>4.014</td>
<td>4.38</td>
</tr>
<tr>
<td>G</td>
<td>2.772</td>
<td>2.806</td>
<td>3.44</td>
<td>3.889</td>
<td>4.034</td>
</tr>
<tr>
<td>H</td>
<td>3.625</td>
<td>3.653</td>
<td>3.563</td>
<td>3.712</td>
<td>4.023</td>
</tr>
<tr>
<td>I</td>
<td>2.71</td>
<td>3.286</td>
<td>3.677</td>
<td>3.776</td>
<td>4.01</td>
</tr>
<tr>
<td>J</td>
<td>3.001</td>
<td>3.071</td>
<td>3.158</td>
<td>3.178</td>
<td>3.326</td>
</tr>
<tr>
<td>K</td>
<td>2.714</td>
<td>3.154</td>
<td>3.156</td>
<td>3.241</td>
<td>3.582</td>
</tr>
<tr>
<td>Average</td>
<td>3.250</td>
<td>3.794</td>
<td>4.037</td>
<td>4.214</td>
<td>4.502</td>
</tr>
</tbody>
</table>

Most of the principals, 63.6% rated FDSE funding for examinations to be adequate for the purchase of stationery for examinations, laboratory chemicals and equipment, revision materials and examination preparation equipments. Some principals (36.4%) however, felt the funds were not adequate and resorted to demanding for duplicating papers from students for examinations thus administering fewer examinations and few item examinations. The reduction of student absenteeism had led to full classrooms and as one teacher put it, “we no longer have to adjourn lessons because half of the class has been sent home to collect school fees”. Thus for majority of principals the FDSE funds provided adequate examination materials for use by teachers in the administration of internal examinations. Consequently, there was an improved KCSE performance.

4. DISCUSSION

Education in most developed countries beyond the compulsory level is financed in part and sometimes wholly by the government [15]. Secondary school education is vital for national development and various stakeholders do recognize quality education as a pathway to achieving desirable lifestyles for all people [16]. The implementation of the FDSE policy requires adequate skills and experience to cope with its rising demand for the management and teachers who implement the curriculum. The skills are attained from the training the relevant personnel. Most principals had bachelors and master degrees and the one SCDE had a master degree in education. The knowledge and skills that the respondents possessed enabled them to ensure that the policy of FDSE was ineptly implemented in the schools to attain the targets that were set. Courses undertaken in colleges and universities gave the respondents the desirable technical, human and conceptual skills to analyse and diagnose complicated situations for the smooth operation of the policy. From these findings, FDSE fund need to be doubled and disbursed promptly. In Ugenya sub-county there is need to increase investment in physical and learning resources, teaching staff, undertake routine external audit, enhance Information Technology integration to improve on communication and inservice of principals in strategic management practices to instil creativity for proper government strategy implementation.

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Basicallly, when there is no overcrowding in class as a result of large numbers of students, there is active participation and a positive teaching morale is enhanced and therefore quality teaching. However, it was indicated that an average of 20.8% of the teachers handle classes of over 50 students way above the recommended number of 40 per teacher as directed by the Ministry of Education. Increased enrolment was attributed to the Government subsidy to secondary schools. These findings were similar to those of [17] who also indicated that enrollment to school increases wherever education costs are subsidized in schools. A study by [18] on teacher population in Kenya since the introduction of FDSE found out that the average number of teachers shortage per school increased progressively from 3.6 in 2007, 4.00 in 2008 and 4.3 in 2009. The number of teachers has remained constant over the years despite the increase in enrolment and the number of schools. It is worth noting that teaching a classroom of above 41 students complicates the teachers’ teaching methodology and provision of valid tests and examinations. Before the
introduction of the FDSE, enrolment as well as the number of students consistently attending classes was greatly affected due to lack of adequate school fees from the parents and guardians. However, with the introduction of FDSE funding examination as well as revision materials, equipped laboratories enhanced learning and thus improved academic achievement. The reduction of student absenteeism led to full classrooms. Consequently the KCSE performance improved. It is generally agreed that the most important manifestations of schooling quality are literacy, greater cognitive abilities and better student performance in examinations [19]. Therefore, despite the shortcoming of large classes as a result of increased student enrollment with the introduction of FDSE, there was an improvement in the KCSE academic achievement.

5. CONCLUSION

FDSE policy is a worthy initiative for it enhanced access to education, provides physical facilities, learning resources which in return improved the academic achievement of learners through a positive deviation of the mean in KCSE from lower to upper grades. Results from this study reinforce the need to break down strategy implementation to incorporate systematic planning cycles as well as investigate the impact of these mitigation measures on performance of such public sector-oriented strategies.

DEFINITIONS

Curriculum: Content of an education programme.

Free day: secondary education Waiver of all forms of tuition fees

Impact The consequences of educational inputs due to FDSE.

Quality education: Education that is both relevant to the learners’ needs and aspirations and helps in the attainment of national goals of education.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES


APPENDICES

APPENDIX I

TEACHERS’ QUESTIONNAIRE

This research is strictly for purposes of the study ‘The Impact of Free Day Secondary Education funding on KCSE Academic Achievement’. Kindly provide answers to these questions as honestly as possible. Your answers will be treated confidentially. Do not indicate your name or that of your school anywhere on this questionnaire.

SECTION A: BACKGROUND INFORMATION

Please tick (✓) as appropriate or fill in the spaces provided.

1. Your gender
   [ ] Male
   [ ] Female
2. How old are you, in years?
   [ ] between 20 – 29
   [ ] between 30 – 39
   [ ] between 40 – 49
   [ ] over 50
3. Indicate your Professional qualification.
   [ ] Master of education
   [ ] Bachelor of education
   [ ] Diploma in education
   [ ] PGDE
   Others, (please specify) ______________________________________
4. What is your teaching experience?
   [ ] 1-4 years [ ] 5-9 years [ ] 10-14 years [ ] over 20 years

SECTION B: PHYSICAL FACILITIES AND LEARNING RESOURCES

SECTION C: ENROLMENT AND WORK LOAD

7(a) How many students are there in each class?
   [ ] 0 - 20
   [ ] 21 – 30
   [ ] 31 - 40
   [ ] 41 – 50
   [ ] over 50
(b) How many lessons do you have in a week?
   [ ] 0-12
   [ ] 13 – 20
   [ ] 21 – 28
   [ ] 29 – 36
   [ ] over 36
(c) Are the classrooms overcrowded?
   [ ] Yes
   [ ] No
(d) How do you rate your teaching work load?
   [ ] Too high
   [ ] High
   [ ] Average
   [ ] Low
(e) How do you cope with the increased workload?
[ ] Use of remedial classes/long hours
[ ] Combining some streams

(f) Are examination preparation materials adequate in school?
[ ] Yes
[ ] No

8. Does the increased enrolment affect effective teaching?
[ ] Yes
[ ] No

SECTION D: PERFORMANCE IN KCSE

(b) How often do you give examinations to your students?
[ ] weekly
[ ] monthly
[ ] twice a term
[ ] once a term
Any other (Please specify) _______________________________________________

(c) Are resources / materials provided for examinations enough in the school?
[ ] Yes
[ ] No
If No, what materials are inadequate?
[ ] typing or photocopying papers
[ ] writing materials
[ ] ink
[ ] laboratory chemicals / consumables
Any other, (specify) _______________________________________________
## APPENDIX II

### INTERVIEW SCHEDULE FOR SUB-COUNTY DIRECTOR OF EDUCATION

1. For how long have you been a Sub-County Director of Education?
2. What is your Educational Qualification?
3. Have FDSE funds affected the availability of physical facilities in the public day secondary schools?
4. How has FDSE affected the availability of learning resources in the district’s public day secondary schools?
5. How has FDSE impacted on students’ enrolment in the day public secondary schools in the Sub-County?
6. Are there enough trained teachers in the public day secondary schools commensurate to the student enrolment?
7. How do you rate the teachers’ workload in public day secondary schools in your area?
8. How has the FDSE Policy impacted in the performance of students in KCSE in public day secondary schools in Gucha South?

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