The influence of parental involvement in provision of teaching - learning resources on Educational outcomes: an empirical study of Teso north sub county primary schools

Echaune Manasi¹, Judah M. Ndiku²*, Anthony Sang³ and Epari Ejakait⁴

¹Myanga Secondary School, P.O Box 42-50226, Myanga via Bungoma, ²,³,⁴Masinde Muliro University of Science and Technology, Kakamega County, Kenya. P.O Box 190 Kakamega, Kenya.

*Corresponding author’s e-mail: ehaunemanasi@yahoo.com

ABSTRACT

The idea for parental involvement in education has come about as response to low students’ academic achievement amid claims that parents are not supportive. Parental involvement in provision of teaching and learning resources has been associated with positive achievements in educational outcomes. This study therefore examined the effect of parental involvement in provision of teaching and learning resources on academic performance in public primary schools in Teso North Sub County, Busia- Kenya. A descriptive survey research design was employed. Simple random sampling was used to select thirty schools. Proportionate random sampling was used to select one hundred and ninety two teachers and two hundred and eighty pupils while purposive sampling was used to select thirty head teachers and parents who served as respondents. Data was collected using questionnaires, semi-structured interviews schedules and document analysis. Data was analyzed using Microsoft excel and Stata. Quantitative data was analyzed using means, percentages and frequencies and qualitative data was reported directly. Pearson correlation coefficient and OLS regression coefficients were used to measure the degree of relationship. Statistical tests were done at α=0.05. The study revealed low parental involvement in provision of teaching and learning resources. There was a significant relationship between parental involvement in payment of access, PTA teachers and school academic performance. It was recommended that parents should be advised to support schools so as to realize improved educational outcomes.

Keywords: Parental involvement, teaching and learning resources, primary school, educational outcomes.

INTRODUCTION

Background to the study

The contribution of primary education to human capital development cannot be underscored. After all, educational planners and economists have established a positive link between primary school education and the learner’s ability to participate effectively in nation building. It’s not for granted that most modern nations invest in this sector as a pillar for social and political development (Atieno, 2011; King et al. 1993). Besides, there are many other benefits. Some of these include; improved community health care and nutrition, low fertility and infant mortality rates (Psacharopoulos, 1987; World Bank 2008). In recognition of this, the government of Kenya reintroduced free and compulsory primary education in 2003 (Chabari, 2010; Republic of Kenya, 2005). The heavy investment in this sector has pushed budgetary allocations to more than 7 percent of GDP (Republic of
Kenya, 2011). Whereas this has resulted to a rapid expansion in number of schools and enrollment, the increasing demand for quality education amid limited resources pose challenges related to both internal and external inefficiency (Achoka et al. 2007). It is a fact that schools in Kenya are struggling under intense pressures to deliver higher standards of education under the existing circumstances characterised by broad curriculum and limited resources, but school administrators and teachers have to positively adapt to the external pressures and find strategies to provide quality education. There is also no doubt that parents are a major component to any educational progress and the burden of responsibility increasingly falls on them. In attempt to address issues of internal efficiency, studies have been done on factors that affect education outcomes such as educational inputs; teachers, physical facilities, textbooks, class sizes among others. Sadly, the contribution of educational processes has received little attention. Fortunately, parental involvement has now come to be recognized as a key process in children’s learning. Many countries have developed strategies aimed at promoting parental involvement in education. The School Based-Management (SBM) emphasizes collaborative efforts among, teachers, parents and other stakeholders for improving quality of education (World Bank, 2007). The World Declaration on Education for all convention held in Jomtien, Thailand in 1990 (Article seven) also explored ways of enhancing partnerships among key stakeholders such as Governments, the private sector, local communities and households at all levels of education (Bray, 1999).

In the developed world such as the USA, evidence of parental involvement in education exists both at home and within the school. The No Child Left behind Act of 2001 recognizes parents’ involvement and empowerment in determining the quality of teaching and learning processes in schools (Education Department, 2004). In some African countries including South Africa, Uganda and Burundi, policies that support parental involvement in education also noted. In South Africa for instance, the Schools Act (Act 84 of 1996) requires all public schools to have elected School Governing Body consisting of the head teacher, teachers, parents, non-teaching staff and students (Dubbeldan 2000). In Burundi, education policies require parents to make financial and in-kind contributions for schools while in Uganda despite basic education being a public service, free and mandatory, Universal Primary Education policy of 1997 stipulates parents’ role at home and school in support of children’s learning. In Kenya too, successive governments all along have recognized the need to improve learning environment by involving parents. Most recently, the Basic Education Act of Kenya (2013) was enacted requiring the school Boards of Management to assess school needs with full participation of parents. A survey of some studies from a global perspective present provision of resources among the entry points of parental involvement for successful child learning (Huang 2006; Hoover- Dempsey and Sandler 1997; Feuerstein 2000). This study was informed by the fact that primary schools in Teso North Sub County have continuously posted poor results in the national examinations amid claims that parents are not supportive. On the other hand, the government provides free primary education with capitation toward tuition and administrative cost at a rate of Ksh. 1020 per student annually. In 2010 and 2011, there were wide spread protest by parents soon after the Kenya Certificate of Primary Education results were released. In both years, the Sub County was ranked last in Busia County (Echaune, 2014). There were also incidences of head teachers and teachers of some schools being denied entry into their work stations. The study was guided by the following objectives; to ascertain the extent of parental involvement in provision of teaching and learning resources and, to examine the association between parental involvement in provision of teaching and learning resources and school academic performance.

OseiAkodo et al. (2012) investigated the extent of parental involvement in academic performance in Ghana using randomized cluster sampling of 100 schools from eight out of ten regions. The results indicated that majority of the parents (83%) hardly assisted children in homework. In Namibia, GuolaungErlendsdottir (2010) conducted a qualitative survey study on the extent of parental involvement in students’ academic performance. The study involved seven parents of students who had achieved high grades in examinations. All parents reported very high level of involvement in their children’s education. Kibet (2010) investigated the role of parents in enhancing preschool children’s education in UasinGishu district, Kenya and found that parental involvement in education was low. Ciaraaka (2003) sought to establish the role of parents in facilitating learning processes in selected primary schools in Egoji- Meru found that parental involvement in homework was high but majority (93%) of the parents did not did not provide supplementary learning resources. Sperns (2011) also indicated no shared responsibility between parents and schools in Kenyan rural primary schools and that schools were solely responsible for students’ education and there was hardly any relationship between parental involvement and students’ academic performance. Mbuguay (1987) examined the role of surrounding communities in primary school education in Thika Municipality and indicated existence of parental involvement in education. In Ondieki (1988) educational failure in Kisii district was associated with the lack of cooperation from parents.

In Norway, studies indicate that parents’ involvement in homework has significant influence on students’ academic achievement (Cresswell and Ainly, 2006; Epstein, 2001; Huang, 2009). This is supported by
studies from Latin America (Desarrollo 2007; Epstein 2000). Kaberere et al. (2013) found that in Rwanda parents of children in high performing schools were significantly more involved than their peers with children in low performing schools particularly in support for learning and assisting children in homework. Nyarko (2011) investigated the effect of parental involvement in school on students' academic performance in Ghana. The results reveal a positive and significant correlation between mothers' school involvement and academic performance of children. Interestingly, there was non-significant correlation between father's school involvement and students' academic performance. Lesanjui (2013) explored the effect of parental involvement on academic performance of girl child in public primary schools in Samburu County Kenya. The results indicated that a unit increase in parental involvement predicts 0.787 increases in academic performance scores. This is supported by Koros (2006) who reported a positive association. Otewa et al. (2011) explored parental factors affecting academic performance of grade six pupils in Kisumu city – Kenya. The study found that parental involvement had a significant positive correlation with students' academic achievement (r=0.247, p=000). Parental involvement accounted for 10.7% variation in students' academic performance. Muola (2010) investigated the relationship between academic achievement motivation and home environment among standard eight pupils in Machakos-Kenya. The study found that parental encouragement had a non-significant correlation with academic performance (r=0.03). The government of Kenya has been keen at developing partnerships with the aim of improving educational practices and processes. Noting these concerns, it is worth examining the influence of parental involvement in provision of teaching and learning resources on students academic as a way of finding solutions to the problem of internal inefficiency in Kenyan primary schools.

**Purpose of the study**

The purpose of this study was to establish the influence of parental involvement in provision of teaching and learning resources on school academic performance in Teso North sub county, Kenya.

**Objectives of the study**

The study specifically set to: establish the extent of parental involvement in provision of teaching and learning resources and examine the relationship between parental involvement in provision of teaching and learning resources and school academic performance.

**Significance of the study**

Since parental involvement is a critical factor in improvement of educational practice and processes. Findings of this study are expected to contribute greatly to the understanding parental involvement interventions that go into education and what can be done to improve academic performance in primary schools. It is through that educational planners and managers can enhance efficiency in primary education. It is expected too, that findings will be used as reference by researchers keen on studying academic performance in Kenyan primary schools. This study is found important in that it establishes the extent of parental involvement in primary schools and the effect of this on school academic performance. Lastly, the findings of this study are useful to head teachers and other education stakeholders on the aspects of financing of education for the sake of improved educational outcomes.

**Limitations of the Study**

This study was limited by scope on public primary schools and nature of data collected which was mainly based on opinions and this kind of data is bound to be subjective. Some respondents were hesitant to give information even after being assured that their responses would be held confidential.

**RESEARCH METHODOLOGY**

This study was carried out in Teso North Sub County in Busia County, Kenya. Teso Sub County was chosen because performance primary school has not been meeting the expectations of parents. This has seen them voice concerns in both formal and informal forum. Besides, they have locked out teachers from schools whereas teachers themselves blame parents for being not involved in their children’s education. The study employed a descriptive survey design. The design was considered appropriate because it is less expensive and can enable the researcher to examine data from a wider area within a short time (Gatara, 2010). The design provides qualitative or numeric descriptions of trends, attitudes and perceptions of the population by studying a sample of that population (Best and Khan, 2003; Kothari, 2008). A sample of 30 public primary schools was considered for the study representing 32% of the target population. This surpassed the minimal percentage recommended for a descriptive study (Best and Kahn 2003; Mugenda and Mugenda 2003). Thirty head teachers (32%), 192 (25%) teachers, 260 (10%) pupils, and 30parents participated in the study. Head teachers and parents were purposively sampled while proportionate random sampling was used to sample teachers and pupils. Kothari (2008) suggests that this method enables the researcher to obtain maximum efficiency in the sample with greater representation being assigned to a division with more schools or targeted participants. Questionnaires, semi-structured interview
schedules and document analysis schedule were used to collect data. Validity and reliability of instruments was established through careful selection of items to be responded to, piloting and expert review of the instruments. A computed Cronbach’s Coefficient of reliability, alpha of 0.83 was obtained: an indicator that the instruments were of high reliability (Fraenkel and Wallen, 1990).

Descriptive analyses (percentages, frequencies, and means) were used to summarize and describe the characteristics of the sample population while inferential statistics were used to make deductions and generalizations about the whole population. According to Mugenda and Mugenda (1999) inferential statistics deal with inferences about a population based on results obtained from the sample. The results were presented in form of tables, and figures. Thematic reporting of data from parent interview was also included. Since both the outcome and the predictor variables were measured on an interval scale, the best suited analysis strategy was OLS linear regression. Regression analysis was pursued for variables that were significantly correlated with the dependent variable at $\alpha=.05$. This was done using a computer programme -Stata version 11.0

RESEARCH FINDINGS AND DISCUSSIONS

Table 1 presents the descriptive statistics for the variables used in the analysis. The dependent variable (q25) had a mean of 234.47, sd=26.45. Provision of supplementary texts and availability of lunch programs were measured on a scale of 1-10, where 1=Not Involved at all and 10= Highly Involved. The results indicate that parental involvement in provision of supplementary texts has a mean of 2.797, a standard error of the mean of 0.24 and a standard deviation of 1.33. A mean of 2.797 therefore suggests very low level of parental involvement. This justifies earlier the concern that parents in public primary schools had abandoned their roles in education particularly in relation to provision of teaching and learning resources and they had come to believe that the government had taken over full responsibility (Ogola, 2010; Ondieki, 1988; Sperns, 2011). In view of findings of studies done elsewhere such as Rwanda (Kaberere 2013), there is need of policies that encourage partnerships between all stakeholders in order to improve educational outcomes in the district.

Table 2 presents correlation results testing the relationship between school mean-score (q25) and parental involvement in; provision supplementary text books (q8), payment of access costs (q26), PTA teachers (q39) and lunch program (q59).

Findings show school mean-score (q25) had a weak and non-significant correlation with parental involvement in the provision of reading materials ($r_{[28, 30]} =.1030, p=.5879$). Despite there being no statistically significant relationship, the researcher still fitted regression models to explore the effects of the other predictors in the model. The introduction of free primary education in 2003 was presumed to guarantee quality, relevance and equity in access to primary education. This saw the government remitting Kshs 1020 per student annually. However studies have indicated that this money is inadequate to cater for the needs of the school. Furthermore primary schools have continued to suffer from acute understaffing. As a result, head teachers have resorted to charge parents access fee albeit secretly. The results presented in table 2 indicate that parental payment of access costs had a positive correlation with school academic performance ($r=0.4222, \ p=0.020$). This can be taken to imply that schools that charge extra levies to bridge the deficit were in position to offer quality education. This is an important observation suggesting the need to review financial allocations toward FPE. Because of teacher shortage, some schools recruit teachers who are paid by the School Management Board on temporary basis. The results indicate that the strongest correlation was between PTA teachers and school mean scores (0.6628, p=0.000). This should not be taken to mean schools should employ teachers, but evidence of teacher shortage that needs to be addressed. In that context we may conclude schools that undertook the initiative to employ additional teachers to bridge the gap realized improved results. In addition, this finding puts into focus the effectiveness of government teachers particularly at a time when majority of primary school teachers are concentrating in advancing their studies. As for the school feeding program, schools asked parents of grade four to eight were to contribute cash or in kind towards the school feeding program. In most of these schools, students themselves were asked to prepare meals. An interesting finding was the negative correlation between lunch programs and school academic performance ($r=-0.3686, \ p=0.045$). Some studies have indicated that school lunch programs have a positive effect on educational outcomes (Lawson, 2012). This study raises concerns in regard to effective implementation of school feeding programs and suggests research gaps that need further research. As for schools having electricity, the government policy has been that every primary school should be connected to the main grid in preparation for the much popularized laptop per child program. By 2013, government statistics had indicated that 60% of public primary schools were connected to the main grid. In Teso North, about 30% of the schools had electricity. The use of electricity in primary schools was however basically limited to lighting. As a result, students were allowed extended private studies up to 8.00pm instead of the normal time of 5.00pm. Findings indicate that electricity had significant positive relationship with school academic performance. This is a plus for the Kenya government sponsored school electrification program. It is equally important for
Table 1. Descriptive statistics for the variables to be used in the analysis of H05 (n=30)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Mean</th>
<th>Standard error (mean)</th>
<th>Standard deviation</th>
<th>Range</th>
<th>Min</th>
<th>Max</th>
</tr>
</thead>
<tbody>
<tr>
<td>q25</td>
<td>234.47</td>
<td>4.83</td>
<td>26.45</td>
<td>110.67</td>
<td>183</td>
<td>293.67</td>
</tr>
<tr>
<td>q8</td>
<td>2.797</td>
<td>0.24</td>
<td>1.33</td>
<td>5</td>
<td>1</td>
<td>6</td>
</tr>
<tr>
<td>q13</td>
<td>1.40</td>
<td>0.11</td>
<td>0.62</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>q19</td>
<td>1.83</td>
<td>0.12</td>
<td>0.65</td>
<td>2</td>
<td>1</td>
<td>3</td>
</tr>
<tr>
<td>q26</td>
<td>107.67</td>
<td>4.91</td>
<td>26.87</td>
<td>140</td>
<td>60</td>
<td>200</td>
</tr>
<tr>
<td>q39</td>
<td>0.83</td>
<td>0.17</td>
<td>0.95</td>
<td>3</td>
<td>0</td>
<td>3</td>
</tr>
<tr>
<td>q49</td>
<td>64.98</td>
<td>2.46</td>
<td>13.49</td>
<td>49.44</td>
<td>35.58</td>
<td>85.03</td>
</tr>
<tr>
<td>q52</td>
<td>0.33</td>
<td>0.09</td>
<td>0.48</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
<tr>
<td>q57</td>
<td>0.93</td>
<td>0.05</td>
<td>0.25</td>
<td>1</td>
<td>0</td>
<td>1</td>
</tr>
</tbody>
</table>

Source: Echaune (2014)

Education partners who may which to invest in this sector. This finding provides evidence of immediate returns from investing in school electrification programs.

**Linear regression models on the effect of parental involvement in the provision of teaching and learning resources on school KCPE mean-scores**

Table 3 summarizes the results of the regression. Although not statistically significant in model 1, parental provision of supplementary reading material has a positive effect on school KCPE mean-score (β=2.056, p=.632). The coefficients for the two control variables are however not significant in model 2 where a one shilling increase in parental payment of access costs predicts a 0.356 point-increase (p=.017) in the school KCPE mean-score. The result in table 3 implies that if parents were to pay an extra Ksh. 100 over and above what they currently pay their school mean score is predicted to increase by 35.6 points. Again, a one percentage increase in parental attendance of school meetings predicts a 0.661 increase in their school mean-score (p=.018). In perspective, for a school where parents do not attend school meetings at all, a turnaround attendance of 100% for such parents would predict a 66.1% increase in their school KCPE mean-score. The results for these two variables are however not statistically significant when other predictors are adjusted for in the full model where again, a one unit increase in the number of PTA teachers in a school predicts an increase of 16.090 points (p=.003) in the school KCPE mean-score. But if the available teachers in a school are not committed in their work, the predicted school mean score would drop by a massive 24.664 (p=.004) points for a one unit increase in non commitment. Since this model was testing the effect of parental provision of supplementary reading material on school KCPE mean scores, whose coefficient in the final model was 1.093, p=0.752, the researcher failed to reject the null hypothesis which states that “Parental involvement in the provision of supplementary reading material does not have a significant relationship with school academic performance.
Table 3. Regression coefficients of the effect of parental involvement in provision of school teaching and learning resources on school KCPE means scores, 2010-2012 (q25)

<table>
<thead>
<tr>
<th>Variable</th>
<th>Model 1 q25</th>
<th>Model 2 q25</th>
<th>Model 3 q25</th>
</tr>
</thead>
<tbody>
<tr>
<td>q8</td>
<td>2.056 (4.249)</td>
<td>0.779 (4.606)</td>
<td>1.093 (3.416)</td>
</tr>
<tr>
<td>q26</td>
<td>0.356* (0.140)</td>
<td>0.169 (0.131)</td>
<td></td>
</tr>
<tr>
<td>q49</td>
<td>0.661* (0.260)</td>
<td>0.047 (0.359)</td>
<td></td>
</tr>
<tr>
<td>q39</td>
<td>16.090** (4.891)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>q19</td>
<td>-20.256 (14.989)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>q57</td>
<td>-24.664** (7.531)</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td>229.052*** (11.670)</td>
<td>151.180*** (20.254)</td>
<td>238.529*** (31.758)</td>
</tr>
</tbody>
</table>

N = 30
R² = 0.011
Adjusted R² = -0.025
Root Mean Squared Error (RMSE) = 26.78

Note. Robust standard errors in parentheses; RMSE=Standard deviation of the regression (the closer to zero better the fit)
*p<.05, **p<.01, ***p<.001
Source: Echaune (2014)
The researcher carried out post-estimation tests to ascertain how well the model predicted the response variable in testing H0. The results suggest no violations of the assumptions underlying linear regression. The variance in the residuals is homoscedastic since there is no particular pattern in the scatter plot between residuals and predicted values as seen in figure 1.

The null hypothesis in the Shapiro-Wilk test is that the residuals are normally distributed. With a test value of 0.940 and p=0.089 at α=.05, the researcher failed to reject the null hypothesis and concluded that the distribution of the residuals is normal. Finally, the researcher checked for whether more variables than those in the full model for H0 were needed. The null hypothesis is that there is no specification error. If the p-value of _hatsq is not significant then we fail to reject the null and conclude that the model is correctly specified. Table 4 summarizes the test results.

The test’s result presented in table 4 is $F(3, 18) = 1.34, p=.292$ at $\alpha=.05$ leading to the conclusion that the model does not have omitted variables bias. The researcher also tested the null hypothesis that the model does not have a specification error. In the test, the null hypothesis fails to be rejected if the p-value for _hatsq is not significant. With a _hatsq p-value of 0.674, the model is deemed to be correctly specified.

**CONCLUSIONS AND RECOMMENDATIONS**

The results of this study provide evidence of limited parental involvement in provision of supplementary
reading material, payment of access costs and PTA teachers. The study however notes gains in educational outcome with respect to parental involvement, therefore confirming the significance of involving parents in educational processes. Based on the findings and conclusions thereof, it is recommended that; parents who are not involved in education of their children should be sensitized while those who are involved should be encouraged to continue doing so.

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