Parental Involvement in Homework and Primary School Academic Performance in Kenya

Manasi Echaune¹ Judah M. Ndiku² Anthony Sang²
1.Box 42-50226, Myanga via Bungoma
2.Box 190 Kakamega
Email: echaunemanasi@yahoo.com; judahndiku@gmail.com; tonsang79@yahoo.com

Abstract
The factors associated with students’ academic performance may have been addressed but the impact of parental involvement continues to be a significant issue. Some schools in Kenya post poor results amid claims that parents are not supportive. This study examined the effect of parental involvement in homework on academic performance in public primary schools in Teso North Sub County, Busia-Kenya. The objectives were; to establish the types of homework assistance children get from parents, to ascertain the extent of parental involvement in homework and to examine the association between parental involvement in homework and school academic performance. All teachers, head teachers, pupils and parents in public primary schools were targeted. Thirty schools were sampled randomly from where 532 respondents (30 head teachers, 30 parents, 192 teachers and 280 pupils) were then sampled. Parents and head teachers were purposively sampled while teachers and pupils were proportionately sampled. A descriptive survey design was employed and data collected using questionnaires, semi-structured interviews schedules and document analysis. Quantitative data was analyzed using means, percentages and frequencies and qualitative data was reported directly. T-tests, Pearson moment correlation coefficient, and OLS regression coefficients were used to test hypotheses. The results indicate female parents were more willing to assist children in homework. Parents provided limited assistance in areas such as reading, writing and solving difficult sums. Parental involvement in homework positively correlated with school academic performance. The positive effect of parental involvement in homework disappeared when other variables were controlled for. It was concluded that since educational gains of parental involvement are noted and confirmed the significance of parents in educational processes. It was recommended that parents who don’t assist children in homework should be sensitized to do so.

Keywords: parental involvement, homework, primary school, academic performance.

INTRODUCTION
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 (Psacharapoulos, 1987; World Bank 2008). In recognition of this, the government of Kenya reintroduced free and compulsory primary education in 2003(Chahari, 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,
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 homework among the entry points of parental involvement for successful child learning (Huang 2006; Hoover-Dempsey & 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. 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 establish the types of homework assistance children get from parents, to ascertain the extent of parental involvement in following up children’s homework, to examine the association between parental involvement in homework and school academic performance.

Osei Akodo 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 indicate that majority of the parents (83%) hardly assisted children in homework. The study failed to establish the effect of parental involvement on academic performance. In Namibia, Guolaung Erlendsdottir (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 but the study was limited in design since the sample was too small to make generalization to a larger population. Kibet (2010) investigated the role of parents in enhancing preschool children’s education in Uasin Gishu district, Kenya and found that parental involvement in education was low. This study was limited in scope covering only pre-primary schools. From Ciaraka (2003), the research that sought to establish the role of parents in facilitating the 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 check children’s exercise books regularly. 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. This study was limited in design and scope given that it covered only one school involving a sample of twelve respondents. This sample was too small to get sufficient data to allow generalizations to the entire population. Mbugua (1987) examined the role of surrounding communities in primary school education in Thika Municipality and indicated existence of parental involvement in education but we cannot rely upon these results holistically because pupils were excluded yet they form part of the key stakeholders. In Ondieki (1988) educational failure in Kisii district was associated with the lack of co-operation from parents.

In Norway, studies indicate that parents’ involvement in homework has significant influence on students’ academic achievement (Cresswell & 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. Even though the study made a significant attempt in establishing the effect of parental involvement on students’ academic performance, no attempt was made to establish effect sizes and extent to which parental involvement predicted variations in school academic performance. The study is also limited in sample in since teachers, students and head teachers were not included the study. Nyaroko (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 fathers school involvement and students’ academic performance. Lesanju (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, F. 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 ($r=0.03$). As noted in the literature review, studies have indicated how parental involvement predicts variations in academic performance. However, some of these studies are limited in design. The studies did not also isolate the effect of parental involvement in homework on school academic performance. There are hardly any studies on parental involvement in education in Teso North Sub County. It is in view of these gaps that the current study was conducted.

**Methodology**

The study was carried out in Teso North Sub County in Busia County, Kenya. The population comprised of all primary school teachers, parents, head teachers and standard eight pupils in ninety three public primary schools in Teso North. 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 & 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 & Mugenda 2003). A sample of 192 (25%) teachers, 280 (10%) pupils and 30 (32%) head teachers was used. 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.

**Instrumentation**

Questionnaires, semi-structured interview schedules and document analysis schedule were used to collect data. Questionnaires permitted a greater depth of responses within a short time while Semi structured interviews schedules made it possible to standardize the interview situation so that the interviewer could ask the same questions in the same manner. The interviewer could also clarify questions thereby helping illiterate respondents give responses.

**Data Analysis**

Data was processed, coded and analyzed to facilitate answering the research objectives and hypotheses. This was done using both descriptive and inferential statistics. 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 & 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 $\alpha=0.05$. This was done using a computer programme -Stata version 11.0.

**Results and Discussions**

The study involved 280 pupils (144 were male while 136 female). Majority of the pupils (88.5%) were aged 13-15 yrs. One hundred and six (52.1%) had both parents alive. A significant proportion 83(29.6%) stayed with their mother. Forty nine (17.5%) lived with relatives. Sixty (31.3%) teachers in the sample were holders of O-Level education with P1 training while those who had A-Level P1 training were 50 (26.0%). Five (2.6%) of the teachers were Bachelor of Education graduates. Holders of Diploma in Education teachers were 76(39.6%) and only one teacher (0.5%) was identified to hold a Master in Education degree. Out of the thirty head teachers three (10.0 %) had secondary O’ level with P1 training as their highest level of education while 4(13.3%) had secondary A’ Level with P1 training. Four head teachers (13.3%) were Bachelor in Education graduates and 18 (60.0%) were holders of Diploma in Education. Only one head teacher had postgraduate qualification in this case identified as Master of Education graduate. Also thirty parents participated in the study.

**Types of Homework Assistance Children Get From Parents**

One of the objectives of this study was to establish the type of assistance children get from their parents while doing homework. Parental assistance in homework creates a school like environment that allow a child to complete the task at hand as well as gain better understanding therefore complimenting the teacher’s effort. The respondents were asked what type of assistance they get. The percentages calculated and presented in figure 1 indicate that popular homework assistance children get was reading (66%). Only 4% were assisted in writing.
parents compared to 30% assisted in solving difficult problems. Additional data on this aspect was collected by asking the children to state who actually was involved in his or her homework.

![Figure 1: Types of homework assistance parents give children.](image)

The findings presented in table 2 show that children were mainly assisted in doing homework by female mothers, 189 (87.5%). Fathers seem to be less concerned with children’s home since only 2.7% were involved.

![Figure 2: Parents who assist children in homework](image)

This is consistent with research findings. Ogoye-Ndegwa (2007) says that active homework help was primarily a ‘mother’s responsibility. However, there is a contradiction with Lamb et al. (1987) who reported that in Kenyan homes, mothers and female guardians were primarily concerned with children’s hygiene and talking to their children about transition stage rather than assisting them in school work.

**Extent of parental involvement in homework**

The other objective of this study was to establish the extent to which parents were involved in children’s homework. This would determine whether the assistance was meaningful. Thirty head teachers and 192 teachers were asked to rate the extent of parental involvement in homework in their schools. Their rating was measured on a scale of 1 to 10 where; 1=Not involved at all and 10=fully involved. Each head teacher’s rating was then matched with an individual teacher’s rating in a sampled school. This procedure yielded 192 pairs of scores that were used to run the t-tests for related measures to test the significance of the difference between head teachers and teachers rating of the extent of parental involvement in homework. The head teachers rated parental involvement in homework at 5.875 higher than the teachers’ rating of 3.797. With $t=10.2759$, degrees of freedom=191 and $p<0.0001$, the researcher rejected the null hypothesis and concluded that there was a statistically significant difference of 2.078 between the two means. The argument that could be advanced for this is that since teachers dealt with pupils’ homework on a daily basis, it was highly probable that the teachers’ rating was more genuine compared with that of the head teachers. Despite there being a difference in the rating,
the results suggest that parental involvement in homework was fairly low. This is supported by some parents interviewed. One parent blatantly said; “I don’t see why children should carry school work home. I feel that after school children should assist us! After all they go to school all days including weekends so when will they help us? This is shared by a parent in another school who said; “I really don’t have time to assist my son in homework, what I know is that a child can perform well with or without my assistance. Both of these parents express views implying that they are least involved in their children’s homework. Another finding of this study of serious concern is that parents give them domestic chores most of the time thereby having to time to do homework. This conforms to findings by Atieno and Ayodo(2011). Finally the study sought to examine the association between parental involvement in their children’s homework and school academic performance. The analysis incorporated both descriptive and inferential statistics involving both bivariate and multivariate techniques. The hypothesis being tested was; H0: There is no statistically significant relationship between parental involvement in their children’s homework and school academic performance. The results of the correlation indicated that school academic performance has a weak correlation with the involvement of parents in children’s homework, $r(n=30) = .3444, p = .0623$. The results were however significant at 10%. Despite the result, the relationship was pursued further in a robust linear regression to account for effect sizes when other covariates are accounted for.

Descriptive statistics and linear regression models on the effect of parental involvement in homework on academic performance

The mean for the outcome variable was 234.47 with a standard error of the mean and standard deviation of 4.83 and 26.45 respectively. The mean for Parental involvement in homework was 5.875, std. err 0.44, standard deviation 2.41. One of the assumptions of linear regression requires that the dependent variable be normally distributed. Figure 1 presents a Kernel density estimate for the dependent variable q25.

![Figure 3: Kernel density estimate for the dependent variable](image)

Figure 3 indicates that the average KCPE mean-score (q25) as estimated is very close to a normal distribution. The regression results are presented in table 1. As can be seen in table 1, model 1 indicates that parental involvement in the homework has a positive effect on school academic performance. That on a 10-point scale where 1=not involved at all and 10=deeply involved, a one-point increase in parental involvement in the homework predicts a 3.78-point increase in school mean-score although the result is only significant at $\alpha=.10$ ($p=.093$). In perspective, this result suggests that if parents do not participate in the homework of their children at all, their school would have a mean-score of 212.91. But a one unit increase on a 10-point scale in the level of parental participation in homework predicts a mean-score of 216.69 (212.91[constant] +3.78[coefficient] = 216.69). This result implies that Parental involvement in homework explains 8.7% of the variation in school KCPE mean-scores (adjusted $R^2$). While the $R^2$ squared shows the amount of variance of Y (dependent variable) explained by X (predictor), the adjusted $R^2$ is a function of the number of cases and the number of variables. When the number of variables is small and the number of cases very large, then the adjusted $R^2$ is closer to $R^2$. As a result the adjusted $R^2$ is a more honest association between X and Y. The positive effect of parental involvement in homework was expected since previous studies have established the same outcome. Epstein’s model upon which this study is anchored also predicts that children’s academic achievement is enhanced when parents get involved in their homework.

Table 1 also shows that the significant effect of q9 on q25 disappears when parental payment of PTA levies (q26) and mean percentage of parents attending meetings (2010-2012) (q49) are introduced in the model(see model 2). Both variables have a positive effect on school mean scores of 0.32 ($p=.074$) and 0.63 ($p=.018$) respectively. For instance, if all the parents invited for schools meetings attended, KCPE mean score for that school would increase by 63 points holding other predictors in the model constant. This result means that a one-percentage increase in attendance predicts a 0.63 increase in school KCPE scores. With model 2, the $R^2$ improves to 22.5%.
Table 1: OLS regression models for the predictors of school academic performance (KCPE mean score: 2010-2012 (q25))

<table>
<thead>
<tr>
<th>Variable</th>
<th>Variable label</th>
<th>Model 1 q25</th>
<th>Model 2 q25</th>
<th>Model 3 q25</th>
</tr>
</thead>
<tbody>
<tr>
<td>q9</td>
<td>parental involvement in the homework of their children</td>
<td>3.782† (2.178)</td>
<td>1.044 (2.697)</td>
<td>2.054 (2.964)</td>
</tr>
<tr>
<td>q26</td>
<td>parental payment of PTA levies</td>
<td>0.316† (0.170)</td>
<td>0.094 (0.150)</td>
<td></td>
</tr>
<tr>
<td>q49</td>
<td>mean percentage of parents who attended meetings (2010-2012)</td>
<td>0.633* (0.251)</td>
<td>0.077 (0.329)</td>
<td></td>
</tr>
<tr>
<td>q39</td>
<td>number of PTA teachers</td>
<td></td>
<td>17.308** (4.989)</td>
<td></td>
</tr>
<tr>
<td>q19</td>
<td>factors hindering good school academic performance: 1=hostile community or lack of parental support (ref)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>2=understaffing</td>
<td></td>
<td>-9.951 (19.815)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>3=non committed teachers</td>
<td></td>
<td>-17.205 (12.981)</td>
<td></td>
</tr>
<tr>
<td>q52</td>
<td>school connected to electricity</td>
<td></td>
<td>-7.797 (15.568)</td>
<td></td>
</tr>
<tr>
<td>q57</td>
<td>school has a lunch programme</td>
<td></td>
<td>-30.781 (19.739)</td>
<td></td>
</tr>
<tr>
<td>Constant</td>
<td></td>
<td>212.909*** (13.512)</td>
<td>153.378*** (19.553)</td>
<td>232.411*** (32.536)</td>
</tr>
</tbody>
</table>

N 30 30 30
R\(^2\) 0.119 0.306 0.669
Adjusted R\(^2\) 0.087 0.225 0.543
Root Mean Squared Error (RMSE) 25.27 23.28 17.88

Note. Robust standard errors in parentheses; RMSE=Standard deviation of the regression (the closer to zero better the fit) †p<.10  *p<.05, **p<.01, ***p<.001

The results in table 1, model 3 that adjusted for school covariates [number of PTA teachers (q39); factors hindering good school academic performance (q19); whether the school is connected to electricity (q52) and whether the school has a lunch program (q57)] indicate that only q39 has significant positive effect on the outcome variable. A one unit increase in the number of PTA teachers predicts a 17.31 (p=.002) point increase in the school KCPE mean score. The results presented above predict that while a school without a PTA teacher would have a mean-score of 232.411; one with a PTA teacher would post a mean-score of 249.721 in the KCPE exam (232.411+17.31=249.721). The adjusted R\(^2\) in the final model improves to explain a 54.3% of the variation in the outcome variable. Consequently, after accounting for other covariates in the full regression model, parental involvement in the homework does not positively affect school KCPE mean-scores, \(\beta=2.054, p=.496\). Following these results, the researcher fails to reject the null hypothesis which states that parental involvement in their children’s homework does not have a significant relationship with their school’s academic performance. This result was however unexpected since the study anticipated that the low school academic performance experienced in the study area was squarely dependent of the extent of parental involvement.

Conclusions and Recommendations

The results of this study provide evidence of parental involvement in homework assistance in various forms such as reading, writing and solving difficult sums. This study notes gains in educational outcome with respect to parental involvement and therefore confirms 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 homework of their children should be sensitized while those who are involved should be encouraged to continue doing so.

References


Pupils in Selected Schools of Egoji-Meru, Kenya (Masters’ project) Kenyatta University.
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