



ISSN 2278 – 0211 (Online)

## Parental Educational Attainment and Students' Academic Performance of Public Mixed Day Secondary Schools in Kuresoi Sub -County, Nakuru County, Kenya

**Benjamin Kipkoech Koskei**

Ph.D. Student, Moi University, Kenya

**Dr. Geoffrey Ngeno**

Lecturer, Educational Psychology Department School of Education, Moi University, Kenya

### **Abstract:**

*This study sought to investigate the influence of parental educational attainment on academic performance of public mixed day secondary school students. The study employed ex-post facto design. The researcher used stratified random sampling technique. The study involved 6 secondary schools. A sample of 180 form four students was selected out of an accessible population. The research instrument used to collect data was questionnaires. A pilot study was carried out and a split-half method was used to determine the reliability of the research instrument. Expert judgment was employed to determine the validity of the research instrument. The research was based on ecological systems theory which was advanced by Bronfenbrenner and the theory of overlapping spheres of influence proposed by Epstein. The researcher carried out analytical review of relevant literature. The data collected in the field was analyzed using descriptive and inferential statistics, and null hypotheses tested at  $\alpha = 0.05$ . The finding of this study revealed that parental educational attainment did not significantly influence students' academic performance in Kuresoi Sub-county.*

**Keywords:** Academic performance, parental educational attainment, students, questionnaire

### **1. Introduction**

Education is the development of the endowed capacities in the individual which will enable him to control his environment and fulfill his responsibilities to a major extent. The common feature of the education system in Kenya is academic performance. High academic performers in the society are considered successful in life while low academic performers are failures. Examinations and certifications are actually central to education and training processes as a means of evaluating the level of achievement for purposes of further education, training and employment. This has led schools to concentrate largely on preparing students to pass examinations for the purpose of acquiring good academic certificates which are considered essential for securing employment in both public and private sectors of the economy. Ford and Harris (1997) followed this logic while examining parental influence on African-American students' school achievement by focusing on specific socio-demographic factors, including parental educational attainment, family income and marital status. Researchers generally agree that a constellation of familial factors exert significant influence on the educational aspiration and academic achievement of adolescents (Garg, Kauppi, Lewko & Urajnik, 2002; Garg, Melanson & Levin, 2007; Sanchez, Reyes, & Singh, 2006; Teachman, & Paasch, 1998). Among those salient factors are parental occupation, parental educational attainment, and family income. In the literature, parental educational attainment will be examined in relation to academic performance. Sanchez, Reyes, and Singh, (2006) identified negative domains within the family such as parental educational attainment, parental occupation, and family income to explain Latino Youth's educational failure. Behnke, Piercy and Diversi, (2004) found a connection between Latino Youth's education and their parental educational attainment. A person's education is closely linked to their life chances, income, and well being (Battle and Lewis 2002). Therefore, it is important to have a clear understanding of what benefits or hinders one's educational attainment.

### **2. Literature Review**

The literature on achievement consistently has shown that parental education is important in predicting children's achievement. The Mechanisms for understanding this influence however, have not been well studied in general, family process models (Linver, Brooks-Gunn, & Kohen, 2002; Yeung, Linver, & Brooks-Gunn, 2002) have examined how parenting behavior, such as the structure of the

home environment, influence children's achievement outcomes. Klebanov, Brooks-Gunn, & Duncan, (1994) found that mothers' education was important predictor of physical environment and learning experience at home. Smith, Brooks-Gunn, & Klebanov, (1999) found association between parent's education with children's academic achievement was mediated by the home environment. Thus, these authors posited that education might be linked to specific achievement behavior in the home for example reading and playing.

Corwyn and Bradley (2002) also found that maternal education had the most consistent direct influence on children's cognitive outcomes. Maternal characteristics are a key factor that affects academic achievement. Mothers who are more educated and have higher self-esteem have children who receive higher test scores (Baharudin & Luster 1998, Eamon 2005). Kao and Tienda (1998) concluded that eight grader aspirations to attend college derive primary from parents' education. Other researchers found substantial support for positive relationship between mothers' and fathers' supportive behavior, educational level, language spoken in the home and adolescent's aspirations (Plunkett & Bamaca-Gomez, 2003).

Suitor, Plikuhn, Gilligan and Powers (2008) study isolated the variable of mothers' education and its impact on her children. Thirty-five women in this sample were followed for a decade to determine the longitudinal effect of their return to school and the consequence their academic achievement had on children's educational goals and orientations. The researchers found that return to school were consequential on children's aspirations only when mothers' completed their degrees (Suitor et. al. 2008). Chiu and Khoo (2005) reported 15 year old students' test scores related significantly with mothers' mean year of schooling.

In a study among black and white men born from 1907-1946. Kuo and Hauser (1995) found that at least half the variance in educational attainment was attributed to family background, including parental schooling. Muola, (2010) reported that parental educational attainment correlated significantly with academic achievement. An educated parent become more involved in education of a child and can assist in school work. Educated parents also purchase books and other learning materials/resources for their children who create school conditions to successful performance but these learning conditions are absent in the poor uneducated and rural family. Children whose parents' educational attainment is low are unprepared for school. They often lack readiness to learn, physical strength, and mental mindset (Pellino, 2006).

In 2005, a family member read to 60% of children ages 3-5 daily. However, children living in families with low income were less likely to be read to daily than their peers in high-income household (Pellino, 2006). Glewwe, Jacoby and King (2001) used panel data from the Philippines to show that well nourished children perform better in school because they enroll earlier and learn more per year of school. Gale (2002) stated that parent's who have educational training, are involved in their adolescent school programs and have high aspirations for them. In such a case, adolescents are likely to have high educational aspirations, which influence their academic performance. Socio-economic status of adolescents has an effect on college enrolment, therefore having an indirect effect on educational success. According to her, the higher the socio-economic status, the higher the academic performance and the better the students' academic performance is, the more prestigious the occupation to which they aspire.

Chepcheng, (1995) found in his study in Kabartonjo division a negative correlation between parental educational attainment and students' academic performance of boarding secondary school. Low-SES students may not be strongly motivated to do well in school, and they may not be knowledgeable about techniques for becoming successful in school. Middle class parents who have benefited in a variety from education serve as effective and enthusiastic advocates of schooling. Because doing well in school paid off for them, they are eager to persuade their children to do well academically in order to achieve similar or greater benefits. They also serve as positive role models.

Geberselassie and Gebry (2000) carried out in Ethiopia established that educated parents that were government employees favored the enrollment of their children. It also revealed that parental education influenced school enrollment positively and significantly for instance additional years of further schooling was seen to raise the school enrollment of boys and girls by 2.00% whereas an additional year in mother schooling raised the probability of enrollment of boys by 2.00% and girls by 3.00% and this indirectly enhance academic performance.

A study of socio-economic status of students by Eshiwani (1983) pointed out that the ratio of students whose fathers were teachers took a lion's share of the university admission 'cake' due to motivation and encouragement from their parents to provide further studies. In a study conducted by Knight and Sabaot (1990) it was found that in contrast to Tanzania, in Kenya there is positive relationship between the parental educational attainment and the Childs' Form four examinations performance. These findings tailed with Maundu (1986) findings that parental education has a significant influence on student's performance in both primary and secondary examinations. It has been observed in many countries that children from educated background are at an advantage in academic competition. In Kenya and Tanzania the children of more educated homes also have better opportunities to acquire cognitive skills and appropriate attitudes in the home (Knight and Sabaot 1990). Therefore, it was necessary investigate the influence of parental educational level on academic performance of secondary school students.

### 3. Methodology

#### 3.1. Research Design

This study employed *ex-post facto* design. The main purpose of this design was to determine causes and effects for the current status of the phenomena under study. Parental educational attainment which served as the independent variable could not be directly manipulated (Nachmias & Nachmias, 1996; Kerlinger, 2000, Mugenda and Mugenda 2003). This design was also found appropriate because it allowed the investigation of subsequent relationships between variables. The academic performances of public mixed day

secondary school students are taken as the dependent variable. Thus, the researcher was able to relate an after-the-fact analysis to an outcome or the dependent variable (Kathuri & Pals, 1993). The researcher used the design to investigate the relationship between Parental educational attainment and students' academic performance in public mixed day secondary school in Kuresoi Sub- County.

### 3.2. Study Population

One hundred and eighty form four students were selected from the six schools and used for the study. The study population was 3,913 students enrolled in public mixed day secondary schools in Kuresoi Sub- County. The accessible population was the form four students who were used as respondents because they were assumed to be mature enough in terms of age and education thus having an idea about their family socio-economic background. Stratified random sampling was adopted. The technique placed the respondents into two strata on the basis of gender (boys and girls). Simple random sampling was adopted because it necessitated selecting of schools in such a way that the schools had an equal probability of being equal. The main factor to consider in determining the sample size was the need to keep it manageable.

### 3.3. Instrumentation

Data was collected from students in the selected secondary schools. The researcher used questionnaire for students as the data collection instruments. Both closed and open-ended items were used in the questionnaire. A closed-ended questionnaire is one which the respondent is offered the choice of alternative responses. Open-ended questionnaire is not followed by any kind of choice and the answers have to be recorded in full in order to support and check the alternative choice responses given by the respondent.

Data concerning the academic performance of the students was obtained from school records. Through the principals of the selected schools, the researcher requested for the last one year marks (2011) of the respondents from the teacher in charge of academics. It was assumed that each subject was graded in percentages. An average mark was based on teachers rating the end of term test marks. The marks were standardized using T-score formula. The standardized scores provided a common basis for academic comparison of students' performance. In order to achieve this scale, raw scores were transformed using the raw-score mean and standard deviation. The transformation yields a scale of Z- scores and this is used in transforming raw-scores into T-scores formulae.

### 3.4. Procedure

The researcher and research assistants ensured the sampled respondents were the ones providing appropriate responses in the questionnaire. The research assistants were trained in administering of the instrument and participated in piloting and correcting of the instrument before the final use. Before the questionnaire was administered to students in each school, either the school head or the deputy head introduced the researcher to the respondents in their respective classrooms. The questionnaire was self administered type where it was presented to the students. The researcher read the items to the students one after another without offering any interpretation to the items. The respondents were not allowed to fill in the instruments until they indicated that they had clearly understood the procedure. Enough time was allowed for all the respondents to finish. A researcher asked the students to use permanent ink pens.

## 4. Results and Discussion

To determine the contribution of parental educational attainment to student's academic performance, chi-square test analysis were done with the father's and mother's educational attainment as the independent variable and the student's average end of term score for one year as the dependent variable. Parental education attainment were grouped into three categories high, medium, and low as described earlier. Such a categorization was done because from the information given by the students on the parental education, most of the parents either did not attain any levels of schooling or attained only the primary levels of education. There were only six students who indicated their parental educational attainment to be of university.

The  $\chi^2$  values of the father and the mother educational attainment of 0.90 and 1.34 respectively shows that there was no significant difference in the performance of students whose parental educational attainment was high, medium and low. This was also confirmed by very low contingency coefficients of father 0.07 and 0.09 for the mothers' educational level. The contingency coefficient revealed that a very low degree of association exists between parental educational attainment and the students' academic performance.

The above statistics suggest that a parent appear to have no influence on the children's academic performance. Therefore, from the finding, the null hypothesis ( $H_{01}$ ) which stated that parental educational attainment has no significant influence on academic performance of secondary school students was accepted.

The results obtained from analysis showed that the level of education appear to have no direct influence on secondary students performance. The Chi-square of the fathers' level of education

$\chi^2_{(ob)} = 0.90$  and  $\chi^2_{crit(0.05, 4)} = 9.49$  with  $df = 4$  showed that  $\chi^2_{(ob)} \leq \chi^2_{crit(0.05, 4)}$  then the  $H_0$  was accepted. The Chi-square of the mothers level of education  $\chi^2_{crit(0.05, 4)} = 9.49$  with  $df = 4$  showed that  $\chi^2_{(ob)} = 1.34$  and  $\chi^2_{crit(0.05, 4)}$  showed that  $\chi^2_{(ob)} \leq \chi^2_{crit(0.05, 4)}$  the  $H_0$  was accepted. Therefore, the hypothesis ( $H_{01}$ ) Parental education attainment has no significant influence on academic performance of secondary students was accepted. When contingency coefficient was calculated, there was a very low degree of association of 0.09 between the two variables.

The results therefore, confirm the finding of Sirin (2003); Chepchieng (1995); White, Reynolds, Thomas and Gitzlaff (1993). They all, in their separate studies, concluded that there was no correlation between parental education attainment and students' academic performance. The current study was done in secondary school level just like the above researchers. This implies, therefore, that

parental educational attainment has no effect on academic performance of secondary students. Most of the researchers who found a strong correlation between the two variables did their research in the lower level (primary schools) where parents' level of education could influence students' academic performance. Muola, (2010) did the same research in Machakos among standard eight pupils and found a correlation between parents' level of education and pupils' academic performance. Chiu and Khoo (2005) also found the same result in America among 15 years-old students test scores. Nzomo (2001) also established a correlation among standard 6 pupils. Therefore, the level of parental education may not contribute to the children's school work in secondary level, probably only at primary level.

## 5. Conclusion and Recommendations

The findings of the study have supported previous findings which have indicated a negative relationship between students' academic performance and parental educational attainment which had two independent variables namely: Educational attainment of the mother and educational attainment of the father, did not significantly influence students' academic performance. It was revealed from the findings that parental education attainment had no significant influence on academic performance of secondary students. The literature review indicated clearly that the relationship between socio-economic background and academic performance is stronger in developed countries than in developing ones. The relationship between the two variables is strong in primary school level in developing countries and the reverse is true in secondary level. From the findings and foregoing conclusions, the following recommendation was made: Many parents may not be aware of the influence parental educational attainment on the academic performance of their children. Parents need to be informed that they can contribute to the education of their children through active participation among other strategies.

## 6. References

1. Baharudin, R. & Luster, T. (1998). Factors Related to the Quality of the Home Environment and Children's Achievement. *Journal of family issues*. 19(4), 375-403.
2. Battle, J. & Lewis, M. (2002). The Increasing Significance of Class: The Relative Effects of Race and Socio-Economic Status on Academic Achievement. *Journal of poverty*. 6(2), 21-35.
3. Behnke, A.O., Piercy, K.W., & Diversi, M. (2004). Educational and Occupational Aspirations of Latino Youth and their Parents. *Hispanic Journal of Behavioral Sciences*. 26, 16-35.
4. Bronfenbrenner, U. (1977). Toward an experimental ecology of human development. *American Psychologist*, 513-531.
5. Chepchieng, M.C. (1995). The Influence of Sex and Family Socio-economic Background on Secondary School Pupils' Academic Performance. Unpublished M phil thesis, Moi University, Kenya.
6. Chiu, M. M., & Khoo, L. (2005). Effects of Resources, Inequality, and Privileged bias on Achievement: Country, School and Student Level Analyses. *American Educational Research Journal*. 42 (4), 575-603.
7. Corwyn, R .F.& Bradley, R.F. (2002). Family Process Mediators of the Relation between SES and Child Outcomes. Unpublished Manuscripts, University of Arkansas at Little Rock.
8. Eamon, M.K. (2005). Social-Demographic, School, Neighborhood and Parenting Influences on Academic Achievements of Latino Young Adolescents. *Journal of Youth and Adolescent*. 34 (2), 163 – 175.
9. Epstein, J. L. (1987). Toward a theory of family-school connections: Teacher practices and parent involvement. In Hurrelman, F. X. Kaufman, & F. Losel (Eds.), *social intervention: Potentials and constraints*. Berlin: W. de Gruyter.
10. Eshiwani, G.S., (1983) Factors influencing performance among primary and secondary pupils in western province, a policy study (mimeo, B.E.R (K.U).
11. Ford, D.Y., Harris, J. J., (1997). A Study of the Racial Identity and Achievement of Black Males and Females. *Roeper Rev*. 20, 105-110.
12. Gale, S. (2002). Gender Stereotyping of Career Choice (internet), [www.careerchoice.scoland.org..Careersscotland/web/site/people/parents area/genderstereotypes.asp](http://www.careerchoice.scoland.org..Careersscotland/web/site/people/parents%20area/genderstereotypes.asp).
13. Garg, R., Kauppi, C., Lewko, J., & Urajnik, D. (2002). A Structural Model of Educational Aspiration. *Journal of Career Development*. 29(2), 87-108.
14. Garg, R., Melson, S. & Levin, E. (2007). Educational Aspirations of Male and Female Adolescents from Single-Parent and two Biological Parent Families: A Comparison of Influential Factors. *Journal of Youth & Adolescence*. 36, 1010-1023.
15. Geberselassie, M. and Gebry, A. (2000). Student Socio-Economic and Development Aspects of School Enrolment: The case of Primary School in Ethiopia. Addis Ababa, OSSREA Publications.
16. Glewwe, P., Jacoby, H.G., & King, E.M. (2001). Early Childhood Nutrition and Academic Achievement: A longitudinal analysis. *Journal of public economic*, 81345-68.
17. Kao, G. & Tienda, M. (1998). Educational Aspirations of Minority Youth. *American Journal of Education*. 106, 349-384.
18. Kathuri, J.N., & Pals, D.A. (1993). Introduction to Educational Research. Njoro, Kenya: Egerton University Press.
19. Kerlinger, F.N. (2000). *Foundations of Behavioral Research* (5<sup>th</sup> ed.). New Delhi: Holt, Rinehart and Winston.
20. Klebanov, P.K., Brooks-Gunn, J., & Duncan, G.J. (1994). Does Neighborhood and Family Poverty Affect Mothers' Parenting, Mental Health and Social Support? *Journal of marriage and the family*, 56, 441-445.

23. Knight, J.B. & Sabaot, R.H.( 1990). Education, productivity and inequality. The African natural environment. A World Bank research publication.
24. Kuo, H. H. D. & Hauser, R. M. (1995). Trends in Family Effects on the Education of Black and White Brothers. *Sociology of Education*. 68, 136-160.
25. Linver, M. R., Brooks-Gunn, J., & Kohen, D.E. (2002). Family Processes as Pathways from Income to Young Children's Development. *Developmental Psychology*, 38, 719-734.
26. Maundu, J. K. (1986). Student Achievement in Science and Mathematics: A case study of Extra Provincial and Harambee Secondary School in Kenya. PhD thesis, McGill University, Montréal.
27. Mugenda, M.O., & Mugenda, G.A. (2003). *Research Methods Quantitative and Qualitative Approach*. Nairobi: Acts Press.
28. Muola, J. M. (2010). A Study of the Relationship between Academic Achievement
29. Motivation and Home Environment among Standard Eight Pupils. *Educational Research and Reviews*. Vol. 5(5), pp. 213-217.
30. Retrieved from [http/ www. Academicjournals.Org/ ERR2](http://www.Academicjournals.Org/ERR2).
31. Nachmias, C.F., & Nachmias, D. (1996). *Research Methods in the Social Sciences*.
32. London: St. Martin's Press Inc.
33. Nzomo, J. (2001). The Quality of Education; Some Policy Suggestions Based on a Survey of Schools. UNESCO – 11EP.
34. Pellino, K.M. (2006). The Effects of Poverty on Teaching and Learning.
35. Retrieved Sept 25, 2010, from [http://www-teaching-nology-com/ Articles/ teaching/poverty](http://www-teaching-nology-com/Articles/teaching/poverty).
36. Plunkett, S.W., & Bamasa-Gomez, M.Y. (2003). The Relationship between Parenting, Acculturation, and Adolescent Academics in Mexican-origin Immigrant Families in Los Angeles. *Hispanic Journal of Behavioral Sciences*. 25, 222-239.
37. Sanchez, S., Reyes, O., & Singh, J. (2006). Making it in College: The value of Significant Individual in the Lives of Mexican-American Adolescents.
38. *Journal of Hispanic Higher Education*. 5, 48-67.
39. Sirin, R.S. (2003). The Relationship between Socio-Economic Status and School Outcomes: Meta Analytic Review of Research 1990-2000 Doctoral dissertation, Boston College, 2003).
40. *Dissertation Abstracts International*, 64, 4088.Smith, J.R., Brooks-Gunn, J., & Klebanor, P.K. (1999). Consequences of Living in Poverty for Young Children's Cognitive and Verbal Ability and Early School
41. Achievement. InJ. Brools-Gunn & G. Duncan (Eds.), *Consequences of growing up poor* (pp. 132-189). New York: Russell Sage Foundation.
42. Sutor, J. J., Plikuhn, M., Gilligan, M., & Powers, R. S. (2008). Unforeseen
43. Consequences of Mothers' Return to School: Children's Educational Aspirations and Outcomes. *Sociological perspectives*. 51, 495-513.
44. Teachman, J. D., & Paasch, K. (1998). The Family and Educational Aspirations. *Journal of Marriage & Family*. 60, 704-714.
45. Yeung, W. J., Linver, M. R., & Brooks-Gunn, J. (2002). How Money Matters for Young Children's Development: Parental Investment and Family Processes. *Child Development*, 73, 1861-1879.
46. White, S., Reynolds, P., Thomas, M.M., & Gitzlaff, N. (1993). Socio-Economic Status and Achievement Revisited. *Urban Education*, 28 (3), 328-343.