

Influence Of Household Income On Retention Among Pupils In Public Day Primary Schools In Isiolo County, Kenya

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ABSTRACT

Retention of pupils in primary schools remain a problem in both developed and developing countries (UNESCO, 2011). Socio-economic status characteristics of households, in particular parental income have long been known to be a major determinant of pupils' retention. The study used correlation research survey design. The population of the study consisted of 4142 that comprises of 546 standard seven teachers and 3594 standard seven pupils in the 91 public day primary schools in Isiolo County. Class seven pupils in the sampled schools were chosen by simple random sampling technique from total number of pupils (3594 pupils). A reliability coefficient of 0.91 for the pupils and 0.92 for the teachers was arrived at. Content validity was ascertained through experts. This study used inferential statistics to analyze the data that was obtained. This study yielded data that required both qualitative and quantitative analysis. Inferential statistics was used to infer sampled data from the population before drawing conclusions. Statistical Package for Social Sciences (SPSS) version 21 aided in data analysis. To establish the overall relationship between the independent and dependent variables, regression models were used. Findings reveal that parental income and pupils' retention shows positive and significant results at .05 levels. This implies that pupils' retention is dependent on the income of their parents. Based on the summary of the findings, the household income, was found to be strongly associated with retention of pupils in public day primary schools in Isiolo County. The major conclusion that can be deduced from the findings is that, pupil's retention in public day primary schools in Isiolo County is strongly associated with household income.

Key Words: Social Economic Factors, Household Income, Retention, Primary Schools.

INTRODUCTION

Retention of pupils in primary schools remains a problem in both developed and developing countries (UNESCO, 2011). The Education for All Global Monitoring Report (2010) indicates that 72 million children worldwide are not enrolled in schools. Socio-economic status characteristics of households, in particular parental income have long been known to be a major determinant of educational retention. The debate about factors that influence retention in USA has been a controversial one in the last few decades. In less developed countries, and in particular in India, children from families with more socio-economic resources are more often enrolled in schools than children from families with less socio-economic resources (Huisman & Smits, 2009; Mingat, 2007).

Retention of pupils in primary schools is a major challenge to most Governments in the world like in Sub Saharan Africa. According to UNESCO (2010) it is estimated that more than 30 million pupils aged 10–14 in sub-Saharan Africa will not complete primary school at the end of the twenty first century. This exists despite there being a strong correlation between the introduction of Free Primary Education (FPE) policy and increase in enrolment rates across the country (Oketch, 2008; Sifuna, 2005). According to Adebola, Anyachebelu and Madu (2012), retention for pupils in public primary schools have been influenced by a multiple of factors and which are yet to be conclusively understood.

In Nigeria, there has been an increasing awareness on the interrelated nature of various variables on pupils' education such as socioeconomic status and retention (Chikwelu, 2005; Obosede, 2009). According to Chikwelu and Obosede, it is a general believe that socio-economic status has much to contribute to the students' retention. In Uganda, empirical investigations have assessed SES using measures of three key variables: family income, parents' educational levels and parents' occupations (Bradley & Corwyn, 2002). However, researches have largely ignored the effect of SES on both retention and academic achievement.

Kenya is faced with one major challenge: the inability to retain pupils in public primary schools. In 2003, the Government introduced Free Primary Education (FPE) and with it, an extra 1.3 million children enrolled in public schools, raising the figure from 5.9 million children in 2002 to 7.2 million in 2003 and 8.6 million in 2010 (Republic of Kenya, 2012). Kariga (2009) and Orodho (2013) however, established that retention of pupils in education in some Kenyan communities continues to be undermined by household income. Orodho (2013) and Kariga (2009) views are however not supported by Rosetti (2000), who noted that the notion that family income influences the ability of education to improve life circumstances is yet to be confirmed empirically. Therefore, this study sought to establish whether differences in household income among pupils influence retention of pupils' in public day primary schools in Isiolo County.

Isiolo County has low retention in the country (Republic of Kenya, 2012). A report in the Isiolo County Multiple Indicator Cluster survey (2008) shows that although most children aged 6 -13 years in the County is attending school with a net attendance ratio and retention of 92% about 8 percent of children aged 6-13 are out of school. This may imply that there are unidentified factors influencing retention which were identified in this study. This study therefore investigated household income differentials influencing retention among pupils in public day primary schools in Isiolo County.

LITERATURE REVIEW

Socio-economic status characteristics of household, in particular household income has been known to be major determinants of education enrolment in both developing and developed countries (Mingat, 2008). In USA, it is widely shown that children brought up in less favorable conditions obtain less education, despite the large financial returns to schooling (Heckman & Masterov, 2005).

Constantino (2005) examined six communities in the greater Los Angeles, California, area and found that children in high-income communities had access to significantly more books than children in low-income communities did. The study also found out that in some affluent communities, children had more books in their homes than low-income families

Children from low-income families have generally poorer physical health than do their more affluent peers. In particular, there is a higher incidence of such conditions as asthma, respiratory infections (Simoes, 2003), tuberculosis, ear infections and hearing loss, and obesity (Wang & Zhang, 2006). Children with no health insurance may receive little or no treatment for illnesses and are far more likely to die from injuries or infections than are well-off children (Bradley & Corwyn, 2002). Early health conditions may have significant long-term consequences, even if children's socioeconomic status improves later in life (Bradley & Corwyn, 2002). Further, Broadman (2004) found that a significant portion of health differentials across neighborhoods (high- and low-income) could be explained by the disparate levels of stress across these neighborhoods. The researcher to this study adds to this debate by arguing that the greater incidence of health issues among lower-income pupils leads to increased school absences and tardiness rates. As a result, pupils from poor families are more often likely to miss classes.

In Europe, determining access to education by children, household income is found to be an important factor. Household income is linked to a range of factors: when children start school, how often they attend, whether they have to temporarily withdraw and also when and if they drop out (Glewwe & Chang, 2010).

A study on the School Characteristics, Socio-Economic Status and Culture as Determinants of Primary School Enrolment in India, Mingat (2002) established that the richest households, 76 percent of their children attend school compared to 40% of the poorest households. This means that children from poor households have much lower attendance than those from richer households. Mingat (2002) contends that the level of the family income is one of the most powerful influences on primary school enrolments rates in the developing countries.

In South Africa, Sibanda (2004) found that household income level attributes are important determinants of dropping out of primary school pupils.

The enrolment and low retention of children in schools in Uganda has remained a major challenge particularly for marginalized groups. One of the groups affected by the problem of low enrolment and retention in schools is the pastoral community (Carr-Hill, 2005). In Uganda, the people of Karamoja as nomadic pastoralists are particularly affected and many Karimojong school-age children are out of school or do not complete a full cycle of basic education (Chronic Poverty Research Centre, 2008).

In Kenya, Onyango (2000), in a study on the Effects of Parent's Education on Children's Academic Achievement in Baringo, showed that parental socio-economic background influences their children's participation in education. This he contends that is common for the developing countries where children of the poor families are not provided with adequate educational materials and most are not apt to enroll in school. And if enrolled, they are more likely to drop out of school than children who are from better-off families.

The Ministry of Education, Science and Technology (2001) in Kenya noted that school drop-out; absenteeism and general truancy is rampant in coffee, *miraa* and tea picking, cane and sand harvesting, livestock herding, and fishing regions in Kenya. Some of these practices are common in Isiolo County. The Ministry of Education laments that although these activities appear to be supplementing family incomes, they disrupt the normal school routine hindering the syllabus coverage and consequently learners are not well prepared for the evaluation tests.

METHODOLOGY

The study used correlation research survey design. The study looked at how retention is influenced by household income and whether there is any relationship between the two. The county has 8% of the children aged 6-13 years who are out of school according to a report of Isiolo multiple Indicator Cluster Survey (2008).

The population of the study consisted of 4142 that comprises of 546 standard seven teachers and 3594 standard seven pupils in the 91 public day primary schools in Isiolo County. In addition, the 2 education officers in the sub-counties of Isiolo County were also included in the study.

The current study adopted purposive and simple random sampling techniques. This study used purposive sampling procedure to select a sample of teachers teaching in standard seven and simple random sampling for standard seven pupils from the sample of selected schools. Class seven pupils in the sampled schools were chosen by simple random sampling technique from total number of pupils (3594 pupils). The two sub-county directors of education in Isiolo County were selected using purposive sampling method. These were chosen for the study as they are better placed to provide the data needed for the study in the county. The sample for the teachers was 110, while that of pupils was 242, and the two sub-county directors of education, a total of 354. The data for this study was collected using questionnaires for teachers and pupils and interview guide for the education officers.

Data analysis

This study yielded data that required both qualitative and quantitative analysis. To establish the overall relationship between the independent and dependent variables in the Conceptual Framework, the following model was used.

$$Y_1 = \beta_0 + \beta_1 X_1 + \varepsilon$$

Where Y_1 = retention of pupils, β_1 = partial regression coefficients. X_1 = household income levels, ε = Error.

FINDINGS

Simple linear regression was used to test null hypothesis: *Hypothesis HO: Household Income has no Statistical Significant Influence on Retention of Pupils in Public Day Primary Schools*. The simple linear regression model assumed the form:

$$Y_2 = \beta_0 + \beta_1 HI + \varepsilon$$

Where Y =Retention, HI=Household Income and ε = Error Term
This information is presented in Table 1.

Table 1: Regression Analysis Results on the Influence of Household Income on Retention of Pupils in Public Day Primary Schools in Isiolo County.

Respondent	Model 1	R	R Square	Adjusted R Square	Std. Error of the Estimate	F	Change Statistics
Teachers		.891	.0793	.0771	.2611	12.821	.000
Pupils		.770	.5529	.5421	.132	9.039	.000
Respondent	Model	Unstandardized Coefficients		Standardized Coefficients			
		B	Std. Error	Beta		T	Sig
Teachers	Constant	.211	.233			2.879	.012
	HI	.332	.161	.198		4.400	.000
Pupils	Constant	.329	1.24			3.776	.064
	HI	.387	.218	.217		3.473	.000

Outcome Variable: Retention of Pupils, Predictors: (Constant), Household Income (HI)

Table 1 reveals that the ANOVA results are significant at .05 levels from teachers (F=12.821, p=.000) and pupils (F=9.039, p=0.000). The unstandardized coefficient, B, of household income (HI) is equal to .332 for teachers and .387 for pupils, implying that a unit change of values of household income, there is change in the rate of retention of pupils by a factor of .332 and .387 according to teacher and pupils' data respectively. The computation of the proportion of the total variance on retention (coefficient of determination R^2) due to household income was $R^2 = 0.793$ for teachers and $R^2 = 0.5529$ for pupils at .05 levels of significance; implying for example that 79.3% of the variability on the effect of pupils' retention can be explained from the level of household income.

The null hypothesis HO_{12} which stated that *Household Income has no Statistical Significant Influence on retention of Pupils in Public Day Primary Schools* was rejected. This implies that the alternative hypothesis was adopted for example there is linear significant relationship between household income and retention of pupils in public day primary schools in Isiolo County. This shows that if the income of the parents is low, then there was a possibility that pupils in Isiolo County public day primary Schools would remain at home due to lack of the necessary learning materials.

The models that were used to measure the effect of household income on pupils' retention (Y) was summarized as;

$$Y_2 = .211 + .332HI \dots \dots \dots \text{Teacher}$$

$$Y_2 = .329 + .387HI \dots \dots \dots \text{Pupils}$$

DISCUSSIONS

Pupils' retention in school is an important ingredient in schooling. However, the current study revealed that majority of teachers ($n=80$, 79.2%) and pupils ($n=180$, 79.6%) indicated that the progression rate of pupils from class 1 to 8 has decreased over time in Isiolo County. These findings are an evidence that public day primary schools in Isiolo County are losing pupils' due to factors such as household income. In addition, majority of teachers ($n=82$, 80.4%) and pupils ($n=173$, 78.6%) indicated that the progression rate of pupils from class 1 to 8 has been affected by household income. Brock & Smith (2003) noted that availability of resources such as textbooks, desks and blackboards has been found to influence dropout of pupils. In addition, lack of learning and teaching resources is among the key challenges that were found to influence the retention of pupils in the schools in Uganda (Muwanika, 2008).

Furthermore, over 95 % of the respondents were in agreement that children whose households have low income suffer from inadequate provisions of basic materials for studying and this makes pupils stay away from school ($M=4.31$). The study findings are supported by Glewwe and Chang (2010) who indicated that parental SES is a powerful predictor of children's academic attainment. Also low family income has been linked to lower academic achievement and slower rates of academic progress as compared with high-income families (Aronson, 2008; Snibbe & Markus, 2005). The findings revealed that majority of teachers ($n=82$, 90.4%) indicated that households with low income may not value education of their children and this contributes to low retention of pupils in school ($M=3.99$, $STD=1.164$). Findings further show that most of the respondents ($n=77$, 76.1%) indicated that low family income contributes to absence of learning habits and experiences at home and affects the pupils' retention rate in school ($M=3.92$, $STD=1.021$).

In fact, majority of teachers strongly agreed and agreed (80.4%) that family income has great impact on students learning. Again, only a small proportion of respondents had a different opinion. The study findings in Table 3 show that the majority of teachers ($n=98$, 97.1%) revealed that children whose households have low income suffer from inadequate provisions of basic materials for studying and this makes pupils stay away from school ($M=4.382$, $STD=.5636$). The study findings are in congruent with Constantino (2005) who examined six communities in the greater Los Angeles, California, area and found that children in high-income communities had access significantly to more books than children in low-income communities. Through the interview with one of the County Education officers, it was noted that school drop-out; absenteeism and general truancy is rampant in Isiolo County due to issues related to miraa and livestock herding. The Pearson correlation coefficient between household income and pupils' retention for both teachers and pupils ($r=.884$, $p=.000$; $r=.485$, $p=.000$) also shows positive and significant results at .05 levels. This implies that that pupils' retention is dependent on the income of their parents.

According to Bhalotra & Heady (2003), children raised in poverty rarely choose to behave differently, but they are faced daily with overwhelming challenges that affluent children never have to confront, and their brains have adapted to suboptimal conditions in ways that undermine good school performance. In testing the null hypothesis of *Household Income has no Statistical Significant Influence on Retention of Pupils in Public Day Primary Schools* the ANOVA results was significant at .05 levels from teachers ($F=12.821$, $p=.000$) and pupils ($F=9.039$, $p=0.000$). These results show that there is significant relationship between household income and pupil retention among pupils' in public day primary schools in Isiolo County. The null hypothesis H_{O12} which stated that Household

Income has no Statistical Significant Influence on retention of Pupils in Public Day Primary Schools was rejected. The study findings are consistent with a study by Mingat (2002) on the School Characteristics, Socio-Economic Status and Culture as Determinants of Primary School Enrolment in India, Mingat (2002) established that the richest households, 76 percent of their children attend school compared to 40% of the poorest households. The results of this study further concur with Sibanda (2004) who found that household income level attributes are important determinants of dropping out of primary school pupils. The selection process for staying in primary school seems to favor children from upper income groups compared to their low-income counterparts (OECD, 2013; Sibanda, 2004).

CONCLUSION

The study investigated the influence of household income on the retention of pupils' in public day primary schools in Isiolo County. Based on the summary of the findings, the household income, was found to be strongly associated with retention of pupils' in public day primary schools in Isiolo County. The major conclusion that can be deduced from the findings is that, pupils' retention in public day primary schools in Isiolo County is strongly associated with household income. The influence of household income on retention of pupils' in public day primary schools in Isiolo County, Kenya showed that the computation of the proportion of the total variance on retention due to household income was significant for teachers and for pupils' at .05 levels of significance; implying for example that 79.3% of the variability on the effect of pupils' retention can be explained from the level of household income.

References

- Adebola, H., Anyachebelu, F. E., & Madu, C. O. (2012). Towards Empowerment of the Nigerian Girl-Child, the Socio-Cultural Diagnosis. *Journal of Educational & Social Research*, 2 (3), 29- 34.,
- Bishop, A. J. (2002). Critical Challenges in Researching Cultural Issues in Mathematics Education. *Journal of Intercultural Studies*, 23(2), 119-131.
- Bradley, R. H., & Corwyn, R. F. (2002). Socioeconomic Status and Child Development. *Annual Review of Psychology*, 53, 371-399.
- Broadman, J. D. (2004). Stress and Physical Health: The Role of Neighborhoods as Mediating and Moderating Mechanisms. *Social Science and Medicine*, 58(12), 2473-2483. Broadman Developing Countries. Education Research
- Chikwelu, V. N. (2005). Parents' Occupation and Educational Background as Correlates of Educational Support and Aspiration of Adolescents in Anambra. Unpublished Ph.D. Thesis, Department of Science Education, University Of Nigeria
- Nsukka. J. D. (2004). Stress and Physical Health: *The Role of Neighborhoods as Mediating and Moderating Mechanisms*. *Social Science and Medicine*, 58(12), 2473-2483.
- Constantino, J.N, & Davis, SA, Todd, Rd Et Al, Validation of a Brief Quantitative Measure of Autistic Traits: Comparison of the Social Responsiveness Scale with the Autism Diagnostic Interview-Revised. *J Autism Dev Disord*. 2003; 33:427-433.
- Demagnet, J., & Van Houtte, M. (2012). School Belonging and School Misconduct: The Differing Role of Teacher and Peer Attachment. *Journal of Youth and Adolescence*, 41(4), 499-514.
- Huisman, J. & Smits, J. (2009). 'Keeping Children in School: Household and District-Level Determinants of School Dropout in 363 Districts of 30 Developing Countries.' Nice Working Paper 09-105, Nijmegen: Radboud University
- Mingat, Alain (2007). 'Social Disparities in Education in Sub-Saharan African Countries.' In Teese, R., Lamb, S. and Duru-Bellat, M. (Eds.) *International Studies In Educational Inequality, Theory And Policy*, Vol. 1. Dordrecht: Springer.

- Nsukka, J. D. (2004). Stress and Physical Health: *The Role of Neighborhoods as Mediating and Moderating Mechanisms*. *Social Science and Medicine*, 58(12), 2473–2483.
- Obosedo, (2009), Akpabio, I. I., Asuzu, M. C., Fajemilehin, B. R., & Ofi, A. B. (2009). Effects of School Health Nursing Education Interventions on HIV/AIDS-related Attitudes of Students in Akwa Ibom State, Nigeria. *Journal of Adolescent Health*, 44(2), 118-123.
- Oketch, M. (2008). Tracing Pupils in Kenya's Primary Schools: A Case Study of the Impact of the 2003 Free Primary Education Policy in Seven Schools in Kisii and Kajiado Districts. *Create Fieldwork Report*. London: Institute Of Education.
- Orodho, J.A. (2005) *Elements Of Education And Social Science Research Methods*, Kanezja Publishers
- Rosetti, S. (2000). *Human Capital, Wages and Family Interactions*. *Labour*. 14 (2000): 5-34.
- Sifuna, D.N (2005). A Study of School Dropouts in Girls High School. A Case Study of Bungoma District in Kenya. *Kenya Journal of Educational Research* 14 (B) 132-142.
- Unesco. (2011). Education for all Global Monitoring Report 2010. Summary: *Reaching the Marginalized*. United Nations: Unesco.
- Wang, Y., & Zhang, Q. (2006). Are American Children and Adolescents of Low Socio-Economic Status at Increased Risk of Obesity? Changes in the Association between Over Seven and Family Income between 1971 and 2002. *American Journal of Nutrition*, 84, 707–716.