Influence of Selected Parental and School Location Factors on Learners' Academic Achievement in Public Day Secondary Schools in Trans - Nzoia and West Pokot Counties, Kenya

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Abstract

Globally, parental and school location factors are perceived to influence learners' academic achievement as indicated by on-going Curriculum Implementation debate in the Twenty First Century. The debate has led national as well as local scholars to focus on improvement of academic achievement among learners in different categories of schools. The study sought to establish the influence of parental socio-economic and school location factors on learners' academic achievement. The target population comprises 2,830 respondents from which a sample size of 384 learners, 109 teachers were selected. Ex-post facto and co-relational designs were employed. Ouestionnaires for learners and teachers, an interview schedule for head teachers, and a document analysis guide were used to collect data. Instruments' reliability was established through the split-half technique, yielding reliability coefficients of 0.8 and 0.75 for learners' and teachers' questionnaire instruments respectively. The validity of the questionnaire instrument was established through a pre-test. Descriptive and inferential statistics using Chi-Square interactive were used to analyse data. The study findings revealed that learners whose parents had higher education were likely to provide adequate academic support service to their children unlike those who were less educated. There was a positive correlation between parental socio- economic status and day school learners' academic achievement. The study recommended that parents be sensitized on their role in providing adequate facilitation for learners while at home through provision of relevant learning resources, revision materials and by providing transport for learners in day secondary schools.

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1. Introduction

Parental facilitation of children's study influences learners' performance. For example, the level of parental education in the family has an impact on children's aspiration or educational reinforcement (Oloo, 2003). Guidance and counselling services are offered to learners by both teachers and parents on academic and social issues.

Oloo, (2003) noted that children whose parents are of high educational standard have a better statistical chance of undertaking secondary education. This view is supported by Ayodo, (2012) who maintained that effective learning is realised where there is partnership of learners, teachers and parents. This effort can be properly realized in a day school where learners have adequate time to interact with teachers and parents. This view is further supported by Ayodo, (2010) who cited a similar view by Ahawo (2009). The quest for provision

of quality basic education is today termed a basic right for children whose parents ought to facilitate it as a matter of policy.

Although schools are expected by parents to ensure learners achieve better grades than they obtained in Kenya Certificate of Primary Education (KCPE), this is far from being the case as most learners obtain even poorer grades in Kenya Certificate of Secondary Education (KCSE). The KCPE entry grade and the learners' attitude to education could perhaps be responsible for dismal KCSE performance. Parents continue to pay extra fees to motivate the teachers in order to facilitate effective remedial classes for weaker learners. Schools' inputs are expected to add value to the candidates in summative evaluation-achievement in Kenya Certificate of Secondary Education.

Quality education cannot be realized in a school, unless co-operation exists among parents, learners, the management, the employers and the policy makers. Where the stakeholders work together, even a rural day secondary school can improve and offer quality education, leading to positive improvement in KCSE performance. The task of providing facilities to schools is the prerogative of the parents.

1.1 Statement of the problem

Parental facilitation of children's education continues to be a matter of concern as elaborated in the Constitution of Kenya, besides reflecting global concern for quality basic education in Sub-Sahara Africa (UNESCO, 2006). Educated parents with high incomes have continued to provide conducive remedial teaching and a conducive learning environment for their children to supplement the work of teachers (Ayodo & Jagero, 2009). School location such as urban or rural setting for day schools provide a challenge to learners' time management and subsequently academic achievement. This is therefore an important factor to be investigated. This is because parents have a role to ensure that their children's education is conducted in the most conducive environment and this should necessitate devising strategies of saving time for study and syllabus coverage. This will accord a learner adequate opportunity to learn efficiently and effectively in a school. This study therefore attempted to fill a relationship between variables' gap, parental educational background and school location factors on students' academic achievement.

1.1.1 Objectives of the study

- a) To establish the influence of parental level of education on learners' academic achievement.
- b) To determine if there is a relationship in mean KCSE score among learners in urban and rural day secondary schools.

1.1.2 Hypotheses

- a) There is no significant relationship between parental educational level and learners' mean KCSE score.
- b) There is no significant relationship between mean KCSE score by learners from public urban and rural day secondary schools.

2. RESEARCH METHODOLOGY

2.1 Research design

In accomplishing this research ex post facto and correlation designs were identified to guide the study. The correlation design established the extent of the influence of independent variables on the dependent variable while the ex post facto design was appropriate in investigating events that had already occurred without manipulating the variables of the study (Kerlinger, 2007). The design answered questions on the extent to which parental factors influence students KCSE academic performance in public day secondary schools.

2.1.1 Target population

The target population consisted of 240 teachers, 2500 students and 30 head teachers of respective schools.

2.1.2Sample size and sampling procedure

Purposive and stratified sampling procedures were used to obtain a sample of 384 students, 79 teachers and 30 head teachers from a sampling frame of 2500 learners and 270 teachers.

2.1.3Research instruments

Data was collected using questionnaires which were administered to form four students and their teachers. The questionnaires comprised structured and open ended questions. Both quantitative and qualitative information on parental characteristics which influence KCSE performance was solicited. An interview instrument was used to collect data from the head teachers and the information gathered was used to validate findings from other respondents.

2.1.4Instrument validity

The questionnaire was scrutinized, pretested and approved using Spearman Brown's prophecy formula.

2.1.5Instrument reliability

The Spearman Brown's prophecy formula was used to obtain full reliability of the instruments. Spearman Brown's prophecy formula is as follows:

$Reliability of entire instrument = \frac{2 x Reliability of 0.5 test}{1 x Reliability of 0.5 test}$

Since the computation of the above yielded a reliability of r = 0.80, this reflected the magnitude of the relationship for the entire test, hence the questionnaire instrument was found a reliable tool in measuring determinants of academic achievement in day secondary schools (Kerlinger, 2007). The reliability test for questionnaire items was determined by test – retest of the items in a pilot study and ascertaining that there was no contradiction in the responses obtained (Wanjala, 2001). The reliability with the r value of 0.8 and 0.75 for learners and teachers was respectively established.

3. Findings and discussion

Table 1

Responses on education level of fathers and mothers in West Pokot and Trans - Nzoia Counties.

Parental educational leve	1	West Pokot	N=66	Trans-Nzoi	a N=308	
		Father	Mothers	Fathers	Mothers	
University	f	1	1	25	13	
	%	(3)	(2)	(8.1)	(4.2)	
Tertiary	f	4	5	58	60	
	%	(6)	(8)	(18.8)	(19.5)	
Secondary	f	17	6	125	131	
	%	(26)	(9)	(40.6)	(42.5)	
Primary	f	29	36	60	60	
	%	(44)	(54)	(19.5)	(19.5)	
N/A	f	14	18	10	44	
	%	(21)	(27)	(13)	(14.3)	

3.1 Parental educational level

Legend: Percentages in parenthesis ()

Table 1 shows that in West Pokot most mothers 54% (36) had attained primary level of education as compared to the 44% (29) of fathers with similar level of education. Only 2% (1) mothers and 3% (1) fathers had attained university education. On the other hand, 21% (14) fathers as opposed to 27% (18) mothers had no formal education. This implies that majority of parents in West Pokot with learners in day schools have attained at least primary education. On the other hand, majority of fathers and mothers 40.6% (125) and 42.5% (131) respectively in Trans – Nzoia have attained secondary education as shown by the responses given above. 18.8% (58) fathers and 19.5% (60) mothers have attained tertiary education respectively as shown by the respondents' rating. Similarly, there is a slight variation among fathers and mothers who have attained university education as shown by 8.1% (25) and 4.2% (13) respectively. The educational level of fathers and mothers implies the likelihood of favourable parental provision of home study material to their children. The findings are in line with those of related studies by Ayodo et al (2012) which established that higher income and conducive home environment positively influence academic achievement of learners.

Table 2 indicates parental occupational status

Table 2 3 1 1 Parantal accumation status

Parental occupation		West Pokot	N=66	Trans-Nzoia N=308		
-		Father	Mothers	Fathers	Mothers	
Professional	f	5	1	25	19	
	%	(7)	(2)	(8.1)	(6.3)	
Skilled	f	7	3	99	60	
	%	(11)	(4)	(32.1)	(19.5)	
Semi – skilled	f	14	7	105	99	
	%	(21)	(11)	(34)	(32.1)	
Unskilled	f	36	52	55	105	
	%	(55)	(79)	(17.5)	(34.0)	
N/A	f	4	3	25	25	
	%	(6)	(4)	(8.1)	(8.1)	

Legend: Percentage in parenthesis ()

Table 2 shows that, most mothers 79% (52) in West Pokot County are unskilled as opposed to 55% (36) fathers. Only 2% (1) mother and 7% (5) fathers are professionals. Majority of fathers and mothers with learners in day school are unskilled. This implies that day scholars may experience low motivation from their parents, a factor that is likely to negatively influence their academic achievement. This category of parents may also have

limited resources to facilitate provision of study material for learners' home study.

However, Table 2 indicates that most fathers 34.0% (105) in Trans – Nzoia County are semi - skilled as opposed to 32.1% (99) mothers. On the other hand, 8.1% (25) of fathers and 6.3% (19) of mothers are professionals. The data shows that 19.5% (60) mothers are skilled as opposed to 32.1% (99) fathers. This implies that majority of fathers and mothers in Trans – Nzoia with children in day school are semi – skilled hence, may have limited ability to provide home study material for their children.

3.1.2Objective 1: To establish the extent to which parental educational background influence learners' KCSE performance in Day Secondary Schools.

The objective was meant to be achieved through data obtained for analysis based on the hypotheses given here below.

The respondents' response to the statement provided below led to the generation of data for Chi-Square value determination and substantiating the hypothesis.

3.1.3Testing the Null Hypothesis, Ho1

To facilitate the null hypothesis testing, data based on whether parents provide conducive study environment for learners, reference materials and supervision of study was obtained and applied accordingly. Table 3 below, give data on learners' responses on parental facilitation of home study that was used to test the hypothesis on whether a significant relationship exists between parental facilitation of homework and learners' KCSE performance.

Ho1 There is no significant relationship between the level of parental educational background status and learners' mean KCSE score.

Ha1 There is significant relationship between the level of parental educational background status and learners' mean KCSE score.

To facilitate the null hypothesis testing, data based on whether parents provide condusive study environment for learners, reference materials and supervision of study was obtained and applied accordingly.

Table 3

3.1.4Learners' study facilitation and academic achievement						
Availability of academic support service	Yes	No				
Home study facilitation by parents	306	68				
Home study supervision	279	95				
Reference books at home	205	169				
Df = 2	S1=0.05					
Obtained Chi-square =70.183	P-value = 0					
0.11.1.01.1						

Critical Chi-square = 68.695

Table 3 indicates that the obtained Chi-square is greater than the critical Chi-square, so the null hypothesis is rejected and the alternative hypothesis is accepted. This means there is a significant relationship between learners' academic achievement and parental educational and occupational characteristics. Findings are in collaboration with related studies by Wanjala and Onyango (2010) which held that household facilitation of pupils' study is necessary in enhancing their participation in learning.

The study showed that there was inadequate parental facilitation of learners' education at home. Sixty seven percent (67%) head teachers indicated that most parents neither supervised their children's studies, nor provided adequate reference materials at home. The study findings further showed that only a small percentage of parents had attained university education or were professionals. The implication here is that only a few learners are from families where parental facilitation of home study is likely to be enhanced as opposed to a scenario that is likely to be experienced by most day scholars. Learners whose parents had higher education provided adequate academic support services unlike those who were less educated Abu Bakar N, Mamat I. & Ibrahim M. (2017). This is because parents act as role models to their children and if they have no ability to provide academic support, learners will continue underperforming as indicated by unfavourable parental characteristics (poor academic role models) that negatively influence KCSE performance. The findings are in line with Ayodo, Juma & Simatwa (2012) who established that high level of parental education, high income and conducive home environment influence academic achievement.

4.0 Schools' location and students' academic achievement

Table 4 presents data on the distance covered by the learners to school.

County	Distance range	Urban		Rural		
·	in Kilometers	Frequency	%	Freq	uency %	
	One way					
Trans-Nzoia	1-3 Km	50	58.1	151	68	
	4-6 Km	22	25.6	20	9	
	Over 6 Km	14	16.3	51	23	
West Pokot	1-3 Km	14	66.7	28	62.2	
	4-6 Km	5	23.8	9	20	
	Over 6 Km	2	9.5	8	17.8	
Total		107	200	267	200	

Table 4

4.1 Distance covered by learners from home to school and private study time

Key: Km – Kilometer

These data determine learners' attitudinal responses expressed as arbitrary scores in Table 5 showing learners' attitude towards school location and academic achievement.

Table	5
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4.1.1	Learners'	attitude towards da	y schools ²	location and	academic achievement
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County	Category of					Total no of
	Attitude					students
		Urban No). %	Rura	l No. %	
West Pokot	Negative	2	9.5	12	26.7	66
	Neutral	0	0	6	13.3	
	Positive	19	90.5	27	60.0	
Trans-Nzoia	Negative	16	15.4	26	12.8	308
	Neutral	6	5.8	8	3.9	
	Positive	82	78.8	170	83.3	
Total		125		249		374

It is evident from Table 5 that in West Pokot County 90.5% (19) students have a favourable attitude towards urban day schooling as opposed to 78.8% (82) in Trans-Nzoia County. A small number of students, 13.3% (6) in West Pokot rural day schools and 3.9% (8) in Trans-Nzoia County, have a neutral attitude towards day schooling, while 26.7% (12) and 12.8% (26) have unfavourable attitude in rural day schooling. In Trans-Nzoia County 83.3%(170) learners have a favourable attitude towards rural day schooling, while 60% (27) have similar attitude towards day schools in West Pokot County. The difference could be accounted for as a result of limited day schools in West Pokot which is within Arid and Semi-Arid Land (ASAL) that is characterized by hardships such as poor infrastructure.

4.1.2 Objective 2: To determine if there is a relationship in mean KCSE score among learners in urban and rural day secondary schools.

This objective was achieved through data generated using the hypothesis given here.

4.1.3 Testing Null Hypothesis, Ho2

Ho2 There is no significant relationship between mean KCSE score by learners from public urban and rural day secondary schools.

Ha2 There is significant relationship between mean KCSE score by learners from public urban and rural day secondary schools.

To achieve the above objective, data on learners' mean KCSE score based on school location was used to compute T-test.

Unpaired T-test was used to substantiate the hypothesis as shown in the computation provided here below.

Table 6 below, provides computed data on learners' mean KCSE difference in relation to urban-rural setting.

Table 64.1.4 School location and students' mean KCSE scoreMean scoreUrban N = 7Rural N = 23KCSE Performance $\frac{\%}{53.4}$ 44SD5.79.2Df = 28P value = 0.0216 < 0.05</td>

t(320) = 2.4325 t-critical = 1.96

The results of the t –test shown in table 6 indicate that urban schools had a higher score, 53.4%, than the rural schools with 44%. The t-value of 2.4325 is significant so the null hypothesis is rejected. Urban day school learners have a higher mean grade on average (C) versus (D+) of the rural learners' academic outcomes. The difference in mean score could be explained by the varied learners' characteristics. The findings are in collaboration with previous studies by Stedman (1996) on factors that influence academic achievement of high school learners as measured by learners' academic achievement index.

The two-tailed P-value is equal to 0.0216 the t-value found is 2.4325 and the degree of freedom is the standard error of the difference which was equal to 3.7. The mean of urban learners' KCSE performance minus that of the rural learners' academic achievement is 9.0. 95% confidence interval of this difference is from 1.421 to 16.579. By conventional criteria, this difference is considered to be statistically significant hence the null hypothesis was rejected.

Another related studies by Kibera (1993) held similar results. The current findings therefore validate previous findings in related studies. Subsequently there is a statistically significant difference in the results of learners based on school location factor, urban and rural due to time management for home study.

4.1.5 Conclusion

This study has demonstrated that parental educational level and occupation influence and predict learners' academic achievement.

Since most learners have a favourable attitude towards day schooling, provision of transport for day scholars is likely to enhance time management and subsequently academic achievement.

4.1.6 Recommendation

The study recommends that parents be sensitized and empowered to provide adequate educational facilitation for learners at home in order to enhance the learning process. That day school learning environment is favourable in enhancing parental involvement in provision of learning materials, revision materials. Furthermore transport for learners to and from school be provided especially for all day school learners as this will create more time for effective home study thus, enhancing academic achievement.

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