

# **FACTORS INFLUENCING STUDENTS' ACADEMIC PERFORMANCE IN KENYA CERTIFICATE OF SECONDARY EDUCATION IN KIRINYAGA CENTRAL SUB-COUNTY, KIRINYAGA COUNTY, KENYA**

**STEPHEN WANYONYI LUKETERO, EDITH WAMBUI KANGANGI**  
UNIVERSITY OF NAIROBI, Kenya

## **ABSTRACT**

*This paper is on factors students' academic performance in Kenya Certificate of Secondary Education in Kirinyaga Central Sub-county of Kirinyaga County, Kenya. Literature review dwelt on global examination of academic performance, Africa review and regional including Kenya case. The study was guided by five objectives including but not limited to: factors that influence KCSE performance that include students- teachers ratio, peer pressure, school resources, student's motivation and family background. The study used descriptive survey research design. The sample comprised of 136 respondents of whom 68 were Heads of department, 34 deans of studies and 34 school captains from all the 34 schools in Kirinyaga Central Sub-county. Results on teacher-students ratio was seen to be highly influencing students' performance. All the respondents (100%) agreed that high teacher-student ratio influence KCSE performance by either leading to low physical contact between teachers and students hence poor understanding of concepts and poor individual attention to every students. Peer influence influences students' academic performance. 67.6% of the respondents agreed that some learners might not be interested in academic excellence hence dragging others behind. Peers also influence each other on drug and substance abuse, premarital indecency, dressing indecently, coupling and laziness. It was observed that 94.1% of the respondents agreed that school resources influence students' performance. These include enough teachers, textbooks, buildings, revision materials etc. on students motivation it was found that attitude of students influence academic performance by 73.3%. It was also noted that 86.7% of the respondents agreed that family background had influence on academic performance.*

**Keywords:** Absenteeism, Academic performance, Adult literacy, KCSE, Parallel programme, peer pressure, school based, school resources, teacher student's ratio, staffing.

## **INTRODUCTION**

Education is a leading instrument for economic growth. The cognitive skill of the population rather than mere school attainment is related to economic growth (Elsiever, 2010). Education and training are the tools to develop the country and therefore exam performance cannot be overlooked. KCSE in Kenya was first

held in 1989 and had at least 10 subjects that were reviewed twice to seven. Candidates are graded using mathematics, at least two sciences, at least two languages, humanity and a technical.

Academic performance determines whether the students will proceed to the university and other tertiary institutions (Lezotte, 2002). This therefore dictates a student’s academic life to some extent. Secondary education has been included as basic. The government provides teachers, textbooks and other learning materials. Kenya hopes to provide a globally competitive quality education training, research and development. The overall goal of 2012 was to do away with illiteracy and make education accessible, increase the number of transition from primary to secondary and raise the quality and relevance of education. KCSE performance in Kirinyaga Central sub-county is influenced by many factors and it is dismal at secondary school level. The secondary school stakeholders may be concerned about the poor results posted in KCSE exam despite the same county taking a leading position in KCPE as illustrated by the table below for the last seven years.

**Table 1.1 KCPE/KCSE Performances**

YEAR	KCPE POS	NO OF SCHOOLS IN TOP 100 (IN KCSE) PER SUBCOUNTY				
		Kirinyaga Central	<u>Kirinyag</u> west	Kirinyaga East	<u>Mwea</u> East	<u>Mwea</u> West
2010	1	0	1	0	0	0
2011	1	0	0	0	0	0
2012	1	1	1	2	0	0
2013	1	0	0	0	0	0
2014	1	0	0	0	0	0
2015	1	0	0	0	1	0sni
<b>2016</b>	<b>1</b>	<b>0</b>	<b>0</b>	<b>1</b>	<b>0</b>	<b>0</b>

The aim of this study is to examine factors that influence KCSE performance in Kirinyaga Central sub-county. Most of the students who join secondary school do not transit to university.

**Significant Terms**

**Academic performance** - Attainment of KCSE grades that allow a student Proceed to University

**Kenya Certificate of Secondary Education**– is the final examination taken by secondary Students in order to determine who qualifies for University entry

**School Resources** - These are physical and human inputs in a school meant for Learning

**Peers Pressure** - Influence of agemates either positively or negatively Within students that can influence academic performance.

**Teacher students’ ratio** - Number of students to be taught in a class by a single Teacher

**Statement of the problem**

The Kenyan government is investing a lot of resources through free primary and free day secondary schooling which was rolled out in 2008. Under this programme, each student is allocated shs 10,625 per year with 1.7 million students benefitting from the programme in the year 2011. Education ministry takes the lions share in the Kenyan budget. Kirinyaga Central Sub-county in Kirinyaga County is accredited for exemplary performance in Kenya Certificate of Primary Education but the performance in Kenya Certificate of Secondary Education is dismal, as illustrated in table 1.1 above. The trend is also worrying in other sub counties in Kirinyaga. Vision 2030 aims to provide a globally competitive quality education training research and development. With this background in mind the study investigated the factors that influence Kenya Certificate of Secondary Education performance in Kirinyaga Central.

### ***Objectives of the study***

The study was guided by the following objectives;

- i. To determine the influence of teacher-students ratio on students' academic performance in KCSE in Kirinyaga Central Sub-county.
- ii. To determine the influence of peer pressure on students' academic performance in Kirinyaga Central Sub-county.
- iii. To establish how availability of school resources influence students' academic performance in KCSE in Kirinyaga Central Sub-county.
- iv. To establish how students motivation influence students' academic performance in KCSE in Kirinyaga Central Sub-county.
- v. To determine how family background influence students' academic performance in KCSE in Kirinyaga Central Sub-county.

## **LITERATURE REVIEW**

The study reviewed literature based on academic performance of students locally, in Africa and in global perspective. Areas reviewed included teachers students ratio, peer pressure, school resources, motivation of students and family background.

### ***Teacher Students Ratio***

Smaller classes are always perceived as allowing teachers to focus more on needs of individual students and reducing the amount of time needed to deal with disruptions. Smaller classes allow greater flexibility for innovation in classroom, improved teacher morale and job satisfaction (Hattle 2009: OECD 2009). The ratio of teachers to students also dictates how resources are to be shared. Researchers have found that class reduction has narrowed the achievement gap as the cost of reform has hindered the implementation of smaller classes over the years (Adams, 2014).

It has been noted that students learn better in smaller groups and are able to learn from each other, share knowledge, build better personal relationship with their peers and teachers and stay enlightened. There are also differences in achievement variability between small and large classes. (Black 2001) notes that smaller teachers students ratio often have always been weighed against higher salaries for teachers, increased

professional development greater teacher training and greater investment in teaching technology and widespread use of assistant teachers.

Many countries are considering class reduction with the objective of improving academic performance (Krueger 1999) indicate that the average student achievement in small class (15 students) was significantly higher in smaller classes. Reducing class size is a promising intervention that will increase academic achievement on average of all students.

### ***Peer Pressure***

A peer group is a group of similarly aged fairly close friends sharing the same activities. Peers can influence positively or negatively in an adolescent life. In adolescence, this is the stage of development where one's state of identity is so unstable (Castrogiavani, 2002). Peers play a strong influence in academic achievement. Their effect is independent of other factors such as race, ethnicity, gender income and other background variables.

Peer perception is seen to appear stronger in females than males. The peak of peer influence is at adolescence between the ages of 11 to 13 and is prominent in risky and antisocial behaviours (Ryan, 2000). At this time individuals make important decisions about their commitment to academics family and perhaps religion. They question if school is really important to them. They make choices on motivation, engagement and achievement in school.

Peer groups are also influential regarding to changes in students intrinsic values for school as far as liking, enjoying and achievement. Associating with friends who have positive motivation towards school enhances students' satisfaction with school while associating with those with negative motivation reduces it (Biddle, bank & Martin 2001). Many adolescents parents are not actively involved in their lives, they do not provide appropriate supervision and are unlikely to clearly communicate their values. This exposes adolescents greatly to peer pressure. Separating students according to their achievement abilities in school is another drawback. They may end up forming a groups own peer culture Alderman (2000).

### ***School Resources***

Educational resources play a significant role in order to provide equal opportunities to students by diminishing the effects of social economic factors on social development.

Several factors including instructional resources, if scarce, constrain educational system from responding more fully to meeting crises in educational demands. To meet crises in education, education systems will need real resources that can buy a fuller share of nation's manpower and raise its quality, efficiency and productivity.

Guthnie, (2013) stresses the importance of having appropriate personnel plan and adequate physical facilities to support educational effort. Environment that is not conducive for learning can lead to poor performance (Juma 2011), links performance in examination to the state of teaching and learning resources in the school. According to him human resource as a factor of production is affected by inadequacy as well as it's reflected by the level of teaching and motivation.

It is important to have sufficient and adequate human resource in terms of teacher quality. Without teachers as the implementing factor the goal of education cannot be achieved.

Lack of basic facilities like laboratory compromises the teaching of science subjects. Topics meant to be covered practically might end up being covered theoretically (Mayama 2012). Provision of adequate learning facilities at all levels including equipment's and learning resources enhance the quality and relevance of imparted skills of learners (Grubb, 2009).

### ***Students Motivation***

A relationship exists between parental involvement, student motivation and academic performance. A student who is motivated to do well in school is likely to make effort and achieve high scores. Kuskar, Croiser and Cate (2012) there are several factors that motivate a student to engage in a lesson activity, example teacher's creativity and competency to use textbook encourages student's participation in classroom activities.

Ells (2002) a student's most powerful motivation to learn comes from his/her prior success in that subject. (Levi 2004) motivation affects students' attitude by causing them to have more positive attitude and confidence in themselves. Students that lack motivation put in less effort which in turn leads to poor academic performance. Motivation influences performance through its effects on self-regulatory behaviours and study strategies (Killian 2005).

It is important for students to be actively engaged in their learning for success. Motivation affect attitude by causing students to have more positive attitude and confidence in themselves. Students attitude to reading when they are children produce adults who continue to read in their life.

### ***Family Background***

Economic, cultural and parenting styles are indicators of family background. There are interrelationships that connect family background to students' academic achievement. Cultural capital indicators to measure are parents' educational level, parents' frequency in reading books, using internet and attention to current affairs. There are many factors that contribute to a child's level of academic success but the most important unit of a child's academic success is family. This is because it is the first source of informal education to a child. Parenting style, discipline techniques, involvement with children and home environment are shown to affect a child's ability to academically achieve (Ferlazzo, 2015).

Studies on negative effects of alcohol use on children by Mcwey and Herdrson (2010) shows that fathers who abuse alcohol are unlikely to engage with children hence lack of academics follow-up. Parents demonstrating tolerant ideas related to not only their own use of alcohol but alcohol use in general are more likely to have adolescents who engage in excessive drinking or have alcohol related behavior (Mares.et.al.2011).

Parental alcohol use is linked to maladaptive outcomes in children development, health behaviour and academic success. With no proper education, children will encounter hardships such as illiteracy, unemployment and shame. (James, Jurich& Estes 2001) Family cohesion also affects students' academic

performance students who reside in low income neighborhoods are more likely to perform poorly in schools as compared to those who reside in affluent neighborhood.

## **METHODOLOGY**

### ***Study Design***

The study employed descriptive survey design. The design was ideal since it describes a situation or an area of study factually and accurately. Descriptive research describes areas like possible behavior attitudes, values and characteristics. The results of KCPE and KCSE from county education office schools offered the necessary information needed for study. Schindles and Coopers (2003) state that descriptive studies are structured with clearly investigative questions Variables used included teacher-students ratio, peer pressure, school resources, students' motivation and family background.

### ***Target Population***

The target population was 34 secondary schools all from Kirinyaga Central Sub-county. The information was sort from 34 school captains, 68 teachers who are heads of departments and 34 deans of studies.

### ***Sample Size and Sampling Technique***

This study adopted census survey where each and every member of the target population comprising of 34 school captains, 34 heads of departments and 68 school captains were used in the study. Census survey was adopted since the target population was deemed not large enough.

### ***Instruments Validity***

The researcher used the supervisor who is an expert to fine tune the questionnaire. The researcher pre tested the questionnaire using representative from target audience in three schools whereby a few respondents were chosen later the researcher adjusted the questionnaire as per the suggestions given by the respondents during pretesting.

### ***Reliability of the Instrument***

This research study used test retest method that involved administering the same scale or measure to the groups of respondents at two separate times. The study assessed the consistency of the responses to make judgment on their reliability.

### ***Data Collection Procedure***

Three sets of questionnaire were used to collect data i.e. from school captain, head of department and dean of studies. The questionnaires gave respondents adequate time to express their views and opinions and make suggestions due to their descriptive nature, their use was more economical and provided a safe basis of generalization (Kaothari, 2014).

The study used semi structural questions with a mixture of focused and response items to enable researcher to collect qualitative data from open ended question and quantitative data close ended question. A letter of

introduction from University of Nairobi was issued. The principal of the participating schools were contacted before administering the questionnaire. Respondents were assured strict confidentiality of their responses. The respondents were also informed the significance of the study.

**Correlational analysis of responses**

A correlation of factors influenced KCSE performance in Kirinyaga Central. These were run under SPSS to establish their strength

	Teacher student ratio	academic performance
Pearson product-moment correlation	1000	r = 0.985
Sig. (2Tiled)		0.002.
N	5	5
Teacher student ratio		
academic performance	r = 0.985	1000
	0.002	
	5	5

\*\*\*\*\*Correlational significant at the 0.005

A Pearson product-moment correlation coefficient was computed to assess the relationship between the amount of Teacher-student ratio and academic performance. There was a positive correlation between the two variables,  $r = 0.985$ ,  $n = 5$ ,  $p = 0.002$ . Overall, there was a strong, positive correlation Teacher-student ratio and academic performance. Increases in Resource allocation and Teaching time and decreases in class size were correlated with increases in academic performance.

	Peer pressure	academic performance
Pearson product-moment correlation	784	r = 0.644
Sig. ( 2Tiled)		0.012.
N	7	7
Peer pressure		
academic performance	r = 0.644	784
	0.012	
	7	7

\*\*\*\*\*Correlational significant at the 0.005

A Pearson product-moment correlation coefficient was computed to assess the relationship between the amount of Peer pressure and academic performance. There was a positive correlation between

the two variables,  $r = 0.644$ ,  $n = 7$ ,  $p = 0.012$ . Overall, there was a strong, positive correlation between Peer pressure and academic performance. Increases in Peer pressure were correlated with increases in academic performance.

	school resources	academic performance
Pearson product-moment correlation	990	$r = 0.780$
Sig. ( 2Tiled)		0.029.
N	15	15
school resources		
academic performance	$r = 0.780$	990
	0.029	
	15	15

\*\*\*\*Correlational significant at the 0.005

A Pearson product-moment correlation coefficient was computed to assess the relationship between the amount of school resources and academic performance. There was a positive correlation between the two variables,  $r = 0.780$ ,  $n = 15$ ,  $p = 0.029$ . Overall, there was a strong, positive correlation between school resources and academic performance. Increases in school resources were correlated with increases in academic performance.

	students motivation	academic performance
Pearson product-moment correlation	920	$r = 0.805$
Sig. ( 2Tiled)		0.044.
N	4	4
students motivation		
academic performance	$r = 0.805$	920
	0.044	
	4	4

\*\*\*\*Correlational significant at the 0.005

A Pearson product-moment correlation coefficient was computed to assess the relationship between the amount of student's motivation and academic performance. There was a positive correlation between the two variables,  $r = 0.805$ ,  $n = 4$ ,  $p = 0.044$ . Overall, there was a strong, positive correlation between student's motivation and academic performance. Increases in student's motivation were correlated with increases in academic performance.

	family background	academic performance
Pearson product-moment correlation	720	$r = -0.882$
Sig. ( 2Tiled)		0.044.



---

N	4	4
family background		
academic performance	r = -0.882 0.044	720
	4	4

---

\*\*\*\*\*Correlational significant at the 0.005

A Pearson product-moment correlation coefficient was computed to assess the relationship between the amount of family background and academic performance. There was a negative correlation between the two variables,  $r = -0.882$ ,  $n = 4$ ,  $p = 0.044$ . Overall, there was a strong, positive correlation between family background and academic performance. Increases in family background were correlated with increases in academic performance.

### SUMMARY OF THE FINDINGS AND CONCLUSION

The findings revealed that many respondents established that there is an influence of teachers-students ratio on students’ academic performance. The findings reviewed by the deans of students that teacher student’s ratio affect academic performance. 53.5% of the respondents indicated that there is good contact time between teachers’ time to teach being diverted to other duties and lack of creativity among students.

The study reviewed also that 94.1% of the respondents said peer pressure affects students’ academic performance in various ways; some not being interested in academic excellence hence pulling others down, (67.6%) following friends in what they do and students copying the people they associate with. Most students are influenced by peers to drugs premarital sex and indecent dressing. 40% of the students are influenced by peers as compares to laziness, dressing and premarital sex.

School resources influenced academic performance by 100%. These are teachers, textbooks, buildings labs, revision materials and ICT support materials 53.3% felt that the government need to avail funds to enable schools get the needed resources e.g. CDF. It was also found that 1 textbook was shared by four students in some school and in others three students.68.8% of the respondents stated that motivation of students influences students’ academic performance. The attitudes of the students in the following ways: students work hard in the subjects they like and if they like the student. Students cannot perform well if they are not ready to learn.

Negative attitude affects performance; students having positive attitude perform better than those thinking negative. Positive attitude bring positive academic performance. A student doesn’t like his school is unlikely to perform poorly in academics. Motivation and confidence influence students attitude; those who do extra work on their own perform well in school.

On family background, the respondents 867% agreed that family background influences academic performance. Parents may fail to pay school fees student is sent home hence not taught. Students from well nurtured and organized families carry themselves with good behaviours and traits that influence positive performance. Proper family background gives a student a stable emotional foundation and when study materials are not bought a student will not study well.

Parental level of education had high impact on academic performance. The study showed that in most parents, the income was low while few were high. In addition some parents follow up their children's academic performance while others do not. Poor reading culture was also present among many students.

## REFERENCES

- Adams, C. (2014). *Class Size Crunch*, *Administrator Magazine: Leadership*. Retrieved February 9, 2014 from [http:// Scholastic Com/browse/artide.JSP? Id=3755248 &Prit=1](http://Scholastic Com/browse/artide.JSP? Id=3755248 &Prit=1).
- Alderman K. (2000) *School Groups and Peer Motivation*, Retrieved Jan. 24, 2004 from <http://www3.uakton.edu/education/safeschool.htm>
- Bank B., Slapings R. and Biddle B. (2000). *Effects of Peer, Faculty and Parental Influences On Students Persistence*; *Journal of Sociology of Education* Vol. 63 (4) pp 208-225.
- Bandura A. (1999). *Self-Efficacy: The Exercise of Control*. New York: Freeman.
- Black, S. (2001). *Child or Widget*; *Journal of Staff Development*, 2001 (22), 4 Retrieved February 15, 2014 from the Ebscottost database
- Bernde T. (2004). *Development Changes in Conformity to Peers and Parents*  
*Development Psychology* 15, 608-616.
- Brophy, J (2004), *Motivating students to learn*, 20, 50-56
- Burns A. & Darling N. (2002), *Peer Pressure is not Peer Influence. The Education Digest*, 68-4-6
- Burtless, j., Garry, B (2011) *Does money matter; the effects of school resources on student's performance*
- Castrogiovanni, D, (2002) *Adolescence: Peer group'* Retrieved January 24, 2004 from <http://inside.bardedu/academic/specialproj/darling Htm>
- Coleman, James, S. et.al. *Equality of Educational Opportunity*, Washington D.C 1966
- Chimombe, J.R. (2011). *An analysis of biodiversity on follow land in Chui District Zimbabwe. BSC Thesis*, Department of Soil Science and Agriculture Engineering, University of Zimbabwe
- Cullata, R. (n.d) *Social Development Theory (Levvygotsky)*. *Social Development Theory*; Retrieved March 18, 2014 from [http:// www.instructionaldesign.org/theories/social-development.html](http://www.instructionaldesign.org/theories/social-development.html).
- Emerson & Mencken (2013) *Homework to require or not*, *Online Graded Homework and Student Achievement perspectives on Economic Education Research*, 7(ID) 20-42
- Eggleton P. (nd) *Motivation: A Key to Effective Teaching. The Mathematics*, 3(2)
- Ferlazzo, L (2013) *Helping students motivate themselves; Practical answers to classroom challenges* 10, 33-37
- Ferlazzo, L (2015) *Helping students motivate themselves; practical answers to classroom challenges*
- Ferguson Ronals, (1998) *"Can Schools Narrow the Score Gap?"* Washington D.C. Brookings Institution Press.
- Fraser N. J., Killen R. (2005). *The Perceptions of Students and Lecturers of Factors Influencing Academic Performance of two South African Universities*; *Perspective in Education*, 23, 25-40

- Finn, J. D. & Achilles, C.M. (1999), *Tennessee's Class Size Study*, Findings, Implications Misconceptions. Educational Evaluation on Policy Analysis 21 (2) 97-109.
- Fischhoff B. Cromwell, N. A. & Kipke, M (Eds) (1999), *Adolescence Decision Making: Implication for Prevention Programs*, Retrieved Jan 24, 2004, from <http://aspe.05.dhhs.gov/hsp/adolescents99/>.
- Guthrie, J (2013) *Rendering school resources more effective*, vol 80, 45-62
- Haimson, L. (2014). *Why Class Size Matters*. Parents across America; Retrieved from [http://Parents Acrossamerica.org/what-we-believe2/why class size matters/ stnash.20MvVMAV.dpuf](http://ParentsAcrossamerica.org/what-we-believe2/why-class-size-matters/stnash.20MvVMAV.dpuf)
- Hanushek, Eric, a; “*The Economic of Schooling: Production and Efficiency in Public Schools*”, Journal of Economics Literature, September 2007, 24, 1141-77.
- Juma, F. (2011) *the relationship Between Mode of Teacher Motivation and Students Academic Performance in Public Schools in Bungoma North District*. Unplished M.Ed. project Report, Moi University, Kenya.
- Kothani C.R. (2008). *Research Methodology, Methods and Techniques* (2<sup>nd</sup>) Ed New Delhi Pitman Publishers
- Magnoson, K. & Berger, L.M. (2009), *Family Structure and Transitions: Associations With children well being during Middle Childhood*, Journal of Marriage and Family 71(3), 575-591
- Manzo K. (2008), *Motivating Students in Middle Years*. Education Week, 27 (28) pp 22-25.
- Ministry of Education, Science and Technology (2008), Mandate. Retrieved Aug. 21 2011 From <http://www.Science> and Science and Technolo.go.ke
- Mugenda O. and Mugenda A. (2003), *Research Methods: Qualitative and Quantitative Approaches* (2<sup>nd</sup>ed); Nairobi Acts Press
- Muriithi, P.M. (2014), *Socio Ecoomics Determinants of Girls performance in Agriculture in mixed Day Secondary Schools in Kirinyaga Central sub county, Kirinyaga County, Kenya*.
- OECD Reviews of social resources. Czech republic 2016.