

## THE EFFECTS OF TEACHER CHARACTERISTICS AND ATTITUDES ON STUDENT ACHIEVEMENT IN KCSE ECONOMICS EXAMINATION

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**ABSTRACT:** *Economics is a very important subject in the school curriculum. However, since the adoption of 8-4-4 system of education in Kenya in the mid 1980's, the number of students registering for economics in the Kenya Certificate of Secondary Education (KCSE) has been steadily dropping. This has been attributed to the unsatisfactory student's performance in KCSE economics. This paper sought to examine the effect of teacher characteristics and attitudes on student performance in Economics subject. The study is a field based survey conducted in secondary schools offering economics in the Rift Valley Province of Kenya. Simple purposive sampling was used to get the representative sample for the study. The representative sample, constituted all the fourth form students of economics in all the secondary schools in the Rift Valley Province of Kenya, Inspectors of schools in districts where economics was being offered and teachers from the schools where the subject was offered. A total of 187 students, 32 teachers and 4 district inspectors took part. Data was collected from the sample using questionnaires. The data collected was analysed using Excel software program. Basic statistical techniques were used to analyse various items in the questionnaire. These include calculating the averages, frequencies, percentages and totals. These statistical techniques were used to make comparisons in the various data collected. Conclusions on the variables analysed were finally drawn from these comparisons. The study concludes that teachers have a positive attitude towards the subject thus poor performance could be attributed to other factors than teacher attitudes. The author expects that teachers of economics will benefit from the findings on the identified factors that influence the instructional procedures and strategies and hence improve the performance of the subject in the national examinations.*

**KEYWORDS:** Effects, Teacher Characteristics, Attitudes, Student Achievement, KCSE , Economics Examination

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### INTRODUCTION

The quality of an educational output in any system of education is the national examination. In Kenya, it is the responsibility of the Kenya National Examination Council (KNEC) to set, mark, grade and release the Kenya Certificate of Secondary Education Examination results to the general public. The release of these national examinations results tends to generate a lot of excitement among Kenyans. Normally, schools that have done well in Kenya Certificate of Secondary Education (KCSE) Examination are exalted while those that perform poorly are

vilified. In the case of the latter, the general public makes demands. This includes the head-teachers giving reasons on the causes of poor performance to the parents, the boards of governors or the Ministry of Education. Occasionally, this poor performance may lead to transfers, demotion or even resignation of head-teachers of such institutions.

### **Teacher Characteristics**

Literature on teacher characteristics reveals that emphasis has been placed on such factors as age, sex, attitudes to teaching and teachers' quality. The latter focused on teachers' academic qualifications, professional experience and competence. The education system in Kenya is evaluated through the administration of national examinations taken by the students. On the release of the results of these examinations, teachers from the schools that have performed poorly are normally accused of having not worked hard and blamed by the general public for having failed the nation. In other words, many people tend to equate students' performance with the teachers' qualitative in-put in the learning process. Kiragu (1986) notes that the success of a teacher in classroom teaching ought to be evidenced, not only by professional records but also by student acquisition of skills as set out in the subject syllabus.

The study conducted by Mwangi (1983) focused on identifying some of the factors, which influence learning and achievement in secondary school mathematics in Kenya. The teacher and student characteristics were studied. Among the teacher characteristics investigated by this study, only three were found to be related to achievement in KCE Mathematics where two were positively related and one was negatively related. The variables that showed positive relationship were sex of the teacher and the availability of teachers' guides and student text-books. In the case of the sex of the teachers, students taught by male teachers tended to score higher in KCE than those taught by female teachers. It would appear that the sex of the teachers of economics has some bearing in the performance of students in economics. Negative teachers' attitude towards mathematics teaching was correlated with low achievement in KCE Mathematics. The remaining teacher characteristics such as time spent on lesson preparation, team teaching, group work, professional qualification, in-service training, teaching experience, frequency of supervision and the use of teaching aids showed no relationship to achievement in Mathematics. It would appear that all these factors do not have any impact on students' achievement in Mathematics and by extension in economics.

A Similar study was carried out by Kiragu (1986) who studied factors affecting achievement in mathematics at the secondary school level in Kenya. This study established that the teacher's qualifications, quality of text-books, frequency of marking and interest among students are significant factors. Other factors such as time spent on lesson preparation, team teaching and group work had no significant relationship with achievement in mathematics. The studies carried out by Kiragu (1986) and Mwangi(1983) focused on mathematics only. However, the present study sought the same factors in relation to teaching and learning of economics in secondary schools. Cuttance (1980), observed that both the teacher's teaching experience (that is the number of years of teaching) and the professional qualifications are positively correlated to student achievement. However, he observed that such factors as age, attitude towards teaching, sex, socio-economic status and job satisfaction have been of some importance in some studies, but not consistently cross-validated. Cuttance (1980)

concluded that teaching qualifications and teacher behavior on the whole appear to be marginally related to academic success. Some behaviour such as teacher enthusiasm, the degree of orientation of teacher task to achievement and the opportunity the student has to learn using media are significantly or consistently related to academic achievement. However, teacher's praise of students, which is a psychological reward, has not been shown to be associated with academic achievement.

Husen's (1978) review of the contribution of teacher quality of student achievement, as reported by Heyneman et al. (1981), indicates that the relationship between training and academic achievement in developing countries is inconsistent. In about half (54 %) of the twenty-four developing countries reviewed, a positive relationship between training and achievement was reported, while over one third (37%) reported null relationships and the rest (9%) negative associations (Heyneman et al., 1981 p. 227). A review by Avalos (1980) of research undertaken in Asia, South America and Africa also noted equivocal results regarding the correlation of the level of teacher qualifications and student achievement. Teacher qualifications were measured in terms of years of schooling and the possession of professional credentials. Studies carried out by Beebout and Jurian in Malaysia and by Chand in India, and Vallente in the Philippines, revealed positive correlation between teachers' qualifications and examination score. Negative correlations were reported from Kenya, Egypt, and Paraguay. From these studies on the influence of teacher characteristics on academic achievement, the revelation is inconsistent across the different countries. The present study sought to establish which of these factors applies to the Kenyan Secondary School system and in particular, the economics subject. Nevertheless, Saha, (1982, p.79) concluded ... the better trained teacher produces better results. While there may be evidence to suggest untrained teachers can effectively teach children literacy and numeral, the commutative findings of these studies strongly support the notion that trained teachers do make a difference for more advanced grades, especially for more difficult subject.

From the above assertion it appears that training is very necessary for quality of education but it becomes unfortunate when students taught by trained teachers obtain poor results. Studies by Fuller (1985) and Thompson and Cooley (1984) revealed that in-service training positively correlated with achievement. Thompson and Cooley (1984) emphasized that if student achievement is to be improved, teachers must have in-service training. On the contrary, Husen (1978) reported that increased in-service is accompanied by low achievement levels by students especially where the training is assumed to be for only teachers of low scoring students. Another variable reviewed is the teacher transfer. Eshiwani (1983) and Maengwe (1985) asserted that the rate of teacher transfers has significant effect on student achievement. The present study investigated the two factors to confirm their assertion and besides one more factor was investigated namely the teachers' KNEC examining status. This is in agreement with Maundu's (1986) findings at, marking examinations enabled a teacher to learn about the requirements of the examiner and therefore help the teacher to competently prepare students for national examinations.

### **Problem Statement**

Since the adoption of 8-4-4 system of education in Kenya in the mid 1980's, the number students registering for economics in the KCSE has been steadily dropping. This has been attributed to

the unsatisfactory student's performance in KCSE economics. It has led to negative publicity of the subject which in turn has discouraged many schools offering the subject in the KCSE. The KNEC reports have persistently pointed out the causes of poor students' performance in the subject to include both the students' and the teachers' weaknesses. For example, on the part of students' weaknesses, students have been noted to give irrelevant responses in examinations mainly due to inadequate comprehension of economics concepts. On the other hand, teachers are said to fail covering the syllabus and yet all topics are examinable. These KNEC reports are in agreement with other studies such as that conducted by Kabetu (1986). Kabetu's study established students' failure to comprehend economics concepts was due to the difficult language used in textbooks. In addition Kabetu observed that staff instability in a school in terms of transfers and changing of jobs leads to poor syllabus coverage in economics. It is in view of these facts that the present study was designed and conducted to determine the factors that influence the performance of students in the KCSE Economics examination.

## **MATERIALS AND METHODS**

This was a field survey study conducted in secondary schools offering economics in the Rift Valley Province of Kenya. Rift Valley Province covers approximately 30 per cent of Kenya's total area. Simple purposive sampling was used to get the representative sample for the study. Data for the study was collected from the following individuals; teachers and students of economics in the schools teaching the subject and the district inspectors of schools in each district in the Province. The representative sample, therefore, constituted all the fourth form students of economics in all the secondary schools in the Rift Valley Province of Kenya, Inspectors of schools in districts where economics was being offered and teachers from the schools where the subject was offered. A total of 187 students, 32 teachers and 4 district inspectors took part. Data was collected from the sample using the questionnaires. The data collected was analysed using the Excel software program. Basic statistical techniques were used to analyse various items in the questionnaire. These include calculating the averages, frequencies, percentages and totals. These statistical techniques were used to make comparisons in the various data collected. Conclusions on the variables analysed were finally drawn from these comparisons.

## **RESULTS AND DISCUSSION**

### **Influence of Teacher Characteristics on Student Achievement in KCSE economics**

Qualifications of teachers and their teaching experience were examined to assess the quality of the teachers of economics in the three types of schools. Table 1 presents information on the professional and academic qualifications of economics teachers in the selected schools. Teachers are classified as professionally trained if they took educational courses in their training. These include M.ed, B.ed, and B. A. with PGDE certificates. Those who pursued degree certificate courses without education component are not professionally trained.

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**Table 1: Professional qualifications of the selected teachers of economics**

Professional Qualification	Secondary School Type			TOTAL (100%)
	National	Provincial	District	
Trained B. Ed. graduate	4(13)	20(63)	6(18)	~ 30(94)
Untrained graduates	0	2(6)	0	2(6)
<b>TOTAL</b>	4(13)	22(69)	6(18)	32(100)

From table 1, it can be observed that thirty (94%) of the teachers were trained graduates while two 2 (6%) were untrained graduates. From this analysis, it can be concluded that most of the secondary school teachers of economics in the selected schools were professionally trained graduate teachers. The literature reviewed has shown that both teacher-qualifications, and teaching experience influenced students academic achievement (Cuttance, 1980).

To determine whether this factor (professional qualification) had any influence on the performance of students in KCSE economics, KCSE performance of previous years were analyzed according to the school type. Table 2 presents students performance in KCSE examinations as perceived by the teachers in the three different school types; national, provincial and district schools. From this table, 4 (13%) of the teacher-respondents in the national schools perceived their students as performing well in the KCSE economics while the remaining two teachers, 2(6%), in these schools were non-committal. These two (6%) teachers said that students' performance in economics tend to differ with different student-cohorts. One of the possible reasons for good performance in these schools is due to the fact that these schools are adequately equipped in learning resources.

Reflecting on the performance in Provincial schools, 6 (18%) of the teachers' indicated that their students performed well while 14 (44%) of them thought otherwise. However, only 2 (6%), of the teachers had no opinion. The teachers who were non-committal gave their reason to be fluctuating mean scores each year due to the different student cohorts registered each year in the subject. This means that the quality of the students in each year determines the performance in KCSE in the schools.

**Table 2: Teachers perception of KCSE economics performance in their-schools**

Performance /School Type	Well Performed	Poorly Performed	No Opinion
<b>National</b>	4(13)	0	2(6)
<b>Provincial</b>	6(18)	14(44)	2(8)
<b>District</b>	0	4(13)	0
<b>TOTALS</b>	10(31)	18(57)	4(12)

Further analysis revealed that all the four (13%) of the teachers in the district schools sought, economics was poorly performed.

This can, therefore, be inferred from the foregoing analyses that national schools and a few of the provincial schools do well in KCSE economics examinations while the majority of the

provincial and district schools do not. The registered good performance in KCSE can be attributed to the adequacy in supply of teaching resources in the provincial and national schools while the poor performance can be due to inadequate supply of these items in some of the provincial and majority of district schools.

This observation contrasts with Eshiwani's (1988) study, which established that teacher's level of education matters in students' performance in examinations. Eshiwani's (1988) conclusion was mainly based on teachers' professional qualifications without looking into other important factors that affect performance such as teachers' level of training. In the present study, although teachers' professional qualifications contribute greatly on the students' performance in KCSE, these must be considered in combination with other related factors. A large number of schools, 22 (69%), are perceived by teachers to be performing poorly in KCSE economics examinations. This observation raises a salient question. Is the teachers' perceived poor students' performance in economics determined by other factors other than the preparation of teachers in the teaching of economics? Some of the factors considered in the present study include teacher-experience, teacher-attitudes, examining status with Kenya National Examination Council (KNEC) economics and attendance of relevant in-service educational programmes. The possible explanation for these findings can be found from the systems theory which states that all factors affecting student achievement must be fulfilled together in order to achieve a common objective economics being a system. This then brings us to the in-depth analysis of the above factors that may have had influence on students' performance in economics KCSE examinations.

### *Teachers' teaching experience*

Teachers' experience was analyzed to establish whether this factor has influence on the students' performance in the KCSE economics examinations. Table 3 presents teachers teaching experience in years. For the purpose of this study, experienced teachers were those teachers who had taught economics for a period of four or more years and have taught it across all the four classes of secondary school level (forms I-IV). Those teachers who had taught the subject for less than four years and had not had an opportunity to teach it across the four classes were categorized as not experienced. From table 3, the majority of teachers, 26 (82%), were experienced as compared to only a few 6 (18%) who had no experience in teaching of the subject. Many years of teaching, affords a teacher a deeper understanding of the subject matter through broad exposure and further reading and hence become more qualitative in the teaching of economics. This is in support of Simmon's (1975) study on teaching experience as a determinant of quality education.

**Table 3: Teachers' teaching experience in years**

<b>CLASS /YEARS</b>	<b>FORM 1</b>	<b>FORM 2</b>	<b>FORM 3</b>	<b>FORM 4</b>	<b>AVERAGE/TOTALS</b>
<b>Below 4 years</b>	4(12)	6(18)			6(18)
<b>Above 4 years</b>	26(82)	26(82)	26(82)	26(82)	26(82)

From the foregoing analysis on the teaching experience, poor performance in KCSE Economics in 1990s may be attributed to other factors such as staff stability. Poor performance may be attributed to frequent staff movement through transfers or attritional factors. Staff stability means

the teachers stay in one school for a longer period, long enough to study and know all the problems faced in the teaching of economics in that school. Kabetu's (1986) study, which examined this factor, established that stability has some significant influence in the children's performance. From table 4, most teachers in the national schools 4(13%) had taught for 4 or more years. Only 2 (6%) of the teachers had taught the subject for a period of four years and below. A greater proportion of the teachers, 12(38%), in Provincial schools had taught for four or less years in their present schools. Of the teachers in the Provincial schools, 10 (30%), had taught for at least four or more years while four teachers (13) in the district schools had taught for a similar period. In all the three school categories, most teachers 18(56%) had taught for four years and above. That is, they were experienced teachers of economics. It can, therefore, be inferred from this analysis, that the poor performance in some schools is partly due to the fact that most of their teachers' had not been in their stations long enough to determine their effectiveness in reaching economics. This stability in one school for a long period may bring about higher achievement by students since disruptions in the teaching and learning process is minimal. A teacher is able to guide his/her students progressively through the course in a manner that brings success in their KCSE examinations. That stability gives the subject teacher enough time to study well his students and plan for instruction effectively.

**Table 4 : Teachers teaching duration (in years) in the present Schools**

~ Years	Number of teacher in:			
	National schools	Provincial schools	District schools	Totals
Below 4 years	2(6)	12(38)	-	14(44)
Above 4 years	4(13)	10(30)	4(13)	18(56)
Totals	6(19)	22(68)	4(13)	32(100)

These findings are in agreement with Kabetu's (1986) findings on the importance of teachers' stability in one school. Since Kabetu (1986) was concerned with economics just as the present study, it is appropriate to conclude that teachers' professional qualifications alone cannot bring about good performance in economics in the KCSE. Good performance in economics examinations is only possible when teacher's level of education is combined with related factors such as the teaching experience and teachers' stability in the teaching schools and other enabling factors.

#### **Influence of teachers' attitudes towards teaching economics**

Teacher-attitudes towards the teaching of economics were examined to assess the teachers' feelings towards the subject. Eight attitudinal statements were used to gauge their attitudes. A bar graph was used to present the details as shown in figure 1. Teachers were expected to either

support on not support the provided statements. Below is the discussion of the response analysis of the statements.

Teacher-attitudes towards the statements of reason on the teaching of Economics

Statements on attitudes towards economics

S1: I enjoy reading economics topical issues

Many teachers, 30 (94%), agreed with this statement while a small proportion, 2(6%), did not. This suggests that teachers like economics and, therefore, constantly read topical issues on economics. This would facilitate the teaching of economics whereby he/she will be in a position to use current real life examples he has gathered from the extensive reading.

S2: I don't like teaching economics

A large proportion, 28(88%), of the teachers disagreed with this statement while only a small number 4(12%) of them agreed with it. This is an indication that teachers enjoy teaching economics at whatever level of education. That is, whether at the secondary school, college or the university level. Teachers' love for economics teaching can thus indicate their versatility in handling economics

S3: I don't like teaching economics in a secondary school

A large proportion 28(88%) of the teachers' did not support the statement while only a small percentage 4(12%) agreed with the statement. The greater percentage that supported the statement may be those teachers who were competent in teaching economics. However, certain factors may be hindering them from producing good results in economics at the end of the course.

S4: Do you find any difficulty when teaching economics?

A large proportion, 24 (75%), of the teachers agreed with the statement while only a small number, 8 (25%), disagreed with the statement. This suggests that, despite their positive attitude towards, economics, they experienced difficulties in the teaching of economics.

Teachers claimed that they could not find enough time to teach economics using the student-centered teaching methods such as field trips and field works. The smaller percentage, (25), that disagreed with the statement may be having enough teaching facilities and resources.

S5: Teaching economics is a waste of time

A greater percentage 25(88%) of the teachers did not support this statement while a smaller percentage 7(12%) supported it. This high proportion 25(88) of teachers who failed to support the statement indicates that the subject is very important and, therefore, should be taught at school. Despite the dismal performance in the subject over the past years, economics teachers feel the subject is useful to students and, therefore, they are not ready to abandon it unless the school administration decides to do so.

S6: I want to go on teaching economics

Most teachers, 26 (81%), supported this statement while only a small number, 6 (19%), did not agree with it. This finding is encouraging because the researcher expected many teachers to avoid teaching the subject because of the poor results, This fact then suggests that, if all other factors that tend to adversely affect the teaching and learning of economics in schools are adequately addressed, the teachers are likely to teach this subject efficiently since they have positive attitudes towards it.

S7: I think most students should learn economics

A bigger percentage, 22(69%), of the teachers agreed with the statement while only 10(31%), never agreed with it. These teachers who disagreed, 10(31%), with the statement may have been



discouraged by the persistent poor results in KCSE economics while the larger proportion of teachers 22(69%) who had agreed with it may have realised the value of economics to the students.

**S8: Knowing economics is useful**

A greater percentage, 28(88%), agreed with the statement while only a small number, (12), did not. This clearly shows that most teachers do recognize the value of economics in the school curriculum and life. This value includes the foundation for further studies, the ability to cope with the economic challenges surrounding him or her, among others.

From the foregoing analyses, it can be concluded that teachers have positive attitude towards the teaching of economics.

## **CONCLUSION**

Generally, the research findings revealed that teachers of economics are professionally qualified. In fact, a large proportion, 30 (94%), of the teachers were fully trained economics teachers. Eshiwani et al. (1988) noted that the level of education of a teacher matters in school performance in examinations. That is, a teacher with a higher level of education tends to perform better than a teacher with a lower level of education.

Regarding the teachers' attitudes, the study has established that teachers of economics have positive attitudes towards the teaching of the subject. They seem to like and enjoy teaching it. It can, therefore, be concluded from these observations that since most teachers of economics are professionally trained and have positive attitudes towards economics persistent poor performance in economics can be attributed to other factors other than the qualifications of teachers.

Concerning the teachers' attitudes towards the subject, their positive attitudes serve as the intrinsic motivation, while material rewards act as the extrinsic motivation. The provision of rewards to teachers would raise their morale. Various modes of motivation should be designed internally in the schools. The School Boards of Governors (BOG) and Parents- Teachers Association (PTA) should be instrumental in doing this. The schools should reward teachers who excel in examination results in economics. Material rewards such as money, gifts (presents) and other forms of presentations should be given to teachers who produce good results in economics at all levels of education such as end of Forms I, II, III and national KCSE examinations at the end of Form IV. In situations where a school does not have adequate funds, psychological rewards (verbal appreciation) of the teachers' efforts can go a long way to motivate such teachers.

The author expects that teachers of economics will benefit from the findings on the identified factors that influence the instructional procedures and strategies and hence improve the performance of the subject in the national examinations. The head-teachers too will be able to focus their administrative effort in reversing the declining trend in enrolment and performance in economics through staff motivation. This can be conducted during school functions like Parents-Teachers Association meetings, school assemblies, and staff meetings among other avenues. External motivation can be given at various levels such as district, Provincial and national education days where prizes are being given in recognition of teachers' efforts in the KCSE

examination performance. The Ministry of Education should also promote good performing teachers by promoting them and raising their salaries. In conclusion, generally, the teachers' attitudes towards economics is positive, a factor that greatly determines students performance in economics KCSE examinations. These positive attitudes should be reinforced through regular rewards. This will improve performance of students' in these examinations

## RECOMMENDATION

This study recommends that a further study be carried out to examine other factors that impact on academic performance in economics subject in secondary schools.

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