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RESEARCH ARTICLE

INFLUENCE OF TYPE OF SCHOOL ON ACADEMIC MOTIVATION AND ACADEMIC PERFORMANCE
AMONG SECONDARY SCHOOL STUDENTS IN KENYA

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ABSTRACT

The purpose of this study was to investigate the influence of type of school on academic motivation and academic performance among secondary school students attending day schools within Nakuru municipality. The study also investigated how gender, age of the student, and category of school contribute towards academic motivation and academic performance. The objectives specific to this study were to investigate how type of school influenced academic motivation and academic performance. The study adapted the ex-post facto design. The target population comprised all Form two and Form four students in the sixteen secondary schools in Nakuru municipality from which seven day schools were sampled using the stratified random sampling technique. The sample was made up of 489 students. Data was collected using a students' AMS questionnaire. The academic performance scores were obtained from the school records of the previous year. The major statistical methods used in this study were: Pearson's r, and analysis of variance (ANOVA). Descriptive statistics, means, frequencies, percentages and standard deviations were used for data presentation and to explain the variables in this study. The findings of this study indicated that type of school strongly contributed to the learners' academic motivation and academic performance. These findings will assist teachers, parents, administrators and other stake holders to engage in interventions in school that can improve the quality of learning and hence boost the student's academic performance.

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INTRODUCTION

There have been many discussions on reasons why students do not do well in school. With the rapidly changing educational environments in many countries in the world over, there is an opening for research exploring solutions to the challenge of enhancing student academic performance to getting a good education. Academic motivation (DiPerna and Elliott, 1999; Eccles and Wigfield, 2002) is an important psychological construct for learning and academic performance in all the school subjects. Since it is unobservable, it can only be inferred from actions or verbalisation. The relationship between academic motivation and academic performance is still unclear and can only be determined with continued observation of the students. In this study the contribution of type of school towards school attendance and academic performance was explored. There is no question that much is expected from our education system in terms of preparing future citizens, workers, and leaders. To this end, schools are expected to influence students' learning, socialization, and even vocational preparedness.

Despite the attention paid to a broad definition of outcomes, academic performance remains central. Academic instruction is arguably the primary business of education, and it is poor performance that spawns many stakeholders to action (Limo, 2009). The school environment is characterised by various elements. Some of them, like the school's physical infrastructure or typical class-size, can be easily accessed and measured. Other important factors are more difficult to measure, such as aspects of school organisation and management as well as the attitudes of both teachers and students that relate to the school climate. However, these aspects can be considered to obtain an overall impression of students' learning opportunities at school (Hanushek, 1998; OECD/UNESCO-UIS, 2003).

Mc Evan (2003) posits that the school environment is also characterised by peer effects among the students in each school. The same student may develop very different academic performance patterns depending on the motivation, performance and socio-economic background of his or her classmates. The variation in performance within a given education system may result from the socio-economic backgrounds of students and schools, from the human and financial resources available to schools, from curricular

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differences, from selection policies and practices, and from the way in which teaching is organized and delivered. According to Marzano (2003), while the link between motivation and academic achievement may seem obvious, this issue frequently slips through the cracks in discussions about school reform and improvement. As schools focus on helping all students achieve high standards, however, reaching out to engage and encourage learners becomes increasingly important. Clearly, students who are not motivated to engage in learning are unlikely to succeed. Student academic performance is a more important outcome for education and moves to improve that performance are crucial in the provision of education. This study investigated how academic motivation influences academic performance among Form two and four students in Nakuru municipality. The study also investigated how the type of school (girls, mixed-normal or mixed-segregated) contribute towards academic motivation and academic performance.

Statement of the Problem

Learning is an inseparable part of human life. Learning can happen incidentally or unintentionally when people interact directly with their environment in order to acquire new knowledge and skills. It also can take place in formal settings, such as classrooms at a school. With the rapidly changing educational climate the world over, including Kenya, there is concern by educators and other stakeholders over declining student academic performance. This has given an opening for research to explore possible solutions to the challenge of enhancing student academic performance. Academic motivation is a very important concept in learning and to the student's academic performance. Development of academic motivation in students ought to be an important goal for educators and teachers because of its inherent importance for the future. Thus, this current study had the potential to underscore the effects of type of school on academic motivation and academic performance among secondary school students in Nakuru municipality, Kenya. In this study, the type of school (girls' only, mixed-normal, or mixed-segregated) was perceived to affect academic motivation and academic performance.

Objective of the Study

The study sought to achieve the following objective:

1. Determine how type of school (girls' only, mixed-normal or mixed-segregated) influences academic motivation and academic performance among secondary school students.

Research Question

The research question for this study was:

1. How does type of school (girls' only, mixed-normal, or mixed-segregated) influence academic motivation and academic performance among secondary school students?

Research Hypotheses

In this study the following hypotheses were tested:

HO₁: The type of school (girls' only, mixed-normal, or mixed-segregated) has no significant effect on the students' academic motivation.

HO₂: The type of school (girls' only, mixed-normal, or mixed-segregated) has no significant effect on the students' academic performance.

METHODS

This study adopted a causal comparative research design which is also known as ex-post facto design. Inference about the relationship among the variables is made, without direct intervention from the variations of independent and dependent variables (Kothari, 2008). This implied that the researcher noted the dependent variables and retrospectively study the independent variable for their possible effects on the dependent variables. The variables, which were of interest in this present research, were not lent to any manipulation.

The study population comprised all Form two and Form four students in the seventeen public day secondary schools in Nakuru Municipality of Nakuru District in Rift Valley Province of Kenya. About 3,200 Forms two and four students represented the student population. Nakuru Municipality has a total of 17 day public secondary schools of which 5 are provincial and twelve are of district status. Of the 17, a sample of 7 schools was chosen by stratified random sampling. Thus, the sampled schools comprised 1 girls' school, 1 mixed-normal school and 5 mixed-segregated schools. Stratified sampling technique was used to ensure that the three types of schools (girls' only, mixed-normal, or mixed-segregated) were represented in the sample in proportion to the population. In this municipality, there were twelve mixed-segregated schools, 4 mixed-normal schools and 1 girls' school.

Research instruments

Document Analysis

Student's academic performance data was obtained from the schools records as a source of primary data.

Students' AMS questionnaire

A students' questionnaire (Academic Motivation Scale, AMS) was adapted from Valler and, Pelletier, Blais, Briere, Senecal, and Vallières, (1993) and the researcher's own self-made items consisted of four sub-scales which were used to measure the students' academic motivation.

DISCUSSION

The Effect of Type of School (Girls' Only, Mixed-Normal, or Mixed-Segregated) on the Students' Academic Motivation

The researcher wanted to find out whether the type of school determined the students' academic motivation. To investigate the effect of the type of school on their academic motivation, analysis of variances between the two variables was carried out. The respondents' had indicated the type of school they attend on the questionnaire. The response options were girls' only, mixed-normal, or mixed-segregated. These were taken as levels of the independent variable.

The influence of this independent variable on academic motivation was analyzed using ANOVA.

The following null hypothesis was tested:

HO₁: The type of school (girls' only, mixed-normal, or mixed-segregated) has no significant effect on the students' academic motivation.

The distribution of academic motivation mean scores by type of school is presented in Table 1.

The respondents from the mixed-segregated had the highest score in academic motivation (mean = 81.08) followed by those in girls' only schools (mean = 80.06) while the respondents from mixed-normal (mean = 77.18) had the lowest score. The majority of the respondents were from mixed-segregated schools (n = 307) while the smallest number of the respondents were from girls' only schools (n = 86).

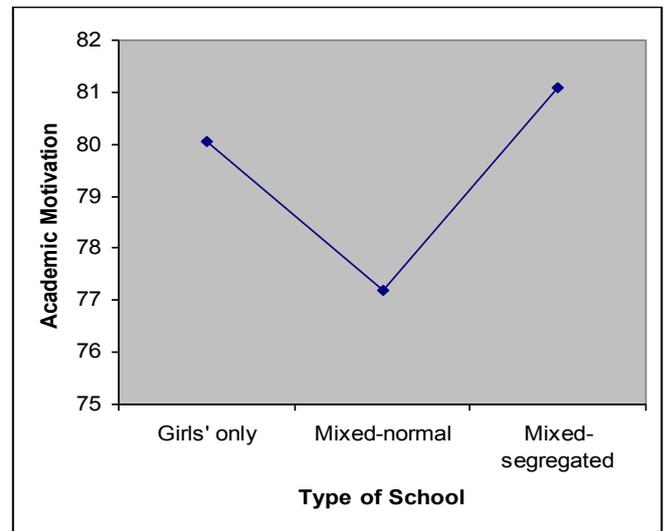


Figure 1. Academic Motivation against Type of School

Table 1. The Distribution of Academic Motivation Scores by Type of School

Type of School	Academic Performance		
	n	Mean	SD
Girls' only	86	42.90	12.54
Mixed-normal	96	50.47	7.47
Mixed-segregated	307	46.20	13.70
Total	489	46.46	12.70

Table 2. One Way Analysis of Variance for Type of School and Academic Motivation

Source of variation	SS	df	MS	Fob	Fcrit
Between groups	1113.54	2	556.77	5.58*	2.99
Within groups	48530.82	486	99.86		
Total	49644.36	488			

*Significant at $\alpha = .05$

Table 3. The Distribution of Academic Performance Scores by Type of School

Type of School	Academic Performance		
	n	Mean	SD
Girls' only	86	42.90	12.54
Mixed-normal	96	50.47	7.47
Mixed-segregated	307	46.20	13.70
Total	489	46.46	12.70

This effect of type of school on the students' academic motivation is shown in Figure 1. From Figure 1, it is evident that students in mixed-segregated school had the highest score in academic motivation whereas students in mixed-normal had the lowest score. The higher score in academic motivation among the students in mixed-segregated schools could be attributed to the fact that these students studied separately from their counterparts of the opposite sex. They only met their counterparts of the opposite sex during breaks. Respondents from girls' only schools also had a fairly high score in their academic motivation. Students in mixed-normal schools had a lower score in academic motivation probably due to the dynamics that exist in this kind of arrangement. To test whether or not the three mean scores obtained for academic motivation were significantly different, an analysis of variance was computed and the results presented in Table 2. The results of hypothesis testing confirmed that the type of school had an influence on the students' academic motivation.

Students in mixed-segregated schools scored better than from the others and probably this is reason for establishing this type of schools. Table 2 indicates an F observed value of 5.58 which was not statistically significant at .05 level of significance. A critical value of $F(2, 486) = 2.99$ was obtained from the statistical tables for the F distribution. Since $F_{ob} = 5.58$ was greater than $F_{crit}(2, 486, .05) = 2.99$, H_{O1} was rejected implying that the type of school (girls' only, mixed-normal, or mixed-segregated) has a significant effect on the students' academic motivation.

The Effect of Type of School (Girls' only, Mixed-Normal, or Mixed-Segregated) on the Students' Academic Performance

The researcher also wanted to find out whether the type of school was a determinant on the students' academic performance. To investigate the effect of the type of school on their academic performance, analysis of variances between the two variables was carried out.

The respondents' had indicated the type of school they attend on the questionnaire. The response options were girls' only, mixed-normal, or mixed-segregated. The response options were taken as levels of the independent variable. The influence of this independent variable on academic performance was analyzed using ANOVA.

The following null hypothesis was tested:

HO₂: The type of school (girls' only, mixed-normal, or mixed-segregated) has no significant effect on the students' academic performance.

The distribution of academic performance scores by type of school is presented in Table 3.

The respondents in the mixed-normal schools had the highest score in academic performance (mean = 50.47) followed by those in mixed-segregated schools (mean = 46.20) while the respondents from girls' only schools had the lowest mean score (mean = 42.90). It is worth noting that 62.8 % of the respondents were from the mixed-segregated schools and they scored well in their academics. This effect of type of school on the students' academic performance is shown in Figure 2.

Table 4. One Way Analysis of Variance for Type of School and Academic Performance

Source of variation	SS	df	MS	Fob	Fcrit
Between groups	2650.32	2	1325.16	8.47*	2.99
Within groups	76075.32	486	156.53		
Total	78725.64	488			

*Significant at $\alpha = .05$

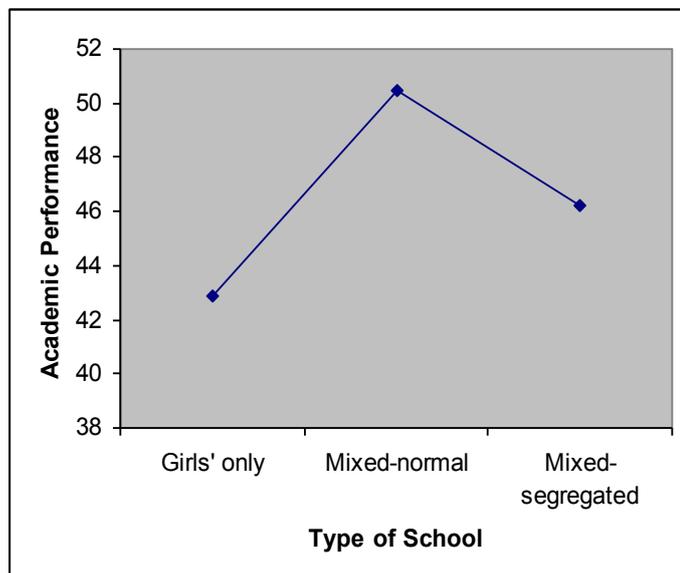


Figure 2. Academic Performance against Type of School

Figure 2 shows that mixed-normal schools had the highest mean in academic performance as compared to schools from the other categories, namely, girl's only schools and mixed-segregated schools. Girls' only schools had the lowest the mean score in academic performance. To test whether or not the three mean scores obtained for academic performance were significantly different, an analysis of variance was computed and the results presented in Table 4.

The results of hypothesis testing confirmed that the type of school had an influence on the students' academic performance. Students in mixed-normal schools did better than the students from the mixed-segregated and girls' only schools. Table 4 indicates an F observed value of 8.47 which was not statistically significant at .05 level of significance. A critical value of $F(2, 486) = 2.99$ was obtained from the statistical tables for the F distribution. Since $F_{ob} = 8.47$ was greater than $F_{crit}(2, 486, .05) = 2.99$, H_{O2} was rejected implying that the type of school (girls' only, mixed-normal, or mixed-segregated) has a significant effect on the students' academic performance.

Findings

Effect of Type of School on Academic Motivation

It was found that the type of school (girls' only, mixed-normal, or mixed-segregated) had a significant effect on the students' academic motivation. It was found that there was a significant effect on the students' academic motivation in the girl's only schools and mixed-normal and mixed-segregated schools. A study by Fortier, Valler and, and Guay, (1995) found that children with better self-regulation of emotion experience

more positive social relationships at school, which in turn increases their level of engagement and academic motivation. Different types of schools do offer a different kind of social relationships, hence the effect observed on academic motivation.

Effect of Type of School on Academic performance

It was found that the type of school (girls' only, mixed-normal, or mixed-segregated) had a significant effect on the students' academic performance. These findings agree with those of Lepore and Warren (1997) who found that boys in mixed normal classes performed relatively better than boys in boys' only classes. Specifically, the focus of argument was that in co-educational schools (mixed-normal), the presence of girls is necessary in order to promote the positive image of boys, and that since a number of subjects are considered masculine, boys especially in normal-mixed classes will perform better to prove their masculinity (Mondoh, 2001).

Recommendations

On the basis of this study's findings, the following recommendations are made:

1. Teachers and parents should put in place strategies for motivating students to attend normal mixed segregated school since they offer enhanced academic motivation which has direct bearing on academic performance.
2. School attendance records can be computerised or adequately supervised to help parents, school managers,

ministry of education officials and researchers to identify other factors which may affect students' academic performance or outcomes.

3. Programs that will enhance academic motivation of students should be used in all secondary schools.

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