

# Relationship Between School Climate and Academic Achievement Among Students in Public Secondary Schools in Kiambu County, Kenya

Kanake Zipporah Karegi\*, Doyne Kageni Mugambi

Department of Educational Psychology, Kenyatta University, Nairobi, Kenya

\*Corresponding author

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## ABSTRACT

Despite ongoing efforts to foster better academic success, many schools continue to struggle with low students' academic achievement, even as quality education remains a global priority in the 21st century. Previous studies consistently connect low academic achievement to environmental and psychological factors. However, relatively few studies have examined the role of school climate on academic achievement. Therefore, this study explored the relationship between school climate and academic achievement among Form Three students in public secondary schools in Kiambu County, Kenya. Guided by Bronfenbrenner's ecological systems theory, this study focused on peer pressure and its relation to academic achievement. A descriptive correlational research design was employed to establish the relationship between the study variables. All Form Three students in 2023 were targeted from which a sample size of 379 students from five public secondary schools was selected using purposive, stratified, and simple random sampling techniques. Data were collected from students using questionnaires, and school academic records. To analyze quantitative data, descriptive and inferential statistics, specifically, Pearson's Product Moment Correlation Coefficient was used. Peer pressure showed a significant negative correlation with academic achievement ( $r(377) = -0.245, p < 0.05$ ). This study therefore recommends that educators and stakeholders should develop interventions geared towards fostering positive peer influences to improve academic achievement.

**Keywords:** Academic Achievement, School Climate, Peer Pressure, Public Secondary Schools

## INTRODUCTION

Quality education has become a global priority in the 21st century, with schools endeavouring to improve students' academic achievement. Academic achievement is not only a significant indicator of individual student's educational progress but also crucial for larger societal development (Changwe, 2020). Despite the importance of student academic success, low academic performance remains a widespread concern globally (Daka, 2019). Darling-Hammond and Cook-Harvey (2018), argue that schools must provide a supportive environment conducive to learning, especially given the diverse racial, ethnic, and cultural backgrounds of today's learners.

Many studies have stressed on the importance of a positive school climate in enhancing academic outcomes (Daily et al., 2019; Duraku & Hoxha, 2020; Martin, 2020; Nilsen et al., 2022; Tomaszewski et al., 2023). According to these researchers, school climate constitutes variables such as peer relationships, peer pressure, teacher-student interactions among others. The current study focused on peer pressure and how it related to academic achievement.

Peer pressure has been linked to academic achievement. For instance, Kayani et al. (2019) found that peer pressure influences academic outcomes by shaping collective mindsets among learners. They revealed that comfortable peer interactions boosted students' intellectual development. Moldes et al. (2019) explored peer pressure and academic achievement among students in India, and found that while peer pressure is common,

students must be emotionally resilient to mitigate its negative effects. Zainab (2023) confirmed that positive peer pressure enhances academic performance, emphasizing the importance of constructive peer influence in fostering better academic achievement.

In Nigeria, Olowolabi (2021) studied the psychological influence of peer pressure on academic achievement and found both positive and negative effects, with peer pressure coming out as the most significant social influence on their behaviour. This study revealed that academic decisions students made mostly stemmed from peer-related factors such as future educational goals. Adeyemi et al. (2019) also found a significant relationship between peer pressure and academic achievement.

In Kenya, few studies have investigated the connection between school climate variables and academic achievement. For instance, Mokua (2020) revealed that peer pressure had both positive and negative effects on academic achievement in Manga sub-county, with many students negatively influenced by peers. Despite these previous studies findings, there remains a need explore interventions that can address dismal academic achievement among students. This study sought to bridge that gap by focusing on public secondary schools in Kiambu County, Kenya, where persistent and declining academic performance calls for timely and targeted interventions.

## **MATERIALS AND METHODS**

### **Research Design**

This study used correlational research design. Creswell (2018) clarified that this design is best applied when a study aims to check the relationship between or among two or more psychological variables. It was, therefore, apt since the study was on the relationship between school climate and students' academic achievement in public secondary school

### **Study Locale**

The study was located in Kiambu County in Kenya and targeted all the form three students in 272 public secondary schools. Kiambu County was chosen following the recommendations from earlier researchers who conducted study in the region (Kangangi, 2022). In addition, the Kiambu county has recorded dismal and stagnating performance in KCSE over years (Ministry of Education Science and Technology, 2018).

### **Population Selection**

Purposive, stratified and simple random sampling were used to draw the sample of this study. In total 379 students constituted the sample size which was computed using a table of sample determination by Krejcie & Morgan (1970).

### **Description of Research Instruments**

Data collection tools included students' questionnaire and proforma summary for students' examination results. Questionnaire was used because according to Kothari (2013) they are highly suitable instruments for data collection in survey research, especially when large sample sizes are involved. He also adds that they offer a straightforward and efficient administration process, thus they were deemed ideal for gathering quantitative data in this study.

### **School Climates Survey for Elementary and Middle School Vision (SCS-ESV) by Emmons et al. (2002)**

To assess school climate SCS-ESV by Emmons et al. (2002) was adapted. Academic achievement was measured using end of the term mean grade scores that were obtained from school examination records.

## Academic Achievement Records

The scores of students' academic achievement was collected from the school records. Form three class teachers were requested to provide records of students' academic achievement. This enabled the researcher to get the entry marks for each individual and the previous mean grade at the end of the term.

The scores were standardized using T- scores to allow comparability between participants from different schools.

## Data Collection and analysis Procedure

Data collection process commenced with seeking of the informed consent from the participants, followed by giving of instructions on how to fill the questionnaires. Then researcher administered the tools through the help of three class teachers during breaks as advised by the school administration. Data obtained were analysed using Pearson Correlation and findings presented in tables.

## RESULTS

The results are presented in line with the study objectives. First, the description of variables is given, followed by hypothesis testing, interpretation and discussion of the results.

### Relationship Between Peer Pressure and Students' Academic Achievement

The participants' scores on the peer pressure were analyzed to get the range, mean, standard deviation, and skewness. The results are shown in Table 4.1.

**Table 4.1 Descriptive Analysis of Peer Pressure Scores**

Statistics	Value
Mean	17.3219
Mode	18.00
Std. Deviation	3.69066
Skewness	-.332
Kurtosis	.397
Range	20.00
Minimum	5.00
Maximum	25.00

Note. N = 379

The findings presented in table 4.1 reveal that participants had high peer pressure scores ( $M = 17.32$ ,  $SD = 3.69$ ), range of 20 and the distribution of scores is negatively skewed ( $sk = -0.332$ ).

The participants' peer pressure score was further used to categorize the participants as having either negative or positive peer pressure. The cut-off scores for category of negative and positive peer pressure were 5-15 and 16-25 respectively. The results are presented in Table 4.2.

**Table 4.2 Type of Students' Peer Pressure**

		Frequency	Percent
Valid	Negative	116	30.6
	Positive	263	69.4
	Total	379	100.0

The finding presented in Table 4.2 indicates that majority of the participants (69.4%) had positive peer pressure and 30.6% had negative peer pressure. In order to establish the relationship which existed between the two types of peer pressure and the students' violence mean score, Pearson's correlation was performed on the variables. This yielded a correlation matrix as presented in Table 4.3.

Students' Academic achievement scores were cross-tabulated with types of peer pressure. Table 4.3 shows the findings.

**Table 4.3 Students' Academic Achievement Mean Score and Type of Peer Pressure**

	Type of Peer Pressure	N	Mean	Std. Deviation
Academic Achievement	Positive	116	28.7672	11.57911
	Negative	263	24.7529	9.23256

### Hypothesis Testing on Relationship Between Peer Pressure and Students' Academic Achievement

To test the relationship between peer pressure and students' academic achievement, null hypothesis given below was stated:

$H_{01}$ : There is no significant relationship between peer pressure and academic achievement.

This hypothesis was tested using correlational analysis, that is, through computing Pearson product moment correlation coefficient. The results are depicted in Table 4.4.

**Table 4.4 Intercorrelation Between Peer Pressure and Academic Achievement**

		Peer Pressure Total Score	Students' Academic Achievement Total Score
Peer Pressure Total Score	Pearson Correlation	1	-.245**
	Sig. (2-tailed)		.000
	N	379	379
Students' Academic Achievement Total Score	Pearson Correlation	-.245**	1
	Sig. (2-tailed)	.000	
	N	379	379

\*\*. Correlation is significant at the 0.01 level (2-tailed).

The results presented in Table 4.4 indicate a significant negative correlation between peer pressure scores and students' academic achievement scores ( $r(379) = -0.245$ ,  $p < 0.05$ ). Thus, null hypothesis was rejected. This implies that students with higher peer pressure scores, reflecting negative peer influence, achieved lower academic performance.

The study's foundation, Bronfenbrenner's ecological systems theory (1979), is in line with these results. The theory holds that every facet of development is influenced by these interrelated systems, of which the school is a component. Peer groups, classrooms, families, and religious groups all play critical roles in the microsystem, collectively influencing an individual's overall development and academic success.

## DISCUSSION

This study observed that academic achievement among students was negatively associated with peer pressure. These findings contrast with those of Zainab et al. (2023), who identified a positive link between peer pressure and academic success of university students. Their research findings suggest that the nature of peer interactions have influence on academic achievement among students across different academic levels.

Similarly, Sarkar et al. (2022) study that looked into the impacts of peer pressure on students' academic performance in Tripura and found that it has both positive and negative effects on students' performance. Consistent to this dual perspective, Vangie et al. (2019), who investigated the relationship between academic success and peer pressure among senior high school students in Jagobia, highlights a positive correlation between academic achievement and perceived positive peer pressure. These findings suggest that peer influence can also act as a motivational factor to students' academic achievement.

Bogosi and Oreeditse (2021) echoed these results in their investigation conducted in private secondary schools in northern Botswana which reported a significant correlation between peer influence and both student behaviour and academic achievement, an indication that peer pressure can be a powerful determinant of student success in academic. Similarly, Filade et al. (2019), in their study on undergraduate students at Babcock University in Ogun State, Nigeria, established both positive and negative effects of peer pressure on students' academic achievement.

The findings of this study also agree with a correlational study by Mokua (2020), which examined the factors influencing students' academic performance among Kenyan secondary school students, and revealed that peer pressure had both positive and negative effects on academic achievement. However, its negative impacts were more prevalent. In a related study, Ogot et al. (2020) found a significant association between academic success and student-to-student interactions in public secondary schools in Nakuru County, implying that peer interactions play a key role in shaping students' academic outcomes. Additionally, a study by Wanyonyi and Kangangi (2019), supported the assertion that peer pressure significantly influences students' academic achievement.

## CONCLUSIONS

Based on the finding that a significant and negative relationship exist between positive peer pressure and student's academic achievement, this study concludes that negative peer pressure is associated with lower academic achievement among students. This implies that negative peer relations in schools negatively affects students' academic achievement. This suggests the need for interventions such as social emotional learning and peer mentoring programs to promote positive peer relationships and supportive schools learning environments.

## RECOMMENDATIONS

The study established an association between school climate and students' academic achievement. This suggests a critical need for a cooperative effort by education stakeholders to foster a positive school learning environment that boosts academic achievement among students. Additionally, the schools should develop strategies that cultivate and reinforce constructive peer interactions among students to help nurture positive peer influence.

This study also focused one variable of school climate, specifically, positive peer pressure and its association with academic performance. Future studies should examine other variables of school climate like needs satisfaction, and school connectedness to better understand its link to academic achievement.

## Declaration of Interests

This research was undertaken as a requirement for a Master's degree at Kenyatta University, with complete funding from the corresponding author.



## Conflicts of Interests

The corresponding author and coauthors declare the absence of any conflict of interest during the research process.

## Data Availability Statement

The raw data used in this study can be availed upon request from corresponding author.

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