

## Students' Perception of Teacher Classroom Effectiveness and Academic Achievement: A Case of Secondary School Students in Hamisi Sub-County, Kenya

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### ABSTRACT

*Teacher classroom effectiveness plays a crucial role in influencing students' perceptions and academic achievement. This study aimed to address this research gap by examining students' perceptions of teachers' classroom effectiveness and its impact on academic achievement in Hamisi Sub County. The study employed a descriptive survey research design. A sample size of 373 (357 students and 16 teachers) from 16 secondary schools participated in the study. Data was collected through questionnaires administered to students, interviews conducted with teachers, and document analysis to assess students' academic performance. Quantitative data was analysed using descriptive statistics and regression analysis, while qualitative data was analysed using thematic analysis. The findings revealed a statistically significant relationship between students' perception of teachers' classroom effectiveness and their academic achievement ( $t = 15.093, p < 0.005$ ). It is recommended that teachers focus on cultivating positive perceptions of their classroom effectiveness among students. By doing so, teachers can positively influence students' academic achievement. These findings have implications for education stakeholders, including school administrators, teachers, and policymakers, as they can guide efforts to improve overall academic achievement in students. Overall, the study findings contribute to the understanding of the importance of students' perceptions of teachers' classroom effectiveness and its impact on academic achievement.*

**Keywords:** Academic Achievement, Classroom Effectiveness, Hamisi Sub-County, Secondary Schools, Students' Perception

### I. INTRODUCTION

Education represents the beacon of hope for any nation, particularly in the context of developing countries such as Kenya. As highlighted by Caldwell *et al.* (2018), teachers bear the crucial duty of conveying the wealth of knowledge and values amassed over time to the succeeding generations. Zamani and Ahangari (2016) assert that the attainment of effective teaching status demands the presence of specific attributes within an individual. These include a favourable personality,

Student learning outcomes, encompassing cognitive and affective aspects (Goldman and Goodboy, 2014; Seiz *et al.*, 2015; Ni *et al.*, 2018). Notably, several studies have noted a positive association between students' perceptions of teacher effectiveness and their academic performance in different countries including Nigeria (Akiri and Ugborugbo, 2009; Heck, 2009; Oviawe, 2016; Owoh, 2016; Burroughs *et al.*, 2019). Shifting our attention to Kenya, Bartilol (2016) conducted a study on teachers' perceptions regarding the influence of selected teacher factors on pupils' academic performance in public primary schools in Keiyo South Sub-county. The research established that teachers' consideration of individual differences positively contributed to self-directed learning, enhanced self-esteem, and ultimately led to improved academic results. These findings collectively emphasize the critical role of teacher effectiveness in shaping student outcomes in the subject matter, relational competence, adeptness in teaching strategies, and proficient classroom management skills. Reinforcing this notion, Sklad *et al.* (2012) emphasize that teachers who possess a combination of professional and interpersonal skills exhibit heightened effectiveness within their classrooms, leading to improved

student behaviour, attitude, and academic achievement. Previous research has consistently demonstrated a strong correlation between teacher behaviour and affirm the significance of effective teaching practices in fostering academic success.

While these previous studies have proposed that students' perceptions of teachers' classroom effectiveness are risk factors for their academic achievement, these assertions are largely anecdotal rather than empirically supported. The extent and nature of the relationship between these presumed risk factors remain detailed and require further clarification. Therefore, conducting research to determine the strength of this hypothesized risk factor (student perceptions) provided empirical evidence and served as a foundation for advocating for appropriate measures among education stakeholders. Additionally, it is worth noting that students' perceptions may not have been utilized to evaluate teachers' effectiveness in terms of students' academic achievement in Hamisi sub-county, where low academic performance has been identified; a closer examination of the Kenya Certificate of Secondary Education (KCSE) statistics from Hamisi Sub-County reveals that a significant number of candidates, totalling 3050, scored grade D and below between 2019 and 2021. This alarming figure serves as a warning sign pointing to the presence of ineffective teacher practices within the classroom. Consequently, this study was undertaken to address this gap and provide valuable insights in this specific context.

This study drew upon the attribution theory proposed by Weiner (1986), which explores how individuals interpret events and the subsequent impact on their thoughts and behaviours. It also focusses on how individuals interpret events and attribute causes to them. The choice of this theory was driven by its focus on the relationship between individuals' perceptions of events and their cognitive and behavioural processes (Graham and Weiner, 1986). It is argued that there exists a strong connection between the perceptions individuals form and the actions they subsequently take. The attribution theory was deemed relevant in this study to shed light on how students' perceptions of their teachers' classroom effectiveness influenced their academic achievement. The application of this theory in the current study revolves around the assumption that learners' social perceptions, as reflected in the comments, support from teachers, peers, and parents, would influence their academic achievement.

### **1.1 Purpose and Hypothesis of the Study**

The purpose of the study was to establish the relationship between students' perception of teachers' classroom effectiveness on their academic achievement in secondary schools in Hamisi Sub-County. The specific objective of the study was to examine the relationship between students' perception of teacher classroom effectiveness and students' academic achievement in secondary schools in Hamisi Sub-county, Kenya. The null hypothesis stated; there is no significant relationship between the students' perception of teachers' classroom effectiveness and students' academic achievement in secondary schools in Hamisi sub-county.

## **II. METHODOLOGY**

### **2.1 Research Design**

In this study, a descriptive survey research design was employed to describe students' perceptions of teachers' classroom effectiveness in relation to their self-concept and academic achievement. The choice of the descriptive survey research design was motivated by its suitability for collecting data from a large sample population within a short period, making it a cost-effective research approach (Bloomfield & Fisher, 2019; Mertler, 2019). Additionally, the descriptive design allows for the collection of both quantitative and qualitative data. Therefore, a combination of questionnaires and interview schedules was utilized for data collection. This decision was influenced by the recommendation of Fraenkel *et al.* (2012) to incorporate multiple data collection methods, such as interview schedules for easy of triangulation. By employing both quantitative and qualitative methods, the study aimed to gather comprehensive and robust data that would provide a comprehensive understanding of students' perceptions of teachers' classroom effectiveness, self-concept, and academic achievement.

### **2.2 Population and Sampling**

The research was conducted in secondary schools located in Hamisi sub-county, Kenya. The target population consisted of 4,848 individuals, comprising 4,738 form three students and 110 form three class teachers, across 52 secondary schools in Hamisi sub-county. To determine the sample size for the study, Krejcie and Morgan (1970) sample size determination table was used to arrive at sample size of 357 students and 16 teachers using 30% of total population as recommended Kerlinger (2004).

To ensure a representative sample, the study employed a combination of purposive sampling, stratified random sampling, and simple random sampling techniques. Purposive sampling was utilized to select form three principal class teachers, as they were considered key informants with crucial insights for the study. Being class teachers, they have frequent interactions with students and possess valuable information relevant to the research objectives. Stratified random sampling was employed to ensure that important participant characteristics, such as gender and school categories, were adequately represented in the study. This approach allowed for the selection of participants and schools based on diverse strata, ensuring a balanced representation of different groups. Furthermore, simple random sampling was employed to provide an equal chance for all participants to be included in the study without any bias. This random selection process aimed to ensure fairness and minimize potential sample selection bias.

### 2.3 Research instruments

In this study, multiple research instruments were employed, including questionnaires, interview schedules, and document analyses. These methods were chosen to gather comprehensive and diverse information related to the research objectives. For form three students, a questionnaire was used to collect pertinent data regarding their perceptions of teachers' classroom effectiveness and its impact on their academic achievement. In addition to the questionnaires, interview schedules were utilized to gather in-depth information and complement the data collected through the questionnaires. The interviews aimed to provide a deeper understanding of the participants' perspectives and experiences, as well as to validate and clarify the data obtained from the questionnaires. By conducting interviews, the researchers had the opportunity to observe facial expressions, gestures, and other non-verbal cues, which added richness and nuance to the communication process. These interview sessions were conducted face-to-face with the principal class teachers in each visited school. The interactive nature of the interviews allowed for interactive discussions, enabling the researchers to probe further into specific areas of interest and gather more detailed information.

Furthermore, document analysis was employed as a method to collect additional data. This involved examining and extracting information from various documents, such as records of form three student enrolment (both boys and girls) and academic achievement data from end-of-term exams. The document analysis served as a supplementary source of information to support and enhance the findings obtained through the questionnaires and interviews. By utilizing a combination of questionnaires, interviews, and document analysis, the study aimed to gather comprehensive and multi-faceted data that would provide a robust understanding of the research topic and facilitate a more thorough analysis of the relationship between teacher classroom effectiveness and students' academic achievement.

### 2.4 Validity and Reliability

In this study, content validity was ascertained with help of expert judges from Educational Psychologists who deemed the items reliable. Split half test was used to ascertain the reliability of research instruments. Split half method was preferred since the test was divided into two sections, which were checked against each other and the results were correlated and a correlation coefficient above 0.7 was deemed reliable (Antonakis et. al, 2010). Split half test was reliable compared to test retest since the situational and psychological conditions under which the test was administered was maintained and the test was administered once, this had the likelihood of controlling reliable error. The items were run on Cronbach Alpha to ascertain the reliability coefficient. In this case, reliability was established at 0.7 as the set coefficient for reliability.

### 2.5 Data analysis

Once the data was collected, it underwent several steps for analysis. The questionnaire was first examined for precision and omissions. SPSS was used in preparing and cleaning of the data by identifying and testing data normality. Coding of the responses was done alongside categorizing data from interviews. It was then classified and tabulated using tables to facilitate the analysis process. Descriptive statistics, such as means, were calculated to summarize the students' perceptions of teachers' classroom effectiveness and their academic achievement. Simple linear regression was utilized as an inferential statistical method to examine the relationship between these variables. The qualitative data was transcribed according to themes and sub-themes. The null hypothesis tested was that there is no significant relationship between the students' perception of teachers' classroom effectiveness and students' academic achievement in secondary schools.

### III. RESULTS

The study's objective was to examine the students' perception of teacher classroom effectiveness on students' academic achievement in secondary schools in Hamisi sub-county, Kenya. The respondents were to indicate with a tick (✓) to show their response to each of the statement given in the questionnaire. Where; SA= Strongly Agree; A=Agree; U=Undecided; D=Disagree; SD= Strongly Disagree. The findings are shown in Table 1.

**Table 1**  
*Students' Perception on Teacher Classroom Effectiveness on Students' Academic Achievement*

Statements	Min	Max	Mean	Std. Dev.
My teacher accomplishes tasks effectively which enables me to have positive perceptions towards him/her	1.00	5.00	4.2050	.27141
My teacher knows what one really wants enabling me to have positive perceptions	1.00	5.00	4.1391	.98692
My teacher uses reason more than Emotions	1.00	5.00	3.8341	.78030
My teacher displays friendly attitude towards learners	1.00	5.00	3.6935	.27623
My teacher is always prepared when holding classes thus giving me positive perceptions towards him/her	1.00	5.00	3.8812	.91003
My teacher shows mastery of lesson taught thus making me have positive perceptions	1.00	5.00	4.1648	.75934
My teacher responds to feedback given by students enabling us to have positive views on him/her	1.00	5.00	4.3126	0.27014
My teacher exhibits non-threatening behaviours when interacting with students	1.00	5.00	3.9004	.91022
My teacher shows approachability with students	1.00	5.00	4.0536	.92663
My teacher serves as positive role model to students	1.00	5.00	3.7356	.22594
My teacher commands respect from students	2.00	5.00	3.9387	.88800
My teacher elicits enthusiasm among students when teaching	1.00	5.00	4.0958	.90427
My teacher incorporates creativity in delivering of lessons	1.00	5.00	3.7625	.16565
My teacher provides students with activities relevant to lessons	1.00	5.00	3.9732	.89187
My teacher uses student-centered teaching approach	1.00	5.00	4.0498	.92060
My teacher explains complicated lessons well	1.00	5.00	3.7739	.19238
<b>Average</b>			<b>3.9662</b>	<b>0.6616</b>

Based on the findings presented in Table 1, it can be observed that the majority of students (mean: 4.3126, standard deviation: 0.27014) reported that their teachers respond to feedback given by students, which contributes to the development of positive perceptions towards them. Several other statements also had mean scores and standard deviations above the composite mean, indicating positive perceptions of students towards their teachers. These statements include "My teacher accomplishes tasks effectively, which enables me to have positive perceptions towards him or her" (mean: 4.2050, standard deviation: 0.2741), "My teacher is always prepared when holding classes, thus giving me positive perceptions towards him or her" (mean: 4.1648, standard deviation: 0.75934), "My teacher knows what one really wants, enabling me to have positive perceptions" (mean: 4.1391, standard deviation: 0.98692), "My teacher elicits enthusiasm among students when teaching" (mean: 4.0958, standard deviation: 0.90427), "My teacher shows approachability with students" (mean: 4.0536, standard deviation: 0.92663), "My teacher uses a student-centred teaching approach" (mean: 4.3126, standard deviation: 0.27014), and "My teacher provides students with activities relevant to lessons" (mean: 3.9732, standard deviation: 0.89187). These findings suggest that students perceive their teachers positively in terms of responsiveness to feedback, effectiveness in accomplishing tasks, preparedness, understanding student needs, eliciting enthusiasm, approachability, using student-centred teaching approaches, and providing relevant activities. The mean scores and standard deviations provide an indication of the level of agreement and variability among the student responses, with higher mean scores suggesting stronger agreement with the statements and lower standard deviations indicating less variability in the responses.

In contrast, a smaller proportion of students (mean: 3.9387, standard deviation: 0.88800) indicated that their teachers command respect from students. Additionally, several statements were below the composite mean, indicating lower levels of agreement or positive perceptions among students. These statements include "My teacher sets classroom rules for students to follow" (mean: 3.9119, standard deviation: 0.96670), "My teacher exhibits non-threatening behaviours when interacting with students" (mean: 3.9004, standard deviation: 0.91022), "My teacher is always prepared when holding classes, thus giving me positive perceptions towards him or her" (mean: 3.8812, standard deviation:



0.91003), "My teacher uses reason more than emotions" (mean: 3.8341, standard deviation: 0.27623), "My teacher explains complicated lessons well" (mean: 3.7739, standard deviation: 0.19238), "My teacher incorporates creativity in delivering lessons" (mean: 3.7625, standard deviation: 0.16565), "My teacher serves as a positive role model to students" (mean: 3.7356, standard deviation: 0.22594), and "My teacher displays a friendly attitude towards learners" (mean: 3.6935, standard deviation: 0.27623).

The study established the scores of the students who participated in the study, both from their expected mean scores and the scores attained in their previous exam, in order to establish their academic achievement. Results are presented in Table 2.

**Table 2**  
*Students' Scores*

Scores attained	Frequency	Expected M.S	Percent	Deviation
B+	14	A-	5.4	-6.4
B	35	B+	13.4	-2.7
B-	66	B	25.3	-7.7
C+	37	B-	14.2	4.6
C	47	C+	18.0	7.3
C-	43	C	16.5	8.8
D+	19	C-	7.3	-3.8
<b>Total</b>	<b>261</b>		<b>100.0</b>	

The results in Table 2 show that 14 respondents had scored B+ , 35 had B , 66 had B-, 37 scored C+, 47 scored C plain, 43 scored C- while the remaining 19 scored D+. Majority of the respondents had a score of B- in their previous exam. The study further established from respondents the mean score they had expected to get in coming exams and their deviations.

**2.1 Hypothesis Testing on Association between Students' Perceptions of Teachers' Classroom Effectiveness and Students' Academic Achievement**

A simple linear regression was computed to test the null hypothesis; *Ho: There is no significant association between students' perceptions of teachers' classroom effectiveness and students' academic achievement among secondary schools in Hamisi sub-county, Kenya.*

Based on the model summary presented in Table 3, the findings indicate that 48.4% of the variation in student academic achievement can be explained by their perception of teacher effectiveness.

**Table 3**  
*Model Summary*

Model Summary				
Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.696 <sup>a</sup>	.484	.434	1.25319

a. Predictors: (Constant), students' perception

The Analysis of Variance (ANOVA) in Table 4 shows that the regression model is a significant predictor of the dependent variable (academic achievement), with a statistically significant F-value ( $F(1,259) = 24.805, p < 0.005$ ).



**Table 4**  
*Analysis of Variance*

ANOVA <sup>a</sup>						
Model		Sum of Squares	Df	Mean Square	F	Sig.
1	Regression	684.508	1	684.508	24.805	.000 <sup>b</sup>
	Residual	7147.354	259	27.596		
	Total	7831.862	260			

- a. Dependent Variable: student’s academic achievement
- b. Predictors: (Constant), students’ perception of teachers classroom effectiveness

Furthermore, the coefficients in the regression model as presented in Table 5 reveal that the unstandardized coefficient (B) for student perception of teacher effectiveness is 52.95. This suggests that, on average, when student perception of teacher effectiveness is zero, the predicted student academic achievement score is 52.95. Additionally, the results indicate that a unit change in student perception of teacher effectiveness is associated with a 2.95% increase in student academic achievement.

Overall, the findings demonstrate a statistically significant relationship ( $t = 15.093, p < 0.005$ ) between student perception of teacher effectiveness and academic achievement, with 52.957% of the variability in academic achievement accounted for by this relationship. Therefore, the null hypothesis is rejected, indicating a relationship between students’ perception of teacher effectiveness and students’ academic achievement. This would further mean that positive perception of teachers give raise to improved student achievement in academics and conversely students with low perception of their teachers are more likely to post weak academic achievement.

**Table 5**  
*Regression Coefficients*

Coefficients								
	Unstandardized Coefficients			Standardized Coefficients			95% Confidence Interval for B	
	Model	B	Std. Error	Beta	t	Sig.	Lower Bound	Upper Bound
1	(Constant)	52.957	3.509		9.084	.000	29.840	46.357
	Perceptions about teacher classroom effectiveness	.295	.059	.696	4.980	.000	.179	.413

- a. Dependent Variable: Academic achievement

Interview findings from the teachers is in tandem with the results of the hypothesis. For instance, the questionnaire findings align with the statement provided by one of the interviewed principal teachers, respondent T033 (2022), who described their teaching approach and practices noting: “As classroom teachers, we use student-centered teaching approach to help the learners get the concepts clearly. We from time to time provide students with activities relevant to lessons every day. As teachers, we elicit enthusiasm among students when teaching. In addition, we show approachability to our students...” These practices suggest that some teachers in the study promote positive perceptions among their students. However, insights from the interviews with class teachers revealed a different perspective. Some teachers expressed negative perceptions of certain students, mocking them, ignoring or neglecting them, labelling them as jokers, time-wasters, careless, liabilities to the subject, failures, low achievers, lazy, burdens, foolish, negative influences in the class, unfit, useless, or even cursed. It was also noted that students with low abilities were often referred to as a "bother" because they lowered the subject mean. Furthermore, some colleagues were found to make comments such as “these ones are just here to help the school get money”, when referring to students with low abilities in their classrooms. Such negative attitudes and perceptions hinder the provision of necessary support to improve students' academic achievement.

**IV. DISCUSSION**



From this study's findings, it can be inferred that there is a relatively larger proportion of teachers who use a student-centred approach while teaching compared to those who do not. The lower mean scores and standard deviations suggest that students have lower agreement or perceive their teachers less positively in terms of commanding respect, setting classroom rules, exhibiting non-threatening behaviours, preparedness, use of reason over emotions, explaining complicated lessons well, incorporating creativity in teaching, serving as positive role models, and displaying a friendly attitude towards learners. These findings are consistent with the research conducted by Lin (2016), which examined teacher effectiveness in improving academic achievement and social-emotional skills. Lin's study indicated that academic achievement does not necessarily correlate with social-emotional development. However, certain teaching characteristics such as teacher expectation, teacher-student relationship, and classroom discipline were found to be significantly related to both academic achievement gains and social-emotional skill development.

Additionally, some other teaching practices were found to be significantly associated with only one of these domains. Furthermore, these results align with the assertion made by Burroughs *et al.* (2019) regarding the importance of teachers as a crucial school-based resource in determining students' future academic success and long-term outcomes. However, defining the specific teacher characteristics that contribute to effectiveness has proven to be challenging. In addition, the results indicate that when students perceive their teachers as effective in various aspects such as classroom teaching, mentorship, motivational talks, discipline, and social interactions, they tend to achieve higher academic outcomes. These findings align with a study conducted by Heck (2009), which also found a positive association between perceptions of teacher effectiveness and student achievement. Overall, these findings highlight the complex nature of teacher effectiveness, showing that certain teaching characteristics and practices can impact both academic achievement and social-emotional skills, while others may have a more domain-specific influence.

## CONCLUSIONS & RECOMMENDATIONS

### 5.1 Conclusion

The study concludes that there is a statistically significant positive association between students' perceptions of teachers' classroom effectiveness and their academic achievement in secondary schools in Hamisi sub-county, Kenya. Therefore, the study recommends that secondary school teachers should engage in practices that enhance students' perception on their classroom effectiveness in order to improve their academic achievement. Such practices include teacher-student relationships and increasing teacher engagement with their students. By improving interactions and understanding between teachers and students, positive attitudes can be developed, leading to enhanced academic performance. School administrators and parents should consider the significance of teacher-student dynamics and strive to create an environment that promotes positive perceptions and attitudes among students.

### 5.2 Recommendations

The study recommends that the Ministry of Education should lay more emphasis particularly on the area of teacher training. The results emphasize the need for relevant instruction that addresses the evaluation and behaviour of learners in the classroom. By incorporating these insights into teacher training programs, the Ministry of Education can equip teachers with the necessary skills to effectively engage and support their students, ultimately improving academic outcomes. Overall, this study's findings provide valuable insights that can inform educational practices and policies within Hamisi sub-county, Kenya. By prioritizing teacher-student interactions and understanding the impact of students' perceptions on academic achievement, stakeholders can work towards creating a more conducive learning environment for students.

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