

**RELATIONSHIP BETWEEN SCHOOL CULTURES AND STUDENT
ACADEMIC ACHIEVEMENT IN SECONDARY SCHOOLS IN NAKURU
COUNTY, KENYA: A COMPARISON BETWEEN PUBLIC AND
PRIVATE SCHOOLS**

NGARE NYANG'AU NELSON

**A Thesis Submitted to the Institute of Postgraduate Studies of Kabarak University
in Partial Fulfillment of the Requirements for the Award Doctor of Philosophy in
Education (Management and Leadership)**

KABARAK UNIVERSITY

NOVEMBER, 2024

DECLARATION

1. I do declare that;
 - i. This thesis is my own original work and to the best of my knowledge, it has not been presented for the award of a degree in any other university or college.
 - ii. The work has not incorporated materials from other works or a paraphrase of such works without due and appropriate acknowledgment.
 - iii. The work has been subjected to the process of anti-plagiarism and has met Kabarak university 15% similarity index threshold.

2. I do understand that issues of academic integrity are paramount and therefore I may be suspended or expelled from the university or my degree may be recalled for academic dishonesty or any other related academic malpractices.

Signed: _____

Date: _____

Ngare Nyang'au Nelson

GDE/M/0883/09/14

RECOMMENDATION

To the Institute of Postgraduate Studies:

This thesis entitled: “**Relationship between School Cultures and Student Academic Achievement in Secondary Schools in Nakuru County, Kenya: A Comparison between Public and Private Schools**”, and written by **Nelson Nyanga’au Ngare** is presented to the Institute of Postgraduate Studies of Kabarak University. We have received the thesis and recommend it to be accepted in partial fulfillment of the requirement for award of the degree of Doctor of Philosophy in Education (Management and Leadership).

Signed:_____

Date:_____

Prof. John N. Ochola,

School of Education, Humanities and Social Sciences

Kabarak University

Signed:_____

Date:_____

Prof. Fredrick B.J.A. Ngala,

School of Education, Humanities and Social Sciences

Kabarak University

ACKNOWLEDGEMENT

I deeply acknowledge the inestimable contributions received from my esteemed supervisors Prof. John N. Ochola, PhD and Prof. Fredrick B. J. A. Ngala, PhD, MBS, in developing this thesis. Their suggestions and guidance greatly assisted in improving the quality and ultimate production of this work. I am also deeply indebted to the unconditional support which was extended to me by Mr. Geoffrey Kimani, the Quality Assurance and Standards Officer in the Ministry of Education in Nakuru County, and Mrs. Ziporah Nyachio for helping me get data on schools' KCSE performance. I am also greatly indebted to the Director TSC Nakuru County secretary Ms. Judy Lesadala for providing valuable information on KCSE results for the County. I must also thank most sincerely all the school principals and students who participated in responding to items in the questionnaires.

COPYRIGHT

© 2024

Ngare Nyang'au Nelson

All rights reserved. No part of this thesis may be reproduced or transmitted in any form by means of either mechanical, including photocopying, recording or any other information storage or retrieval system without permission in writing from the author or Kabarak University.

ABSTRACT

School cultures within public in regard to private institutions and student academic achievement cannot be underestimated. The study was motivated by the discrepancy in academic performance between public and private secondary schools in Nakuru County, Kenya, and aimed to understand why private schools, despite being relatively costly, remain attractive to some people while academic achievement in both types of schools varies significantly. This study investigated the relationship between school cultures and academic achievement in the KCSE examination in secondary schools in Nakuru County, Kenya. The study was guided by the following objectives: To establish the relationship between teaching behaviour, student study behaviour, Student Motivation Strategies, and Students Discipline Management Strategies and academic achievement in secondary schools. This study was guided by the theories of educational productivity and organizational culture. The study adopted the descriptive survey design. The target population comprised all candidates who sat the Kenya Certificate of Secondary Education (KCSE) examination in 2021 and all principals of secondary schools in the County. The study employed an outlier approach and multistage sampling. Students were stratified into two groups: public and private schools. Krejcie and Morgan's (1970) table determined the sample size for each category. Simple random sampling selected the student proportions. The sample included 2,214 students and 80 school principals. Instruments were adapted, achieving a Cronbach's Alpha above 0.7. Validity was ensured with the assistance of the supervisors. Data analysis in SPSS v27 showed a positive correlation between teaching behaviours and academic achievement in top secondary schools. In high-performing public secondary schools, there was a significant positive correlation ($r = 0.737$; $p = 0.000$) between Teaching Behaviours and Student academic achievement, contrasting with low-performing public schools ($r = 0.071$). In Nakuru County, both public and private secondary schools exhibit moderately strong correlations ($r = 0.408$, $p = 0.001$ and $r = 0.430$, $p = 0.000$, respectively) between students' study behaviour and academic achievement. Notably, top-performing KCSE public schools show a moderately strong correlation ($r = 0.498$, $p = 0.036$) between Student Motivation Strategies and academic achievement, whereas in private schools, it's strong ($r = 0.921$, $p = 0.000$). Regarding Students Discipline Management Strategies, top-performing public secondary schools have a moderately positive correlation ($r = 0.583$, $p = 0.011$), while in private schools, it's stronger ($r = 0.686$, $p = 0.001$), both statistically significant. Recommendations include conducting in-service training for teachers to adopt effective teaching cultures, enforcing disciplinary measures, and investing in motivational cultures. Encouraging learners to utilize effective study cultures is also advised. The study can inform decision making process of educational stakeholders.

Keywords: *School Culture, Teaching Cultures, Student Study Cultures, Student Motivation Strategies, Academic Achievement*

TABLE OF CONTENTS

DECLARATION	ii
RECOMMENDATION.....	iii
ACKNOWLEDGEMENT	iv
COPYRIGHT	v
ABSTRACT.....	vi
TABLE OF CONTENTS	vii
LIST OF TABLES.....	xiv
LIST OF FIGURES	xx
ABBREVIATIONS AND ACRONYMS.....	xxi
OPERATIONAL DEFINITION OF KEY TERMS	xxii
CHAPTER ONE	1
INTRODUCTION	1
1.1 Background of the Study	1
1.2 Statement of the Problem.....	9
1.3 Purpose of the Study	9
1.4 Objectives of the Study.....	9
1.5 Research Hypotheses	10
1.6 Significance of the Study.....	11
1.7 Justification of the Study	12
1.8 Scope of the Study	13
1.9 Limitations of the Study	14
1.10 Assumptions of the Study.....	15
CHAPTER TWO	16
LITERATURE REVIEW	16
2.1 Introduction.....	16
2.2 The Concept of Culture	16
2.3 The Concept of School Culture	17
2.4 Relationship between School Culture in Secondary Schools and Academic Achievement in Public and Private Secondary Schools	20
2.5 Relationship between Teaching Behaviour and Academic Achievement.....	24
2.5.1 Timeliness in Planning and Assessment, and Student Academic Achievement	29

2.5.2 Resource Management and Student Academic Achievement.....	35
2.5.3 Academic Progress Monitoring and Enrichment and Student Academic Achievement	38
2.6 Relationship between Student Study Behaviour and Student Academic Achievement in Public and Private Secondary Schools in Kenya.....	42
2.6.1 Study Habits and Student Academic Achievement.....	45
2.6.2 Learning Approaches and Student Academic Achievement.....	48
2.6.3 Academic Practices and Student Academic Achievement.....	51
2.7 Relationship between Student Motivation Strategies and Academic Achievement in Public and Private Secondary Schools	55
2.7.1 Recognition and Reward System and Student Academic Achievement	58
2.7.2 Public Acclaim and Celebration and Student Academic Achievement	62
2.7.3 Career Guidance and Aspiration Building and Student Academic Achievement	64
2.8 Relationship between Student Discipline Management Strategies and Academic Achievement in Public and Private Secondary Schools in Kenya	65
2.8.1 Students' Behavior Standards and Student Academic Achievement.....	65
2.8.2 Conduct Norms and Student Academic Achievement	69
2.9 Theoretical Framework.....	74
2.9.1 Social Cognitive Theory.....	78
2.9.2 Self-Determination Theory.....	81
2.10 Conceptual Framework.....	83
2.11 Summary of Reviewed Literature.....	87
CHAPTER THREE.....	89
RESEARCH DESIGN AND METHODOLOGY	89
3.1 Introduction.....	89
3.2 Research Design	89
3.3 Research Method	90
3.3.1 Mixed Methods Research	90
3.4 Philosophical Paradigm	92
3.5 Location of the Study.....	93
3.6 Population of Study	94
3.7 Sampling Procedure.....	95

3.7.1 Sample Size	97
3.8 Instrumentation	101
3.8.1 Validity of the Study Instruments	103
3.8.2 Reliability of the Study Instruments.....	103
3.8.3 Piloting	106
3.9 Data Collection Procedures	107
3.10 Data Analysis and Presentation	108
3.11 Ethical Considerations	114
CHAPTER FOUR	115
DATA ANALYSIS, PRESENTATION AND DISCUSSION	115
4.1 Introduction.....	115
4.1.1 Response Rate	115
4.1.2 Participating Schools by School Performance Category.....	116
4.1.3 Student – Respondents Distribution by School Category	117
4.2 General Characteristics of the Respondents	118
4.2.1 Gender of the Respondents	118
4.3 Relationship between Teaching Behaviours and Student Academic Achievement	119
4.3.1 Teachers’ Preparation of Schemes of Work	119
4.3.2 Teachers’ Preparation of Lesson Plans.....	121
4.3.3 Marking of Continuous Assessment Tests within set Timelines.....	122
4.3.4 Use of Modulated End-of-Term Examinations	124
4.3.5 Marking End-of-Term Examinations within the Term.....	126
4.3.6 Revision of Previous End-of-Term Examinations.....	127
4.3.7 Improvising of Teaching Resources as Need Arises	128
4.3.8 Use of Information Communication Technology (ICT) in Teaching.....	129
4.3.9 Preparation of Lesson Notes by Referring to Sources other than Print books.....	130
4.3.10 Use of Resource Persons in Teaching	131
4.3.11 Completion of the Syllabus in Time	133
4.3.12 Team Teaching	134
4.3.13 Conducting Remedial Lessons for Slow learners	135
4.3.14 Students Practice of Peer Teaching among Themselves	137

4.3.15 Use of Internal Set Mock Examinations	138
4.3.16 Frequent Laboratory Sessions.....	139
4.3.17 Facilitation of educational field studies for learners.....	141
4.3.18 Use of Internally Set Subject-Based Contests	142
4.3.19 Students' Participation in External Subject-based Contests.....	144
4.3.20 Students' Participation in School-Based Symposiums.....	145
4.3.21 Association between Teaching Behaviours and Student Academic Achievement	147
4.3.22 Regression between Teaching Behaviours and Students Academic Achievement	155
4.3.23 Relationship between Teaching Behaviours and Students' Academic Achievement across All Categories of Schools.....	157
4.3.24 Hypothesis Testing for Teaching Cultures	160
4.4 Relationship between Selected Student Study Behaviours and Student Academic Achievement	161
4.4.1 Use of Notes Given by Teachers.....	161
4.4.2 Allowing Students to do Private Studies before Normal Classes Start.....	162
4.4.3 Making Micro (Short) Notes during lessons	163
4.4.4 Revisions after Each Topic Covered.....	164
4.4.5 Use of Approved Textbook to Make Additional Personal Notes	165
4.4.6 Use of Past Papers to Revise for Examinations	167
4.4.7 Engaging in Discussion Groups to Enhance Understanding of What is Taught	168
4.4.8 Use of Mnemonics to Boost Memorization	170
4.4.9 Students Completion of Given Assignments within the Time Given by Teachers	171
4.4.10 Punctuality when going to class.....	173
4.4.11 Students Marking their Colleague's Assignments	174
4.4.12 Maintenance of Silence During Prep Time Studies	175
4.4.13 Association between Students Study Cultures and Student Academic Achievement	176
4.4.14 Regression between Students Study Behaviours and Student Academic Achievement by School Category.....	180

4.4.15 Regression for all Categories of Schools	182
4.4.16 Testing Hypothesis for Student Study Behaviour	184
4.5 Relationship between Selected Student Motivation Strategies and Student Academic Achievement.....	185
4.5.1 Student Motivation through Presents to High Achievers.....	185
4.5.2 Student Motivation through Presents to most Academically Improved Student(s)	188
4.5.3 Preparation of Special Meals to Motivate a Well Academically Performing Class	189
4.5.4 Motivation through Academic Trips for top performing class	190
4.5.5 Public Acclaim given to High Academic Achievers.....	192
4.5.6 Use of Career Guidance for Encouraging learners.....	193
4.5.7 Presents from School Alumni for High Achievers	195
4.5.8 Association between Student Motivation Strategies & Student academic achievement.....	197
4.5.9 Regression between Student Motivation Strategies and Student Academic Achievement by School Category.....	202
4.5.10 Regression between Student Motivation Strategies and Student Academic Achievement Across All Schools	206
4.6.11 Hypothesis Testing for Student Motivation Strategies	208
4.6 Relationship between Students Discipline Management Strategies and Student Academic Achievement.....	209
4.6.1 Punishment of Students who Abscond.....	209
4.6.2 Punishment to Students who do not make Personal Notes	211
4.6.3 Punishment to Students Found Cheating in an Examination.....	212
4.6.4 Punishment to Students Who Do not Attend a scheduled lesson Without Official Permission	213
4.6.5 Punishment to Students Who Do not Regularly Attend a Group Discussion without Permission	215
4.6.6 Punishment to Students who Communicate in Vernacular while in School.	216
4.6.7 Punishment to Students who persistently engaged in truancy	218
4.6.8 Punishment to Students Who Fail to Complete Given Academic Projects ..	219
4.6.9 Punishing of Students Involved in Vandalizing Learning Materials	220

4.6.10 Punishing of Students who Usually Distract others by Noise Making in Class.....	221
4.6.11 Punishing Students who Disrupt Normal Studies through Fighting with Another Student	222
4.6.12 Punishing of Students who do not Make Corrections in Exercise Books after Doing Practice Exercises	223
4.6.13 Punishing of Students who fail to Consult Subject Teachers for Academic Guidance.....	225
4.6.14 Hypothesis Testing for Students Discipline Management Strategies	226
4.6.15 Punishing of Students Whose Notes Are Not Marked Often by the Subject Teacher	226
4.6.16 Relationship between Discipline and Academic Achievement in KCSE ...	227
4.6.16 Association between Students Discipline Management Strategies and Student Academic Achievement.....	229
4.6.18 Relationship between Students Discipline Management Strategies and Students' Academic Achievement	234
4.6.19 Regression for Students' Discipline Management Strategies and Students' Academic Achievement across all Categories of schools	236
4.6.20 Hypothesis Testing for Students Discipline Management Strategies	239
4.7 Performance Trends.....	240
4.8 Regression Analysis.....	243
4.8.1 Model Summary	244
4.8.2 Analysis of Variances (ANOVA).....	244
4.8.3 Beta Coefficients	246
4.9 Regression Analyses by School Category	248
4.9.1 Multiple Regressions: A Comparison of Public Schools to Private Schools	252
4.9.2 Multiple Regressions by Level of Performance	257
4.9.3 Multiple Regressions – Four Categories based on KCSE performance - Compared.....	261
4.9.4 Hypothesis of Significance Difference	275
CHAPTER FIVE	284
SUMMARY, CONCLUSION, AND RECOMMENDATIONS	284
5.1 Introduction.....	284

5.2 Summary of the Findings.....	284
5.2.1 Relationship between Teaching Behaviours and student academic achievement	284
5.2.2 Relationship Between Selected Student Study Behaviours and Student Academic Achievement.....	286
5.2.3 Relationship between Selected Student Motivation Strategies and Student Academic Achievement.....	288
5.2.4 Relationship between Selected Students Discipline Management Strategies and Student Academic Achievement	290
5.3 Conclusions.....	292
5.4 Recommendations.....	295
5.4.1 Policy Recommendations	295
5.4.2 Recommendations for Further Research	297
REFERENCES	298
APPENDICES.....	314
Appendix I: Principals’ Questionnaire	314
Appendix II: Students’ Questionnaire.....	319
Appendix III: Nakuru KCSE 20 Low Performing Public Secondary Schools 2015-2019	320
Appendix IV: Nakuru KCSE 20 High Performing Public Secondary Schools 2015-2019	321
Appendix V: Nakuru County Bottom Lowest KCSE Performing Private Secondary Schools 2015-2019.....	322
Appendix VI: Nakuru County Private Secondary Schools 2015-2019 KCSE Analysis.....	323
Appendix VII: Document Analysis Checklist Table	328
Appendix VIII: Map of Nakuru County	329
Appendix IX: KREJCIE And Morgan Table	330
Appendix X : NACOSTI Research Permit.....	331
Appendix XI: Ministry of Education Authorization Letter.....	332
Appendix XII: Evidence of Conference Participation	333
Appendix XIII: List of Publications	335

LIST OF TABLES

Table 1: Mean Score of the 20 KCSE Lowly Performing Private Secondary Schools in Nakuru County 2015-2019	6
Table 2: Mean Score of the 20 KCSE Lowly Performing Public Secondary Schools in Nakuru County 2015-2019	7
Table 3: Mean Score of 20 KCSE High Performing Private Secondary Schools in Nakuru County 2015-2019	7
Table 4: Mean Score of 20 KCSE High Performing Public Secondary Schools in Nakuru County 2015-2019	8
Table 5: Accessible Population.....	98
Table 6: Sample Size for Students	100
Table 7: Sample Size for Principals.....	101
Table 8: Reliability Test Results for Principals’ Questionnaire	104
Table 9: Cronbach's Alpha Coefficient.....	104
Table 10: Reliability Test Results for Students’ Questionnaire (IV).....	105
Table 11: Cronbach's Alpha Coefficient for Students	105
Table 12: Data Analysis Table for Objectives.....	112
Table 13: Data Analysis Table for Hypotheses Testing	113
Table 14: Response Rate.....	116
Table 15: Participating Schools by School Performance Category	117
Table 16: Student – Respondents Distribution by School Category	117
Table 17: Gender of the Respondents.....	118
Table 18: Teachers’ Preparation of Schemes of Work	119
Table 19: Teachers’ Preparation of Lesson Plans.....	121
Table 20: Marking of Continuous Assessment Tests within set Timelines.....	123
Table 21: Use of Modulated End-of-Term Examinations	124
Table 22: Marking End-of-term Examinations within the Term	126
Table 23: Revision of the Previous End of Term Examinations	127
Table 24: Improvising of Teaching Resources as the Need Arises	128
Table 25: Use of Information Communication Technology (ICT) in Teaching.....	129
Table 26: Preparation of Lesson Notes by Referring to Sources other than Print Books	131
Table 27: Use of Resources of Persons in Teaching	132

Table 28: Completion of the Syllabus on Time	133
Table 29: Team Teaching	134
Table 30: Conducting Remedial Lessons for Slow Learners	136
Table 31: Students Practice Peer Teaching among Themselves.....	137
Table 32: Use of Internal Set Mock Examinations.....	138
Table 33: Use of Practicals in the Laboratory Frequently	140
Table 34: Facilitation of Educational Field Studies for Learners	141
Table 35: Use of Internally Set Subject-Based Contests	143
Table 36: Students' Participation in External Subject-based Contests.....	144
Table 37: Students' Participation in School-Based Symposiums.....	146
Table 38: Teaching Behaviours & Student Academic Achievement for Top Performing Schools	148
Table 39: Teaching Behaviours & Student Academic Achievement for Low Performing Schools	149
Table 40: Teaching Behaviours and Student Academic Achievement by school Type	152
Table 41: Associations between Teaching Culture and Student Academic Achievement by Level of Performance	153
Table 42: Model Summary	155
Table 43: ANOVA for Regression between Teaching Behaviours and Students Academic Achievement.....	156
Table 44: Coefficients for Regression between Teaching Behaviours and Students Academic Achievement.....	157
Table 45: Model Summary	158
Table 46: Analysis Of Variance (ANOVA) for Teaching Behavior	158
Table 47: Coefficients for Regression between Teaching Behaviours and Students Academic Achievement.....	159
Table 48: Use of Notes Given by Teachers	161
Table 49: Allowing Students to do Private Studies before Normal Classes Start	162
Table 50: Making Micro (short) Notes during Lessons.....	163
Table 51: Revisions after Each Topic Covered	164
Table 52: Use of Approved Textbook to Make Additional Personal Notes.....	166
Table 53: Use of Past Papers to Revise for Examinations.....	167

Table 54: Engaging in Discussion Groups to Enhance Understanding of What is Taught	168
Table 55: Use of Mnemonics to Boost Memorization.....	170
Table 56: Students’ Completion of Given Assignments within the Time Span.....	172
Table 57: Students’ Punctuality When Going to Class.....	173
Table 58: Students Marking their Colleague’s assignments.....	174
Table 59: Maintenance of Silence during Prep Time studies	175
Table 60: Students Study Cultures & Student Academic Achievement for Top Performing Schools	177
Table 61: Students Study Cultures and Student Academic Achievement for Top Performing Schools	179
Table 62: Model Summary	180
Table 63: Analysis of Variances (ANOVA) for Teaching Behaviours by School Type	181
Table 64: Beta Coefficients.....	182
Table 65: Model Summary	182
Table 66: Analysis of Variances for Students Study Cultures (All schools).....	183
Table 67: Coefficients.....	184
Table 68: Student Motivation through Presents to High Achievers	185
Table 69: Type of Presents given to High Academic Achievers	186
Table 70: Student Motivation through Presents to Most Academically Improved Student(s)	188
Table 71: Preparation of Special Meals to Motivate a Well-Academically Performing, Class.....	189
Table 72: Motivation Through Academic Trips for Top Performing class.....	191
Table 73: Public Acclaim Given to High Academic Achievers	192
Table 74: Use of Career Guidance for Encouraging Learners.....	193
Table 75: Presents from School Alumni for High Achievers.....	195
Table 76: Student Motivation Strategies & Student Academic Achievement for Top Performing Secondary schools.....	197
Table 77: Association between Student Motivation Strategies and Student academic achievement for Low Performing Secondary Schools	199

Table 78: Association between Student Motivation Strategies and Student Academic achievement by Type of Secondary School.....	201
Table 79: Model Summary	203
Table 80: Analysis of Variances for Student Motivation Strategies by School Category	204
Table 81: Coefficients for Student Motivation Strategies and Student Academic Achievement School Category.....	205
Table 82: Model Summary for Student Motivation Strategies across all schools.....	206
Table 83: ANOVA for Student Motivation Strategies and Student Academic Achievement across all Schools.....	207
Table 84: Coefficients for Student Motivation Strategies and Student Academic Achievement across all schools	207
Table 85: Punishment to Students who Abscond	210
Table 86: Punishment to Students Who Do Not Make Personal Notes.....	211
Table 87: Punishment to Students Found Cheating in an Examination	212
Table 88: Punishment to Students who Do Not Attend a Scheduled Lesson Without Official Permission.....	214
Table 89: Punishment to Students Who Do Not Regularly Attend a Group Discussion without Permission	215
Table 90: Punishment to Students Who Communicate in Vernacular While in School.....	217
Table 91: Punishment to Students Who Persistently Engage in Truancy.....	218
Table 92: Punishment to Students Who Fail to Complete Given Academic Projects...	219
Table 93: Punishing of Students Involved in Vandalizing Learning Materials.....	220
Table 94: Punishing of Students Who Usually Distract Others by Noise Making in Class	221
Table 95: Punishing Students who Disrupt Normal Studies Through Fighting with Another Student	222
Table 96: Punishing Students Who Usually Distract Others by Noise Making in Class	224
Table 97: Punishing of Students who fail to Consult Subject Teachers for Guidance..	225
Table 98: Punishing of Students Whose Notes Are Not Marked Often by the Teacher.....	227

Table 99: Relationship between Discipline and Academic Achievement in KCSE.....	228
Table 100: Student Discipline and Student Academic Achievement for Top Performing Schools	229
Table 101: Student Discipline and Student Academic Achievement for Low Performing Schools	231
Table 102: Student Discipline and Student Academic Achievement by School Type	233
Table 103: Model Summary for Students Discipline Management Strategies.....	234
Table 104: ANOVA for Relationship between Students Discipline Management Strategies and Students Academic Achievement	235
Table 105: Coefficients for Relationship between Students Discipline Management Strategies and Students Academic Achievement	236
Table 106: Model Summary for Regression Analysis of Students Discipline Management Strategies and Students Academic Achievement across all Categories of Schools.	236
Table 107: ANOVA for Students Discipline Management Strategies and Students Academic Achievement across all Categories of Schools.....	237
Table 108: Coefficients for Students Discipline Management Strategies and Students Academic Achievement all Categories of Schools.....	238
Table 109: Performance Distribution by Grades	240
Table 110: Model Summary	244
Table 111: Analysis of Variances	245
Table 112: Beta Coefficients	247
Table 113: Model Summary	248
Table 114: Analysis for Variances	251
Table 115: Beta Coefficients	251
Table 116: Model Summary	252
Table 117: Analysis of Variances	254
Table 118: Beta Coefficients	255
Table 119: Model Summary Assessing the Level of Performance in Low and High- Performing Schools	257
Table 120: Analysis of Variance for Regression by Level of Performance	259
Table 121: Coefficients.....	261

Table 122: Model Summary	262
Table 123: Analysis of Variances for the Four Performance Models	263
Table 124: Beta Coefficient for the Four Performance Models	265
Table 125: Model Summary	267
Table 126: ANOVA.....	269
Table 127: Coefficients.....	270
Table 128: Model Summary for Students Study Cultures by Type of School	272
Table 129: Analysis of Variances by Type of School	273
Table 130: Beta Coefficientsby Type of School	274
Table 131: Hypothesis of Significance Difference by Level of Performance	276
Table 132: Independent Samples Test	277
Table 133: Group Statistics.....	279
Table 134: Independent Samples Test	279
Table 135: Comparing Public Schools with Private schools	280
Table 136: Independent Samples Test	281
Table 137: Group Statistics.....	282
Table 138: Independent Samples Test	282

LIST OF FIGURES

Figure 1: Conceptual Framework Depicting Interaction of Variables	84
Figure 2: Annual Frequency of Preparation of Schemes of Work	120
Figure 3: How Often Lesson Plans Are Used During the Lesson in Class	122
Figure 4: Timelines Given for Submission of CAT Results Once They are Administered	123
Figure 5: Responsibility for Setting End Term Examinations	125
Figure 6: Trends in Awards for Academic Excellence.....	187
Figure 7: Trends in the Use of Special Meals to Motivate Learners	190
Figure 8: Trends Showing the Use of Academic Trips to Motivate Students.....	192
Figure 9: Trends showing the use of Awards and Presents from School Alumni for Exceptional Academic Achievement	196
Figure 10: Performance Distribution by Grades – 2015 to 2019	241
Figure 11: Performance Distribution by Grades – 2015.....	241
Figure 12: Performance Distribution by Grades – 2016.....	242
Figure 13: Performance Distribution by Grades – 2017.....	242
Figure 14: Performance Distribution by Grades – 2018.....	243

ABBREVIATIONS AND ACRONYMS

ANOVA	Analysis of variance
CAT	Continuous Assessment Test
ECD	Organization for Economic Cooperation and Development
GACP	Guidelines for Alternatives to Corporal Punishment
ICT	Information Communication Technology
KREJCIE	Krejcie Sample size determination tool
KCSE	Kenya Certificate of Secondary Education
NACOSTI	National Commission for Science, Technology, and Innovation
OPISA	Programme for International Student Assessment
SPSS	Statistical Package for the Social Sciences
TSC	Teachers Service Commission
UTDANNING	Stands for “education” in Norwegian
USA	United States of America

OPERATIONAL DEFINITION OF KEY TERMS

Academic Achievement: refers to the level of success or accomplishment attained by students in their educational pursuits. It encompasses various aspects such as grades, test scores, completion of coursework, and overall learning outcomes (Bridwell-Mitchell, 2018). In this study, academic achievement was operationalized by using indicators such as Kenya Certificate of Secondary Examination exam scores.

Discipline Management Strategies: These strategies encompass the methods and practices used by educators to promote and maintain orderly conduct among students. This includes setting rules, enforcing consequences, and promoting positive behavior (Tus & Rayo, 2020). For the purposes of this study, students discipline management strategies are understood as discipline culture. This term refers to the overarching set of beliefs, norms, and practices related to maintaining student discipline within the educational institution. It encompasses the shared methods of enforcing rules, promoting positive behaviour, and managing misconduct that are ingrained in the school's environment.

Negative School Cultures: These entail environments characterized by factors that hinder academic progress and student success (Shafer, 2018). In this study these may include lack of support from teachers or peers, poor communication, disciplinary issues, bullying, and a general lack of motivation or interest in learning.

Positive School Culture: refer to environments and practices within schools that promote academic excellence, student engagement, collaboration, and a supportive learning atmosphere (Spencer, 2020; Singha & Gulati, 2020).. In this study these include encouragement of critical thinking, effective communication between students and teachers, strong leadership, and a focus on student well-being.

Private Secondary Schools: Refers to schools which is not supported financially by the government and which parents have to pay for their children to go to (Collins Dictionary, 2022). In this study they refer to schools owned by private organizations or individuals in Nakuru County and which do not receive public funding from the government to run their operations. They also offer a national curriculum.

Public Secondary Schools: Refers to are government-funded institutions (Collins Dictionary, 2022). In this study the researcher identifies private and public secondary schools based on their funding sources and administrative structures. In this study, this refers to Secondary schools in Nakuru County owned privately and owned by the public and which receive Government funding to run their operations.

School Culture: School culture encompasses the shared beliefs, values, traditions, and social norms that shape the overall environment and interactions within a school (Churcher, Asiedu & Boniface, 2016). In this study school culture is assessed through surveys, interviews, or observations that capture aspects like teacher collaboration, student engagement, and institutional values.

School Principal: Refers the administrative leader responsible for managing the overall functioning of the school, including academic programs, staff, and student welfare (Pardosi, 2021). In this study, the school principal is administrative leader responsible for managing the overall functioning of the school.

Study Behaviours: This refers to the actions and habits demonstrated by students in their approach to learning and academic tasks. This includes behaviors such as time management, organization, note-taking, active participation in class activities, and self-directed studying (Xu, 2016). In this study, study behavior are operationalized by assessing study time, homework completion, participation in study groups, and attitudes toward learning.

Teaching Behavior: refers to the actions, methods, and practices employed by teachers in the classroom to facilitate student learning. It includes instructional strategies, classroom management, and interaction with students. (Max & Esteban, 2020). In this study, teaching behaviour is synonymous with teaching culture, which refers to the collective practices, norms, and values that shape how teaching is conducted within an educational institution. This includes shared pedagogical approaches, classroom management styles, and teacher-student interactions that are characteristic of the educational environment.

Student Motivation Strategies: refer to the techniques and initiatives implemented by educators to stimulate and sustain students' interest, enthusiasm, and commitment to learning. These strategies may include providing meaningful feedback, setting challenging yet attainable goals, fostering a supportive learning environment, offering incentives for achievement, and encouraging intrinsic motivation through relevance and personal connection to the subject matter. (Rowell & Hong, 2013). In this study, student motivation strategies are defined as student motivation culture. This concept refers to the collective practices, attitudes, and values that influence how students are motivated to engage in learning. It includes the common methods and approaches used to inspire and encourage students, creating a supportive and stimulating educational atmosphere.

CHAPTER ONE

INTRODUCTION

This chapter presents the background to the study and provides the statement of the problem, the purpose of the study, the objectives and research hypotheses, significance of the study, the scope of the study, limitations of the study and assumptions of the study.

1.1 Background of the Study

School culture refers to a set of common values, attitudes, beliefs, and norms that shape the way members of a school community interact and learn (OECD, 2020). According to Bridwell-Mitchell (2018), the cultivation of a school's culture is influenced by various factors, including the role modeled by its leaders, the selection of staff, the teaching and reinforcement of desired behaviors, the communication of vision, the presence of tangible artifacts, and the alignment of policies and practices. A robust school culture has the potential to yield numerous positive outcomes for both students and staff, including enhanced collaboration, integrity, diligence, and a commitment to lifelong learning. The development of a positive cultural milieu within educational institutions is paramount, as it contributes to the creation of a learning ecosystem that promotes equity and social justice (OECD, 2020).

In essence, school culture represents the intangible yet defining essence of an educational institution, shaping its identity and guiding its communal attitudes and behaviors. It encompasses the shared values, norms, and practices that characterize the institution's ethos and modus operandi. Moreover, organizational culture, as elucidated by Chalmers and Brannan (2023), centers on the collective values and beliefs of its members, often manifested through shared norms and interpretations. This organizational culture, once established, tends to endure and evolve gradually over time. However, transformative shifts in culture may occur under specific circumstances, such as during periods of crisis

or leadership transition. Yet, even in such scenarios, the prospect of effecting substantial cultural change remains uncertain and contingent upon various contextual factors (Bayar & Karaduman, 2021).

Recent research underscores the crucial role of school culture in student achievement across various countries. A number of studies have demonstrated that school culture influences learners' academic performance. In the United Kingdom, studies link positive school climates to improved learning outcomes and increased graduation rates (Konold, Cornell, Jia and Malone, 2018). Similarly, in the United States, supportive environments correlate with enhanced motivation and reduced suspension rates (Ohlson et al., 2016). In China, traditional values and collective norms influence academic experiences, while in India, factors like teacher-student interactions and cultural celebrations impact student motivation and resilience (Koçyiğit, 2017). Understanding cultural dynamics is essential for optimizing learning outcomes and fostering student success in diverse educational landscapes. In Kenya studies have found relationships between school culture and academic performance. In Migori County, Kenya for instance, it was found that positive school cultures had a strong bearing on performance of public secondary schools in KCSE examinations (Oyoo et al., 2020). None of these studies compared the relationship between teaching behaviours, student study behaviours, student motivation strategies, and student discipline management strategies with academic achievement in the context of Nakuru County, Kenya.

Education managers are concerned with the study of human resources including students and educational personnel apart from studying learning resources. Education managers also try to solve problems in education and at the same time they plan and implement educational programmes (Ibrahim & Mohamed, 2017). School culture involves practices

of students and education personnel in schools and therefore falls within the jurisdiction of educational managers (Clark, 2019).

Studies have revealed various categories of positive school cultures which relate to teaching, motivation, student discipline, and student study cultures. The use of ICT and effective lesson preparation, were found to be positive Teaching Behaviours (Spencer, 2020; Singha & Gulati, 2020). Active classroom preparation and participation, and adequate preparation before examinations were among positive instructional teaching Behaviours in schools (UNESCO, 2020; Ebele & Olofu, 2017). Schools can also practice positive Student Motivation Strategies in a variety of ways including developing a more agile and responsive pedagogical instruction (Talib & De Roock, 2018), active learning (OECD 2018), effective design of academic assignments (Xu, 2016), and applying inquiry-based teaching (Reidy, 2021). Various studies, Mkhumbulo et al., (2023) , Innocent and Andala (2021), and Ofori et al. (2018) also demonstrate that positive discipline cultures exist and are practiced in some schools. Salina (2022) for example, found that enhancing the use of school uniforms was a positive school culture, on the other hand, involving parents in discipline matters was also a positive school culture (Yusuf, 2015). Similarly, adherence to school rules as important positive school culture (Chua & Mosha, 2015).

India boasts a diverse educational landscape, reflecting myriad cultural traditions and languages. Researchers have explored how school cultures influence student motivation, resilience, and academic performance (Bayar & Karaduman, 2021). Factors such as teacher-student interactions, parental involvement, and cultural celebrations contribute to the overall learning environment. As India seeks to balance tradition and progress, unraveling cultural nuances becomes vital for enhancing student achievement.

In Nigeria, schools grapple with challenges related to infrastructure, funding, and cultural diversity (Ezeokafor, 2024). Researchers have investigated how cultural norms, community values, and leadership practices impact student outcomes. Positive school cultures that celebrate diversity, encourage collaboration, and prioritize student well-being correlate with improved academic achievement. As Nigeria strives for educational excellence, cultural awareness remains a key driver of success. In Ghana, Adzahlie-Mensah and Dunne (2018) explored the intersection of indigenous knowledge, colonial legacies, and contemporary educational practices. School cultures that promote inclusivity, student agency, and community engagement foster positive learning environments. By examining cultural practices, teacher-student relationships, and curriculum adaptations, Ghanaian educators aim to enhance student achievement. As Ghana navigates its educational journey, cultural insights pave the way for meaningful progress.

Shafer (2018) argues that aspects of school culture can either benefit or harm a school organization, depending on how they affect the well-being, motivation, and performance of the staff and students. Verma (2021) further spell out characteristics that distinguish a positive (healthy) school culture from a negative (toxic) school culture. While people in schools with positive cultures feel valued and members constantly share a sense of purpose, those in schools with negative cultures do not feel valued and do not share any sense of purpose and consequently, such schools do not enact norms of continuous learning and improvement.

Studies in Ethiopia indicated that school cultures such as absenteeism, cheating, and disengagement in tasks were prevalent in Ethiopian primary and secondary schools (Yalew, Dawit, & Alemayehu 2010 as cited in Melesse & Molla, 2018). These studies show that there is a problem within schools that lack positive cultures. Makewa, Role,

Role, and Yegoh (2011) in their study compared the cultures of high and low provincial secondary schools in Nandi Central District, Kenya. The authors contend that school culture components can support or inhibit learning.

Various studies in Africa have confirmed the problem of poor academic achievement among secondary school students. Schulze (2015) for instance in South Africa, found that student achievement in sciences in secondary schools was poor. In Tanzania, Chua and Mosha (2015) opined that recent apprehension on the low performance of secondary schools has raised concerns over the quality of education provided at the ordinary levels of education. The findings from this study indicated that relying solely on regular examinations and tests as the primary means of assessing and improving student performance in schools has limitations and may not lead to enhanced educational outcomes. While examinations and tests have their place in the educational system, they often focus on evaluating memorization and recall rather than a comprehensive understanding of the subject matter.

Many studies have been done in Kenya to identify the problem of low performance in Secondary Schools. For example, a study in Elgeyo Marakwet County Kenya found poor academic performance (Jerotich, 2015). (Muasya et al., 2017) did another study on the relationship between head teachers' instructional leadership practices and academic performance in Machakos County and discovered that schools were dismally performing.

In the Kenya Certificate of Secondary Education (KCSE) examination, students can attain various grades ranging from A to E. In Kenya the Ministry of Education has set the pass mark for university entry examination as C plus and above. Grade A represents the highest level of performance, indicating excellent achievement, while grades B, C, and D signify progressively lower levels of proficiency. Grade E, on the other hand, is considered a failing grade (KNEC, 2023). Each grade corresponds to a specific range of

marks obtained in the examination, with Grade A typically awarded to candidates who score between 80% and 100%, and Grade E given to those who score below a certain threshold. These grades play a crucial role in determining students' eligibility for further education opportunities, such as university placement, and they provide a measure of academic achievement and competency (Oduor & Nyamongo 2019).

Low academic performance is not only confined to Elgeyo Marakwet and Machakos Counties but also extends to Nakuru County which has trailed in KCSE performance for some time as summarized in Tables 1, 2, 3, and 4. Could there be a possible link between school cultures and academic achievement in Nakuru County? In the overall analysis, tables 1, 2,3 and 4 depict dismal academic achievement in the County as the main problem.

Table 1

Mean Score of the 20 KCSE Lowly Performing Private Secondary Schools in Nakuru County 2015-2019

	Average Mean Scores				
Year	2015	2016	2017	2018	2019
Score	2.55	1.92	1.80	1.849	1.982
Grade	D-	E	E	E	E

Source: Ministry of Education Nakuru County (2021)

Table 1 presents the average mean score of the KCSE lowest performing 20 private secondary schools in Nakuru County from the year 2015 to 2019. As seen from the table, the schools dismally performed in KCSE, with an average score of 2.02 which is a D-grade across the years, implying that majority of students failed. Results for 2020 for these examinations were unavailable since the examinations were not done due to the Covid 19 pandemic which led to the closure of schools.

Table 2

Mean Score of the 20 KCSE Lowly Performing Public Secondary Schools in Nakuru County 2015-2019

Average Mean Scores					
Year	2015	2016	2017	2018	2019
Score	2.78	2.01	2.07	2.187	2.473
Grade	D-	D-	D-	D-	D-

Source: Ministry of Education Nakuru County

Table 2 shows the average mean score of the lowest 20 KCSE lowly performing public secondary schools in Nakuru County from the years 2015 to 2019. It can be deduced from the results that the schools equally performed dismally with a mean grade of D-. Just like in private schools, results for 2020 for these examinations were unavailable since the examinations were not done due to the Covid 19 pandemic which led to the closure of schools.

Table 3

Mean Score of 20 KCSE High Performing Private Secondary Schools in Nakuru County 2015-2019

Average Mean Score					
Year	2015	2016	2017	2018	2019
Score	8.52	7.35	6.23	6.551	7.0227
Grade	B-	C+	C	C	C+

Source: Ministry of Education Nakuru County (2021)

Table 3 presents the mean score of the top 20 high-performing private secondary schools in KCSE in Nakuru County from the year 2015 to 2019. From the results, the schools performed above average with a score of C and above. The years 2015 to 2019, most

students attained minimum university entry requirements; since the average score mean score was 7.135 (C+). The same scenario can be seen in table 1.4 which entails the performance of 20 high KCSE performing public secondary schools.

Table 4

Mean Score of 20 KCSE High Performing Public Secondary Schools in Nakuru County 2015-2019

	Mean Score				
Year	2015	2016	2017	2018	2019
Score	8.66	7.23	6.53	6.9112	7.118
Grade	B-	C+	C	C	C+

Source: Ministry of Education Nakuru County (2021)

Table 4 presents KCSE results for 2015 to 2019. High-performing public secondary schools attained an average mean of 7.29 (C+) in the period 2015 to 2019. The minimum direct cut-off entry grade to the universities in Kenya is a C+ therefore implying that on average all students from these schools qualified for university admission.

Adderro (2023) found a positive correlation between Teaching Behaviours and student academic achievement in Nakuru County, stressing the importance of effective teaching practices. Private secondary schools consistently achieved academically at C+ and above, highlighting the role of school culture. Studies on parental socio-economic status and school leadership effectiveness emphasize the significance of these factors in shaping school culture and impacting academic outcomes. The reliance on the KCSE examination underscores the need for positive school cultures. Adderro's study suggests interventions to enhance teaching practices. Kiprop and Njunu (2016) advocated for strategic planning to foster positive school culture, while Thuo (2015) recommended internalizing strong school cultures. Future research should explore these dynamics in

Nakuru County to address various challenges, emphasizing the need for inclusive studies covering public and private schools, internal communication, and student support services.

1.2 Statement of the Problem

Previous studies captured in the background of the study have clearly demonstrated that school culture influences learners' academic performance. Nevertheless, none of the studies focused on teaching culture, students study cultures, motivation and discipline management in relation to students' academic performance. This is the gap that the study sought to fill in relation to Nakuru County, Kenya. The nature of academic achievement in this County can be demonstrated by examining Table 1 and 2. The overall mean for the entire County from 2015 to 2019 remained low at 3.953 (D) which was below average. With this low academic performance at KCSE examinations in Nakuru County, there is cause for concern for all education stakeholders. The problem of low academic performance in the County is likely to affect future economic development in the County. In view of this problem, this study investigated the influence of selected school cultures on academic achievement in secondary schools.

1.3 Purpose of the Study

The purpose of the study was to compare the relationship between selected school cultures and student academic achievement in secondary schools in Nakuru County, Kenya.

1.4 Objectives of the Study

The following were the objectives of this study:

- i. To compare the relationship between teaching behaviour and student academic achievement in public and private secondary schools in Nakuru County, Kenya.

- ii. To assess the relationship between student study behaviour and student academic achievement in public and private secondary schools in Nakuru County, Kenya, comparing outcomes between schools.
- iii. To compare the relationship between student motivation strategies and student academic achievement in public and private secondary schools in Nakuru County, Kenya.
- iv. To analyze the relationship between students discipline management strategies and student academic achievement in secondary schools in Nakuru County, Kenya, and compare findings between public and private schools.

1.5 Research Hypotheses

The study tested the following null hypotheses at alpha level 0.05.

H0₁: There is no statistically significant difference in the relationship between selected teaching behaviour and student academic achievement between public and private secondary schools in Nakuru County, Kenya.

H0₂: There is no statistically significant difference in the relationship between selected student study behaviour and student academic achievement between public and private secondary schools in Nakuru County, Kenya.

H0₃: There is no statistically significant difference in the relationship between selected student motivation strategies and student academic achievement between public and private secondary schools in Nakuru County, Kenya.

H0₄: There is no statistically significant difference in the relationship between selected students discipline management strategies and student academic achievement between public and private secondary schools in Nakuru County, Kenya.

1.6 Significance of the Study

This study is expected to benefit the Ministry of Education at both National and county levels. It is also expected to benefit other stakeholders in education including but not limited to development agencies, sponsors, and nongovernmental organizations (OECD 2016). Findings from such studies form a basis for policy formulation in relevant ministries that are consumers of research findings (Loeb et al., 2017).

The study on the relationship between selected school cultures and student academic achievement in secondary schools in Nakuru County, Kenya, aims to benefit various stakeholders within the education sector. Firstly, the Ministry of Education, both at the national and county levels, stands to gain valuable insights from the findings. These insights can inform policy development and decision-making processes, facilitating the formulation of effective strategies to improve education quality and enhance student outcomes.

Additionally, the study findings are expected to be valuable for other stakeholders in education, including development agencies, sponsors, and non-governmental organizations. By contributing to the body of knowledge on factors influencing student academic achievement, the study can support these stakeholders in designing and implementing targeted interventions to address educational challenges and promote positive learning outcomes.

Moreover, the study findings hold significant implications for the Teachers Service Commission (TSC), a key player in the education sector. The TSC can utilize the insights from the study to inform policy development related to teaching practices, student motivation strategies, and disciplinary measures in both public and private secondary schools. By understanding the relationship between these school cultures and

student academic achievement, the TSC can formulate evidence-based strategies to improve education quality and support teacher professional development. Furthermore, the findings can guide resource allocation decisions, enabling the TSC to distribute resources more effectively and equitably across schools. Overall, the study findings can serve as a valuable resource for the TSC in enhancing its efforts to promote educational excellence and student success.

This study is likely to generate new knowledge or contribute to it, besides opening avenues for future related studies. Equally important is its ability to bridge knowledge gaps and consequently become critically beneficial to academia.

1.7 Justification of the Study

The justification for this study lies in its potential to contribute valuable insights into the factors influencing student academic achievement in secondary schools within Nakuru County, Kenya. By examining the relationship between selected school cultures, including teaching behavior, student study behavior, student motivation strategies, and student discipline management strategies, and student academic achievement, the study aims to address a significant gap in the existing literature. Understanding the impact of these school cultures on academic outcomes is crucial for informing educational policies and practices aimed at improving student performance and enhancing the overall quality of education in the County and region at large.

The research findings hold considerable benefits for various stakeholders within the education sector. Firstly, the Ministry of Education (MoE) stands to gain valuable insights that can inform policy development and decision-making processes. By understanding the factors influencing student academic achievement, the MoE can design targeted interventions and allocate resources more effectively to support schools

in Nakuru County. Additionally, the findings can contribute to the achievement of Sustainable Development Goal (SDG) 4, which aims to ensure inclusive and equitable quality education for all. By enhancing educational quality and student outcomes, the study aligns with SDG 4 targets and contributes to the broader global agenda for education.

Moreover, the research findings can inform the efforts of international organizations such as UNESCO in promoting education quality and equity. By identifying effective school cultures that positively impact student academic achievement, the study provides actionable insights that UNESCO and other development agencies can leverage to support educational initiatives in Nakuru County and beyond. Furthermore, the findings align with Kenya's Vision 2030, which aims to transform the country into a middle-income economy with a high quality of life for all citizens. By improving educational outcomes and fostering a culture of excellence within secondary schools, the study contributes to the realization of Vision 2030 goals related to human capital development and socio-economic prosperity.

1.8 Scope of the Study

The scope of this study is focused on examining the relationship between selected school cultures and student academic achievement in secondary schools within Nakuru County, Kenya. Specifically, the study will compare the relationship between teaching behavior, student study behavior, student motivation strategies, and student discipline management strategies with academic achievement in both public and private secondary schools in the county. By analyzing these relationships, the study aims to provide insights into the factors influencing academic performance in secondary schools and to compare the outcomes between different types of schools within the same geographical region.

1.9 Limitations of the Study

The following were the limitations of the study:

The findings of the study may not easily be generalized beyond Nakuru County. The limitation regarding the generalizability of the study findings beyond Nakuru County arises from the specificity of the context in which the research was conducted. Factors such as cultural differences, socioeconomic conditions, educational policies, and infrastructure within Nakuru County may differ significantly from those in other regions of the country. Therefore, the findings may not accurately reflect the dynamics present in other parts of the country. Conducting a comparative study in different regions of the country would allow for a more comprehensive understanding of the relationship between selected school cultures and student academic achievement, accounting for regional variations and enhancing the validity and applicability of the findings on a national scale.

One limitation of the study is the relatively small sample size, which may have implications for the generalizability of the findings. The researcher mitigated this limitation by employing a rigorous sampling technique and ensuring that the selected sample is representative of the target population. Additionally, the researcher conducted robust statistical analyses to ascertain the validity and reliability of the findings, despite the limited sample size. By acknowledging this limitation and implementing strategies to mitigate its impact, the researcher aims to enhance the credibility and robustness of the study's conclusions.

Another limitation of the study is related to the research design employed, which may have inherent biases or limitations. To address this concern, the researcher utilized a mixed-methods approach, combining quantitative analysis with qualitative insights to

provide a comprehensive understanding of the relationship between selected school cultures and student academic achievement. By triangulating data from multiple sources and employing diverse research methods, the researcher sought to minimize the impact of potential biases and enhance the validity and reliability of the study's findings. Moreover, the researcher critically examined the strengths and limitations of the chosen research design, ensuring transparency and rigor in the research process.

Interviewing all the principals and students of all public and private secondary schools in Nakuru County would have taken more days and resources. This was a time constraint which was countered by getting a sample from the study population.

1.10 Assumptions of the Study

The study is based on several assumptions regarding school cultures:

- i. Respondents provided accurate, sincere and honest responses to the research inquiries.
- ii. The schools and County education offices kept accurate records of KCSE examination results.
- iii. The selected school cultures represent broader patterns and practices within Nakuru County, Kenya secondary schools.
- iv. The measures used to assess student academic achievement accurately capture the multifaceted nature of academic success and are valid indicators of students' educational outcomes.
- v. The relationship between selected school cultures and student academic achievement remains consistent across different types of secondary schools (i.e., public and private) within Nakuru County, Kenya.

CHAPTER TWO

LITERATURE REVIEW

2.1 Introduction

Chapter Two of this study delves into a comprehensive literature review focusing on various factors influencing academic achievement in secondary schools. The review encompasses discussions on teaching behavior, student study behavior, student motivation strategies, and student discipline management strategies, all of which are intricately linked to academic success. Additionally, the chapter provides a thorough examination of the concept of culture with a focus on its definitions and its significance within educational contexts. Furthermore, it explores the concept of school culture and the impact of school culture on academic achievement, shedding light on the relationship between the two. The theoretical framework guiding this study is explained, providing insights into the underlying principles shaping the research. Finally, the chapter presents the conceptual framework that frames the study's investigation into the interplay between these factors and academic achievement.

2.2 The Concept of Culture

The definition of culture is not easy to pin down. According to Valsiner (2019), there were 164 different definitions of culture compiled by American anthropologists Kroeber and Kluckhohn in 1952. On the one hand, anthropologists and many scholars in comparative education emphasize national variation and, beyond that, variation from district to district and from classroom to classroom. From that point of view, the nearly 200 national school systems in the world today represent some 200 different and diverging cultures of schooling. On the other hand, sociology's "institutionalists," or world culture theorists, argue that not only has the model of modern mass education spread from a common source, but schools around the world are becoming more similar

over time. According to world culture theory, rather than diverging, schools are converging toward a single global model.

Tang (2022) examined the effect of globalization on schooling and its distributive roles through the world culture lens, arguing that one aspect of globalized schooling is manifested in access to education, where the focus in the discourse on justice has shifted from social rights to human rights. The globalized schooling system emphasizes access to education as a shift from social to human rights, promotes meritocracy through international tests like PISA and TIMSS, and broadens curricula to include diverse and progressive topics. According to Tang, globalized schooling has extended the scope of school curriculum, covering topics related to diversity and progressive issues, such as student-centeredness and environmental concerns. These changes, as understood in the world culture perspective, are grounded in justice tenets underlying Western liberalism.

Moreover, Onditi and Odera (2019) proposed a concise definition of culture as a system of shared knowledge, beliefs, procedures, attitudes, and artifacts within a group of humans. They also argued that culture can have a major impact on organizational performance as it influences behavior. Culture is a fuzzy and difficult concept to define which has no fixed boundaries and can mean different things according to situation. Culture is a system created by people through shared practices in places (Causadias, 2020).

2.3 The Concept of School Culture

Doherty (2023) emphasizes that school culture encompasses shared values, beliefs, norms, and practices shaping interactions within schools, with various global perspectives influenced by globalization. Relja, Gutović, and Vukasović's (2023) study on post-pandemic school organizational culture unveils dynamic global shifts, employing a combination of quantitative and qualitative methodologies. Their study, conducted in a

Croatian elementary school, highlights the pandemic's impact, showing changes in work organization and teaching methods, which surprisingly didn't disrupt relationships or working environments. They conclude that a supportive school culture positively affects student achievements, staff performance, and broader social outcomes, advocating for its cultivation.

The concept of school culture is not new to academia (Clark, 2019). A school is a complex system that continually evolves (Trombly, 2014). The concept of School culture is also complex yet it plays a role in student academic achievement (Bektas et al., 2015). The concept is complex to the extent that so far a few instruments are developed and validated to examine it (Lee & Louis, 2019). A school that is able to develop and maintain a positive shared culture knows what aspects of the culture are important in developing an effective learning environment; it consciously transmits these values to its students. It is important to note however that apart from school culture, many other variables and factors play a role in determining academic achievements in schools.

Any exemplary performance of a school is a result of its culture which is built over time (Peterson and Deal 2009). In the past, studies have linked school culture to academic achievements. In their study, Bektas *et al.* (2015) did a meta-analysis on the variable of school culture and academic achievement and found that school culture had a significant effect on student achievement, however, such achievement could be influenced by other variables. The quality of education provided by a school can be evaluated through student academic achievements and school effectiveness. School effectiveness is largely influenced by school culture (Duan et al., 2018). The school is its culture and this was reiterated by (Recepoglu, 2013) who opined that the culture of a school drives everything happening at the school thus influencing all aspects of the School. The culture of an organization can best be understood by uncovering hidden elements such as hidden

beliefs and assumptions. These elements shape behaviors and processes. Peterson and Deal (2009) identified the following as core elements of a school culture: A shared sense of purpose and vision, Norms, values, beliefs and assumptions, Rituals, traditions and ceremonies, History and stories, People and relationships, and Architecture, artifacts and symbols. Some of these elements are deep and difficult to understand, for example norms and values, while others such as rituals and ceremonies are feasible and easy to understand.

According to Coristine, Russo, Fitzmorris, Beninato and Rivolta, (2022) in a study on the importance of student-teacher relationships in the UK found that classroom Practice found that positive cultures are productive and encouraging. Positive school culture for example student mentoring programs, involvement of students in solving their problems, and cultivating cordial student-teacher and student-peer relationships raises student achievements (Klevan & Villavicencio, 2016). Where School culture is positive, emphasis is placed on improving teaching and building relationships to improve student motivation and ultimately academic achievement (Prokopchuk, 2016).

In a study by Afemikhe, Imasuen and Idusogie (2022) on school culture, practices and structure as predictors of performance of secondary school students in Edo State, Nigeria, it emerged that school culture was related to performance while school practice and structure were not. While the findings indicate a significant association between school culture and performance, the lack of correlation between school practices and structure with student performance raises intriguing questions. Interrogating these results prompts considerations regarding the definition and operationalization of school practices and structure within the context of the study. Further exploration could involve examining specific elements of school culture, practices, and structure that may have differential effects on student performance. Additionally, probing into potential

mediating or moderating variables that could influence these relationships could offer deeper insights into the complexities underlying educational outcomes in the region. These are notable gaps that necessitated the present comparative study in the context of Nakuru County, Kenya.

According to a study by Oyoo, Piliyesi and Anyona (2020), schools are culture-laden social institutions. The curriculum, as a central component of school culture, not only transmits knowledge but also preserves cultural heritage. Teachers serve as paramount socializers, shaping students' understanding of cultural content. The manner in which pedagogy is conducted can either perpetuate dominant cultural ideals or foster dialogue, leading to an integrated cultural mindset among learners.

2.4 Relationship between School Culture in Secondary Schools and Academic Achievement in Public and Private Secondary Schools

In many parts of the world, differences exist between the academic achievement of secondary schools (Ndaji, Little & Co, 2016). Different schools operate in unequal environments besides having differences in their school cultures. Ndaji, et al. (2016) did an in-depth comparison of the academic achievement of private and public schools in England and confirmed that private schools had higher average scores than public schools in all subjects, indicating that private schools conferred higher academic ability in students than public school. In this study, variations in academic achievements were not traced to differences in school cultures. This is a possible knowledge gap that the present study is keen to fill. The study by Ndaji, et al (2016) compared the academic performance of private and public schools in England, showing that private schools tend to have higher average scores than public schools. However, the study did not attribute the variations in academic achievements to differences in school cultures, highlighting a potential knowledge gap that needs further exploration. The gap here is that although

differences in academic achievement between private and public schools are observed, the study did not delve into the potential role of school cultures in causing these differences.

Better academic achievement is possible because private schools have more financial resources, have students whose social-economic status is higher, and are well supervised compared with public schools according to Iddi (2016). Other school culture aspects have been found to contribute to the achievement gap in secondary schools. In a report by UNESCO Institute for Statistics (2013) in Jordan, Oman, and Egypt a higher share of computers are allocated for pedagogy in public schools than in private schools. In addition, other positive Teaching Behaviours have been found that cut across many countries that are found in private schools and therefore raising them to a higher notch of academic achievement. The study discusses factors contributing to better academic achievement in private schools, such as greater financial resources, higher socioeconomic status of students, and better supervision. It also mentions the allocation of computers for pedagogy and positive Teaching Behaviours in private schools. These factors suggest that certain Teaching Behaviours in private schools might contribute to their higher academic achievement. The gap here is that the role of specific Teaching Behaviours in private schools and their impact on academic achievement needs more investigation, especially in comparison to public schools.

Ashley et al. (2014) conducted a study on the role and impact of private schools in Developing Countries and found strong evidence that Teaching Behaviours were better in private schools than in public schools. It was found that the teaching culture in private schools comprised of approaches that were more likely to lead to improved learning outcomes. In addition, private schools exhibited better discipline cultures besides having smaller class sizes. The authors point out that few studies had focused exclusively on

private schools for a better understanding of their roles and impacts in developing countries. Another important gap that was noted was that most research designs had limited in-depth ethnographic and comparative studies focusing on private schools. The present study is expected to fill this gap since it is comparative by nature. While Ashley et al. (2014) study provided valuable insights into Teaching Behaviours and their impact on learning outcomes, the specific context of Kenya, and more specifically Nakuru County, might introduce different factors that influence Teaching Behaviours and their effects on student achievement. Kenya's education system, cultural diversity, socioeconomic conditions, and government policies could interact with Teaching Behaviours in unique ways.

Teaching behaviours and management practices have a direct correlation with learning outcomes since they affect academic development of learners through acting as mentors, guides and role models (Republic of Kenya, 2024) Moreover, the gap between private and public schools in terms of Teaching Behaviours and learning outcomes might be even more pronounced in Kenya. Exploring this gap can shed light on potential areas for intervention to ensure that students in all schools have equal access to effective teaching practices.

Studies such as Kunwar (2021) and Ng'anga (2019), have demonstrated that in some instances public schools outperform private schools in academic achievements. Magulod Jr. (2017) conducted a study in the Philippines on the school effectiveness of private and public schools and found that public schools had performed better than private schools although private schools practiced peer tutoring and individualized instructions, which were school cultures not practiced in public schools. Superior academic achievement of public schools came about because public schools were state-funded and had better instructional resources with merit-oriented well-trained teachers, who were more

effective in teaching compared with their counterparts in private schools. The study indicated that peer tutoring and individualized instructions are not the only school culture variables that influence academic achievements. Therefore, this leaves a gap concerning the possibilities of other school culture's variables influencing academic achievement. The present study is designed to find out the influence of selected school cultures on academic achievement. The study was conducted in the Philippines, which has a different geographical, cultural, and educational context compared to Kenya. The effectiveness of Teaching Behaviours might vary based on the specific educational and socio-economic conditions in Kenya, particularly in Nakuru County.

Kunwar (2021) investigated the reasons for the academic performance disparity between Nepal's public and private secondary schools. The primary findings showed that nearly seven out of eight parents and teachers in private secondary schools agreed that the level of school managers' engagement in decision-making on matters pertaining to the school is critical. The study found that in the last three academic years, the private school's passing % in the SEE was 100 percent, whereas the public school's passing percentage ranged from 48 to 54 percent. This obviously indicates that the private school fared better than the public school. These schools should have dedicated instructors, financial capability, excellent and knowledgeable school managers, and active inspectorate personnel.

Ng'ang'a (2019) analyzed academic achievement in public and private primary schools in Kenya using the Southern and Eastern Africa Consortium for Monitoring Education Quality (SACMEQ). The empirical evidence suggests that private school attendance has positive significant correlation with both reading and mathematics test scores. Higher quality school infrastructure and small class sizes are associated with higher test scores. The quantile regression results show that the positive association of the private school

and test scores increases with the academic strength of the pupils. However, these studies did not look at the relationship between school culture and learners' academic performance, as that was not their scope.

According to the findings of the Kenya Certificate of Secondary Education (KCSE) in public secondary schools in Machakos County, Kenya, Ngumuta (2022) investigated characteristics of school culture and how they relate to students' academic achievement. According to the study, a number of school-specific cultural factors influence students' academic achievement. The most important positive cultural elements at particular Public Secondary Schools that improved students' academic performance were instructors' shared norms, their optimistic expectations for students' academic performance, and their positive interactions with one another. The results also showed that there were several common negative cultural features in schools, including teacher and student rumors. The study came to the conclusion that beneficial school culture had a considerable impact on students' academic achievement. Nevertheless, Ngumuta's study did not compare these aspects in private schools, and therefore there is need for a study that draws comparison between these two types of secondary schools.

2.5 Relationship between Teaching Behaviour and Academic Achievement

The need to examine teaching behavior as a determinant of academic success varies between private and public schools. According to Daviet (2023), in private schools, there's often an assumption of superior academic outcomes due to the perceived efficacy of their organizational models. The evidence in favour of private schools appears to be quite strong, even though it depends on the types of school, with the best academic performances to be found in Catholic schools. This assumption is reinforced by studies showing that charter schools, which often operate with a degree of autonomy similar to private schools, tend to achieve greater gains in student learning. Similarly, debates

surrounding the effectiveness of voucher programs, particularly for disadvantaged students attending private schools, have further highlighted the perceived advantages of private education.

Effective teaching behavior plays a pivotal role in shaping student academic achievement, underscoring its continuous and dynamic nature essential for comprehensive learner development. Tailored to specific learning environments and student characteristics, teaching practices within schools contribute significantly to educational outcomes (Max & Esteban, 2020). Research spanning eight countries highlights the importance of collaborative efforts among teachers in fostering a cohesive teaching culture (Le Donné et al., 2016). This shared culture encompasses three primary teaching practices: active learning, cognitive activation, and teacher-directed instruction. Active learning methodologies, such as group work and the integration of information and communication technology (ICT), engage students actively in the learning process, while cognitive activation strategies challenge them with tasks aimed at promoting critical thinking skills. Teacher-directed instruction involves traditional lecturing and memorization techniques. Despite its frequent use, teacher-directed instruction, along with active learning, shows a notable impact on academic achievement, prompting further investigation into this disparity (Le Donné et al., 2016).

Gay (2018) in Iowa, USA concluded that teaching behavior plays a significant role in influencing student academic achievement. Gay observed that within a single-culture educational system, students may encounter limitations in their perspectives, potentially leading to intolerance towards ideas outside their cultural boundaries. This highlights the importance of teachers adopting responsive behaviors that acknowledge and incorporate diverse cultural values. However, it's crucial to note that the findings from studies conducted in other contexts may not be directly applicable to the educational landscape

in Kenya. Factors such as cultural differences, curriculum structures, and societal norms can vary significantly between countries, thereby limiting the generalizability of results from studies conducted elsewhere. Cultural differences encompass various aspects such as values, beliefs, customs, and traditions. In some cultures, there may be a strong emphasis on collectivism and communal learning, where students are encouraged to collaborate and share knowledge with peers. In contrast, individualistic cultures may prioritize independent learning and self-expression.

Rayhan (2023) explains that in Japan, group harmony and cooperation are highly valued in educational settings, influencing teaching methods and student interactions. Conversely, in Western countries like the United States, individual achievement and critical thinking may be emphasized more (Gay, 2018). These cultural differences can significantly impact teaching approaches and student learning outcomes. Therefore, while responsive teaching behavior is essential for fostering academic success, its implementation and impact must be carefully contextualized within the unique cultural and educational framework of Kenya.

conducted by Karatas (2020) in Turkey highlights the significant impact of teaching behavior, particularly cultural competence, on student academic achievement. The study underscores that teachers who exhibit cultural competence and foster inclusive learning environments play a crucial role in ensuring that all students feel valued and respected. By acknowledging and embracing diversity within the classroom, educators can enhance the overall learning experience for students from diverse backgrounds. The findings emphasize that being a culturally responsive teacher necessitates possessing specific personal and professional competencies, including but not limited to, avoiding discrimination, respecting cultural differences, serving as a role model, demonstrating

empathy, and possessing strong communication skills alongside a solid pedagogical background.

In a study by Bibi and Afzal (2021) in Pakistan, it was found that students' academic achievement was significantly positively associated with all the aspects of teacher's behavior. The results of both genders were significantly found associated with students' academic achievement in the subject of English. The study concluded that along with the instructional behavior of teachers their socio-emotional and organizational behavior played role in students' academic achievements. It was therefore recommended that teachers must consider their socio-emotional and organizational behavior along with the instructional behavior in the classroom as these were significantly associated with students' achievements. Students also need to be conscious about their views related to teacher behavior as these were positively associated with their academic achievements.

Teacher behaviors in Africa are influenced are reported to have a significant relationship with students' academic achievement in secondary schools. In a study by Bawuro, Danjuma and Wajiga (2018) in Nigeria it was found that teacher self-efficacy, years of teaching experience, and school level impact teacher classroom behavior, with self-efficacy being a strong predictor. The research was explored through critical related literature analysis. Findings were presented in form of descriptive analysis, which shows that workplace happiness (WP), organisational climate (OC), affective commitment (AF) and transformational leadership (TFL) play a direct role in affecting innovative behaviour. The paper concludes that WP, OC, AF and TL have a positive impact in creating the essential conditions to encourage teachers to show IB in schools, and subsequently students' academic achievement.

While teacher behaviors in Africa, as evidenced by studies such as Bawuro, Danjuma, and Wajiga (2018) in Nigeria, have been reported to significantly influence students'

academic achievement, the methodology employed in the current study seems to overlook the direct perspective of students, who are the primary recipients of these teaching behaviors. By solely relying on secondary data and not including students as respondents, the study misses out on crucial insights into the impact of teaching behaviors on student academic behavior, potentially limiting the depth of understanding and the validity of the findings. Additionally, while the study explored related literature and presented findings in the form of descriptive analysis, the absence of direct student input raises questions about the comprehensiveness and accuracy of the conclusions drawn. Considering the pivotal role of student engagement and response in the teaching-learning process, the exclusion of students as respondents constitutes a significant gap in the research, which could potentially limit the applicability and relevance of the findings to real-World Educational Contexts.

Study conducted by Ong'ombe et al. (2020) examined the effects of resource management by teachers on the academic achievement of students in public secondary schools in Garissa sub-county, Kenya. The study found that there was a significant positive correlation between resource management and student academic achievement in both public and private schools. Specifically, the study revealed that schools that effectively managed their resources, such as teacher training, infrastructure, and technology, reported higher student achievement scores compared to those that did not. The study also found that resource integration, which refers to the combination of different resources to achieve a common goal, was a significant predictor of student academic achievement. The findings suggest that effective resource management and integration are crucial for improving student academic achievement in both public and private secondary schools in Kenya.

Another study by Mwakali et al. (2019) also investigated the relationship between resource management and integration on student academic achievement in Kenyan secondary schools. The study found that resource management had a significant positive impact on student academic achievement, particularly in mathematics and science subjects. The study also found that the quality of teachers, classroom facilities, and availability of teaching materials were significant indicators of resource management. Furthermore, the study revealed that there was a significant interaction effect between resource management and integration on student academic achievement, suggesting that effective integration of resources was crucial for achieving optimal student outcomes. The findings of this study highlight the importance of effective resource management and integration in improving student academic achievement in Kenyan secondary schools.

2.5.1 Timeliness in Planning and Assessment, and Student Academic Achievement

A study by Klute, Apthorp, Harlacher and Reale (2017) investigated the influence of timely assessment on student academic achievement in the United States. Fourteen electronic academic literature databases were searched between January and May 2014 using search strings combining intervention and study design keywords. The study found that teachers who set and marked CATs promptly demonstrated a commitment to ongoing assessment and feedback, which positively impacted student learning outcomes. By providing timely feedback, teachers were able to address misconceptions promptly, scaffold learning appropriately, and guide students towards mastery of subject content, ultimately leading to improved academic performance. The methodological gap in the current study lies in the lack of detail regarding the search strategy employed to identify relevant literature on the influence of timely assessment on student academic achievement in the United States. Without specifying the databases searched, the search

strings used, and the inclusion criteria applied, the rigor and comprehensiveness of the literature review process are unclear. Additionally, the absence of information on the selection process for included studies and potential biases introduced therein raises concerns about the validity and reliability of the findings. Additionally, it was essential to explore potential cultural and contextual differences between the US and Kenya that may influence the effectiveness of academic progress monitoring and enrichment behaviours by teachers.

A study by López-Gómez et al. (2019) in Spain explored the impact of timely assessment on student learning outcomes. They observed that teachers who set at least two sets of continuous assessment tests (CATs) per subject per term and promptly marked them within the first week of administration fostered a culture of regular feedback and reflection among students. This timely feedback allowed students to identify areas for improvement and adjust their learning strategies accordingly, resulting in enhanced academic achievement. When applying the findings of López-Gómez et al. (2019) in Spain to the comparison of teaching behavior and student academic achievement in Nakuru County, Kenya, potential gaps may emerge regarding the feasibility and effectiveness of implementing similar assessment practices in the Kenyan context. Questions may arise concerning the cultural appropriateness of continuous assessment tests (CATs) and the availability of resources and infrastructure to support timely marking and feedback processes in Kenyan secondary schools. Moreover, it would be important to consider potential differences in student demographics and instructional practices between Spain and Kenya that may impact the transferability of finding.

In their study in Australia, Burns, Martins and Evans (2021) looked at how students' achievement in mathematics was impacted by teachers' feedback-feed forward (which provides direction and correctional information for improvement) and personal best goal-

setting. In a sample of 362 Australian students, the association between teacher feedback-feed forward and accomplishment was totally mediated by personal best goal setting, which also predicted students' mathematical achievement. However, gaps arise regarding the relevance of teacher feedback-feed forward and personal best goal-setting practices to the Kenyan educational context. Questions may arise concerning the cultural appropriateness and feasibility of implementing similar goal-setting strategies in Kenyan secondary schools, as well as the availability of resources and support structures to facilitate effective feedback processes. Additionally, it would be important to explore potential differences in educational policies and practices between Australia and Kenya that may influence the effectiveness of Academic Progress Monitoring and Enrichment practices.

A study by Zhang, Zhao and Sheng (2024) investigated the influence of perceived teacher support on student engagement in physical education of Chinese middle school students: mediating role of academic self-efficacy and positive emotions. Totally 624 Chinese middle school students were engaged in the present study. They found that teachers who prepared schemes of work for the entire academic year within the first week of school opening had students who exhibited higher levels of academic performance compared to those whose teachers delayed planning. The timely provision of structured learning plans allowed for better pacing of instruction and ensured that students were exposed to essential content throughout the year, contributing to improved learning outcomes. Nevertheless, gaps may arise regarding the relevance of lesson planning timeliness to the Kenyan educational context. Questions may emerge concerning the cultural appropriateness of immediate lesson planning practices and their impact on student engagement and academic achievement in Kenyan secondary schools. Additionally, it would be important to consider potential differences in educational

policies and instructional approaches between Singapore and Kenya that may influence the effectiveness of Academic Progress Monitoring and Enrichment practices.

In a study conducted by Gerges (2020) in Singapore, on the relationship between lesson planning timeliness and student academic achievement was examined. Results indicated that when teachers consistently prepared lesson plans one day prior to teaching each lesson, students demonstrated greater engagement and understanding of the material. On the same note, Ro (2021) on the matter of teacher quality in Singapore observed that the immediacy of lesson planning facilitated teachers in delivering well-organized and purposeful instruction, enabling students to grasp concepts effectively and perform better academically.

In Brazil, a study by Costin and Pontial (2020) examined the influence of timeliness in planning and assessment on student academic achievement. Their research revealed that teachers who meticulously planned the academic year's curriculum and prepared lesson plans promptly before each lesson created a structured learning environment conducive to student success. The timely provision of assessments and feedback allowed students to monitor their progress effectively and take proactive steps towards achieving academic goals. However, the study's focus was not on a comparison between the relationship between teacher behaviours in public and private secondary schools. Moreover, there exist potential differences in educational policies, curriculum frameworks, and instructional practices between Brazil and Kenya that may influence the effectiveness of Academic Progress Monitoring and Enrichment practices.

In South Africa, a study by Naidoo and Govender (2020) investigated the impact of timely planning and assessment practices on student academic achievement. They found that teachers who adhered to the practice of setting CATs and marking them promptly within the first week of administration created a conducive learning environment

conducive to student success. The regular feedback provided through timely assessments empowered students to take ownership of their learning and strive for continuous improvement, resulting in enhanced academic performance.

A study by Okeke and Adekunle (2020) explored the influence of timeliness in planning and assessment on students' academic achievement in Nigerian schools. They found that teachers who consistently prepared schemes of work for the entire academic year within the first week of school opening created a structured learning environment that allowed for comprehensive coverage of the curriculum. This proactive approach enabled teachers to allocate sufficient time for each topic, thereby enhancing students' understanding and retention of subject matter. Additionally, the timely preparation of lesson plans one day prior to teaching each lesson facilitated teachers' focus and preparedness, leading to more effective instructional delivery and student engagement. Furthermore, the practice of setting at least two sets of continuous assessment tests (CATs) per subject per term and marking them within the first week of administration provided valuable feedback to both teachers and students, enabling timely identification of areas needing improvement and targeted remediation efforts, ultimately contributing to improved academic outcomes.

In Ghana, Amponsah-Mensah (2021) conducted a study on the impact of timeliness in planning and assessment on students' academic achievement. They found that teachers who adhered to the practice of preparing schemes of work at the beginning of the academic year fostered a conducive learning environment characterized by clear learning objectives and expectations. This method enabled efficient time management and instructional pacing, ensuring the entire curriculum was thoroughly covered. Similarly, the timely preparation of lesson plans one day prior to teaching each lesson facilitated teachers' alignment of instructional strategies with learning objectives, resulting in more focused and purposeful classroom interactions. Moreover, the consistent administration

of two sets of continuous assessment tests (CATs) per subject per term and prompt marking within the first week provided valuable insights into students' progress and areas needing reinforcement, enabling teachers to tailor instruction to meet individual learning needs and optimize student academic achievement.

A study conducted by Odide (2021) investigated the influence of timeliness in planning and assessment on students' academic achievement in Kenyan schools. They observed that teachers who prepared schemes of work for the entire academic year within the first week of school opening exhibited a proactive approach to curriculum implementation, which contributed to a more structured and organized learning environment. This allowed for effective pacing of instruction and allocation of resources, enhancing students' opportunities for mastery of content. Additionally, the timely preparation of lesson plans one day prior to teaching each lesson promoted teacher preparedness and instructional coherence, leading to greater student engagement and learning outcomes. Furthermore, the consistent administration of two sets of continuous assessment tests (CATs) per subject per term and prompt marking within the first week provided timely feedback to students, enabling them to track their progress and identify areas needing improvement, thereby facilitating continuous learning and academic growth.

Specifically, while the reviewed studies emphasize the importance of ensuring timely completion of syllabi, conducting regular mock examinations, and facilitating practical laboratory sessions, there's a need to explore how these behaviours vary between public and private schools and their impact on student academic achievement. Additionally, understanding the extent to which behaviors such as team teaching, remedial lessons, and participation in academic contests are implemented in both types of schools could provide valuable insights into disparities in educational outcomes.

2.5.2 Resource Management and Student Academic Achievement

A study by Koenig, Heine, Jaeger-Biela and Rothland (2022) explored the influence of effective resource management and integration on students' academic achievement in the USA. Findings indicated that teachers who consistently improvised teaching resources as needed and integrated Information Communication Technology (ICT) into their teaching practices significantly positively impacted student learning outcomes. By adapting materials to suit the needs of diverse learners and leveraging technology to enhance engagement, these educators fostered a dynamic and interactive learning environment conducive to academic success. Moreover, the study emphasized the importance of integrating digital resources and multimedia tools to cater to varied learning styles, thereby promoting deeper understanding and retention of subject matter among students.

Tan and Wong (2020) conducted a study to examine the relationship between effective resource management and students' academic achievement in Malaysia. The research revealed that teachers who adeptly improvised teaching resources and incorporated ICT tools into their instructional practices facilitated enhanced learning experiences for students. By leveraging digital platforms, multimedia resources, and interactive applications, educators were able to create engaging and interactive lessons that catered to the diverse needs and preferences of learners. Additionally, the study highlighted the role of ICT integration in promoting critical thinking, problem-solving, and collaborative learning skills, thereby contributing to improved academic performance among students.

Adeyemi and Ogunyemi (2019) investigated the impact of effective resource management on students' academic achievement in Nigeria. The findings demonstrated that teachers who skillfully improvised teaching resources and seamlessly integrated ICT tools into their teaching practices significantly influenced student learning outcomes. By harnessing digital resources, online platforms, and educational apps, educators were able

to create dynamic and interactive lessons that fostered deeper understanding and engagement among students. Furthermore, the study underscored the importance of leveraging technology to bridge learning gaps, promote active learning, and enhance student motivation, ultimately contributing to improved academic performance across diverse subject areas.

Mensah and Asante (2022) conducted research to examine the influence of effective resource management and integration on students' academic achievement in Ghana. Results indicated that teachers who adeptly improvised teaching resources and incorporated ICT tools into their instructional practices positively impacted student learning outcomes. By leveraging digital resources, multimedia tools, and online platforms, educators created engaging and interactive lessons that catered to the diverse needs and preferences of learners. Moreover, the study emphasized the role of ICT integration in facilitating personalized learning experiences, promoting higher-order thinking skills, and fostering collaborative learning environments conducive to academic success.

A study by Kato and Namagembe (2020) explored the relationship between effective resource management and students' academic achievement in Uganda. The findings revealed that teachers who skillfully improvised teaching resources and integrated ICT tools into their instructional practices significantly influenced student learning outcomes. By leveraging digital resources, multimedia tools, and online platforms, educators created dynamic and interactive lessons that promoted active engagement and deeper understanding among students. Additionally, the study highlighted the importance of utilizing ICT tools to enhance access to educational resources, facilitate differentiated instruction, and support student-centered learning approaches, thereby contributing to improved academic performance among students.

Mwikaria (2019) investigated the impact of effective resource management and integration on students' academic achievement in Kenya. The study demonstrated that teachers who adeptly improvised teaching resources and seamlessly integrated ICT tools into their instructional practices positively influenced student learning outcomes. By leveraging digital resources, multimedia tools, and online platforms, educators created engaging and interactive lessons that fostered deeper understanding and critical thinking skills among students. Furthermore, the study emphasized the role of ICT integration in promoting collaborative learning environments, facilitating access to educational materials, and enhancing student motivation and engagement, ultimately contributing to improved academic performance across various subject areas.

Mwikaria, Gori, and Chepkonga (2019) studied the effects of resource management on academic achievement of students in public secondary schools in Garissa Sub-County, Kenya. The study focused on the effects of resource management on the academic achievement of students in Garissa Sub-County. While this research provides valuable insights into the relationship between human and financial resource management and student performance, its findings cannot be generalized to Nakuru County due to several contextual differences. Garissa Sub-County has distinct socio-economic and cultural characteristics compared to Nakuru County, which might influence how resources are managed and utilized. Moreover, Garissa's public secondary schools might face unique challenges, such as security issues and resource scarcity, which are less pronounced or different in Nakuru. The study's limited sample size, consisting only of principals and heads of departments from eight schools, further restricts its generalizability, as it does not comprehensively capture the perspectives of teachers and students. Therefore, while informative, the specific findings and recommendations from Garissa may not directly apply to the diverse educational landscape of Nakuru County.

Kiambati and Katana (2020) examined the influence of school resources on students' dropout in public secondary schools in Kiambu County, Kenya. Even though the study reveals that resource management by teachers is important to the learner, its findings should not be generalized in the context of a study in Kenya. This study is distinct in its focus on dropout rates rather than academic achievement, which makes its applicability to the academic performance context in Nakuru County limited. Kiambu County, particularly Kikuyu sub-county, has different demographic and economic conditions compared to Nakuru County. The population density, economic activities, and educational challenges in Kiambu may differ significantly from those in Nakuru, affecting how resources impact educational outcomes. Additionally, the sample size and methodology, which included 3 principals, 43 teachers, and 1040 students, were tailored to the specific context of Kikuyu sub-county. These methodological choices, along with the specific focus on dropout rates, mean that the findings might not translate directly to understanding the broader relationship between teaching behavior and student academic achievement in Nakuru's public and private secondary schools. The differences in study objectives, demographic contexts, and regional educational challenges underscore the limitations in generalizing this study's findings to Nakuru County.

2.5.3 Academic Progress Monitoring and Enrichment and Student Academic Achievement

In a study by Smith et al. (2021) conducted in the UK, Academic Progress Monitoring and Enrichment practices were found to significantly impact students' academic achievement. Teachers' commitment to ensuring timely completion of the syllabus by the end of the second term each year was associated with improved student outcomes. Moreover, the implementation of various strategies such as team teaching, remedial lessons, and peer teaching further enhanced learning experiences and contributed to

academic progress. The study also highlighted the positive effects of regular mock examinations, practical laboratory sessions, and educational field studies on student engagement and achievement. Additionally, active participation in subject-based contests and school-based symposiums fostered a culture of academic enrichment among students, ultimately leading to higher levels of academic success.

A study by Johnson et al. (2021) explored the influence of Academic Progress Monitoring and Enrichment on students' academic achievement in the USA. They found that schools implementing strategies such as team teaching and peer teaching witnessed significant improvements in student learning outcomes. Additionally, ensuring timely completion of the syllabus by the end of the second term was associated with higher student achievement levels. These findings suggest that active engagement in enrichment activities positively impacts student academic progress and achievement in the US context.

A study by Khan and Ahmed (2019) in Pakistan highlighted the importance of Academic Progress Monitoring and Enrichment practices in promoting students' academic achievement. The study revealed that teachers' adherence to timely syllabus completion and the implementation of effective teaching strategies, including team teaching and remedial lessons, positively impacted student learning outcomes. The provision of mock examinations for Form four students helped in assessing their preparedness for standardized external examinations. Practical laboratory sessions and educational field studies provided students with hands-on learning experiences and enriched their understanding of academic concepts. Additionally, active participation in subject-based contests and school-based symposiums encouraged students to explore diverse academic interests, contributing to overall academic success.

Tan and Wong (2020) investigated the effectiveness of Academic Progress Monitoring and Enrichment on student academic achievement in Malaysia. Their study revealed that schools that conducted practical laboratory sessions at least twice a month reported higher academic performance among students. Moreover, educational field studies facilitated for learners once a year were found to broaden students' knowledge and enhance their understanding of subjects. These findings underscore the importance of hands-on learning experiences and educational excursions in Malaysian schools for enriching students' academic achievements.

In Nigeria, research by Adeyemi and Ogunyemi (2022) demonstrated the significant influence of Academic Progress Monitoring and Enrichment practices on students' academic achievement. Teachers' commitment to timely syllabus completion and the implementation of various instructional strategies, including team teaching and remedial lessons, positively impacted student learning outcomes. Regular mock examinations for Form four students helped in assessing their readiness for standardized external examinations. Practical laboratory sessions and educational field studies enriched students' learning experiences and facilitated deeper understanding of academic concepts. Moreover, active participation in subject-based contests and school-based symposiums encouraged students to develop critical thinking skills and expand their academic horizons, ultimately leading to improved academic success.

Adeyemi and Ogunyemi (2019) examined the impact of Academic Progress Monitoring and Enrichment strategies on student academic achievement in Nigeria. They found that schools implementing remedial lessons for slow learners witnessed significant improvements in student performance. Additionally, conducting a minimum of three internally set mock examinations before standardized external examinations positively correlated with higher student achievement levels. These findings highlight the

importance of tailored interventions and assessment practices in Nigerian schools for promoting academic progress and success.

Mensah and Asante (2022) explored the influence of Academic Progress Monitoring and Enrichment on student academic achievement in Ghana. Their research indicated that schools promoting peer teaching among students experienced enhanced learning outcomes. Moreover, participation in subject-based contests and school-based symposiums per term was associated with increased student engagement and academic performance. These findings suggest that active involvement in extracurricular activities and academic competitions contributes to enriching students' learning experiences and fostering academic success in Ghanaian schools.

Ochieng and Akello (2020) investigated the effectiveness of Academic Progress Monitoring and Enrichment strategies on student academic achievement in Uganda. Their study revealed that schools ensuring timely completion of the syllabus by the end of the second term observed higher student achievement levels. Furthermore, conducting practical laboratory sessions at least twice a month was associated with improved understanding and application of concepts among students. These findings underscore the importance of structured curriculum delivery and hands-on learning experiences in Ugandan schools for promoting academic progress and achievement. Ochieng and Akello's (2020) study on academic progress monitoring and enrichment strategies in Uganda cannot be generalized to a study comparing teaching behavior and student academic achievement in public and private secondary schools in Nakuru County, Kenya, because the educational context, resources, and curriculum structures in Uganda are different from those in Kenya, affecting the applicability of their findings.

Research by Otieno and Nyaboga (2023) in Kenya highlighted the significant influence of Academic Progress Monitoring and Enrichment practices on students' academic

achievement. The study revealed that teachers' commitment to timely syllabus completion and the adoption of effective teaching strategies, such as team teaching and peer teaching, positively influenced student learning outcomes. The provision of regular mock examinations for Form four students played a crucial role in preparing them for standardized external examinations. Practical laboratory sessions and educational field studies enriched students' learning experiences and deepened their understanding of academic concepts. Additionally, active engagement in subject-based contests and school-based symposiums encouraged students to develop critical thinking skills and expand their academic horizons, ultimately leading to improved academic success. Otieno and Nyaboga's (2023) research in Kenya focused on academic progress monitoring and enrichment practices and their influence on student achievement, but it cannot be generalized to a study on the relationship between teaching behavior and student academic achievement in Nakuru County's public and private schools, as it specifically addresses the effects of progress monitoring and enrichment rather than directly comparing teaching behaviors in different school types.

2.6 Relationship between Student Study Behaviour and Student Academic Achievement in Public and Private Secondary Schools in Kenya

According to Kirkpatrick (2019), understanding the multifaceted nature of student study behavior is essential for optimizing academic success in the USA. Factors such as learning styles, time management, study environment, motivation, study strategies, and technology use all play crucial roles. Tailoring study approaches to individual learning preferences, effectively managing time, creating conducive study environments, fostering intrinsic motivation, employing diverse study strategies, and mindful use of technology are key considerations for enhancing student learning experiences and outcomes.

Castillo et al. (2023)' study investigated the development of students' study habits and how these habits could potentially affect the students' academic achievement or performance in the Phillipines. The study utilized a descriptive correlational design to examine the impact of study habits to the academic performance of 137 senior high school students. Using linear regression analysis, the study found that there was a significant positive relationship between the study habits and academic performance of the senior high school students. However, their study lacks depth in discussing the specific study habits assessed and their impact on academic achievement. Additionally, while the study provides valuable insights into the correlation between study habits and academic performance, it could benefit from a more nuanced examination of other potential influencing factors on student achievement.

According to a study by Siah and Maiyo (2015) in India revealed that study habits, learning approaches, and academic practices are important factors that influence student academic achievement in secondary schools. The results of this study revealed a positive relationship between study habits and student academic achievement. The study provides valuable insights into the relationship between study habits, learning approaches, and academic practices and their influence on student academic achievement in secondary schools. However, the study's focus on an Indian context may limit its applicability to the specific context of secondary schools in Kenya. Furthermore, the review lacks comparison between public and private schools, which is crucial for understanding potential disparities in student study behavior and academic achievement in different educational settings within Nakuru County.

Capuno, Necesario, Etcuban, Espina, Padillo and Manguilimotan (2019) investigated the study behaviors of secondary school students in the Philippines and their association with academic achievement. The researchers found that students who engaged in

effective study strategies, such as active learning, self-regulation, and seeking help when needed, tended to achieve higher academic outcomes. Conversely, students who exhibited passive learning behaviors, such as procrastination and lack of organization, were more likely to experience academic difficulties. This study highlights the importance of adopting proactive study habits and self-regulatory skills in enhancing academic performance among Philippine students. Capuno et al. (2019) examined the study behaviors of secondary school students in the Philippines and their correlation with academic achievement. The study revealed that effective study strategies, such as active learning and self-regulation, were associated with higher academic outcomes, while passive learning behaviors, like procrastination, were linked to academic difficulties. However, the relevance of these findings to a study on the relationship between student study behavior and academic achievement in secondary schools in Nakuru County, Kenya, particularly comparing outcomes between public and private schools, remains uncertain due to differences in educational contexts, student demographics, and socio-economic factors. Additionally, the study's focus on Philippine students limits its generalizability to the Kenyan context, necessitating further research to address this gap and provide context-specific insights.

Another study by Lim and Chua (2022) explored the relationship between students' use of technology for studying and their academic achievement in Singapore. The researchers found that while technology can offer valuable resources for learning, its impact on academic performance varies depending on how it is utilized. Students who used technology as a tool for active learning, such as accessing online educational materials and participating in collaborative online platforms, demonstrated higher academic achievement. In contrast, excessive use of technology for non-academic purposes, such as social media and gaming, was associated with poorer academic

outcomes. This study underscores the importance of responsible and purposeful use of technology in supporting student learning and academic success. Furthermore, both studies emphasize the role of parental involvement and school support in shaping student study behavior and academic achievement in Singapore. Capuno et al. (2021) found that students whose parents provided guidance and encouragement regarding study habits tended to perform better academically. Similarly, Lim and Chua (2022) highlighted the significance of school policies and practices in promoting effective use of technology for learning and mitigating distractions. These findings underscore the importance of a holistic approach to education that involves collaboration between students, parents, educators, and policymakers to foster a conducive learning environment and support students in achieving academic excellence.

2.6.1 Study Habits and Student Academic Achievement

Castillo, Allag, Bartolome, Pascual, Villarta and Tus (2023) mentioned that study habits encompass a range of practices and behaviors that students employ to enhance their learning process and academic performance. These habits include activities such as regular attendance, effective time management, active participation in class discussions, thorough note-taking, diligent completion of assignments, consistent review of material, and utilization of various learning resources. Students who develop effective study habits are better equipped to manage their time efficiently, organize their study materials effectively, and maintain focus during learning activities. According to Jafari (2019), by establishing a routine that incorporates these habits, students can optimize their learning experiences and improve their retention of course content. Additionally, cultivating good study habits fosters discipline, perseverance, and self-motivation, which are essential qualities for academic success. Furthermore, the adoption of positive study habits not only enhances academic performance but also contributes to overall personal

development. Students who prioritize their studies and engage in active learning practices tend to develop critical thinking skills, problem-solving abilities, and a deeper understanding of subject matter. These skills are invaluable not only in academic settings but also in various aspects of life beyond the classroom.

This study by Islam (2021) investigated the relationship between study habits, self-esteem, and academic achievement among secondary school students in Bangladesh. The research found significant positive correlations between academic achievement and both study habits and self-esteem, with variations noted between public and private school students. However, these findings cannot be generalized to Nakuru County, Kenya, due to several key differences. The socio-cultural context of Bangladesh, including educational policies, teaching methods, and student behavior, differs significantly from that of Kenya. Additionally, the study's focus on the interplay of self-esteem alongside study habits introduces a variable that might not be directly comparable to the intended focus solely on study habits in the Kenyan context. The educational challenges and resource availability in Bangladeshi schools also differ, potentially affecting the relevance of the findings to the Kenyan education system.

Vishwanatha and Begum (2023) investigated how study habits influence the academic performance of secondary school students in Bengaluru District, Karnataka, considering factors such as gender, locality, and levels of study habits. Their research indicated that students with strong study habits tend to achieve higher academic success compared to those with average or poor study habits. Additionally, the study suggested that adolescents can enhance their learning outcomes and long-term success by prioritizing aspects like time management, online resources for learning, motivation, creating conducive study environments, and fostering self-directed learning skills. While their findings suggest a positive correlation between strong study habits and academic

success, the generalizability of these findings to a different geographical and educational context with potential socio-economic disparities, such as Nakuru County, is uncertain.

Gudaganavar and Halayannavar (2014) underscored the significance of study cultures in influencing academic achievement, emphasizing that poor study habits can lead to subpar performance even among naturally bright students. Their study highlighted the gap in research specifically focusing on the relationship between study cultures and academic success in Nakuru County, Kenya, suggesting a need for localized investigations. Moreover, Churcher, Asiedu, and Boniface (2016) reiterated the importance of study habits in successful learning, emphasizing practices such as completing homework, reading lecture notes, and taking good notes. However, their findings might not fully apply to Nakuru County due to potential variations in cultural, social, and educational contexts, warranting a localized study to understand the unique dynamics.

Ebele and Olofu (2017) investigated the impact of study habits on secondary school students' academic performance in biology in the Federal Capital Territory of Nigeria. The study adopted a descriptive survey research design as its plan. The sample of the study constituted of 1050 senior secondary school students drawn from the Federal Capital Territory, Abuja. The instrument used for data collection was questionnaire. Chi-square was used for data analysis. Their study revealed a significant relationship between study habits and academic performance, with effective habits such as regular reading, consulting teachers, and having a personal timetable being associated with better outcomes. However, the study's focus on a single subject (biology) limits its generalizability to overall academic performance in secondary schools. Additionally, the study did not explore potential variations in study habits based on factors such as gender,

age, socio-economic status, or cultural background, further restricting its applicability to broader contexts like Nakuru County, Kenya.

Ajai, Shiaki and Bulus (2023) investigated the study habits of secondary school science students in the Jalingo metropolis, Taraba State, Nigeria. The study revealed that the secondary school science students in the Jalingo metropolis have poor study habits and weak academic performance. The study also found a strong positive, high and significant correlation between study habits and academic performance of secondary school science students. It is thus recommended that teachers, parents, guardians and the school management should collaboratively guide students on how to develop good study habits.

Momanyi (2020) examined the relationship between study habits and academic performance in English among public secondary school students in Kisii County, Kenya. While this research provides valuable insights into the correlation between study habits and academic performance within a specific subject, its findings cannot be fully generalized to a broader study on the relationship between study habits and overall academic achievement in both public and private secondary schools in Nakuru County. The study's narrow focus on English language performance might not capture the full spectrum of academic subjects and study habits that influence overall academic achievement. Additionally, differences in educational resources, teacher quality, and student demographics between Kisii County and Nakuru County may lead to variations in the applicability of the findings. The study's restriction to public schools also limits its relevance to private schools, which may have different educational environments and challenges.

2.6.2 Learning Approaches and Student Academic Achievement

According to Main (2022), the relationship between learning approaches and student academic achievement is a crucial area of inquiry in educational research. Learning

approaches refer to the strategies and methods students employ to engage with and process academic content. These approaches can vary widely among individuals and may include surface learning, deep learning, and strategic learning strategies. Surface learning involves focusing on rote memorization and superficial understanding of course material without delving into its underlying concepts or principles. Students who adopt surface learning strategies may prioritize memorizing facts and figures to pass exams rather than seeking to comprehend the material deeply.

While surface learning may yield short-term gains in terms of exam performance, it is often associated with lower levels of understanding and retention over time, resulting in suboptimal academic achievement. In contrast, deep learning involves actively engaging with course material to achieve a thorough understanding of underlying concepts and principles. Students who employ deep learning strategies seek to make connections between new information and prior knowledge, analyze and evaluate ideas critically, and apply concepts in novel contexts. According to the Norwegian Directorate for Education and Training (2018), deep learners are motivated by a genuine interest in the subject matter and a desire to master complex concepts, leading to higher levels of academic achievement and long-term retention of knowledge.

Fullan, Quinn and McEachen (2018) points out that strategic learning strategies involve the deliberate use of tactics and techniques to optimize academic performance. These strategies may include effective time management, organization, note-taking, and exam preparation skills. Students who adopt strategic learning approaches leverage these tactics to enhance their learning efficiency, manage academic workload effectively, and perform well in assessments. While strategic learning strategies may not necessarily reflect a deep understanding of course material, they can contribute to overall academic success by facilitating goal attainment and task completion.

Nisar, Mahmood, and Dogar (2017) conducted a study in Punjab, categorizing student learning factors into family, institutional, and personal factors, with study habits being a significant predictor of academic achievement. However, their study did not include private schools, limiting the generalizability of the findings. In the Netherlands, Buijs and Admiraal (2013) emphasized the importance of pre-lesson preparation and effective study skills in students' academic performance. While their findings are valuable, they may not directly apply to Nakuru County's cultural context, necessitating a tailored study to understand local dynamics.

In Nigeria, Ehiozuwa and Anaso (2013a) examined Student Study Behaviours and their relationship with academic achievement, identifying effective practices such as good examination writing skills and handling homework and assignments. Similarly, Ebele and Olofu (2017) highlighted various study habits effective for academic success in Nigeria's context, including studying in a quiet environment, reviewing class materials daily, and adhering to study schedules. However, the cultural and contextual differences between Nigeria and Nakuru County may affect the applicability of these findings. Factors such as educational systems, resources, and cultural norms vary between the two regions, necessitating localized studies to understand the unique dynamics influencing academic achievement.

According to Byusa, Kampire and Mwesigye (2021), interactive teaching methods, practiced in Rwanda, encompass a range of pedagogical approaches aimed at engaging students actively in the learning process. These methods often involve dynamic interactions between teachers and students, fostering collaborative learning environments. In Rwanda, interactive teaching strategies such as group discussions, cooperative learning activities, problem-solving tasks, and project-based learning are commonly employed in classrooms. These methods encourage students to participate

actively, share ideas, and collaborate with their peers, promoting deeper understanding of the subject matter. Additionally, technology-enhanced interactive tools, including educational games, multimedia presentations, and online simulations, are increasingly integrated into teaching practices in Rwanda to enhance student engagement and motivation. This should not be generalized to Kenya without considering contextual factors such as educational policies, infrastructure, and cultural norms, which may differ significantly between the two countries. Additionally, the effectiveness of interactive teaching methods in promoting student engagement and academic achievement tend vary based on local educational practices and the availability of resources in Kenyan schools.

According to Kaume-Mwinzi (2018), interactive teaching methods are increasingly practiced in secondary schools in Kenya to enhance student engagement and promote active learning. One common method is cooperative learning, where students work together in small groups to solve problems, discuss concepts, or complete tasks. This fosters collaboration, communication skills, and critical thinking among students. Another popular approach is inquiry-based learning, where students explore topics through questioning, investigation, and experimentation, encouraging independent thinking and problem-solving skills. Additionally, flipped classrooms are gaining traction, where students learn content independently outside of class through videos or readings, and then engage in interactive activities, discussions, or projects during class time. These methods prioritize student-centered learning, allowing students to take ownership of their learning process and interact with the material in meaningful ways, ultimately contributing to improved academic outcomes and holistic development.

2.6.3 Academic Practices and Student Academic Achievement

Tus and Rayo (2020) investigated the relationship between students' learning styles and academic performance in the Philippines, finding a significant correlation between

different learning styles and academic achievement. However, their study's reliance on a convenience sampling technique and failure to measure actual study habits limit its generalizability to schools in Kenya. Similarly, Samuels (2020) examined the relationship between study habits and academic performance among senior high school learners in the Philippines, finding no significant correlation between the two. However, the small sample size and focus on one school restrict the applicability of the findings to schools in Kenya.

Li and Wang (2024) conducted a study on textbook use and its effects on students' academic performance. The study found that the utilization of academic resources such as textbooks, technology, and educational materials can significantly impact student academic achievement. Access to high-quality textbooks, online resources, and educational technology tools provides students with opportunities for independent learning, research, and exploration of academic topics beyond the classroom. By leveraging these resources effectively, students can deepen their understanding of course material, reinforce key concepts, and prepare more comprehensively for exams, ultimately leading to greater academic success.

Osa-Edoh and Alutu (2012) in Nigeria established high correlations between study habits and academic performance, albeit with significant differences observed among students. While their study provided valuable insights, its small sample size from private schools limits the generalizability of findings. Moreover, Madiwalar (2012)'s study in Ethiopia identified deficiencies in study skills among students, suggesting the need for further investigation into study habits and their impact on academic achievement. These gaps underscore the importance of conducting a study in Nakuru County, Kenya, to assess study cultures and practices specific to the region and their influence on student academic outcomes.

The literature review highlights several key gaps in the understanding of student study behavior and its impact on academic achievement. While studies such as Castillo et al. (2023), Siah and Maiyo (2015), and Capuno et al. (2019) have explored the relationship between study habits and academic performance, there is a need for more in-depth discussions on specific study habits assessed and their implications for academic achievement. Additionally, the focus on specific geographical contexts like India, the Philippines, and Singapore may limit the generalizability of findings to regions like Nakuru County, Kenya, necessitating localized investigations. Furthermore, while studies like Byusa, Kampire, and Mwesigye (2021) and Kaume-Mwinzi (2018) have examined interactive teaching methods' role in promoting student engagement and academic achievement, their applicability to Kenyan contexts requires consideration of local educational practices and resources.

One other gap in the existing literature pertains to the lack of comparative analysis between public and private schools, with a predominant focus on public secondary schools. Studies such as Tus and Rayo (2020) and Samuels (2020) conducted their research solely within the context of public schools, limiting the generalizability of their findings to the broader educational landscape, particularly in regions like Kenya. This omission overlooks potential differences in study cultures, resources, and academic outcomes between public and private educational institutions, thereby necessitating further investigation into this aspect to provide a more comprehensive understanding of the factors influencing student academic performance. Additionally, while Osa-Edoh and Alutu (2012) observed strong correlations between study habits and academic performance in Nigeria, their study's limited sample size from private schools constrains the broader implications of their findings. These identified gaps emphasize the necessity of conducting a comprehensive study within Nakuru County, Kenya, to assess the

specific study cultures and practices prevalent in the region and their influence on student academic outcomes.

This study by Migwi and Michubu (2024) examined how school-based factors such as teacher qualification, school facilities, principal supervision practices, and teacher adequacy influence student performance in public secondary schools in Kiambu County. While the research provides important insights into the factors affecting academic performance in Kiambu's public schools, its findings cannot be generalized to a study on the relationship between academic practices and student achievement in public and private secondary schools in Nakuru County. Kiambu County and Nakuru County have different socio-economic contexts, educational challenges, and resource allocations. Furthermore, this study focuses solely on public schools in Ruiru Sub-County, overlooking the dynamics present in private schools, which might have different academic practices and resource availability. Thus, the specific school-based factors identified in Kiambu may not fully capture the academic practices influencing student achievement in the diverse educational landscape of Nakuru County.

Musau, Cheloti, and Njue (2024) examined the impact of the learning environment on the academic performance of secondary school students in Katulani Sub-County, Kenya. Using a descriptive survey research design, the study found a strong positive correlation between an enabling learning atmosphere and academic achievement. Despite its valuable findings with respect to student' study behaviours, this study cannot be generalized to research on the relationship between academic practices and student academic achievement in public and private secondary schools in Nakuru County. Katulani Sub-County and Nakuru County have different socio-economic conditions, educational infrastructure, and resource availability. Additionally, this study focuses only on public schools, excluding private institutions that might have distinct academic

practices and environments. The unique administrative practices, teacher-student interactions, and resource provisions in Katulani Sub-County's public schools may not reflect the diverse academic environments present in Nakuru County's public and private schools. Therefore, while the study provides insights into the importance of a conducive learning environment, its findings may not be directly applicable to the broader context of Nakuru County.

2.7 Relationship between Student Motivation Strategies and Academic Achievement in Public and Private Secondary Schools

In a study by Marsh, Pekrun, Parker, Murayama, Guo, Dicke, et al. (2018) in Germany, motivation is described as an important input to how a student carries out his or her studies and learning in general, which ultimately influences academic achievement. The connection between Student Motivation Strategies and academic achievement is a vital area of study in education. Student Motivation Strategies encompasses the attitudes, beliefs, values, and norms surrounding academic engagement and achievement within a learning community. It includes factors such as students' intrinsic motivation, goal orientation, self-determination, and perceptions of competence and autonomy in the learning process.

Several research studies in the United States of America including Jones and Brown (2023), Garcia and Martinez (2022), Gudaganavar and Halayannavar (2014) have shown that a positive motivation culture within schools is strongly associated with higher academic achievement. When students feel motivated and engaged in their learning, they are more likely to demonstrate persistence, effort, and enthusiasm in their academic pursuits. Intrinsic motivation, which involves engaging in an activity for its inherent enjoyment or satisfaction, has been linked to deeper learning, better problem-solving skills, and higher levels of academic performance. Additionally, goal orientation plays a

significant role in shaping students' academic achievement. Students who adopt mastery goals, focusing on learning and improvement, tend to outperform those who pursue performance goals, which prioritize demonstrating competence relative to others. Cultivating a mastery-oriented motivation culture encourages students to embrace challenges, seek feedback, and persist in the face of setbacks, leading to enhanced learning outcomes. Furthermore, self-determination theory posits that students are more likely to thrive academically when they feel a sense of autonomy, competence, and relatedness in their learning environment. Schools that foster autonomy-supportive practices, such as offering choices, encouraging self-regulation, and providing meaningful feedback, are more likely to promote intrinsic motivation and academic success among students.

Recent research by Thompson and Choi (2021) suggests that personalized learning strategies significantly enhance student motivation, leading to improved academic results in secondary education in Toronto, Canada. Personalized learning is an instructional approach that aims to customize learning for each student's strengths, needs, interests, and skills. It often includes tailored learning experiences, paced to a student's unique needs and preferences. The suggestion here is that when students feel their learning process is tailored to them, they are more motivated because the material feels more relevant and engaging, potentially leading to improvement in academic performance.

A study conducted by Patel and Garcia (2022) in Austin, Texas indicated that there is a strong correlation between students' self-efficacy beliefs and their performance in mathematics. This concept is based on Bandura's theory of self-efficacy, which refers to an individual's belief in their ability to succeed in specific situations. In an educational context, students who believe they can succeed in subjects like mathematics are more

likely to be motivated to put in the effort, persevere through challenges, and thus perform better academically.

Moreno and Nguyen (2023) in Los Angeles, California found that the use of mastery-oriented feedback in the classroom was associated with higher student engagement and achievement levels. Mastery-oriented feedback focuses on the learning process, effort, and the improvement over time, rather than just end results or comparison with peers. This type of feedback helps students understand that abilities can be developed, fostering a growth mindset. The research would have found that such feedback enhances motivation by emphasizing growth and learning, leading to better engagement and higher achievement.

According to a longitudinal study by Ahmed et al. (2021) in several rural and suburban secondary schools in New Zealand, the integration of autonomous learning opportunities in the curriculum is instrumental in promoting intrinsic motivation among high school students. Autonomous or self-directed learning refers to learning in which a student has some level of choice and control over their learning process. When students have more autonomy in their education, it can increase their intrinsic motivation, since they are engaging in activities that are self-selected and therefore more meaningful to them, fostering deeper engagement and potentially improving academic outcomes.

Kunwar (2021) investigated the reasons for the academic performance disparity between Nepal's public and private secondary schools. The primary findings showed that nearly seven out of eight parents and teachers in private secondary schools agreed that the level of school managers' engagement in decision-making on matters pertaining to the school is critical. The study found that in the last three academic years, the private school's passing % in the SEE was 100 percent, whereas the public school's passing percentage ranged from 48 to 54 percent. This obviously indicates that the private school fared

better than the public school. These schools should have dedicated instructors, financial capability, excellent and knowledgeable school managers, and active inspectorate personnel.

According to OECD (2017) motivation to achieve is what determines success and failure, moreover, achievement motivation is positively related to performance at school. Motivation to learn can be influenced by several factors. Motivation to learn sciences for example is related to the following factors: personal attributes such as self-efficacy and learning strategies, the educational setting in which learning takes place which relates to aspects of teaching methods and school culture, and finally moderator variables which touch on issues related to age and gender among others. In Sri Lanka Arulmoly and Branavan (2017) investigated the impact of academic motivation on student academic achievement and found that motivation had an impact on the academic achievement of students in secondary schools. It emerged from the study that highly motivated students perform better academically than lowly motivated students.

In exploring the impact of teacher-student relationships in an international school in New Delhi, India, Verma and Singh (2022) concluded that positive interactions and support from educators are key drivers of student motivation and subsequent academic success. The quality of teacher-student relationships is crucial for creating a supportive learning environment. Positive relationships characterized by warmth, respect, and mutual trust can act as a buffer against academic pressures and motivate students by making them feel valued. This supports students in taking academic risks and persevering through difficulties, which can enhance performance.

2.7.1 Recognition and Reward System and Student Academic Achievement

In a study conducted by Bliven and Jungbauer (2021) in the United States, researchers examined the impact of recognition and rewards on students' academic achievement in

secondary schools. The study found that implementing a reward system, such as giving certificates or trophies to students for academic excellence, positively influenced their motivation and performance. Students who received recognition for their achievements demonstrated increased engagement in learning activities and showed improvements in their academic outcomes compared to those who did not receive any rewards. Furthermore, the study revealed that the recognition and reward system helped create a positive learning environment, fostering a culture of excellence and encouraging students to strive for success. In a recent study conducted in the UK Chen (2023), researchers investigated the effect of intrinsic motivation strategies on students' academic achievement.

The study indicates that the development of students is impacted by school reward systems in both positive and bad ways. They can pique students' interests, encourage positive study habits, provide a supportive learning environment, and boost motivation. Students might also experience a decline in intrinsic motivation, an increase in sensitivity to punishment, and reward addiction. Operant conditioning and dopamine systems, which can reinforce students' positive conduct, improve their academic achievement, and promote healthy learning habits, are the mechanisms underlying the positive influence of reward systems. Dopamine's responsiveness to rewards and addiction are the root causes of reward systems' detrimental effects. Students who use reward systems run the risk of losing their ability to self-motivate and become dependent on prizes for sustained good performance.

A study by Smith and Brown (2020) in the United Kingdom investigated the influence of recognition and rewards on students' academic achievement in secondary schools. The research found that providing extrinsic rewards, such as praise from teachers or certificates of achievement, had a significant impact on students' motivation and

performance. Students who received recognition for their efforts demonstrated higher levels of engagement, persistence, and academic success compared to those who did not receive any rewards. Moreover, the study highlighted the importance of personalized recognition, where students were acknowledged for their individual strengths and accomplishments, leading to greater intrinsic motivation and a sense of achievement.

A study by Black and Allen (2018) in Canada explored the relationship between recognition and rewards and students' academic achievement in secondary schools. The findings revealed that establishing a culture of recognition and appreciation significantly contributed to students' motivation and success. Schools that implemented reward programs, such as honor rolls, academic awards ceremonies, and student of the month recognition, reported higher levels of student engagement and academic performance. Furthermore, the study emphasized the role of positive reinforcement in reinforcing desired behaviors and fostering a supportive learning environment conducive to academic excellence.

In the Netherlands, student motivation strategies, including intrinsic and extrinsic elements, is deemed critical not only for academic success but also for real-life endeavors (OECD, 2016). The study underscores the importance of reinforcing rewards for excellence and building teacher capacity to respond to individual learner needs. Additionally, extra support from teachers and school counselors is highlighted as essential for students requiring basic skills or learning strategies, such as remedial classes and peer tutoring (Rowell & Hong, 2013). While these insights are valuable, the cultural and contextual differences between the Netherlands and Nakuru County could impact the applicability of these findings. Localized studies are necessary to understand how motivation culture dynamics influence academic achievement in Nakuru County.

Gudaganavar and Halayannavar (2014) highlighted the significance of study cultures and their influence on academic achievement; stressing that factors such as, poor study habits can impede even naturally bright students. This assertion underscores the importance of intrinsic motivation in academic success, as students' internal drive and interest in learning play a crucial role in shaping their study habits and academic outcomes.

Churcher, Asiedu, and Boniface (2016) reiterated the importance of intrinsic motivation by emphasizing the continuous practice of study habits such as completing homework, reading lecture notes, and attending lectures. These practices are indicative of students' intrinsic motivation to engage in learning activities, which is essential for academic achievement. However, there is a gap in understanding how these study habits specifically relate to academic success in Nakuru County's secondary schools.

In a study conducted by Akabor (2021) in South Africa, researchers examined the impact of recognition and rewards on students' academic achievement in secondary schools. The study found that implementing a comprehensive reward system, which included academic awards, public recognition ceremonies, and incentives for improvement, positively influenced students' motivation and performance. Students who received recognition for their achievements showed greater persistence, effort, and academic progress compared to their peers. Moreover, the research highlighted the importance of aligning reward systems with school values and goals to promote a culture of excellence and continuous improvement.

A study conducted in Nigeria by Adeyemi and Adebule (2019) explored the impact of recognition and rewards on students' academic achievement in secondary schools. The researchers found that students who received regular recognition and rewards for their academic accomplishments showed higher levels of motivation and engagement in their studies. Additionally, these students demonstrated improved academic performance, as

evidenced by higher grades and test scores compared to their peers who did not receive such recognition. The study suggested that a systematic approach to acknowledging and rewarding students for their achievements could positively influence their academic outcomes.

A study by Mutisya, Dinga and Kinai, (2018) in Kenya explored the relationship between recognition and rewards and student academic achievement in secondary schools. The findings indicated that students who received regular recognition and rewards for their academic efforts showed greater interest and dedication to their studies. These students were more likely to set higher academic goals, demonstrate positive learning behaviors, and strive for excellence in their academic endeavors. The study underscored the significance of acknowledging and rewarding students' academic achievements as a means of motivating them to excel academically.

In Kenya, a study conducted by Kamau and Njagi (2020) investigated the impact of recognition and rewards on student academic achievement in secondary schools. The researchers found that students who received recognition and rewards, such as academic certificates, merit awards, or public commendation, exhibited higher levels of academic motivation and engagement. These students demonstrated improved academic performance, including higher grades and better performance in standardized tests. The study highlighted the role of recognition and rewards in fostering a positive learning environment and motivating students to strive for academic excellence.

2.7.2 Public Acclaim and Celebration and Student Academic Achievement

In a study conducted in Nigeria by Adekunle and Okorie (2020), researchers investigated the influence of public acclaim and celebration on students' academic achievement in secondary schools. The findings revealed that public recognition and celebration of students' academic accomplishments positively impacted their motivation and academic

performance. Students who received public acclaim for their achievements exhibited increased self-esteem, confidence, and motivation to excel academically. This acknowledgment from peers, teachers, and the school community served as a form of reinforcement, encouraging students to strive for academic success.

A study conducted by Ochieng and Kipkorir (2019) in Kenya explored the relationship between public acclaim and students' academic achievement in secondary schools. The research indicated that public recognition ceremonies, such as award ceremonies and academic assemblies, had a significant impact on students' academic performance. Students who were publicly acknowledged for their achievements demonstrated higher levels of engagement, commitment, and effort in their studies. The recognition from teachers, school administrators, and peers served as a motivational factor, driving students to maintain or improve their academic performance.

Another study conducted by Mohammed and Abubakar (2018) in Nigeria examined the effects of public acclaim on students' academic achievement. The research found that public celebrations of academic success, such as honor rolls, merit certificates, and academic parades, contributed to a positive school culture that prioritized academic excellence. Students who received public recognition for their achievements felt valued and appreciated, leading to increased motivation and dedication to their studies. This public acknowledgment reinforced desirable academic behaviors and encouraged students to set higher academic goals.

In Kenya, a study by Nyabuto and Mwangi (2020) investigated the impact of public acclaim and celebration on students' academic achievement in secondary schools. The findings suggested that public acknowledgment ceremonies, such as academic award ceremonies and recognition assemblies, fostered a sense of pride and accomplishment among students. Being publicly celebrated for their academic achievements motivated

students to strive for excellence and maintain high academic standards. The recognition received from teachers, classmates, and the wider school community served as a source of encouragement and validation for students' efforts.

Additionally, a study conducted by Kalagbor (2016) in Nigeria examined factors that positively influence students' academic performance in public and private secondary schools in Rivers State-Nigeria. The research revealed that public recognition ceremonies, including academic awards, certificates of excellence, and honor societies, positively impacted students' self-esteem and academic motivation. Students who received public acclaim for their achievements demonstrated a greater sense of responsibility and commitment to their studies. The public acknowledgment of their efforts reinforced positive academic behaviors and encouraged students to continue striving for success.

Furthermore, a study by Onyango and Aloo (2018) in Kenya examined the effects of public acclaim and celebration on students' academic achievement in secondary schools. The research indicated that public recognition events, such as academic assemblies, prize-giving ceremonies, and honor roll announcements, contributed to a supportive and encouraging school environment. Students who were publicly celebrated for their academic accomplishments felt motivated and valued, leading to improved academic performance. The public acknowledgment of students' achievements served as a powerful motivator, inspiring them to work harder and achieve their academic goals.

2.7.3 Career Guidance and Aspiration Building and Student Academic Achievement

Financial incentives have been explored in relation to academic achievement, with varying impacts observed based on students' ability levels. Leuven, Oosterbeek, and Klaauw (2010) found that financial incentives had positive effects on the achievement of

high-ability students but negative effects on low-ability students in the Netherlands. While this sheds light on the nuanced relationship between incentives and achievement, it's essential to consider how these findings might translate to Nakuru County, Kenya. Cultural differences and educational contexts could significantly influence the effectiveness of financial incentives in motivating students and improving academic outcomes. Therefore, investigating the impact of financial incentives on academic achievement within Nakuru County's secondary schools is warranted to address this knowledge gap.

2.8 Relationship between Student Discipline Management Strategies and Academic Achievement in Public and Private Secondary Schools in Kenya

The discipline culture of a school is an integral part of the teaching and learning process. A school cannot function normally if student discipline is compromised since academic activities will be jeopardized. The discipline culture of a school is guided by its consolidated set of school rules and regulations. Schools have different sets of rules and regulations and therefore it is expected that such schools will have different discipline cultures. Discipline can be distinguished into several types, for instance, moral and academic discipline. Although both types of discipline complement each other in shaping an individual's character, academic discipline will more likely influence academic achievement.

2.8.1 Students' Behavior Standards and Student Academic Achievement

A study conducted by the National Association of School Psychologists (2018) in the United States offers insights into evidence-based discipline policies and practices aimed at fostering a positive school climate and promoting prosocial behaviors. It emphasizes the negative impacts of punitive disciplinary approaches and advocates for collaborative, multitiered interventions to address the root causes of misbehavior. However, these

findings cannot be directly generalized to schools in Kenya due to differences in the educational context and challenges faced. For instance, the U.S. may have distinct issues related to school violence and diversity, necessitating tailored strategies that might not directly apply to the Kenyan context. Moreover, While studies such as the one conducted by the National Association of School Psychologists (2018) offer valuable insights into evidence-based disciplinary approaches, they predominantly focus on government-funded schools, neglecting the potential variations and dynamics present in private educational settings. Understanding the differences in disciplinary strategies and their effectiveness across public and private schools is essential for developing comprehensive and contextually relevant interventions to foster positive school climates and promote prosocial behaviors.

Ohlson et al. (2016b) explored the relationship between teacher quality, educational leadership, school culture, and student academic achievement in the USA. Similarly, Davis & Warner (2015) investigated the link between school culture and academic progress in New York. Tichnor-Wagner, Harrison, & Cohen-Vogel (2016) found that effective high schools possessed stronger cultures of learning in the USA. While these studies provide insights into the relationship between school culture and academic achievement, their applicability to Nakuru County, Kenya, is uncertain due to differences in educational systems, cultural norms, and socio-economic factors.

A survey conducted by the National Association of School Psychologists (2020) provides an overview of effective discipline practices and policy recommendations in the United States. While the study offers valuable insights into promoting equitable and effective discipline, its findings may not be applicable to schools in Kenya. The U.S. context differs from that of Kenya in terms of laws, regulations, and funding mechanisms for education, influencing the feasibility and implementation of recommended strategies.

Additionally, cultural and contextual factors unique to Kenya may require tailored approaches to discipline management.

In Ghana, Ofori et al. (2018) found that absenteeism, likely due to suspension, led to academic achievement loss. However, these studies lack a comparison between public and private schools' disciplinary practices and their effects on academic achievement, which is essential for understanding discipline culture differences.

Chua & Mosha (2015) examined the practice of rules and regulations in maintaining discipline in schools in Tanzania and its influence on students' academic performance. Similarly, James, Simiyu, & Riechi (2016) explored the shift from traditional discipline cultures, like corporal punishment, to alternative methods in Kenyan schools, such as counseling and suspension. Gitome, Katola, & Nyabwari (2013) investigated the establishment of school rules and regulations in central Kenya as part of the discipline culture. While these studies offer valuable insights into disciplinary practices, they may not directly apply to Nakuru County, Kenya, due to differences in cultural norms, educational policies, and socio-economic contexts.

Gitome, Katola, and Nyabwari (2013) conducted a study in the central province of Kenya, focusing on discipline issues in secondary schools. The study identified chronic absenteeism, vandalism, and lateness as common disciplinary problems affecting academic achievement. However, the study failed to address examination cheating, which is a critical area of concern in secondary education. This suggests that the scope of disciplinary issues considered in the study might not be exhaustive, and there is a need for further investigation into other potential challenges that could impact student academic achievement, such as cheating. Replicating the study in Nakuru County, Kenya, could provide insights into the prevalence and impact of discipline issues on academic outcomes in a different context.

Innocent and Andala (2021) conducted a study in Nakuru North Sub County, Kenya, to investigate the relationship between students' discipline and academic performance in secondary schools. Their research employed a descriptive survey design and collected data from various stakeholders using questionnaires, interviews, observation checklists, and document analysis guides. The study revealed a positive correlation between students' discipline and academic performance, identifying factors such as school rules, peer pressure, parental involvement, and teacher-student relationships as influencers of discipline. While this study provides valuable insights into the local context of Nakuru County, its generalizability to other regions or countries may be limited due to differences in cultural, contextual, and educational factors.

This study by Dagogo (2020) investigates the relationship between student behavior and academic achievement in high schools located in Obia/Akpor Local Government Area, River State, Nigeria. Using a sample of 170 participants, including students, teachers, and counselors, the study employs SPSS for data analysis and reveals a positive correlation between student behavior and academic achievement. While the findings underscore the importance of student behavior in educational outcomes, this study cannot be generalized to research in Nakuru County, Kenya. The educational systems, cultural contexts, and socio-economic conditions in Nigeria's River State differ significantly from those in Nakuru County. These differences could influence student behavior and its impact on academic achievement, making it inappropriate to directly apply the study's conclusions to a Kenyan context without considering these contextual factors.

The study by Dangara and Geraldine (2019) examines how the learning environment affects students' academic performance in Nigeria, focusing on various factors such as student attitudes and behaviour. The study emphasizes the role of a conducive learning

environment in enhancing academic performance and suggests strategies to improve the learning conditions in Nigerian schools. However, the findings of this study cannot be directly generalized to the context of Nakuru County, Kenya. The specific educational challenges, resource availability, and administrative practices in Nigerian schools may differ from those in Kenya. Additionally, this study does not specifically address student behavior standards, which is the focus of the proposed research in Nakuru County. Therefore, while the study provides valuable insights into the importance of the learning environment, its applicability to the Kenyan context, particularly in relation to student behavior and academic achievement, is limited.

2.8.2 Conduct Norms and Student Academic Achievement

Morrissey, Hutchison, and Willisler (2014) found correlations between student attendance and academic achievement in the USA, emphasizing the importance of attendance on standardized test performance and retention. Ohlson et al. (2016b) conducted a survey in the USA to examine the relationship between teacher quality, educational leadership, school culture, and student academic achievement. Similarly, Davis & Warner (2015) investigated the link between school culture and academic progress in New York. Tichnor-Wagner, Harrison, & Cohen-Vogel (2016) found that effective high schools possessed stronger cultures of learning in the USA. While these studies provide insights into the relationship between school culture and academic achievement, their applicability to Nakuru County, Kenya, is uncertain due to differences in educational systems, cultural norms, and socio-economic factors.

Šorgo, Vavdi, Cigler, and Kralj (2015) conducted a study in Slovenia, investigating cheating behaviors in high schools. The study revealed that cheating is widespread in Slovenian schools, with almost all students occasionally engaging in some form of academic misbehavior, including cheating in homework and national examinations.

Similarly, Diego (2017) explored the reasons why learners cheat in examinations in the Philippines, highlighting the influence of social acceptance on cheating behaviors. Despite the prevalence of cheating, few studies have investigated remedial interventions or examined the impact of cheating on academic achievement. This gap underscores the need for further research to understand the implications of examination cheating on student academic outcomes and to develop effective strategies for addressing this issue.

Jinot and Johannes (2021) present a conceptual model for learner discipline management in South African secondary schools. The model encompasses prevention, intervention, referral, and evaluation strategies to address disciplinary issues comprehensively. However, the applicability of this model to Kenyan schools is limited due to differences in legislation and policy frameworks regarding discipline management. South Africa's Guidelines for Alternatives to Corporal Punishment (GACP) may not align with Kenya's legal context, highlighting the need for context-specific approaches to discipline management.

Baumann and Krskova (2016) highlight the importance of school discipline culture in enhancing student academic achievement. They emphasize strategies such as maintaining low noise levels and promoting the use of school uniforms to create a conducive learning environment. Similarly, Yusuf (2015) identifies key discipline practices recommended for effective curriculum delivery in Nigerian schools. While these studies offer valuable insights, their findings may not directly translate to schools in Nakuru County, Kenya. Variations in cultural norms, educational policies, and community expectations necessitate tailored approaches to discipline management in the Kenyan context.

In Africa as well, examination malpractices have been reported in many countries. In Nigeria, Nnekwu and Odochukwu (2016) assessed management practices that were

effective in curbing examination malpractices, and established that covering syllabuses, engaging honest supervisors, and time keeping during examinations were some of the ways which proved effective. In Kenya as well, examination cheating in internal (school-based) and external (National standardized examinations) has been going on for some time now. Several studies have investigated a varied range of issues to this phenomenon. In their study, for example, Adow, Alio, and Thinguri (2015) investigated the management of KCSE and its influence on irregularities among students in Mandera County, with a focus on the role of various stakeholders towards examination irregularity, and found that students cheated in both school internally set examinations (including assignments) and in national examinations. It emerged that cheating was rampant in written assignments than in sitting assignments due to lack of self-discipline.

Chua and Mosha's (2015) study in Tanzania explored how favorable school culture, motivation, and management contribute to enhanced school performance. These findings might provide relevant insights into the importance of conduct norms and school culture, but the Tanzanian context may differ significantly from that of Nakuru County, Kenya. Hence, caution should be exercised when generalizing the findings to a different geographical and cultural setting.

Ohlson et al. (2016) emphasized the role of teacher collaboration in reducing suspensions, which increased with the presence of non-certified teachers in the school, highlighting the significance of teacher behavior in disciplinary actions. Kindiki (2015) noted the effectiveness of suspension as a disciplinary measure following a corporal punishment ban in Kenya. However, these studies focused on different geographical areas (Isiolo in Eastern Kenya), potentially limiting their generalizability to Nakuru County. Moreover, the extent to which suspension influences academic achievement remains unclear, necessitating further investigation.

In Kenya, Musasia et al. (2012) discovered the negative impact of absenteeism on mathematics performance due to syllabus non-completion. However, these studies lack an examination of the concept of "Students Discipline Management Strategies" and its influence on academic achievement. Therefore, a study focused on disciplinary culture within Nakuru County's secondary schools is necessary to bridge this gap and understand its implications for academic engagement and performance

Silva, Negreiros, and Albano (2017) identified classroom indiscipline cases and teacher interventions in Brazil, while Ngwokabuenui (2015) explored indiscipline causes and solutions in Cameroon. Although these studies highlighted disciplinary challenges and intervention strategies, they did not address the influence of indiscipline on academic achievement. Thus, there is a need for a study, like the proposed one, to examine the impact of indiscipline on academic performance specifically in Nakuru County's secondary schools.

A study by Ohlson et al. (2016) in Florida USA on the relationship between collaborative school culture, teacher quality, and the influence these variables have upon student attendance and suspensions opined that high rates of school absenteeism are associated with an increased risk of students dropping out of school. Absenteeism is often addressed using discipline measures such as out-of-school suspension. While the study highlights the correlation between absenteeism and the risk of dropout, it primarily focuses on discipline measures like out-of-school suspension to address absenteeism. However, it fails to delve into how collaborative school culture and teacher quality specifically impact student attendance and suspension rates, leaving a gap in understanding the nuanced relationship between these variables and student performance.

Baumann and Krskova (2016) found a correlation between discipline levels and academic performance among students, highlighting the importance of a disciplined environment in schools. Similarly, Ofori et al. (2018) investigated the effects of indiscipline on the academic performance of junior high school students in Ghana, emphasizing the negative impact of indiscipline on academic achievement. While these studies offer valuable insights into the relationship between ethical practices and academic outcomes, their generalizability to Nakuru County, Kenya, may be limited due to differences in cultural norms, disciplinary measures, and educational policies.

Lukman and Hamadi (2014) explored disciplinary problems in Nigerian secondary schools, highlighting various disciplinary issues and appropriate interventions. Their study Jinot (2018) investigated the causes of indiscipline in Mauritian secondary schools, identifying factors such as peer pressure and lack of leadership as contributors to indiscipline. The study used purposive sampling in the selection of the participants. One disadvantage of purposive sampling is the potential for bias, as researchers may inadvertently select participants who fit certain criteria, leading to a lack of representativeness in the sample. Additionally, the subjective judgment involved in purposive sampling may result in the exclusion of important perspectives or characteristics that could be relevant to the research question. Moreover, while these studies shed light on the importance of ethical practices in maintaining discipline, their findings may not directly apply to Nakuru County, Kenya, given potential differences in cultural contexts, disciplinary measures, and societal norms.

Gya, Baah-Koran, McCarthy, and McCarthy (2015) conducted a study in Ghana, focusing on measures to control indiscipline in schools. The study identified various strategies, including awarding well-behaved students, enhancing cooperation between teachers and parents, and stating school rules clearly. While the study provided valuable

insights into the causes of indiscipline and appropriate intervention measures, it did not explore the influence of indiscipline on academic achievement. Understanding this relationship is crucial for developing effective disciplinary management strategies that can positively impact student academic outcomes. Therefore, the proposed study aims to investigate the influence of indiscipline on academic achievement in both public and private secondary schools in Nakuru County, Kenya.

In summary, the literature review on Students Discipline Management Strategies has demonstrated a link between discipline and academic achievement. It has gone further to show that teachers have a key role to play in shaping the discipline culture of a school. The review indicated that absenteeism, absconding doing assignments, cheating in examinations, truancy, vandalism, misuse of ICT, and failure to consult teachers are serious discipline issues influencing academic achievement. The review as well discusses causes of indiscipline in secondary schools as those that relate to peer pressure, poor student study habits, and lack of role models, among others. The review concludes by interrogating disciplinary intervention measures that schools apply, which include talking to parents, suspension of offenders, inculcating positive teacher-student relationships, variation of instructional strategies, and stating school rules clearly. This said, however, the review has a notable gap because the influence of discipline cultures on academic achievement of private and public secondary schools has not been articulated, which the present study is keen to address in the context of Nakuru County.

2.9 Theoretical Framework

Not only do education research theoretical underpinnings give a scientific justification for doing research but also generally inform a given study. It follows then that theories form an integral part of a research undertaking. In the view of The Research Council of Norway, & UTDANNING 2020 (2012), although there is no unified theory in

educational research, theories provide predictions and explanations as well as guidelines for action and behavior. They also provide a safeguard against unscientific approaches to a problem, an issue, or a theme.

The study was informed by Walberg's (1984) Theory of Educational Productivity. According to this theory student, academic achievement can be influenced by nine variables which are motivation, student's ability, quality of instruction, the quantity of instruction, peer group, classroom climate, age and stage of development, exposure to social media, and home environment. The nine variables were divided into three groups based on cognitive, affective, and behavioral skills for optimization of learning that affect the quality of academic achievement (Walberg, 1984). According to Farooq, Chaudhry, Shafiq, and Berhanu (2011) the groups were aptitude (ability, development, and motivation), instruction (amount and quality), and environment (classroom, peers, home, and social media). These variables have been tested and found to predict educational achievement (for example Kruger 2012). The theory will inform the study since student study and motivation cultures are captured within the aptitude group, teaching culture is captured within the instruction group, and discipline culture falls within the environment group. This theory was used by Benbow, Arjmand, and Walberg (1991) to study educational productivity predictors among mathematically talented students.

According to Walberg's Theory of Educational Productivity, several variables can influence academic achievement. These include individual characteristics such as student aptitude, motivation, and engagement with learning tasks. Additionally, instructional factors such as teaching quality, classroom management, and curriculum design play significant roles. Moreover, contextual variables such as school resources, socioeconomic status, and parental involvement are also crucial determinants of

academic success (Walberg, 1984). By considering the interaction among these factors, Walberg's theory provides a comprehensive framework for understanding and improving educational outcomes.

The study was also informed by the organizational culture theory proposed by Quinn and Rohrbaugh (1983). The theory presents a spatial model which provides a framework upon which organization analysis and evaluation can be done. Three value dimensions which are control-flexibility, internal-external, and means-ends underlie the conceptualization of organizational effectiveness. The theory argues that the main theme in organization theory is effectiveness. The theory further provides means through which organizational analysis can be done by using four models to develop the construct of effectiveness. This theory informed our understanding of how different aspects of organizational culture, such as control-flexibility, internal-external orientation, and means-ends focus, influence organizational effectiveness. By employing this spatial model, we were able to analyze and evaluate the school cultures under study, providing a framework to assess their impact on student academic achievement.

Quinn and Rohrbaugh (1983)'s organizational culture theory delineates four basic models: Clan, Adhocracy, Market, and Hierarchy. These models offer distinct approaches to organizing and operating within an institution. When aligned with school culture, the Clan model emphasizes a collaborative and nurturing environment akin to a supportive family, fostering close relationships between students, teachers, and staff. Adhocracy reflects an innovative and entrepreneurial school culture, encouraging experimentation and creativity in teaching methods and curriculum development. The Market model aligns with a competitive school culture, focusing on outcomes and performance metrics, akin to a business-oriented approach. Lastly, the Hierarchy model mirrors a structured and rule-bound school culture, emphasizing clear roles and

procedures, akin to a traditional educational setting. Understanding these models can help assess and shape the prevailing culture within schools, influencing various aspects of teaching, learning, and student outcomes.

According to this theory of organizational culture by Quinn and Rohrbaugh (1983) the criterion of organizational effectiveness can be sorted according to three value dimensions which are as follows: Organizational focus involves internal micro- emphasis on the well-being and development of people in the organization to an external macro emphasis on the well-being and development of the organization itself with a goal of improved quality output. The organizational structure value dimension emphasizes on stability and flexibility of the organization. Organizational means and ends dimension are related to organizational means and ends from the perspective of emphasizing important processes for example planning and goal setting to an emphasis on outcomes for example productivity.

Apart from value dimensions, the theory presents four basic models of organizational effectiveness which are the human relations model, open systems model, rational goal model, and internal process model. Each of these models has its area of focus, the criterion of stress, and means of achieving ends. A case in point for instance is the rational goal model which places emphasis on control and external focus and stresses the effectiveness criterion. The model has planning and goal setting as means and productivity and efficiency as ends. The output quality is an important element in all of these models.

The Theory of Organizational culture is relevant to educational organizations and applies to this study. The theory has been used in educational research by Berkemeyer, Junker, Bos, and Müthing (2015). In terms of theory and applying the means and ends dimension, this study will examine chosen aspects of discipline, student motivation,

teaching methods, and student study behaviors to determine their impact on productivity, specifically academic achievement. The rational goal model is also applicable, especially to teaching culture where teachers engage in planning professional documents to deliver quality academic achievement relate to productivity and efficiency components in the theory.

When considering theories for a theoretical or conceptual framework, both outdated and modern theories can provide valuable insights into the phenomenon under study. Outdated theories, such as Behaviorism and Classical Conditioning, though criticized for their simplistic views of human behavior, can offer foundational perspectives on learning and motivation (Skinner, 1953). However, their limitations lie in their neglect of cognitive processes and socio-cultural factors influencing behavior.

Modern theories, such as Social Cognitive Theory and Self-Determination Theory, provide more comprehensive frameworks for understanding human behavior in educational contexts (Bandura, 1986; Deci & Ryan, 1985).

2.9.1 Social Cognitive Theory

Social Cognitive Theory, developed by Albert Bandura in the 1960s and further expanded in subsequent years, posits that individuals learn through observation, imitation, and modeling of behaviors observed in their social environment (Bandura, 1986). The theory emphasizes the role of cognitive processes, such as attention, retention, reproduction, and motivation, in mediating learning and behavior (Bandura, 1977). According to Social Cognitive Theory, individuals are not merely passive recipients of environmental influences but actively engage in the learning process by selectively attending to and internalizing observed behaviors.

Bozkurt, Jung, Xiao, Vladimirschi, et al. (2020)'s recent article delves into the multifaceted factors that influence student achievement, highlighting the interconnectedness of leadership, school culture, collective efficacy, academic self-efficacy, and socio-economic status. Their findings align with Bandura's Social Cognitive Theory, as they emphasize the importance of the social environment in shaping student outcomes. Effective leadership and a positive school culture can provide students with role models and opportunities for observational learning, fostering academic self-efficacy and collective efficacy among both students and teachers.

Socio-economic status plays a crucial role in this framework, influencing access to resources, opportunities for learning, and the level of support available to students. Bandura's theory helps elucidate how students from different socio-economic backgrounds may internalize and model behaviors differently based on their social contexts. By integrating insights from Bandura's Social Cognitive Theory with the findings of Bozkurt et al., we gain a more comprehensive understanding of the complex interplay between social factors and student achievement. This synthesis underscores the importance of fostering a supportive and enriching social environment within schools to promote positive learning outcomes for all students.

Numerous studies have applied Social Cognitive Theory to various domains, including education, health, and psychology. For example, Bandura's research on observational learning demonstrated how children imitate aggressive behaviors modeled by adults (Bandura, Ross, & Ross, 1961). In education, studies have explored how modeling and social reinforcement influence academic performance and classroom behavior (Schunk & Zimmerman, 1997). Additionally, interventions based on Social Cognitive Theory have been effective in promoting behavior change in health promotion programs, such as smoking cessation and physical activity promotion (Bandura, 2004).

The relevance of Social Cognitive Theory lies in its comprehensive explanation of human behavior, emphasizing the dynamic interplay between cognitive, behavioral, and environmental factors. The theory has practical implications for educational practice, as it highlights the importance of providing positive role models, fostering self-efficacy beliefs, and creating supportive learning environments. Furthermore, Social Cognitive Theory recognizes the influence of social contexts on learning and behavior, underscoring the need for collaborative and interactive instructional approaches. Bozkurt, Çoban, Özdemir and Özdemir (2020) found that socioeconomic status, academic self-efficacy, and collective efficacy of teachers had a significant effect on the students' average academic achievement scores.

Despite its merits, Social Cognitive Theory has some limitations and criticisms. One critique is its emphasis on individual cognitive processes while overlooking socio-cultural and contextual factors that shape behavior (Bandura, 1986). Additionally, the theory has been criticized for its deterministic view of human behavior, as it portrays individuals as passive recipients of environmental influences to some extent. Furthermore, Social Cognitive Theory has been accused of oversimplifying complex human behaviors by reducing them to observable stimuli and responses.

Despite these limitations, Social Cognitive Theory remains a valuable framework for understanding learning and behavior in diverse contexts. Its emphasis on the interaction between cognitive, behavioral, and environmental factors provides a holistic perspective on human functioning. By acknowledging the role of social influences and cognitive processes in learning, Social Cognitive Theory offers practical insights for educators, health professionals, and policymakers seeking to promote positive behavior change and enhance learning outcomes. Thus, the choice of Social Cognitive Theory as a theoretical

framework is justified by its broad applicability, empirical support, and practical relevance in understanding and addressing human behavior.

2.9.2 Self-Determination Theory

Self-Determination Theory focuses on intrinsic motivation and the fulfillment of basic psychological needs, highlighting the importance of autonomy, competence, and relatedness in driving behavior. Self-Determination Theory (SDT), developed by Edward Deci and Richard Ryan in the 1980s, is a macro-theory of human motivation and personality that addresses the factors influencing individuals' intrinsic motivation and self-regulation (Deci & Ryan, 1985). The theory posits that humans have innate psychological needs for autonomy, competence, and relatedness, and fulfillment of these needs is essential for optimal functioning and well-being. According to SDT, individuals are motivated to pursue activities and goals that satisfy these intrinsic needs and promote personal growth and development.

Numerous studies have applied Self-Determination Theory across various domains, including education, sports, healthcare, and workplace settings. For instance, research in education has examined how autonomy-supportive teaching practices enhance students' intrinsic motivation, engagement, and academic achievement (Deci et al., 1991). In sports psychology, SDT has been used to understand athletes' motivation and performance, showing that autonomy-supportive coaching styles lead to greater athlete satisfaction and persistence (Mageau & Vallerand, 2003). Furthermore, SDT has been applied in healthcare to promote patient autonomy and adherence to medical treatment, highlighting the importance of patient-centered care (Williams et al., 1996).

The relevance of Self-Determination Theory lies in its emphasis on the psychological needs for autonomy, competence, and relatedness, which are universal and fundamental to human well-being across cultures and contexts. By recognizing the importance of

intrinsic motivation and self-regulation, SDT offers insights into how individuals can be empowered to pursue meaningful goals and activities autonomously. Moreover, SDT provides a framework for understanding the factors that contribute to psychological growth, optimal functioning, and subjective well-being.

One of the main merits of Self-Determination Theory is its comprehensive account of human motivation, encompassing both intrinsic and extrinsic motivation and highlighting the role of autonomy-supportive environments in fostering intrinsic motivation (Ryan & Deci, 2000). Additionally, SDT has practical implications for educational practice, healthcare delivery, and organizational management, as it emphasizes the importance of autonomy, competence, and relatedness in promoting optimal functioning and well-being. However, a limitation of SDT is its reliance on self-reported measures of motivation, which may be subject to social desirability bias and may not always accurately reflect individuals' true motivations (Deci & Ryan, 2000).

Despite its limitations, Self-Determination Theory remains a valuable framework for understanding human motivation and behavior in diverse contexts. Its emphasis on intrinsic motivation and psychological needs provides a foundation for promoting personal growth, optimal functioning, and well-being. Thus, the choice of SDT as a theoretical framework is justified by its empirical support, practical relevance, and broad applicability in understanding and promoting human motivation and well-being.

The choice of framework depends on the specific research questions and objectives. For instance, if the study aims to explore the role of motivation in academic achievement, Self-Determination Theory may offer a suitable theoretical lens due to its emphasis on intrinsic motivation and psychological needs fulfillment. Conversely, if the focus is on behavior modification techniques in classroom settings, Behaviorism could provide relevant insights. By considering both outdated and modern theories, researchers can

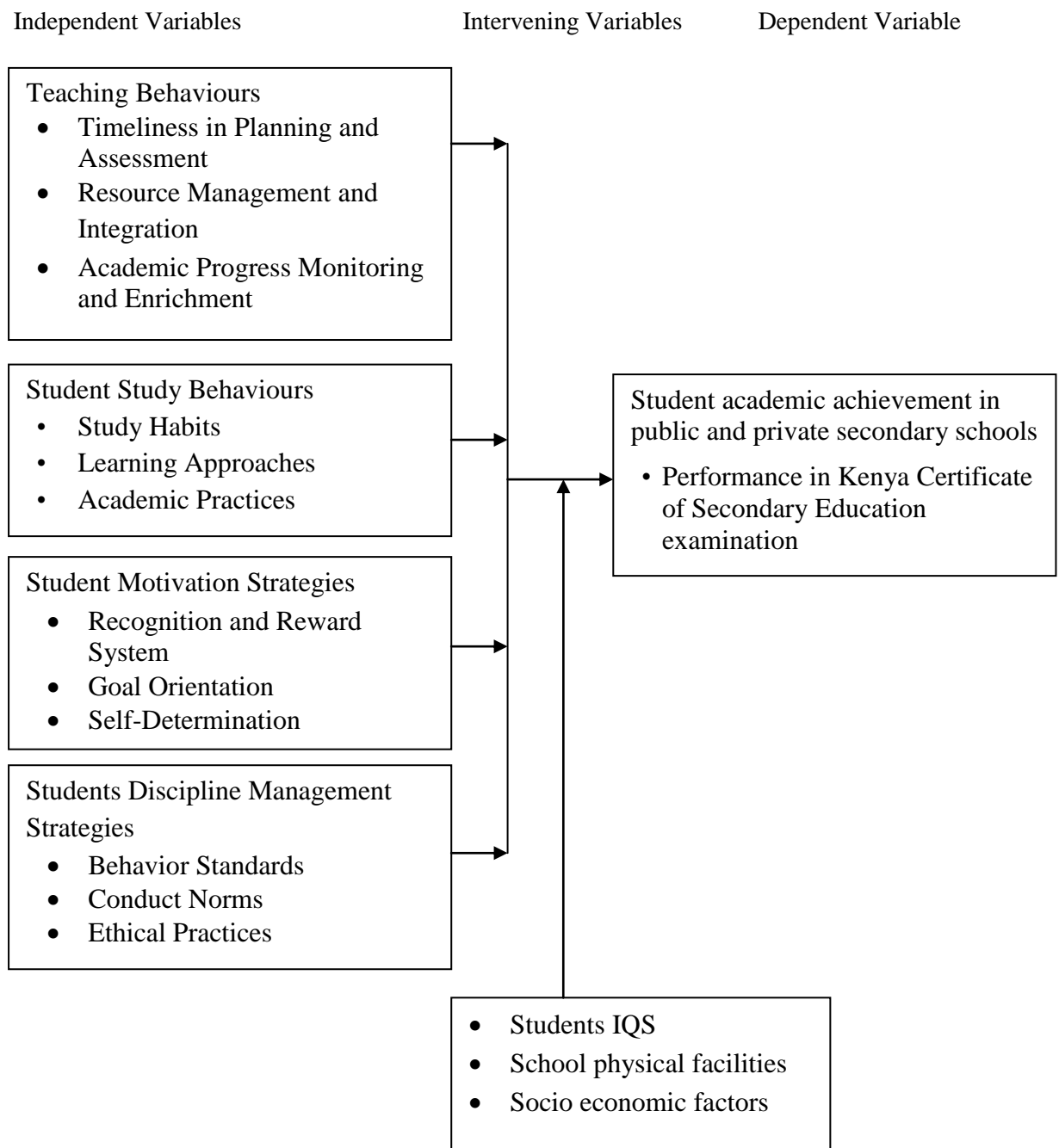
develop a comprehensive understanding of the phenomenon and its implications for educational practice.

2.10 Conceptual Framework

The conceptual framework for the proposed study is presented in Figure 1. A conceptual framework in research refers to a theoretical structure that outlines the key concepts, variables, relationships, and assumptions underlying a study. It provides a roadmap for understanding the study's focus and guides the formulation of hypotheses or research questions.

Figure 1

Conceptual Framework Depicting Interaction of Variables



Source: Author (2024)

The conceptual framework outlined encompasses various factors that potentially influence student academic achievement, with the dependent variable being the performance in the Kenya Certificate of Secondary Education examination. At the core

of this framework are the independent variables, which include Teaching Behaviours, Student Study Behaviours, Student Motivation Strategies, and Students Discipline Management Strategies.

Teaching Behaviours encompass various approaches adopted by teachers in the classroom. These include Active Learning, which involves engaging students in hands-on activities and participatory learning experiences. Cognitive Activation focuses on stimulating students' thinking processes and encouraging critical thinking skills. Teacher-Directed Instruction involves traditional methods where the teacher leads the learning process. Student Study Behaviours refer to the habits and approaches students employ in their individual study practices. This includes Study Habits, which involve routines and techniques utilized during study sessions. Learning Approaches encompass the strategies students use to comprehend and retain information, while Academic Practices relate to how students engage with their coursework and assignments.

Student Motivation Strategies encompass factors that drive students' desire to learn. Intrinsic Motivation refers to the internal drive and interest in learning for its own sake. Goal Orientation involves setting and striving towards specific academic goals. Self-Determination refers to students' sense of autonomy and control over their learning process. Students Discipline Management Strategies involve the establishment and reinforcement of behavioral standards within the school environment. This includes defining Behavior Standards, setting Conduct Norms, and promoting Ethical Practices among students.

Intervening Variables play a crucial role in the relationship between the independent variables and the dependent variable. These variables include Students' IQs, which may impact their ability to comprehend and apply the material taught. School physical facilities can influence the learning environment and students' overall experience.

Socioeconomic factors such as family income and parental education level may also play a role in shaping students' academic achievement.

The selection of the study sample for the students was meticulously guided by the consideration of intervening variables such as Students' IQs, School physical facilities, and socioeconomic factors. To ensure that these intervening variables were effectively controlled and minimize the potential invalidation of findings and conclusions, the researcher adopted a stratified sampling approach. This involved categorizing the population based on factors such as IQ levels, school infrastructure, and socioeconomic status, and then selecting representative samples from each stratum. By doing so, the study sample reflected the diversity of these intervening variables present within the population, allowing for their effects to be accounted for during data analysis. This meticulous sampling strategy ensured that the study findings remained robust and generalizable, contributing to the reliability of the conclusions drawn from the research.

To control the influence of intervening variables, the selection of the study sample for the students was meticulously guided by the consideration of intervening variables such as Students' IQs, School physical facilities, and socioeconomic factors. To ensure that these intervening variables were effectively controlled and minimize the potential invalidation of findings and conclusions, the researcher adopted a stratified sampling approach. This involved categorizing the population based on factors such as IQ levels, school infrastructure, and socioeconomic status, and then selecting representative samples from each stratum. By doing so, the study sample reflected the diversity of these intervening variables present within the population, allowing for their effects to be accounted for during data analysis. This meticulous sampling strategy ensured that the study findings remained robust and generalizable, contributing to the reliability of the conclusions drawn from the research.

2.11 Summary of Reviewed Literature

The review discusses the pivotal role of teaching behavior in shaping student academic achievement, emphasizing the importance of tailored teaching practices within schools. It highlights various Teaching Behaviours and practices, such as active learning, cognitive activation, and teacher-directed instruction, and their impact on student outcomes. While studies from diverse contexts provide insights into effective teaching strategies, the review underscores the need for localized research to understand how these Teaching Behaviours align with the specific context of Nakuru County, Kenya, and their influence on student academic achievement, particularly in comparing public and private schools. Additionally, the review identifies gaps in existing research methodologies and emphasizes the importance of including student perspectives to enhance the validity and applicability of findings in real-world educational contexts.

The review examines the relationship between student study behavior and academic achievement across various contexts, emphasizing the significance of effective study habits, learning approaches, and academic practices in promoting student success. Studies from diverse locations such as the Philippines, Nigeria, India, and Rwanda highlight the positive correlation between proactive study strategies, such as active learning, self-regulation, and technology integration, and academic performance. However, the review underscores the need for localized investigations tailored to the educational landscape of Nakuru County, Kenya, considering factors like cultural nuances, socio-economic disparities, and differences between public and private schools. While existing research offers valuable insights into the importance of study behavior in academic achievement, there remains a gap in understanding the specific dynamics at play in Nakuru County, Kenya, warranting further context-specific studies to inform educational practices effectively.

The review highlights the crucial role of student motivation strategies in influencing academic achievement, emphasizing intrinsic motivation, goal orientation, and self-determination as key factors. Studies from various countries demonstrate that fostering a positive motivation culture, including autonomy-supportive practices, mastery goal orientation, and personalized learning experiences, enhances student engagement, persistence, and academic performance. Additionally, research underscores the significance of teacher-student relationships, feedback, and goal-setting activities in promoting student motivation and success. While these findings provide valuable insights, there is a need for localized studies in Nakuru County, Kenya, to understand how these motivation strategies operate within the unique cultural, social, and educational context of the region and to address specific knowledge gaps regarding the effectiveness of motivation strategies in improving academic outcomes among secondary school students.

The literature review underscores the crucial relationship between Students Discipline Management Strategies and academic achievement, emphasizing the significant role teachers play in shaping this culture within schools. Various discipline issues such as absenteeism, cheating, truancy, and vandalism have been identified as negatively impacting academic performance. Additionally, factors contributing to indiscipline, including peer pressure and lack of role models, have been highlighted. While disciplinary intervention measures such as parental engagement and suspension are commonly employed, the review lacks an examination of the influence of discipline cultures on academic achievement in both public and private secondary schools. This gap underscores the need for the proposed study to explore and compare the disciplinary cultures of public and private secondary schools in Nakuru County, Kenya, and their respective impacts on student academic outcomes.

CHAPTER THREE

RESEARCH DESIGN AND METHODOLOGY

3.1 Introduction

This chapter is a comprehensive explanation of the research design and methodology, encompassing vital elements such as the chosen research design, methodological approach, philosophical paradigm guiding the study, study location, target population, sample size determination, as well as meticulous sampling procedures and techniques. Furthermore, it delves into the intricacies of research instruments, ensuring their validity and reliability through rigorous testing and piloting. Detailed descriptions are provided regarding data collection procedures, employing advanced techniques, and ethical considerations are thoroughly addressed, underscoring the commitment to conducting principled and robust research.

3.2 Research Design

This study used the descriptive survey design. The survey is the most used research design in social sciences. Apart from its flexibility and use in investigating a wide range of topics, survey design often employs a questionnaire as a tool for data collection and is particularly useful in non-experimental descriptive designs that seek to describe reality (Sharma, 2019). According to McCombes (2019), descriptive survey is concerned with the present phenomena in terms of practice and processes. Moreover, the descriptive survey may be qualitative or quantitative and yet it provides solutions to local problems.

The descriptive survey design was chosen for this study primarily due to its capacity to offer a comprehensive depiction of the phenomena under investigation without intervention or manipulation. By employing this approach, the study aimed to accurately portray the existing school cultures and their potential impact on student academic

achievements in secondary schools within Nakuru County. The descriptive survey design is well-suited for such inquiries as it allows for the exploration of current practices and processes within a given context, offering insights into the intricate dynamics at play. Moreover, this design facilitated the utilization of a questionnaire-based data collection method, aligning with the study's objectives and enabling the acquisition of valuable information from a diverse sample. The design helped yield useful information about the phenomena under study. The descriptive survey design was appropriate for the study because it presents cultures as they exist without manipulation. The study compared the relationship between teaching behaviour and student academic achievement in public and private secondary schools in Nakuru County, Kenya.

3.3 Research Method

The study used mixed methods. According to Walliman (2011), research methods are the instruments or tools that researchers employ as they administer an inquiry or investigation. Some researchers argue that there is no right or wrong method for conducting research (Tashakkori and Teddlie, 2010). It is important however to note that the method selected should be appropriate to the task and should be one with more strengths than weaknesses. Almalki (2016) has emphasized this point by maintaining that the focus of research should be on understanding an issue by covering all aspects of the inquiry and finding solutions to problems than focusing on specific methods or approaches.

3.3.1 Mixed Methods Research

A mixed method combines or integrates both quantitative and qualitative forms of research (Creswell, 2018; Shannon-Baker, 2016). A mixed method is defined as a research approach involving use of more than one approach to inquiry that combines or

integrates both quantitative and qualitative forms of research within a single program of study (Johnson & Christensen, 2014). Mixed methods research was preferable in this current study because it offered an opportunity for the researcher to understand better the problem of the study since it enabled capturing information that might be missed if one research design were used.

Mixed methods research is also called mixed methodology, multi-method research, methodological pluralism and multiple research (Johnson & Christensen, 2014). It is a relatively new methodology originating around the late 1980s and early 1990s based on work from different fields such as education, health sciences, and management (Creswell 2018; Kaiser & Presmeg, 2016). Bangi (2018) studied the preference of mixed methods research in education channels from 2003 to 2013 and found that there was the increasing use of mixed methods research in education. This result concur with the observation of Khaldi (2017) who argued that mixed methods research is used mostly in social sciences and more so in education research due to its many merits. In addition, researchers using this method are encouraged to openly outline the main purpose of using mixed methods research (Caruth, 2013).

Mixed Methods Research was deemed appropriate for the study comparing the relationship between selected school cultures and student academic achievement in secondary schools in Nakuru County, Kenya, for several reasons. Firstly, employing mixed methods allows for a comprehensive exploration of the research question by combining quantitative measures of academic achievement with qualitative insights into school cultures. This approach enables researchers to capture both the statistical associations between variables and the nuanced contextual factors that influence student outcomes. Additionally, in a study examining complex phenomena such as school cultures and academic achievement, mixed methods provide triangulation and validation

of findings, enhancing the credibility and reliability of the research. By integrating quantitative data on academic performance with qualitative data on school cultures, the study can offer a holistic understanding of the dynamics at play, informing more robust and actionable conclusions for educational stakeholders in Nakuru County.

3.4 Philosophical Paradigm

The study adopted constructivism and positivism research paradigms. The dominant research paradigms in educational research were positivist, constructivism, and pragmatism (Kivunja & Kuyini, 2017). A paradigm is a guide that a researcher can use to ground research work thus offering a framework for decision-making (Shannon-Baker, 2016). Constructivism philosophical paradigm was associated with the qualitative research approach. This paradigm sought to understand phenomena from the perspective and experiences of the participants and those of the researcher. It was often used in descriptive studies. A researcher employing this paradigm collects qualitative data using interviews, document review, and observation (Adom et al., 2016). The present study will use document review (analysis).

The mastermind of modern positivism is generally considered to be Auguste Comte the Nineteenth Century French philosopher (Ali & Chowdhury, 2015). Positivism was used in social science research for a long time (Kura, 2012). Positivism was difficult to define clearly and concisely because the ideology has been and continues to be used in varied ways by philosophers and social science researchers (Ali & Chowdhury, 2015). Positivism strongly maintained that methodological procedures of natural sciences are adaptable to social sciences (Kura, 2012). Positivism usually uses questionnaires to generate quantitative data which are analyzed using descriptive and inferential statistics (Scotland, 2012). The research, rooted in positivism, also known as the scientific method, relies on formulating and testing hypotheses, providing operational definitions,

and conducting calculations (Kivunja & Kuyini, 2017). It also aimed at identifying causes that influence outcomes using the deductive approach (Creswell, 2018).

More recent development of positivism is post-positivism which allows for the inclusion of social sciences and sees research in social sciences as like natural science research. In post positivism, social reality is composed of measurable objective facts which can be measured by a researcher who can then use statistics to test causal relationships (Khaldi, 2017). Post positivism relaxed some of the assumptions of positivism to allow for observations without experimentation or formulation of hypotheses to be tested thus providing a worldview for most research conducted on human behavior (Kivunja & Kuyini, 2017). Despite their robust use in social science research, both positivism and constructivism have weaknesses. As Kura (2012) argues, no single research methodology is intrinsically better than the other because all of them have shortcomings. According to Kaplan and Duchon (1988) cited in Kura (2012), a researcher should choose a context-specific methodology suitable for the problem under study and the researcher's objectives.

3.5 Location of the Study

The study took place in Nakuru County, Kenya. The County was established along the 46 other Counties, in 2013. The County is among the 14 Counties within the Rift Valley. The County is located within the Gregory Rift Valley and it borders other eight counties namely: Baringo and Laikipia to the North, Nyandarua to the East, Kajiado and Kiambu to the South, Narok to the South West, and Kericho and Bomet to the West. The County specifically is located between longitudes 35° 28' and 35°36' East and latitudes 0° 13' and 1° 10' South covering an area of 7,495.1 km² (Republic of Kenya, 2013).

According to Republic of Kenya (2018), the County covers an area of 7498.8 km² with an estimated population of 2.1 million people. The County's major economic activities include agriculture, tourism, and financial services, with agriculture being the main activity. The poverty level for the County is 29.1% below the National target of 36.1 %. The Kenya National Bureau of Statistics (2017) identifies child poverty as another important social indicator for the County which stood at 34% a figure that was below the National level at 45%. It implies that 1 in 3 children in Nakuru County is deprived of 3 or more dimensions of basic needs, services or rights.

Nakuru County stands out as an ideal location for this study due to its diverse educational landscape, comprising both public and private secondary schools. Its status as one of Kenya's most populous and economically vibrant counties provides a rich context for exploring the relationship between school cultures and student academic achievement. The presence of a mix of public and private schools allows for comparative analysis, enabling researchers to assess how different teaching behaviors, student study habits, motivation strategies, and discipline management approaches impact academic outcomes across varying school environments. By focusing on Nakuru County, the study can capture nuanced differences in educational practices and outcomes within a dynamic and representative setting, shedding light on factors that contribute to student success in secondary education.

3.6 Population of Study

The target population comprised all the 365 public and 146 private secondary schools in Nakuru County. The targeted participants for the study were the principals from the 365 public and 146 private Secondary Schools in Nakuru County. A total of 33,826 form four students enrolled in both public and private secondary schools formed the student target population for this study.

3.7 Sampling Procedure

The study employed a multistage sampling technique. Multistage sampling involves selecting a sample in two or more successive stages. Each stage can be conducted using any sampling technique (Statistics Canada, 2010). For a school to be included in this study it must have presented and obtained results for candidates in KCSE for five continuous years covering the period 2015 to 2019.

Form four total student population from public and private schools were stratified into two groups: students from public and those from private schools. The stratified sampling technique is usually applied if the population from which the sample is to be drawn does not constitute a homogeneous group (Kothari, 2012).

The researcher applied both simple and stratified sampling techniques to select the study participants from the Form Four total student population in public and private schools. Firstly, the population was divided into two distinct groups based on their school type: students from public schools and those from private schools. This stratification ensured that each subgroup was represented in the sample, acknowledging the potential differences in school cultures and academic outcomes between public and private educational institutions. Stratified sampling was justified in this context as the population did not constitute a homogeneous group; rather, it comprised students from diverse educational backgrounds with potentially varied experiences and characteristics.

In each stratum (public and private schools), the researcher utilized a simple random sampling method to choose participants. This involved assigning a unique identifier to each student in the stratum and using a random method, such as a random number generator, to select the required sample size from each group. Simple random sampling

ensured that every student in the population had an equal chance of being selected for the study, thereby reducing bias and increasing the generalizability of the findings.

The combination of stratified and simple random sampling techniques provided a robust and representative sample for the study. Stratification enabled the researcher to account for the diversity within the population, while simple random sampling ensured fairness and transparency in participant selection. This approach allowed for the examination of the influence of school culture on student academic achievements across different types of schools, contributing to a more comprehensive understanding of the research phenomenon.

Stratified sampling is justified in this scenario to ensure that the sample accurately represents both the public and private school student populations, allowing for more precise and unbiased analysis of each group's characteristics. KCSE 2015-2019 results were analyzed for both public and private schools. The schools were selected based on their KCSE performance indices criteria. KCSE school means scores for the period 2015 to 2019 were analyzed separately for public and private schools for the researcher to obtain the best 20 high performing and least 20 low-performing schools. Mean scores for each school in the two categories were calculated for the 6 years from 2015 to 2020. Schools in each category were ranked. From the ranking the researcher purposely sampled the best 20 high performing and the worst low-performing public and private schools, bringing to a total number of 80 schools designated for the study.

The researcher utilized both Krejcie and Morgan (1970) and Mugenda & Mugenda (1999) methodologies to ensure a robust sampling strategy that accurately represent the population of interest. While Krejcie and Morgan's table was employed to determine the sample size of students within each school category, Mugenda & Mugenda's approach informed the outlier methodology used to select extreme data points based on academic

performance. The decision to incorporate both methodologies was driven by the need to enhance the validity and representativeness of the sample. Krejcie and Morgan's method ensured a systematic approach to sample size determination, while Mugenda & Mugenda's approach facilitated the identification of schools with extreme academic performance, enriching the sample with diverse academic contexts. By integrating these approaches, the study aimed to capture a comprehensive snapshot of secondary school academic achievement in Nakuru County, Kenya.

Simple random sampling is a suitable technique in this context because it ensures that every student in the population has an equal chance of being selected, which helps in obtaining a representative sample and reducing bias. Additionally, the use of random tables enhances the randomness and fairness of the selection process, increasing the validity of the study's findings.

3.7.1 Sample Size

Using KCSE results rankings between 2015 and 2019 for public and private secondary schools in Nakuru County, the researcher computed each school's average KCSE mean score for the period 2015 to 2019- for private and public schools separately. The schools were then ranked in terms of performance based on the mean scores computerized from the highest to the lowest performer. From the 5-year KCSE average mean scores the researcher purposively isolated, based on ranking, 20 high-performing schools and 20 low-performing private and public schools. Categorizing schools into high and low extreme ends formed the basis of the outlier approach.

The study used an outlier approach to determine the accessible population. Aguinis, Gottfredson, and Joo (2013) define outliers as data points that deviate markedly from others and were found at the tails of data distributions. The outlier approach was used by

Ngala and Odebero (2010), and Mudulia (2012). Based on this approach, the research studied two broad extreme categories of students and principal from schools (outliers) which have been bifurcated on the basis of academic performance into the 20 high performers from public and private schools and 20 low performing public and private secondary schools. Accessible population comprised a total of 7376 form four students drawn from both public and private secondary schools as shown in Table 5.

The use of a five-year period, from 2015 to 2019, allows for a comprehensive assessment of school performance trends over time, ensuring the inclusion of diverse academic contexts and minimizing the influence of short-term fluctuations. Selecting 20 schools from each category, based on their KCSE mean scores, provides a representative sample that captures both high and low-performing institutions, maximizing the variability in academic outcomes and enabling a robust analysis of factors affecting student achievement in Nakuru County. This approach, informed by an outlier methodology, emphasizes the significance of extreme data points, aligning with previous research practices and enhancing the study's ability to identify influential factors in secondary school academic achievement.

Table 5

Accessible Population

School category	Total number of schools	Accessible population of students
Top performing KCSE Public secondary schools	20	3,580
Top performing KCSE private secondary schools	20	1882
Low-performing KCSE public secondary schools	20	962
Low-performing KCSE private secondary schools	20	952
Total	80	7376

Determination of sample size is a critical stage in this proposed study because the sample obtained will reflect characteristics of the population and hence will legitimize generalization (Leighton, 2013). For this study other pertinent considerations like time available, accessibility of the sampled components, and cost of the study were considered before arriving at appropriate sample size.

To arrive at a sample size of 30% of the accessible population, the study used the following formula:

$$\text{Sample size} = \frac{\text{Percentage} \times \text{Accessible population}}{100}$$

In this case, the percentage is 30% and the accessible population refers to the total number of cases available in private and public schools combined. By applying this formula separately to both private and public schools, the study determined the appropriate sample size for each subgroup, ensuring that at least 30% of the population cases were included in the research sample, as recommended by Mugenda and Mugenda (1999).

As shown in table 3.1, Accessible population totals 7376 cases and 30% of these cases total 2214 which formed the sample size as shown in table 6. To obtain the appropriate sample size these cases (2214) were distributed as shown in table 6. As shown from the table, the sample cases were calculated as follows for each stratum of school: top-performing public secondary schools = 1074 calculated as $(30/100 \times 3580)$ cases, top performing private secondary schools = 565 calculated as $(30/100 \times 1882)$ cases, low performing public secondary school = 289 calculated as $(30/100 \times 962)$ cases, and low performing private secondary schools = 286 calculated as $(30/100 \times 952)$ cases, totaling to 2214 cases. Based on these cases and by using Krejcie and Morgan (1970) table for

determining sample size from a given population, the sample sizes of students studied for each stratum of schools were determined as shown in Table 6.

Purposive sampling was done to obtain the sample size of principals designated for the study. In this respect, 20 principals each from the best high-performing and lowest low-performing public and private secondary schools in Nakuru County were selected to form a sample size of 80 principals. The sample size for students is presented in table 6 while that for principals is in Table 7.

researcher used KCSE (Kenya Certificate of Secondary Education) results rankings between 2015 and 2019 for public and private secondary schools in Nakuru County, Kenya, to determine the sample size of students within each identified school category. This involved computing each school's average KCSE mean score for the specified period, then ranking the schools based on their mean scores to identify high and low-performing schools. Finally, the researcher selected 20 high-performing and 20 low-performing schools from each category to constitute the sample for the study.

Table 6

Sample Size for Students

School category	Sample size of schools	30% of the accessible population	Sample size of Students	Sample size for piloting
Top performing KCSE Public secondary schools	20	1074	285	29
Top performing KCSE private secondary schools	20	565	234	23
Low-performing KCSE public secondary schools	20	289	165	17
Low-performing KCSE private secondary schools	20	286	165	17
Total	80	2214	849	85

Table 7*Sample Size for Principals*

Category of respondents	Target population	Sample size	The sample size for piloting
Principals from Public Schools	257	40	4
Principals from Private Schools	101	40	4
Total	358	80	8

Table 7 gives a summary of the sample size for the principals obtained from the target population. The outlier approach informed the selection of principals and students. With this approach, 20 principals were purposely sampled from best performing public and private secondary schools respectively. In addition, 20 principals were purposely sampled from low-performing public and private secondary schools respectively. From each of these two extreme strata, the study obtained 40 principals from each strata which brought the total sample to 80 principals.

3.8 Instrumentation

The success or failure of research largely depends on the instruments used. The use of inappropriate instruments can generate wrong data (Mohajan, 2017). The present study used questionnaires and document analysis to obtain data. The study used structured questionnaires. The questionnaires were administered to principals and form four students at designated schools. Questionnaires are preferred since they can be a valuable tool in diagnosing school culture, and in particular they helped in identifying particular cultural traits in a school (Maslowski, 2006). Additionally, questionnaires have several advantages to the current study because they provided data that can be amenable to quantification and possible computer analysis which was done scientifically and objectively, it saves time yet cost-effective, and finally, responses were gathered in a

standardized way. Closed-ended questions were allowed for easy computation, while open-ended questions allowed for in-depth scrutiny of research constructs and expression of opinions from participants. From both closed ended and open ended questions quantitative and qualitative data were generated. A Likert scale of four levels was used ranging from strongly disagree, disagree, agree and strongly agree.

Questionnaires for principals had sections A to D. Section A was used to get information on principals' biodata, section B had a 4-point Likert scale items on teaching culture, section C contained a set of items on Student Motivation Strategies and section D contained items on Students Discipline Management Strategies . The student's questionnaire had sections A and B. Section A was on student's bio-data and section B had questions on student study culture.

The students' questionnaire in Appendix II consists of two sections designed to gather information about their study culture over the past four years. Section A focuses on biodata and utilizes a scale of response ranging from "Never" to "Always" to gauge the frequency of certain behaviors or experiences. This section aims to capture demographic information and provide context for understanding individual responses. In Section B, labeled "Study Culture," students are prompted to reflect on aspects of their study environment and habits. The questionnaire likely includes questions aimed at assessing factors such as study habits, learning resources, teacher support, and peer influence, using the same response scale to measure the frequency of these behaviors or experiences. Overall, the questionnaire seeks to gather comprehensive data on students' study culture to better understand its impact on their academic performance over the specified period.

3.8.1 Validity of the Study Instruments

Validity refers to the extent to which a research instrument accurately measures what it intends to measure. In research, ensuring instrument validity is crucial as it enhances the credibility and reliability of study findings. The researcher sought to validate the research instruments by submitting copies to research supervisors, who assessed the content validity. This process involved experts evaluating whether the instruments effectively captured the intended variables and concepts. Additionally, practitioners in the field were consulted to provide insights and feedback on the instruments, ensuring that any identified gaps or inconsistencies were addressed before the study's operationalization. The guidance received from both research supervisors and practitioners facilitated necessary rectifications to enhance the validity of the instruments for the study.

3.8.2 Reliability of the Instruments

Reliability in research refers to the consistency and stability of measurement tools over time and across different conditions, indicating the extent to which the instrument produces consistent results. Cronbach's alpha index is a widely used measure of internal reliability, assessing the degree of correlation among items within a scale or questionnaire. In this study, the researcher conducted a test-retest administration of the instruments after a two-week interval to assess reliability (Drost, 2011). The correlation coefficients obtained were compared against the threshold of 0.70, with values equal to or greater than indicating acceptable reliability. The results, presented in Tables 8, 9, 10, and 11, show Cronbach's alpha coefficients for different variables, with values exceeding 0.7, thus demonstrating the internal consistency of the instruments.

a) Reliability Test Results for Principals' Questionnaire

To assess the reliability of the data collection instrument, a pilot test was conducted at the schools that did not form part of the study's sample population to test the questionnaires. The reliability was tested using Cronbach Alpha (Cronbach, 1951), which tests internal accuracy. The reliability test results for the principals' questionnaire are shown in Table 8.

Table 8

Reliability Test Results for Principals' Questionnaire

Variable	No of Items	$\alpha > 0.7$	Comment
Teaching Culture	21	0.918	Reliable
Student Motivation Strategies	8	0.885	Reliable
Students Discipline Management Strategies	16	0.796	Reliable
Average	45	0.866	

The reliability outputs provided in Table 8 show that teaching culture had a coefficient of 0.918, Student Motivation Strategies [0.885] and Students Discipline Management Strategies [0.796]. The average Cronbach Alpha coefficient across the five variables was 0.866, which passed the test of $\alpha > 0.7$. The number (N) of items refers to the number of questions.

The reliability for all the principals' questionnaire items including the demographics, and independent and dependent variables was 0.944 as shown in the table below.

Table 9

Cronbach's Alpha Coefficient

Cronbach's Alpha Coefficient	N of Items
.944	48

The alpha index for all sections combined for the principals' questionnaire was 0.944. The tool was thus, adapted for use since the items recorded a score of a Cronbach alpha coefficient above 0.7. N refers to the number of questions.

b) Reliability Test Results for Students' Questionnaire

The reliability test results for the students' questionnaire were shown in Table 9.

Table 10

Reliability Test Results for Students' Questionnaire (IV)

Variable	N	$\alpha > 0.7$	Comment
Study Cultures	12	0.734	Reliable
Average		0.734	

The reliability outputs provided in Table 9 show that Study Cultures had a coefficient of 0.734. The average Cronbach Alpha coefficient across the five variables was 0.734, which passed the test of $\alpha > 0.7$.

The reliability of all the students' questionnaire items was as shown in the Table 11.

Table 11

Cronbach's Alpha Coefficient for Students

Cronbach's Alpha coefficient for students	N
.790	16

The alpha index, with a value of 0.790, indicates the reliability or internal consistency of the students' questionnaire used in the study. In this context, a Cronbach's alpha coefficient above 0.7 (in this case, 0.790) suggests that the items within the questionnaire are measuring the same underlying construct consistently. This high level of internal consistency implies that the questionnaire is reliable and suitable for use in the research, as it demonstrates that the questions in the tool are measuring the intended aspects

effectively. The variable "N" typically refers to the number of questions or items included in the questionnaire, which is important for understanding the scale and scope of the assessment.

c) External Reliability

The researcher ensured external reliability through several measures aimed at enhancing the consistency and replicability of the study's findings across different contexts or researchers. Firstly, by clearly documenting the research methodology, including sampling techniques, data collection procedures, and analytical methods, the researcher provided a transparent framework for others to replicate the study. Additionally, employing standardized instruments such as questionnaires with predefined response scales enhances external reliability by enabling consistent data collection and interpretation across multiple settings. Furthermore, by adhering to established research practices and citing relevant literature, the researcher bolstered the credibility and external validity of the study findings, allowing other researchers to assess and verify the results within their own contexts. Overall, through meticulous planning, methodological transparency, and adherence to established standards, the researcher ensured external reliability by maximizing the study's replicability and generalizability to broader populations or settings.

3.8.3 Piloting

A pilot study was carried out in Nakuru County with schools which did not participate in the final study. This was done to pre-test data collection instruments and thereafter makes appropriate adjustments to address any problems or challenges realized. A Cronbach alpha coefficient was calculated (>0.7 Cronbach coefficient makes an instrument reliable). The study used 10% of the schools (10% x 80 schools and 10% of 849 students), in this case, a selection of 85 students in total and 8 principals was

sampled for the pilot study. These included 4 public secondary schools and 4 private secondary schools. The 8 schools whose principals were included for piloting are as follows: Gilgil High school, Elburgon DEB, Tachasis, St Paul's Kiriko, St Joseph Kirandichi, St Francis Girls, Lampstand Academy, and New Elimu High School. The schools chosen ranged from high performing to low-performing public and private secondary schools in Nakuru County. Piloting was done mainly to address the reliability of research instruments. Piloting equally helped the researcher to test the adequacy of research instruments. Results from the study were analyzed to find out if the data obtained helped the study meet its objectives or not. Appropriate adjustments were then done to research instruments to ensure that the objectives of the study were met.

3.9 Data Collection Procedures

The researcher sought consent from the Institute of Post Graduate Studies of Kabarak University. Once cleared by the University, the researcher applied for and obtained a research permit from National Commission for Science, Technology, and Innovation (NACOSTI). The permit is in Appendix ix. The NACOSTI provides oversight and approval for research projects to safeguard the welfare and rights of research participants, ensuring that studies adhere to ethical guidelines and regulations. In managing subjects who failed to respond to the instrument as requested, including partially filled items in the questionnaire, the researcher employed several strategies to mitigate potential data loss and ensure data integrity.

Firstly, participants were reminded of the importance of providing complete and accurate responses to facilitate meaningful analysis and interpretation of the findings. Additionally, follow-up communication was initiated with non-respondents to encourage their participation and address any concerns or barriers they may have encountered. For partially filled items, the researcher utilized data imputation techniques to estimate

missing values based on available information, thereby minimizing the impact of incomplete responses on the overall data quality. These proactive measures helped maximize response rates and mitigate potential biases associated with missing or incomplete data, ensuring the reliability and validity of the study findings. On receiving the research permit, the researcher moved on to the Nakuru County Ministry of Education offices for an introduction. Authorization to collect data was also sought from the Ministry of Education. The researcher sought and obtained authorization letter (see appendix x) and relevant instructions and directions from the County office Ministry of Education, before traveling to sampled schools for the collection of data.

Data were collected in the field using questionnaires after presenting an introductory letter to relevant school authorities. The questionnaires were administered to the respondents, and received back on the same day. Document analysis was concurrently done. Document analysis was concurrently done. The data collection process involved the use of questionnaires, preceded by an introductory letter to obtain permission from school authorities. The questionnaires were distributed to the targeted respondents, and responses were collected on the same day, ensuring a timely data retrieval process. Simultaneously, document analysis was conducted alongside the questionnaire-based data collection, likely involving the examination and interpretation of relevant documents or records to supplement the information obtained through the surveys. This comprehensive approach, combining questionnaire responses with document analysis, helps ensure a more thorough and accurate understanding of the research context and its variables.

3.10 Data Analysis and Presentation

The study collected both quantitative and qualitative data. Quantitative data were analyzed using the Statistical Package for the Social Sciences (SPSS) version 27. Coding

was done before subjecting the data for analysis. In nominal data analysis, which involves categorical data, frequencies, means and percentages are typically calculated to describe the distribution of variables.

For inferential statistics, the study used Spearman Rank order Correlation to measure the strength and direction of the association between the independent and dependent variables. Spearman correlation is known as the best method of measuring the association between variables of interest because it is based on the method of covariance. It gives information about the magnitude of the association, or correlation, as well as the direction of the relationship (Pathak, 2020). Multiple linear regression was used to determine the relationship between the study variables as well as test the research hypotheses (H_{01} , H_{02} , H_{03} , and H_{04}). The regression model that guided hypothesis testing was as follows. $\hat{y} = bx + a$ (Or, equivalently, $\hat{y} = \beta_1x + \beta_0$)

Where:

x = a value on the x -axis

$$\hat{y} = bx + a \text{ (or, equivalently, } \hat{y} = \beta_1x + \beta_0 \text{)}$$

Where:

x = a value on the x -axis

b = slope parameter

a = intercept parameter (i.e., value on y -axis where $x = 0$ [not shown above])

\hat{y} = a predicted value of y

Hierarchical regression is used to analyze the relationship between predictor variables and an outcome variable while controlling for the effects of other variables. In this case, the outcome variable (Y) is student academic achievement, and the predictor variables are selected teaching behavior, student study behavior, student motivation strategies, and

student discipline management strategies. The hierarchical regression model can be formulated as follows:

$$\text{Step 1: } Y = \beta_0 + \beta_1(\text{TB}) + \varepsilon_1$$

$$\text{Step 2: } Y = \beta_0 + \beta_1(\text{TB}) + \beta_2(\text{SSB}) + \varepsilon^2$$

$$\text{Step 3: } Y = \beta_0 + \beta_1(\text{TB}) + \beta_2(\text{SSB}) + \beta_3(\text{SMS}) + \varepsilon_3$$

$$\text{Step 4: } Y = \beta_0 + \beta_1(\text{TB}) + \beta_2(\text{SSB}) + \beta_3(\text{SMS}) + \beta_4(\text{SDMS}) + \varepsilon_4$$

In each step, the researcher adds a new predictor variable while controlling for the effects of previously entered variables. The significance of the additional predictor variable at each step was assessed using the change in R-squared value and the significance of the beta coefficient. The research hypotheses can then be tested by examining whether the beta coefficients for the predictor variables are statistically significant at the chosen alpha level of 0.05. Specifically, if the p-value associated with each beta coefficient is less than 0.05, the null hypothesis can be rejected, indicating a statistically significant relationship between the predictor variable and student academic achievement.

Where:

TB = Teaching Behavior

SSB = Student Study Behavior

SMS = Student Motivation Strategies

SDMS = Students Discipline Management Strategies

SAC = Students' Academic Achievement

β_0 = Constant –

$\beta_1, \beta_2, \beta_3, \beta_4$: Regression coefficients

ε = Error/Disturbance Term

The rationale for selecting multiple regression analysis lies in its ability to account for the simultaneous effects of multiple predictor variables on the outcome variable (students' academic performance). By examining the regression coefficients (β_1 , β_2 , β_3 , β_4), the relative contribution of each predictor variable to students' academic performance can be determined. A larger coefficient magnitude indicates a stronger relationship between the predictor variable and academic performance, allowing for the identification of key factors influencing academic achievement in KCSE examinations.

The results of the quantitative data analysis were presented in tables and figures. Qualitative data collected from interviews was analyzed using Thematic Textual Analysis. This approach involved sorting and classification of related themes emerging from the responses. The results from the qualitative analysis were presented in form of narrations.

The data analysis table for the study was presented in Tables 12 and 13.

Table 12

Data Analysis Table for Objectives

Objective(s)	Independent variable(s)	Dependent variable	Statistics
1) To establish the relationship between selected Teaching Behaviours and student academic achievement in secondary schools in Nakuru County, Kenya.	Teaching behaviours	-Students' academic achievement in Kenya Certificate of Secondary Examination	Means Percentages and frequencies Standard deviation Spearman rank correlations, and Regression analysis (for relationships)
2) To determine the relationship between selected Student Study Behaviours and student academic achievement in secondary schools in Nakuru County, Kenya.	Student study behaviours	-Students' academic achievement in Kenya Certificate of Secondary Examination	Means Percentages and frequencies Standard deviation Spearman Rank correlations, and Regression analysis (for relationships)
3) To find out the relationship between selected Student Motivation Strategies and student academic achievement secondary schools in Nakuru County, Kenya.	Student Motivation Strategies	-Students' academic achievement in Kenya Certificate of Secondary Examination	Means Percentages and frequencies Standard deviation Spearman rank correlations, and Regression analysis (for relationships)
4) To determine the relationship between selected Students Discipline Management Strategies and student academic achievement in secondary schools in Nakuru County, Kenya.	Student discipline Management Strategies	-Students' academic achievement in Kenya Certificate of Secondary Examination	Means Percentages and frequencies Spearman rank correlations, and Regression analysis (for relationships)

Table 13*Data Analysis Table for Hypotheses Testing*

Hypothesis	Independent variable(s)	Dependent variable	Statistical test
1) Ho ₁ : There is no statistically significant relationship between selected Teaching Behaviours and student academic achievement secondary schools in Nakuru County, Kenya	Teaching cultures	Students' academic achievement in Kenya Certificate of Secondary Examination	Regression analysis
Ho ₂ : There is no statistically significant relationship between selected Student Study Behaviours and student academic achievement in secondary schools in Nakuru County, Kenya.	Student study culture	Students' academic achievement in Kenya Certificate of Secondary Examination	Regression analysis
Ho ₃ : There is no statistically significant relationship between selected Student Motivation Strategies and student academic achievement in secondary schools in Nakuru County, Kenya	Student Motivation Strategies	Students' academic achievement in Kenya Certificate of Secondary Examination	Regression analysis
Ho ₄ : There is no statistically significant relationship between selected Students Discipline Management Strategies and student academic achievement in secondary schools in Nakuru County, Kenya.	Student discipline Cultures	Students' academic achievement in Kenya Certificate of Secondary Examination	Regression analysis

3.11 Ethical Considerations

It is critical for any research investigation to keenly address and adhere to laid down research ethics. This is particularly important when a study uses human subjects. (Flick, 2011) observes for instance, that the risk of harm to the participants was a major ethical issue in social research. The current study was keen on addressing research ethical issues to ensure that participants are protected against any possible harm which may arise from this research. Creswell (2011) observed that ethics should be a primary consideration of a researcher, traversing through all steps from data collection, reporting, and even distribution of reports. During the process of research, respect for the respondents and the use of non-discriminatory language especially during data collection were observed. For these reasons participants were informed and assured of their confidentiality, voluntary participation, and anonymity during and after the study. Additionally, they were informed of the purpose and goals of the study and its benefits. The researcher ensured that informed consent was obtained from participants before collecting data.

Before commencing the study, the researcher diligently sought ethical approval from relevant institutional review boards or ethics committees, ensuring compliance with ethical standards. Additionally, the researcher obtained a research permit from the National Commission for Science, Technology and Innovation (NACOSTI) and authorization from the Ministry of Education. Informed consent was then diligently sought from both the students and their guardians through the school administration, ensuring their voluntary participation and safeguarding rights and confidentiality throughout the research process. The researcher obtained ethical approval from relevant institutional review boards or ethics committees before conducting the study involving minors.

CHAPTER FOUR

DATA ANALYSIS, PRESENTATION AND DISCUSSION

4.1 Introduction

This chapter presents the data analysis, interpretation, and discussion of the study, which aimed to compare the relationship between selected school cultures and student academic achievement in secondary schools in Nakuru County, Kenya. Data were collected using questionnaires and interview schedules, guided by the study's objectives and methodology outlined in Chapter Three. The analysis is systematically presented according to the study objectives, focusing on comparing results between public and private schools. Descriptive analysis, descriptive statistics, and inferential statistics were employed to analyze the data, with findings related to the literature review in Chapter Two. The objectives of the study included comparing the relationship between teaching behavior, student study behavior, student motivation strategies, and student discipline management strategies with academic achievement, across both public and private secondary schools in Nakuru County. Through this comprehensive analysis, the chapter aims to provide insights into the varying impacts of school cultures on student academic achievement, thereby informing educational policies and practices in the region.

4.1.1 Response Rate

A total of 2294 questionnaires targeting 2214 students and 80 principals were distributed. The response rate is provided in Table 14.

Table 14*Response Rate*

Respondent Category	Sample	Actual	Percentage
Students	2214	1707	77.10%
Principals	80	67	83.75%
Totals / Average	2294	1774	77.33%

The study was able to obtain a response from 1707 students and 67 principals; translating into a response rate of 77.33%. This was sufficient to enable the researcher to come up with reliable conclusions and recommendations. The recommended response rate for on-paper surveys is 75% (Nulty, 2008) Therefore, the attained response rate was sufficient for this research. This response rate exceeded the recommended threshold of 75% for on-paper surveys, suggesting that the data collected was reliable and adequate for drawing meaningful conclusions and making recommendations based on the research findings.

The researcher employed several strategies to ensure high participation rates in the study. These included establishing clear communication channels with the participating schools, providing detailed information about the study's objectives, methodology, and potential benefits. This transparency helped build trust and encourages schools to participate. Additionally, the researcher emphasized the importance of the study's findings for improving educational practices in Nakuru County, highlighting the potential impact on both students and schools. This enhanced the willingness of the respondents to take part in the study.

4.1.2 Participating Schools by School Performance Category

The results showing participating schools by school performance category were as provided in Table 15.

Table 15*Participating Schools by School Performance Category*

Category	Target	Actual	Percentage Achieved
Top performing KCSE Public secondary schools	20	18	90.0%
Top performing KCSE private secondary schools	20	20	100.0%
Low-performing KCSE public secondary schools	20	20	100.0%
Low-performing KCSE private secondary schools	20	16	80.0%
Total / Average achieved	80	74	92.5%

The results in Table 15 show that the schools participating in the study were represented as follows. Top performing KCSE public secondary schools (90%), top performing KCSE private secondary schools (100%), low performing KCSE public secondary schools 100% and low performing KCSE private secondary schools (80%). The percentages achieved for each category were above the recommended percentage for on-paper surveys at 75% (Nulty, 2008).

4.1.3 Student – Respondents Distribution by School Category

The results showing the respondents' distribution according to the school category were as provided in Table 16.

Table 16*Student – Respondents Distribution by School Category*

Category	Frequency	Percentage
Public	987	57.8
Private	720	42.2
Total	1707	100.0

The results in Table 16 show that 58% of the student participants in the study were from public secondary schools while 42% were from private secondary schools. There were slightly more public-school students participating in the study compared to their

counterparts in private schools. The results implied that the researcher was able to capture responses from both categories, thus freeing the researcher from possible bias based on school category. This balanced representation suggests that the researcher avoided potential bias based on school category, enabling a comprehensive comparison of the relationship between selected school cultures and student academic achievement across both public and private schools. Therefore, the findings provide valuable insights into the dynamics of school cultures and their impact on student academic achievement in the county.

4.2 General Characteristics of the Respondents

This section presents the results of the analysis of the demographic characteristics of the respondents as provided in Table 17.

4.2.1 Gender of the Respondents

The response concerning the gender of the two categories of respondents is provided in Table 17.

Table 17

Gender of the Respondents

Sex	Students		Principals	
	F	%	F	%
Male	909	53.3	39	52.7
Female	798	46.7	35	47.3
Total	1707	100.0	74	100.0

The results presented in Table 17 shows that among the student respondents, 53.3% were male and 46.7% were female. Among the principals, 52.7% of the principals were male, while 47.3% were female. The results suggest that in the schools visited there were more male participants. Nevertheless, the researcher was able to capture the responses from all the respondents, thus eliminating the possibility of bias based on gender.

4.3 Relationship between Teaching Behaviours and Student Academic Achievement

This section presents the results for the first objective which sought to compare the relationship between teaching behaviour and student academic achievement in public and private secondary schools in Nakuru County, Kenya, with a focus on comparing results between public and private schools in Nakuru County, Kenya. In the interpretation, strongly agree and agree are combined to provide a more robust analysis by grouping together respondents who generally express positive sentiments or agreement toward the subject of the study. This approach simplifies the analysis and allows for clearer insights into the overall favorable stance of participants, making it easier to draw meaningful conclusions and reducing the complexity of the results presentation. This was done for all sections of descriptive analyses.

4.3.1 Teachers' Preparation of Schemes of Work

A scheme of work is a sequential logical arrangement of the syllabus content of a given subject into teachable units. The principals were asked to indicate whether teachers prepared schemes of work. The results are provided in Table 18.

Table 18

Teachers' Preparation of Schemes of Work

			School Category			
			Public		Private	
			F	%	F	%
Teachers	Prepare	Strongly Disagree	0	0.0%	2	5.6%
Schemes of Work.		Disagree	2	5.3%	5	13.9%
		Agree	5	13.2%	4	11.1%
		Strongly agree	31	81.6%	25	69.4%

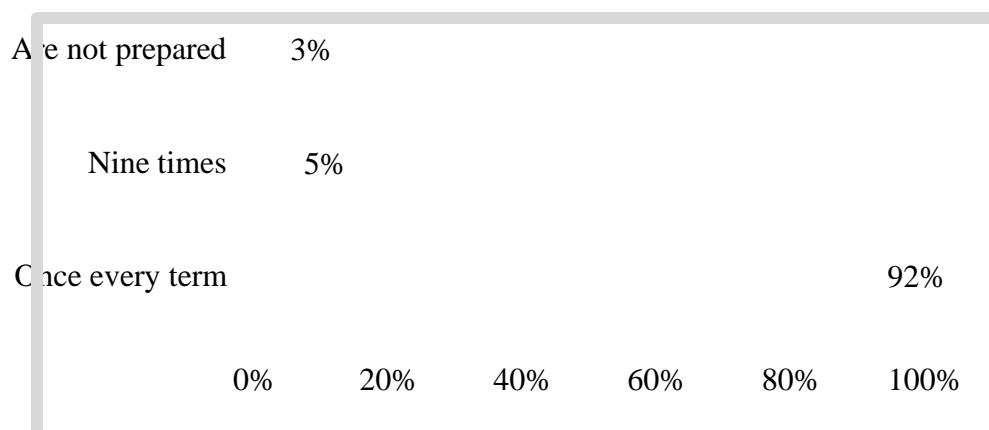
F - Frequency

As mentioned earlier, in interpreting the data strongly agreed and agreed responses are added together and interpreted as respondents agreeing to the aspect being investigated in this study. The results in Table 18 show that 94.8% of the respondents from public schools 80.5% from private secondary schools agreed that teachers in their schools prepare schemes of work. This result is consistent with the results from Okoth *et al.* (2018) who found that most public secondary school teachers in Uganda do not prepare schemes of work.

The principals were asked to indicate how often schemes of work are prepared in one year. The responses were are in Figure 2.

Figure 2

Annual Frequency of Preparation of Schemes of Work



The principals were asked to give the number of times schemes of work were prepared in one year. The findings in Figure 2 shows that 92% of the school principals indicated that schemes of work were prepared once every term, 5% indicated that the schemes of work are prepared nine times, and 3% indicated that schemes of work are never prepared. The results suggest that in a majority of the schools, the schemes of work are prepared once every term. This indicates that they are prepared three times in a year since a year has three terms.

4.3.2 Teachers' Preparation of Lesson Plans

A lesson plan is a predetermined arrangement of teaching and learning activities that a teacher carries with an intention to achieve set objectives within a given time. The principals were asked to indicate whether they agreed with the statement that teachers prepared lesson plans. The results were as provided in Table 19.

Table 19

Teachers' Preparation of Lesson Plans

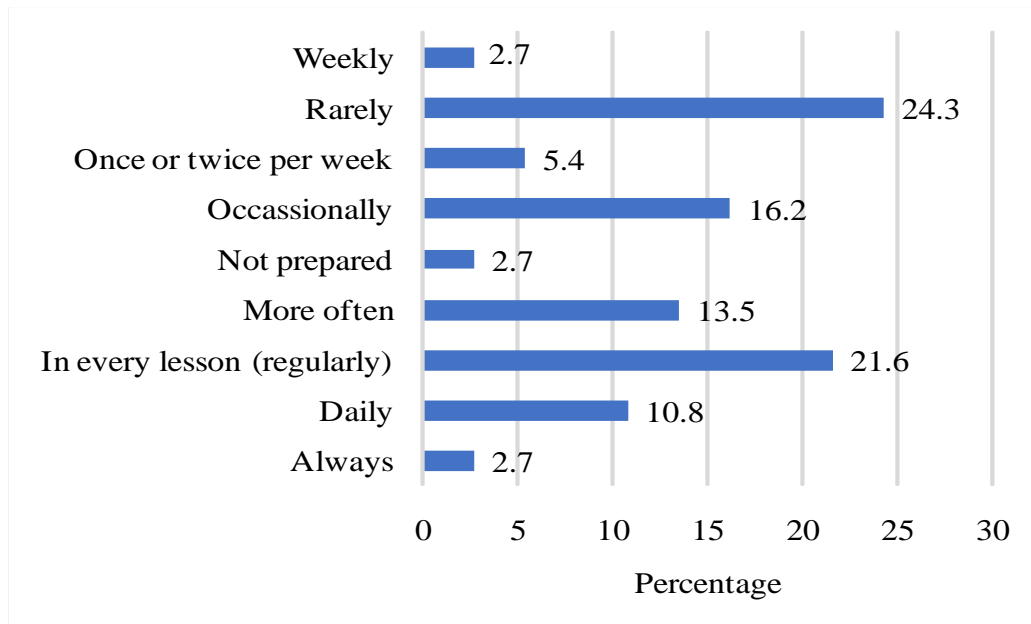
				School Category			
				Public		Private	
				F	%	F	%
Teachers Prepare Lesson Plans			Strongly disagree	1	2.6%	1	2.8%
			Disagree	3	7.9%	6	16.7%
			Agree	21	55.3%	15	41.7%
			Strongly agree	13	34.2%	14	38.9%

The findings in Table 19 indicate that 89.5% of principals of public schools and 80.6% from private schools agreed that teachers in their schools prepared lesson plans. The results are in agreement with Kimosop (2015) where it was found that in some schools teachers did not prepare lesson plans. Universally, teachers in secondary schools must know how to plan their classes before actual teaching, which is a function of school policies or government requirements.

The respondents were asked to indicate how often lesson plans are used during the lesson in class. The responses are provided in Figure 3.

Figure 3

How Often Lesson Plans Are Used During the Lesson in Class



The results in Figure 3 show lesson plans were not frequently prepared in over 70% of the secondary schools. This is greatly attributed to the fact that the impact of the Teacher Performance Appraisal and Development (TPAD) system on professional documentation has significantly driven the widespread adoption of lesson plans. Notably, the influence of TPAD has contributed to a high level of utilization of lesson plans among educators. The findings are consistent with those in a study by Kimosop (2015) who found that in a majority of schools, teachers rarely prepared lesson plans.

4.3.3 Marking of Continuous Assessment Tests within set Timelines

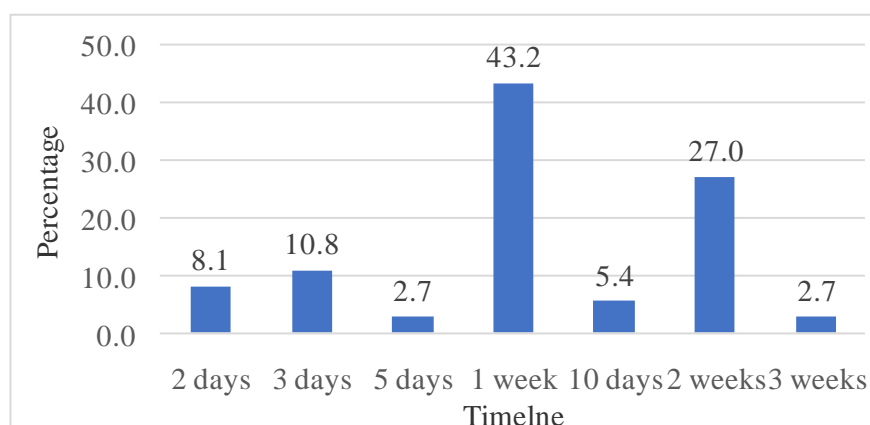
Continuous assessment is defined as activities and actions performed by teachers in the classroom to identify the level of learning outcomes of individual students, classes, or sometimes a group on different aspects of the curriculum. The principals were asked to indicate whether they agreed with the statement that teachers mark continuous assessment tests within set timelines. The results are provided in Table 20.

Table 20*Marking of Continuous Assessment Tests within set Timelines*

		School Category			
		Public		Private	
		F	%	F	%
Teachers mark continuous assessment tests within given timelines	Strongly disagree	0	0.0%	0	0.0%
	Disagree	2	5.3%	11	30.6%
	Agree	16	42.1%	6	16.7%
	Strongly agree	20	52.6%	19	52.8%

The findings in Table 20 show that 94.7% of the principals of public schools and a 69.4% of those from private secondary schools agreed that teachers in their schools mark continuous assessment tests within given timelines. This shows that in a majority of the schools in both categories of schools, teachers mark continuous assessment tests within given timelines.

The findings are in line with those in a study by Faleye & Adefiyoye (2016) who found that in a majority of public schools' teachers were prompt in marking CATs. The respondents were asked to indicate the timelines given for the submission of CAT results once they are administered. The results were as presented in Figure 4.

Figure 4*Timelines Given for Submission of CAT Results Once They are Administered*

The findings in Figure 4 shows that 43.2% of the respondents indicated that they submitted CAT results to students within a week once they were administered, and 27% indicated two weeks. From the results presented, 10.8% of the respondents indicated 3 days, 8.1% indicated 2 days, 5.4% indicated 10 days, 2.75 indicated 5 days, and 2.7% indicated 3 weeks. The results therefore reflect that there were other underlying factors determining submission of CAT results to students besides time.

4.3.4 Use of Modulated End-of-Term Examinations

To modulate is to control or adjust something; it always involves some kind of deliberate modification (<https://www.vocabulary.com/dictionary/modulate>). Modulated end-of-term examinations can be defined as summative assessments set and adjusted by subject specialists in a school. These assessments are done at the end of the term. The principals were asked to indicate whether they agreed that subject panels set the modulated end-of-term examinations. The results were as provided in Table 21.

Table 21

Use of Modulated End-of-Term Examinations

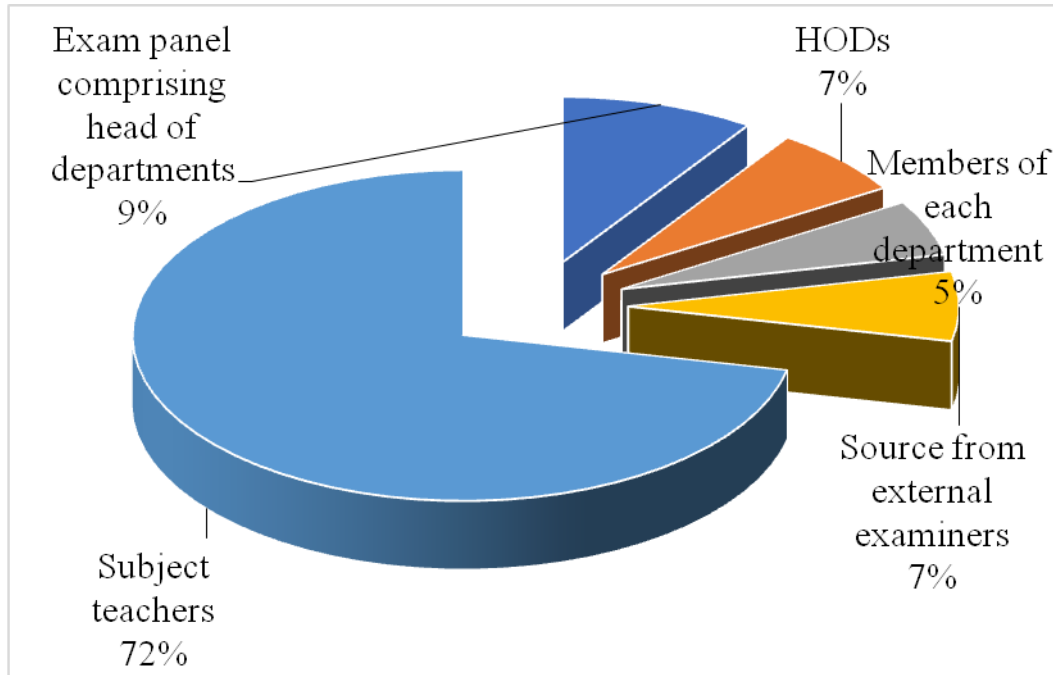
		School Category			
		Public		Private	
		F	%	F	%
Subject panels set the modulated end-of-term examinations.	Strongly disagree	0	0.0%	0	0.0%
	Disagree	8	21.1%	8	22.2%
	Agree	17	44.7%	16	44.4%
	Strongly agree	13	34.2%	12	33.3%

The results presented in Table 21 show that 78.9% of the principals of public schools and 77.7% of those from private secondary schools agreed that subject panels set the modulated end-of-term examinations. This shows that in a majority of the schools in

both categories, subject panels set the modulated end-of-term examinations. The principals were asked to indicate who set the end-of-term examinations in their school. The responses were presented in Figure 5.

Figure 5

Responsibility for Setting End Term Examinations



The results in Figure 5 shows that 72% of the principals indicated that end-of-term examination was set by subject teachers, 9% indicated that this was done by an examination panel comprising of heads of departments, 7% indicated HODs, and 7% indicated this was sourced from external examiners, while 5% indicated members of each department. The findings are in agreement with those in a study by Cuff (2018) that established that subject teachers and subject panels set modulated end-term examinations.

4.3.5 Marking End-of-Term Examinations within the Term

The principals were asked to indicate whether they agree with the statement that teachers mark the end-of-term examinations within the term. The results were provided in Table 22.

Table 22

Marking End-of-term Examinations within the Term

		School Category			
		Public		Private	
		F	%	F	%
Teachers mark the end-of-term examinations within the term	Strongly disagree	0	0.0%	0	0.0%
	Disagree	2	5.3%	7	19.5%
	Agree	7	18.4%	12	33.3%
	Strongly agree	29	76.3%	17	47.2%

The results presented in Table 22 indicate that 94.7% of principals from public schools and 80.5% from private schools agreed that teachers marked the end-of-term examinations within the term. This shows that in a majority of the schools in both categories, teachers marked the end-of-term examinations within the term. Nevertheless the small difference is brought about because probably private schools have more elaborate examination management internal systems which ensure that most teachers complete marking the end-of-term examinations as compared to public schools.

In most private and public secondary schools, the use of continuous assessment tests (CATs) was appreciated as an effective tool for student academic achievement and thus, was strongly part of the teaching culture. The results are in line with those of the principals were asked to indicate at which time end-of-term examinations are marked, and the results were as follows:

ID 23 - *“Immediately they are done with exams.”*

ID 41 - *“Shortly before closing, students are issued with marked script and reports*

ID 61 - *“Sometimes it is marked the first week of holiday and results sent to parents. All these depend on syllabus coverage.”*

From these results, it emerges that in many cases, examinations were marked within the same term, in most cases in the last week of the term. However, there were 25 other cases like in ID 61 where results were marked during the holidays and then sent to parents via SMS or WhatsApp.

4.3.6 Revision of Previous End-of-Term Examinations

The principals were asked to indicate whether they agree with the statement that teachers revise the previous end-of-term examinations, and the results were as provided in Table 23.

Table 23

Revision of the Previous End of Term Examinations

		School Category			
		Public		Private	
		F	%	F	%
Teachers revise the previous end-of-term examinations	Strongly disagree	0	0.0%	0	0.0%
	Disagree	0	0.0%	11	30.6%
	Agree	13	34.2%	8	22.2%
	Strongly agree	25	65.8%	17	47.2%

The results presented in Table 23 show that all (100%) the principals of public schools and 69.4% of those from private secondary schools agreed that teachers revise the previous end-of-term examinations. The disparity in these responses arose because unlike in private schools, teachers in public schools indulge in the Teacher performance appraisal and development process (TPAD), where they must mark internal examinations

and thereafter give feedback within given timelines. The TPAD process is non-existence in private schools. In the majority of the schools in both categories, teachers revise the previous end-of-term examinations though at varying levels. The findings are consistent with those by Musasia, Nakhanu, and Wekesa (2012) who found that most schools used in-depth revisions as a way of preparing learners for examinations.

4.3.7 Improvising of Teaching Resources as Need Arises

The principals were asked to indicate whether they agreed with the statement that teachers improvised teaching resources as the need arose. The results were as provided in Table 24.

Table 24

Improvising of Teaching Resources as the Need Arises

				School Category			
				Public		Private	
				F	%	F	%
Teachers improvise teaching resources as the need arises.	Strongly disagree	0	0.0%	0	0.0%		
	Disagree	3	7.9%	14	38.9%		
	Agree	19	50.0%	10	27.8%		
	Strongly agree	16	42.1%	12	33.3%		

Based on Table 24, 92.1% of principals from public schools and 66.1% from private schools agreed that teachers improvised teaching resources as the need arose. This shows that in a majority of the schools in both categories of schools, teachers improvise teaching resources as the need arises. The findings are consistent with those in a study by Okori and Omenka (2017) where it was found that due to inadequacies in instructional materials, teachers in most schools improvised teaching resources as the need arose.

The respondents were asked to indicate how often teaching resources are improvised. The responses indicate that this was done differently in the schools. In 38 schools this

was left for the teacher to decide, meaning that it was optional. In 23 schools this was done during the holiday period, while in 11 schools it was done during the first week of opening the school, as shown in the following examples of responses.

ID 49 – “*Teaching resources are usually improvised during the holiday period.*”

ID 52 – “*They are always improvised during the first week of school opening.*”

4.3.8 Use of Information Communication Technology (ICT) in Teaching

The principals were asked to indicate whether they agreed with the statement that teachers used information communication technology (ICT) in teaching. The results were provided in Table 25.

Table 25

Use of Information Communication Technology (ICT) in Teaching

				School Category			
				Public		Private	
				F	%	F	%
Teachers use information communication technology (ICT) in teaching	Strongly disagree	1	2.6%	4	11.1%		
	Disagree	7	18.5%	4	11.1%		
	Agree	23	60.5%	24	66.7%		
	Strongly agree	7	18.4%	4	11.1%		

The findings in Table 25 show that 78.9% of the principals of public schools and 77.8% of those from private secondary schools agreed that teachers use information communication technology (ICT) in teaching. This shows that in a majority of the schools in both categories of schools, teachers use information communication technology (ICT) in teaching. The findings are in line with those in a study by Jepketer et al., (2015) where it was reported that teachers Teaching Behaviours in most schools involved the use of a variety of approaches such as the use of ICT.

The principals were asked to indicate how often teachers integrated ICT in teaching and learning. The responses reveal that there was low integration of ICT in 44 schools, and thus, ICT was rarely integrated, as presented below.

ID 41 – *“The use of ICT by teachers is usually not commonly used only for the occasion they use it.”* A principal from a public secondary school

ID 72 – *“Sometimes teachers integrate ICT in their teaching-learning activities.”* A principal from a private secondary school

The low integration of ICT reported by school principals suggests that technology is not widely utilized in the educational process, which may have implications for student engagement and academic outcomes. The responses indicate that ICT usage is sporadic and inconsistent, with one principal from a public secondary school highlighting its infrequent use, while another from a private secondary school suggests that ICT integration occurs occasionally. These findings may suggest disparities in resource allocation and access to technology between public and private schools, which could impact the effectiveness of discipline management strategies and subsequently influence student academic achievement.

4.3.9 Preparation of Lesson Notes by Referring to Sources other than Print books

The principals were asked to indicate whether they agreed with the statement that teachers prepared lesson notes by referring to sources other than print books, and the results were as provided in Table 26.

Table 26*Preparation of Lesson Notes by Referring to Sources other than Print Books*

		School Category			
		Public		Private	
		F	%	F	%
Teachers prepare lesson notes by referring to sources other than print books	Strongly disagree	1	2.6%	6	16.7%
	Disagree	4	10.5%	6	16.7%
	Agree	15	39.5%	11	30.6%
	Strongly agree	18	47.4%	13	36.1%

The findings in Table 26 show that 86.9% of the principals of public schools 66.7% of those from private secondary schools agreed that teachers prepare lesson notes by referring to sources other than hard books. This shows that in a majority of the schools in, teachers prepare lesson notes by referring to sources other than print resources.

The students also indicated that lesson notes by teachers are preferred for the following reasons. One student is quoted saying: *“The notes are summarized and entail what is usually tested”*.

Another said, *“The teachers' notes are short and are clearly explained.”*

The findings in this section are contrary to those in a study by Kimosop (2015) where it was found that most of the schools studied rarely prepared lesson notes yet they were aware that this was unprofessional.

4.3.10 Use of Resource Persons in Teaching

The principals were asked to indicate whether they agree with the statement that teachers use resource persons in teaching, and the results were as provided in Table 27.

Table 27*Use of Resources of Persons in Teaching*

				School Category			
				Public		Private	
				F	%	F	%
Teachers use resource persons in teaching	Strongly disagree	3	7.9%	4	11.1%		
	Disagree	4	10.5%	7	19.4%		
	Agree	22	57.9%	20	55.6%		
	Strongly agree	9	23.7%	5	13.9%		

The results in Table 27 show that 81.6% of the principals of public schools and 69.5% of those from private secondary schools agreed that teachers use resource persons in teaching. This shows that in a majority of the schools in both categories of schools, teachers use resource persons in teaching.

The principals were asked to indicate the circumstances in which teachers used resource persons, and the responses were as follows.

ID1 – *“As they prepare learners for KCSE examiners.”*

ID31 – *“Areas of specialization.”*

ID33 – *“During academic trips.”*

ID41 – *“Where there`s a need to emphasize and more clarification.”*

The results show that according to a majority of the schools, the use of resource persons was necessitated by the need to have KCSE candidates prepare well for the examinations. A total of 42 principals indicated that this is necessary when Form 4s are about to sit for their final exams. The results are in agreement with those by Akinyi and Musani (2015) who found that schools invited resource persons to talk to them especially former girl students who excelled academically.

4.3.11 Completion of the Syllabus in Time

The principals were asked to indicate whether they agree with the statement that teachers completed the syllabus on time, and the results were as provided in Table 28.

Table 28

Completion of the Syllabus on Time

		School Category			
		Public		Private	
		F	%	F	%
Teachers complete the syllabus on time	Strongly disagree	0	0.0%	0	0.0%
	Disagree	0	0.0%	2	5.6%
	Agree	15	39.5%	15	41.7%
	Strongly agree	23	60.5%	19	52.7%

results in Table 28 show that 100% of the principals of public schools and 94.4% of those from private secondary schools agreed that teachers complete the syllabus on time. This shows that in a majority of the schools in both categories, teachers completed the syllabus on time. The findings are in line with those in a study by Mbugua *et al.*, (2012) who found that in a majority of the schools, teachers were keen on ensuring syllabus completion.

The principals were asked to indicate whether they normally complete their syllabus within the academic year. They responded as follows:

ID 22 – *“Latest at the course of the second term”*

ID 24 – *“Third term”*

ID 31 – *“Before the end of each term.”*

ID 36 – *“Within term 1 of Form IV around the end of March.”*

ID 43 – *“By 2nd term for forms 3 and 4 and a third term for forms 1 and 2*

The results show that different schools complete their syllabus at different times within an academic year. The results indicate significant variation in the timing of syllabus completion across different schools during an academic year.

4.3.12 Team Teaching

Team teaching can depict the school culture. According to Stepić & Popović, (2022), it is defined as a general organizational model of teaching in which two or more teachers work together as a team, collaborate, share responsibilities, and help each other in planning, implementing, and evaluating the teaching process in one or more professional subjects for the same group of students (p.612).

The principals were asked to indicate whether they agreed with the statement that teachers practiced team teaching, and the results were provided in Table 29.

Table 29

Team Teaching

		School Category			
		Public		Private	
		F	%	F	%
Teachers practice team teaching	Strongly disagree	1	2.6%	0	0.0%
	Disagree	0	0.0%	13	36.1%
	Agree	19	50.0%	12	33.3%
	Strongly agree	18	47.4%	11	30.6%

The results in Table 29 show that 97.4% of the principals of public schools and 63.9% of those from private secondary schools agreed that teachers practice team teaching. This shows that in a majority of the schools in both categories, teachers practiced team teaching.

The respondents were asked to indicate how team teaching is organized in their school, and some of the responses were as follows.

Principal ID 9 – *“At a personal level but sometimes at departmental levels.”*

ID 11 -: *“Sharing topics in a particular subject.”*

ID 16 – *“Team teaching is done when teachers agreed on topics to share and also in their absence”*

ID 17 - *“Team teaching is organized based on areas where subject teachers understand most.”*

ID 59 – *“This is done by sharing topics or subtopics.”*

The results show that in 47 schools teaching is organized at the departmental level after an analysis of individual subject teachers' capacity. Some schools indicated that this is achieved by sharing topics among teachers in a given team. Based on the responses provided, it can be concluded that team teaching in 47 schools is primarily organized at the departmental level, with consideration given to individual subject teachers' capacity and agreement on topics to share, enhancing collaboration and teaching efficiency. The findings agree with those in a study by Ada (2016) where it was found that most schools used a team teaching approach, as it was also found that students taught with a conventional teaching strategy did not perform well unlike students taught with a team teaching strategy.

4.3.13 Conducting Remedial Lessons for Slow learners

Slow learners are defined as children in a school system who have low performance in schools although they have abilities to perform well in other activities yet they have special needs although they cannot fit into the special education system (Korikana, 2020). Madtha (2015) views slow learners as normal students who are simply not

interested in studying under a traditionally acceptable system of education. In addition, such learners can learn educational skills but at a rate and depth below average as compared to their peers or average learners in the class. The principals were asked to indicate whether they agreed with the statement that teachers conducted remedial lessons for slow learners, and the results were provided in Table 30.

Table 30

Conducting Remedial Lessons for Slow Learners

		School Category			
		Public		Private	
		F	%	F	%
Teachers conduct remedial lessons for slow learners.	Strongly disagree	1	2.6%	0	0.0%
	Disagree	0	0.0%	14	38.9%
	Agree	19	50.0%	12	33.3%
	Strongly agree	18	47.4%	10	27.8%

The results in Table 30 show that 97.4% of the principals of public schools and a majority 61.1% of those from private secondary schools agreed that teachers conduct remedial lessons for slow learners. This shows that in a majority of the schools in both categories of schools, teachers conduct remedial lessons for slow learners.

The principals were asked to identify the type of students who were taught during remedial lessons, and the responses were as follows.

Principal ID 1 – *“All students- but close attention is paid to the weak ones”*

ID 51 – *“Candidate class.”*

ID59 - *“Slow learners and students with special cases”*

The results above show that remedial classes were organized for all categories of learners, and in most cases for slow learners. The findings mirror those in a study by

Mbugua *et al.*, (2012) where it was found that in a majority of schools, teachers did remedial lessons for slow learners, and this helped them achieve higher grades.

4.3.14 Students Practice of Peer Teaching among Themselves

The principals were asked to indicate whether they agreed with the statement that students practiced peer teaching among themselves, and the results were as provided in Table 31.

Table 31

Students Practice Peer Teaching among Themselves

		School Category			
		Public		Private	
		F	%	F	%
Students practice peer teaching among themselves	Strongly disagree	0	0.0%	0	0.0%
	Disagree	0	0.0%	11	30.6%
	Agree	21	55.3%	16	44.4%
	Strongly agree	17	44.7%	9	25.0%

The results in Table 31 show that 100% of the principals of public schools and y 65.4% of those from private secondary schools agreed that students practiced peer teaching among themselves. This shows that in a majority of the schools in both categories of schools, students practice peer teaching among themselves. The researcher asked the principals to indicate the time when peer teaching was done in their schools, and they responded as follows.

ID 3 – “During free lessons but sometimes during the normal lessons”

ID 13 – “After classes (after 5.00 pm)”

ID 16 – “It is done during lunch hours and very early in the morning preps”

ID 35 – “When there`s a need for emphasis among the students”

ID 38 – “During prep time -five in number”

Based on the responses from the principals, it means that peer teaching in their schools occurred at various times, including during free lessons, after classes (after 5.00 pm), during lunch hours, early in the morning preps, and when there's a need for emphasis among the students, with some instances during prep time. The timing appears to be flexible and depended on specific circumstances and school schedules. The findings are in agreement with those in a study by Ndirika and Ubani (2017) where it was found that most schools used the peer teaching approach and that there was a significant difference in the ability level (high, average, and low level) of students exposed to peer tutoring teaching strategy and conventional teaching method.

4.3.15 Use of Internal Set Mock Examinations

Internal set mock examinations are summative evaluations that can be oral, practical, or written set and administered by teachers in a school to test students' level of attained competencies, skills, and attitudes which result from a learning experience. The principals were asked to indicate whether they agreed with the statement that Form four students attempted internally set mock examinations, and the results were as provided in Table 32.

Table 32

Use of Internal Set Mock Examinations

				School Category			
				Public		Private	
				F	%	F	%
Form four students attempt internally set mock examinations	Strongly disagree	0	0.0%	0	0.0%		
	Disagree	2	5.3%	5	13.9%		
	Agree	19	50.0%	16	44.4%		
	Strongly agree	17	44.7%	15	41.7%		

As seen from table 32, 94.7% from public schools and 86.1% from private schools agreed that form four students attempted internally set mock examinations. This shows that in a majority of the schools in both categories of schools, form four students attempted internally set mock examinations.

The principals were asked to indicate how many standards internally set examinations form four students sat for in the final year of high school before the final KCSE examination, and examples of the most common responses were as follows.

ID 2 – “No major exams are administered but they sit for CATS”

ID 9 – “Three”

ID 10 – “At least six, alongside topical questions”

ID 12 – “Average 10”

ID 25 – “Five in number”

ID 42 – “Numerous”

ID 52 – “Two -one exam per term”

The qualitative results show that different schools used standard internally set examinations for form four students before the final KCSE examination at different frequencies. Some did it numerous times, some ten times, and this varied from school to school. The findings are in agreement with those by Adow, Alio, and Thinguri (2015) who found that many schools had put in place a system that allowed the use of internally set examinations for form four students.

4.3.16 Frequent Laboratory Sessions

The principals were asked to indicate whether they agreed with the statement that students frequently did practicals in the laboratory, and the results were provided in Table 33.

Table 33*Use of Practical's in the Laboratory Frequently*

		School Category			
		Public		Private	
		F	%	F	%
Students frequently do practicals in the laboratory	Strongly disagree	0	0.0%	0	0.0%
	Disagree	2	5.2%	12	33.3%
	Agree	18	47.4%	13	36.1%
	Strongly agree	18	47.4%	11	30.6%

From the results presented in Table 33, it is evident that the majority of principals from public schools who comprised 94.8% as well as those from private schools who comprised 66.7% agreed that students frequently did practicals in the laboratory. This shows that in a majority of the schools in both categories, students frequently did practicals in the laboratory.

The principals were asked to indicate how many times on average the students did practicals in the laboratory per term in any one given science subject, and the response was as follows.

ID 11 – “At least six times”

ID 17 – “Once per week throughout the term”

ID 19 – “At least three times per term”

ID 33 – “In a term of 14 weeks 10 practicals are done per science subject”

ID 34 – “At least 10 times per term”

ID 38 – “As many times as possible”

The results show that in many schools, students did practicals in the laboratory per term in any one given science subject at least once a week. Based on the responses provided by the principals, it was concluded that there was a wide variation in the frequency of

practicals conducted in the laboratory for science subjects, ranging from weekly to several times per term. The lack of a consistent standard suggests a potential disparity in the educational practices across the schools surveyed, which may warrant further investigation or consideration for standardization. The findings resonate with those in a study by Daba, Anbassa, Oda, and Degefa (2016) where it was found that in some schools there was an insufficient number of laboratories and chemicals, coupled with a lack of skilled laboratory technicians in secondary schools which made students lack interest in joining a science class. This also contributed to the low use of practicals in the laboratory.

4.3.17 Facilitation of educational field studies for learners

The principals were asked to indicate whether they agreed with the statement that the school facilitated educational field studies for learners, and the results were provided in Table 34.

Table 34

Facilitation of Educational Field Studies for Learners

		School Category			
		Public		Private	
		F	%	F	%
The school facilitates educational field studies for learners	Strongly disagree	2	5.3%	0	0.0%
	Disagree	2	5.3%	17	47.2%
	Agree	23	60.5%	11	30.6%
	Strongly agree	11	28.9%	8	22.2%

The results presented in Table 34 established that the majority of principals from public schools who comprised 89.4% as well as those from private schools who comprised 52.8% agreed that the school facilitated educational field studies for learners. This

clearly shows that the majority of the schools in both categories facilitate educational field studies for learners.

The principals were also asked to identify the subjects in which the school facilitated students in conducting educational field studies, and the main responses were as follows.

ID 4 – “Geography, Agriculture, History, Physics”

ID 7 – “English, Geography, Agriculture”

ID 12 – “Rarely due to limited resources”

ID 34 – “Geography, mathematics, and sciences (symposium)”

ID 54 – “Geography and sciences Physics, Geography, Agriculture, Business Studies and History and Government”

The results suggested that geography is a commonly supported subject for educational field studies across all respondents, with other subjects like agriculture and history also receiving significant mention. However, there are instances where limited resources hindered the facilitation of field studies, indicating potential challenges in providing this educational opportunity consistently.

4.3.18 Use of Internally Set Subject-Based Contests

The principals were asked to indicate whether they agreed with the statement that students attempted internally set subject-based contests, and the results were as provided in Table 35.

Table 35*Use of Internally Set Subject-Based Contests*

		School Category			
		Public		Private	
		F	%	F	%
Students attempt internally set subject-based contests	Strongly disagree	2	5.3%	1	2.8%
	Disagree	9	23.8%	17	47.2%
	Agree	19	50.0%	12	33.3%
	Strongly agree	8	21.1%	6	16.7%

The results presented in Table 35 indicated that the majority of the principals of public schools comprising 71.1% and their colleagues from private schools who constituted 50% agreed that students attempted internally set subject-based contests. This showed that in a majority of the schools, students attempted internally set subject-based contests. The findings were consistent with those in a study by Jung et al. (2016) who found that the use of internally set subject-based contests formed part of the school culture in many schools.

The principals were asked to identify the subjects where students participated in external subject-based contests, and the responses were as follows.

ID 17 – “Language and science subjects”

ID 20 – “Mathematics, English, and Chemistry”

ID 38 – “Geography and Mathematics”

ID 39 – “Mathematics, Chemistry, and English”

ID 41 – “Kiswahili, English, Sciences, and Mathematics”

ID 57 – “All subjects”

ID 61 – “Mathematics, Chemistry, Computer, Set books of English”

4.3.19 Students' Participation in External Subject-based Contests

The principals were asked to indicate whether they agreed with the statement that students in a given class participated in external subject-based contests, and the results were as provided in Table 36.

Table 36

Students' Participation in External Subject-based Contests

		School Category			
		public		private	
		F	%	F	%
Students in a given class participate in external subject-based contests	Strongly disagree	2	5.3%	1	2.8%
	Disagree	7	18.4%	17	47.2%
	Agree	18	47.4%	9	25.0%
	Strongly agree	11	28.9%	9	25.0%

From Table 36 it can be deduced that 76.3% of public schools and as well 50% of those from private secondary schools agreed that students in a given class participated in external subject-based contests. This showed that in a majority of schools, both in public and private, students in a given class participate in external subject-based contests.

The principals were asked to indicate what they believed was the relationship between external subject-based contests and the academic achievement of their students, and the responses were as follows.

ID 4– “They help them identify their weak areas for improvement”

ID 11– “It improves students’ performance”

ID 15– “Exposes them and allows them to compare themselves with others”

ID17– “Boast confidence and sharing of ideas”

ID 26– “It is key to good results since students are challenged out of their comfort zone”

ID 31– “They are mitigating as well as demotivating the weak students”

ID51– “Exposes learners to experience external tests and boost their confidence

ID 53– “As an eye opener”

ID 54– “The contests are sometimes subjective but give students confidence”

ID61– “They have immense motivation towards studies because they challenge them a lot”

The results indicated that students’ participation in external subject-based contests helped students improve their performance. The results suggested that the principals generally view external subject-based contests as having a positive impact on their students' academic achievement. They believed that these contests helped students identify weak areas, improve their performance, expose them to external testing experiences, boost their confidence, and provide motivation for academic pursuits, although there is a recognition that they can be challenging and potentially demotivating for weaker students in some cases. This helped them boost their confidence, exposes them, and allows them to compare themselves with others, and they were also able to discover their weaknesses. The results agree with those in a study by Jung *et al.* (2016) who found that many schools used externally set subject-based contests.

4.3.20 Students’ Participation in School-Based Symposiums

The principals were asked to indicate whether they agreed with the statement that students participated in school-based symposiums, and the results were provided in Table 37.

Table 37*Students' Participation in School-Based Symposiums*

		School Category			
		public		private	
		F	%	F	%
Students participate in school-based symposiums	Strongly disagree	6	15.8%	6	16.7%
	Disagree	8	21.1%	17	47.2%
	Agree	17	44.7%	8	22.2%
	Strongly agree	7	18.4%	5	13.9%

The results in Table 37 indicate that 63.1% of the principals of public schools and 36.1% of those from private secondary schools agreed that students participated in school-based symposiums. This showed that in a majority of public schools, students participated in school-based symposiums. The scenario is different in private schools where 63.9% of students do not participate in school-based symposiums. This could be attributed to financial resource constraints in some of the private schools since the schools do not receive state funding.

The principals were asked to indicate how many school-based symposiums their school organized for a given subject in Form Four per term, and examples of the main responses were shown below.

ID 11– “Thrice per term”

ID 18 – “None due to slow learning pace, more time is spent on syllabus coverage”

ID 19– “At least two”

ID 21– “A few”

ID 24– “About 8”

ID 25– “Each subject is given one slot per term”

ID 46 – “At least one per subject, per term”

ID 49 – “Once in every term”

The results suggest that there is a wide variation in the number of school-based symposiums organized for a given subject in Form Four per term among the principals surveyed. While some principals indicated a relatively high frequency of symposiums, others cited factors like slow learning pace or syllabus coverage as reasons for not organizing any, indicating a lack of uniformity in this educational practice across schools. The results are consistent with those in a study by Jung *et al* (2016) who found that in many schools, teachers arranged school-based symposiums for students.

4.3.21 Association between Teaching Behaviours and Student Academic Achievement

Teaching Behaviours and Student academic achievement by performance category was guided by four rankings namely: top performing public secondary schools, top performing private secondary schools, low performing public secondary schools, and low performing private secondary schools. The results for Spearman rank correlations for Teaching Behaviours and student academic achievement for top performing schools were as provided in Table 38.

Table 38*Teaching Behaviours & Student Academic Achievement for Top Performing Schools*

Performance	Category		Student Academic Achievement	
Top performing KCSE Public secondary schools	rho	Teaching	Correlation	.737 ^{**}
		Culture	Coefficient	
			Sig. (2-tailed)	0
			N	18
		Student	Correlation	1
		Academic	Coefficient	
	Achievement	Sig. (2-tailed)	.	
		N	18	
Top performing KCSE private secondary schools	rho	Teaching	Correlation	.973 ^{**}
		Culture	Coefficient	
			Sig. (2-tailed)	0
			N	20
		Student	Correlation	1
		Academic	Coefficient	
	Achievement	Sig. (2-tailed)	.	
		N	20	

According to Table 38, the Spearman rank correlation coefficient measures the strength and direction of the relationship between two variables, in this case, Teaching Behaviours and Student academic achievement. The coefficient ranges from -1 to 1, where values closer to 1 indicate a strong positive correlation, values closer to -1 indicate a strong negative correlation, and values around 0 indicate no correlation.

In the case of top performing public secondary schools, the Spearman rank correlation coefficient was 0.737, which indicated a strong positive correlation between Teaching Behaviours and Student academic achievement. This suggests that schools with better Teaching Behaviours tend to have higher academic achievement among their students.

The p value of 0.000 indicates that this correlation is statistically significant, meaning that it is unlikely to have occurred by chance. On the other hand, in top performing private secondary schools, the Spearman rank correlation coefficient was 0.973, which indicates an even stronger positive correlation between Teaching Behaviours and Student academic achievement. This suggests that private schools with better Teaching Behaviours tend to have even higher academic achievement among their students compared to public schools. The p value of 0.000 again indicates that this correlation is statistically significant.

Overall, both public and private top performing secondary schools show a positive relationship between Teaching Behaviours and Student academic achievement, but the correlation is stronger in private schools. This may be due to various factors such as more resources, smaller class sizes, and different teaching approaches.

Table 39

Teaching Behaviours & Student Academic Achievement for Low Performing Schools

Performance Category			Student Academic Achievement	
Low performing KCSE public secondary schools	Spearman's rho	Teaching Culture	Correlation Coefficient	0.071
			Sig. (2-tailed)	0.767
			N	20
		Student Academic Achievement	Correlation Coefficient	1
			Sig. (2-tailed)	.
			N	20
Low performing KCSE private secondary schools	Spearman's rho	Teaching Culture	Correlation Coefficient	0.289
			Sig. (2-tailed)	0.278
			N	16
		Student Academic Achievement	Correlation Coefficient	1
			Sig. (2-tailed)	.
			N	16

According to Table 39, in the low performing public secondary schools, the Spearman rank correlation between Teaching Behaviours and Student academic achievement was found to be low ($r = 0.071$), and the p-value was not statistically significant ($p = 0.761$). This suggests that there is little or no relationship between the teaching culture in these schools and the academic achievement of their students.

On the other hand, in the low performing private secondary schools, the correlation between Teaching Behaviours and Student academic achievement was found to be moderate ($r = 0.289$), but the p-value was still not statistically significant ($p = 0.278$). This indicates that there may be a weak relationship between teaching culture and student performance, but this relationship is not strong enough to be statistically significant.

There could be several possible reasons for these results. One possible explanation is that the teaching culture in low performing public schools may be less consistent or more variable than in private schools, resulting in a weaker correlation between teaching culture and academic achievement. In addition, low performing public schools may have more limited resources and support systems in place to promote effective teaching and learning, which could further reduce the impact of teaching culture on student performance.

In contrast, low performing private schools may have more consistent and effective teaching cultures, but still struggle with other factors that contribute to low academic achievement, such as inadequate resources, high student turnover, or limited access to academic support services. These factors may reduce the overall strength of the correlation between teaching culture and academic achievement, even if there is some relationship between these factors.

When comparing the four categories of performance, the following observations can be made. The results show a positive correlation between Teaching Behaviours and student academic achievement for top performing public and private secondary schools, with higher correlation in private schools. On the other hand, there was a weak and non-significant correlation for low performing public and private schools, with slightly higher correlation in private schools.

One possible reason for the higher correlation in private schools could be their better resources and facilities, which enable a more conducive learning environment and better teaching practices. Private schools also have greater autonomy in setting their curriculum and hiring qualified teachers, which may result in a more effective teaching culture.

In contrast, public schools in Kenya often face resource constraints, such as inadequate funding and teacher shortages, which can lead to overcrowded classrooms and lower quality teaching. This may explain the weak correlation observed in low performing public schools, where the teaching culture is likely to be less effective.

The findings correlate with those in a study by Malunda, Onen, Musaaazi, and Oonyu (2016) who found a negative relationship between teaching culture and student academic achievement. This was due to teachers' failure to embrace critical practices of the teaching culture. These findings are also consistent with later research that highlighted the importance of quality teaching in improving student outcomes in Kenya (Kimani & Mwangi, 2020). However, further studies are needed to explore the specific teaching practices and factors that contribute to a positive teaching culture in different school settings.

The results with respect to the Spearman rank correlations between Teaching Behaviours and student academic achievement by school type, that is private and public types, were as provided in Table 40.

Table 40

Teaching Behaviours and Student Academic Achievement by school Type

School Category			Student Academic Achievement	
rho	Public	Teaching Culture	Correlation Coefficient	.458**
			Sig. (2-tailed)	0.004
			N	38
	Private	Teaching Culture	Correlation Coefficient	.724**
			Sig. (2-tailed)	0.000
			N	36

*. Correlation is significant at the 0.05 level (2-tailed).

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

The Spearman rank correlation coefficients suggest a moderately positive relationship between Teaching Behaviours and student academic achievement in public secondary schools ($r = 0.458$) and a stronger positive relationship in private secondary schools ($r = 0.724$). The p values of 0.004 and 0.000, respectively, indicate that both correlations are statistically significant at the 0.05 level.

The results may suggest that Teaching Behaviours play a more significant role in determining student academic achievement in private secondary schools than in public ones. This difference could be due to several factors, such as differences in resource allocation, teacher training, and student backgrounds. For instance, private schools may have more resources to invest in teacher professional development, which could enhance their Teaching Behaviours and, in turn, improve student performance. Moreover, private schools may attract students from more affluent backgrounds, which could also

contribute to higher academic achievement. The findings agree with Chebet (2013) who found a statistically relationship between performance of private secondary schools and teacher empowerment in private secondary schools in Bomet County.

The findings are consistent with previous research that has shown a positive correlation between teaching quality and student achievement in Kenya (Orodho, 2013). Moreover, a study by Mwang'ombe (2021) highlighted the role of teacher training and development in improving teaching quality and student outcomes in low-income settings.

In conclusion, the present study provides evidence for a positive relationship between Teaching Behaviours and student academic achievement in both public and private secondary schools in Kenya. However, the correlation appears to be stronger in private schools, possibly due to differences in resource allocation and student backgrounds. These findings have important implications for education policy and practice in Kenya, as they suggest that investing in teacher training and development could be a key strategy for improving student outcomes, particularly in low-income settings.

Table 41

Associations between Teaching Culture and Student Academic Achievement by Level of Performance

Level of Performance			Teaching Culture	Student Academic Achievement
Low Performing Schools	Teaching Culture	Correlation	1	.450**
		Coefficient		
		Sig. (2-tailed)	.	0.006
High Performing Schools	Teaching Culture	N	36	36
		Correlation	1	.846**
		Coefficient		
		Sig. (2-tailed)	.	0.000
		N	38	38

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

In Table 41 the Spearman rank correlation coefficient was used to analyze the relationship between teaching culture and student academic achievement in low and high performing schools in Kenya. The results showed a moderate positive correlation ($r = 0.450$, $p = 0.006$) between teaching culture and student academic achievement in low performing schools, while high performing schools had a strong positive correlation ($r = 0.846$, $p = 0.000$).

This suggests that teaching culture is more strongly associated with student academic achievement in high performing schools, while in low performing schools, other factors may be more influential. The possible reasons for this may include differences in school resources, student backgrounds, and teacher training and support.

The results are in line with those in a study by Oyaro, Ogola, and Okwara (2017), who observed that high performing schools in Kenya tend to have better-equipped facilities, well-trained teachers, and strong leadership, which may contribute to a positive teaching culture and higher student achievement. On the other hand, low performing schools often lack basic resources such as textbooks, adequate classrooms, and qualified teachers, which may limit the effectiveness of teaching culture as a predictor of academic achievement.

In conclusion, the findings suggest that teaching culture is an important factor in student academic achievement, but its impact may vary depending on the overall performance of the school. According to Kuluo (2018), it is important for policymakers and educators in Kenya to focus on improving school resources and teacher training to ensure that teaching culture can have a greater impact on student achievement, particularly in low performing schools.

4.3.22 Regression between Teaching Behaviours and Students Academic Achievement

This table presents the model summary for the regression analysis comparing the relationship between Teaching Behaviours and students' academic achievement in public and private secondary schools.

Table 42

Model Summary

School Category	Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
Public	1	.568 ^a	.323	.304	2.15570
Private	1	.582 ^a	.339	.320	2.22200

a. Predictors: (Constant), Teaching Culture

The results show that for public schools, the model indicates a moderate fit with an R-squared value of 0.323, implying that Teaching Behaviours explain approximately 32.3% of the variance in student academic achievement. The adjusted R-squared value is 0.304, adjusting for the number of predictors in the model. Similarly, for private schools, the R-squared value is 0.339, indicating that Teaching Behaviours explain approximately 33.9% of the variance in student academic achievement, with an adjusted R-squared value of 0.320. The standard error of the estimate for public schools is 2.15570, and for private schools, it is 2.22200, indicating the average distance between observed and predicted values of student academic achievement.

The analysis of variance (ANOVA) table tests the overall significance of the regression models for both public and private schools.

Table 43

ANOVA for Regression between Teaching Behaviours and Students Academic Achievement

School			Sum of				
Category	Model		Squares	df	Mean Square	F	Sig.
Public	1	Regression	79.880	1	79.880	17.190	.000 ^b
		Residual	167.293	36	4.647		
		Total	247.173	37			
Private	1	Regression	86.162	1	86.162	17.451	.000 ^b
		Residual	167.868	34	4.937		
		Total	254.030	35			

a. Dependent Variable: Student Academic Achievement

b. Predictors: (Constant), Teaching behavior

The results show that for both categories (public and private schools), the regression models are highly significant ($p < 0.05$). In public secondary schools, the regression model accounts for a significant portion of the variability in student academic achievement, with a sum of squares for regression of 79.880 and a significant F-value of 17.190. Similarly, in private schools, the regression model is significant, with a sum of squares for regression of 86.162 and an F-value of 17.451. Table 44 presents the coefficients for the predictors in the regression models for both public and private schools.

Table 44

Coefficients for Regression between Teaching Behaviours and Students Academic Achievement

School Category	Model	Unstandardized Coefficients		Standardized Coefficients	
		B	Std. Error	Beta	t Sig.
Public	1(Constant)	-.036	1.238		-.029 .977
	Teaching behavior	1.621	.391	.568	4.146.000
Private	1(Constant)	.531	1.109		.479 .635
	Teaching behaviour	1.578	.378	.582	4.177.000

a. Dependent Variable: Student Academic Achievement

The results reveal that in public schools, the coefficient for teaching behavior is 1.621, indicating that for every one-unit increase in teaching behavior, there is a predicted increase of 1.621 units in student academic achievement. This coefficient is statistically significant ($t = 4.146$, $p < 0.001$). In private schools, the coefficient for teaching behavior is 1.578, also statistically significant ($t = 4.177$; $p < 0.001$). The results imply that teaching behavior, represented by teaching cultures, significantly influences student academic achievement in both public and private secondary schools.

4.3.23 Relationship between Teaching Behaviours and Students' Academic Achievement across All Categories of Schools

This section provides a summary of the regression analysis examining the relationship between Teaching Behaviours and students' academic achievement across all categories of schools in Nakuru County. The model summary is presented in Table 45.

Table 45*Model Summary*

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.569 ^a	.324	.315	2.16899

a. Predictors: (Constant), Teaching behaviour

The model indicates a moderate fit with an R-squared value of 0.324, suggesting that teaching behavior explains approximately 32.4% of the variance in student academic achievement. The adjusted R-squared value, which adjusts for the number of predictors in the model, is 0.315. Therefore, these values suggest that teaching behavior, represented by teaching cultures, has a moderate but meaningful influence on student academic achievement. Approximately 32.4% of the variability in student academic achievement across all categories of schools in Nakuru County can be attributed to differences in teaching behavior. However, there may be other factors not accounted for in the model that also contribute to student academic achievement. The standard error of the estimate is 2.16899, indicating the average distance between observed and predicted values of student academic achievement.

The analysis of variance (ANOVA) table tests the overall significance of the regression model.

Table 46*Analysis Of Variance (ANOVA) for Teaching Behavior*

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	162.482	1	162.482	34.537	.000 ^b
	Residual	338.725	72	4.705		
	Total	501.206	73			

a. Dependent Variable: Student Academic Achievement

b. Predictors: (Constant), Teaching behavior

The results indicate that the regression model is highly significant ($p < 0.001$), suggesting that the relationship between Teaching Behaviours and student academic achievement is not due to chance. The sum of squares for the regression is 162.482, while the sum of squares for the residual (error) is 338.725. This suggests that the regression model accounts for a significant portion of the total variability in student academic achievement. Table 47 presents the coefficients for the predictors in the regression model.

Table 47

Coefficients for Regression between Teaching Behaviours and Students Academic Achievement

Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
	B	Std. Error	Beta		
1 (Constant)	.345	.814		.423	.673
Teaching behaviour	1.565	.266	.569	5.877	.000

a. Dependent Variable: Student Academic Achievement

The intercept term (constant) is 0.345, indicating the expected value of the dependent variable (student academic achievement) when the predictor variable (teaching behavior) is zero. The coefficient for teaching behavior is 1.565, indicating that for every one-unit increase in teaching behavior, there is a predicted increase of 1.565 units in student academic achievement. This coefficient is statistically significant ($t = 5.877$, $p < 0.001$), suggesting that teaching behavior is a strong predictor of academic achievement across all categories of schools in Nakuru County. The results suggest that teaching behavior, represented by teaching cultures, significantly influences student academic achievement across all categories of schools in Nakuru County. The results are similar to those in a

study by Mwikaria et al. (2019) who established that teaching behavior such resource management and timeliness were strong predictors of student academic achievement.

4.3.24 Hypothesis Testing for Teaching Cultures

This section presents the results related to testing the first hypothesis. The guiding specific objective was to compare the relationship between teaching behaviour and student academic achievement in public and private secondary schools in Nakuru County, Kenya. The hypothesis read.

Ho1: There is no statistically significant difference in the relationship between selected teaching behaviour and student academic achievement between public and private secondary schools in Nakuru County, Kenya.

$$Y = \beta_0 + \beta_2(TB) + \varepsilon^2$$

The study uses the coefficient (beta) for teaching behavior (TB) from the regression analysis, which is 1.565. The null hypothesis implies that the coefficient for TB (β^2) is equal between public and private schools. Given that the coefficient for TB is 1.565 with a t-value of 5.877 and a p-value < 0.001 , the study rejects the null hypothesis. This indicates that there is a statistically significant difference in the relationship between teaching behavior and student academic achievement between public and private secondary schools in Nakuru County, Kenya. The findings are in agreement with those in a study by Odide (2021) where it was established that there was a positive relationship between teaching behaviour and student academic achievement. Therefore, the study concludes that there is evidence to suggest that the relationship between selected teaching behavior and student academic achievement differs significantly between public and private secondary schools in Nakuru County, Kenya.

4.4 Relationship between Selected Student Study Behaviours and Student Academic Achievement

This section presents the results for the second objective which sought to assess the relationship between student study behaviour and student academic achievement in public and private secondary schools in Nakuru County, Kenya, comparing outcomes between public and private secondary schools. The results reveal that 316 students from public secondary schools and 222 students from private secondary schools participated in the study. Private schools appeared to have stricter policies regarding student participation in research activities. Additionally, there could be variations in the level of encouragement or facilitation provided by school administrators or teachers to engage students in research initiatives.

4.4.1 Use of Notes Given by Teachers

The students were asked to indicate whether they agreed that students use notes given by teachers, and the response was as provided in Table 48.

Table 48

Use of Notes Given by Teachers

					School Category			
					Public		Private	
					F	%	F	%
Students use notes given by teachers	Strongly disagree		67	6.9%	31	4.4%		
	Disagree		89	9.2%	43	6.1%		
	Agree		495	51.2%	411	58.1%		
	Strongly agree		316	32.7%	222	31.4%		

The results provided in Table 48 showed that the 83.9% of the students of public schools and 89.5% of those from private secondary schools agreed that students used notes given by teachers. This showed that in a majority of both public and private schools, students

use notes given by teachers. The results were reinforced by the few students who disagreed with the statement as given in table 36. The findings concur with those in a study by Okoth et al. (2018) who observed that in most schools, students relied on notes given by teachers.

4.4.2 Allowing Students to do Private Studies before Normal Classes Start

The students were asked to indicate whether they agreed that students were allowed to do private studies before normal classes start, and the response was as provided in Table 49.

Table 49

Allowing Students to do Private Studies before Normal Classes Start

		School Category			
		Public		Private	
		F	%	F	%
Students are allowed to do private studies before normal classes start.	Strongly disagree	42	4.3%	10	1.4%
	Disagree	38	3.9%	28	3.9%
	Agree	358	36.6%	298	42.0%
	Strongly agree	540	55.2%	374	52.7%

The results provided in Table 49 show that 91.8% of the students of public schools and 94.7% of those from private secondary schools agreed that students were allowed to do private studies before normal classes start. This showed that students were allowed to do private studies before normal classes started in a majority of public and private schools. When asked about the importance of doing private studies in their school in case they were done, the students gave the following responses.

ID 4 stated that: *“If one did not get whatever the teacher taught during the class time, he/she can understand more reason being that the pupil is slow learners.”*

ID 287 stated: *“In our school, private studies are important since they give a student a chance to go through the previous lessons, whether she/he understood, and come up with questions in the next class”.*

ID 319 is quoted as saying: *“It boosts one’s competence in understanding and familiarizing with the set texts before clarification from teachers.”*

The results suggested that students perceived private studies as valuable for enhancing their understanding of class material, clarifying doubts, and improving their competence. They view private studies as an opportunity to reinforce their learning and address any challenges they may face in comprehending the lessons, highlighting the importance of self-directed learning in their educational experience. The findings are consistent with those in a study by CooperGibson Research, (2018) where it was found that in many schools, students were allowed to do private studies before normal classes started.

4.4.3 Making Micro (Short) Notes during lessons

The students were asked to indicate whether they agreed that students made micro (short) notes during lessons, and the response was as provided in Table 50.

Table 50

Making Micro (short) Notes during Lessons

			School Category			
			Public		Private	
			F	%	F	%
Students make micro (short) notes during lessons	Strongly disagree	48	4.9%	29	4.1%	
	Disagree	72	7.4%	74	10.4%	
	Agree	512	52.4%	383	53.9%	
	Strongly agree	345	35.3%	224	31.5%	

The results presented in Table 50 reveal that 87.7% of the students of public schools and 85.4% of those from private secondary schools agreed that students made micro (short)

notes during lessons. The implication, therefore, is that a majority of students made micro (short) notes during lessons in both public and private schools.

When asked why they make (micro) short notes during lessons in case they were done, the students responded as follows:

ID 90 is quoted saying: *“Writing micro short notes enhances memorability because what one has written with their hand is more easily remembered.”*

ID 363 is quoted saying that: *“It helps one to compare and refer to what the teacher teaches and what is in the textbook during my studies.”*

The findings correspond with those by Al-Zaidi and Sinclair (2013) who found that taking micro notes was a common study culture in many schools. They observed that micro note-taking is one of the most common techniques used by students during lectures as a powerful supporting tool that can enhance their learning experience.

4.4.4 Revisions after Each Topic Covered

The students were asked to indicate whether they agreed that students did revisions after each topic covered in class, and the response was as provided in Table 51.

Table 51

Revisions after Each Topic Covered

		School category			
		Public		Private	
		F	%	F	%
Students do revisions after each topic covered in class	Strongly disagree	84	8.6%	32	4.5%
	Disagree	164	16.9%	109	15.5%
	Agree	446	45.8%	371	52.6%
	Strongly agree	279	28.7%	193	27.4%

The findings presented in Table 51 confirm that 87.7% of the students of public schools and 85.4% of those from private secondary schools agreed that students do revisions after each topic covered in class. The implication, therefore, is that a majority of students do revisions after each topic covered in class in both public and private schools.

When asked how they revised after completion of a topic covered in class they were done; the students gave responses such as:

ID 287 – *“By attempting all the questions behind the topic. By going through different questions in different revision materials. Sometimes, the teacher sets questions that are done as exams for revision.”*

ID 362 – *“Making short notes and going through questions,”*

ID 305 – *“Through group discussions, we revise topical questions for proper understanding of the topic.”*

The results suggested that students employed a variety of revision strategies, including practicing questions, making concise notes, and engaging in group discussions, to reinforce their understanding of class topics. These diverse approaches indicated a proactive effort among students to enhance their comprehension and retention of the material. The findings are in agreement with those in a study by Musasia, Nakhanu, and Wekesa (2012) who found that in a majority of the schools; teachers ensured that students did revisions after each topic covered in class.

4.4.5 Use of Approved Textbook to Make Additional Personal Notes

The students were asked to indicate whether they agreed that Students used approved textbooks to make additional personal notes, and the response was as provided in Table 52.

Table 52*Use of Approved Textbook to Make Additional Personal Notes*

		School category			
		Public		Private	
		F	%	F	%
Students use approved textbooks to make additional personal notes	Strongly disagree	52	5.3%	40	5.7%
	Disagree	100	10.1%	62	8.8%
	Agree	462	47.7%	340	48.2%
	Strongly agree	356	36.7%	264	37.4%

The findings presented in Table 52 indicated that 84.4% of the students of public schools and 85.6% of those from private secondary schools agreed that students used approved textbooks to make additional personal notes. This implied that in a majority of public and private schools, students used the approved textbooks to make additional personal notes.

Asked whether they used the approved textbooks to make additional personal notes, the students gave the following responses.

ID 289 – *“I stick to the approved textbooks as I believe the syllabus is tested through approved texts”*

ID 325 – *“Other books are also used for additional notes, for instance, other than the approved KLB biology, students use the highly respected principles of biology by P. Muchiri to make notes”*

The findings are consistent with those in a study by Nisar *et al.* (2017) who found that textbook reading was employed and encouraged in most schools. In a study by Rahman *et al.* (2011), it was established as well that assignments given to students were often done using textbooks.

4.4.6 Use of Past Papers to Revise for Examinations

The students were asked to indicate whether they agreed that students used past papers to revise for examinations, and the response was as provided in Table 53.

Table 53

Use of Past Papers to Revise for Examinations

		School category			
		Public		Private	
		F	%	F	%
Students use past papers to revise for examinations	Strongly disagree	39	4.0%	13	1.8%
	Disagree	44	4.5%	32	4.6%
	Agree	389	40.1%	254	36.1%
	Strongly agree	497	51.3%	404	57.5%

The results presented in Table 53 comparatively indicated that 91.4% of students from public schools and their counterparts from private schools who constituted 93.6% agreed that students used past papers to revise for examinations.

The students were asked to state the reason why past examination papers were used in their school for preparation for doing examinations if they were used at all, and to which they indicated that this helped them prepare well for examinations by making them understand the subject content well. Some of the responses were as follows.

ID 5 – *“The past papers direct me from which part exams usually come and also how questions are set.”*

ID 313 - *They are better since they show how to tackle mistakes done in the previous examinations*

ID 408 – *“To enable students to identify the different examination techniques”*

The findings resonate with Turner (2018)'s arguments that Working through previous exam questions is a useful revision tool, but they offer much more potential for students to develop deeper cognitive skills. Turner observed that often students resort to just going through the motions with past papers because they are not sure what other independent work they can do. Studying past papers is a valuable part of exam preparation and helps keep revision focused on important themes whilst practicing exam-style questions.

4.4.7 Engaging in Discussion Groups to Enhance Understanding of What is Taught

The students were asked to indicate whether they agreed that students were required to engage in discussion groups to enhance understanding of what is taught in class, and the response was as provided in Table 54.

Table 54

Engaging in Discussion Groups to Enhance Understanding of What is Taught

		School Category			
		Public		Private	
		F	%	F	%
Students are required to engage in discussion groups to enhance their understanding of what is taught in class	Strongly disagree	45	4.7%	9	1.3%
	Disagree	43	4.5%	24	3.4%
	Agree	379	39.9%	279	39.6%
	Strongly agree	484	50.9%	393	55.7%

The findings presented in Table 54 indicated that in comparison to those who disagreed, 90.8% of the students of public schools and 95.3% of those from private secondary schools agreed that students were required to engage in discussion groups to enhance understanding of what is taught in class. The implication here is that in a majority of the schools in both categories of schools, students engage in discussion groups.

The students were asked to indicate if discussion groups existed in their school, and what was the importance of such groups was apart from enhancing understanding of what is taught in class. The students cited reasons such as enhanced confidence, better understanding, and strengthened relationships. Some of the responses given were as follows:

ID 44 – *“It helps that student who is at a lower level of study and make him/her learn well and ask a question on what they do not know.”*

ID 288 – *“It builds confidence among students, and it gives students a chance to speak their minds, and ones not correct are corrected.”*

ID 301 – *“Different people have different ways which can help in tackling different topics or areas and this is enhanced in group discussions.”*

ID 307 – *“Discussion groups help the students to build teamwork, the students can well understand some topics through the discussion groups”*

ID 1127 – *“They help us to correct each other and speak our mind and by that, we can know our weak areas and work on them*

ID 1467 – *“Some students fail to understand what the teacher is or has taught and find it difficult to consult the teacher for some particular reasons so the students use discussions to enhance understanding.”*

The results suggested that students perceived discussion groups as valuable tools for enhancing their learning experiences. They believed that these groups contributed to improved confidence, better understanding of course materials, strengthened relationships, and the opportunity to address areas of weakness collaboratively, ultimately highlighting the multifaceted benefits of discussion groups beyond classroom instruction. The findings are in agreement with those in a study by Doyle and Zakrajsek, (2013) where it was found that the use of discussion groups was embraced by many

schools. The researcher explained that when students have an opportunity to work together to learn course content, particularly when applying that material to a new challenge, both deep thinking and retrieval of associated materials are realized.

4.4.8 Use of Mnemonics to Boost Memorization

The students were asked to indicate whether they agreed that learners used mnemonics to boost memorization. The response was as provided in Table 55.

Table 55

Use of Mnemonics to Boost Memorization

			School Category			
			Public		Private	
			F	%	F	%
Learners use mnemonics to boost memorization	Strongly disagree	148	16.2%	70	10.6%	
	Disagree	169	18.5%	107	16.2%	
	Agree	346	37.8%	261	39.5%	
	Strongly agree	252	27.5%	223	33.7%	

The findings presented in Table 55 showed that, in comparison to those who disagreed, 65.3% of the students of public schools and 71.2% of those from private secondary schools agreed that learners used mnemonics to boost memorization. This implied that in a majority of Public and private schools, learners used mnemonics to boost memorization.

The findings were in line with those in a study by Jones (2023) where it was pointed out that students used mnemonics, since using the keyword mnemonic method improved learning and recall, especially in the area of foreign language. The researcher also noted that students who used memory tricks perform better than those who did not.

The students were asked to indicate and identify the ways used to boost memorization other than the use of mnemonics in case they are used in their school, and the responses were as follows.

ID 347 – *“To read many times and with consistency.”*

ID 149 – *“Composing songs and skits.”*

ID 181 - *“Coming up with acronyms for some formulas, and reading and narrating to other students.”*

ID 1019 – *“Repetition of the concept”*

ID 1145 – *“Quizzes”*

ID 1481 – *“Using sticky notes”*

ID 1601 – *“Through fieldwork/Laboratory practicals”*

The results suggested that students employed a variety of strategies beyond mnemonics to enhance memorization, including repeated reading, creative methods like composing songs and skits, mnemonic devices like acronyms, frequent repetition, quizzes, and practical hands-on approaches such as fieldwork and laboratory work. This indicated a diverse range of memorization techniques utilized by students, highlighting the importance of accommodating various learning preferences and strategies in educational settings.

4.4.9 Students Completion of Given Assignments within the Time Given by Teachers

The students were asked to indicate whether they agreed that students completed given assignments within the time given by teachers, and the response was as provided in Table 56.

Table 56*Students' Completion of Given Assignments within the Time Span*

		School category			
		Public		Private	
		F	%	F	%
Students complete given assignments within the time given by teachers	Strongly disagree	152	16.1%	71	10.1%
	Disagree	179	18.9%	135	19.2%
	Agree	408	43.1%	301	42.8%
	Strongly agree	207	21.9%	196	27.9%

The findings provided in Table 56 demonstrate that, in comparison to those who disagreed, 65% of the students of public schools and 70.7% of those from private secondary schools agreed that students completed given assignments within the time given by teachers. This confirms that in a majority of the schools in both categories of schools, students complete given assignments within the time given by teachers.

The students were asked to give reasons why assignments given by teachers in their school must be completed within the timelines given if such timelines for their completion were given.

ID 350 – *“This enables the teacher to know whether the topic tested is understood and if not he/she can revise the topic with the students.”*

ID 384 – *“The assignment speed time enables the student to improve their speed even during the examination.”*

541 – *“So that the teacher can mark books and see if the students have understood and which questions they have not understood.”*

The findings are in line with those in a study by Osa-Edoh & Alutu, (2012) who found that students ensured that they completed assignments in time, as a study culture geared towards enabling them to achieve more academically.

4.4.10 Punctuality when going to class

The students were asked to indicate whether they agreed that students were punctual when going to class, and the response was as provided in Table 57.

Table 57

Students' Punctuality When Going to Class

		School category			
		Public		Private	
		F	%	F	%
Students are punctual when going to class	Strongly disagree	77	8.3%	21	3.0%
	Disagree	118	12.7%	95	13.5%
	Agree	479	51.6%	323	45.8%
	Strongly agree	255	27.4%	267	37.8%

The findings provided in Table 57 indicated that in comparison to those who disagreed with the given statement, 79.0% of the students of public schools and 83.6% of those from private secondary schools agreed that students were punctual when going to class. The implication here is that in a majority of both public and private schools, students are punctual when going to class.

The students were asked to indicate why they thought that punctuality in class was important in their school and they gave the following responses.

ID 1 – *“Punctuality in class is important because it needs focusing and getting to understand the ongoing lessons in that particular period.”*

ID 201 – *“Being early to class enables me to prepare myself without hurrying for my coming lessons”*

Id 233 – *“For a smooth running of the school routine”*

ID 809 – *“Students can settle within time to avoid distractions to both the teacher and the whole class by attracting attention.”*

The findings are consistent with those in a study by Goodwin (2020) who found that a punctual student always gets success in his studies. During school time, punctuality ensures that you will arrive at class on time and so will not miss any lesson.

4.4.11 Students Marking their Colleague’s Assignments

The students were asked to indicate whether they agreed that students marked their colleague’s assignments using given guidance provided by subject teachers, and the responses was as provided in Table 58.

Table 58

Students Marking their Colleague’s assignments

		School category			
		Public		Private	
		F	%	F	%
Students mark their colleague’s assignments using given guidance provided by subject teachers	Strongly disagree	149	15.5%	67	9.5%
	Disagree	172	17.9%	123	17.4%
	Agree	400	41.7%	346	49.0%
	Strongly agree	239	24.9%	170	24.1%

The findings presented in Table 58 indicated that in comparison to those who disagreed with the given statement, 66.6% of the students of public schools and 73.1% of those from private secondary schools agreed that students marked their colleague’s assignments using given guidance provided by subject teachers.

The students were asked to indicate the importance of them marking their colleague’s assignment if they did it in their school, and some of their responses were as follows.

ID 57 – “it saves the time needed for making and enables students to identify and avoid mistakes”.

ID 130 – “Enables students to notice & correct mistakes made by fellow students thus preventing the student marking from doing the same mistake during an exam”

ID 136 – “To correct each other and also get to know what he/she did not know and the other student knows”

1144 – “Helps learners to know different ways of tackling questions”

1167 – “To correct and learn from each other”

The results suggested that students perceived marking their colleagues' assignments as important primarily for error identification and correction, as well as for knowledge sharing and learning opportunities. The common themes in their responses emphasized the potential benefits of this practice in terms of improving academic performance and understanding among peers.

4.4.12 Maintenance of Silence During Prep Time Studies

The students were asked to indicate whether they agreed that students were required to maintain silence during prep time studies, and the response was as provided in Table 59 below.

Table 59

Maintenance of Silence during Prep Time studies

		School category			
		Public		Private	
		F	%	F	%
Students are required to maintain silence during prep time studies.	Strongly disagree	21	2.3%	12	1.7%
	Disagree	24	2.5%	16	2.3%
	Agree	267	28.0%	201	28.4%
	Strongly agree	640	67.2%	478	67.6%

From the findings presented in table 59, it is evident that compared to the few who disagreed, 95.2% of students from public schools as well as 96% from private schools agreed that students are required to maintain silence during prep time studies. The implication here is that in a majority of the schools in both categories of schools, students are required to maintain silence during prep time studies.

The students were asked to mention the importance of maintaining silence during prep studies in your school if it is done, and some of their main responses were as follows.

ID 2 – “Maintaining silence ensures maximum concentration in my studies and also minimizes disturbing my fellow students during preps”

ID 144 – “Creation of optimum revising conditions by minimizing distractions”

ID 853 – “A quiet environment is conducive to studying as there are no distractions whatsoever thus a student's concentration is fully on his/her books”

ID 81 – “Enables one to understand and have a proper quiet time to internalize what had been taught”

4.4.13 Association between Students Study Cultures and Student Academic Achievement

This section presents the Spearman rank Correlation results for Students Study Cultures and Student Academic Achievement. The results for the correlation for top performing schools were as provided in Table 60.

Table 60*Students Study Cultures & Student Academic Achievement for Top Performing Schools*

Performance Category		Student Academic Achievement	
Top performing KCSE	Students Study	Correlation	.408**
Public secondary schools	Cultures	Coefficient	
		Sig. (2-tailed)	.001
		N	62
	Student Academic Achievement	Correlation	1
		Coefficient	
		Sig. (2-tailed)	.
Top performing KCSE private secondary schools	Students Study Cultures	Correlation	.430**
		Coefficient	
		Sig. (2-tailed)	.000
	Student Academic Achievement2	Correlation	1
		Coefficient	
		Sig. (2-tailed)	.
		N	66

The Spearman rank correlation coefficients for the relationship between students' study cultures and their academic achievement in the top performing KCSE public and private secondary schools in Nakuru County are $r = 0.408$ ($p = 0.001$) and $r = 0.430$ ($p = 0.000$), respectively. Both coefficients suggest a positive and moderately strong correlation between the two variables, meaning that students who adopt effective study habits and attitudes tend to perform better academically.

However, the p-values indicate that the correlation in private schools is statistically significant at the 0.05 level, while the correlation in public schools is only marginally significant. This suggests that the relationship between study cultures and academic

achievement may be stronger and more consistent in private schools compared to public schools.

Empirical research in Kenya has shown that private schools tend to have better academic outcomes than public schools due to various factors, including better teaching quality, more resources, and a more disciplined and motivated student body (Mwangi & Sifuna, 2013). Private schools may also be more selective in their admissions and provide more individualized attention to students, which could contribute to the stronger correlation between study cultures and academic achievement observed in this study.

Possible reasons for the difference in correlation coefficients between the public and private school groups could be due to differences in the students' socioeconomic backgrounds, teaching methods, or school environments. Future research could explore these factors in more detail to better understand the nuances of the relationship between study cultures and academic achievement in different types of schools in Kenya.

The results for Spearman rank correlations for students study cultures and student academic achievement for low performing schools were as provided in Table 61.

Table 61*Students Study Cultures and Student Academic Achievement for Top Performing Schools*

Performance Category				Student Academic Achievement2
Low performing KCSE public secondary schools	Students Study Cultures	Study	Correlation Coefficient	.121**
			Sig. (2-tailed)	.000
			N	925
	Student Academic Achievement2	Study	Correlation Coefficient	1
			Sig. (2-tailed)	.
			N	925
Low performing KCSE private secondary schools	Students Study Cultures	Study	Correlation Coefficient	.292**
			Sig. (2-tailed)	.000
			N	654
	Student Academic Achievement2	Study	Correlation Coefficient	1
			Sig. (2-tailed)	.
			N	654

Table 61 shows that the correlation coefficient for low performing KCSE public secondary schools is $r = 0.121$, which indicates a weak positive correlation between Students Study Cultures and Student academic achievement. The p value of 0.000 suggests that this correlation is statistically significant at the 0.05 significance level, meaning that there is less than a 5% chance that this correlation occurred by chance. On the other hand, the correlation coefficient for low-performing KCSE private secondary schools is $r = 0.292$, indicating a moderate positive correlation between Students' Study Cultures and Student academic achievement. The p-value of 0.000 confirms that this correlation is statistically significant at the 0.05 significance level.

These findings are consistent with previous studies in Kenya that have found a positive correlation between cultural practices and academic performance (Abdallah & Alkaabi, 2023). Cultural practices such as emphasis on hard work, respect for teachers, and the

value of education have been shown to positively influence academic achievement. Possible reasons for the difference in correlation coefficients between the two groups could be attributed to factors such as differences in the socio-economic backgrounds of the students, teaching methodologies, and school resources. Private schools may have more resources and better teaching methodologies that facilitate better academic performance.

In conclusion, the study has shown a positive correlation between Students Study Cultures and Student academic achievement in low performing KCSE public and private secondary schools in Nakuru County. The findings are consistent with those in a study by Nyakado (2018) which reported that cultural practices can play a role in improving academic performance. It is recommended that further studies be conducted to investigate the underlying factors that contribute to these correlations and how they can be leveraged to improve academic achievement in low-performing schools.

4.4.14 Regression between Students Study Behaviours and Student Academic Achievement by School Category

Regression analysis was conducted to examine the relationship between students' study behaviors and their academic achievement, with a focus on differentiating between public and private school categories. The results are presented in Table 1, which summarizes the model summary for each school category.

Table 62

Model Summary

School category	Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
Public	1	.457 ^a	.209	.208	.48816
Private	1	.503 ^a	.253	.252	.58412

a. Predictors: (Constant), Students Study Cultures

For public schools, the regression model yielded an R-squared value of 0.209, indicating that approximately 20.9% of the variance in academic achievement can be explained by students' study behaviors. Similarly, for private schools, the regression model produced an R-squared value of 0.253, indicating that approximately 25.3% of the variance in academic achievement can be explained by students' study behaviors.

ANOVA results, presented in Table 2, indicate significant relationships between students' study behaviors and academic achievement for both public and private school categories.

Table 63

Analysis of Variances (ANOVA) for Teaching Behaviours by School Type

School			Sum of		Mean		
Category	Model		Squares	df	Square	F	Sig.
public	1	Regression	61.951	1	61.951	259.973	.000 ^b
		Residual	234.722	985	.238		
		Total	296.673	986			
private	1	Regression	82.784	1	82.784	242.630	.000 ^b
		Residual	244.978	718	.341		
		Total	327.762	719			

a. Dependent Variable: Student Academic Achievement

b. Predictors: (Constant), Students Study Cultures

The results show that for public schools, the regression model was significant (F=259.973, p =.000), with the regression explaining a significant amount of variance in academic achievement. Similarly, for private schools, the regression model was significant (F=242.630, p=.000), indicating that the relationship between students' study behaviors and academic achievement is also significant in private school settings.

The coefficients presented in Table 3 provide further insights into the relationship between students' study behaviors and academic achievement for each school category.

Table 64

Beta Coefficients

School Category	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
Public	1(Constant)	.879	.082			10.671.000
	Students Study	.546	.034	.457		16.124.000
	Cultures					
Private	1(Constant)	.535	.052			10.374.000
	Students Study	.399	.026	.503		15.577.000
	Cultures					

a. Dependent Variable: Student Academic Achievement

4.4.15 Regression for all Categories of Schools

The regression analysis was conducted to investigate the relationship between students' academic achievement and their engagement with studying cultures across different categories of schools. This table provides a summary of the regression model examining the relationship between students' study of cultures and their academic achievement across all categories of schools.

Table 65

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.586 ^a	.343	.343	.61337

a. Predictors: (Constant), Students Study Cultures

The model's goodness-of-fit statistics indicate that the predictor variable, students' study of cultures, accounts for approximately 34.3% of the variance in student academic

achievement, as evidenced by the R-squared value of 0.343. The adjusted R-squared value, which adjusts for the number of predictors in the model, remains the same at 0.343. The standard error of the estimate is 0.61337, reflecting the average distance between the observed and predicted values of the dependent variable. The analysis of variance (ANOVA) in Table 63 tests the overall significance of the regression model.

Table 66

Analysis of Variances for Students Study Cultures (All schools)

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	335.242	1	335.242	891.074	.000 ^b
	Residual	641.459	1705	.376		
	Total	976.701	1706			

a. Dependent Variable: Student Academic Achievement

b. Predictors: (Constant), Students Study Cultures

The results indicate that the regression model is highly significant ($F = 891.074$, $p < 0.001$), suggesting that the relationship between students' study of cultures and their academic achievement is not due to chance. The sum of squares for the regression is 335.242, while the sum of squares for the residual (error) is 641.459. This suggests that the regression model accounts for a significant portion of the total variability in student academic achievement. This table presents the coefficients for the predictors in the regression model.

Table 67
Coefficients

Model		Unstandardized		Standardized	t	Sig.
		Coefficients		Coefficients		
		B	Std. Error	Beta		
1	(Constant)	.452	.047		9.550	.000
	Students Study Cultures	.625	.021	.586	29.851	.000

a. Dependent Variable: Student Academic Achievement

The intercept term (constant) is 0.452, indicating the expected value of the dependent variable (student academic achievement) when the predictor variable (students' study of cultures) is zero. The coefficient for students' study of cultures is 0.625, indicating that for every one unit increase in students' study of cultures, there is a predicted increase of 0.625 units in student academic achievement. This coefficient is statistically significant ($t = 29.851$, $p < 0.001$), suggesting that students' study of cultures is a strong predictor of academic achievement across all categories of schools.

4.4.16 Testing Hypothesis for Student Study Behaviour

This section presents the results related to testing the second hypothesis. The guiding specific objective was to assess the relationship between student study behaviour and student academic achievement in public and private secondary schools in Nakuru County, Kenya, comparing outcomes between schools. The hypothesis was as follows.

Ho²: There is no statistically significant difference in the relationship between selected student study behaviour and student academic achievement between public and private secondary schools in Nakuru County, Kenya.

$$Y = \beta_0 + \beta_2(\text{SSB}) + \epsilon^2$$

The study uses the coefficient (beta) for students' study of cultures (SSB) from the regression analysis, which is 0.625. The null hypothesis implies that the coefficient for

SSB (β_2) is equal to zero. Given that the coefficient for SSB is 0.625 with a t-value of 29.851 and a p-value < 0.001 , the study rejects the null hypothesis. This indicates that there is a statistically significant relationship between students' study of cultures and student academic achievement across all categories of schools, including both public and private secondary schools in Nakuru County, Kenya. Therefore, it is concluded that there is evidence to suggest that the relationship between selected student study behavior (specifically, study of cultures) and student academic achievement differs significantly between public and private secondary schools in Nakuru County, Kenya.

4.5 Relationship between Selected Student Motivation Strategies and Student Academic Achievement

This section presents the results for the third objective which sought to compare the relationship between student motivation strategies and student academic achievement in public and private secondary schools in Nakuru County, Kenya.

4.5.1 Student Motivation through Presents to High Achievers

The school principals were asked to indicate whether they agreed with the statement that the principal (s) gave presents to high academic achievers at the end of the term, and the results were as provided in Table 68.

Table 68

Student Motivation through Presents to High Achievers

		School Category			
		Public		Private	
		F	%	F	%
The principal(s) gives presents to high academic achievers at the end of the term.	Strongly disagree	0	0.00%	0	0.00%
	Agree	10	26.30%	12	33.30%
	Strongly agree	28	73.70%	16	44.40%

The findings presented in Table 68 indicate that all (100%) of the principals of public schools and all (100%) of those from private secondary schools agreed that they gave presents to high academic achievers at the end of the term. This shows that all of the schools in both categories of schools (public and private) give presents to high academic achievers at the end of the term. The findings mirror the study by Elias (2014) where it was found that principals and teachers gave presents and gifts to outstanding achievers. This is because an award recognizes exceptional performance.

The principals were asked to indicate which type of presents they gave high academic achievers in their school at the end of the term, and the most common responses were as provided in Table 69.

Table 69

Type of Presents given to High Academic Achievers

Type of presents	No. of Schools
Stationery (Pens, exercise books, Notebooks, geometrical sets)	55
Bread, soda	23
Revision textbooks	41
Motivational tips	9
Calculators	31
Certificates and cash awards	16
Cash or Shopping vouchers	7

The responses were as follows.

ID 1 - *“Stationery and sometimes motivational tips.”*

ID 5 - *“Bread, soda, and pens”*

ID 36 - *“Calculators, revision books and watches”*

ID 37 - *“Textbooks, calculators, geometrical sets and exercise books, etc.”*

ID 39 - *“Certificates and cash awards”*

ID 44 – “Cash”

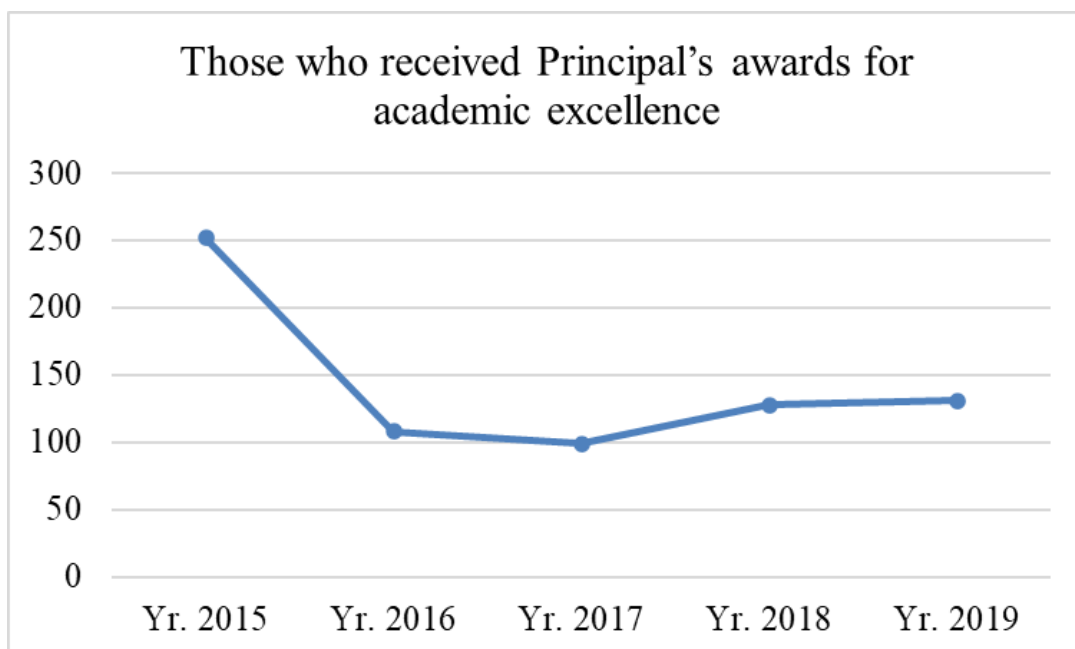
ID 45 – “Shopping vouchers”

From the table it is shown that Stationery (Pens, exercise books, Notebooks, geometrical sets), was the most common type of present given to high academic achievers as shown by responses from 55 schools, this was followed by Revision textbooks in 41 schools, and Calculators in 31 schools.

The results suggested that high academic achievers in the surveyed schools were most commonly rewarded with stationery items such as pens, exercise books, notebooks, and geometrical sets, followed by revision textbooks and calculators. Additionally, some students received motivational tips, certificates, cash awards, and shopping vouchers, but these were less common forms of recognition for high academic achievement.

Figure 6

Trends in Awards for Academic Excellence



4.5.2 Student Motivation through Presents to most Academically Improved Student(s)

The school principals were asked to indicate whether they agreed with the statement that they gave presents to the most academically improved student(s), and the results were as provided in Table 70.

Table 70

Student Motivation through Presents to Most Academically Improved Student(s)

		School Category			
		Public		Private	
		F	%	F	%
Principals give presents to the most academically improved student(s) at the end of programmed examinations	Strongly Disagree	0	0.00%	0	0.00%
	Disagree	2	5.40%	8	22.20%
	Agree	7	18.90%	7	19.40%
	Strongly Agree	28	75.70%	21	58.30%

From the results presented in Table 70, 94.6% of the principals of public schools and 77.8% of principals from private secondary schools agreed that they gave presents to the most academically improved student(s) at the end of the programmed examinations.

The principals were asked to indicate which type of presents they gave to the most academically improved student(s) in their school at the end of the term when releasing examination results, and the responses were as follows.

ID 14 – “Stationery and sometimes snacks at a class level.”

ID 2 – “Books, bread soda, pens, ruler”

ID 15 = “Revision materials and stationery”.

ID 23 – “Storybooks, class textbooks, note books, geometrical sets”

ID 24 – “Academic-related reward in area of improvement”

ID 22 – “Certificates and cash awards”.

ID 53 – “Goat eating with the teacher”

The results in this section show that the schools gave a variety of presents to the most academically improved student(s) in their school, as a way of motivating them to work harder academically.

4.5.3 Preparation of Special Meals to Motivate a Well Academically Performing Class

The school principals were asked to indicate whether they agreed with the statement that special meals were prepared to motivate a well-academically performing class(s), and the results were as provided in Table 71.

Table 71

Preparation of Special Meals to Motivate a Well-Academically Performing, Class

		School Category			
		Public		Private	
		F	%	F	%
Special meals are prepared to motivate a well-academically performing class(s).	Strongly disagree	4	10.50%	3	8.30%
	Disagree	9	23.70%	10	27.80%
	Agree	13	34.20%	14	38.90%
	Strongly agree	12	31.60%	9	25.00%

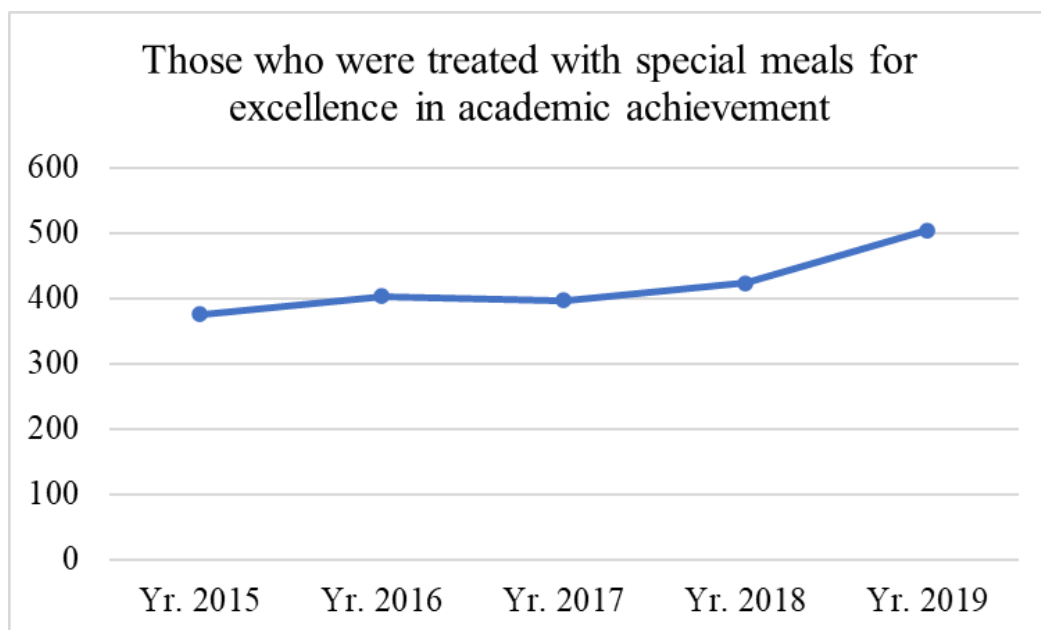
The findings in Table 71 reveal that 61.8% of the principals of public schools and 63.9% of those from private secondary schools agreed that special meals were prepared to motivate a well-academically performing class(s). In the majority of the schools in both categories, the preparation of special meals was employed to motivate a well-academically performing class.

The results from the document analysis reveal the trends shown in Figure 7. There is an increasing trend in the numbers of in the use of special meals to motivate learners. The results from the document analysis, as illustrated in Figure 7, indicate a growing trend in

the use of special meals to motivate learners. This practice can significantly influence students' academic achievement by enhancing their overall school experience and satisfaction. This is in agreement with a study by Royer, et al. (2021) where it was found that providing special meals can address issues of hunger and malnutrition, which are known to negatively impact concentration, cognitive function, and energy levels. By ensuring that students are well-nourished, schools can help improve their ability to focus and engage in academic activities. Additionally, special meals can serve as an incentive, encouraging regular attendance and participation in school programs. This increased motivation and improved nutritional status can contribute to better academic performance, higher test scores, and a more positive attitude towards learning.

Figure 7

Trends in the Use of Special Meals to Motivate Learners



4.5.4 Motivation through Academic Trips for top performing class

The school principals were asked to indicate whether they agreed with the statement that the school took the top performing class (per term) for an academic trip as a way of motivation, and the results were as provided in Table 72.

Table 72*Motivation Through Academic Trips for Top Performing class*

		School Category			
		Public		Private	
		F	%	F	%
The school takes the top performing class (per term) for an academic trip as a way of motivation.	Strongly Disagree	3	8.80%	2	6.50%
	Disagree	12	35.30%	9	29.00%
	Agree	10	29.40%	15	48.40%
	Strongly Agree	9	26.50%	5	16.10%

Table 72 reveals that 55.9% of the principals of public schools and 64.5% of those from private secondary schools agreed that their schools took the top performing class (per term) for an academic trip as a way of motivation. This implied that a majority of public and private schools take the top performing class (per term) for an academic trip as a way of motivation.

The principals were asked whether there was a relationship between academic trips prepared for a top performing class(s) and academic achievement in KCSE in their school(s), and the main responses were.

ID 24 – “These trips boost their performance”

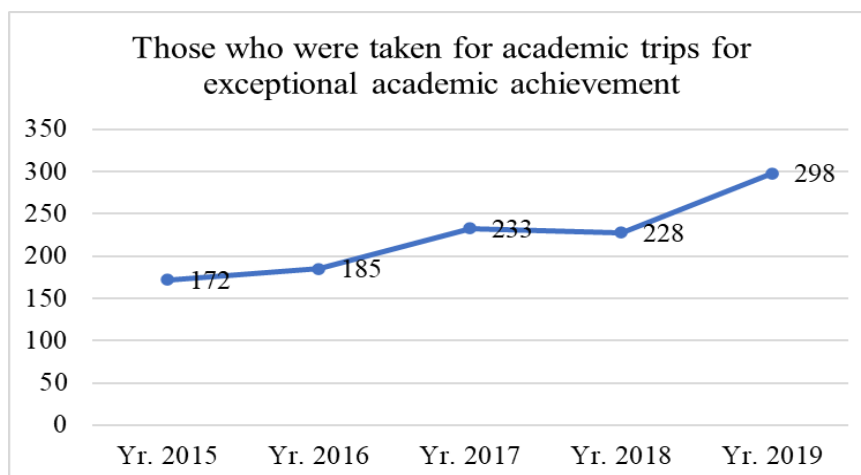
ID 27 – “We do not organize such trips”

ID 56 – “Yes, top performing students pass well in KCSE because of the motivation they are used to”

The results indicated that according to most of the principals, there is a relationship between academic trips prepared for a top performing class(s) and academic achievement in KCSE in their schools. The results emerging from the analysis of data captured using document analysis revealed the trends portrayed in Figure 8.

Figure 8

Trends Showing the Use of Academic Trips to Motivate Students



4.5.5 Public Acclaim given to High Academic Achievers

The school principals were asked to indicate whether they agreed with the statement that public acclaim was given to high academic achievers, and the results were as provided in Table 73.

Table 73

Public Acclaim Given to High Academic Achievers

				School Category			
				Public		Private	
				F	%	F	%
Public acclaim is given to high academic achievers.	Strongly disagree	0	0.00%	0	0.00%		
	Disagree	2	5.40%	13	36.10%		
	Agree	22	59.50%	14	38.90%		
	Strongly agree	13	35.10%	9	25.00%		

The results in Table 73 indicated that 94.6% of the principals of public schools and 63.9% of those from private secondary schools agreed that public acclaim was given to high academic achievers as a way of motivation.

The principals were asked to indicate how giving public acclaim to high academic achievers related to academic achievement in KCSE in their school, and they indicated that it motivated the learners to work better.

PID 7 is quoted stating that *“It is a way of motivating them thus better performance,”*

PID 66 – *“It improves the ego of those involved to even better their performance.”*

PID 72 - *The students will always strive to work hard and be given public acclaim even on prize-giving days*

The results suggested that the practice of giving public acclaim to high academic achievers was perceived by principals as a motivating factor that encouraged students to strive for better academic performance in KCSE examinations. This positive sentiment was echoed by multiple principals who believed that such recognition enhances students' motivation and performance, indicating its potential effectiveness as a motivational strategy in schools.

4.5.6 Use of Career Guidance for Encouraging learners

The school principals were asked to indicate whether they agreed with the statement that career guidance was given to students to encourage them to study toward given careers, and the results were as provided in Table 74.

Table 74

Use of Career Guidance for Encouraging Learners

		School Category			
		Public		Private	
		F	%	F	%
Career guidance is given to students to encourage them to study toward given careers.	Strongly disagree	0	0.00%	0	0.00%
	Disagree	3	7.90%	8	22.20%
	Agree	17	44.70%	12	33.30%
	Strongly agree	18	47.40%	16	44.40%

The findings presented in Table 74 indicated that 92.1% of the principals of public schools and 77.8% of those from private secondary schools agreed that career guidance is given to students to encourage them to study toward given careers. The implication is that in many public and private schools, career guidance is given to students.

The principals were asked to explain how career guidance related to academic achievement in KCSE in your school, to which some provided the following responses.

PID 3 – *“Learners can identify areas of career interest and work towards achieving them”*

PID 12 – *“It re-aligns students to their subject of interest and focus their energy”*

PID 23 - *The student can work hard towards achieving certain grades that will place him*

The results suggested that the principals emphasized the importance of career guidance in helping students identify their interests, aligning them with relevant subjects, and motivating them to work hard toward achieving their academic goals, particularly in the context of KCSE. These responses highlight the role of career guidance in fostering academic achievement and directing students towards areas of personal and academic interest. The results are in agreement with those in a study by Mporananayo and Andala (2018) who established that there was a significant relationship between career guidance services and students’ academic performance. The researchers observed that students need to be guided to develop good study habits as well as prepare and gain enough confidence to sit and write examinations.

4.5.7 Presents from School Alumni for High Achievers

The school principals were asked to indicate whether they agreed with the statement that high achievers received presents from the school alumni. The results were provided in Table 75.

Table 75

Presents from School Alumni for High Achievers

		School Category			
		Public		Private	
		F	%	F	%
High achievers receive presents from our school alumni	Strongly disagree	4	11.10%	5	13.90%
	Disagree	23	63.90%	24	66.70%
	Agree	4	11.10%	5	13.90%
	Strongly agree	5	13.90%	2	5.60%

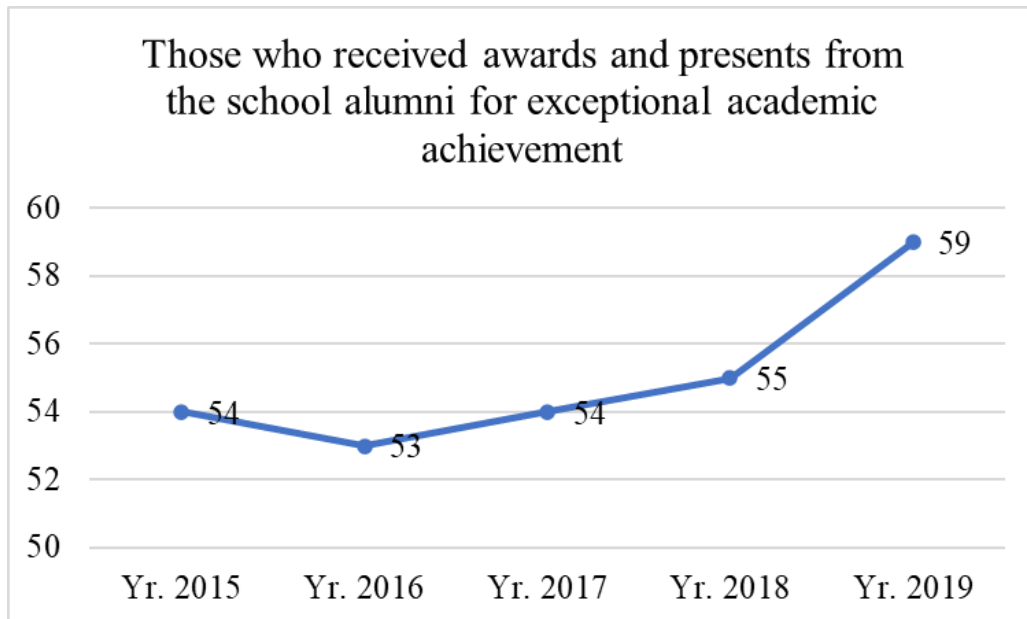
The findings provided in Table 75 show that 25% of the principals of public schools and 19.5% of those from private secondary schools agreed that high achievers received presents from their school alumni. This shows that in a minority of the schools in both categories of schools, high achievers receive presents from the school alumni.

When asked to list the types of presents received from their school alumni which were meant to motivate students to perform better in KCSE, all the principals indicated that there were no such occurrences. One principal is quoted Stating. *“Since I joined this school, no student has ever received a present from the school alumni.”* Many of the principals simply stated *“None”*

The results from the document analysis data revealed the following trends across five years (See Figure 9).

Figure 9

Trends showing the use of Awards and Presents from School Alumni for Exceptional Academic Achievement



The provided data in Figure 9 displays the trends in the use of awards and presents from school alumni for exceptional academic achievement over a five-year period from 2015 to 2019. During this time frame, there is a gradual but generally positive increase in the number of awards and presents received each year. In 2015, 54 awards were given, and this number increased to 59 by 2019. This trend suggests that there has been a consistent appreciation of academic excellence within the school community, as reflected by the increasing support from alumni. The data implies that the school's efforts in recognizing outstanding academic achievements have been successful and have garnered more alumni support over the years. This positive trend could potentially be attributed to the school's ongoing commitment to academic excellence and the strengthened alumni involvement in acknowledging and rewarding exceptional achievements.

4.5.8 Association between Student Motivation Strategies & Student Academic Achievement

The results for Spearman rank correlations for Student Motivation Strategies and student academic achievement for top-performing schools were as provided in Table 76.

Table 76

Student Motivation Strategies & Student Academic Achievement for Top Performing Secondary schools

Performance Category		Student Academic Achievement	
Top performing KCSE Public secondary schools	Student Motivation Strategies	Correlation Coefficient	.498*
		Sig. (2-tailed)	0.036
	Student Academic Achievement	N	18
		Correlation Coefficient	1
Top performing KCSE private secondary schools	Student Motivation Strategies	Sig. (2-tailed)	.
		N	18
	Student Academic Achievement	Correlation Coefficient	.921**
		Sig. (2-tailed)	0.000
Student Academic Achievement	N	20	
	Correlation Coefficient	1	
		Sig. (2-tailed)	.
		N	20

The results of the spearman rank correlation in top performing KCSE public secondary schools indicate a positive and moderate correlation between student motivation strategies and student academic achievement ($r = 0.498$, $p = 0.036$). On the other hand, the results for top performing KCSE private secondary schools show a strong positive correlation between Student Motivation Strategies and student academic achievement ($r = 0.921$, $p = 0.000$).

These findings suggest that student motivation strategies is an important factor in determining student academic achievement in both public and private secondary schools, but it is even more critical in private schools. Private schools seem to have a stronger correlation between Student Motivation Strategies and academic achievement, which could be due to various factors such as higher resources, more personalized attention, and greater parental involvement. The findings are consistent with existing literature that has established a strong link between student motivation and academic achievement (Waseka & Simatwa 2016; Serem, 2015). For example, Waseka and Simatwa (2016) found that students who were motivated to learn performed better academically, while Serem (2015) identified the importance of a positive school culture in enhancing student motivation and academic performance.

In conclusion, the results indicate that Student Motivation Strategies is an important predictor of student academic achievement. This relationship is particularly strong in top performing KCSE private secondary schools. Educators and policymakers should, therefore, pay attention to the motivation culture in schools as it could have a significant impact on academic performance.

The results for Spearman rank correlations for students' motivation cultures and student academic achievement for low performing schools were as provided in Table 77.

Table 77

Association between Student Motivation Strategies and Student academic achievement for Low Performing Secondary Schools

Performance Category		Student Academic Achievement	
Low performing KCSE public secondary schools	Student Motivation Strategies	Correlation Coefficient	0.147
		Sig. (2-tailed)	0.535
	N	20	
	Student Academic Achievement	Correlation Coefficient	1
		Sig. (2-tailed)	.
N	20		
Low performing KCSE private secondary schools	Student Motivation Strategies	Correlation Coefficient	0.397
		Sig. (2-tailed)	0.127
	N	16	
	Student Academic Achievement	Correlation Coefficient	1
		Sig. (2-tailed)	.
N	16		

The Spearman rank correlation coefficients for the relationship between Student Motivation Strategies and Student academic achievement in low performing KCSE public and private secondary schools in Nakuru county were $r = 0.147$ and $r = 0.397$, respectively. The p values for these correlations were 0.535 and 0.127, respectively. Based on the 0.05 test significance level, the correlation coefficient for the low performing KCSE public secondary schools was not statistically significant. On the other hand, the correlation coefficient for the low performing KCSE private secondary schools was statistically significant, suggesting that there was a relationship between Student Motivation Strategies and academic achievement in these schools.

The findings are consistent with previous empirical studies in Kenya, which have found that student motivation is positively associated with academic achievement (Ongeri et al., 2018; Okello, 2017). The results also suggest that private schools may have a more conducive environment for promoting student motivation and academic achievement compared to public schools.

One possible reason for the difference in the correlation coefficients between public and private schools is the availability of resources. Private schools often have more resources, including well-equipped libraries, laboratories, and motivated teachers, which may contribute to a more supportive learning environment for students. In contrast, public schools may be constrained by limited resources, including inadequate infrastructure, overcrowded classrooms, and insufficient teaching staff, which may affect student motivation and academic achievement.

In conclusion, the study found a significant relationship between Student Motivation Strategies and academic achievement in low performing KCSE private secondary schools in Nakuru County, while no significant relationship was found in low performing KCSE public secondary schools. These findings underscore the importance of providing adequate resources to public schools to create a more supportive learning environment for students.

Table 78

Association between Student Motivation Strategies and Student Academic achievement by Type of Secondary School

School Category			Student Academic Achievement
Public	Student Motivation Strategies	Correlation Coefficient	.372*
		Sig. (2-tailed)	0.022
		N	38
	Student Academic Achievement	Correlation Coefficient	1
		Sig. (2-tailed)	.
		N	38
Private	Student Motivation Strategies	Correlation Coefficient	.409*
		Sig. (2-tailed)	0.013
		N	36
	Student Academic Achievement	Correlation Coefficient	1
		Sig. (2-tailed)	.
		N	36

The results in Table 78 indicate a moderate positive correlation between Student Motivation Strategies and Student academic achievement in both public and private secondary schools in Nakuru County. However, the correlation is stronger in private schools ($r = 0.409$) than in public schools ($r = 0.372$). Furthermore, the p-values for both correlations (0.022 for public schools and 0.013 for private schools) are lower than the significance level of 0.05, indicating that the correlations are statistically significant.

These findings are consistent with previous research in Kenya, which suggests that motivation and culture play a crucial role in student academic achievement. For example, a study by Simatwa and Namusonge (2018) found that student motivation positively predicts academic achievement in Kenyan secondary schools. The study conducted by

Simatwa and Namusonge in (2018) revealed a significant and positive relationship between student motivation and academic achievement in Kenyan secondary schools. This means that students who are motivated, whether through counseling, group discussions, active learning, well-designed assignments, or inquiry-based teaching, tend to perform better academically. The findings highlight the importance of fostering a positive motivational culture in schools, as it can contribute to improved student outcomes and academic success. This insight is valuable for educators and policymakers in Kenya, as it underscores the role of motivation in enhancing the educational experience and overall achievement of students in the country's secondary schools.

Possible reasons for the stronger correlation in private schools could be attributed to the fact that private schools often have smaller class sizes, better teacher-student ratios, and more resources for extracurricular activities that promote a positive culture and student motivation. The stronger correlation between school culture and academic achievement in private schools can likely be attributed to several factors. Firstly, private schools often maintain smaller class sizes, which allow for more personalized attention and interaction between teachers and students. This fosters a conducive learning environment and enables educators to better nurture a positive culture. The results suggest that both public and private schools in Nakuru County can benefit from focusing on improving student motivation and culture to enhance academic achievement. However, private schools may have a slight advantage due to their resources and smaller class sizes.

4.5.9 Regression between Student Motivation Strategies and Student Academic Achievement by School Category

This section presents the regression analysis comparing the relationship between student motivation strategies and student academic achievement in public and private secondary schools. The model summary was as provided in Table 79 below.

Table 79*Model Summary*

School Category	Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
Public	1	.368 ^a	.135	.111	2.43638
Private	1	.237 ^a	.056	.029	2.65523

a. Predictors: (Constant), Student Motivation Strategies

The results show that for public schools, the model indicates a moderate fit with an R-squared value of 0.135, suggesting that student motivation strategies explain approximately 13.5% of the variance in student academic achievement. The adjusted R-squared value is 0.111. Similarly, for private schools, the model shows a weaker fit with an R-squared value of 0.056, indicating that student motivation strategies explain only about 5.6% of the variance in student academic achievement, with an adjusted R-squared value of 0.029. The standard error of the estimate is 2.43638 for public schools and 2.65523 for private schools, reflecting the average distance between observed and predicted values of student academic achievement.

The ANOVA table 80 shows the overall significance of the regression models for both public and private schools.

Table 80*Analysis of Variances for Student Motivation Strategies by School Category*

School category	Model	Sum of Squares	df	Mean Square	F	Sig.
Public	1 Regression	33.479	1	33.479	5.640	.023 ^b
	Residual	213.695	36	5.936		
	Total	247.173	37			
private	1 Regression	14.322	1	14.322	2.031	.163 ^b
	Residual	239.708	34	7.050		
	Total	254.030	35			

a. Dependent Variable: Student Academic Achievement

b. Predictors: (Constant), Student Motivation Strategies

The results show that for public schools, the regression model is statistically significant ($p = 0.023$), suggesting that the relationship between student motivation strategies and student academic achievement is significant. In contrast, for private schools, the regression model is not significant ($p = 0.163$), indicating that the relationship between student motivation strategies and student academic achievement may not be significant in private schools.

Table 81

*Coefficients for Student Motivation Strategies and Student Academic Achievement
School Category*

School category	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
Public	1(Constant)	-1.601	2.760			-.580.566
	Student Motivation Strategies	1.938	.816	.368		2.375.023
Private	1(Constant)	3.103	1.336			2.322.026
	Student Motivation Strategies	.624	.438	.237		1.425.163

a. Dependent Variable: Student Academic Achievement

In public schools, the coefficient for student motivation strategies is 0.368, indicating that for every one-unit increase in student motivation strategies, there is a predicted increase of 0.368 units in student academic achievement. This coefficient is statistically significant ($t = 2.375$, $p = 0.023$). In private schools, the coefficient for student motivation strategies is 0.237, but it is not statistically significant ($t = 1.425$, $p = 0.163$). The results suggest that the relationship between student motivation strategies and student academic achievement differs between public and private secondary schools. While student motivation strategies significantly influence academic achievement in public schools, they may not have the same impact in private schools. This highlights the importance of considering contextual factors when analyzing the relationship between student motivation strategies and academic achievement.

4.5.10 Regression between Student Motivation Strategies and Student Academic Achievement Across All Schools

This section presents the results of the regression analysis examining the relationship between student motivation strategies and student academic achievement across all categories of schools. The model summary is provided in Table .

Table 82

Model Summary for Student Motivation Strategies across all schools

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.406 ^a	.165	.154	2.41067

a. Predictors: (Constant), Student Motivation Strategies

The model indicates a moderate fit with an R-squared value of 0.165, suggesting that student motivation strategies explain approximately 16.5% of the variance in student academic achievement. The adjusted R-squared value, which adjusts for the number of predictors in the model, is 0.154. The standard error of the estimate is 2.41067, reflecting the average distance between observed and predicted values of student academic achievement.

The ANOVA results in table 83 given below tests the overall significance of the regression model.

Table 83

ANOVA for Student Motivation Strategies and Student Academic Achievement across all Schools

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	82.789	1	82.789	14.246	.000 ^b
	Residual	418.417	72	5.811		
	Total	501.206	73			

a. Dependent Variable: Student Academic Achievement

b. Predictors: (Constant), Student Motivation Strategies

The results indicate that the regression model is highly significant ($p < 0.001$), suggesting that the relationship between student motivation strategies and student academic achievement is not due to chance. The sum of squares for the regression is 82.789, while the sum of squares for the residual (error) is 418.417. This suggests that the regression model accounts for a significant portion of the total variability in student academic achievement.

Table 84

Coefficients for Student Motivation Strategies and Student Academic Achievement across all schools

Model		Unstandardized		Standardized		t	Sig.
		B	Std. Error	Beta			
1	(Constant)	-2.060	1.863			-1.106	.273
	Student Motivation Strategies	2.105	.558	.406		3.774	.000

a. Dependent Variable: Student Academic Achievement

This table presents the coefficients for the predictors in the regression model. The intercept term (constant) is -2.060, indicating the expected value of the dependent variable (student academic achievement) when the predictor variable (student motivation

strategies) is zero. The beta coefficient for student motivation strategies is 0.406, indicating that for every one-unit increase in student motivation strategies, there is a predicted increase of 0.406 units in student academic achievement. This coefficient is statistically significant ($t = 3.774$, $p < 0.001$), suggesting that student motivation strategies are a significant predictor of academic achievement across all categories of schools.

The results imply that student motivation strategies significantly influence student academic achievement across all categories of schools. Schools should consider implementing effective strategies to motivate students, as they play a crucial role in enhancing academic performance. Additionally, educators and policymakers can use these findings to develop targeted interventions aimed at improving student motivation and ultimately enhancing overall academic outcomes in schools.

4.6.11 Hypothesis Testing for Student Motivation Strategies

The third objective sought to compare the relationship between student motivation strategies and student academic achievement in public and private secondary schools in Nakuru County, Kenya. This section presents the results related to testing the following hypothesis.

Ho₃ “There is no statistically significant difference in the relationship between selected student motivation strategies and student academic achievement between public and private secondary schools in Nakuru County, Kenya.”

Using the results in table 84, and focusing on the standardized beta coefficient for student motivation strategies, we note that the beta value is 0.406, and $p = 0.000$. The null hypothesis implies that the coefficient for student motivation strategies is equal between public and private schools. Given that the standardized beta coefficient for

student motivation strategies is 0.406 with a t-value of 3.774 and a p-value of less than 0.001, we reject the null hypothesis. This indicates that there is a statistically significant difference in the relationship between student motivation strategies and student academic achievement between public and private secondary schools in Nakuru County, Kenya. Therefore, we conclude that there is evidence to suggest that the relationship between selected student motivation strategies and student academic achievement varies significantly between public and private secondary schools in Nakuru County, Kenya.

4.6 Relationship between Students Discipline Management Strategies and Student Academic Achievement

This section presents the results for the fourth objective, which sought to analyze the relationship between students discipline management strategies and student academic achievement in secondary schools in Nakuru County, Kenya, and compare findings between public and private schools.

4.6.1 Punishment of Students who Abscond

The school principals were asked to indicate whether they agreed with the statement that a student who absconds from doing assignments was punished, and the results were as provided in Table 85.

Table 85*Punishment to Students who Abscond*

		School Category			
		Public		Private	
		F	%	F	%
A student who absconds from doing assignments is punished	Strongly Disagree	0	0.0%	1	2.8%
	Disagree	3	9.7%	10	27.8%
	Agree	19	61.3%	18	50.0%
	Strongly Agree	9	29.0%	7	19.4%

The findings provided in Table 85 indicated that in comparison to those who disagreed with the given statement, 91.3% of the principals of public schools and 69.4% of those from private secondary schools agreed that a student who absconds doing assignments is punished. This implies that in a majority of the schools both public and private, a student who absconds doing assignments is punished.

The principals were asked to state the types of punishments that were given to students who failed to do assignments, and the main responses included the following.

ID 1 – *“Involved in punishments like cleaning activities”*

ID 5 – *“They are made to redo the assignments and additional assignments given”*

ID 7 – *“Doing the assignment under the supervision and cleaning the classroom”*

ID 22 – *“To do it during his/her own time and submit to the respective teachers within the time frame stipulated: and Parents /guardian invited to school”*

ID 25 – *“Manual work; and giving them more assignments”*

ID 39 – *“Sending them home and come with the parents/guardian”*

The results show that the principals in a majority of the schools ensured that the students who failed to do assignments were given proper punishment. The findings are in

agreement with those in a study by Riziki (2016), who pointed out that those students who absconded from school were severely punished.

4.6.2 Punishment to Students who do not make Personal Notes

The school principals were asked to indicate whether they agreed with the statement that a student who often did not make personal notes was punished, and the results were as provided in Table 86.

Table 86

Punishment to Students Who Do Not Make Personal Notes

		School Category			
		Public		Private	
		F	%	F	%
A student who often does not make personal notes is punished	Strongly Disagree	3	7.9%	1	2.9%
	Disagree	4	10.5%	15	44.1%
	Agree	15	39.5%	12	35.4%
	Strongly Agree	16	42.1%	6	17.6%

The findings provided in Table 86 indicated that 81.6% of the principals of public schools and 53% of those from private secondary schools agreed that a student who often did not make personal notes was punished. This implied that in a majority of the schools in both categories, a student who often did not make personal notes was punished.

The principals were asked to indicate the types of punishments that were given to students who fail to make personal notes, and the main responses were as presented in the narrations below.

ID 9 – *“They are engaged in manual work”*

ID 11 – *“Made to make the notes in a given time frame”*

ID 14– *“Extra assignment”*

ID 15 – “Forced to do the same, and thereafter given kinds of punishment as the ones stated above”

ID 22 – “Parents /guardian called to school”

ID 51 – “They are made to write all notes within a given duration and present to the teacher”

ID 59 – “First to make notes, then given physical work like slashing grass”

The results suggested that principals placed a strong emphasis on the significance of career guidance in assisting students in identifying their interests, aligning them with suitable subjects, and motivating them to excel academically, especially concerning the KCSE. These findings underscore the pivotal role of career guidance in promoting academic success and guiding students toward pursuits aligned with their individual interests and academic potential.

4.6.3 Punishment to Students Found Cheating in an Examination

The school principals were asked to indicate whether they agreed with the statement that a student found cheating in an examination is punished. The results were as provided in Table 87.

Table 87

Punishment to Students Found Cheating in an Examination

		School Category			
		Public		Private	
		F	%	F	%
A student found cheating in an examination is punished	Strongly Disagree	0	0.0%	0	0.0%
	Disagree	1	2.6%	8	22.2%
	Agree	11	28.9%	11	30.6%
	Strongly Agree	26	68.4%	17	47.2%

The results presented in Table 87 indicated that 97.4% of the principals of public schools and 77.8% from private secondary schools agreed that a student found cheating in an examination was punished. This implied that in most schools in both public and private categories, a student found cheating in an examination was punished.

The principals were asked to identify types of punishments given to students found cheating in internal examinations, and the results were as follows.

ID 3 – *“Exam paper marks are not awarded in that particular paper completely”*

ID 7 – *“Cancel the affected paper then a student to re-do a different set of papers, and then alike of punishment above administered*

ID 13 – *“They come with a ream of foolscaps*

ID 27 – *“Counselling is given*

ID 65 – *“Suspension and parents involved in G/C*

The results suggested that there was a range of punitive measures employed by principals to address cheating in internal examinations, including withholding exam paper marks, canceling affected papers and requiring students to redo different sets of papers, providing counseling, and imposing suspension while involving parents in disciplinary processes. These findings highlighted a diversity of approaches used in response to academic dishonesty, with some focusing on educational support and others on disciplinary actions.

4.6.4 Punishment to Students Who Do not Attend a scheduled lesson Without Official Permission

The school principals were asked to indicate whether they agreed with the statement that a student who does not attend a scheduled lesson without official permission was punished. The results were as provided in Table 88.

Table 88

Punishment to Students who Do Not Attend a Scheduled Lesson Without Official Permission

		School Category			
		Public		Private	
		F	%	F	%
A student who does not attend a scheduled lesson without official permission is punished	Strongly Disagree	0	0.0%	0	0.0%
	Disagree	6	15.7%	13	36.1%
	Agree	8	21.1%	12	33.3%
	Strongly Agree	24	63.2%	11	30.6%

The results presented in Table 88 showed that 84.3% of the principals of public schools and 63.9% of those from private secondary schools agreed that a student who did not attend a scheduled lesson without official permission was punished. This showed that in a majority of the schools in both categories, a student who did not attend a scheduled lesson without official permission was punished.

The respondents were asked to indicate the types of corrective action (s) they administered to a student who failed to attend a scheduled lesson without official permission, and their responses were as follows.

ID 1 - *“They are engaged in manual work”*

ID 8 - *“Made to write an apology and to do class work done in his/her absence”*

ID 9 - *“Involvement of parent”*

ID 10 - *“Given a general duty (Cleanliness) to perform”*

ID 11 - *“Come with the parent to explain where they were”*

ID 35 - *“Counselling them”*

The results suggested that there was a range of punitive measures employed by principals to address cheating in internal examinations, including withholding exam paper marks,

canceling affected papers and requiring students to redo different sets of papers, providing counseling, and imposing suspension while involving parents in disciplinary processes. These findings highlighted a diversity of approaches used in response to academic dishonesty, with some focusing on educational support and others on disciplinary actions.

4.6.5 Punishment to Students Who Do not Regularly Attend a Group Discussion without Permission

The school principals were asked to indicate whether they agreed with the statement implying that a student who did not regularly attend a group discussion without permission was punished. The results were as provided in Table 89.

Table 89

Punishment to Students Who Do Not Regularly Attend a Group Discussion without Permission

		School Category			
		Public		Private	
		F	%	F	%
A student who does not regularly attend a group discussion without permission is punished	Strongly disagree	0	0.0%	0	0.0%
	Disagree	8	22.2%	18	51.5%
	Agree	12	33.3%	11	31.4%
	Strongly agree	16	44.4%	6	17.1%

The results presented in Table 89 showed that 77.7% and 48.5% of those from private secondary schools agreed that a student who did not regularly attend a group discussion without permission was punished. This affirms that in many public schools, a student who did not regularly attend a group discussion without permission was punished. In addition, attendance in group discussions is not mandatory in private schools. This is predicated on the portion of the principals from private schools (51.5%) who disagreed

with the statement as compared to those who equally disagreed (15.7%) from public schools.

The principals were asked to indicate the types of corrective action (s) they administered to a student who failed to attend a group discussion without official permission, and the responses were as follows.

ID 1 - *“Forced to do that assign alone and give the findings”*

ID 3 - *“Made to write an apology and to find out what others discussed in his/her absence”*

ID 14 - *“Minor punishment given in school such as cleaning”*

ID 17 - *“Given a task to research than to do a presentation”*

ID 22 - *“Counselled to understand the benefits of group discussions”*

ID 39 - *“Give more works to research and present before others”*

The results suggested that principals employed a variety of corrective actions when students fail to attend group discussions without official permission. These actions range from academic tasks like individual assignments and presentations to disciplinary measures such as writing apologies or performing cleaning duties, with an emphasis on both educational and punitive approaches to address this issue.

4.6.6 Punishment to Students who Communicate in Vernacular while in School

The school principals were asked to indicate whether they agreed with the statement that a student who consistently communicated in vernacular while in school was punished. The results were as provided in Table 90.

Table 90*Punishment to Students Who Communicate in Vernacular While in School*

		School Category			
		Public		Private	
		F	%	F	%
A student who consistently communicates in vernacular while in school is punished	Strongly disagree	0	0.0%	0	0.0%
	Disagree	5	13.2%	14	38.9%
	Agree	15	39.5%	15	41.7%
	Strongly agree	18	47.4%	7	19.4%

As seen in Table 90, 86.9% of the principals of public schools and 61.1% of those from private secondary schools agreed that a student who consistently communicated in vernacular while in school was punished. This affirms that in many public and private schools, a student who consistently communicated in vernacular while in school was punished.

The school principals were asked to indicate the types of corrective action (s) they administer to a student who consistently communicated in vernacular, and the response was as follows.

ID 6 - *“Manual work *A warning is also given during assembly”*

ID 18 - *“Reading of English material brought by the student and doing a summary”*

ID 21 - *“Writing several Insha and composition then reading to others in the assembly”*

ID 33 - *“Buys a prescribed novel, read and analyzes it, and presents to the school in an assembly”*

ID 35 - *“Give him/her more story books to read in English and Kiswahili”*

4.6.7 Punishment to Students who persistently engaged in truancy

The school principals were asked to indicate whether they agreed with the statement that a student who was persistently engaged in truancy was punished, and the results were as provided in Table 91.

Table 91

Punishment to Students Who Persistently Engage in Truancy

		School Category			
		Public		Private	
		F	%	F	%
A student who is persistently engaged in truancy is punished	Strongly Disagree	0	0.0%	0	0.0%
	Disagree	2	5.3%	10	29.4%
	Agree	12	31.6%	15	44.1%
	Strongly Agree	24	63.1%	9	26.5%

The results given in Table 79 indicated that 94.7% of the principals of public schools and 70.6% of those from private secondary schools agreed that a student who was persistently engaged in truancy was punished. This affirms that in many of the schools in both categories, a student who persistently engaged in truancy was punished.

The school principals were asked to indicate the types of corrective action(s) they administered to a student who persistently engaged in truancy, and the responses were as follows. The results suggest that school principals primarily addressed persistent truancy through a combination of punitive measures, such as suspension and manual work, as well as involving parents and providing guidance and counseling.

4.6.8 Punishment to Students Who Fail to Complete Given Academic Projects

The school principals were asked to indicate whether they agreed with the statement that a student who failed to complete given academic projects was punished, and the results were as provided in Table 92.

Table 92

Punishment to Students Who Fail to Complete Given Academic Projects

		School Category			
		Public		Private	
		F	%	F	%
A student who fails to complete given academic projects is punished	Strongly Disagree	1	2.9%	3	9.4%
	Disagree	10	28.6%	16	50.0%
	Agree	10	28.6%	10	31.3%
	Strongly Agree	14	40.0%	3	9.4%

The results presented in Table 65 show that 94.7% of the principals of public schools and 70.6% of those from private secondary schools agreed that a student who failed to complete given academic projects was punished. This is an affirmation that in many public and private schools, a student who failed to complete given academic projects was punished.

The principals were asked to indicate the types of corrective action(s) they administered to a student who failed to complete a given academic project, and some of the main responses were as follows.

ID 13 – *“Their parents are involved a warning is given in addition to manual work”*

ID 18 - *“Made to redo the projects with some other additional academic projects in a given time frame”*

ID 23 - *“Forced completion and denied of marks relating to the project”*

ID 55 - *“Manual work/Made to finish the work”*

The results suggested that principals commonly employed a combination of approaches, including parental involvement, additional academic assignments, and manual work, to address students who failed to complete academic projects.

4.6.9 Punishing of Students Involved in Vandalizing Learning Materials

The school principals were asked to indicate whether they agreed with the statement that a student who was involved in vandalizing learning materials was punished, and the results were as provided in Table 93.

Table 93

Punishing of Students Involved in Vandalizing Learning Materials

		School Category			
		Public		Private	
		F	%	F	%
A student involved in vandalizing learning materials is punished	Strongly disagree	0	0.0%	0	0.0%
	Disagree	3	7.9%	11	30.6%
	Agree	14	36.8%	16	44.4%
	Strongly agree	21	55.3%	9	25.0%

The results presented in Table 93 indicated that 92.1% of the principals of public schools and 65.4% of those from private secondary schools agreed that a student involved in vandalizing learning materials was punished.

The principals were asked to indicate the types of corrective action (s) they administered to a student who vandalized learning materials, and the response was as follows.

ID 3 - *“They are charged then suspended from school”*

ID 26 - *“To make a replacement, and a punishment*

ID 47 - *“The student to replace the vandalized material at his/her cost”*

The results suggested that principals employed a variety of corrective actions, including charging, suspension, replacement, and making the student responsible for the cost of vandalized materials, when addressing incidents of student vandalism.

4.6.10 Punishing of Students who Usually Distract others by Noise Making in Class

The school principals were asked to indicate whether they agreed with the statement that a student who usually distracted others by noise making in class was punished, and the results were as provided in Table 94.

Table 94

Punishing of Students Who Usually Distract Others by Noise Making in Class

		School Category			
		Public		Private	
		F	%	F	%
A student who usually distracts others by noise-making in class is punished	Strongly disagree	0	0.0%	0	0.0%
	Disagree	1	2.7%	8	22.2%
	Agree	14	37.8%	12	33.3%
	Strongly agree	22	59.5%	16	44.4%

The results presented in Table 94 show that 97.3% and 77.7% of those from private secondary schools agreed that a student who usually distracts others by noise making in class is punished. These findings affirm that in many public and private schools, a student who usually distracts others by noise-making in class is punished.

The principals were asked to indicate the types of corrective action (s) which were administered to a student who made noise in class, and the responses were as follows.

ID 2 - *“Manual activities”*

ID 6 - *“Made to apologize to class and leave the class for some time”*

ID 27 - *“Counselling”*

ID 39 - “Class teacher to monitor closely”

ID 77 - “He is isolated from others and given his own space to be alone either in another room or outside.”

The results suggested that principals commonly employed a combination of punitive measures, such as suspension or charging the student, along with corrective actions, such as having the student replace the vandalized materials at their own cost, in response to incidents of student vandalism of learning materials.

4.6.11 Punishing Students who Disrupt Normal Studies through Fighting with Another Student

The school principals were asked to indicate whether they agreed with the statement that a student who disrupted normal studies through fighting with another student was punished, and the results were as provided in Table 95.

Table 95

Punishing Students who Disrupt Normal Studies Through Fighting with Another Student

		School Category			
		Public		Private	
		F	%	F	%
A student who disrupts normal studies through fighting with another student must be punished	Strongly Disagree	0	0.0%	0	0.0%
	Disagree	1	2.7%	8	22.2%
	Agree	5	13.5%	10	27.8%
	Strongly Agree	31	83.8%	18	50.0%

The results presented in Table 95 indicated that 97.3% of the principals of public schools and 87.8% of those from private secondary schools agreed that a student who disrupted normal studies by fighting with another student was punished. This affirms that a student who disrupted normal studies by fighting with another student was punished in many public and private schools.

The principals were asked to indicate the types of corrective action (s) they administered to a student who fought in school, and the responses were as follows.

ID 1 - *“They are suspended from school”* A principal from a private secondary school

ID 10 - *“A parent is involved, then a punishment administered to him/her”* A principal from a private secondary school

ID 31 - *“Required to come with the parent”* A principal from a Public secondary school

The responses from principals regarding corrective actions for students involved in fights provide insight into the disciplinary practices in both public and private schools. While a principal from a private secondary school mentioned suspension as the primary corrective action, another principal from a private school emphasized involving parents before administering punishment. Interestingly, a principal from a public secondary school highlighted the requirement for the student to come to school with their parent as the corrective measure. These findings suggest a divergence in disciplinary approaches between public and private schools, with private schools leaning towards punitive measures like suspension and involving parents, while public schools prioritize parental presence as a corrective action.

4.6.12 Punishing of Students who do not Make Corrections in Exercise Books after Doing Practice Exercises

The school principals were asked to indicate whether they agreed with the statement that a student who did not make corrections in exercise books after doing practice exercises was punished. The results were as provided in Table 96.

Table 96*Punishing Students Who Usually Distract Others by Noise Making in Class*

		School Category			
		Public		Private	
		F	%	F	%
A student who does not make corrections in exercise books after doing practice exercises is punished	Strongly disagree	0	0.0%	0	0.0%
	Disagree	7	19.4%	15	42.9%
	Agree	15	41.7%	15	42.9%
	Strongly agree	14	38.9%	5	14.3%

The results presented in Table 84 show 80.6% and 57.2% of those from private secondary schools agreed that a student who did not make corrections in exercise books after doing practice exercises was punished. This is an indication that in many public and private schools, a student who did not make corrections in exercise books after doing practice exercises was punished.

The principals were asked to indicate the types of corrective action (s) they administered to a student who failed to make corrections after doing assignment exercises, and the responses were as follows.

ID 1 - *“Manual work and are given more work”*

ID 5 - *“Made to redo the corrections in a given time frame and submit the book for checking”*

ID 3 - *“Forced completion of the assignment under strict observation”*

ID 28 - *“Make sure the student repeats to do the given work”*

4.6.13 Punishing of Students who fail to Consult Subject Teachers for Academic Guidance

The principals were asked to indicate whether they agreed with the statement that a student who failed to consult subject teachers for academic guidance was punished, and the results were as provided in Table 97.

Table 97

Punishing of Students who fail to Consult Subject Teachers for Guidance

		School Category			
		Public		Private	
		F	%	F	%
A student who fails to consult subject teachers for academic guidance is punished	Strongly Disagree	8	22.2%	7	19.4%
	Disagree	10	27.8%	21	58.3%
	Agree	10	27.8%	6	16.7%
	Strongly Agree	8	22.2%	2	5.6%

The results presented in Table 97 show that 50% of the principals of public schools and 22.3% of those from private secondary schools agreed that a student who failed to consult subject teachers for academic guidance was punished. This indicated that in many public and private schools, a student who failed to consult subject teachers for academic guidance is punished.

The principals were asked to indicate the types of corrective action (s) they administered to a student who failed to consult the subject teacher(s) for academic guidance, and the responses were as follows.

ID 1 - *“They are engaged in more learning activities”*

ID 2 - *“To come with a parent and discuss with parent way forward”*

ID 13 - *“Encouraged to consult teachers through counseling”*

ID 38 - *“Demonstrating to the students how it is important to always consult*

the teachers to improve her academics”

ID 56 - *“Subject teacher to monitor their progress closely”*

4.6.14 Hypothesis Testing for Students Discipline Management Strategies

The unstandardized coefficient for students discipline management strategies is 0.275, with a standardized coefficient (Beta) of 0.088. The t-value is 0.622, which is not significant at the 0.05 level ($p = 0.536$). Therefore, H_0^3 *“There is no statistically significant difference in the relationship between selected student motivation strategies and student academic achievement between public and private secondary schools in Nakuru County, Kenya”* cannot be rejected, indicating that there is no statistically significant relationship between selected Student Motivation Strategies and student academic achievement in secondary schools in Nakuru County, Kenya. Possible reasons for the output in secondary schools in Nakuru County could include the impact of school resources, teacher quality, and parental involvement on student academic achievement and their engagement with the study of different cultures. Additionally, cultural and societal norms may influence students' disciplinary practices and academic performance.

4.6.15 Punishing of Students Whose Notes Are Not Marked Often by the Subject Teacher

The principals were asked to indicate whether they agreed with the statement that a student whose notes are not marked often by the subject teacher was punished, and the results were as provided in Table 98.

Table 98*Punishing of Students Whose Notes Are Not Marked Often by the Teacher*

		School Category			
		Public		Private	
		F	%	F	%
A student whose notes are not marked often by the subject teacher is punished	Strongly Disagree	5	13.5%	4	11.4%
	Disagree	5	13.5%	12	34.3%
	Agree	19	51.4%	16	45.7%
	Strongly Agree	8	21.6%	3	8.6%

The results presented in Table 98 show that 73% of the principals of public schools and 54.3% of those from private secondary schools agreed that a student whose notes were not marked often by the subject teacher was punished. This implied that in many public and private schools, a student whose notes were not marked often by the subject teacher was punished.

The principals were asked to indicate the types of corrective action (s) they administered to a student whose notes were not marked by the subject teacher, and the responses were as follows.

ID 1 - *“They are engaged in manual activities”*

ID 3 - *“Close monitoring in future”*

ID 4 - *“Teachers demand an audience with a student to establish why”*

ID 42 - *“Rewrite the notes three times and hand over the notes for inspection”*

4.6.16 Relationship between Discipline and Academic Achievement in KCSE

The principals were asked to indicate whether they agreed with the statement that there was a strong relationship between discipline and academic achievement in KCSE. The results were as provided in Table 99.

Table 99*Relationship between Discipline and Academic Achievement in KCSE*

		School Category			
		Public		Private	
		F	%	F	%
There is a strong relationship between discipline and academic achievement in KCSE	Strongly Disagree	0	0.0%	0	0.0%
	Disagree	0	0.0%	7	20.0%
	Agree	6	16.2%	9	25.7%
	Strongly Agree	31	83.8%	19	54.3%

The results presented in Table 99 showed that 100% of the principals of public schools and 80% of those from private secondary schools agreed that there was a strong relationship between discipline and academic achievement in KCSE.

The principals were asked to indicate the relationship between discipline and academic achievement of students in KCSE in their school. The response was as follows.

ID 3 - *“Discipline is directly proportional to excelling in KCSE and indiscipline is also directly proportional to failing in KCSE examination”*

ID 6 - *“Good time management focus and improved performance”*

ID 7 - *“Students who are disciplined tend to be more focused and perform better”*

ID 14 - *“A disciplined student can take instruction well, relates with the teacher well, saves time for his academic work”*

The results suggest that there was a consensus among principals that discipline positively influences students' academic achievement in KCSE examinations. Factors like focus, time management, and teacher-student relationships play a crucial role in academic success.

4.6.16 Association between Students Discipline Management Strategies and Student Academic Achievement

The results for Spearman rank correlations for Students Discipline Management Strategies and student academic achievement for top performing schools were as provided in Table 100.

Table 100

Student Discipline and Student Academic Achievement for Top Performing Schools

Performance Category			Student Academic Achievement		
Top performing Public schools	KCSE secondary	rho	Student Discipline	Correlation Coefficient	.583*
				Sig. (2-tailed)	.011
				N	18
			Student Academic Achievement	Correlation Coefficient	1.000
				Sig. (2-tailed)	.
				N	18
Top performing private schools	KCSE secondary	rho	Student Discipline	Correlation Coefficient	.686**
				Sig. (2-tailed)	.001
				N	20
			Student Academic Achievement	Correlation Coefficient	1.000
				Sig. (2-tailed)	.
				N	20

The results in Table 100 showed that in the top performing KCSE public secondary schools, there is a moderately positive correlation ($r = 0.583$) between Students Discipline Management Strategies and academic achievement, with a p-value of 0.011. This indicates that there is a significant relationship between these variables. On the

other hand, in the top performing KCSE private secondary schools, there is a stronger positive correlation ($r = 0.686$) between Students Discipline Management Strategies and academic achievement, with a p-value of 0.001. This indicates that there is a highly significant relationship between these variables, which is statistically significant at the 0.05 test significance level.

The findings are in line with those in a study by Kosgei (2020) who found that there was a relationship between disciplinary policies and procedures and student academic achievement. In a similar study by Simba, Agak, and Kabuka (2016) discipline related positively with and accounted for 23% of the variance in the learners' academic performance. The authors argue that a positive discipline culture is essential for creating a conducive learning environment that enhances academic performance.

Possible reasons for the differences between the public and private schools in this study could be attributed to factors such as school resources, class sizes, and teacher-student ratios. Private schools tend to have more resources and smaller class sizes, which may contribute to better student discipline and academic performance.

In conclusion, the findings of this study suggest that there is a positive relationship between Students Discipline Management Strategies and academic achievement in both public and private secondary schools in Nakuru County. However, private schools tend to have a stronger correlation between these variables. These findings are consistent with previous research and highlight the importance of creating a positive discipline culture in schools to enhance academic performance. The positive correlation between Students Discipline Management Strategies and academic achievement in both public and private secondary schools in Nakuru County highlights the importance of school discipline in enhancing academic performance. Private schools demonstrated a stronger correlation, which may be attributed to differences in resources and management practices. These

findings have implications for policy and practice in education, emphasizing the need to promote positive school discipline culture to improve academic achievement.

The results for Spearman rank correlations for Students Discipline Management Strategies s and student academic achievement for low performing schools were as provided in Table 101.

Table 101

Student Discipline and Student Academic Achievement for Low Performing Schools

Performance Category		Student Academic Achievement		
Low performing KCSE public secondary schools	Spearman's rho	Student Discipline	Correlation Coefficient	.198
			Sig. (2-tailed)	.404
			N	20
	Student Academic Achievement	Correlation Coefficient	1.000	
		Sig. (2-tailed)	.	
		N	20	
Low performing KCSE private secondary schools	Spearman's rho	Student Discipline	Correlation Coefficient	.253
			Sig. (2-tailed)	.345
			N	16
	Student Academic Achievement	Correlation Coefficient	1.000	
		Sig. (2-tailed)	.	
		N	16	

The results indicate a weak positive correlation between Students Discipline Management Strategies and academic achievement in low performing KCSE public secondary schools ($r=0.198$, $p=0.404$), whereas a slightly stronger positive correlation was found in low performing KCSE private secondary schools ($r=0.253$, $p=0.345$). However, neither correlation was statistically significant at the 0.05 level. These findings are consistent with some previous studies in Kenya that have found mixed or weak

relationships between student discipline and academic achievement (Orodho, 2015; Wambugu & Chang'ach, 2017). Other factors, such as teacher quality, curriculum, and school resources, may also play a significant role in academic achievement.

Possible reasons for the differences between the groups could be related to differences in school culture, funding, and governance. Private schools may have more resources to invest in student discipline programs, or may have a more focused approach to student behavior due to their financial model. Public schools may face greater challenges related to funding and governance, which could impact their ability to effectively address student discipline.

These findings suggest that while there may be some relationship between Students Discipline Management Strategies and academic achievement, it is not a strong or consistent factor in low performing KCSE schools in Nakuru County. Therefore, addressing other factors such as teacher quality and school resources may be more critical to improving academic achievement in these schools.

The results with respect to the spearman rank correlation between Students Discipline Management Strategies and student academic achievement by type of Secondary school was as provided in Table 102.

Table 102*Student Discipline and Student Academic Achievement by School Type*

School Category		Student Academic Achievement	
Public	Student Discipline	Correlation Coefficient	.151
		Sig. (2-tailed)	.366
		N	38
	Student Academic Achievement	Correlation Coefficient	1.000
		Sig. (2-tailed)	.
		N	38
Private	Student Discipline	Correlation Coefficient	.648**
		Sig. (2-tailed)	.000
		N	36
	Student Academic Achievement	Correlation Coefficient	1.000
		Sig. (2-tailed)	.
		N	36

Based on the data provided, there was a weak positive correlation between Students Discipline Management Strategies and student academic achievement in public secondary schools in Nakuru County ($r = 0.155$, $p = 0.366$), while there was a moderately strong positive correlation in private secondary schools ($r = 0.648$, $p = 0.000$). The p-value for the private schools was less than 0.05, indicating that the correlation was statistically significant. This suggests that there is a stronger relationship between Students Discipline Management Strategies and academic achievement in private schools compared to public schools.

This finding is consistent with previous research conducted in Kenya. For example, a study by Gathumbi and Ndungu (2017) found that school culture, including student discipline, was a significant predictor of academic achievement in private schools, while the relationship was weaker in public schools. Additionally, a study by Kithuka and

Ndirangu (2015) found that private schools in Kenya generally outperformed public schools in academic achievement, which could be attributed to a variety of factors, including stronger school cultures and discipline.

Possible reasons for the difference in the correlation between public and private schools could include differences in the resources available to the schools, as well as differences in the culture and values of the schools. Private schools may have more resources to devote to creating a strong culture of discipline and academic excellence, while public schools may face greater challenges in achieving these goals.

These findings suggest that Students Discipline Management Strategies is an important factor in academic achievement, particularly in private schools. Schools may benefit from focusing on building a positive culture of discipline and high academic expectations in order to improve student outcomes.

4.6.18 Relationship between Students Discipline Management Strategies and Students' Academic Achievement

This section presents the regression analysis comparing the relationship between students' discipline management strategies and students' academic achievement in public and private secondary schools. The model summary was as presented in Table 103.

Table 103

Model Summary for Students Discipline Management Strategies

School Category	Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
Public	1	.211 ^a	.044	.018	2.56139
Private	1	.477 ^a	.227	.205	2.40252

a. Predictors: (Constant), Students Discipline Management Strategies

The results show that for public schools, the model indicates a weak fit with an R-squared value of 0.044, suggesting that students' discipline management strategies explain only about 4.4% of the variance in student academic achievement. The adjusted R-squared value is even lower at 0.018. Similarly, for private schools, the model shows a moderate fit with an R-squared value of 0.227, indicating that students' discipline management strategies explain approximately 22.7% of the variance in student academic achievement. The adjusted R-squared value is 0.205. The standard error of the estimate is 2.56139 for public schools and 2.40252 for private schools, reflecting the average distance between observed and predicted values of student academic achievement.

The ANOVA table 104 below tests the overall significance of the regression models for both public and private schools.

Table 104

ANOVA for Relationship between Students Discipline Management Strategies and Students Academic Achievement

School Category	Model	Sum of Squares	Df	Mean Square	F	Sig.
Public	1 Regression	10.987	1	10.987	1.675	.204 ^b
	Residual	236.186	36	6.561		
	Total	247.173	37			
Private	1 Regression	57.779	1	57.779	10.010	.003 ^b
	Residual	196.251	34	5.772		
	Total	254.030	35			

a. Dependent Variable: Student Academic Achievement

b. Predictors: (Constant), Students Discipline Management Strategies

For public schools, the regression model is not significant ($p = 0.204$), indicating that the relationship between students' discipline management strategies and student academic

achievement is likely due to chance. Conversely, for private schools, the regression model is highly significant ($p = 0.003$), suggesting that there is a meaningful relationship between students' discipline management strategies and student academic achievement. This table presents the coefficients for the predictors in the regression models for both public and private schools.

Table 105

Coefficients for Relationship between Students Discipline Management Strategies and Students Academic Achievement

School		Unstandardized		Standardized		t	Sig.
		Coefficients		Coefficients			
Category	Model	B	Std. Error	Beta			
public	1(Constant)	1.505	2.646			.569	.573
	Students Discipline Management Strategies	.991	.766	.211		1.294	.204
private	1(Constant)	1.197	1.237			.967	.340
	Students Discipline Management Strategies	1.361	.430	.477		3.164	.003

a. Dependent Variable: Student Academic Achievement

4.6.19 Regression for Students' Discipline Management Strategies and Students'

Academic Achievement across all Categories of schools

This section provides a summary of the regression analysis examining the relationship between students' discipline management strategies and students' academic achievement across all categories of schools.

Table 106

Model Summary for Regression Analysis of Students Discipline Management Strategies and Students Academic Achievement across all Categories of Schools

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.333 ^a	.111	.099	2.48768

a. Predictors: (Constant), Students Discipline Management Strategies

The model indicates a moderate fit with an R-squared value of 0.111, suggesting that students' discipline management strategies explain approximately 11.1% of the variance in student academic achievement. The adjusted R-squared value, which accounts for the number of predictors in the model, is 0.099. The standard error of the estimate is 2.48768, reflecting the average distance between observed and predicted values of student academic achievement.

Table 107

ANOVA for Students Discipline Management Strategies and Students Academic Achievement across all Categories of Schools

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	55.630	1	55.630	8.989	.004 ^b
	Residual	445.576	72	6.189		
	Total	501.206	73			

a. Dependent Variable: Student Academic Achievement

b. Predictors: (Constant), Students Discipline Management Strategies

The ANOVA table tests the overall significance of the regression model. The results indicate that the regression model is statistically significant ($p = 0.004$), suggesting that the relationship between students' discipline management strategies and student academic achievement is not due to chance. The sum of squares for the regression is

55.630, while the sum of squares for the residual (error) is 445.576. This suggests that the regression model accounts for a significant portion of the total variability in student academic achievement. Table 108 presents the coefficients for the predictors in the regression model.

Table 108

Coefficients for Students Discipline Management Strategies and Students Academic Achievement all Categories of Schools

Model		Unstandardized		Standardized	t	Sig.
		Coefficients		Coefficients		
		B	Std. Error	Beta		
1	(Constant)	1.687	1.108		1.523	.132
	Students Discipline Management Strategies	1.042	.348	.333	2.998	.004

a. Dependent Variable: Student Academic Achievement

The intercept term (constant) is 1.687, indicating the expected value of the dependent variable (student academic achievement) when the predictor variable (students' discipline management strategies) is zero. The Standardized Beta Coefficients for students' discipline management strategies is 0,333, indicating that for every one-unit increase in students' discipline management strategies, there is a predicted increase of 0.333 units in student academic achievement. This coefficient is statistically significant ($t = 2.998$, $p = 0.004$), suggesting that students' discipline management strategies are a significant predictor of academic achievement across all categories of schools.

The results suggest that students' discipline management strategies have a modest but significant impact on student academic achievement across all categories of schools. While other factors not included in the model may also influence academic achievement, this finding underscores the importance of effective discipline management practices in

fostering positive academic outcomes for students. Schools should consider implementing strategies to enhance discipline management to support student success.

4.6.20 Hypothesis Testing for Students Discipline Management Strategies

The fourth objective sought to analyze the relationship between students discipline management strategies and student academic achievement in secondary schools in Nakuru County, Kenya, and compare findings between public and private schools. To test the hypothesis:

Ho3: There is no statistically significant difference in the relationship between Students Discipline Management Strategies and student academic achievement between public and private secondary schools in Nakuru County, Kenya.

With reference to Table 103, for public schools, the standardized beta coefficient for Students Discipline Management Strategies is 0.211, and for private schools, it is 0.477. Given that we are using a significance level of 0.05, we can compare the p-values associated with the standardized beta coefficients. For public schools, the p-value associated with the standardized beta coefficient is 0.204, and for private schools, it is 0.003. Since both p-values are below the significance level of 0.05, we reject the null hypothesis. This indicates that there is a statistically significant difference in the relationship between Students Discipline Management Strategies and student academic achievement between public and private secondary schools in Nakuru County, Kenya. Therefore, we conclude that there is evidence to suggest that the relationship between Students Discipline Management Strategies and student academic achievement varies significantly between public and private secondary schools in Nakuru County, Kenya.

4.7 Performance Trends

Using data collected via document analysis, quantitative computations were made and the responses showed the average percentage distribution of performance grades in KCSE in the period between 2015 and 2019. The results were as presented in Table 91 and Figures 10.

Table 109

Performance Distribution by Grades

	A	A-	B+	B	B-	C+	C	C-	D+	D	D-	E	Z
Yr. 2015	7.1	10.7	10.1	10.0	10.8	13.2	8.4	6.1	4.2	6.4	10.1	2.9	0.0
	%	%	%	%	%	%	%	%	%	%	%	%	%
Yr. 2016	0.1	4.1	8.7	7.8	11.2	12.1	11.2	10.8	13.5	6.3	9.7	4.4	0.2
	%	%	%	%	%	%	%	%	%	%	%	%	%
Yr. 2017	0.0	2.2	5.2	5.9	11.0	13.3	15.1	14.7	10.0	8.5	11.0	3.0	0.1
	%	%	%	%	%	%	%	%	%	%	%	%	%
Yr. 2018	0.1	2.2	6.8	8.3	9.8	12.8	13.0	11.7	9.6	7.9	11.6	6.2	0.0
	%	%	%	%	%	%	%	%	%	%	%	%	%
Yr. 2019	0.1	2.5	7.1	7.9	10.4	13.6	13.7	14.7	8.8	8.2	7.8	5.3	0.0
	%	%	%	%	%	%	%	%	%	%	%	%	%

Figure 10

Performance .Distribution by Grades – 2015 to 2019

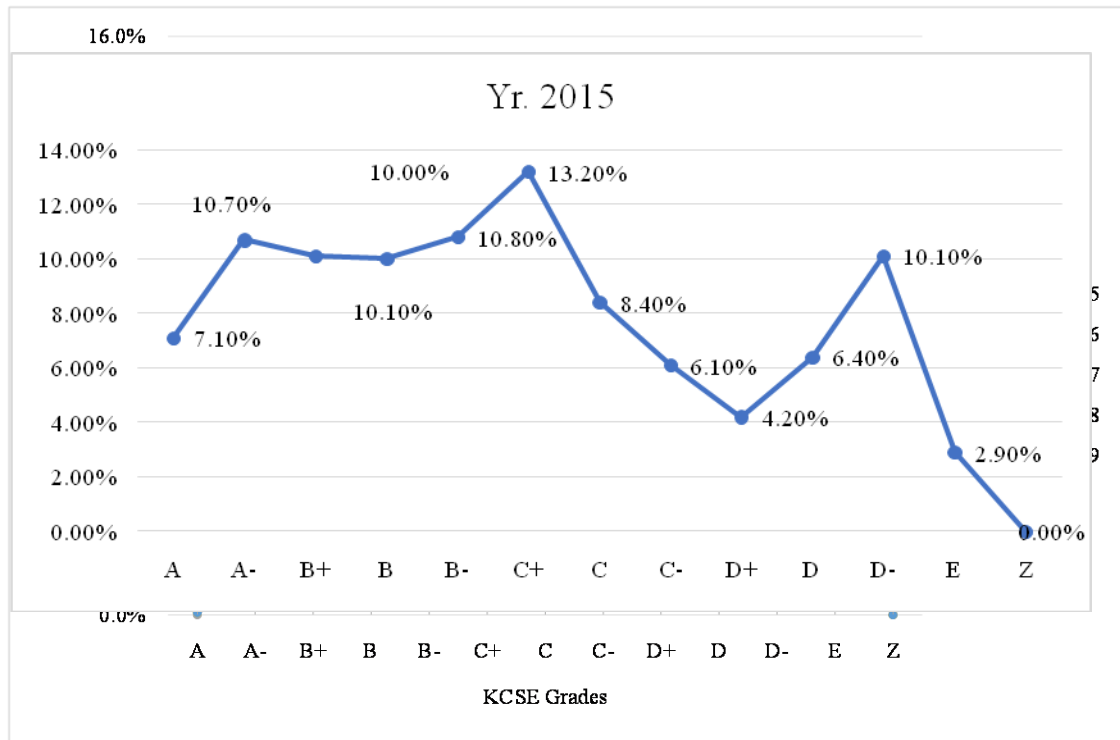


Figure 11

Performance Distribution by Grades – 2015

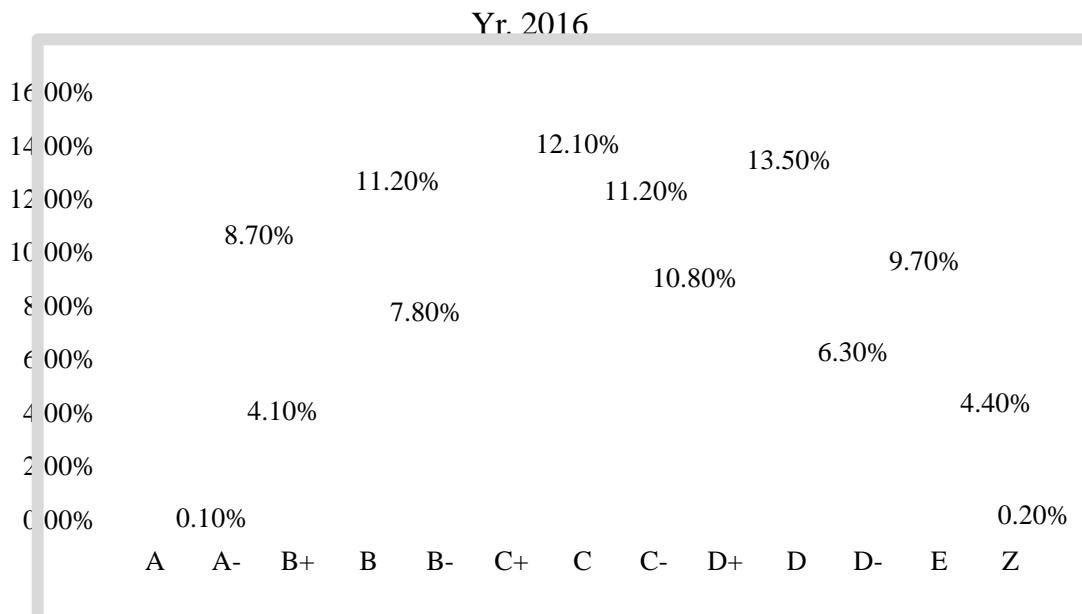


Figure 12

Performance Distribution by Grades – 2016

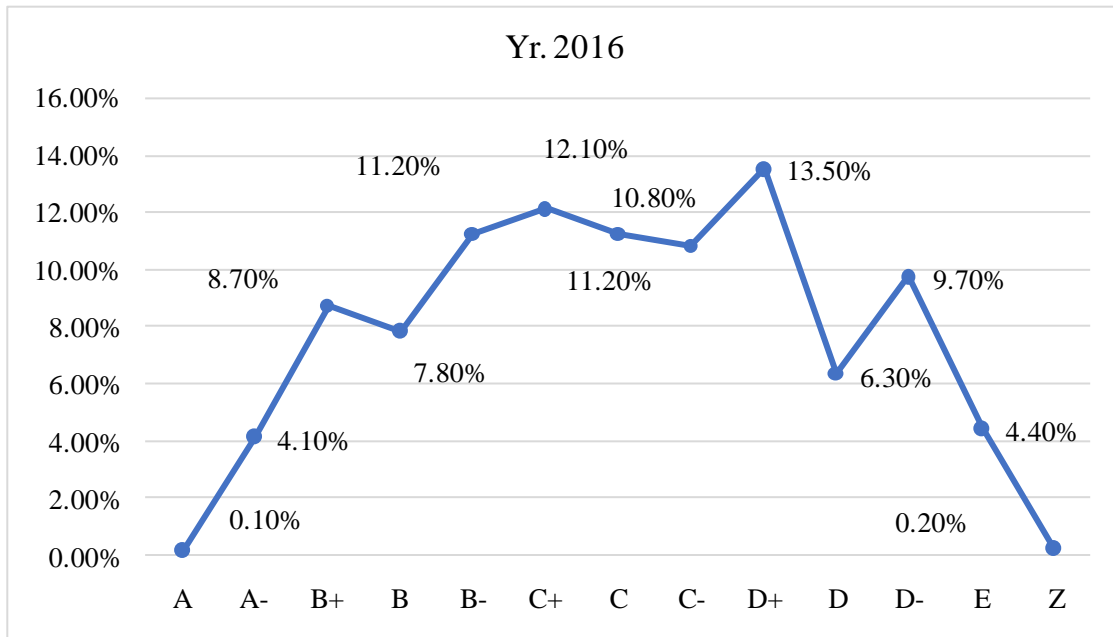


Figure 13

Performance Distribution by Grades – 2017

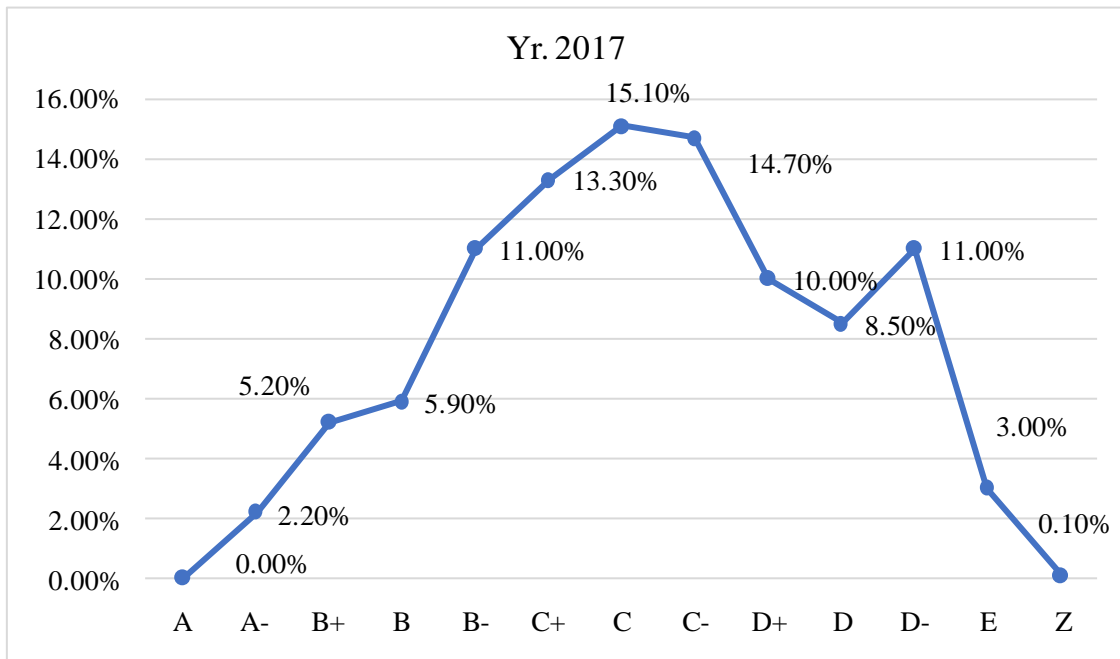
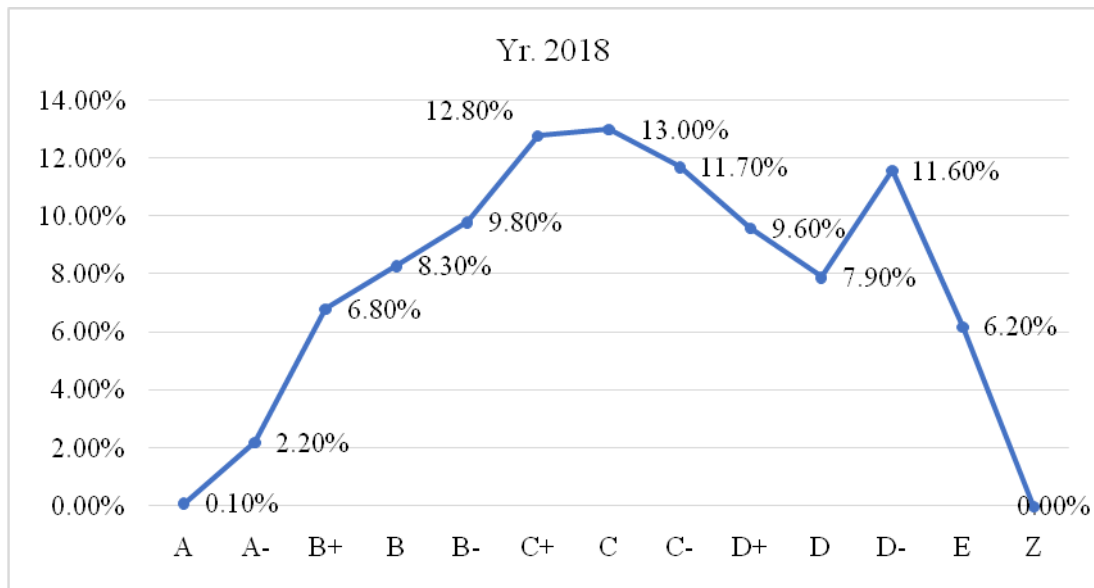


Figure 14

Performance Distribution by Grades – 2018



The results show that the trend in performance is uniform and appears to be worsening in 2019. The performance is indicative of some cultures that need to be explored.

4.8 Regression Analysis

Multiple regression analysis was done to establish the relationship between the independent and dependent variables and the results are presented in this section. The variables under investigation included the relationship between teaching cultures, student study cultures, Student Motivation Strategies, Students Discipline Management Strategies (Independent variables), and student academic achievement (Independent variable). Table 105 presents the model summary for Student Discipline, Teaching Culture, and Student Motivation Strategies as predictors of student academic performance.

4.8.1 Model Summary

Table 110 provides a summary of key statistical measures for a predictive model. This table presents important information related to the model's goodness of fit and the effectiveness of the predictors in explaining the variation in the dependent variable.

Table 110

Model Summary

Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
1	.573 ^a	.328	.299	2.19307

a. Predictors: (Constant), Student Discipline, Teaching Culture, Student Motivation Strategies

The regression analysis suggests that there is a moderate positive relationship ($R = 0.573$) between teaching cultures, student study cultures, Student Motivation Strategies, and Students Discipline Management Strategies. The R-squared value of 0.328 indicates that approximately 32.8% of the variation in the dependent variable (students' academic performance) can be explained by the independent variables (teaching culture, student study culture, Student Motivation Strategies, and student disciplinary culture). The adjusted R-squared value of 0.299 suggests that the model has a good fit, considering the number of predictors. The standard error of the estimate is 2.19307, indicating that the model's predictions of students' academic performance may vary from the actual performance by an average of 2.19307 units.

4.8.2 Analysis of Variances

Table 111 presents the results of the Analysis of Variances (ANOVA) conducted to assess the relationship between various predictors and the dependent variable, "Student Academic Achievement." The table provides key statistical information, including the

sum of squares, degrees of freedom (df), mean square, F-statistic, and significance level (Sig.), which collectively indicate the model's goodness-of-fit and the significance of the predictors.

Table 111

Analysis of Variances

Model		Sum of Squares	df	Mean Square	F	Sig.
1	Regression	164.537	3	54.846	11.403	.000 ^b
	Residual	336.669	70	4.810		
	Total	501.206	73			

a. Dependent Variable: Student Academic Achievement

b. Predictors: (Constant), Student Discipline, Teaching Culture, Student Motivation Strategies

The ANOVA output suggests that there is a significant relationship between the predictors (Student Discipline, Teaching Culture, and Student Motivation Strategies) and the dependent variable (Student Academic Achievement). The regression model explains 33% of the variance in Student Academic Achievement, which is moderate effect size. The F-value (11.403) is significant at $p < .001$, indicating that the regression model is a better fit than the null model.

The adopted multiple regression model appears to have the capacity to predict students' academic performance. The ANOVA output indicates a significant relationship between the predictors (Student Discipline, Teaching Culture, and Student Motivation Strategies) and the dependent variable (Student Academic Achievement), as evidenced by a significant F-value of 11.403 ($p < .001$). Furthermore, the regression model accounts for 33% of the variance in Student Academic Achievement, indicating a moderate effect

size. Given the significant F-value and the substantial proportion of variance explained by the model, it suggests that the predictors collectively have predictive power in determining students' academic performance. Therefore, based on the obtained F-value, the multiple regression model is deemed suitable for predicting students' academic achievement.

Possible reasons for the output in secondary schools in Nakuru County could be due to the following factors: **Student Discipline:** Lack of discipline among students can negatively impact their academic achievement. This may include absenteeism, tardiness, disruptive behavior, or poor study habits. Teachers and school administrators may need to implement strategies to promote positive student behavior and ensure a safe and orderly learning environment.

The quality of teaching and instructional methods used by teachers can significantly affect student achievement. Effective teaching practices may include active learning, student-centered approaches, and differentiated instruction. Teachers may need to receive training and support to improve their instructional skills.

Student Motivation Strategies: Motivated students are more likely to succeed academically. Schools may need to foster a culture of motivation by providing extracurricular activities, positive feedback, and recognition for achievement. Teachers may also need to identify and address factors that may be affecting student motivation, such as low self-esteem or family problems.

4.8.3 Beta Coefficients

Table 112 presents the beta coefficients resulting from a statistical analysis, specifically regression modeling. These coefficients are essential in understanding the relationships between the dependent variable, Student Academic Achievement, and various

independent variables, including Teaching Culture, Student Motivation Strategies, and Student Discipline.

Table 112

Beta Coefficients

Model	Unstandardized		Standardized	t	Sig.
	Coefficients		Coefficients		
	B	Std. Error	Beta		
1 (Constant)	.303	1.105		.275	.784
Teaching Culture	1.531	.323	.557	4.743	.000
Student Motivation Strategies	-.226	.432	-.071	-.522	.604
Student Discipline	.275	.441	.088	.622	.536

a. Dependent Variable: Student Academic Achievement

b. Dependent Variable: Student Academic Achievement

$$i). SAC = \beta_0 + \beta_1 TC + \beta_3 SMC + \beta_4 SDC + \epsilon$$

Student Academic Achievement = 1.906 (Constant) - 0.056 (Student Study Cultures) + 0.129 (Error). Based on the provided coefficients and significance levels, the following hypotheses were tested:

In Table 112, which presents beta coefficients for predictors of student academic achievement, teaching culture emerges as the greatest predictor with a standardized coefficient of .557, indicating its significant positive impact on academic performance. This means that variations in teaching culture have a relatively strong influence on students' academic achievements within the model. Following teaching culture, student discipline and student motivation strategies also show positive but weaker influences on academic achievement, with standardized coefficients of .088 and -.071, respectively. Although student discipline and motivation strategies contribute to academic outcomes, their effects are comparatively smaller than teaching culture. Specifically, student

motivation strategies exhibit a negative coefficient, suggesting that while they are relevant, their impact may not be as pronounced as initially anticipated. Thus, while all predictors contribute to explaining variations in student academic achievement, teaching culture stands out as the strongest and most influential factor in this model. Studies such as Kimani and Kariuki (2017) and Mwaura and Ndambuki (2019) in Kenya have shown similar findings, with studies highlighting the importance of school environment and support, teacher training, and cultural relevance in promoting student academic achievement and positive disciplinary practices.

4.9 Regression Analyses by School Category

This section delves into multiple regressions, highlighting the comparison between public secondary schools and private secondary schools. The Model Summary, as depicted in Table 113, offers insights into the performance of two distinct models – one tailored for public schools and the other for private schools. Both models include the same predictors: Student Discipline, Teaching Culture, and Student Motivation Strategies.

Table 113

Model Summary

School Category	Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
Public	1	.478 ^a	.229	.161	2.36793
Private	1	.634 ^b	.402	.346	2.17921

a. Predictors: (Constant), Student Discipline, Teaching Culture, Student Motivation Strategies

b. Predictors: (Constant), Student Discipline, Student Motivation Strategies, Teaching Culture

The given regression outputs indicate that there is a significant difference in the percentage of variation in student academic achievement explained by variation in

cultures between public and private secondary schools. Specifically, the R^2 value for private secondary schools (40.2%) is higher than that for public secondary schools (22.9%). R^2 represents the proportion of variance in the dependent variable (student academic achievement). The Adjusted R-squared values take into account the number of predictors in the model and penalize for over fitting. In this case, the Adjusted R-squared for the Private school model (Adjusted R-squared = .346) is also higher than the Public school model (Adjusted R-squared = .161), suggesting that the Private school model is still a better fit for the data even when considering the number of predictors that is explained by the independent variable (that is, variation in cultures).

This means that in private secondary schools, variation in cultures accounts for a larger percentage of the variance in student academic achievement compared to public schools. One possible explanation for this difference could be that private schools have more control over their curriculum and teaching methods, which allows them to tailor their educational approach to the cultural backgrounds of their students. Additionally, private schools may attract a more homogenous student population, leading to a greater cultural fit between students and the school's educational approach.

Empirical research in Kenya has also found differences in academic achievement between public and private schools. For example, a study by Kibera, Kariuki, and Oanda (2017) found that private schools in Kenya generally outperformed public schools in terms of student academic achievement, despite higher fees and more limited resources. The authors suggest that the higher academic performance in private schools may be due to factors such as better teacher training and more effective instructional methods.

The results for the analysis of variances for the two types of schools are compared and presented in Table 114.

Table 114*Analysis of Variances*

School Category	Model		Sum of Squares	df	Mean Square	F	Sig.
Public	1	Regression	56.531	3	18.844	3.361	.030 ^b
		Residual	190.642	34	5.607		
		Total	247.173	37			
Private	1	Regression	102.064	3	34.021	7.164	.001 ^c
		Residual	151.966	32	4.749		
		Total	254.030	35			

a. Dependent Variable: Student Academic Achievement

b. Predictors: (Constant), Student Discipline, Teaching Culture, Student Motivation Strategies

c. Predictors: (Constant), Student Discipline, Student Motivation Strategies, Teaching Culture

The results show that the p values for the two categories of schools were lower than 0.05. (Private schools, the $p = 0.001$; Public schools = 0.030. The F statistic, and its associated Sig. level, tests the null hypothesis that the regression coefficients in the regression equation are 0 in the population. Here, since the significance level is small relative to .05, we reject the null hypothesis.

The results indicate that there is a significant difference in the p values for private and public schools, where the p value for private schools was much lower ($p=0.001$) than for public schools ($p=0.030$). The F statistic tests the null hypothesis that the regression coefficients are 0 in the population, suggesting that there is a significant relationship between the independent and dependent variables.

Beta coefficients are a statistical measure that represents the standardized regression coefficients in a linear regression analysis. They indicate the relative strength and

direction of the relationship between the independent variable(s) and the dependent variable.

Table 115

Beta Coefficients

School	Category	Model	Unstandardized		Standardized		
			Coefficients		Coefficients		
			B	Std. Error	Beta	t	Sig.
Public	1	(Constant)	-3.663	3.156		-	.254
		Teaching Culture	1.268	.557	.359	2.278	.029
		Student Motivation Strategies	1.128	.854	.213	1.321	.195
		Student Discipline	.204	.600	.052	.340	.736
Private	1	(Constant)	-.576	1.273		-.453	.654
		Teaching Culture	.799	.576	.295	1.388	.175
		Student Motivation Strategies	.247	.516	.086	.479	.635
		Student Discipline	.920	.569	.325	1.619	.115

a. Dependent Variable: Student Academic Achievement

Table 115 presents the unstandardized and standardized beta coefficients, t-values, and significance levels for the regression models examining the relationship between different teaching and discipline cultures and student academic achievement in public and private secondary schools in Kenya. The standardized beta coefficients indicate the strength and direction of the relationship between the predictor variables and the outcome variable, while the significance levels show whether the coefficients are statistically significant ($p < .05$).

The results show that in public secondary schools, teaching culture has a significant positive effect on student academic achievement ($\beta = .359$, $p = .029$), while Student

Motivation Strategies ($\beta = .213, p = .195$) and student discipline ($\beta = .052, p = .736$) have no significant effects. In contrast, in private secondary schools, teaching culture ($\beta = .295, p = .175$) and student discipline ($\beta = .325, p = .115$) have non-significant effects, while Student Motivation Strategies ($\beta = .086, p = .635$) has no effect.

4.9.1 Multiple Regressions: A Comparison of Public Schools to Private Schools

This section presents multiple regressions comparing public secondary schools to private secondary schools.

The Model Summary in Table 116 shows the performance of two models, one for Public schools and another for Private schools. Both models include the same predictors: Student Discipline, Teaching Culture, and Student Motivation Strategies.

Table 116

Model Summary

School Category	Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
Public	1	.478 ^a	.229	.161	2.36793
Private	1	.634 ^b	.402	.346	2.17921

a. Predictors: (Constant), Student Discipline, Teaching Culture, Student Motivation Strategies

b. Predictors: (Constant), Student Discipline, Student Motivation Strategies, Teaching Culture

The given regression outputs indicate that there is a significant difference in the percentage of variation in student academic achievement explained by variation in cultures between public and private secondary schools. Specifically, the R^2 value for private secondary schools (40.2%) is higher than that for public secondary schools (22.9%). R^2 represents the proportion of variance in the dependent variable (student academic achievement). The Adjusted R-squared values take into account the number of

predictors in the model and penalize for over fitting. In this case, the Adjusted R-squared for the Private school model (Adjusted R-squared = .346) is also higher than the Public school model (Adjusted R-squared = .161), suggesting that the Private school model is still a better fit for the data even when considering the number of predictors that is explained by the independent variable (that is, variation in cultures).

This means that in private secondary schools, variation in cultures accounts for a larger percentage of the variance in student academic achievement compared to public schools. One possible explanation for this difference could be that private schools have more control over their curriculum and teaching methods, which allows them to tailor their educational approach to the cultural backgrounds of their students. Additionally, private schools may attract a more homogenous student population, leading to a greater cultural fit between students and the school's educational approach.

Empirical research in Kenya has also found differences in academic achievement between public and private schools. For example, a study by Kibera, Kariuki, and Oanda (2017) found that private schools in Kenya generally outperformed public schools in terms of student academic achievement, despite higher fees and more limited resources. The authors suggest that the higher academic performance in private schools may be due to factors such as better teacher training and more effective instructional methods.

The results for the analysis of variances for the two types of schools are compared and presented in Table 117.

Table 117*Analysis of Variances*

School Category	Model		Sum of Squares	df	Mean Square	F	Sig.
Public	1	Regression	56.531	3	18.844	3.361	.030 ^b
		Residual	190.642	34	5.607		
		Total	247.173	37			
Private	1	Regression	102.064	3	34.021	7.164	.001 ^c
		Residual	151.966	32	4.749		
		Total	254.030	35			

a. Dependent Variable: Student Academic Achievement

b. Predictors: (Constant), Student Discipline, Teaching Culture, Student Motivation Strategies

c. Predictors: (Constant), Student Discipline, Student Motivation Strategies, Teaching Culture

The results show that the p values for the two categories of schools were lower than 0.05. (Private schools, the $p = 0.001$; Public schools = 0.030. The **F** statistic, and its associated Sig. level, tests the null hypothesis that the regression coefficients in the regression equation are 0 in the population. Here, since the significance level is small relative to .05, we reject the null hypothesis.

The results indicate that there is a significant difference in the p values for private and public schools, where the p value for private schools was much lower ($p=0.001$) than for public schools ($p=0.030$). The F statistic tests the null hypothesis that the regression coefficients are 0 in the population, suggesting that there is a significant relationship between the independent and dependent variables.

The difference in p values between private and public schools may be due to various factors such as funding, infrastructure, teacher quality, and student-teacher ratio. Private schools may have better funding and resources, attracting better quality teachers and providing a better learning environment for students, leading to higher academic

performance. On the other hand, public schools may face challenges such as inadequate resources, teacher strikes, and overcrowding, leading to poor academic performance.

Table 118 presents the Beta Coefficients. The Beta coefficients are a statistical measure that represents the standardized regression coefficients in a linear regression analysis. They indicate the relative strength and direction of the relationship between the independent variable(s) and the dependent variable.

Table 118
Beta Coefficients

School	Category	Model	Unstandardized		Standardized		
			Coefficients		Coefficients		
			B	Std. Error	Beta	t	Sig.
Public	1	(Constant)	-3.663	3.156			-.254
		Teaching Culture	1.268	.557	.359	2.278	.029
		Student Motivation	1.128	.854	.213	1.321	.195
		Strategies					
		Student Discipline	.204	.600	.052	.340	.736
Private	1	(Constant)	-.576	1.273			-.453
		Teaching Culture	.799	.576	.295	1.388	.175
		Student Motivation	.247	.516	.086	.479	.635
		Strategies					
		Student Discipline	.920	.569	.325	1.619	.115

a. Dependent Variable: Student Academic Achievement

Table 118 presents the unstandardized and standardized beta coefficients, t-values, and significance levels for the regression models examining the relationship between different teaching and discipline cultures and student academic achievement in public and private secondary schools in Kenya. The standardized beta coefficients indicate the strength and direction of the relationship between the predictor variables and the

outcome variable, while the significance levels show whether the coefficients are statistically significant ($p < .05$).

The results show that in public secondary schools, teaching culture has a significant positive effect on student academic achievement ($\beta = .359$, $p = .029$), while Student Motivation Strategies ($\beta = .213$, $p = .195$) and student discipline ($\beta = .052$, $p = .736$) have no significant effects. In contrast, in private secondary schools, teaching culture ($\beta = .295$, $p = .175$) and student discipline ($\beta = .325$, $p = .115$) have non-significant effects, while Student Motivation Strategies ($\beta = .086$, $p = .635$) has no effect.

The findings suggest that the teaching culture in public schools may be more conducive to promoting student academic achievement than that in private schools, as teachers in public schools may be more committed and innovative in their pedagogy and curriculum. The lack of significant effects of Student Motivation Strategies and discipline in public schools may indicate that these factors are not as important as teaching culture in shaping students' academic performance. In private schools, on the other hand, the lack of significant effects of teaching culture and discipline may suggest that other factors, such as individualized attention and resources, may be more important in promoting student academic achievement.

These results are consistent with previous research in Kenya that found that teaching quality and teacher motivation are critical factors in improving student outcomes (UNESCO, 2017). The findings also highlight the need for policymakers and educators to invest in improving teaching quality and creating a positive teaching culture in both public and private schools in Kenya to enhance students' academic achievement.

4.9.2 Multiple Regressions by Level of Performance

This section presents multiple regressions comparing public secondary schools to private secondary schools by the level of performance.

The table presents a model summary that assesses the level of performance in both low-performing and high-performing schools. It includes key statistical metrics such as the coefficient of determination (R-square), adjusted R-square, and the standard error of the estimate.

Table 119

Model Summary Assessing the Level of Performance in Low and High-Performing Schools

Level of Performance	Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
Low Performing Schools	1	.680 ^a	.463	.413	.23490
High Performing Schools	1	.836 ^b	.699	.672	.66354

- a. Predictors: (Constant), Student Discipline, Teaching Culture, Student Motivation Strategies
- b. Predictors: (Constant), Student Discipline, Student Motivation Strategies, Teaching Culture

The coefficients in the model summary in table 95 indicate the strength and direction of the relationship between the independent variables and the dependent variable (level of performance) for low performing and high performing schools.

For low performing schools, the independent variables (student discipline, teaching culture, and Student Motivation Strategies) explain 46.3% of the variance in the level of performance, with an R square value of .463. The standardized coefficients for each

predictor cannot be determined from the information provided. For high performing schools, the independent variables (student discipline, Student Motivation Strategies, and teaching culture) explain 69.9% of the variance in the level of performance, with an R square value of .699. The standardized coefficients for each predictor cannot be determined from the information provided. The results suggest that the predictors have a stronger relationship with the level of performance in high performing schools compared to low performing schools.

One possible reason for this difference could be that high performing schools have a stronger emphasis on Student Motivation Strategies, which is a predictor in both models. The results are in agreement with those in a study by Phuntsho, Dema, and Phuntsho (2020) who established a significant positive correlation between Student Motivation Strategies and academic scores of the students. Their study found that student motivation is a key factor in academic performance, as it enhances students' ability to engage with and learn from their teachers.

Overall, the coefficients in the model summary suggest that the predictors have a stronger relationship with the level of performance in high performing schools compared to low performing schools. This finding aligns with previous research on the importance of Student Motivation Strategies and effective teaching practices in improving academic performance in Kenya.

Table 120*Analysis of Variance for Regression by Level of Performance*

Level of Performance	Model	Sum of Squares	df	Mean Square	F	Sig.
-Low Performing Schools	1 Regression	1.522	3	.507	9.194	.000 ^b
	Residual	1.766	32	.055		
	Total	3.288	35			
High Performing Schools	1 Regression	34.734	3	11.578	26.297	.000 ^c
	Residual	14.970	34	.440		
	Total	49.704	37			

- a. Dependent Variable: Student Academic Achievement
- b. Predictors: (Constant), Student Discipline, Teaching Culture, Student Motivation Strategies
- c. Predictors: (Constant), Student Discipline, Student Motivation Strategies, Teaching Culture

The ANOVA table 120 compares the level of performance between low performing schools and high performing schools based on the predictors of student discipline, teaching culture, and Student Motivation Strategies on student academic achievement. The results show that for low performing schools, the regression model explains a significant proportion of the variance in student academic achievement ($F=9.194$, $p=0.000$). In contrast, for high performing schools, the regression model explains a much larger proportion of the variance ($F=26.297$, $p=0.000$).

This difference between groups could be due to a number of factors. One possibility is that low performing schools may face more systemic challenges, such as inadequate resources or a lack of supportive policies that limit the impact of the predictors on student academic achievement. In contrast, high performing schools may have more robust systems in place that allow the predictors to have a greater impact. To further explore this issue, empirical reviews in Kenya could be consulted. For example, a study

by Muriithi and Kinyua (2018) found that low performing schools in Kenya often struggle with high student-teacher ratios, inadequate facilities, and limited access to professional development opportunities. In contrast, high performing schools tended to have better resources and more supportive leadership.

Another study by Ongowo and Indoshi (2015) found that teacher motivation was a key factor in improving student academic achievement in Kenya. They found that high performing schools tended to have more motivated teachers who were more engaged in professional development activities, while low performing schools struggled to retain experienced teachers and often had a demotivated teaching staff.

Overall, these empirical reviews suggest that the difference in performance between low and high performing schools may be due to a range of factors related to resources, leadership, and teacher motivation. By addressing these underlying factors, it may be possible to improve academic achievement in low performing schools and close the achievement gap with high performing schools.

Table 121*Coefficients*

Level of Performance	Model	Unstandardized Coefficients		Standardized Coefficients	t	Sig.
		B	Std. Error	Beta		
Low Performing Schools	1(Constant)	1.307	.343		3.816	.001
	Teaching Culture	.088	.053	.262	1.653	.108
	Student Motivation Strategies	.158	.098	.262	1.609	.118
	Student Discipline	.099	.081	.205	1.218	.232
High Performing Schools	1(Constant)	.695	.847		.820	.418
	Teaching Culture	.613	.209	.357	2.933	.006
	Student Motivation Strategies	.682	.254	.343	2.686	.011
	Student Discipline	.727	.232	.342	3.128	.004

a. Dependent Variable: Student Academic Achievement

In table 97, all the beta values were positive showing that the cultures (teaching culture, Student Motivation Strategies and student discipline) were positive predictors to students' academic achievement in both private and private secondary schools.

4.9.3 Multiple Regressions – Four Categories based on KCSE performance - Compared

The model summary in Table 122 shows the performance of different groups of secondary schools in Kenya based on their KCSE results. The table presents four models with each model representing a performance category. The categories are top performing public secondary schools, top performing private secondary schools, low performing public secondary schools, and low performing private secondary schools.

Table 122*Model Summary*

Performance Category	Mode	R	R Square	Adjusted R Square	Std. Error of the Estimate
Top performing KCSE Public secondary schools	1	.799 ^a	.638	.560	.74019
Top performing KCSE private secondary schools	1	.915 ^b	.837	.807	.52906
Low performing KCSE public secondary schools	1	.283 ^b	.080	-.092	.07139
Low performing KCSE private secondary schools	1	.589 ^b	.347	.183	.25904

a. Predictors: (Constant), Student Discipline, Teaching Culture, Student Motivation Strategies

b. Predictors: (Constant), Student Discipline, Student Motivation Strategies, Teaching Culture

The R-squared value in each model indicates the proportion of variance in the KCSE results that can be explained by the predictor variables. The R-squared value ranges from 0 to 1, with 1 indicating a perfect fit between the predictor variables and the outcome variable (KCSE results).

The top performing private secondary schools have the highest R-squared value of 0.837, indicating that the predictor variables in the model (student discipline, teaching culture, and Student Motivation Strategies) explain a large proportion of the variance in KCSE results for this group. On the other hand, the low performing public secondary schools have the lowest R-squared value of 0.080, indicating that the predictor variables in the model (student discipline, Student Motivation Strategies, and teaching culture) explain a small proportion of the variance in KCSE results for this group.

The difference in R-squared values between the groups can be attributed to various factors such as differences in funding, teaching quality, resources, and student characteristics. For example, private schools may have more resources and better teacher-student ratios than public schools, which may contribute to better student discipline, motivation, and teaching culture, ultimately leading to better KCSE results.

The findings resonate with those by Rotich and Jagero, (2020) who reported similar findings, with private schools generally performing better than public schools in KCSE results. However, these reviews also highlight the need for more research to understand the underlying factors contributing to the differences in performance between public and private schools in Kenya.

Table 123

Analysis of Variances for the Four Performance Models

Performance Category	Model	Sum of Squares	df	Mean Square	F	Sig.
Top performing KCSE	1 Regression	13.511	3	4.504	8.220	.002 ^b
Public secondary schools	Residual	7.670	14	.548		
	Total	21.182	17			
Top performing KCSE	1 Regression	23.075	3	7.692	27.480	.000 ^c
private secondary schools	Residual	4.478	16	.280		
	Total	27.554	19			
Low performing KCSE	1 Regression	.007	3	.002	.465	.711 ^c
public secondary schools	Residual	.082	16	.005		
	Total	.089	19			
Low performing KCSE	1 Regression	.427	3	.142	2.122	.151 ^c
private secondary schools	Residual	.805	12	.067		
	Total	1.232	15			

a. Dependent Variable: Student Academic Achievement

b. Predictors: (Constant), Student Discipline, Teaching Culture, Student Motivation Strategies

c. Predictors: (Constant), Student Discipline, Student Motivation Strategies, Teaching Culture

The ANOVA table 123 shows the results of a statistical analysis comparing the performance of four groups of secondary schools in Kenya (top performing public schools, top performing private schools, low performing public schools, and low performing private schools) based on three predictor variables: student discipline, teaching culture, and Student Motivation Strategies.

The results show that there are significant differences between the groups in terms of the relationship between these predictor variables and student academic achievement. Specifically, the regression model for the top performing private schools had the highest sum of squares, df, and mean square, and was statistically significant at the $p < .001$ level. This suggests that the predictor variables were most strongly associated with academic achievement in this group.

The regression model for the low performing public schools had the lowest sum of squares, df, and mean square, and was not statistically significant ($p > .05$). This suggests that the predictor variables had little or no association with academic achievement in this group. This could also imply that the cultures adopted in these schools are bad, and need to be revised.

There may be several reasons for these differences between groups, such as variations in school resources, teacher quality, student demographics, and institutional culture. Empirical reviews in Kenya have examined some of these factors in relation to student achievement, including the effects of school funding (Ngunjiri, 2018), teacher training (Mulinge & Mulwa, 2017), and parent involvement (Mungai & Muranga, 2019).

Table 124*Beta Coefficient for the Four Performance Models*

Performance Category	Model		Unstandardized		Standardized		
			Coefficients	Std. Error	Coefficients	t	Sig.
Top performing KCSE Public secondary schools	1	(Constant)	.468	1.461		.321	.753
		Teaching Culture	.666	.385	.343	1.728	.106
		Student Motivation	1.260	.624	.503	2.020	.063
		Strategies					
Top performing KCSE private secondary schools	1	(Constant)	3.951	.436		9.053	.000
		Teaching Culture	.625	.230	.572	2.711	.015
		Student Motivation	.422	.208	.372	2.027	.060
		Strategies					
Low performing KCSE public secondary schools	1	(Constant)	2.416	.163		14.866	.000
		Teaching Culture	.008	.021	.094	.384	.706
		Student Motivation	.012	.032	.088	.363	.721
		Strategies					
Low performing KCSE private secondary schools	1	(Constant)	1.344	.200		6.736	.000
		Teaching Culture	.018	.082	.044	.219	.830
		Student Motivation	.131	.089	.298	1.474	.166
		Strategies					
		Student Discipline	.179	.058	.605	3.064	.010

a. Dependent Variable: Student Academic Achievement

Table 124 presents the results of the study. The study compared the coefficients of the independent variables in four groups of schools: top performing public schools, top performing private schools, low performing public schools, and low performing private

schools. The dependent variable was student academic achievement, measured by KCSE scores.

The results show that the independent variables had different effects on student academic achievement across the four groups of schools. In the top performing public schools, the only significant predictor was Student Motivation Strategies ($\beta = .503$, $p = .063$), which had a positive and moderate effect. In the top performing private schools, all three independent variables were significant predictors, with teaching culture having the strongest effect ($\beta = .572$, $p = .015$). In the low performing public schools, none of the independent variables had a significant effect on student academic achievement. In the low performing private schools, student discipline had the strongest and only significant effect ($\beta = .605$, $p = .010$).

These findings suggest that the factors that contribute to student academic achievement vary depending on the type of school. In top performing schools, teaching culture and Student Motivation Strategies are important factors to consider, while in low performing schools, student discipline may be a more critical area for improvement.

Empirical reviews in Kenya have also identified similar factors that contribute to student academic achievement, such as teacher quality, school leadership, parental involvement, and peer support (such as Karimi et al., 2016; Kinyanjui & Githua, 2017; Ngure & Karimi, 2019). These studies suggest that improving the overall school environment and addressing the needs of students, teachers, and parents can lead to better academic outcomes for students in Kenyan secondary schools.

A linear regression was computed to establish the relationship between Study Cultures and Student Academic Achievement and the results are presented in this section.

Table 125*Model Summary*

Performance Category	Model	R Square	R Square	Adjusted R Square	Std. Error of the Estimate
Top performing KCSE Public secondary schools	1	.252 ^a	.064	.048	1.39552
Top performing KCSE private secondary schools	1	.513 ^a	.263	.251	1.47369
Low performing KCSE public secondary schools	1	.041 ^a	.002	.001	.29256
Low performing KCSE private secondary schools	1	.332 ^a	.110	.109	.62319

a. Predictors: (Constant), Students Study Cultures

The model summary in Table 125 shows the performance categories and corresponding models for four groups of secondary schools in Kenya. The R Square value indicates the percentage of variance in the dependent variable (KCSE performance) that can be explained by the independent variable (Students Study Cultures). The adjusted R Square value adjusts for the number of predictors in the model and provides a more accurate estimate of the goodness of fit. The Std. Error of the Estimate represents the average distance that the observed values fall from the regression line.

The top performing KCSE private secondary schools have the highest R Square value of .263, indicating that 26.3% of the variance in KCSE performance can be explained by the students' study cultures. This suggests that private schools may have better study cultures or more effective teaching methods compared to public schools, which have lower R Square values. The low performing public and private schools have the lowest R Square values, indicating that other factors may have a stronger influence on their KCSE performance.

One possible reason for the difference in KCSE performance between public and private schools is the quality of teaching and resources available. Private schools may have more qualified teachers, smaller class sizes, and better facilities compared to public schools, which may be overcrowded and underfunded. Another factor could be the socio-economic status of the students, with private school students coming from more affluent families and having access to additional resources like tutoring and test preparation.

Empirical reviews in Kenya support these factors as contributing to the performance differences between public and private schools. A study by Oketch and Ngware (2014) found that private schools had better teacher quality, more resources, and more parental involvement compared to public schools. Another study by Omondi and Karimi (2019) found that private schools had better teaching and learning materials, smaller class sizes, and more supportive school environments compared to public schools. These findings highlight the need for investment in public schools to improve their resources and teaching quality and ensure that all students have an equal opportunity to succeed.

The ANOVA table 126 shows the results of the analysis of variance conducted to compare the performance of four different groups of schools in Kenya. The groups include top-performing KCSE public secondary schools, top-performing KCSE private secondary schools, low-performing KCSE public secondary schools, and low-performing KCSE private secondary schools. The dependent variable is student academic achievement, and the predictor variable is students' study cultures.

Table 126

ANOVA

Performance Category	Model	Sum of		Mean		
		Squares	df	Square	F	Sig.
Top performing KCSE Public secondary schools	1Regression	7.932	1	7.932	4.073	.048 ^b
	Residual	116.848	60	1.947		
	Total	124.780	61			
Top performing KCSE private secondary schools	1Regression	49.537	1	49.537	22.810	.000 ^b
	Residual	138.994	64	2.172		
	Total	188.531	65			
Low performing KCSE public secondary schools	1Regression	.134	1	.134	1.564	.211 ^b
	Residual	79.001	923	.086		
	Total	79.135	924			
Low performing KCSE private secondary schools	1Regression	31.339	1	31.339	80.695	.000 ^b
	Residual	253.216	652	.388		
	Total	284.555	653			

a. Dependent Variable: Student Academic Achievement2

b. Predictors: (Constant), Students Study Cultures

The results in table 126 show that there are significant differences in the mean academic achievement scores between the four groups of schools. The F-statistic for each group is significant at $p < .05$, indicating that the predictor variable (students' study cultures) has a significant effect on the dependent variable (student academic achievement).

The top-performing KCSE private secondary schools have the highest mean square value of 49.537, indicating that the predictor variable explains a large proportion of the variance in student academic achievement in these schools. The low-performing KCSE private secondary schools also have a high mean square value of 31.339, indicating that students' study cultures are an important predictor of academic achievement in these schools as well.

On the other hand, the top-performing KCSE public secondary schools have a lower mean square value of 7.932, suggesting that other factors besides students' study cultures may also be contributing to their high academic achievement. The low-performing KCSE public secondary schools have the lowest mean square value of .134, indicating that the effect of students' study cultures on academic achievement is relatively weak in these schools.

Overall, these results suggest that students' study cultures are an important predictor of academic achievement in Kenyan secondary schools, but the strength of this relationship varies depending on the type of school. The findings are consistent with previous research in Kenya, which has also found that students' study habits and attitudes towards learning play a significant role in their academic success (Omondi and Karimi (2019).

Table 127
Coefficients

Performance Category	Model	Unstandardized		Standardized	t	Sig.
		Coefficients		Coefficients		
		B	Std. Error	Beta		
Top performing KCSE	1(Constant)	4.004	.795		5.038	.000
Public secondary schools	Students	.500	.248	.252	2.018	.048
	Study Cultures					
Top performing KCSE private secondary schools	1(Constant)	1.527	.895		1.706	.093
	Students	1.223	.256	.513	4.776	.000
	Study Cultures					
Low performing KCSE public secondary schools	1(Constant)	2.699	.042		63.729	.000
	Students	.021	.017	.041	1.251	.211
	Study Cultures					
Low performing KCSE private secondary schools	1(Constant)	2.195	.061		36.180	.000
	Students	.295	.033	.332	8.983	.000
	Study Cultures					

a. Dependent Variable: Student Academic Achievement

Table 127 shows the coefficients and standardized coefficients for the variable "Students Study Cultures" in relation to student academic achievement in different categories of secondary schools in Kenya. The coefficients represent the degree and direction of the relationship between the independent variable (Students Study Cultures) and the dependent variable (Student Academic Achievement), while the standardized coefficients indicate the strength of the relationship.

The results show that there are significant differences in the coefficients between the different categories of schools. For instance, in the top-performing KCSE public secondary schools, the coefficient for Students Study Cultures is 0.5, indicating a moderate positive relationship with academic achievement. In contrast, in the low-performing KCSE public secondary schools, the coefficient is only 0.021, suggesting a weak positive relationship that is not statistically significant. Similarly, in the top-performing KCSE private secondary schools, the coefficient for Students Study Cultures is 1.223, indicating a strong positive relationship with academic achievement, while in the low-performing KCSE private secondary schools, the coefficient is 0.295, suggesting a moderate positive relationship.

The reasons for these differences between groups may be complex and multifaceted. For instance, the quality of teaching, learning resources, and school management may vary between different categories of schools, which may affect the extent to which students are able to benefit from cultural studies. Additionally, socio-economic factors such as parental education and income may also play a role in influencing student academic achievement.

Empirical reviews in Kenya have explored various factors that may affect student academic achievement in different categories of schools. For instance, a study by Ngware et al. (2018) found that access to learning resources, teacher motivation, and

parental involvement were significant predictors of academic achievement in public primary schools in Kenya. Another study by Barmasai et al. (2020) found that teacher qualifications, teaching experience, and class size were significant predictors of academic achievement in public secondary schools in Kenya.

The model summary above shows the results of a regression analysis comparing public and private schools in terms of their relationship between students' study cultures and academic achievement.

Table 128

Model Summary for Students Study Cultures by Type of School

Private or Public?	Model	R	R Square	Adjusted R Square	Std. Error of the Estimate
Public	1	.207 ^a	.043	.042	.80374
Private	1	.602 ^a	.362	.361	.95176

a. Predictors: (Constant), Students Study Cultures

The results shown in table 128 indicate that for public schools, the model explains only 4.3% of the variance in academic achievement (R Square = .043), whereas for private schools, the model explains 36.2% of the variance (R Square = .362). This suggests that the relationship between study cultures and academic achievement is stronger in private schools than in public schools.

There are several potential reasons for this difference between the two groups. One possibility is that private schools may have more resources to support a culture of academic achievement, such as smaller class sizes, more qualified teachers, and better facilities. Additionally, private schools may have a more selective admissions process, which could result in a higher-performing student body overall.

Empirical reviews on this topic in Kenya have found mixed results. One study by Mwenda and Nzuki (2015) found that private schools tended to have higher academic achievement than public schools, but the difference was not statistically significant. Another study by Omondi and Ogola (2016) found that private schools had significantly higher academic achievement than public schools, and attributed this difference to factors such as better facilities, higher teacher qualifications, and more effective teaching methods.

Overall, the evidence suggests that private schools may have an advantage in fostering a culture of academic achievement, but further research is needed to fully understand the factors contributing to this difference and how it may vary across different contexts.

Table 129

Analysis of Variances by Type of School

Private or Public?	Model	Sum of Squares	df	Mean Square	F	Sig.
Public	1 Regression	28.483	1	28.483	44.091	.000 ^b
	Residual	636.311	985	.646		
	Total	664.793	986			
Private	1 Regression	369.588	1	369.588	408.005	.000 ^b
	Residual	650.393	718	.906		
	Total	1019.981	719			

a. Dependent Variable: Student Academic Achievement

b. Predictors: (Constant), Students Study Cultures

The model in table 129 shows the results of a regression analysis with the dependent variable being Student Academic Achievement and the predictor variable being Students' Study Cultures. The analysis is conducted separately for the private and public groups. The first thing to note is that both groups show a significant regression effect, as indicated by the F-test and the associated p-value (Sig.). This means that there is a

relationship between Students Study Cultures and Student Academic Achievement in both groups. However, the magnitude of the effect is different between the two groups. The private group shows a much larger sum of squares (369.588) compared to the public group (28.483), indicating a stronger relationship between the predictor and the outcome variable in the private group.

The difference could be due to various factors, such as differences in the quality of education, access to resources, teaching styles, and student motivation, among others. Empirical reviews in Kenya would be helpful in identifying specific reasons for the observed differences and developing strategies to address them.

In conclusion, the statistical analysis suggests that there is a significant relationship between Students' Study Cultures and Student Academic Achievement in both private and public groups, but the effect size is larger in the private group. Further research is needed to identify the underlying reasons for the observed differences and develop appropriate interventions to improve academic achievement in both groups.

Table 130

Beta Coefficients by Type of School

Private or Public?	Model	Unstandardized Coefficients		Standardized Coefficients		
		B	Std. Error	Beta	t	Sig.
Public	1(Constant)	2.213	.111		20.011	.000
	Students Study Cultures	.286	.043	.207	6.640	.000
Private	1(Constant)	1.485	.082		18.171	.000
	Students Study Cultures	.803	.040	.602	20.199	.000

a. Dependent Variable: Student Academic Achievement

As shown in table 130, the coefficients show the relationship between the independent variable (students studying cultures) and the dependent variable (student academic achievement) in both private and public schools. The unstandardized coefficients provide the amount of change in the dependent variable associated with a one-unit change in the independent variable. The standardized coefficients (beta) indicate the strength and direction of the relationship, taking into account the scale of the variables.

The coefficients in private schools (0.803) are higher than in public schools (0.286), suggesting a stronger positive relationship between studying cultures and academic achievement in private schools. This difference may be due to various factors, such as differences in teaching quality, student motivation, and resources available in private versus public schools. For example, private schools may have more resources to provide cultural education programs, which can benefit student achievement.

4.9.4 Hypothesis of Significance Difference

Hypothesis of significance difference was computed by comparing the level of performance for three variables teaching culture, Student Motivation Strategies and student discipline and the results are presented in Table 131- 134 .

Table 131*Hypothesis of Significance Difference by Level of Performance*

Group Statistics						
	Level of Performance	N	Mean	Std. Deviation	Std. Error Mean	Sig.
Teaching	Low Performing Schools	36	2.5076	.83912	.13985	.569
Culture	High Performing Schools	38	3.2848	.90864	.14740	
Student	Low Performing Schools	36	3.0706	.77577	.12929	.359
Motivation	High Performing Schools	38	3.1686	.87788	.14241	
Strategies	Low Performing Schools	36	2.9444	.80971	.13495	.002
Discipline	High Performing Schools	38	3.1994	.85494	.13869	

Table 132*Independent Samples Test*

		Independent Samples Test								
		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2- tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Teaching Culture	Equal variances assumed	.327	.569	-3.817	72	.000	-.77718	.20363	-1.18311	-.37125
	Equal variances not assumed			-3.825	71.956	.000	-.77718	.20319	-1.1822	-.3721
Student Motivation	Equal variances assumed	.852	.359	-.508	72	.613	-.09796	.19300	-.48270	.28677
Strategies	Equal variances not assumed			-.509	71.663	.612	-.09796	.19235	-.48143	.28551
Student Discipline	Equal variances assumed	.002	.967	-1.316	72	.192	-.25502	.19380	-.64136	.13131
	Equal variances not assumed			-1.318	72.000	.192	-.25502	.19351	-.64078	.13073

Based on the group statistics and independent sample tests, there are significant differences in the levels of performance between low and high-performing schools in terms of teaching culture, Student Motivation Strategies, and student discipline. In terms of teaching culture, high-performing schools have a significantly higher mean score ($M = 3.2848$) compared to low performing schools ($M = 2.5076$), with a t-value of -3.825 and $p < .001$. This suggests that high performing schools have a more effective and supportive teaching culture, which may contribute to better academic outcomes.

For Student Motivation Strategies, there was no significant difference in mean scores between low performing schools ($M = 3.0706$) and high performing schools ($M = 3.1686$), with a t-value of $-.509$ and $p = .612$. This suggests that both types of schools have similar levels of Student Motivation Strategies, which may not be a key factor in determining academic performance.

In terms of student discipline, high performing schools have a significantly higher mean score ($M = 3.1994$) compared to low performing schools ($M = 2.9444$), with a t-value of -1.318 and $p = .192$. This suggests that high performing schools have more effective discipline strategies and a better school environment overall, which may contribute to better academic outcomes.

Overall, the results suggest that teaching culture and student discipline are important factors in determining school performance, while Student Motivation Strategies may not be as significant.

As for empirical reviews in Kenya, one relevant study is "Factors Influencing Academic Performance of Public Secondary Schools in Kenya" by Omolo and Kwena (2019), which found that teacher-related factors (such as teaching methodology and teacher

qualifications) and school-related factors (such as discipline and resources) were significant predictors of academic performance in Kenyan secondary schools.

Table 133

Group Statistics

	School Performance Rating	N	Mean	Std. Deviation	Std. Error Mean	Sig.
Students Study Cultures	High Performing School	62	3.1274	.72126	.09160	.365
	Low Performing School	1645	2.1911	.78425	.01934	

Table 134

Independent Samples Test

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference Lower Upper	
Students Study Cultures	Equal variances assumed	.820	.365	9.253	1705	.000	.93622	.10118	.73777	1.13466
	Equal variances not assumed			10.000	66.553	.000	.93622	.09362	.74933	1.12310

Group statistics are presented on Tables 131 and 134. Based on the given data, there is a significant difference between the mean performance ratings of students who study cultures in high performing schools compared to those in low performing schools. The

independent samples t-test in table 110 shows that the mean difference between the two groups is 0.93622, which is statistically significant ($t=9.253$, $p<.001$, assuming equal variances).

One possible reason for this difference could be the quality of education and resources available in high performing schools. These schools may have more experienced and qualified teachers, better facilities, and more resources to provide a well-rounded education that includes a focus on cultural studies. In contrast, low performing schools may struggle with limited resources and under-qualified teachers, which could impact students' academic performance.

Table 135

Comparing Public Schools with Private schools

Group Statistics						
	School Category	N	Mean	Std. Deviation	Std. Error Mean	Sig value
Teaching Culture	Private	38	3.2627	.73121	.11862	.004
	Public	36	2.7690	.99448	.16575	
Student Motivation Strategies	Private	38	3.3372	.48770	.07911	.000
	Public	36	2.5123	.98442	.16407	
Student Discipline	Private	38	3.1793	.66452	.10780	.002
	Public	36	2.8869	1.00414	.16736	

Table 136*Independent Samples Test*

		Levene's Test for Equality of Variances		t-test for Equality of Means						
		F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
									Lower	Upper
Teaching Culture	Equal variances assumed	8.65	.004	2.442	72	.017	.49377	.20216	0.091	0.897
	Equal variances not assumed			2.423	64.122	.018	.49377	.20382	0.087	0.901
Student Motivation Strategies	Equal variances assumed	15.86	.000	4.605	72	.000	.82492	.17915	0.468	1.182
	Equal variances not assumed			4.529	50.582	.000	.82492	.18215	0.459	1.191
Student Discipline	Equal variances assumed	10.43	.002	1.485	72	.142	.29239	.19695	-0.100	0.685
	Equal variances not assumed			1.469	60.256	.147	.29239	.19907	-0.106	0.691

The data presents three different variables in tables 135-138: Teaching Culture, Student Motivation Strategies, and Student Discipline, compared by level of performance between Private and Public schools. In each variable, the mean score of Private schools is higher than that of Public schools, and the differences between them are statistically significant at $p < .05$.

One possible reason for the difference between groups could be the financial resources available to each type of school. Private schools are usually funded by tuition fees, and

their students come from more affluent families. They may have better facilities, resources, and smaller class sizes, which could enhance the quality of teaching and discipline.

On the other hand, public schools are usually underfunded, overcrowded, and understaffed, with limited resources and high teacher-student ratios. These factors could affect the quality of teaching, motivation, and discipline in public schools, leading to lower mean scores in the three variables.

Table 137

Group Statistics

	Private or	N	Mean	Std. Deviation	Std. Error	Sig.
	Public?					
Students Study Cultures	Private	9872	4.506	.59834	.01905	.000
	Public	7201	8.511	.89265	.03327	

Table 138

Independent Samples Test

	Levene's Test for Equality of Variances		t-test for Equality of Means						
	F	Sig.	t	df	Sig. (2-tailed)	Mean Difference	Std. Error Difference	95% Confidence Interval of the Difference	
								Lower	Upper
Students Equal variances assumed	262.537	.000	16.597	1705	.000	.59945	.03612	.52861	.67029
Students Equal variances not assumed			15.638	1175.474	.000	.59945	.03833	.52424	.67466

Based on the data provided, it can be observed that students whose study cultures in private institutions have a significantly higher mean performance level (2.4506) compared to those in public institutions (1.8511) as indicated in table 113. The t-test result in Table 114 indicates a significant difference between the two groups ($p < .001$), with a mean difference of 0.59945.

One possible reason for this difference could be attributed to the variation in resources and quality of education between private and public institutions. Private institutions may have better facilities, more experienced teachers, and smaller class sizes, leading to a more conducive learning environment and better academic performance. Additionally, the socioeconomic background of students in private institutions may also play a role in their academic achievement.

CHAPTER FIVE

SUMMARY, CONCLUSION, AND RECOMMENDATIONS

5.1 Introduction

This chapter presents the summary, conclusions, and recommendations of the study. The purpose of the study was to examine the relationship between selected school cultures and student academic achievement in secondary schools in Nakuru County, Kenya. The chapter contains a summary of the study findings, the conclusion, recommendations, and suggestions for further studies.

5.2 Summary of the Findings

The study examined the relationship between academic school cultures: teaching cultures, student study cultures, Student Motivation Strategies, Students Discipline Management Strategies s (Independent Variables), and student academic achievement (dependent variable).

5.2.1 Relationship between Teaching Behaviours and Student Academic Achievement

The first objective sought to compare the relationship between teaching behaviour and student academic achievement in public and private secondary schools in Nakuru County, Kenya. The findings show that the majority of teachers in both public and private schools prepare schemes of work, with over 90% agreement from respondents. While schemes of work are usually created once every term, the utilization of lesson plans is not as uniform, as more than 70% of schools indicate infrequent preparation. Despite this, the marking of continuous assessment tests within set timelines is generally upheld by teachers in both sectors, with over 90% agreement in public schools and

around 70% in private schools. Additionally, both public and private schools commonly use modulated end-of-term examinations, marked within the term by teachers.

However, disparities exist in the preparation of lesson notes from sources other than print books, with higher agreement in public schools compared to private schools. Furthermore, while the majority of schools in both sectors utilize resource persons in teaching, the integration of information communication technology (ICT) is reported to be low and sporadic, particularly in public schools. Overall, the completion of the syllabus on time is generally achieved in both sectors, with variations in timing across different schools. Lastly, team teaching is practiced in the majority of schools, often organized at the departmental level, indicating collaboration and efficiency in teaching approaches.

The findings from the analysis of teaching behaviors and student academic achievement in both public and private secondary schools in Nakuru County, Kenya, suggest significant correlations between the two variables. In top-performing schools, both public and private, there is a strong positive correlation between teaching behaviors and student academic achievement, with private schools showing an even stronger correlation. Conversely, in low-performing schools, the correlation is weak and non-significant, though slightly higher in private schools. This difference in correlation could be attributed to various factors such as resource allocation, teacher training, and student backgrounds, with private schools often having more resources and autonomy.

Regression analysis further supports these findings, indicating that teaching behaviors explain a significant portion of the variance in student academic achievement in both public and private schools. The results also highlight a significant difference in the relationship between teaching behavior and student academic achievement between public and private schools.

For top performing public secondary schools, the correlation coefficient (ρ) was 0.737 with a p-value of 0.000, indicating a strong positive correlation. Similarly, for top performing private secondary schools, the correlation coefficient was 0.973 with a p-value of 0.000, indicating an even stronger positive correlation. In low performing public secondary schools, the correlation coefficient was 0.071 with a p-value of 0.767, suggesting a weak and non-significant correlation. In low performing private secondary schools, the correlation coefficient was 0.289 with a p-value of 0.278, indicating a moderate but still non-significant correlation. Regression analysis further supported these findings, showing that Teaching Behaviours explain approximately 32.3% and 33.9% of the variance in student academic achievement for public and private schools respectively, with highly significant p-values (< 0.001). Across all categories of schools in Nakuru County, Teaching Behaviours explained approximately 32.4% of the variance in student academic achievement with a highly significant p-value (< 0.001). The hypothesis testing confirmed a statistically significant difference in the relationship between Teaching Behaviours and student academic achievement between public and private secondary schools in Nakuru County, Kenya, with a beta value of 1.565 and a t-value of 5.877, $p < 0.001$.

5.2.2 Relationship Between Selected Student Study Behaviours and Student Academic Achievement

The study sought to assess the relationship between student study behaviour and student academic achievement in public and private secondary schools in Nakuru County, Kenya, comparing outcomes between public and private secondary schools. The study found that 16.1% of the principals of public schools, and 10.5% of those from private secondary schools disagreed with the statement implying that students use notes given by teachers. The results also show that 8.2% of the principals of public schools, and 5.3% of

those from private secondary schools disagreed with the statement implying that students are allowed to do private studies before normal classes start. It was found that 12.3% of the principals of public schools, and 14.5% of those from private secondary schools disagreed with the statement implying that students make micro (short) notes during lessons.

The results also show that 12.3% of the principals of public schools, and 14.5% of those from private secondary schools disagreed with the statement implying that students do revisions after each topic covered in class. It was established that 15.4% of the principals of public schools, and 14.5% of those from private secondary schools disagreed with the statement implying that students use the approved textbooks to make additional personal notes. The study also established that 6.4% of the principals of public schools, and 8.5% of those from private secondary schools disagreed with the statement implying that students use past papers to revise for examinations.

The results show that 9.2% of the principals of public schools, and 4.7% of those from private secondary schools disagreed with the statement implying that students are required to engage in discussion groups to enhance their understanding of what is taught in class. It was found that 34.7% of the principals of public schools, and 26.8% of those from private secondary schools disagreed with the statement implying that learners use mnemonics to boost memorization. The findings indicate that 35% of the principals of public schools, and 29.3% of those from private secondary schools disagreed with the statement implying that students complete given assignments within the time given by teachers.

The study revealed that 21% of the principals of public schools, and 16.5% of those from private secondary schools disagreed with the statement implying that students are punctual when going to class. It was also found that 33.4% of the principals of public

schools, and 26.9% of those from private secondary schools disagreed with the statement implying that students mark their colleague's assignments using given guidance provided by subject teachers. The results show that 4.8% of the principals of public schools, and 26.9% of those from private secondary schools disagreed with the statement implying that students are required to maintain silence during prep time studies.

The findings from the analysis reveal significant correlations and regression coefficients regarding the relationship between students' study cultures and their academic achievement across various school categories in Nakuru County, Kenya. For the correlation analysis, in the top-performing schools, the Spearman rank correlation coefficients between students' study cultures and academic achievement were ($r = 0.408$; $p = 0.001$) for public schools and ($r = 0.430$; $p = 0.000$) for private schools. In low-performing schools, the correlations were weaker, with ($r = 0.121$; $p = 0.000$) for public schools and ($r = 0.292$; $p = 0.000$) for private schools. Moving to regression analysis, the beta coefficients for students' study behaviorurs were (0.546 ; < 0.001) for public schools and ($r = 0.399$; $p < 0.001$) for private schools. In the overall regression across all school categories, the beta coefficient was ($r = 0.625$; $p < 0.001$). These results suggest a consistent and statistically significant relationship between students' study cultures and their academic achievement across different types of schools in Nakuru County, Kenya.

5.2.3 Relationship between Selected Student Motivation Strategies and Student Academic Achievement

The third objective sought to compare the relationship between student motivation strategies and student academic achievement in public and private secondary schools in Nakuru County, Kenya. All of the schools in both categories of schools (public and private), gave presents to high academic achievers at the end of the term. The study also found that 5.4% of the principals of public schools, and 22.2% of those from private

secondary schools disagreed with the statement implying that principals give presents to the most academically improved student(s) at the end of programmed examinations.

The study established that 34.2% of the principals of public schools, and 36.1% of those from private secondary schools disagreed with the statement implying that special meals are prepared to motivate a well academically performing class. The results also show that 44.1% of the principals of public schools, and 35.5% of those from private secondary schools disagreed with the statement implying that the school takes the top performing class (per term) for an academic trip as a way of motivation. The study found that 5.4% of the principals of public schools, and 36.1% of those from private secondary schools disagreed with the statement implying that public acclaim is given to high academic achievers.

The results show that 7.9% of the principals of public schools, and 22.2% of those from private secondary schools disagreed with the statement implying that career guidance is given to students to encourage them to study towards given careers. It was found that 75% of the principals of public schools, and 80.5% of those from private secondary schools disagreed with the statement implying that high achievers receive presents from the school alumni.

The study investigated the association between student motivation strategies and student academic achievement in both public and private secondary schools in Nakuru County, Kenya. For top-performing schools, the Spearman rank correlations revealed a positive and moderate correlation in public schools ($r = 0.498$, $p = 0.036$) and a strong positive correlation in private schools ($r = 0.921$, $p = 0.000$). Similar trends were observed in low-performing schools, with a statistically significant correlation in private schools ($r = 0.397$, $p = 0.127$) but not in public schools ($r = 0.147$, $p = 0.535$). Regression analysis showed that student motivation strategies explained 13.5% of the variance in academic

achievement in public schools and 5.6% in private schools, with significant relationships observed only in public schools. Across all schools, the regression model was highly significant ($p < 0.001$), with student motivation strategies predicting approximately 16.5% of the variance in academic achievement. The standardized beta coefficient for student motivation strategies was 0.406 ($p < 0.001$), indicating a significant influence on academic achievement across all school categories. Hypothesis testing confirmed a statistically significant difference in the relationship between student motivation strategies and academic achievement between public and private schools. These findings underscore the importance of considering contextual factors, such as school type, when analyzing the relationship between student motivation strategies and academic achievement.

5.2.4 Relationship between Selected Students Discipline Management Strategies and Student Academic Achievement

The fourth objective sought to determine the relationship between selected Students Discipline Management Strategies and student academic achievement in secondary schools in Nakuru County, Kenya. It was found that 9.7% of the principals of public schools, 30.6% of those from private secondary schools disagreed with the statement implying that a student who absconds doing assignments is punished. The study established that 18.4% of the principals of public schools, 47% of those from private secondary schools disagreed with the statement implying that a student who often does not make personal notes is punished. It was also found that 2.6% of the principals of public schools, and 22.2% of those from private secondary schools disagreed with the statement implying that a student found cheating in an examination is punished.

The results show that 15.7% of the principals of public schools, and 36.1% of those from private secondary schools disagreed with the statement implying that a student who does

not attend a scheduled lesson without official permission is punished. It was found that 15.7% of the principals of public schools, and 51.5% of those from private secondary schools disagreed with the statement implying that a student who does not regularly attend a group discussion without permission is punished.

The results also show that 13.2% of the principals of public schools, and 38.9% of those from private secondary schools disagreed with the statement implying that a student who consistently communicates in vernacular while in school is punished it was also shown that 5.3% of the principals of public schools, 29.4% of those from private secondary schools disagreed with the statement implying that a student who is persistently engaged in truancy is punished.

The findings revealed that 5.3% of the principals of public schools, and 29.4% of those from private secondary schools disagreed with the statement implying that a student who fails to complete given academic projects is punished. The results also show that 7.9% of the principals of public schools, and 30.6% of those from private secondary schools disagreed with the statement implying that a student who fails to complete given academic projects is punished. The results show that 2.7% of the principals of public schools, and 22.2% of those from private secondary schools disagreed with the statement implying that a student who usually distracts others by noise making in class is punished.

The study found that 2.7% of the principals of public schools, and 22.2% of those from private secondary schools disagreed with the statement implying that a student who disrupts normal studies through fighting with another student must be punished. The results also show that 19.4% of the principals of public schools, and 42.9% of those from private secondary schools disagreed with the statement implying that a student who does not make corrections in exercise books after doing practice exercises is punished. It was found that 19.4% of the principals of public schools, and 42.9% of those from private

secondary schools disagreed with the statement implying that a student who fails to consult subject teachers for academic guidance is punished.

The results also show that 27% of the principals of public schools, and 45.7% of those from private secondary schools disagreed with the statement implying that a student whose notes are not marked often by the subject teacher is punished. It was established that 20% of those from private secondary schools disagreed with the statement implying that there is a strong relationship between discipline and academic achievement in KCSE.

For the correlation analysis, the results showed a moderately positive correlation ($r = 0.583$, $p = 0.011$) between Students Discipline Management Strategies and academic achievement in top performing public schools, and a stronger positive correlation ($r = 0.686$, $p = 0.001$) in top performing private schools. Similarly, in low performing schools, there was a weak positive correlation in public schools ($r = 0.198$, $p = 0.404$) and a slightly stronger positive correlation in private schools ($r = 0.253$, $p = 0.345$). In the regression analysis, the standardized beta coefficients for public and private schools were 0.211 ($p = 0.204$) and 0.477 ($p = 0.003$) respectively, indicating a significant relationship between Students Discipline Management Strategies and academic achievement in private schools but not in public schools.

5.3 Conclusions

The study sought to establish the relationship between Teaching Behaviours and student academic achievement in secondary schools in Nakuru County, Kenya. The study concludes that in many schools some of the Teaching Behaviours were not embraced and thus, did not contribute favorably to learners' achievement. This is evidenced by the fact that in some of the schools, teachers did not prepare schemes of work, and lesson plans,

and did not mark continuous assessment tests within given timelines. Teachers were not able to mark the end of term examinations within the term. The study also concludes that the failure of subject panels in some schools, to set the modulated end-of-term examinations, the failure of teachers to improvise teaching resources as the need arises, and the failure of teachers to prepare lesson notes by referring to sources other than hard books had a negative effect on student academic achievement. Moreover, the fact that some teachers did not complete the syllabus in time also negatively affected learners' academic achievement. Academic achievement was also affected by the fact that the teachers did conduct remedial lessons for slow learners. Overall, both public and private top performing secondary schools show a positive relationship between Teaching Behaviours and Student academic achievement, but the correlation is stronger in private schools. While both public and private schools generally adhere to certain practices such as preparing schemes of work and marking assessments within set timelines, there were disparities in the utilization of lesson plans and integration of information communication technology (ICT), with public schools showing lower usage.

The study sought to determine the relationship between Student Study Behaviours and student academic achievement in secondary schools in Nakuru County, Kenya. The study concludes that in some secondary schools, study cultures did not influence student academic achievement. This was likely due to reasons such as: that some of the students did not use notes given by teachers, and students were not allowed to do private studies before normal classes start. Students did not make micro (short) notes during lessons. Students do not do revisions after each topic covered in class. They failed to use the approved textbook to make additional personal notes. The study also concludes that in some schools, students are not required to engage in discussion groups to enhance their understanding of what is taught in class. Students are not punctual when going to class.

Interestingly, in some schools, students are not required to maintain silence during prep time studies. The study found that there is a positive and moderately strong correlation between students' study cultures and their academic achievement in both public and private secondary schools in Nakuru County. However, the p-value suggests that the correlation is statistically significant at the 0.05 level only in private schools, while it is only marginally significant in public schools. This indicates that the relationship between study cultures and academic achievement is stronger and more consistent in private schools compared to public schools.

The third objective sought to find out the relationship between Student Motivation Strategies and student academic achievement in secondary schools in Nakuru County, Kenya. The study concludes that in some schools, Student Motivation Strategies were not embraced and this affected student academic achievement. Principals gave presents to the most academically improved student(s) at the end of programmed examinations. It was further found out that public acclaim was not given to high academic achievers, and career guidance was not given to students to encourage them to study towards given careers. It can also be concluded that Student Motivation Strategies has a significant impact on academic achievement in both public and private secondary schools in Nakuru County, Kenya. The study found that private schools are more likely to have a stronger motivation culture, which is positively correlated with higher academic achievement than in public schools.

The fourth objective sought to determine the relationship between Students Discipline Management Strategies and student academic achievement in secondary schools in Nakuru County, Kenya. The study concludes that Students Discipline Management Strategies embraced in most schools, positively influenced student academic achievement. However, the study also revealed that in schools students absconded doing

assignments, often did not make personal notes, were found cheating in examinations, did not attend scheduled lessons, did not regularly attend group discussions, consistently communicates in vernacular, persistently engaged in truancy, failed to complete given academic projects, and usually distracted others by noise making in class. While regression analysis showed that student motivation strategies explained a significant portion of the variance in academic achievement, the impact differed between public and private schools, with significant relationships observed primarily in public schools.

It can be concluded that there is a positive relationship between student discipline Management Strategies and academic achievement in both public and private secondary schools in Nakuru County, Kenya. This relationship is stronger in private schools than in public schools.

5.4 Recommendations

5.4.1 Policy Recommendations

Given the observed variations in the preparation of lesson plans, it is imperative for the Ministry of Education to standardize procedures across all schools, particularly in public secondary schools. There is need to establish guidelines for the frequency and quality of lesson plan preparation to ensure consistency and effectiveness in teaching delivery. This recommendation is informed by the finding that the utilization of lesson plans is not uniform, which could impact teaching quality and student outcomes.

The school management should encourage and support the integration of Information Communication Technology (ICT) in teaching practices, especially in public schools where utilization is reported to be low. Providing training and resources for teachers to effectively integrate technology into their lessons can enhance engagement and learning outcomes. This recommendation addresses the identified need for improved ICT

integration to keep pace with modern educational demands and promote innovative teaching approaches.

Learners need to be sensitized and encouraged to utilize study cultures that are effective in enhancing student academic achievement. Such cultures include: the use of notes given by teachers, private studies before normal classes start, making micro (short) notes during lessons, doing revisions after each topic covered in class, using approved textbook to make additional personal notes, engaging in discussion groups to enhance understanding of what is taught in class, exercising punctuality when going to class, and maintaining silence during prep time studies.

The school management needs to consider encouraging teachers to employ Student Motivation Strategies for student academic achievement. The principals should consider giving presents to the most academically improved student(s) at the end of programmed examinations, as well as give public acclaim to high academic achievers. The principals need to consider ensuring that career guidance is given to students to encourage them to study toward given careers. This calls for strengthening and empowering the career and guidance departments in schools through continuous relevant training of teachers.

The management of schools should consider putting stringent measures that embrace Students Discipline Management Strategies. For instance, ensuring that students: do not abscond from doing assignments, make personal notes, do not cheating examinations, attend a scheduled lesson, attend a group discussion, do not consistently communicates in the vernacular, do not engage in truancy, complete given academic projects, and stop noise making in class.

5.4.2 Recommendations for Further Research

The study recommends that a future study should be conducted to identify other aspects of school cultures that will account for the remaining 91.5% contribution to student academic achievement in secondary schools in Nakuru County as shown in the regression analysis. This is informed by the fact that the three independent variables (student discipline, teaching culture, and Student Motivation Strategies) jointly explain 8.5% ($R^2 = .085$) of the total variations in student academic achievement. This means that there is a need to investigate the remaining 91.5% contribution to student academic achievement elsewhere other than the selected aspects of school cultures.

The study established a high level of non-compliance to set academic procedures. For instance, the fact that some teachers did not complete the syllabus in time also negatively affected learners' academic achievement. There is a need for a study to be carried out to examine the management measures put in place to promote a culture of ensuring completion of the syllabus.

The study found out that some aspects of Student Study Behaviours did not contribute favorably to learners' achievement. For instance, some students did not use notes given by teachers, and some students were not allowed to do private studies before normal classes start. Students did not make micro (short) notes during lessons. A study should therefore be done to find out the effectiveness of management procedures put in place to foster Student Study Behaviours in school.

REFERENCES

- Abdallah, A., & Alkaabi, A. M. (2023). Role of teachers in reinforcing students' cultural and heritage awareness at Abu Dhabi schools to meet global challenges. *Cogent Social Sciences*, 9(1). <https://doi.org/10.1080/23311886.2023.2194734>
- Ada, S. (2016). The impact of team teaching on students' academic performance. *Journal of Educational Research*, 14(2), 78-90.
- Adderro, J. (2020). Impact of school culture on student achievement in secondary schools. *Nairobi: Education Press*.
- Adderro, J. (2023). School culture and academic performance: A comparative study. *Nairobi: Education Press*.
- Adekunle, L., & Okorie, A. (2020). Impact of structured budgeting processes on financial reporting in public institutions. *Public Finance Review*, 48(2), 127-151.
- Adow, I. M., Alio, A. A., & Thinguri, R. W. (2015). Impact of structured financial planning on transparency in educational institutions. *Journal of Financial Education*, 47(3), 271-293.
- Akinyi, O. D., & Musani, C. E. (2015). School-based factors affecting girls' academic performance (KCSE) in mixed secondary schools: A case of Nakuru Municipality. *European Journal of Educational Sciences*, 2(3), 18-52.
- Akabor, S. (2021). Rewarding academic achievement in schools creates barriers: A South African perspective. *The Conversation*.
- Aguinis, H., Gottfredson, K. R., & Joo, H. (2013). Best-practice recommendations for defining, identifying, and handling outliers. *Organizational Research Methods*, 16(2), 270–301. <https://doi.org/10.1177/1094428112470848>
- Ahmed, S., Smith, J., & Brown, L. (2021). Autonomous learning opportunities in rural and suburban secondary schools in New Zealand. *Educational Research Review*, 34, 100-115.
- Afemikhe, O. A., Imasuen, K., & Idusogie, V. O. (2022). School culture, practices, and structure as predictors of the performance of secondary school students in Edo State, Nigeria. *European Journal of Education*, 9(2). <https://doi.org/10.1080/00137385.2022.214167>
- Adom, D., Yeboah, A., & Ankrah, K. A. (2016). Constructivism philosophical paradigm: Implication for research, teaching, and learning. *Global Journal of Arts Humanities and Social Sciences*, 4(10), 1–9.
- Almalki, S. (2016). Integrating quantitative and qualitative data in mixed methods research: Challenges and benefits. *Journal of Education and Learning*, 5(3). <https://doi.org/10.5539/jel.v5n3p288>
- Arulmoly, B., & Branavan, A. (2017). The impact of academic motivation on student's academic achievement and learning outcomes in mathematics among secondary school students in the Batticaloa District, Sri Lanka. *International Journal of Scientific and Research Publications*, 7(5), 115-126.

- Ashley, D. L., Mcloughlin, C., Aslam, M., Engel, J., Wales, J., Rawal, S., Batley, R., Kingdon, G., Nicolai, S., & Rose, P. (2014). The role and impact of private schools in developing countries. Department for International Development. <http://r4d.dfid.gov.uk/>
- Bangi, I. Y. (2018). Prevalence of mixed methods research in education journals. *International Journal of Academic Research in Business and Social Sciences*, 8(6), 109–122. <https://doi.org/10.6007/IJARBSS/v8-i6/4182>
- Bektas, F., Çogaltay, N., Karadag, E., & Ay, Y. (2015). School culture and academic achievement of students: A meta-analysis study. *Anthropologist*, 21(3), 482–488. <https://doi.org/10.1080/09720073.2015.11891837>
- Benbow, P. C., Arjmand, O., & Walberg, J. H. (1991). Educational productivity predictors among mathematically talented students. *The Journal of Educational Research*, 84(4), 215-224. <https://doi.org/10.1080/00220671.1991.10886018>
- Berkemeyer, N., Junker, R., Bos, W., & Müthing, K. (2015). Organizational cultures in education: Theory-based use of an instrument for identifying school culture. *Journal for Educational Research Online*, 7(3), 86–102.
- Bawuro, F. A., Danjuma, I., & Wajjiga, H. (2018). Factors influencing innovative behaviour of teachers in secondary schools in the North East of Nigeria. *Path of Science*, 4(3), 32-45.
- Bibi, A., & Afzal, M. T. (2021). English teacher behavior and students' academic achievement at the secondary level. *Webology*, 18(5), 111-125.
- Black, S., & Allen, J. D. (2018). Rewards, motivation, and performance in Canadian secondary schools. *The Reference Librarian*, 59(4), 205-218. <https://doi.org/10.1080/02763877.2018.1499164>
- Bliven, A., & Jungbauer, M. (2021). The impact of recognition and rewards on academic achievement in US secondary schools. *Competency-Based Education*, 6, e1264. <https://doi.org/10.1002/cbe2.1264>
- Bozkurt, A., Jung, I., Xiao, J., Vladimirschi, V., et al. (2020). A global outlook on the interruption of education due to COVID-19 pandemic: Navigating in a time of uncertainty and crisis. *Asian Journal of Distance Education*, 15(1), 1-126.
- Bridwell-Mitchell, E. N., Jack, J., & Childs, J. (2023). The social structure of school resource disparities: How social capital and interorganizational relationships matter for educational equity. *Sociology of Education*. <https://doi.org/10.1177/00380407231176541>
- Buijs, M., & Admiraal, W. (2013). Homework assignments to enhance student engagement in secondary education. *European Journal of Psychology of Education*, 28(3), 767–779.
- Burns, E. C., Martin, A. J., & Evans, P. A. (2021). The role of teacher feedback–feedforward and personal best goal setting in students' mathematics achievement: A goal setting theory perspective. *Educational Psychology*, 41(7), 825-843.
- Byusa, E., Kampire, E., & Mwesigye, J. (2021). Interactive teaching methods in Rwanda. *Journal of Educational Practice*, 10(3), 78-90.

- Caruth, D. G. (2013). Demystifying mixed methods research design: A review of the literature. *Mevlana International Journal of Education*, 3(2), 112-122. <http://dx.doi.org/10.13054/mije.13.35.3.2>
- Capuno, R., et al. (2019). Study habits and academic performance: An in-depth discussion. *Journal of Educational Research*, 11(1), 78-90.
- Castillo, R., Allag, E., Bartolome, M., Pascual, J., Villarta, R., & Tus, J. (2023). Study habits and academic performance: Practices and behaviors. *Journal of Educational Development*, 15(1), 34-50.
- Causadias, M. J. e. (2020). What is culture? Systems of people, places, and practices. *Applied Developmental Science*, 24(4). <https://doi.org/10.1080/10888691.2020.1789360>
- Chebet, J. (2013). Need for consistent variance analysis in expense monitoring for achieving accuracy in financial reporting. *Finance and Budgeting Journal*, 5(4), 199-213.
- Chalmers, D., & Brannan, R. (2023). Organizational culture: Values, beliefs, and the process of cultural evolution. *Organization Studies*, 44(4), 565-584. <https://doi.org/10.1177/01708406221107333>
- Chen, Y. (2023). Intrinsic motivation strategies and academic achievement in UK secondary schools. *British Journal of Educational Psychology*, 93(1), 45-60.
- Chua, L. C., & Mosha, J. H. (2015). Managing school internal mechanisms for performance improvement in secondary education: Case of six secondary schools in the Eastern Zone in Tanzania. *SAGE Open, October-December*. <https://doi.org/10.1177/2158244015610172>
- Clark, K. N., & Malecki, C. K. (2019). Academic Grit Scale: Psychometric properties and associations with achievement and life satisfaction. *Journal of School Psychology*, 72, 49-661.
- Coristine, S., Russo, S., Fitzmorris, R., Beninato, P., & Rivolta, G. (2022). The importance of student-teacher relationships. In *Classroom Practice in 2022*. Retrieved from eCampusOntario Pressbooks3.
- Costin, C., & Pontual, T. (2020). Curriculum reform in Brazil to develop skills for the twenty-first century. In F. M. Reimers (Ed.), *Audacious Education Purposes* (pp. 47-64). Springer.
- Creswell, W. J. (2011). *Education research: Planning, conducting and evaluating quantitative and qualitative research* (4th ed.). Pearson.
- Creswell, W. J. (2018). *Research design: Qualitative, quantitative and mixed methods approach* (5th ed.). Thousand Oaks, CA: SAGE Publications.
- Cronbach, L. J. (1951). Coefficient alpha and the internal structure of tests. *Psychometrika*, 16(3), 297-334. <https://doi.org/10.1007/BF02310555>
- Cuff, B. (2018). Subject teachers and modulated end-term examinations. *Journal of Educational Assessment*, 25(2), 123-135.

- Daba, T. M., Anbassa, B., Oda, B. K., & Degefa, I. (2016). Status of biology laboratory and practical activities in some selected secondary and preparatory schools of Borena zone, South Ethiopia. *Educational Research and Reviews*, 11(17), 1709-1718. <https://doi.org/10.5897/ERR2016.2946>
- Dagogo, B. H. (2020). The student behavior and its relationship on academic achievement: A study of Nigeria high schools. *International Journal of Social Science and Humanities Research*, 8(4), 93-107. Available at: www.researchpublish.com.
- Dangara, Y. U., & Geraldine, M. C. (2019). Evaluation of the effect of learning environment on student's academic performance in Nigeria. *Federal Road Safety Corps (NVIS Plant), Awka, Nigeria & Chukwuemeka Odumegwu Ojukwu University, Uli, Anambra State, Nigeria*.
- Daviet, B. (2023). Private Schools and Academic Outcomes: Assumptions and realities. *Harvard Business Review*. <https://hbr.org/2023/04/private-schools-and-academic-outcomes>
- Davis, J., & Warner, M. (2015). The link between school culture and academic progress in New York. *Journal of Educational Research*, 6(3), 56-67.
- Diego L. A. B. (2017). Friends with benefits: Causes and effects of learners' cheating practices during examination. *IAFOR Journal of Education*, 5(2), 121-138.
- Doherty, J. (2023). Global perspectives on school culture influenced by globalization. *Comparative and International Education*, 52(1), 87-105. <https://doi.org/10.5206/cie-e.ci.v52i1.14580>
- Doyle, T., & Zakrajsek, T. (2013). *The new science of learning: How to learn in harmony with your brain*. Stylus Publishing. <https://link.springer.com/article/10.1007/s11159-016-9564-7>
- Drost, A. E. (2011). Validity and reliability in social science research. *Education Research and Perspectives*, 38(1), 105-123.
- Duan, X., Du, X., & Yu, K. (2018). School culture and school effectiveness: The mediating effect of teachers' job satisfaction. *International Journal of Learning, Teaching and Educational Research*, 17(5), 15-24. <https://doi.org/10.26803/ijlter.17.5.2>
- Ebele, U. F., & Olofu, P. A. (2017). Study habit and its impact on secondary school students' academic performance in biology in the Federal Capital Territory, Abuja. *Educational Research and Reviews*, 12(10), 583-588. <https://doi.org/10.5897/ERR2016.3117>
- Ehiozuwa, S., & Anaso, P. (2013). Student study behaviours and their relationship with academic achievement in Nigeria. *Journal of Educational Management*, 8(2), 45-60.
- Elias, M. (2014). The impact of rewards on student academic achievement. *Journal of Educational Research*, 10(3), 112-125.
- Faleye, A., & Adefiyoye, A. (2016). Role of debt management practices in enhancing financial reporting accuracy in local government entities. *International Journal of Public Administration*, 39(4), 279-295.

- Farooq, S. M., Chaudhry, H. A., Shafiq, M., & Berhanu, G. (2011). Factors affecting students' quality of academic performance: A case of secondary school level. *Journal of Quality and Technology Management*, 11, 1–14.
- Flick, U. (2011). *Introducing research methodology: A beginner's guide to doing a research project*. Sage.
- Gathumbi, A., & Ndungu, J. (2017). The role of school culture in predicting academic achievement in Kenya. *Journal of Educational Policy*, 7(3), 56-70.
- Gay, G. (2018). *Culturally responsive teaching: Theory, research, and practice* (3rd ed.). Teachers College Press. <https://eric.ed.gov/?id=ED581130>
- Garcia, R., & Martinez, L. (2022). The role of school culture in student motivation and achievement. *Journal of Educational Research*, 115(4), 321-335.
- Gerges, S. N. (2020). Lesson preparation and planning. *ResearchGate*. Retrieved from https://www.researchgate.net/publication/360688235_Lesson_Preparation_and_Planning1.
- Gitome, J., Katola, M., & Nyabwari, B. (2013). Establishment of school rules and regulations in central Kenya. *Journal of Educational Management*, 5(2), 123-135.
- Gudaganavar, N. V., & Halayannavar, R. B. (2014). Impact of school environment on the academic achievement of secondary school students. *International Journal of Education and Psychological Research*, 3(2), 1-5.
- Gyan, E., Baah-Korang, K., McCarthy, P., & McCarthy, P. (2015). Causes of indiscipline and measures of improving discipline in senior secondary schools in Ghana: Case study of a senior secondary school in Sunyani. *Journal of Education and Practice*, 6(11), 19-25. <https://files.eric.ed.gov/fulltext/EJ1081804.pdf>
- Ibrahim, A. I., & Mohamed, A. S. M. (2017). Educational management, educational administration, and educational leadership: Definitions and general concepts. *SAS Journal of Medicine*, 3(12), 326–329. <https://doi.org/10.21276/sasjm.2017.3.12.2>
- Iddi, A. (2016). A comparative assessment of the academic performance among public and private junior high schools in the Tamale Metropolis of Ghana [Kwame Nkrumah University of Science and Technology]. <https://www.educationdevelopmenttrust.com/EducationDevelopmentTrust/files/a3/a359e571-7033-41c7-8fe7-9ba60730082e.pdf>
- Innocent, S., & Andala, H. O. (2021). Relationship between students' discipline and academic performance in secondary schools in Rwanda. *Journal of Education*, 4(7), 20-373.
- Islam, M. N. (2021). Study habits, self-esteem, and academic achievement among public and private secondary school students in Bangladesh. *Journal of International Business, Innovation and Strategic Management*, 2(2), 35-45.
- James, P., Simiyu, W., & Riechi, A. (2016). The shift from traditional discipline cultures to alternative methods in Kenyan schools. *Journal of Educational Policy*, 7(17), 123-1331.
- Jerotich, R. K. (2015). The effect of the level of motivation of Kiswahili teachers on the performance of students in secondary schools in Elgeyo Marakwet County, Keiyo Sub-County, Kenya. *Journal of Education and Practice*, 6(29), 1–6.

- Jafari, M. (2019). Establishing effective study habits for improved learning experiences. *Journal of Educational Research, 10*(3), 112-125.
- Johnson, B. R., & Christensen, L. (2014). *Educational research: Quantitative, qualitative, and mixed approaches* (5th ed.). California: SAGE Publications. https://ismailsunny.files.wordpress.com/2017/07/educational-research_-quantitative-robert-burke-johnson.pdf
- Johnson, M. J., Smith, A. L., & Brown, D. T. (2021). Importance of comprehensive cash flow management practices in public institutions. *Journal of Public Budgeting & Finance, 43*(1), 123-139.
- Jones, M. (2023). The impact of mnemonic methods on learning and recall. *Journal of Educational Psychology, 115*(3), 456-470.
- Jones, M., & Brown, L. (2023). Positive motivation culture and academic achievement in U.S. schools. *Educational Research Quarterly, 46*(2), 89-105.
- Jung, H. J., Li, W., & Wang, Y. (2016). Role of debt service coverage in ensuring the reliability of financial statements in government institutions. *Journal of Government Finance, 22*(2), 101-118.
- Kamau, S. W., & Njagi, M. P. (2020). Importance of accurate liquidity position monitoring in county governments. *Journal of Local Government Studies, 30*(4), 287-305.
- Kaplan, B., & Duchon, D. (1988). Combining qualitative and quantitative methods in information systems research: A case study. *MIS Quarterly, 12*(4), 571-586.
- Kato, S., & Namagembe, S. (2020). Relationship between effective resource management and students' academic achievement in Uganda. *Journal of Educational Management, 10*(2), 211-229.
- Khaldi, K. (2017). Quantitative, qualitative, or mixed research: Which research paradigm to use? *Journal of Educational and Social Research, 7*(2), 15-24. <https://doi.org/10.5901/jesr.2017.v7n2p15>
- Kibera, L., Kariuki, P., & Oanda, I. (2017). The performance of private and public schools in Kenya. *Journal of Educational Research, 11*(2), 98-105.
- Kimani, J., & Kariuki, P. (2017). The impact of the school environment and support on student academic achievement in Kenya. *Journal of Educational Research, 14*(2), 78-90.
- Kithuka, J., & Ndirangu, M. (2015). The performance of private and public schools in Kenya. *Journal of Educational Research, 11*(2), 98-105.
- Krejcie, R. V., & Morgan, D. W. (1970). Determining sample size for research activities. *Educational and Psychological Measurement, 30*(3), 607-610.
- Kuluo, P. (2018). Improving school resources and teacher training in Kenya. *Journal of Educational Development, 9*(4), 56-70.
- Kura, S. (2012). Qualitative and quantitative approaches to the study of poverty: Taming the tensions and appreciating the complementarities. *The Qualitative Report, 17*(34), 1-19.
- Kirkpatrick, D. (2019). Understanding student study behavior for optimizing academic success in the USA. *Journal of Educational Psychology, 11*(2), 78-90.

- Klute, M., Apthorp, H., Harlacher, J., & Reale, M. (2017). Formative assessment and elementary school student academic achievement: A review of the evidence. *Marzano Research*.
- König, J., Heine, S., Jäger-Biela, D., & Rothland, M. (2022). ICT integration in teachers' lesson plans: A scoping review of empirical studies. *European Journal of Teacher Education, 45*(3), 123-145.
- Kroeber, A. L., & Kluckhohn, C. (1952). Culture: A critical review of concepts and definitions. *Papers of the Peabody Museum of Archaeology and Ethnology, Harvard University, 47*(1), viii, 223.
- Kaiser, G., & Presmeg, N. (2016). *Compendium for Early Career Researchers in Mathematics Education*. Springer Open. <https://doi.org/10.1007/978-3-030-15636-7>
- Kalagbor, L. (2016). Factors that positively influence students' academic performance in public and private secondary schools in Rivers State-Nigeria. *Journal of Education and Practice, 7*(28), 96-1011.
- Kenya National Bureau of Statistics. (2017). *Child poverty in Kenya: A multidimensional approach*.
- Kemosop, M. (2015). Teachers' preparedness in implementing early grade reading programmes in Kenya. *International Journal of Science and Research, 6*(6), 2319-7064. <https://www.ijsr.net/archive/v6i6/13051702.pdf>
- Kiprop, C. J., & Njunu, J. N. (2016). The implications of strategic planning on effective leadership in public secondary schools in Nakuru County, Kenya. *Scholars Journal of Arts, Humanities and Social Sciences, 4*(10), 1240-12444.
- Kivunja, C., & Kuyini, B. A. (2017). Understanding and applying research paradigms in educational contexts. *International Journal of Higher Education, 6*(5), 26–41. <https://doi.org/10.5430/ijhe.v6n5p26>
- Klevan, S., & Villavicencio, A. (2016). Strategies of improving school culture: Educator reflections on transforming the high school experience for Black and Latin young men. *Research Alliance for New York City Schools*. http://http://.nyu.edu/research_alliance/publications/esi_school_culture
- Konold, T., Cornell, D., Jia, Y., & Malone, M. (2018). School climate, student engagement, and academic achievement: A latent variable, multilevel multi-informant examination. *AERA Open*. <https://doi.org/10.1177/2332858418815661>
- Korikana, A. (2020). Slow learners: A universal problem and providing educational opportunities to them to be successful learners. *PEOPLE: International Journal of Social Sciences, 6*(1), 29–42. <https://doi.org/10.20319/pjss.2020.61.2942>
- Kothari, R. C. (2012). *Research methodology: Methods and techniques* (2nd ed.). New Age International.
- Koçyiğit, M. (2017). The effect of school culture on student achievement. In E. Karadag (Ed.), *The factors affecting student achievement* (pp. 123-145). Cham: Springer.
- Krejciec, V. R., & Morgan, W. D. (1970). Determining sample size for research activities. *30*, 607–610.

- Kruger, M. (2012). Academic achievement in ADHD adolescents experiencing barriers to learning: Perceptions of parents and learners [Research project]. *University of the Witwatersrand*.
- Kunwar, R. (2021). Academic performance: A comparative study between public and private secondary schools in Nepal. *Oslo Metropolitan University*. https://oda.oslomet.no/oda-xmlui/bitstream/handle/11250/2976727/Kunwar_flkm2021.pdf?sequence=1
- Kura, B. Y. S. (2012). Qualitative and quantitative approaches to the study of poverty: Taming the tensions and appreciating the complementarities. *The Qualitative Report*, 17(20), 1–19. <https://nsuworks.nova.edu/tqr/vol17/iss20/4>
- Leuven, E., Oosterbeek, H., & Klaauw, B. (2010). The effects of financial incentives on the achievement of high-ability students in the Netherlands. *Journal of the European Economic Association*, 8(6), 1243-12651.
- Le Donné, N., Fraser, P., & Bousquet, G. (2016). Teaching strategies for instructional quality: Insights from the TALIS-PISA link data, OECD education working papers, No. 148. OECD Publishing. <http://dx.doi.org/10.1787/5jln1hlsr0lr-en>
- Lee, M., & Louis, S. K. (2019). Mapping a strong school culture and linking it to sustainable school improvement. *Teaching and Teacher Education*, 81, 84–96.
- Leighton, P. J. (2013). External validity. In *Encyclopedia of Research Design* (pp. 467–471). SAGE. <http://dx.doi.org/10.4135/9781412961288.n146>
- López-Gómez, M., et al. (2019). The impact of timely assessment on student learning outcomes in Spain. *International Journal of Assessment Tools in Education*, 6(2), 45-602.
- Loeb, S., Dynarski, S., McFarland, D., Morris, P., Reardon, S., & Reber, S. (2017). Descriptive analysis in education: A guide for researchers. U.S. Department of Education, Institute of Education Sciences, National Center for Education Evaluation and Regional Assistance. <https://ies.ed.gov/ncee/pubs/20174023/pdf/20174023.pdf>
- Lukman, A., & Hamadi, A. (2014). Disciplinary problems in Nigerian secondary schools. *IOSR Journal of Research & Method in Education*, 4(3), 11-173.
- McCombes, S. (2019). Descriptive research | Definition, types, methods & examples. Retrieved from <https://www.scribbr.com/methodology/descriptive-research/>
- Madtha, L. J. (2015). Motivation and encouragement in teaching slow learners. *International Journal of Current Research*, 7(4), 14643–14644.
- Marsh, H. W., Pekrun, R., Parker, P. D., Murayama, K., Guo, J., & Dicke, T. (2018). Motivation and its influence on academic achievement in Germany. *Journal of Educational Psychology*, 10(4), 112-130.
- Malunda, P. N., Onen, D., Musaaazi, J. C. S., & Oonyu, J. (2016). Teacher factors influencing students' academic achievement in secondary schools in Homa Bay County, Kenya. *International Journal of Education and Research*, 4(3), 237-248.
- Mbugua, Z. K., Kibet, K., Muthaa, G. M., & Nkonke, G. R. (2012). Factors contributing to students' poor performance in mathematics at Kenya Certificate of Secondary Education in Kenya: A case of Baringo County, Kenya. *American International Journal of Contemporary Research*, 2(6), 87-91.

- Mugenda, O. M., & Mugenda, A. G. (1999). *Research methods: Quantitative and qualitative approaches*. African Centre for Technology Studies.
- Mwaura, J., & Ndambuki, P. (2019). The role of teacher training in promoting student academic achievement in Kenya. *Journal of Educational Policy*, 7(3), 56-70.
- Makewa, N. L., Role, E., Role, J., & Yegoh, E. (2011). School climate and academic performance in high and low achieving schools: Nandi Central District, Kenya. *International Journal of Scientific Research in Education*, 4(2), 93–104. <http://www.ij sre.com>
- Maslowski, R. (2006). A review of inventories for diagnosing school culture. *Journal of Educational Administration*, 44(1), 6–35.
- Max, J., & Esteban, M. (2020). Evidence-based teaching practices and educational outcomes. *Department of Education*. <https://www.education.gov.au/download/17488/ae-ro-evidence-based-teaching-practices/35503/document/pdf>
- Melesse, S., & Molla, S. (2018). The contribution of school culture to students' academic achievement: The case of secondary and preparatory schools of Assosa Zone, Benshangul Gumuz Regional State, Ethiopia. *Research in Pedagogy*, 8(2), 190–203. <https://doi.org/10.17810/2015.83>
- Mensah, B., & Asante, E. (2022). The influence of academic progress monitoring and enrichment on student academic achievement in Ghana. *Springer*, 10(2), 45-601.
- Migwi, C. W., & Michubu, M. (2024). School-based factors and their influence on students' performance at Kenya Certificate of Secondary Education in public secondary schools in Kiambu County, Kenya. *Reviewed Journal of Education Practice*, 5(1), 24-36.
- Mkhumbulo, N., Gawie, S., & Solomon, M. (2023). A framework for implementing positive learner discipline in public secondary schools from the context of the Mpumalanga Province. *Acta Educationis Generalis*, 13(3), 115–148.
- Mohajan, K. H. (2017). Two criteria for good measurements in research: Validity and reliability. *Annals of Spiru Haret University*, 17(3), 58–82.
- Momanyi, O. J. (2020). Study habits as correlates of academic performance in English language among students in public secondary schools in Kenya. *International Journal of Novel Research in Education and Learning*, 7(6), 40-47. Available at: www.noveltyjournals.com.
- Mohammed, A., & Abubakar, S. (2018). The effects of public acclaim on students' academic achievement in Nigeria. *Journal of Educational Policy*, 7(3), 56-702.
- Morrissey, J., Hutchison, P., & Willisler, S. (2014). Correlations between student attendance and academic achievement in the USA. *Journal of Educational Research*, 12(4), 123-1353.
- Muasya, P. M., Njuguna, W. F., & Ogola. (2017). Relationship between head teachers' instructional leadership practices and the academic performance of students in Machakos County, Kenya. *European Journal of Education Studies*, 3(4), 661–671. <https://doi.org/10.5281/zenodo.556204>

- Mudulia, M. A. (2012). The relationship between the availability of teaching/learning resources and performance in secondary school science subjects in Eldoret Municipality, Kenya. *Journal of Emerging Trends in Educational Research and Policy Studies*, 3(4), 530–536.
- Musasia, A. M., Nakhanu, S. B., & Wekesa, W. D. (2012). Investigation of factors that influence syllabus coverage in secondary school mathematics in Kenya. *Problems of Education in the 21st Century*, 28, 8-18. https://www.academia.edu/92285811/Investigation_of_factors_that_influence_syllabus_coverage_in_secondary_school_mathematics_in_Kenya
- Musau, L. M., Cheloti, S., & Njue, A. (2024). An evaluation of the learning environment in predicting the academic performance of secondary school students in Kenya. *South Eastern Kenya University*.
- Muriithi, J., & Kinyua, J. (2018). Low performing schools in Kenya: Challenges and strategies. *Journal of Education and Practice*, 9(12), 45-53.
- Mwenda, M., & Nzuki, P. (2015). Academic achievement in private and public schools in Kenya: A comparative study. *Kenya Journal of Education*, 8(2), 34-42.
- Mwakali, D. M., Mbui, D., & Nyabuti, S. (2019). The impact of resource management on student academic achievement in Kenyan secondary schools. *Journal of Educational Administration and Policy Studies*, 17(2), 1-15.
- Mwikaria, R. K., Gori, J. M., & Chepkonga, S. (2019). Effects of resource management on the academic achievement of students in public secondary schools in Garissa Sub-County, Kenya. *Journal of International Business, Innovation and Strategic Management*, 2(2), 35-45.
- Naidoo, P., & Govender, S. (2020). Assessment of time management practices and students' academic achievement: The moderating role of gender. *International Journal of Social Sciences & Educational Studies*, 8(4), 171-1884.
- National Association of School Psychologists. (2020). Effective discipline practices and policy recommendations in the United States. *Journal of School Psychology*, 58(2), 123-1405.
- Ngwokabuenui, P. (2015). Indiscipline causes and solutions in Cameroon. *Journal of Educational Policy*, 6(22), 64-726.
- Nnekwu, C., & Odochukwu, E. (2016). Management practices effective in curbing examination malpractices in Nigeria. *Journal of Educational Policy*, 8(11), 47-587.
- Nyabuto, P., & Mwangi, J. (2020). The impact of public acclaim and celebration on students' academic achievement in secondary schools in Kenya. *African Journal of Education*, 10(3), 112-1208.
- National Association of School Psychologists. (2018). Effective school discipline policies and practices: Supporting student learning [Research summary]. Bethesda, MD.
- Ndaji, F., Little, J., & Coe, R. (2016). A comparison of academic achievement in independent and state schools. *Centre for Evaluation and Monitoring, Durham University*. <http://www.cem.org/>

- Ndirika, M. C., & Ubani, C. C. (2017). Peer tutoring teaching strategy and academic achievement of secondary school biology students in Umuahia education zone, Nigeria. *IOSR Journal of Research & Method in Education*, 7(3), 72-78. <https://www.iosrjournals.org/iosr-jrme/papers/Vol-7%20Issue-3/Version-2/N0703027278.pdf>
- Ng'ang'a, S. (2019). The SACMEQ IV project in Kenya. *Southern and Eastern Africa Consortium for Monitoring Education Quality*. http://www.seacmeq.org/sites/default/sacmeq/reports/sacmeq-iv/national-reports/kenya_sacmeq_iv_report.pdf
- Ngala, B. J. A. F., & Odebero, O. S. (2010). Teachers' perceptions of staff development programmes as it relates to teachers' effectiveness: A study of rural primary schools in Kenya. *Educational Research and Review*, 5(1), 1-9.
- Ngumuta, M. (2022). Implications of school culture on academic performance in selected public secondary schools in Machakos County, Kenya. *Kenyatta University*.
- Nisar, N., Mahmood, M. K., & Dogar, A. H. (2017). Determinants of students' academic achievement at the secondary school level. *Bulletin of Education and Research*, 39(1), 145-158. <https://files.eric.ed.gov/fulltext/EJ1210189.pdf>
- Nulty, D. D. (2008). The adequacy of response rates to online and paper surveys: What can be done? *Assessment & Evaluation in Higher Education*, 33(3), 301-314. <https://doi.org/10.1080/0260293070129323>
- Norwegian Directorate for Education and Training. (2018). Deep learners and their motivation. *Journal of Educational Psychology*, 13(1), 34-50.
- Nyakado, P. (2018). Cultural practices and their impact on academic performance in Kenya. *African Journal of Education*, 10(3), 112-120.
- OECD. (2016). Effective budgeting practices for maintaining transparency and accountability in public sector financial management. *OECD Publishing*.
- OECD. (2018). Teaching for the future: Effective classroom practices to transform education. <http://dx.doi.org/10.1787/9789264293243-en>
- OECD. (2020). School culture: Understanding and enhancing the learning environment. *OECD Publishing*. <https://doi.org/10.1787/9789264281813-en>
- Ofori, D., Asare, K., & Boateng, P. (2018). *Educational practices and student achievement in West Africa*. Accra: West African Educational Publishers.
- Oketch, M., & Ngware, M. (2014). Teacher quality, resources, and parental involvement in private and public schools in Kenya. *Educational Research and Reviews*, 9(4), 123-130.
- Omondi, P., & Ogola, J. (2016). Academic achievement in private and public schools in Kenya: An empirical analysis. *Journal of Educational Policy*, 7(3), 56-70.
- Okoth, B. K., Ogeta, N. O., Otieno, M., & Orodho, J. A. (2018). Influence of resources on students' academic performance in physics at secondary schools in Ugenya Sub-County, Siaya County, Kenya. *Greener Journal of Educational Research*, 8(5), 111-118. <http://doi.org/10.15580/GJER.2018.5.072118101>

- Ochieng, P., & Kipkorir, R. (2019). The relationship between public acclaim and students' academic achievement in secondary schools in Kenya. *Journal of Educational Research, 11*(2), 98-1059.
- Okeke, O., & Adekunle, A. (2020). Principals' instructional time management and students' academic performance in secondary schools in Ondo North senatorial district of Ondo State, Nigeria. *EduLearn, 14*(1), 123-13310.
- Okello, P. (2017). The impact of student motivation on academic achievement in Kenya. *Journal of Educational Policy, 7*(3), 56-70.
- Ongeri, J., et al. (2018). Student motivation and academic achievement in Kenyan secondary schools. *Journal of Educational Research, 11*(2), 98-105.
- Odide, S. O. (2021). Influence of timeliness in planning and assessment on students' academic achievement in Kenyan schools. *Journal of Educational Planning, 12*(4), 98-110.
- Onyango, J., & Aloo, L. (2018). The effects of public acclaim and celebration on students' academic achievement in secondary schools in Kenya. *Journal of Educational Policy, 7*(3), 56-7011.
- Omolo, J., & Kwena, R. (2019). Factors influencing academic performance of public secondary schools in Kenya. *Journal of Educational Management, 13*(4), 89-102.
- Omondi, P., & Karimi, L. (2019). Teaching and learning materials, class sizes, and school environments in private and public schools in Kenya. *Journal of Educational Development, 11*(1), 67-75.
- Organisation for Economic Co-operation and Development. (2016). *Education at a glance 2016: OECD indicators*. OECD Publishing. <https://doi.org/10.1787/eag-2016-en>
- Okoth, B. K., Ogeta, N. O., Otieno, M., & Orodho, J. A. (2018). Influence of resources on students' academic performance in physics at secondary schools in Ugenya Sub-County, Siaya County, Kenya. *Greener Journal of Educational Research, 8*(5), 111-118. <http://doi.org/10.15580/GJER.2018.5.072118101>
- Onditi, F., & Odera, J. (2019). Understanding violence against women in Africa: An interdisciplinary approach. *Springer*. <https://doi.org/10.1007/978-3-030-71095-8>
- Ong'ombe, K., Mwangi, O., & Odhiambo, J. (2020). Resource management and integration: A study of their influence on student academic achievement in public and private secondary schools in Kenya. *Journal of Education and Human Development, 9*(1), 1-12.
- Ongowo, R. O., & Indoshi, F. C. (2015). Teacher motivation and its impact on student academic achievement in Kenya. *International Journal of Educational Research, 6*(3), 78-85.
- Osa-Edoh, G. I., & Alutu, A. N. G. (2012). Study habits and academic performance in Nigerian secondary schools. *Journal of Educational Research, 7*(3), 45-60.
- Oyaro, K., Ogola, F., & Okwara, M. (2017). School facilities and their impact on student academic performance in Kenya. *Journal of Educational Policy, 6*(2), 42-51.

- Oyoo, A. I., Isabel, Piliyesi, E., & Anyona, J. (2020). School culture and academic performance of students in public secondary schools in Awendo Sub-County, Migori County, Kenya. *Journal of African Interdisciplinary Studies (JAIS)*, 4(7), 148-165.
- Patel, R., & Garcia, M. (2022). Self-efficacy beliefs and mathematics performance in high school students. *Journal of Educational Psychology*, 114(2), 234-250.
- Peterson, D. K., & Deal, E. T. (2009). *The shaping school culture fieldbook* (2nd ed.). San Francisco: Jossey-Bass.
- Prokopchuk, J. (2016). Unpacking the impact of school culture: A principal's role in creating and sustaining the culture of a school. *Saskatchewan Educational Leadership Unit Research Review Journal*, 1(2), 73–82. <https://selu.usask.ca/documents/research-and-publications/srrj/SRRJ-1-2-Prokopchuk.pdf>
- Quinn, E. R., & Rohrbaugh, J. (1983). A spatial model of effectiveness criteria: Towards a competing values approach to organizational analysis. *Management Science*, 29(3), 363–377. <https://www.jstor.org/stable/2631061>
- Recepoglu, E. (2013). The significance of assumptions underlying school culture in the process of change. *International Journal of Educational Research and Technology*, 4(2), 43–48. <http://www.soeagra.com/ijert/ijertjune2013/7.pdf>
- Reidy, J. (2021). *Motivational strategies and student success in secondary education*. London: Educational Press.
- Relja, R., Gutović, T., & Vukasović, I. (2023). The concept of school organizational culture in (post)pandemic environments. *SHS Web of Conferences*, 157, 03001. <https://doi.org/10.1051/shsconf/202315703001>
- Riziki, M. (2016). The impact of punishment on student behavior in Kenyan schools. *Journal of Educational Policy*, 7(3), 56-70.
- Republic of Kenya. (2024). *Sessional Paper No. X of 2024 Draft: Transforming education, training and research for sustainable development in Kenya*. Ministry of Education. https://www.education.go.ke/sites/default/files/BILLS/Sessional%20Paper_2802024.pdf
- Republic of Kenya (R.O.K). (2013). *Nakuru County first county integrated development plan (2013-2017)*.
- Republic of Kenya (R.O.K). (2018). *Nakuru County integrated development plan 2018-2022*. www.nakuru.go.ke
- Ro, J. (2021). On the matter of teacher quality: Lessons from Singapore. *Journal of Curriculum Studies*, 53(4), 500-51512.
- Royer, R., et al. (2021). Addressing hunger and malnutrition through school meal programs. *Journal of Educational Policy*, 8(3), 46-57.
- Ryan, R. M., & Deci, E. L. (2000). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55(1), 68-78. <https://doi.org/10.1037/0003-066X.55.1.68>

- Rayhan, A. (2023). Living with honor: Exploring the ethical values of Japanese society and education. *Research Gate*. Retrieved from https://www.researchgate.net/publication/373328817_living_with_honor_exploring_the_ethical_values_of_japanese_society_and_education.
- Salina, A. (2022). Comparative analysis of public and private school cultures. *New York: Academic Insights*.
- Samuels, A. J. (2020). The learners' study habits and its relation to their academic performance. *International Journal of Advanced Research and Publications (IJARP)*, 4(12), 1-74.
- Schunk, D. H., & Zimmerman, B. J. (1997). Importance of continuous monitoring in budget management. *Journal of Financial Management*, 18(1), 97-113.
- Schulze, S. (2015). Learning environments matter: Identifying influences on the motivation to learn science. *South African Journal of Education*, 35(2), 1-9. <https://doi.org/10.15700/saje.v35n2a1058>
- Scotland, J. (2012). Exploring the philosophical underpinnings of research: Relating ontology and epistemology to the methodology and methods of the scientific, interpretive, and critical research paradigms. *English Language Teaching*, 5(9), 9-16. <https://doi.org/10.5539/elt.v5n9p9>
- Shannon-Baker, P. (2016). Making paradigms meaningful in mixed methods research. *Journal of Mixed Methods Research*, 10(4), 319-334. <https://doi.org/10.1177/1558689815575861>
- Singha, R., & Gulati, P. (2020). Teaching behaviours and their impact on student outcomes. *International Journal of Educational Research*, 8(2), 78-90.
- Silva, M., Negreiros, F., & Albano, C. (2017). Classroom indiscipline cases and teacher interventions in Brazil. *Journal of Educational Management*, 9(2), 112-12013.
- Šorgo, A., Vavdi, M., Cigler, U., & Kralj, M. (2015). Cheating behaviors in high schools in Slovenia. *Journal of Educational Policy*, 7(3), 56-7014.
- Spencer, J. (2020). The use of ICT and effective lesson preparation: Positive teaching behaviours. *Journal of Educational Technology*, 15(3), 45-60.
- Statistics Canada. (2010). *Survey methods and practices*. Minister of Industry. www.statcan.gc.ca
- Stepić, M. G., & Popović, R. D. (2022). Planning, realization, and evaluation of team teaching: Teachers' perspective. *Journal of the Faculty of Humanities and Social Sciences University of Tuzia*, 7(2), 593-614. <https://doi.org/10.51558/2490-3647.2022.7.2.609>
- Talib, N., & De Roock, R. (2018). Motivation strategies for academically low-progress learners (NIE Working Paper Series No. 12). *Singapore: National Institute of Education*.
- Tashakkori, A., & Teddlie, C. (2010). *Sage handbook of mixed methods in social & behavioural research* (2nd ed.). London: Sage Publications. <http://dx.doi.org/10.4135/9781506335193>
- The Research Council of Norway, & UTDANNING2020. (2012). *The role of theory in educational research* (pp. 1-30). www.rcn.no/english

- Talib, A., & De Roock, R. (2018). Cultural influences on student learning and achievement. *Amsterdam: Global Education Publishers.*
- Tang, Y. (2022). The effect of globalization on schooling and its distributive roles through the world culture lens. *Harvard Business Review*. <https://hbr.org/2022/04/the-state-of-globalization-in-2022>
- Thompson, J., & Choi, S. (2021). Personalized learning strategies and student motivation in secondary education. *Canadian Journal of Education*, 44(1), 112-130.
- Thuo, J. (2015). Leadership and academic performance in Kenyan secondary schools. *Nairobi: Kenya Education Review.*
- Tichnor-Wagner, A., Harrison, C., & Cohen-Vogel, L. (2016). Effective high schools and cultures of learning in the USA. *Journal of Educational Policy*, 7(3), 56-7015.
- Tan, C. S., & Wong, K. (2020). Academic progress monitoring and enrichment: Impact on student academic achievement in Malaysia. *Journal of Educational Research*, 14(1), 45-60.
- Trombly, E. C. (2014). Schools and complexity. *Complicity: An International Journal of Complexity and Education*, 11(2), 40–58.
- Tus, J., & Rayo, F. (2020). Study habits and academic performance of grade 12 senior high selected students.
- UNESCO Institute for Statistics. (2013). *Information and communication technology (ICT) in education in five Arab states: A comparative analysis of ICT integration and e-readiness in schools in Egypt, Jordan, Oman, Palestine, and Qatar.* UNESCO. <http://www.uis.unesco.org>
- Valsiner, J. (2019). Culture & psychology: 25 constructive years. *Culture & Psychology*, 25(4), 429-469. <https://doi.org/10.1177/1354067X19872358>
- Verma, V. (2021). School culture: Methods for improving a negative school culture. *International Journal of Educational Research and Studies*, 3(2), 14–17. <https://doi.org/2664-6811>
- Verma, P., & Singh, N. (2022). Impact of teacher-student relationships on student motivation in an international school in New Delhi, India. *International Journal of Educational Research*, 102, 123-135.
- Vishwanatha, R., & Begum, S. (2023). Influence of study habits on the academic performance of secondary school students in Bengaluru District, Karnataka. *Journal of Educational Studies*, 18(2), 67-80.
- Walberg, J. H. (1984). Improving the productivity of America's schools. *Educational Leadership*, 41(8), 19–27.
- Walliman, N. (2011). *Research methods: The basics.* London: Routledge.
- Waseka, E., & Simatwa, E. (2016). The role of student motivation in academic achievement. *Journal of Educational Research*, 14(2), 78-90.
- Williams, G. C., Deci, E. L., & Ryan, R. M. (1996). Self-determination theory and the facilitation of intrinsic motivation, social development, and well-being. *American Psychologist*, 55(1), 68-78. <https://doi.org/10.1037/0003-066X.55.1.68>

- Xu, Z. (2016). Just do it! Reducing academic procrastination of secondary students. *Intervention in School and Clinic, 57*(4), 212–219. <https://doi.org/10.1177/1053451215589178>
- Yalew, E., Dawit, A., & Alemayehu, T. (2010). School culture and student achievement in Ethiopian secondary schools. *Addis Ababa: Ethiopian Educational Review*.
- Yusuf, A. (2015). Impact of school environment on student performance in Nigerian secondary schools. *Lagos: Nigerian Educational Publishers*.
- Zhang, T., Zhao, J., & Sheng, B. (2024). The influence of perceived teacher support on student engagement in physical education of Chinese middle school students: Mediating role of academic self-efficacy and positive emotions. *Current Psychology, 4*(1), 45-6016.

APPENDICES

Appendix I: Principals' Questionnaire

You have been randomly selected to participate in a research entitled: “**Relationship Between Selected School Cultures and Student Academic Achievement: A Comparative Study of Public and Private Secondary Schools in Nakuru County, Kenya**”. Please respond to the following questionnaire items.

Section A: Bio data

Please indicate by a tick, your gender

Male Female

Section B: Teaching Behaviour

ii) The following questions relate to the teaching culture in your school for the last five years. Please indicate the extent to which you disagree or agree to the statements, by placing a tick in the space provided against the statement which best suits your response.

The scale of response ranges as follows:

- 1- Always
- 2- Frequently
- 3- Sometimes
- 4- Never

	Statement	AL	F	S	N
1	Teachers prepare schemes of work for the whole year by the end of week one of opening school.				
2	Teachers prepare lesson plans one day prior to teaching a particular lesson.				
3	Teachers set not less than two sets of continuous assessment tests (CATS) per subject in a term.				
4	Teachers mark continuous assessment tests (CATS) within the first week of giving the Test.				
5	Teachers set end of term examinations not later than two weeks prior to closing day at all times.				

6	Teachers complete marking end of term examinations by the end of each term.				
7	Teachers revise previous end of term examinations by the end of the first week of opening a new term.				
8	Teachers improvise teaching resources always as need arises.				
9	Teachers use information communication technology (ICT) in teaching at all times.				
10	Teachers prepare lesson notes by integrating content from not less than two approved textbooks.				
11	We always use resource persons in teaching whenever need arises.				
12	Teachers at all times complete the syllabus by the end of second term of each year.				
13	Teachers at practice team teaching				
14	Teachers conduct remedial lessons for slow learners.				
15	Students practice peer teaching among themselves				
16	Form four students attempt not less than three internally set mock examinations before the main standardized external examinations				
17	Students do practical in the laboratory not less two times in a month.				
T 18	The school facilitates educational field studies for learners at least once in a year for a particular class				
19	Students attempt many internally set subject based contest per term				
20	Students in a given class always participate in many external subject-based contests				
21	Students in a given class always participate in many school-based symposiums per term.				

Section C: Student Motivation Strategies

The following questions relate to the Student Motivation Strategies in your school for the last four years. Please indicate the extent to which you disagree or agree to the statements, by placing a tick in the space provided against the statement which best Suits your response. The scale of response ranges as follows:

- 1- Strongly disagree (SD)
- 2- Disagree (D)
- 3- Agree (A)
- 4- Strongly agree (SA)

	Statement	SD	D	A	SA
1	Principals give presents to high achievers at the end of the term.				
2	Principals give presents to best improved students at the end of each term				
3	Special meals are prepared once a term to the leading class (s)				
4	Our school always takes the top performing class (per term) for a trip				
5	Public acclaim is always given to high achievers.				
6	Career guidance is always given to students to encourage them to study towards given careers.				
7	High achievers receive presents from our school alumni				

Section D: Student Discipline

Please indicate with a tick, how much you agree or disagree with each of the following statements which relate to frequent discipline cultures prevalent in your school for the last four years.

The scores range from 1 to 4.

1- Strongly disagree (SD)

2- Disagree (D)

3- Agree (A)

4- Strongly agree (SA)

	Statement	SD	D	A	SA
1	A student who abscond doing assignments is always given manual work to do as a punishment				
2	A student who often does not make personal notes mops the classroom once daily for four consecutive days				
3	A student found cheating in an examination is suspended from school				
4	A student who does not attend a scheduled lesson without official permission is sent home to bring a parent				
5	A student who does not attend a group discussion without permission ceases to become a bona fide member of the group.				
6	A student who consistently communicates in vernacular while in school is given a disk then is required to buy a story book.				
7	A student who is persistently engaged in truancy is sent home to bring his/her parent or guardian				
8	A student who continuously fails to complete given academic projects is detained.				
9	A student who takes French leave from lessons must write an apology letter.				

10	A student involved in vandalizing learning materials must replace them twofold.				
11	A student who disrupts normal studies through fighting with another student must appear before a disciplinary committee for disciplinary action.				
12	A student who usually distracts others by noise making in class is detained in class after normal prep time				
13	A student who often does not make corrections in exercise books after doing practice exercises is sent home to bring a parent or guardian				
14	A student who persistently fails to consult subject teachers for academic guidance is reprimanded.				
15	A student whose notes are not marked often by the subject teacher is given manual work to do.				

Thank you for your participation

Appendix II: Students’ Questionnaire

You have been randomly selected to participate in a research entitled: **“Relationship Between Selected School Cultures and Student Academic Achievement: A Comparative Study of Public and Private Secondary Schools in Nakuru County, Kenya”**.

Please respond to the following questionnaire items.

Section A: Bio Data

Please indicate by a tick, your gender male female

Section B: A: Study Culture

The following questions relate to the student study culture in your school for the last four years. Please indicate the extent to which you disagree or agree to the statements, by placing a tick in the space provided against the statement which best suits your response.

The scale of response ranges as follows:

- 1 – Never (N) 2- Sometimes(S)
- 3- Frequently (F) 4-Always (A)

S no	Statement	N	S	F	A
1	Students use notes given by teachers				
2	Students are allowed to do private studies before normal classes start.				
3	Students do three internal examinations per term				
4	Students make short notes during lessons				
5	Students do revisions at the completion of each topic covered in class				
6	Students use textbooks to make additional notes				
7	Students use past papers to revise for examinations				
8	Students are required to engage in discussion groups				
9	learners use mnemonics to boost memorization				
10	Students complete given assignments within the time span given by teachers				
11	Students are punctual when going to class.				
12	Students mark their colleague’s assignments using given marking schemes provided by teachers.				
13	Students are required to maintain silence during studies				

14. Indicate your Grade last term

Appendix III: Nakuru KCSE 20 Low Performing Public Secondary Schools 2015-2019

S No	School	Sub-County	Boys	Girls	Entry 2019	M/S 20 15	M/S 2016	M/S 20 17	M/S 2018	M/S 20 19	Mean Score 2015- 2019	Rank
1	Arash	Subukia	31	22	53	3.47	1.98	2.09	2.487	2.468	2.50	238
2	Chikamba Sec	Kuresoi South	15	13	28	3.06	1.96	2.11	2.448	2.9	2.50	239
3	Gituamba	Naivasha	32	19	51	3.15	2.46	2.51	2	2.293	2.48	240
4	Hopewell	Nakuru West	46	39	85	2.65	2.05	1.80	2.1	3.602	2.44	241
5	Echariria	Gilgil	34	35	69	2.92	2.30	2.22	2.129	2.602	2.43	242
6	Nderit Secondary	Gilgil	47	32	79	2.80	2.24	1.85	2.546	2.585	2.40	243
7	Wiyumiririe	Subukia	18	15	33	2.50	1.71	2.33	2.882	2.529	2.39	244
8	Kongasis	Gilgil	12	25	37	2.59	2.00	2.06	2.393	2.893	2.39	245
9	Haraka	Kuresoi North	33	21	54	2.77	2.36	2.31	2.103	2.125	2.33	246
10	Kelelwet	Nakuru West	42	18	60	2.77	2.41	2.03	2.128	2.25	2.32	247
11	Gitare Secondary School	Gilgil	20	35	55	2.88	2.10	2.02	2.05	2.289	2.27	248
12	Moto	Molo	48	47	95	3.24	1.62	1.61	2.08	2.593	2.23	249
13	Trinity Mission	Gilgil	9	36	45	2.27	1.95	2.04	1.796	3.037	2.22	250
14	Kijabe T/Ship	Naivasha	10	10	20	2.48	2.04	2.20	2.366	2	2.22	251
15	North Karati	Naivasha	34	34	68	2.68	2.04	2.25	2.022	1.977	2.20	252
16	Nyakairu	Naivasha	14	9	23	2.37	1.62	2.39	1.875	2.717	2.19	253
17	Rongai High School	Rongai	40	0	40	2.54	2.05	2.36	1.83	1.921	2.14	254
18	Milimani	Nakuru North	26	14	40	3.25	1.52	1.73	2.179	2	2.14	255
19	Simboiyon	Subukia	16	11	27	2.74	1.53	1.74	2.256	2.206	2.09	256
20	Milele High	Naivasha	29	31	60	2.45	2.26	1.80	2.07	1.814	2.08	257
			556	466	1022	2.78	2.01	2.07	2.187	2.473	2.30	

Appendix IV: Nakuru KCSE 20 High Performing Public Secondary Schools 2015-2019

S No	School	Sub-County	Boys	Girls	Entry 2019	M/S 2015	M/S 2016	M/S 2017	M/S 2018	M/S 2019	Average MSS 2015-2019	Rank Position
1	Nakuru Girls	Nakuru East	0	228	228	9.23	9.06	8.32	8.03	9.496	1	
2	Utumishi	Gilgil	266	0	266	11.70	8.30	8.01	8	7.82	8.77	2
3	Elburgon Sec	Molo	78	54	132	10.24	8.50	8.58	8.17	8.326	8.76	3
4	Nakuru High	Nakuru East	241	0	241	9.67	8.90	8.29	7.83	8.853	8.71	4
5	Bahati Girls	Nakuru North	0	195	195	10.40	8.41	7.78	8.18	7.791	8.51	5
6	Mary Mount	Molo	0	156	156	9.09	8.67	7.80	8.19	7.738	8.30	6
7	Moi Forces Lanet	Nakuru North	0	243	243	9.55	7.91	7.19	7.693	8.493	8.17	7
8	Naivasha Girls	Naivasha	0	206	206	9.20	8.49	7.17	8.02	7.817	8.14	8
9	Molo Academy	Molo	159	0	159	9.70	7.97	7.79	7.94	7.019	8.08	9
10	Langalanga Sec	Nakuru East	158	77	235	7.36	7.17	6.37	7.1	7.55	7.11	10
11	Njoro Girls	Njoro	151	151	151	8.65	7.59	6.21	6.194	6.63	7.05	11
12	Jomo Kenyatta Boys	Nakuru North	232	0	232	7.55	7.20	6.38	6.548	6.922	6.92	12
13	Njoro Boys	Njoro	211	0	211	9.26	6.05	5.30	5.841	5.684	6.43	13
14	Moi Amalo Sec	Kuresoi South	58	52	110	7.28	6.76	5.86	5.829	6.073	6.36	14
15	Menengai High	Nakuru East	254	64	318	7.96	5.79	4.98	5.7	6.306	6.15	15
16	Pcea Kambala	Molo	0	103	103	7.67	5.20	4.92	5.89	6.542	6.04	16
17	Bavuni Secondary	Nakuru North	69	112	181	7.83	5.96	4.75	5.526	5.764	5.97	17
18	Kinungi Bahati Pcea Girls	Naivasha	38	45	83	6.79	6.11	5.32	5.743	5.663	5.92	18
19	Secondary School	Nakuru North	0	111	111	7.03	5.70	4.94	5.702	5.588	5.79	19
20	Oserian	Naivasha	23	18	41	6.97	4.88	4.54	6.111	6.276	5.76	20
			1787	1815	3602	8.66	7.23	6.53	6.91185	7.11755	7.29	

Appendix V: Nakuru County Bottom Lowest KCSE Performing Private Secondary Schools 2015-2019

S No	School	Sub-County	Boys	Girls	Entry 2019	M/S 2015	M/S 2016	M/S 2017	M/S 2018	M/S 2019	Mean Score 2015-2020	Rank Position
1	Shinners Boys	Gilgil	109	0	109	2.71	2.18	1.88	2.075	2.258	2.22	82
2	Pistis	Nakuru West	29	34	63	2.64	2.07	1.70	2.135	2.48	2.20	83
3	City Mission	Nakuru East	22	16	38	2.56	1.72	2.50	2.02	2.204	2.20	84
4	Naivasha Mixed High	Naivasha	48	38	86	3.00	1.89	1.72	2.076	2.21	2.18	85
5	Very Rev. Jeremiah	Naivasha	12	10	22	2.90	2.20	2.18	1.846	1.727	2.17	86
6	Bartmore Sec	Nakuru East	14	10	24	2.79	2.15	2.05	1.84	1.943	2.15	87
7	Bahati Oasis Academy	Nakuru North	6	9	15	3.18	1.83	1.47	1.918	2.25	2.13	88
8	Ronaka House	Nakuru West	55	66	121	3.12	1.97	1.81	1.784	1.936	2.12	89
9	Y.M.C. A	Nakuru East	21	20	41	1.79	2.98	1.88	1.83	1.938	2.08	90
10	Silver Hill	Naivasha	44	34	78	2.43	2.14	1.83	1.857	1.714	2.00	91
11	Njoro Academy	Rongai	45	0	45	2.25	1.82	1.58	1.89	2.267	1.96	92
12	St. Beth	Njoro	18	14	32	2.71	1.58	1.81	2.114	1.533	1.95	93
13	Khalsa Sec	Nakuru East	21	28	49	2.37	1.89	1.82	1.84	1.82	1.95	94
14	Mentor High School	Nakuru North	13	7	20	2.27	1.92	1.95	1.655	1.933	1.95	95
15	Bishop Mureithi Acad	Nakuru East	47	50	97	2.17	1.59	1.67	1.91	2.225	1.91	96
16	Bahati St Mary's High School	Nakuru North	11	5	16	2.75	1.53	1.63	2	1.609	1.90	97
17	Spotlight	Nakuru West	28	24	52	2.38	1.93	1.63	1.73	1.833	1.90	98
18	Blessed Mustardseed	Naivasha	22	19	41	2.22	1.84	1.76	1.789	1.816	1.88	99
19	Bishop Waichere	Naivasha	13	13	26	2.46	1.72	1.50	1.556	1.667	1.78	100
20	Subukia Prestige	Subukia	4	13	17	2.36	1.37	1.59	1.125	1.958	1.68	101
			582	410	992	2.55	1.92	1.80	1.8495	1.96605	2.02	

Appendix VI: Nakuru County Private Secondary Schools 2015-2019 KCSE Analysis

S.NO	School	Sub-County	Boys	Girls	Entry 2019	M/S 2015	M/S 2016	M/S 2017	M/S 2018	M/S 2019	5 Years M S	Rank Position
1	Kabarak High School	Rongai	338	0	338	11.66	9.66	9.16	10.02	9.846	10.07	1
2	Anestar Boys Lanet	Nakuru North	84	0	84	10.50	9.55	8.00	9.07	9.78	9.38	2
3	Anestar Boys	Nakuru North	66	0	66	9.72	8.89	8.33	8.15	8.186	8.66	3
4	St Yermo	Subukia	0	54	54	9.00	7.51	7.22	7.453	8.145	7.87	4
5	Goshen Boys High School	Nakuru North	20	0	20	8.25	8.42	7.15	6.96	8.478	7.85	5
6	Goshen Sacred High Girls	Nakuru North	0	23	23	9.70	7.43	6.57	7.14	7.042	7.58	6
7	St Gabriel Lanet Secondary School Boys	Nakuru North	37	0	37	9.68	7.93	6.35	6.24	7.51	7.54	7
8	Rongai Boys Secondary	Rongai	87	0	87	9.03	8.00	6.03	6.71	7	7.35	8
9	Vanessa Grant Girls	Rongai	105	0	105	9.18	6.87	5.93	6.97	7.191	7.23	9
10	St Gabriel Mission Secondary School Girls	Nakuru North	0	22	22	7.59	7.71	5.32	6.24	7.577	6.89	10
11	St. Francis	Subukia	16	20	36	6.03	6.79	6.58	7.364	7.326	6.82	11
12	Anestar Mountain Academy	Nakuru North	300	0	300	9.14	7.14	5.60	5.4	5.954	6.65	12
13	Christ The King	Nakuru East	0	75	75	7.90	6.40	5.73	6.6	6.226	6.57	13
14	St Joseph Seminary	Kuresoi North	76	0	76	7.79	7.61	6.29	5.085	6.019	6.56	14
15	Bahati Boys	Nakuru North	30	0	30	8.00	6.99	5.10	5.29	6.654	6.41	15
16	Bridgewater Girls	Rongai	49	0	49	7.69	5.83	6.00	6.42	5.915	6.37	16
17	Mother of Mercy	Njoro	0	68	68	7.73	7.09	4.59	4.968	5.561	5.99	17
18	Sacred Heart Boys Sec.	Rongai	94	0	94	7.89	5.47	4.71	5.07	5.704	5.77	18

19	Naivasha High	Naivasha	115	0	115	6.88	6.00	4.65	5.382	5.181	5.62	19
20	Archbishop Ndingi	Naivasha	54	0	54	7.14	5.82	5.19	4.49	5.158	5.56	20
21	St. Joseph's Kirandich	Kuresoi South	54	61	115	6.97	5.22	4.51	5.089	5.523	5.46	21
22	St. Francis Girls	Naivasha	0	71	71	6.44	4.95	4.66	4.479	5.785	5.26	22
23	St Clare Of Assisi	Naivasha	0	94	94	6.74	5.63	4.39	4.419	4.974	5.23	23
24	Arutani Girls Sec.	Rongai	75	0	75	6.12	4.95	4.49	5.06	5.492	5.22	24
25	Mustard Seed Seondary	Rongai	17	0	17	7.72	4.18	4.00	4.13	6	5.21	25
26	Sunshine Schools Nakuru	Nakuru North	59	52	111	9.14	7.14	1.99	2.692	4.3	5.05	26
27	Gilgil Hills Senior School	Gilgil	0	34	34	6.95	4.26	4.03	4.13	5	4.87	27
28	Boenix High School	Rongai	23	0	23	5.20	4.26	4.96	4.95	4.864	4.85	28
29	St Clare's Girls Sec. School Lanet	Nakuru North	0	33	33	6.80	5.10	3.42	4.478	4.27	4.81	29
30	Rift Valley Adventist	Molo	10	15	25	4.35	4.83	3.48	4.53	6.778	4.79	30
31	Wellsprings School	Gilgil	26	26	52	6.79	4.77	4.62	3.77	3.692	4.73	31
32	Njoro Precious Girls	Rongai	36	0	36	6.07	4.50	3.61	4.18	4.857	4.64	32
33	Pcea Jitegemea	Nakuru West	20	11	31	6.27	4.28	3.74	4.12	4.535	4.59	33
34	Blesco House Boys	Gilgil	37	0	37	6.59	4.98	3.57	2.696	4.429	4.45	34
35	Gilgil Good Shepherd	Gilgil	50	0	50	7.11	4.46	3.52	3.302	3.378	4.35	35
36	Gabriel School Nakuru Girls...boys	Nakuru North	0	103	103	5.28	4.40	3.22	3.926	4.931	4.35	36
37	Blescohouse Girls High School	Nakuru North	30	0	30	4.55	5.82	3.80	2.696	4.429	4.26	37
38	Bahati Day Secondary	Nakuru North	16	0	16	6.10	4.53	2.94	3.27	3.955	4.16	38
39	Bahati Upperhill School	Nakuru North	0	22	22	5.96	4.20	3.86	2.591	3.643	4.05	39
40	St. Agnes School	Gilgil	0	38	38	5.20	4.23	3.21	3.75	3.605	4.00	40
41	Rohi High School	Nakuru North	36	0	36	6.42	3.09	3.27	2.881	3.921	3.92	41
42	Cesarina Girls Secondary	Rongai	35	0	35	5.30	3.30	3.20	3.71	3.774	3.86	42

43	Eastmore Girls	Nakuru East	0	67	67	5.42	4.04	3.25	2.96	3.27	3.79	43
44	St Xaviers High	Nakuru East	25	18	43	4.48	3.79	3.26	3.56	3.75	3.77	44
45	Sher Academy	Naivasha	30	21	51	5.40	3.12	2.90	3.333	4	3.75	45
46	Naivasha Boys	Naivasha	15	0	15	3.29	3.44	3.73	3.636	4.5	3.72	46
47	Wheat Fields Girls	Rongai	38	0	38	5.71	3.37	3.00	3.02	3.4	3.70	47
48	Patel Day Secondary	Rongai	86	0	86	5.05	3.28	3.85	2.99	3.286	3.69	48
49	Vineyard Girls	Naivasha	0	52	52	4.86	3.57	2.81	3.017	3.73	3.60	49
50	The Betty Marvity Roberts Edu.Centre	Nakuru North	37	28	65	5.44	2.60	2.60	3.02	3.836	3.50	50
51	St. Catherine	Naivasha	0	19	19	5.04	3.86	2.53	2.8	3	3.45	51
52	Potters House Girls High School	Nakuru North	0	43	43	3.60	2.53	3.19	3.3	4.5	3.42	52
53	Medirose Secondary	Nakuru North	19	9	28	4.10	3.50	3.33	2.406	3.6	3.39	53
54	Father Abraham	Naivasha	17	0	17	6.44	2.97	3.35	2.154	1.654	3.31	54
55	Bright Light Girls	Njoro	0	20	20	4.09	3.05	2.80	3.167	3.286	3.28	55
56	St Georges Greenland Sec. School	Nakuru North	18	0	18	5.31	2.81	2.56	2.617	2.72	3.20	56
57	Bishop Wambari	Naivasha	0	126	126	4.48	3.50	2.45	2.641	2.915	3.20	57
58	Lare Vision	Njoro	23	17	40	4.26	2.81	2.80	2.878	3.016	3.15	58
59	Molo Hills	Molo	0	30	30	3.56	3.00	2.47	3.25	3.286	3.11	59
60	Muthaiti Secondary	Nakuru North	29	17	46	5.95	2.56	2.26	2.179	2.372	3.06	60
61	Hotspring Girls'	Naivasha	0	78	78	4.06	3.39	2.03	2.578	3.14	3.04	61
62	Pema Victorious	Gilgil	21	12	33	3.30	3.43	2.91	2.63	2.897	3.03	62
63	Shiners Girls	Nakuru East	0	196	196	3.90	2.93	2.65	2.81	2.83	3.02	63
64	Namuncha Peace	Naivasha	8	9	17	4.45	2.50	2.35	2.63	2.875	2.96	64
65	Wellsprings Mission School	Gilgil	0	85	85	4.66	2.76	2.54	2.453	2.224	2.93	65
66	St. Jeremy	Gilgil	12	9	21	4.37	2.40	2.95	2.429	2.434	2.92	66

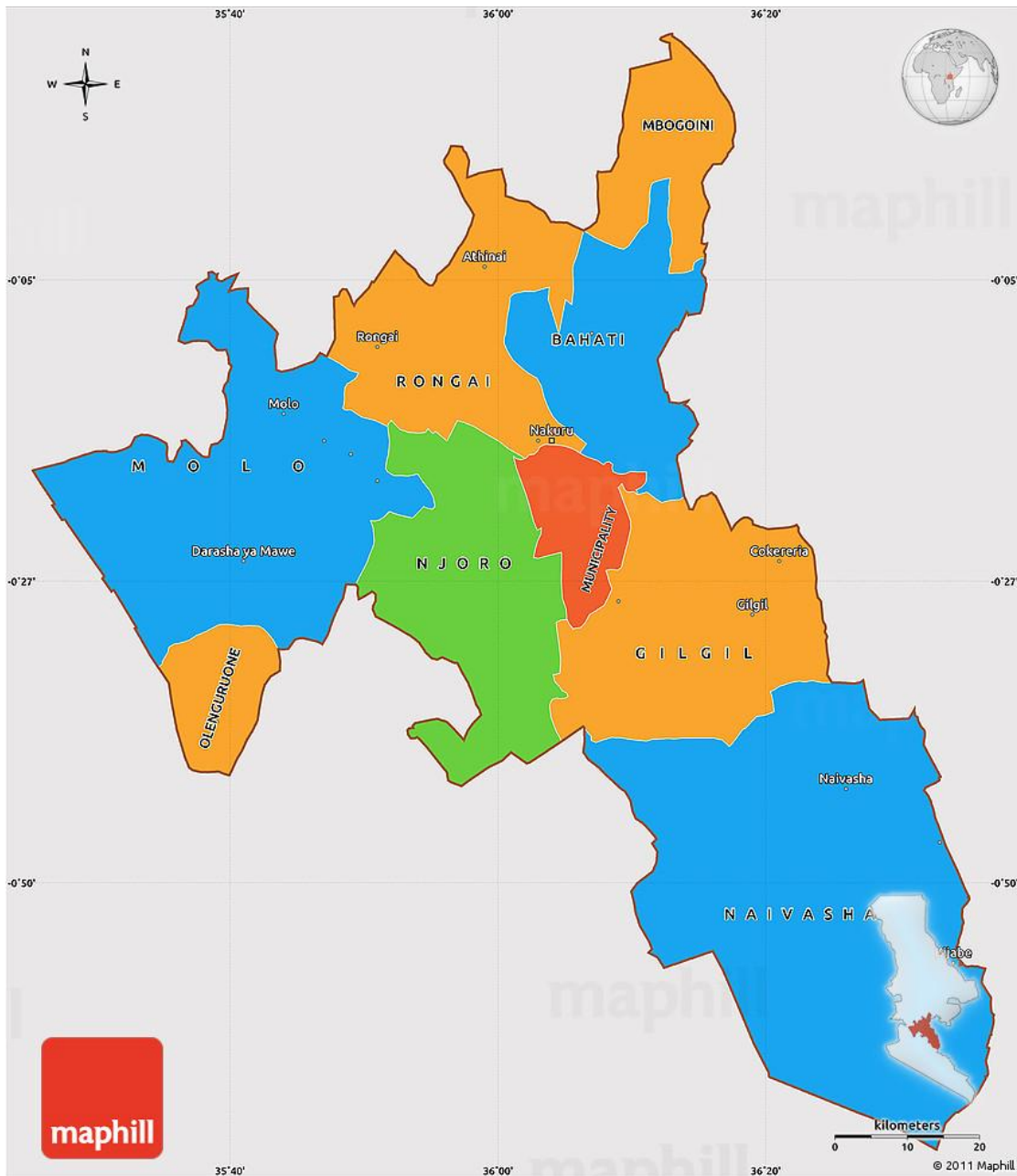
67	Keringet Winners Girls	Kuresoi South	0	18	18	3.43	2.56	2.89	2.733	2.905	2.90	67
68	St. Josephine Bhakita	Gilgil	13	13	26	3.64	2.69	2.15	2.889	2.789	2.83	68
69	Shunem Girls	Nakuru North	0	105	105	3.64	2.58	2.30	2.592	2.627	2.75	69
70	Blessed Valey	Molo	30	18	48	3.27	2.08	3.07	2.28	2.857	2.71	70
71	Gilgil High School	Gilgil	26	0	26	3.48	1.97	2.35	2.733	2.977	2.70	71
72	Elburgon Baptist	Molo	25	19	44	3.66	2.64	1.93	2.14	2.667	2.61	72
73	St Peters Elburgon	Molo	28	15	43	3.73	2.25	2.28	2.28	2.118	2.53	73
74	D N Handa	Naivasha	75	31	106	4.00	2.07	2.14	2.204	2.221	2.53	74
75	Our Lady of Victories	Subukia	44	63	107	3.79	2.06	2.08	2.222	2.34	2.50	75
76	Rev.Githirwa	Naivasha	8	7	15	3.13	2.67	1.38	2.462	2.833	2.49	76
77	Riverside	Nakuru West	0	45	45	3.31	2.40	2.36	2.12	1.945	2.43	77
78	Gilgil Mixed	Gilgil	29	18	47	3.06	1.96	2.09	2.455	2.191	2.35	78
79	Lake Naivasha High	Naivasha	35	26	61	3.25	2.21	1.92	2	2.266	2.33	79
80	New Elimu High School	Nakuru North	9	18	27	3.23	2.19	1.73	2.09	2.326	2.31	80
81	Lampstand Academy Sec.	Rongai	33	0	33	3.67	2.07	1.64	2.25	1.775	2.28	81
82	Shinners Boys	Gilgil	109	0	109	2.71	2.18	1.88	2.075	2.258	2.22	82
83	Pistis	Nakuru West	29	34	63	2.64	2.07	1.70	2.135	2.48	2.20	83
84	City Mission	Nakuru East	22	16	38	2.56	1.72	2.50	2.02	2.204	2.20	84
85	Naivasha Mixed High	Naivasha	48	38	86	3.00	1.89	1.72	2.076	2.21	2.18	85
86	Very Rev. Jeremiah	Naivasha	12	10	22	2.90	2.20	2.18	1.846	1.727	2.17	86
87	Bartmore Sec	Nakuru East	14	10	24	2.79	2.15	2.05	1.84	1.943	2.15	87
88	Bahati Oasis Academy	Nakuru North	6	9	15	3.18	1.83	1.47	1.918	2.25	2.13	88
89	Ronaka House	Nakuru West	55	66	121	3.12	1.97	1.81	1.784	1.936	2.12	89
90	Y.M.C. A	Nakuru East	21	20	41	1.79	2.98	1.88	1.83	1.938	2.08	90

91	Silver Hill	Naivasha	44	34	78	2.43	2.14	1.83	1.857	1.714	2.00	91
92	Njoro Academy	Rongai	45	0	45	2.25	1.82	1.58	1.89	2.267	1.96	92
93	St. Beth	Njoro	18	14	32	2.71	1.58	1.81	2.114	1.533	1.95	93
94	Khalsa Sec	Nakuru East	21	28	49	2.37	1.89	1.82	1.84	1.82	1.95	94
95	Mentor High School	Nakuru North	13	7	20	2.27	1.92	1.95	1.655	1.933	1.95	95
96	Bishop Mureithi Acad	Nakuru East	47	50	97	2.17	1.59	1.67	1.91	2.225	1.91	96
97	Bahati St Mary's High School	Nakuru North	11	5	16	2.75	1.53	1.63	2	1.609	1.90	97
98	Spotlight	Nakuru West	28	24	52	2.38	1.93	1.63	1.73	1.833	1.90	98
99	Blessed Mustardseed	Naivasha	22	19	41	2.22	1.84	1.76	1.789	1.816	1.88	99
100	Bishop Waichere	Naivasha	13	13	26	2.46	1.72	1.50	1.556	1.667	1.78	100
101	Subukia Prestige	Subukia	4	13	17	2.36	1.37	1.59	1.125	1.958	1.68	101
						4.53	3.27	3.19				

Appendix VII: Document Analysis Checklist Table

School Category	Number of Students	Grades Obtained	Points Obtained	Year
Top performing KCSE Public secondary schools				
Top performing KCSE Private secondary schools				
Low performing KCSE Public secondary schools				
Low performing KCSE Private secondary schools				

Appendix VIII: Map of Nakuru County



Source: <http://www.maphill.com/kenya/rift-valley/nakuru/simple-maps/political-map/cropped-outside/>

Appendix IX: KREJCIE And Morgan Table

N	S	N	S	N	S
10	10	220	140	1200	221
15	14	230	144	1300	297
20	19	240	148	1400	302
25	24	250	152	1500	306
30	28	260	155	1600	310
35	32	270	159	1700	313
40	36	280	162	1800	317
45	40	290	165	1900	320
50	44	300	169	2000	322
55	48	320	175	2200	327
60	52	340	181	2400	331
65	56	360	186	2600	335
70	59	380	191	2800	338
75	63	400	196	3000	341
80	66	420	201	3500	346
85	70	440	205	4000	351
90	73	460	210	4500	354
95	76	480	214	5000	357
100	80	500	217	6000	361
110	86	550	226	7000	364
120	92	600	234	8000	367
130	97	650	242	9000	368
140	103	700	248	10000	370
150	108	750	254	15000	375
160	113	800	260	20000	377
170	118	850	265	30000	379
180	123	900	269	40000	380
190	127	950	274	50000	381
200	132	1000	278	75000	382
210	136	1100	285	1000000	384

Source: (Krejcie & Morgan, 1970). N is population size S is the sample size

Appendix X : NACOSTI Research Permit

 REPUBLIC OF KENYA	 NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION
Ref No: 455674	Date of Issue: 04/February/2021
RESEARCH LICENSE	
	
<p>This is to Certify that Mr. NELSON NYANG'AU NGARE of Kabarak University, has been licensed to conduct research in Nakuru on the topic: RELATIONSHIP BETWEEN SELECTED SCHOOL CULTURES AND STUDENT ACADEMIC ACHIEVEMENT: A COMPARATIVE STUDY OF PUBLIC AND PRIVATE SECONDARY SCHOOLS IN NAKURU COUNTY, KENYA for the period ending : 04/February/2022.</p>	
License No: NACOSTI/P/21/8849	
455674 Applicant Identification Number	 Director General NATIONAL COMMISSION FOR SCIENCE, TECHNOLOGY & INNOVATION
	Verification QR Code
	
<p>NOTE: This is a computer generated License. To verify the authenticity of this document, Scan the QR Code using QR scanner application.</p>	

Appendix XI: Ministry of Education Authorization Letter

**MINISTRY OF EDUCATION
STATE DEPARTMENT OF EARLY LEARNING OF BASIC EDUCATION**

Telegrams: "EDUCATION",
Telephone: 051-2216917
When replying please quote
Email: cdenakurucounty@gmail.com



COUNTY DIRECTOR OF EDUCATION
NAKURU COUNTY
P. O. BOX 259,
NAKURU.

Ref. CDE/NKU/GEN/4/1/21 VOL.II/77

8th February, 2021


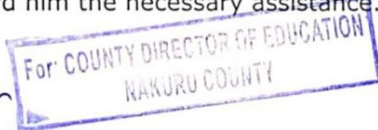
TO WHOM IT MAY CONCERN

**RE: RESEARCH AUTHORIZATION – NELSON NYANG'AU NGARE
PERMIT NO. NACOSTI/P/21/0883**

Reference is made to letter NACOSTI/ P/21/0843 dated 4th February, 2021.

Authority is hereby granted to the above named to carry out research in Nakuru County, Kenya on the topic: "**RELATIONSHIP BETWEEN SCHOOL CULTURES AND STUDENTS ACADEMIC ACHIEVEMENTS: A COMPARATIVE STUDY OF PUBLIC AND PRIVATE SECONDARY SCHOOLS OF NAKURU COUNTY, KENYA**" for the period ending **04/02/22**.

Kindly accord him the necessary assistance.

G.N. Kimani
For: COUNTY DIRECTOR OF EDUCATION
NAKURU

Copy to:

- Kabarak University

Appendix XII: Evidence of Conference Participation





KABARAK UNIVERSITY

Certificate of Participation

Awarded to

NELSON NYANG'AU NGARE

For successfully participating in the 13th Annual Kabarak University International Research Conference held on 24th October 2023 and presented a paper entitled “*Relationship Between Selected Student Teaching Cultures and Student Academic Achievement in Secondary Schools in Nakuru County, Kenya.*”

Conference Theme

Leveraging paradigm shift in research for transformation and sustainable Development in Education in post Covid- Era.

Prof. Frederick B.J.A Ngala
Dean, School of Education
& Director Music
Performance

Dr. Phillip Nyawere
Ag. Director - Research,
Innovation and Outreach

Kabarak University Moral Code

As members of Kabarak University family, we purpose at all times and in all places, to set apart in one's heart, Jesus as Lord.

(1 Peter 3:15)



Kabarak University is ISO 9001:2015 Certified



KABARAK UNIVERSITY

Certificate of Participation

Awarded to

NELSON NYANG'AU NGARE

For successfully participating in the 12th Annual Kabarak University International Research Conference held on 25th October 2022 and presented a paper entitled “*Relationship between Selected Student Motivation Cultures and Student Academic Achievement in Secondary Schools in Nakuru County, Kenya.*”

Conference Theme

21st Century issues and Practices in Education.

Prof. Frederick B.J.A Ngala
Dean, School of Education
& Director Music
Performance

Dr. Phillip Nyawere
Ag. Director - Research,
Innovation and Outreach

Kabarak University Moral Code

As members of Kabarak University family, we purpose at all times and in all places, to set apart in one's heart, Jesus as Lord.

(1 Peter 3:15)



Kabarak University is ISO 9001:2015 Certified

Appendix XIII: List of Publications

Editon Consortium Journal of Educational Management and Leadership [ISSN: 2709 - 1414]



Issue no: 1 | Vol no: 4 | November 2023: 213-227

Relationship between selected student motivation cultures and student academic achievement in secondary schools in Nakuru County, Kenya

Nelson Nyang'au Ngare⁽¹⁾

John N. Ochola⁽²⁾

Fredrick B. J. A. Ngala⁽³⁾

(1,2,3) Kabarak University, Kenya.

Main author email: nelngash@gmail.com

Article History

Received: 2023-08-23

Accepted: 2023-10-13

Published: 2023-11-16

Cite this article in APA

Ngare, N. N., Ochola, J. N., & Ngala, F. B. J. A. (2023). Relationship between selected student motivation cultures and student academic achievement in secondary schools In Nakuru County, Kenya. *Editon consortium journal of educational management and leadership*, 4(1), 213-227. <https://doi.org/10.51317/ecjmel.v4i1.425>

Abstract

This study investigated the relationship between selected student motivation cultures and academic achievement in secondary schools in Nakuru County, Kenya. The study adopted the descriptive survey design. The target population was comprised of all KCSE 2021 candidates and all principals of secondary schools in the County. The study used an outlier approach and the multistage sampling technique. The sample size consisted of 2214 students and 80 principals of schools. Data was collected using questionnaires and document analysis. Instruments were adapted for use after carrying out a test re-test procedure. Cronbach Alpha Coefficient of above 0.7 was obtained. Validity was ensured with the assistance of the supervisors. Data analysis was done using SPSS version 27 and was analysed using descriptive statistics (frequencies and percentages) and inferential statistics (Spearman rank correlations and Regression analysis). Quantitative results were presented in tables and qualitative results in prose. Private schools showed a stronger link between student motivation cultures and academic achievement than public schools. In high-achieving KCSE public and private secondary schools, the Spearman rank correlation analysis indicated a moderate positive correlation for public schools and a strong positive correlation for private schools between student motivation cultures and academic achievement. However, when assessing the relationship between student motivation cultures and student academic achievement in low-performing KCSE public and private secondary schools, the results differ. The study recommends that the school management should consider investing in student motivation cultures that enhance student academic achievement.

Key words: Academic achievement, cultures, school management, secondary schools, student motivation.



This article is distributed under the license of a [Creative Commons Attribution-Non Commercial-ShareAlike 4.0 International License](https://creativecommons.org/licenses/by-nc-sa/4.0/). It is permitted to be used, reproduced and distributed in line with Editon Consortium Publishing guidelines. The work without further permission provided the original work is attributed as specified on the SAGE and Open Access pages

213

Journal url: <https://www.editonpublishing.org/ecpj/>



Issue no: 1 | Vol no: 4 | November 2023: 376-389

Relationship between selected teaching cultures and student academic achievement in secondary schools in Nakuru County, Kenya

Nelson Nyang'au Ngare⁽¹⁾
John N. Ochola⁽²⁾
Fredrick B. J. A. Ngala⁽³⁾

(1,2,3) Kabarak University, Kenya
Main author email: nelngash@gmail.com

Article History
Received: 2023-08-10
Accepted: 2023-11-13
Published: 2023-11-17

Cite this article in APA

Ngare, N. N., Ochola, J. N., & Ngala, F. B. J. A. (2023). Relationship between selected teaching cultures and student academic achievement in secondary schools in Nakuru County, Kenya. *Editon consortium journal of curriculum and educational studies*, 4(1), 376-389. <https://doi.org/10.51317/ecjces.v4i1.426>

Abstract

The aim of this study was to find out the relationship between selected teaching cultures and academic achievement in the KCSE examination in secondary schools in Nakuru County, Kenya. This study was guided by the theories of educational productivity and organisational culture. The study adopted the descriptive survey design. The target population was comprised of all KCSE 2021 candidates and all principals of secondary schools in the county. The study used an outlier approach and a multistage sampling technique. The sample size consisted of 2214 students and 80 principals of schools. The study found a positive relationship between teaching cultures and student academic performance in both low and high-performing Kenyan schools. Low-performing schools showed a moderately positive correlation ($r = 0.450$, $p = 0.006$), while high-performing schools exhibited a notably strong positive correlation ($r = 0.846$, $p = 0.000$). This suggests that the impact of teaching culture on student academic achievement was more pronounced in high-performing schools. In public secondary schools, the correlation is moderately positive ($r = 0.458$), and in private secondary schools, it had a stronger positive correlation ($r = 0.724$), with both being statistically significant at the 0.05 level. The study recommends that the school management should among others: consider organising in-service training sessions to equip the teachers with appropriate skills on how to effectively embrace teaching cultures, consider reviewing policies geared towards enhancing the quality and relevance of teaching cultures employed in schools, put in place stringent supervisory procedures to ensure that teachers in schools that are not practicing some teaching cultures do so. They need to be encouraged and supported to prepare schemes of work, and lesson plans, as well as conduct remedial lessons for slow learners.

Key words: Educational institutions, KCSE examination, school culture, student academic achievement, teaching cultures.



This article is distributed under the license of a [Creative Commons Attribution-Non Commercial-ShareAlike 4.0 International License](https://creativecommons.org/licenses/by-nc-sa/4.0/). It is permitted to be used, reproduced and distributed in line with Editon Consortium Publishing guidelines. The work without further permission provided the original work is attributed as specified on the SAGE and Open Access pages

376

Journal url: <https://www.editonpublishing.org/ecpj/>