

THE INTERNATIONAL JOURNAL OF HUMANITIES & SOCIAL STUDIES

Students' Perception of Their School's Teaching and Learning Interactions and KCSE Performance in Public Secondary Schools of Kibwezi Sub -County, Makueni County, Kenya

Mwende Kimanthi

Tutorial Fellow, School of Education, Scott Christian University Machakos, Kenya

Dr. Sammy Linge

Lecturer, School of Education, Scott Christian University Machakos, Kenya

Dr. Jonathan Mwanja

Dean, School of Education, Scott Christian University Machakos, Kenya

Abstract:

The aim of this study was to establish the relationship between students' perception of their school's teaching and learning interactions and KCSE performance in public secondary schools of Kibwezi Sub -County, Makueni County. A descriptive survey design was used targeting all principals, heads of curriculum departments and KCSE graduates in the 61 secondary schools in Kibwezi Sub- County, Makueni County. Stratified sampling was used to select 12 schools, comprising 6 schools from the top performing category and 6 from the bottom performing category. Purposive sampling was used to select the informants. The study participants comprised 12 principals, 13 Heads of Curriculum departments and 12 KCSE graduate students in the 12 selected schools. The researcher used descriptive survey design for the study. Questionnaires, interview guide and document analysis were used as data collection instruments. Results from both the low and high performing schools were compared at the three categories of respondents. The study revealed that students from the high performing schools perceived the teaching and learning interactions employed in their schools to be collaborative and student centred. Similarly, the principals and the HODs in the high performing schools also agreed with the statements requiring them to indicate whether they employed collaborative and student centred teaching and learning interactions. T-test run on mean responses between the two groups revealed significant differences in favour of collaborative and student centred teaching and learning interactions. Students' positive perception of their school teaching and learning interactions relate to students' KCSE performance in public secondary schools. From the results, the study recommends that school administrators should be encouraged to improve on management of academic programmes by Interactive and student centred teaching and learning styles. In order to attain better in National exams, schools should ensure that appropriate teaching interactions that motivate students are put into place. The schools should also aim at developing feedback mechanisms to inform appropriate adjustments in the way the schools are run.

Keywords: *Students' perception, school's teaching and learning interactions, KCSE performance, public secondary schools*

1. Introduction

1.1. Background to the Study

Organizations are faced with more challenges than ever before. An organizational climate in a particular organization is constantly challenged by the increasing number of changes impacting on organizations today (Nair, 2006). If these changes are not managed appropriately by the organization, they could result in a change in the behaviour and perception of individuals employed in the organization, which could lead to interalia, decreased motivation and employee satisfaction, increased turnover and absenteeism and hence a decline in organizational performance (Gray, 2007).

To survive and out do their competitors, organizations constantly seek to improve their performance. The organizational climate in organizations is becoming more important than ever before because organizations need to ensure that those individuals who add value to their bottom line want to stay in the organization and want to continue pouring their effort into their work to the benefit of the organization (Brown & Leigh, 1996). Education system in Kenya has been stressing on performance as integral part of quality education emphasized in the Sessional Paper No.1 of 2005. The provision of quality education and subsequent high performance in school is inevitable for the realization of millennium development goals and the vision 2030. The value of performance was envisaged to lead to white collar jobs immediately after independence (Republic of Kenya, 1964). This is the time when the contribution of education to individual development was increasingly recognized, especially in trained man power. Hence, priority was accorded to the higher academic performance, economic growth and development.

National Rainbow Coalition (NARC) government in 2001 introduced free day secondary Education fund. It also established national secondary schools as centers of excellence in each constituency in Kenya. This was a move to enhance students' performance. The government funding in secondary schools is also intended to improve infrastructure, teaching and learning and subsequently performance in national examinations.

Free Secondary Education Policy in 2008 has reduced the cost of education, increased enrolment and reduced wealth biases in education. However, the rapid increase in enrolment required supplemental provision of facilities and extra man power in order to maintain quality through provision of conducive school climate by keeping teachers motivated, maintaining good learning environment, effective communication among school members and their involvement in decision making.

Everyone agrees that schools should have a positive school climate. There is less agreement, however, about what this means and how to accomplish it, especially when the call is for developing a safe and supportive environment that also is nurturing and caring and that provides all students with an equal opportunity to succeed.

1.2. Problem Statement

One question that has preoccupied researchers for decades is why some public schools perform well in examinations while others consistently perform poorly. A number of researchers, including Lezotte, Skaife and Holstead (2002), Kirk and Jones (2004), and Daggett (2005) have demonstrated that successful schools have unique characteristics and processes, which help all children to learn at high levels. A lot of research has focused on factors that contribute to high academic attainment such as learning resource material and physical environment. However, there is no evidence of studies that have focused on the critical role played by school social climate in academic attainment of public secondary schools in Kibwezi Sub- County. With secondary education being a basic requirement for selection into tertiary institutions (MoE, 2005), poor performance undermines students' chances of job placements and meaningful participation in development of the national economy. Kibwezi Sub-County has not witnessed good performance over the years. Makueni County where Kibwezi Sub-County is part of, has generally witnessed poor performance in the KCSE as shown in the table 1.1 below. School social climate may be one of the possible causes of the poor mean scores for the Sub -County.

Year	Kibwezi Sub- County Mean	County Mean	Expected Total Mean Score
2014	5.065	5.159	12
2013	4.944	5.036	12
2012	4	5.067	12
2011	4.929	5.145	12
2010	4.527	5.058	12
Overall mean score	4.693	5.093	12

Table 1: County and Sub-County KCSE Performance
Source: Makueni County Education Office

The table indicates that Kibwezi Sub-County average performance is lower than the County performance despite the fact that the sub-county receives similar subsidies just like the other Sub-Counties in the county. The Sub-County mean is also low compared to the expected total score. The study sought to find out whether there may be an underlying relationship between the schools' social climates and performance in the KCSE.

1.3. Objective of the Study

The objective of the study is to establish the relationship between students' perception of their school's teaching and learning interactions and KCSE performance in public secondary schools of Kibwezi Sub -County, Makueni County.

2. Literature Review

2.1. The Teaching and Learning Interaction

Teaching and learning represents one of the most important dimensions of school climate. School leaders and teachers should strive to clearly define the sets of norms, goals, and values that shape the learning and teaching environment. Research supports the notion that positive school climate promotes students' ability to learn. A positive school climate promotes cooperative learning, group cohesion, respect and mutual trust. These particular aspects have been shown to directly improve the learning environment (Ghaith, 2003; Kerr, Ireland, Lopes, Craig, & Cleaver, 2004; Finnan, Schnepel & Anderson, 2003).

Dillala and Mullineax (2008), in their study, found that there is a relationship between positive classroom climate and the social behaviour of pupils, viz., reduced bullying and conflict, together with greater cooperation and social competence. At the same time, Bishop and Glynn (2003) have noted that teachers become more effective with a diverse range of students who differ in their ability, learning style and culture when classroom environment is positive. Needless to say, this finding is particularly relevant to multi-cultural societies. Oconor and Bethel (2000), in their study on teacher behaviours and academic outcomes, discovered that there was a significant link between classroom climate and academic progress of students.

A study conducted on Hong Kong University students by Phan (2008) revealed that perceptions of an enjoyable classroom led to better mathematic achievement by students. The study also found that students engage in self-reflective

thinking and learning when their classroom environment was active and enjoyable. Mastery goals of students were linked to perceptions of an enjoyable class room climate.

According to Muleyi (2008), teachers do influence students' academic performance. School variables that affect students' academic performance include the kind of treatment which teachers accord the students. Odhiambo (2005) contends that there is a growing demand from the Kenya government and the public for teacher accountability. Schools are commonly evaluated using students' achievement data (Heck, 2009). Teachers cannot be dissociated from the schools they teach and academic results of their schools. It would therefore be logical to use standardized students' assessment results as the basis for judging the performance of teachers. Teachers celebrate and are rewarded when their schools and teaching subjects are highly ranked (Heck, 2009).

In Africa especially in Kenya, experience of facilitators was considered a school-based factor and a study done by Yambo & Tuitoek (2014) when he considered instructional leadership styles and principals' level of experience, contended that principals and teachers' experience in school is of paramount significance. In his study, 250 participants who responded pointed out that single largest factor affecting academic achievement of students in a school is the teaching experience and effectiveness of individual teachers. In this regard, Yambo (2012) argued that effective teacher, is a teacher whose students achieve larger gains. He added that in order to advance students' achievement, teachers and other staff must be professionally competent and experienced in instruction and assessment tools appropriate to the curriculum for their particular students. In addition, they must have high expectations of the students learning.

Researchers have also looked at the relationship between school climate and academic achievement in relation to student classroom participation. When students are encouraged to participate in academic learning, the potential for academic achievement increases (Voelkl, 1995). Teacher support is integral to student achievement. Research shows that the student-teacher relationship in kindergarten is related to later academic and behavioural outcomes for students (Hamre & Pianta, 2001). If a teacher-student relationship is negative and conflictual in kindergarten, it is more likely that the student will have behavioural and academic problems in later classes (Hamre & Pianta, 2001).

Also, teachers' interactions with students can directly affect students' behavioral and emotional engagement in the classroom (Skinner & Belmont, 1993). If teachers support and interact positively with students, then students are more likely to be engaged and behave appropriately (Skinner & Belmont, 1993). Implementing learning activities beyond the classroom is an effective way to incorporate civic education into a school and these activities, in turn, promote student learning. Encouraging active and collaborative learning through authentic projects is most effective in an environment with a civic mission that encourages trusting relationships between all members of the school community (Carnegie Corporation of New York & Center for Information and Research on Civic Learning and Education, 2003; Wentzel, 1997; Skinner & Chapman, 1999). Service learning projects promote civic education because these activities teach students how to apply classroom material to real life situations (Morgan & Streb, 2001; Bandura, 2001; Torney-Purta, Lehmann, Oswald, & Schulz, 2001). For example, activities like community service and debates enhance the learning environment by providing students opportunities to participate and begin forming their own opinions of social and government systems (Torney-Purta, 2002; Youniss et al., 2002).

Moreover, when these activities are presented in a collaborative environment, they encourage students to interact and build upon one another's ideas (Wentzel & Watkins, 2002; Ghaith, 2003). If students are given ownership and choice in their service learning projects, there is evidence that students' self-concept and tolerance for diversity will increase (Morgan & Streb, 2001). Furthermore, school climate influences how educators feel about being in school and how they teach. Recent research shows that school climate powerfully affects the lives of educators and teacher retention. School climate enhances or minimizes emotional exhaustion, depersonalization, and feelings of low personal accomplishment (Grayson & Alvarez, 2008) as well as attrition (Miller Brownell, & Smith, 1999). Research shows that when teachers feel supported by both the principal and their peers, teachers are more committed to their profession (Singh & Billingsley, 1998).

A positive school climate is also associated with the development of teachers' beliefs that they can positively affect student learning (Hoy & Woolfolk, 1993). Student engagement in school has been increasingly recognized as essential for successful learning in school (Fredricks, Blumenfeld & Paris, 2004). In order for students to learn the curriculum that is taught in schools, students must pay attention in class and put forth effort to complete their school assignments (Marks, 2000). Schunk and others (2008) summarized the importance of student engagement in school with the following passage: Motivation is an important quality that pervades all student activities. Motivated students display interest in activities, work diligently, feel self-confident, stick with tasks, and perform well... Given that motivation affects all aspects of schooling and contributes to students' school success; improving students' academic motivation is a worthwhile goal of schooling. (Schunk et al., 3)

Effective teaching and mentoring helps students to explore their world with a sense of trust and autonomy towards the ultimate goal of fully intrinsic self-regulation and improved academic achievement and success (Steven, 2005). Education reforms processes tend to maintain the classical scheme of incorporating teachers when the proposal has already been defined, counting teachers only as potential trainees and implementers, thus ignoring the importance of teachers' knowledge, experience and active participation in the reform process (Mbatia, 2004). The shortage of well-trained teacher was identified in the 1964 – 70 development plans as a major obstacle to achieving education for all. The plan emphasized the need of expanding teacher training facilities in order to reduce the number of untrained teachers and meet the demand of a rapidly expanding primary education system. It is necessary to develop a system of providing opportunities to teachers to undergo in-service courses on a continuous basis. Apart from increased enrolment, more children from different backgrounds will be going to school, thus more special needs and over-age children. In rural areas

more children from poor homes who may have been exposed to baby sitting and herding are likely to go to school. As a result, students' needs have increased and teachers will require new skills and knowledge (TSC Kenya, 2003).

A study conducted by Onyara (2013) on the school based factors affecting academic performance in public secondary schools in Teso indicates that learning style affects academic performance. This study pointed to the current situation in our schools whereby you find students liking some subjects as opposed to others or even some teachers as opposed to others due to the different learning styles used. The current study seeks to get to know how this variation in teaching and learning styles relates to KCSE performance.

3. Research Methodology

3.1. Research Design

The study used a descriptive survey design. This design was appropriate for this study because it will enhance the amount of quality information yielded. Descriptive designs focus on the phenomenon of interest, which according to this study, was to find out whether there might have been a relationship between quality of the level of relationships within the school and students' KCSE performance in public secondary schools of Kibwezi Sub- County, Makueni County.

3.2. Target Population

The study population from which the sample was drawn for the study consisted of 61 public secondary schools of Kibwezi Sub - County, Makueni County.

3.3. Sampling and Sample Size

This study used stratified random sampling because of the nature of the population of study and the behavioural pattern of the target population. Practically, to select schools from the county, average mean scores in the KCSE for 2010-2014 was used to identify good and poor performing schools. Schools with an average mean of 5.0 and above were classified as good while those with a mean of below 5.0 were classified as poor. Purposive sampling was used to choose the informants. The principals, heads of curriculum department and the KCSE graduate students were chosen based on this criterion. The principals are the supervisors in the schools; heads of curriculum departments monitor the academic progress and draw programmes on academics in the schools while the KCSE graduate students have gone through the school social climate in the school and have done their KCSE in it. These formed the basis for their selection.

3.4. Data Collection

Performance and school social climate data were collected from the informants and also from documents. Informants' data were collected using questionnaires and interview guides while data from documents was collected using document analysis.

3.5. Research Instruments

3.5.1. The Questionnaire

This study used questionnaire as the main guiding instrument to collect data from informants. Likert scale was used in this study for it is simple to construct, it is likely to produce a highly reliable scale and is easy to read and complete for participants³³. Respondents were requested to complete the questionnaires which were collected personally by the researcher from individual respondents. To avoid confusion in analyzing the collected data from the questionnaires, the questionnaires were marked as high or low to distinguish whether it is from a high or low performing category immediately they were returned by the respondents.

3.5.2. Interview Guide

Interview guide was used to clarify areas where the researcher would feel there was a deficiency of information. Structured interview questions were used to collect data from the school principals and heads of curriculum departments. This research instrument was suitable for this study because of its being economical, providing a safe basis for generalization and requiring relatively lesser skill on the part of the interviewer. Unstructured interview was also used.

3.5.3. Document Analysis

The researcher also used document analysis in the current study to derive data on issues in the school and how they were resolved and how people in the school related. Document analysis was also used to obtain data on the performance of the schools in the sub county. The benefit of using this method is that it is objective in nature.

4. Data Analysis, Interpretation and Discussion

4.1. Mean KCSE Performance of Sampled Schools

In order to ascertain the mean score for the schools sampled the study abstracted and analysed data from the school records and obtained results as shown in Table 2. From the school records, all schools categorized by the researcher as low performing schools had average mean scores of less than 5.0 while those categorised as high performing schools had mean scores of above 5.0.

Sampled Schools	2011	2012	2013	2014	2015	Average Mean
L1	3.34	3.36	4.33	4.28	4.29	3.92
L2	4.54	4.62	4.94	5.21	4.53	4.768
L3	3.7	3.72	4.06	4.64	4.84	4.192
L4	4.21	4.27	4.45	4.6	5.07	4.52
L5	4.74	4.61	4.81	5.31	4.95	4.884
L6	4.34	4.79	4.53	2.88	4.73	4.254
H1	6.37	6.47	6.86	7.41	7.38	6.898
H2	7.45	7.83	7.64	7.06	7.48	7.492
H3	7.58	7.49	7.92	8.6	8.58	8.034
H4	5.45	5.47	5.39	5.89	6.04	5.648
H5	5.57	5.46	6.78	6.52	5.27	5.92
H6	5.12	5.21	5.13	5.38	5.27	5.222

Table 2: Mean KCSE Performance for the Sampled Schools

4.2. Relationship between School Teaching and Learning Interactions and KCSE Performance

The study sought from the principals and the HODs their opinion on whether school teaching and learning interactions related to KCSE performance. From the study, 92% of the HODs and the Principals indicated that school teaching and learning interactions related to KCSE performance. The results were as shown in figure 4.1

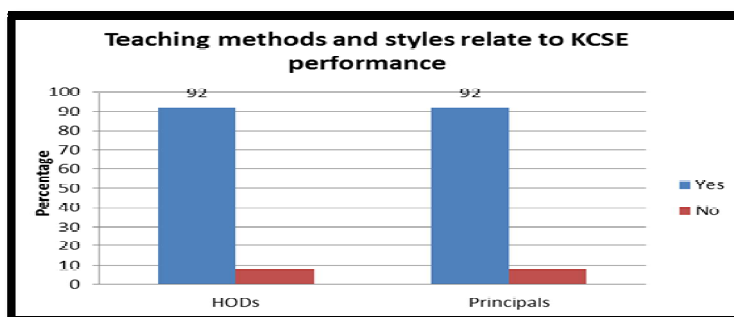


Figure 1: Relationship between Teaching and Learning Interactions and KCSE Performance

The study also investigated the learning and teaching interactions in both the low performing and high performing schools sampled. From the responses obtained, most students from the high performing schools sampled agreed to the statements indicating whether they employed interactive teaching and learning styles in their schools. The average for the responses were 33.9%, 15.0% and 1.1% for Agree, Undecided and Disagree respectively. The results were as shown in Table 3

	Agree		Undecided		Disagree	
	f	%	f	%	f	%
I perceive teaching and learning in the school positively	4	33.3	2	16.7	0	0.0
I cooperate with the teachers and other students during learning and teaching	6	50.0	0	0.0	0	0.0
I trust my teachers	4	33.3	2	16.7	0	0.0
Group activities by students in class are encouraged	2	16.7	3	25.0	1	8.3
Teachers and principal are positive about my success	6	50.0	0	0.0	0	0.0
I am rewarded on good performance	4	33.3	2	16.7	0	0.0
Assignments are marked promptly	3	25.0	3	25.0	0	0.0
I am given notes and assignments	5	41.7	1	8.3	0	0.0
I receive individual teacher attention	3	25.0	2	16.7	1	8.3
I can achieve the best out of the teaching and learning in the school	4	33.3	2	16.7	0	0.0
I am free to ask questions in class	4	33.3	2	16.7	0	0.0
I answer questions in class	4	33.3	2	16.7	0	0.0
Teaching time is well managed	4	33.3	2	16.7	0	0.0
I get the support I need to learn	4	33.3	2	16.7	0	0.0
I am guided on academic matters	4	33.3	2	16.7	0	0.0
Average		33.9		15.0		1.1

Table 3: Students from High Performing Schools on Teaching and Learning Interactions

On the other hand, responses from the students sampled from the low performing schools revealed average percentage responses of 17.2, Agree, 15.6 Undecided and 17.2 Disagree. The responses indicate less interactive teaching and learning in the low performing schools. The results were as shown in Table4

	Agree		Undecided		Disagree	
	f	(%)	f	(%)	f	(%)
I perceive teaching and learning in the school positively	1	8.3	2	16.7	3	25.0
I cooperate with the teachers and other students during learning and teaching	2	16.7	3	25.0	1	8.3
I trust my teachers	1	8.3	3	25.0	2	16.7
Group activities by students in class are encouraged	2	16.7	2	16.7	2	16.7
Teachers and principal are positive about my success	3	25.0	2	16.7	1	8.3
I am rewarded on good performance	3	25.0	0	0.0	3	25.0
Assignments are marked promptly	2	16.7	2	16.7	2	16.7
I am given notes and assignments	3	25.0	0	0.0	3	25.0
I receive individual teacher attention	1	8.3	1	8.3	4	33.3
I can achieve the best out of the teaching and learning in the school	0	0.0	2	16.7	4	33.3
I am free to ask questions in class	3	25.0	2	16.7	1	8.3
I answer questions in class	3	25.0	2	16.7	1	8.3
Teaching time is well managed	2	16.7	2	16.7	2	16.7
I get the support I need to learn	2	16.7	2	16.7	2	16.7
I am guided on academic matters	3	25.0	3	25.0	0	0.0
Average		17.2		15.6		17.2

Table 4: Students from Low Performing Schools on Teaching and Learning Interactions

Responses from the HODs indicated that most HODs from high performing schools agreed to the statements indicating whether they employed interactive teaching and learning in their schools. The average percentage for the responses were as follows, 39.0% Agreed, 6.3% were undecided while only 1.0% Disagreed. The results were as shown in Table 5

	Agree		Undecided		Disagree	
	f	(%)	f	(%)	f	(%)
Students perceive the teaching and learning in the school positively	5	38.5	1	7.7	0	0.0
There is cooperative learning during teaching and learning process	6	46.2	0	0.0	0	0.0
Students and teachers have mutual trust and respect during teaching and learning process	6	46.2	0	0.0	0	0.0
There is enough teaching time allocated for subjects	6	46.2	0	0.0	0	0.0
Group cohesion in teaching and learning activities is encouraged	5	38.5	1	7.7	0	0.0
Students are free to ask questions in class	4	30.8	1	7.7	1	7.7
The principal and teachers are positive about the students' success	6	46.2	0	0.0	0	0.0
Students can achieve their best from the teaching style used	3	23.1	3	23.1	0	0.0
Student individual attention by teachers is high	4	30.8	1	7.7	1	7.7
Teachers give students time to answer questions	6	46.2	0	0.0	0	0.0
Students support one another to learn	4	30.8	2	15.4	0	0.0
Students are guided on academic matters	6	46.2	0	0.0	0	0.0
Good class performance is rewarded	5	38.5	1	7.7	0	0.0
Teachers give students notes and assignments	6	46.2	0	0.0	0	0.0
Assignments given are marked promptly	5	38.5	1	7.7	0	0.0
Teaching time is well managed	4	30.8	2	15.4	0	0.0
		39.0		6.3		1.0

Table 5: HODs from High Performing Schools on Teaching and Learning Interactions

On the other hand, responses from the HODs from the low performing schools revealed average percentage responses of 26.0 who agreed, 18.8 Undecided and 9.1 for undecided. While the average values for the responses from the HODs were higher for those who agreed, the values are lower than those obtained from the HODs from high performing schools. The results were as presented in Table 6

	Agree		Undecided		Disagree	
	f	(%)	f	(%)	f	(%)
Students perceive the teaching and learning in the school positively	5	38.5	2	15.4	0	0.0
There is cooperative learning during teaching and learning process	4	30.8	2	15.4	1	7.7
Students and teachers have mutual trust and respect during teaching and learning process	3	23.1	3	23.1	1	7.7
There is enough teaching time allocated for subjects	3	23.1	3	23.1	1	7.7
Group cohesion in teaching and learning activities is encouraged	3	23.1	3	23.1	1	7.7
Students are free to ask questions in class	3	23.1	4	30.8	0	0.0
The principal and teachers are positive about the students' success	4	30.8	2	15.4	1	7.7
Students can achieve their best from the teaching style used	6	46.2	1	7.7	0	0.0
Student individual attention by teachers is high	2	15.4	2	15.4	3	23.1
Teachers give students time to answer questions	3	23.1	3	23.1	1	7.7
Students support one another to learn	1	7.7	5	38.5	1	7.7
Students are guided on academic matters	6	46.2	1	7.7	0	0.0
Good class performance is rewarded	2	15.4	3	23.1	2	15.4
Teachers give students notes and assignments	4	30.8	1	7.7	2	15.4
Assignments given are marked promptly	4	30.8	1	7.7	2	15.4
Teaching time is well managed	1	7.7	3	23.1	3	23.1
Average		26.0		18.8		9.1

Table 6: HODs from Low Performing Schools on Teaching and Learning Interactions

The study also sought responses from the school principals on the kind of teaching and learning employed in their respective schools. Of the school principals sampled from the high performing schools, an average percentage of 42.7 was obtained for those who agreed with the statements and about 1.6 for those who disagreed with the statements. The results were as shown in Table 7

	Agree		Undecided		Disagree	
	F	(%)	f	(%)	f	(%)
Students perceive the teaching and learning in the school positively	6	50.0	0	0.0	0	0.0
There is cooperative learning during teaching and learning process	6	50.0	0	0.0	0	0.0
Students and teachers have mutual trust and respect during teaching and learning process	5	41.7	1	8.3	0	0.0
There is enough teaching time allocated for subjects	6	50.0	0	0.0	0	0.0
Group cohesion in teaching and learning activities is encouraged	3	25.0	3	25.0	0	0.0
Students are free to ask questions in class	4	33.3	1	8.3	1	8.3
The principal and teachers are positive about the students' success	5	41.7	1	8.3	0	0.0
Students can achieve their best from the teaching style used	6	50.0	0	0.0	0	0.0
Student individual attention by teachers is high	5	41.7	0	0.0	1	8.3
Teachers give students time to answer questions	6	50.0	0	0.0	0	0.0
Students support one another to learn	5	41.7	1	8.3	0	0.0
Students are guided on academic matters	6	50.0	0	0.0	0	0.0
Good class performance is rewarded	4	33.3	2	16.7	0	0.0
Teachers give students notes and assignments	5	41.7	1	8.3	0	0.0
Assignments given are marked promptly	4	33.3	1	8.3	1	8.3
Teaching time is well managed	6	50.0	0	0.0	0	0.0
		42.7		5.7		1.6

Table 7: Principals from high performing schools on learning and teaching interactions

As per the responses from the school principals from the low performing schools sampled, the study revealed a lower average percentage response for those who agreed with the statements, 21.4 against 23.4 for the undecided. This finding indicate that most school principals sampled from the low performing schools were undecided on the statements

requiring them to indicate the teaching and learning interactions employed in their respective schools. Table 8 represent the responses.

	Agree		Undecided		Disagree	
	F	(%)	f	(%)	f	(%)
Students perceive the teaching and learning in the school positively	2	16.7	4	33.3	0	0.0
There is cooperative learning during teaching and learning process	3	25.0	3	25.0	0	0.0
Students and teachers have mutual trust and respect during teaching and learning process	4	33.3	2	16.7	0	0.0
There is enough teaching time allocated for subjects	4	33.3	1	8.3	1	8.3
Group cohesion in teaching and learning activities is encouraged	3	25.0	2	16.7	1	8.3
Students are free to ask questions in class	2	16.7	4	33.3	0	0.0
The principal and teachers are positive about the students' success	4	33.3	2	16.7	0	0.0
Students can achieve their best from the teaching style used	4	33.3	2	16.7	0	0.0
Student individual attention by teachers is high	1	8.3	3	25.0	2	16.7
Teachers give students time to answer questions	2	16.7	3	25.0	1	8.3
Students support one another to learn	2	16.7	3	25.0	1	8.3
Students are guided on academic matters	5	41.7	1	8.3	0	0.0
Good class performance is rewarded	1	8.3	3	25.0	2	16.7
Teachers give students notes and assignments	1	8.3	4	33.3	1	8.3
Assignments given are marked promptly	0	0.0	5	41.7	1	8.3
Teaching time is well managed	3	25.0	3	25.0	0	0.0
Average		21.4		23.4		5.2

Table 8: Principals from Low Performing Schools on Learning and Teaching Interactions

In order to ascertain the relationship between teaching and learning interactions in the schools sampled and student's KCSE performance, independent sample t- test was conducted. The t-tests revealed positive relationships between the teaching and learning interactions employed by schools and KCSE performance for all the categories of respondents sampled, $p=0.013$, 0.002 , 0.001 for students, principals and HODs respectively and $t= 3.006918$, 4.790429 and 4.818876 for students, principals and HODs respectively. The results were as shown in Table9

	School	N	Mean	Std. Dev	T	P
Students	Low	6	30	6.841053	3.006918	0.013187
	High	6	20.16667	4.167333		
Principals	Low	6	26.83333	3.188521	4.790429	0.002
	High	6	18.83333	2.562551		
HODs	Low	7	29	5.291503	4.818876	0.001
	High	6	17.83333	2.136976		

Table 9: Relationship between Teaching and Learning Interactions and KCSE Performance

From the interviews with both the principals and the Heads of Curriculum Departments, it emerged that schools need to employ student centred, interactive teaching and learning so as to ensure good performance. One of the principals indicated that;

Our school has not performed better over the years...but I would say that if we employed better teaching and learning styles then we can improve the results...the learning styles should be more learner centred...we should adopt more collaborative teaching, active/open communication, collaborative decision making(L 2)

The results of this study indicate that collaborative and student centred teaching and learning styles are perceived to improve KCSE performance. It is also evident from the study that low performing schools employ less of collaborative and student centred learning styles and this has a bearing on their KCSE performance. These findings affirm the study conducted on Hong Kong University students by Phan (2008) which revealed that perceptions of an enjoyable classroom led to better mathematic achievement by students. In the same study, aspects of collaborative learning including engagements in self-reflective thinking and learning in an active classroom environment was led to better performance.

5. Conclusions and Recommendations

5.1. Conclusion

From the findings of the study, the following conclusions were made: students from the high performing schools perceived the teaching and learning interactions employed in their schools to be collaborative and student centred. Similarly, the principals and the HODs in the high performing schools also agreed with the statements requiring them to indicate whether they employed collaborative and student centred teaching and learning interactions. This however was

not the case with the low performing schools. T-test run on mean responses between the two groups revealed significant differences in favour of collaborative and student centred teaching and learning interactions. Students' positive perception of their school teaching and learning interactions relate to students' KCSE performance in public secondary schools,

5.2. Recommendations

From the results of the study, the following recommendations were suggested for policy makers in the field of education to consider. School administrators should be encouraged to improve on management of academic programmes by Interactive and student-centred teaching and learning styles.

In this study only direct variables were considered. However, the study recommends further investigations into intervening variables which might also have an effect in KCSE performance.

The study was carried out in the rural schools of Makueni County; participants in the study might have projected a rural attitude inclination. This study recommends for similar study conducted in schools located in urban areas to compare attitude of students in rural and urban schools.

The findings of the study therefore imply that in order to attain better in National exams, schools should ensure that appropriate teaching interactions that motivate students are put into place. The schools should also aim at developing feedback mechanisms to inform appropriate adjustments in the way the schools are run.

6. References

- i. Bandura, A. (2001). Social cognitive theory: An agentic perspective. *Annual Review of Psychology*, 52, 1-26.
- ii. Bethel, C.F., & Oconor, F. (2000). The Primary and secondary schools Climate questionnaires psychometric properties, Links to teachers' behaviours and students outcomes and potential applications. NJ: Hay group.
- iii. Bishop, R., & Glynn, T. (2003). *Culture counts: Changing power relations in Education*, Basing stoke, UK Palgrave Macmillan.
- iv. Brown, S.P., & Leigh, T.W. (1996). A new look at psychological climate and its relationship to job involvement, effort and performance. *Journal of Applied Psychology*, 81(4), 358-368.
- v. Carnegie Corporation of New York and Center for Information and Research on Civic Learning and Education. (2003). *The civic mission of schools*. New York: Carnegie Corporation of New York.
- vi. Daggett, W. R. (2005). Successful schools: from research to action plans. Paper presented at June 2005 Model Schools Conference. Available online at: http://www.daggett.com/white_papers.html
- vii. Finnan, C., Schnepel, K., & Anderson, L. (2003). Powerful learning environments: the critical link between school and classroom cultures. *Journal of Education for Students Placed At Risk*, 8(4), 391-418.
- viii. Fredricks, J. A., Blumenfeld, P. C., & Paris, A. H. (2004). School engagement: Potential of the concept, state of the evidence. *Review of Educational Research*, 74, 59-109.
- ix. Ghaith, G. (2003). The relationship between forms of instruction, achievement and perceptions of classroom climate. *Educational Psychology*, 102, 483-496.
- x. Gray, R. (2007). *A Climate of Success: Creating the right organizational climate for high performance*. Amsterdam: Elsevier.
- xi. Grayson, J. L., & Alvarez, H. K. (2008). School climate factors relating to teacher burnout: A mediator model. *Teaching and Teacher Education*, 24(4), 1349-1363.
- xii. Hamre, B.K., & Pianta, R.C. (2001). Early teacher-child relationships and the trajectory of children's school outcomes through eighth-grade. *Child Development*, 72(2), 625-638.
- xiii. Heck, R.H. (2009). Teacher Effectiveness and Student Achievement. Investigating a Multilevel Cross-Classified Model. *Journal of Education Administration*, 7(22), 227-249.
- xiv. Hoy, W.K., & Woolfolk, A.E. (1993). Teachers' sense of efficacy and the organizational health of schools. *The Elementary School Journal*, 93, 355-372.
- xv. Kerr, D., Ireland, E., Lopes, J., Craig, R., & Cleaver, E. (2004). Citizenship education longitudinal study: Second annual report: First longitudinal study. National Foundation for Educational Research, 1-154. Retrieved June 12, 2007 from http://www.dfes.gov.uk/research/data/upload_files/RR531.pdf
- xvi. Kirk, D. J., & Jones, T. L. (2004). *Effective school's assessment report*. San Antonio, TX: Pearson Education.
- xvii. Lezotte, L. W., Skaife, R. D., & Holstead, M. D. (2002). *Effective schools – only you can make a difference*. Phoenix, AZ: All Star Publishing.
- xviii. Marks, H. M. (2000). Student engagement in instructional activity: patterns in the elementary, middle, and high school years. *Am Educ Res J*, 37(1), 153-184. <http://dx.doi.org/10.3102/00028312037001153>
- xix. Mbatia, P. (2004). *FPE Assessment, Report*. Nairobi: The Jomo Kenyatta. Aurora, CO: McREL.
- xx. Miller, D.M., Brownell, M.T., & Smith, S.W. (1999). Factors that predict teachers staying in, leaving, or transferring from the special education classroom. *Exceptional Children*, 65, 201-218.
- xxi. Morgan, W., & Streb, M. (2001). Building citizenship: How student voice in service-learning develops civic values. *Social Science Quarterly*, 82(1), 155-169.
- xxii. Muleyi, G. (2008). Effects of home factors and type of school on academic performance of Girls in Bungoma District (Unpublished M.Phil. Thesis). Moi University, Eldoret.
- xxiii. Nair, R. (2006). Climate studies and associated best practices to improve climate issues in the workplace. Paper presented at Women in Engineering Programs and Advocates Network, Pennsylvania.

- xxiv. Odhiambo, G. (2005). Elusive search for Quality Education. The Case of Quality Assurance and Teacher Accountability. *International Journal of Education Management*, 22(5), 417-431.
- xxv. Onyara, B. (2013) School Based factors influencing students' academic performance at Kenya Certificate of Secondary Education in Teso south district (Unpublished Master's Thesis). University of Nairobi, Kenya.
- xxvi. Phan, P.H. (2008). Achievement goals, the classroom environment and reflective thinking: A conceptual framework. *Journal of research in Educational Psychology* 6(3).571-602.
- xxvii. Republic of Kenya, (GOK), (2005). Sessional Paper No.1 on Policy Framework for Education, Training and Research, Nairobi; Government Printer.
- xxviii. Schunk, D. H., Pintrich, P. R., & Meece, J. L. (2008). *Motivation in education: Theory, research, and applications* (3rd Ed.). Upper Saddle River, NJ: Pearson/Merrill Prentice Hall.
- xxix. Singh, K., & Billingsley, B.S. (1998). Professional support and its effects on teachers' commitment. *The Journal of Educational Research*, 91(4), 229-239.
- xxx. Skinner, E. A., & Belmont, M. J. (1993). Motivation in the classroom: Reciprocal effects of teacher behavior and student engagement across the school year. *Journal of Educational Psychology*, 85, 571-581.
- xxxii. Skinner, R., & Chapman, C. (1999). *Service-learning and community service in K-12 public schools*. Washington, D.C.: National Center of Justice, Office of Justice Programs, Office of Juvenile Justice and Delinquency Prevention.
- xxxiii. Steven, J. (2005). The family school relation and the child's school performance *Child development* 58, 1348-1357.
- xxxiiii. Torney-Purta, J., Lehmann, R., Oswald, H., & Schulz, W. (2001). *Citizenship and education in twenty-eight countries*. Amsterdam: International Association for the Evaluation of Education Achievement. [Available: <http://www.wam.umd.edu/~iea/>]
- xxxv. Torney-Purta, J. (2002). The school's role in developing civic engagement: A study of adolescents in twenty-eight countries. *Applied Developmental Science*, 6(4), 203-212.
- xxxvi. Voelkl, K.A. (1995). School warmth, student participation, and achievement. *Journal of Experiential Education*, 63, 127-138.
- xxxvii. Wentzel, K.R., & Caldwell, K. (1997). Friendship, peer acceptance and group membership: Relations to academic achievement in middle school. *Child Development*, 68(6), 1198-1209.
- xxxviii. Wentzel, K.R., & Watkins, D.E. (2002). Peer relationships and collaborative learning as contexts for academic enablers. *School Psychology Review*, 31(3), 366-367.
- xxxix. Yambo, J.M.O. (2012). *Determinants of KCSE Examination Performance in SDA Sponsored Schools: a Key to Academic Promotion to the next Level of Learning*. Lambert Academic Publishing. Saarbrucken, Germany.
- xl. Yambo, J. M. O., & Tuitoek, J.K.F. (2014). Effects of Principals' Decision Making in the Management of Private of Private secondary schools in Kisumu District, Kenya. *International Journal of Academic Research in Progressive Education and Development*, June 2014, ISSN: 2226-6348 3(4)52-60.
- xli. Youniss, J., Bales, S., Christmas-Best, V., Diversi, M., McLaughlin, M., & Silbereisen, R. (2002). Youth civic engagement in the twenty-first century. *Journal of Research on Adolescence*, 12(1), 121-148.