School Climate and Its Influence on Public Secondary Schools' Performance in Mvomero District, Morogoro, Tanzania

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Authors' contributions

This work was carried out in collaboration between both authors. Author LLN designed the study, performed the statistical analysis, wrote the protocol and wrote the first draft of the manuscript. Author SMSM managed the analyses of the study, the literature searches and reviewed the first draft of the manuscript. Both authors read and approved the final manuscript.

Original Research Article

ABSTRACT

The study determined the school climate in eight public secondary schools and its relationship to students' academic achievement. The study employed quantitative approach within ex-post facto research design using three climate questionnaires for secondary schools and a sample of 160 teachers. The study revealed that the general climates of all schools were non-conducive or negative. In determining the relationship, the subtest of intimate teachers' behaviour indicated a strong positive significant correlation (r = 0.821) with division II and (r = 0.868) with division III. However, the frustrated teachers' behaviour subtest was significantly negatively correlated (r = -0.779) with division IV. The subtest of institutional integrity indicated a strong correlation (r = 0.887) with division IV, while initiating structure showed a strong positive correlation (r = 0.824) with division I, lastly, the subtests of headmaster/mistress influence and academic emphasis both indicated a strong significant (r = 0.848 and r = 0.860) correlations with division I and II, respectively. This study confirmed that, students' academic achievement is influenced by school climate. Therefore, school climates need to be conducive or positive for the survival and well-being of schools.

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1. INTRODUCTION

High quality education is important for development of any country, including Tanzania. However, there have been many problems related to the management, administration and supervision of secondary schools in Tanzania [1]. This resulted into poor academic performance. Students' performance in the Tanzania Certificate of Secondary Education Examination (CSEE) has been steadily declining in recent years. For instance, the pass rates in these examinations had fallen from 72.5% in 2009 to 50.4% in 2010, and then to an unprecedented low 5.9% [1], and then 34.5% in 2012 after the standardization [2]. This has been a concern in civil society and the government about what might be responsible for this and how to address it.

Several factors influence students' academic performance at various levels of education. These includes, teachers' working conditions, availability of teaching and learning facilities such as books and laboratories, school and home factors such as type of school and the educational climate at home and students' background factors [1]. School administration might influence some of factors while some it cannot. For example, in Tanzania, school administration has nothing to do in matters like the size and location specifics of a school, as the Ministry of Education in collaboration with the Local government authorities are responsible organs for such decisions. However, there are mechanisms that are manageable to some extent by school administration. One of these mechanisms is the general surrounding of an individual at work in an organization (school) that researchers have found to influence both employees' behaviour and work results (e.g. performance) of an organization or school [3].

There are several common terms that are used to refer to the general surrounding of an individual at work in an organization (i.e. school) or work place - "ecology", "milieu", "setting", "culture", "tone", "field", "health", "atmosphere", or "climate". They are all used to refer to internal quality of an organization as experienced by its members [4,5], but word "climate" seems to be the concept most frequently used. Organization (school) climate includes the institutional attributes that give an organization its personality [6].

Climate in an organization is built on individualistic perceptions aggregated as a group. Organizational climate is an experiential phenomenon based on how participants perceive the organizational environment [7], and the climate of school can be defined as the set of internal characteristics that distinguishes one school from another and influence the behaviour of its members [8]. Also school climate, is defined as a composite of variables in a school as perceived by members of the school, as well as actual observable school characteristics such as school libraries, laboratories, teachers' houses etc [1]. In fact, the climate of an organization may roughly be conceived as the "personality" of the organization; that is, climate is to organization as personality is to individual.

In this study, school climate is defined as a relatively enduring quality of the internal environment of a particular school that: (a) is experienced by the members (students, teachers, administrators, consultants and custodians), (b) influences their behaviour, and (c) can be described in terms of the values, norms and beliefs of a particular set of attributes of the school. This definition was adopted from Taguiri and Litwin [7]. Moreover, this definition implies that the study was concerned about the educational environment of the entire school.

Several studies have confirmed that school climate affects students' academic achievement [1,9] and revealed the connections between the school climate and variables associated with school effectiveness [8,10]. Recent studies have shown that, quality-learning environments are the central factor in students' academic performance. Information is, however, limited on the specific characteristics that constitute high quality schools [1]. The review further showed that both educational researchers and reformers have indeed concluded that school climate does influence the learning environments of the school and the performance of the students [1,11].

In light of the above context and background, this study was carried out to determine the type of school climate in eight secondary school and it's the relationship with students' academic achievements, using the academic performance in the 2013 CSEE as a measure of school

performance. Two null hypotheses were tested; (i) The secondary schools operate on a-conducive or positive school climate. (ii) There is no significant relationship between secondary school climate and school performance.

2. RESEARCH METHODOLOGY

2.1 Research Design, Methodology and Ethical Issues

This study used quantitative research approach in the *ex post facto* research design. Also known as *causal comparative* because its purpose is to investigate cause-and-effect relationships between variables of the study. Data were collected through questionnaire and document review. All ethical issues were taken abroad before and after the conduct of this study.

2.2 Data Collection

2.2.1 Measure of school climate

Three different questionnaires were used for collecting data regarding the assessment of organisational climate (school climate) [12]. Given all of the strategies that could be used to measure the climate of the schools, the Organizational Climate Descriptive Questionnaire (OCDQ-RS), Organization Health Inventory – For Secondary Schools (OHI-S) and Pupils Control Ideology (PCI) were selected because of their superiority in predicting students' achievement [8,13]. Use of organisational climate questionnaires in assessing the climate of an organisation seems to be an effective way than the other forms of data collection [9].

a) Organizational Climate Descriptive Questionnaire - For Secondary Schools (OCDQ-RS)

The OCDQ-RS is a 34-item climate instrument mapped with five dimensions describing the behaviour of secondary teachers and the headmaster/mistress. Each of these dimensions is measured by a subtest of the OCDQ-RS. The reliability scores for the scales are relatively high: Supportive (0.91), Directive (0.87), Engaged (0.85), Frustrated (0.85), and Intimate (0.71). The instrument measures two aspects of headmaster/mistress leadership (*supportive* and *directive* behaviour), and three aspects of teacher interactions-(*engaged, frustrated*, and *intimate* behaviour).

b) Organization Health Inventory – For Secondary Schools (OHI-S)

The Organizational Health Inventory for Secondary (OHI-S) is a 44-item instrument that maps the organizational health of secondary schools along seven dimensions. Each of these dimensions is measured by a subtest of the OHI-S. The liability scores for the OHI-S scales are also relatively high: Institutional Integrity (0.91), Initiating Structure (0.89), Consideration (0.90), Head master/mistress's Influence (0.87), Resource Support (0.95), Morale (0.92), and Academic Emphasis (0.93). The instrument measures three levels in a school; the technical level (teacher's *morale* and the *academic emphasis*) at the managerial level, the leadership and support of the head master/mistress (*consideration, initiating structure, influence with superiors, and resource support*). Finally, at the institutional level (*institutional integrity*).

c) Pupils Control Ideology (PCI)

The Pupils Control Ideology (PCI) is a 20 - item instrument that maps the school climate of student's classroom management on a continuum from humanistic at one extreme to custodial at the other. The reliability of the scale of PCI is consistently high-usually 0.80 - 0.91 [14,15]. Unlike the OCDQ-RS and OHI-S, the PCI is not specific for a particular level of learning (i.e. Primary or Secondary Schools). The focus of the PCI is to investigate the relationships between staff members and students. Humanistic schools are those where the members of the school community learn through cooperative interactions and experience [5]. In contrast, a school with strict rules is characterized by rigidity and strong sense of hierarch and is common to an institution with a custodial orientation.

2.2.2 Measure of school performance

There are several ways of conceptualizing the school performance [16]. However, because of the following reasons the scores in public or national examination were employed as performance criterion for Secondary Schools. First, previous studies used the mean public or national examination scores as central criterion for measuring the performance of schools [9]. Second, using the examination scores is rather objective and easily available method/means for comparing schools with one another. Third, in Tanzania, people perceive better schools are

those that perform well in Final National Exams and lastly, the public interest and on-going debate and discussions around the Form Four National examinations results in Tanzania.

2.3 Sampling Procedures, Samples Size and Data Collection

2.3.1 Sampling of schools

The population in this study comprises all secondary school in Mvomero District (n = 20). However, the study sample comprises only 40% of all secondary schools in the population, i.e. eight (08) secondary schools [12]. To select the schools in this study, only two divisions (Administrative authority) were considered, viz. Turiani and Mvomero, from each of these divisions, the participating schools were selected conveniently and purposively.

2.3.2 Sampling of respondents (teachers)

A purposive sampling strategy was used to select teachers given that they had two or more years of service in a selected school before the student sat for the form four national exams of 2013. In eight schools, 132 teachers were selected using a conventional sampling strategy with a 95% confidence level and a five (5) % confidence interval [17]. However, an overestimate on the size of the sample was done in order to build in redundancy [18]. Hence, the numbers of respondents included in the study were 160 teachers (i.e. 20 teachers from each school).

2.3.3 The conduct of questionnaire

The researcher spent 20-30 minutes at each school during their normal daily meeting informing the teachers about the study, asking for participation and explaining that participation will be voluntary. The surveys tools, (OCDQ-R, OHI-S and PCI) were only intended for a research to provide insight into climate within their schools. The respondents were given seven days to complete the questionnaires. After seven days, the researcher in personal collected the questionnaires.

2.4 Data Analyses

The analysis of the data was performed using Statistical Package for Social Science (SPSS) version 16. Both descriptive and inferential statistics were generated.

2.4.1 Descriptive statistics

To assess the school climate, the subtest mean scores from each school were calculated and converted to standardized scores. The current database on secondary schools used for standardization was drawn from a large, diverse sample of schools from New Jersey in United State of America. The school climate was described as *conducive or positive*, only if the school climate had two (i.e. 67%) or all three properties (open, healthy or humanistic) of the conducive or positive school climate. For the *non-conducive or negative* climate case, the school climate had two (i.e. 67%) or all three of the negative properties (close, unhealthy or custodial) of the non-conducive or negative school climate.

2.4.2 Inferential statistics

To explore the relationships among variables under the study, Product - moment (Bivariate) correlation was used. Product- moment (r) was deemed most suitable for describing the relationship between the variables, because – this statistical technique bears very small standard error than the other Bivariate correlation techniques [19]. The null hypotheses (H_0) were tested at a $p < 0.05$ level of significance.

3. RESULTS AND DISCUSSION

3.1 Demographic Information and Questionnaires Returning Rate

Out of the 480 questionnaires sent (i.e. 160 for OCDQ-RS, 160 for OHI-S and 160 for PCI) to teachers, only 217 (45.2%) questionnaires were returned completely filled. i.e. 74 questionnaires for OCDQ-RS, 72 questionnaires for OHI-S and 71 questionnaires for PCI. Out of 74 participants (teachers) included in this study, 30 were female and 44 were male. The majority of respondents (79.7%) were aged between 25-34 years. Of the remaining respondents (12.2%) were aged between 24 years and below, 5.4% of the respondents were aged between 35-44 years, and the remaining (2.7%) respondent, one was aged between 45-54 years and another had the age between 55 years and above.

The majority (70.3 %) of the participants in the study started teaching at their respective schools in the year 2010. Therefore, they had more than 2 years of service in those schools. Of the remaining participants, thirteen (13) had 3-4 years of service, five (05) had 4-7 years, two (02) had 8-10 years, and one (01) had worked at a certain secondary school for 16 years, and one did not respond to the question. In addition, participants of this study included 45 graduates who had Bachelor degree (Education); 27 had Diploma in Secondary education; one had both a Diploma in Secondary education and a Bachelor of Arts in Public Administration. One person marked "other", had a Bachelor of Arts in Rural Development. The respondents (teachers) were teachers by profession except one respondent who had a Bachelor of Arts in Rural Development.

3.2 School Climate in Mvomero District

The first null hypothesis (*Ho*) was rejected, as the climates of individual schools and general climate of all eight secondary schools involved in this study were described as *non-conducive* or *negative*. This is because the climate consists of all the three elements (*close, unhealthy and custodial*) of non-conducive or negative school climate (Hoy *et al.,* 1991). The mean score levels on all the types of climate measure were 406 (Closed) for OCDQ-RS, 439 (Unhealthy) for OHI-S and 64.4 (Custodial) for PCI respectively.

The climate measured by OCDQ-RS in all eight schools was perceived as close climate, except the climate of school number five (05) which was described as open climate (Table 1). According to Hoy [13], a closed climate always is characterized by followings. The headmaster / mistress's leaderships were controlling and rigid (high directiveness) as well as unsympathetic and unresponsive (low supportiveness). Likewise, the teachers' support is not open and non-professional behaviour (low engagedness) among them. In addition, the teachers in Mvomero district find the working environment or settings frustrating rather than facilitating (high frustrating). In addition, teachers lack respect for their colleagues as well as the administration (low intimacy). In brief, the headmaster/mistress and teacher's relations are disengaged, frustrating, distant, suspicious, and not professional. Such schools are characterized by people going through motions, without concern for the overall purpose of the institution [13].

The school healthy or climate, measured by OHI-S, in all eight schools was described as *unhealthy;* except school number two which had *healthy climate* (Table 1). The unhealthy schools are known to be vulnerable to destructive outside forces [20]. According to Hoy [13], unhealthy climate is characteristics by; first, teachers and administrators are bombarded by unreasonable parental demands, and the school is buffeted by the whims of the public (low institutional integrity), teachers also feel unsecured and living in un-autonomous school.

Secondly, the headmaster/mistress provides little direction or structure to his or her subordinates (low initiating structure), and exhibits little encouragement and support for teachers (low consideration), and has little influence with superiors (low influence). Teachers feel neither good about their colleagues nor their jobs. They act aloof, suspiciously, and defensively (low morale). Instructional materials, supplies, and supplementary materials are not available when needed (low resource support). Finally, there is very little press or emphasis for academic excellence. Teachers and students are not taking academic life seriously; in fact, academically oriented students are ridiculed by their peers and viewed by their teachers as threats (low academic emphasis).

The school climate measured by PCI ranged from 60 to 68.5, with an average of 64.4 (Table 2). All secondary schools in Mvomero scored higher than 50 on the PCI form. Therefore, these schools seem to be rigidly traditional and hence serve as a model for the *custodial orientation* [14]. Moreover, such schools always provide a highly controlled setting concerned primarily with the maintenance of order [13,14]. Students are stereotyped in terms of their appearance, behaviour, and parents' social status. Teachers do not attempt to understand student misbehaviour; they view misbehaviour as bad and believe that irresponsible and undisciplined persons should be controlled through punitive sanctions [14]. Watchful mistrust and autocratic control are the critical aspects of a custodial perspective.

The findings from this study on school climate concur with the study done on the working environment on government secondary school [9]. Previous studies have shown that government schools appeared to have negative or poor school working environment when compared to non-governmental (religious based and private) owned secondary school [1,21].

Table 1. The standadised scores and climate/health index of all eight school measured by OHI-S[1] and OCDQ-RS[2]

School number	Standardised Scores for OHI-S[1]							Healthy index	Classification
	Institutional integrity	Initiating structure	Consideration	Headmaster/ mistress Influence	Resource Support	Morale	Academic Emphasis		
01	489	371	365	559	362	564	350	447	Unhealthy
02	525	476	603	520	460	565	513	523	**Healthy**
03	398	371	341	480	393	384	459	404	Unhealthy
04	441	357	299	501	426	503	416	420	Unhealthy
05	396	370	342	590	390	380	452	419	Unhealthy
06	416	387	404	510	261	455	457	413	Unhealthy
07	448	412	416	524	393	536	592	474	Unhealthy
08	485	453	262	496	305	349	567	417	Unhealthy
Mean Climate	450	400	379	523	374	467	476	**439**	**Unhealthy**
School number	Standardised Scores for OCDQ-RS[2]							Openness index	Classification
	Supportive	Directive	Engaged	Frustrated	Intimate				
01	315	717	18	447	364			292	Closed Climate
02	502	637	489	526	755			457	Closed Climate
03	380	591	196	545	486			360	Closed Climate
04	418	733	258	521	617			356	Closed Climate
05	497	515	845	337	618			623	**Open Climate**
06	371	632	354	477	603			406	Closed Climate
07	357	738	580	476	699			430	Closed Climate
08	342	691	163	505	692			335	Closed Climate
Mean Climate	398	657	363	479	604			**406**	**Closed Climate**

[1]*OHI-S = Organizational Health Inventory for Secondary School; *[2]*OCDQ-RS = Organizational Climate Descriptive Questionnaire for Secondary*

Table 2. Mean score and continuum of PCI[1] for all eight schools

School number	01	02	03	04	05	06	07	08	All Schools
Mean Score	60	66.8	63.1	68.3	63.3	64	61.1	68.5	64.4
Continuum Classification (Humanistic/ Custodial)	Custodial	Custodial	Custodial	Custodial	Custodial	Custodial	Custodial	Custodial	Custodial

[1]*PCI = Pupil Control Ideology*

3.3 Relationship between School Climate and School Performance

Nine hundred and forty-two (942) students in all eight secondary schools sat for the national form four examinations in 2013. However, the results of 256 students were withheld while the results of the remaining (686) were displayed on the NECTA webpage. Only 7.1% of students had a chance of progressing for further studies (division I, II and III), the rest (92.9%) were categorized as failed in all eight secondary schools. However, based on the NECTA classifications, only 25.8% of students who sat for CSEE in 2013 in all eight schools were declared as having passed because they were found in the score range of division I to division IV, and the rest (74.2%) scored division zero and were declared as failure ones.

The second null hypothesis (*Ho*) was rejected. School climate determines the school performance. The relationship between school climate and secondary school performance showed that the subtests of intimate teachers' behaviour, frustrated teachers' behaviour, initiating structure, academic emphasis, institution integrity and headmaster/mistress influence as school climate subtests do influence the school performance or division categories. These subtests were significantly correlated ($p < 0.05$ or $p < 0.01$) with division categories. However, all of these subtests were from the OCDQ-RS and the OHI-S. Therefore, *non-conducive* or *negative* school climate will lead to poor school performance and vice versa [13].

Three significant correlations exist between the climate subtest of OCDQ-RS and division categories (Table 3). First, the subtest of intimate teachers' behaviour indicated a statistically high strong positive correlation ($p < 0.05$) with division II. Secondly, if a significant factor of $p < 0.01$ were chosen, Division III would also have had strong positive significant correlation with intimate subtest. The score on intimate subtest is very high (Table 1), this indicates that, in these schools there is strong and cohesive network of social relationships among the staff members (teachers). In addition, teachers know each other well, are close friends, and regularly socialize together, the level of student academic achievement is a higher [9,13].

Lastly, the frustrated teachers' behaviour subtest was significantly ($p < 0.05$) negatively correlated with Division IV. The score on frustrated teachers' behaviour subtest is slightly below average (Table 1). However, this value is still high regarding the impact of this subtest on the students' learning environment. While the relationship does not show causation, it does indicate that in schools where there is a pattern of interference from both administration and colleagues, this distract teachers from the basic task of teaching. Routine duties and assigned nonteaching duties are excessive; moreover, teachers irritate, annoy and interrupt each other, and the level of academic achievement for students is always poor [9,13].

One subtest of OCDQ-RS was not significant correlated with division categories despite of having moderate strong positive relationships with division categories. The reason for insignificance might be due to small number of respondents. Therefore, when $r > 0.6$ and significance level falls within $0.05 < p < 0.1$, then the relationship was considered important in this study. The engaged teachers' behaviour subtest was related with division III ($r = 0.662$ at $p = 0.074$). While this relationship is not considered statistically significant at $p < 0.05$ or 0.01 and does not show causation, it does indicate that in such schools, teachers are proud of their school, enjoy working with each other, and are supportive of their colleagues. Teachers are committed to the success of their students, they are friendly with students, trust students, and are optimistic about the ability of students to succeed; schools with these characteristics always have higher students' academic performance [9,13].

There is a substantial body of literature indicating that the students' academic achievement is significantly related the school climate assessed by OCDQ [8]. The findings of this study concur with the study done by Sweetland and Hoy [22]. These researchers assessed the climate of 86 middle schools in New Jersey by using OCDQ and revealed a significant relationship between engaged teachers' behaviour, intimate teacher behaviour, frustrated teachers and performance (students' academic achievement) and teacher empowerment. Students' academic achievement and teacher empowerment are the elements of effective schools [22]. Hoy [3] tested the OCDQ-RS to determine the school effectiveness (High School Proficiency Test). The HSPT is a statewide test, which analyses academic performance in reading, writing and mathematics [23]. Only one OCDQ-RS variable, teacher frustration was related to academic achievement

[23]. The correlation between teacher frustration and academic achievement was negative with an r correlation of - 0.31 and a p factor of less than 0.01 [23].

In school climate measured by OHI-S, there were four significant correlations ($p < 0.05$ or $p < 0.01$) that exist between the OHI-S subtests and School Performance (division categories) (Table 2). First, the subtest of *initiating structure* showed a strong correlation with division II. This relationship has an intuitive appeal that is, in schools where the headmaster/mistress makes his or her attitudes and expectations clear to the staff members (teachers), and maintain definite standards of performance, the academic achievements is always high. Secondly, if a significant factor of $p < 0.01$ were chosen, Division II would also have had strong positive significance correlation with the subtest of *academic emphasis*. While not a sign of causality, this relationship has intuitive appeal because the stronger the press in the school for academic achievement the higher the number of students in division II category.

Third, the subtest of *headmaster/mistress influence* indicated significant correlation ($p < 0.01$) with division I. This indicates schools where the headmaster/mistress has an ability to affect the actions of superiors. The influential headmaster / mistress is persuasive, works effectively with the superintendent, and simultaneously demonstrates independence in thought and action. Schools with these characteristics have higher academic achievements [13]. Lastly, the subtest of *institution integrity* was significantly related ($p < 0.05$) with division IV, respectively. This indicates that, in non-autonomous schools, the schools are vulnerable to narrow, stakes of community groups. Indeed, teachers are not protected from unreasonable community and parental demands. Table 1 shows the average score on institutional integrity is 450 (below average), as such in these schools, the pass rate will always be poor or low.

While not significant, three moderately strong positive relationships exist between school climate assessed by OHI-S and division categories. The reason for non-significance might be due to small number of respondents. Therefore, when $r > 0.6$ and significance levels falls within $0.05 < p < 0.1$, then the relationships that bear these characteristics were considered important in this study. First, academic emphasis is related, at a moderate level, to the division III, as $r = 0.675$ at $p = 0.066$ level of significance. While this relationship is not considered statistically significant and does not show causation, it does indicate the schools where higher but achievable goals are set for students, the learning environment is orderly and serious; obviously, the academic performance is high.

Table 3. Correlation[1] between Climate Sub Tests of OCDQ-RS[2], OHI[3], PCI[4] and Division Categories obtained at CSEE in 2013

OCDQ-RS[2]	Division Categories at CSEE in 2013				
	I	II	III	IV	0
Supportive	-0.289	0.284	0.483	0.382	0.182
Directive	0.534	-0.027	-0.218	-0.295	-0.197
Engaged	-0.203	0.527	0.662	0.407	-0.009
Frustrated	0.153	-0.119	-0.287	-0.779*	0.188
Intimate	0.197	0.821*	0.868**	-0.016	0.178
OHI[3]					
Institutional Integrity	0.067	0.113	0.194	0.887**	-0.111
Initiating Structure	0.694	0.824*	0.630	0.053	0.416
Consideration	0.336	0.372	0.277	0.264	0.682
Headmaster/mistress Influence	0.848**	0.406	0.182	0.230	0.276
Resource Support	0.098	0.050	-0.098	-0.004	-0.270
Morale	0.444	-0.041	-0.172	0.237	0.255
Academic Emphasis	0.392	0.860**	0.675	-0.294	-0.022
PCI[4]					
Humanistic	-	-	-	-	-
Custodial	-0.041	0.261	0.433	-0.186	0.089

*Significant at p < 0.05 (2 tail); **Significant at p < 0.01 (2 tail); [1]Pearson Correlation (r) with N = 8
[2]OCDQ-RS = Organizational Climate Descriptive Questionnaire for Secondary; [3]OHI-S = Organizational Health Inventory for Secondary School; [4]PCI = Pupil Control Ideology

Secondly, initiation structure is related to division I, as r = 0.694 at p = 0.056 level of significance and division III, as r = 0.630 at p = 0.094 level of significance. While the relationship is not considered statistically significant, it does indicate school where the head master/mistress makes his or her attitudes and expectations clear to the staff members (teachers) and maintain definite standards of performance, the pass rate always is high. Finally, the subtest of consideration is related to division IV, as r = 0.682 at p = 0.062 level of significance. While the relationship is not statistically significant, it does indicate the school where teachers experience headmaster/mistress's behaviour that is not friendly, unsupportive, and non-collegial. The headmaster/mistress's does not look out for the welfare of staff members and is not open to their suggestions (Low consideration). Table 1 shows the average score is 379 (very low consideration), as such in these schools, the pass rate will always be poor.

Several findings supported our results when OHI-S was used as climate measure. Hoy and Hannum [8] and Brown [9] supported the relationship between school climate (assessed by OHI) and students' academic achievement. The general school health (climate) was positively related to student achievement in Mathematics, reading, and writing [8]. In addition, the results from this study agreed with the results of the study conducted in Indianapolis, Indiana in the USA. The Organisational Health Inventory (OHI) was used to collecting data for assessing the climate of 45 elementary schools. The analysis indicated high correlation level of academic emphasis - the subtest of school climate and the students' academic achievement in reading and mathematics [18]. Brown [9] found that the levels of institutional integrity and academic emphasis on the OHI-E in schools were positively and significantly associated with the school performance (students' academic achievement).

Hoy [23] tested the OHI-S to determine the school effectiveness (High School Proficiency Test). Three of the subtest of OHI-S, institutional integrity, resource allocation and academic emphasis were correlated with academic achievement. These observations concur with our study, which shows the correlation between institutional integrity and academic emphasis. According to Hoy [23], the correlation between institutional integrity and academic achievement was negative (r = -0.34, p < 0.01) correlated. They suggested that the negative relationship between institution integrity and academic achievement results from the fact that teachers receive more pressure from parents in a higher achieving school [23]. A school that has higher institutional integrity, and is less influenced by outside pressure, will actually have higher achievement and vice versa. The correlation between resource allocation and academic achievement was positive (r = 0.33, p < 0.01). The correlation between academic emphasis and academic achievement was negative (r = -0.63, p < 0.01) correlated. These findings are not surprising. Greater resources, more academic emphasis and less teacher frustration lead to higher student achievement.

For school climate measured by PCI. There were no significant correlations (p < 0.05 or p > 0.01) between PCI sub tests and division categories. In addition, only one subtest (custodial orientation) dominated the whole climate measured using PCI. While that relationship was not considered statistically significant, it does indicate that schools that had a highly controlled setting concerned primarily with the maintenance of order, teachers view misbehaviour as bad and believe that irresponsible and undisciplined persons should be controlled through punitive sanctions (custodial orientations), the academic performance is always poor.

4. CONCLUSIONS

This study has revealed that the type of school climate that dominated in the study area is *non-conducive* or *negative* as perceived by the teachers. Indeed it is possible to improve school climate if the Heads of school are trained on what is expected of them. The findings of this study indicate that there is a significant relationship between climate subtests of the OCDQ-RS and OHI-S with school performance in terms of division categories (division I, II, III, IV and 0). Therefore, if climate of schools does not become positive or conducive and foster the better learning environment, the public secondary schools in Tanzania will not thrive. The positive or conducive climate in schools is inevitable [13].

ETHICAL APPROVAL

All ethical issues were taken abroad before and after the conduct of this study.

COMPETING INTERESTS

Authors have declared that no competing interests exist.

REFERENCES

1. HakiElimu. Does School Environment affects student achievement? An Investigation into the relationship between secondary schools characteristics and academic performance in Tanzania. In: HakiElimu Annual Report, Dar es Salaam-Tanzania; 2013.

2. United Republic of Tanzania - URT. Basic Education Statistics in Tanzania (BEST) 2007-2012, Revised National Data. Dar es Salaam: Ministry of Education and Vocational Training; 2012.

3. Hoy WK, Tarter CJ, Bliss J. Organizational climate, school health and effectiveness. Educational Administration Quarterly. 1990;26:260-279.

4. Miles M. Planned change in organizational health. In: Organizational and Human behaviour (Edited by Carver, F. D and Sergiovanni, T.J). McGraw Hill, New York. 1969;375-391.

5. Hoy WK, Forsyth PB. Effective supervision, theory into practice. Random House, New York. 1986;350.

6. Bulach CR, Lunenburg FC, McCallon R. The influence of the Principal's Leadership style on school climate and student achievement. People in Education. 1995; 3(3):333-350.

7. Taguiri R. The concept of organizational climate. In: Organizational Climate: Explorations of a concept. (Edited by Taguiri, R and Litevin, G. W), Boston: Division of Research, graduate School of Business Administration, Harvard University. 1968;1-32.

8. Hoy WK, Hannum JW. Middle school climate: An empirical Assessment of organizational health and student achievement. Educational Administration Quarterly. 1997;33(3):290-311.

9. Browne MM. A study of relationships between organizational climate and School performance in New Jersey Urban Elementary Schools: A Thesis for Award of Degree of Doctor of Education at Seton Hall University, USA; 2002.

10. Esposito C. Learning in urban blight: School climate and its effect on School performance of urban, minority, low-income children. School Psychology Review. 1999;28(3):365-377.

11. Bossert ST. School effects. In: Handbook of research on Educational Administration. (Edited by Boyan, N). Praeger, New York. 1988;341-352.

12. Nkuba LL. The influence of school climate on secondary schools' performance in Mvomero District, Morogoro, Tanzania: Master's Thesis, The Open University of Tanzania; 2015.

13. Hoy WK, Tarter CJ, Kottkamp RB. Open schools/healthy schools: Measuring organizational climate. Sage, Beverly Hills, CA. 1991;173.

14. Willower DJ, Eidell TL, Hoy WK. The school and pupil control University Park, PA: The Pennsylvania State University; 1967.

15. Packard JS. The pupil control studies. In: Handbook of Research on Educational administration. (Edited by Boyan, N.J), Longman, New York. 1988;185-207.

16. Heistad D, Spicuzza R. Measuring School Performance to improve Student achievement and to reward effective programs. Paper presented on Educational Research Association. 24-28 April 2000. New Orleans, LA; 2000.

17. Cohen L, Manion L, Morrison K. Research Methods in Education. (6 Eds.) Routledge Publisher, 270 Madison Avenue, New York. 2007;638.

18. Goddard RD, Sweetland SR, Hoy WK. Academic emphasis of urban elementary schools and students achievement in reading and Mathematics: A multilevel analysis. Educational Administration Quarterly. 2000;36(5):683-702.

19. Anastasi A. Psychological testing. Macmillan Publishing Company, New York. 1990;320.

20. Hoy WK, Tarter CJ. The road to open and healthy schools: A handbook for change, Elementary Edition. Corwin Press, Thousand Oaks, CA. 1997;320.

21. Mkumbo KAK. Factors associated with teachers' motivation and Commitment to teach in Tanzania. Journal of Educational Science and Psychology. 2013;65(1): 58-71.

22. Sweetland SR, Hoy WK. School characteristics and educational outcomes: Toward and organizational model of student achievement in Middle schools. Educational Administration Quarterly. 2000;36(5):703-729.

23. Hoy WK, Tarter CJ, Bliss JR. Organizational Climate, School Health, and Effectiveness: A Comparative Analysis: Administrative and Instructional Leadership. School of Education, St John's University; 1990a.