Original Research Article

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

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.

1.0. 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.

41 Several factors influence students' academic performance at various levels of education.

42 These includes, teachers' working conditions, availability of teaching and learning facilities

43 such as books and laboratories, school and home factors such as type of school and the

44 educational climate at home and students' background factors [1]. School administration

45 might influence some of factors while some it cannot. For example, in Tanzania, school

46 administration has nothing to do in matters like the size and location specifics of a school, as

47 the Ministry of Education in collaboration with the Local government authorities are

48 responsible organs for such decisions. However, there are mechanisms that are manageable to

49 some extent by school administration. One of these mechanisms is the general surrounding of

50 an individual at work in an organization (school) that researchers have found to influence both

51 employees' behaviour and work results (e.g. performance) of an organization or school [3].

52

53 There are several common terms that are used to refer to the general surrounding of an

54 individual at work in an organization (i.e. school) or work place - "ecology", "milieu",

55 "setting", "culture", "tone", "field", "health", "atmosphere", or "climate". They are all used

56 to refer to internal quality of an organization as experienced by its members [4, 5], but word

57 "climate" seems to be the concept most frequently used. Organization (school) climate

58 includes the institutional attributes that give an organization its personality [6].

59

60 Climate in an organization is built on individualistic perceptions aggregated as a group.

61 Organizational climate is an experiential phenomenon based on how participants perceive the

62 organizational environment [7], and the climate of school can be defined as the set of internal

63 characteristics that distinguishes one school from another and influence the behaviour of its

64 members [8]. Also school climate, is defined as a composite of variables in a school as

65 perceived by members of the school, as well as actual observable school characteristics such

66 as school libraries, laboratories, teachers' houses etc [1]. In fact, the climate of an

67 organization may roughly be conceived as the "personality" of the organization; that is,

68 climate is to organization as personality is to individual.

69

70 In this study, school climate is defined as a relatively enduring quality of the internal

71 environment of a particular school that: (a) is experienced by the members (students, teachers,

72 administrators, consultants and custodians), (b) influences their behaviour, and (c) can be

73 described in terms of the values, norms and beliefs of a particular set of attributes of the

74 school. This definition was adopted from Taguiri and Litwin [7]. Moreover, this definition

75 implies that the study was concerned about the educational environment of the entire school.

76

77 Several studies have confirmed that school climate affects students' academic achievement [1,

78 9] and revealed the connections between the school climate and variables associated with

79 school effectiveness [8, 10]. Recent studies have shown that, quality-learning environments

80 are the central factor in students' academic performance. Information is, however, limited on

81 the specific characteristics that constitute high quality schools [1]. The review further showed

82 that both educational researchers and reformers have indeed concluded that school climate

83 does influence the learning environments of the school and the performance of the students [1,

84 11].

85

86 In light of the above context and background, this study was carried out to determine the type

87 of school climate in eight secondary school and it's the relationship with students' academic

88 achievements, using the academic performance in the 2013 CSEE as a measure of school

89 performance. Two null hypotheses were tested; (i) The secondary schools operate on a-

90 conducive or positive school climate. (ii) There is no significant relationship between

91 secondary school climate and school performance.

92

93

94 **2.0. RESEARCH METHODOLOGY**

95 **2.1. Research Design, Methodology and Ethical Issues**

96 This study used quantitative research approach in the *ex post facto* research design. Also

97 known as *causal comparative* because its purpose is to investigate cause-and-effect

98 relationships between variables of the study. Data were collected through questionnaire and

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

100

101 **2.2. Data Collection**

102 **2.2.1 Measure of School Climate**

103 Three different questionnaires were used for collecting data regarding the assessment of

104 organisational climate (school climate) [12]. Given all of the strategies that could be used to

105 measure the climate of the schools, the Organizational Climate Descriptive Questionnaire

106 (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

140 school with strict rules is characterized by rigidity and strong sense of hierarch and is
141 common to an institution with a custodial orientation.

142

143 **2.2.2. Measure of School Performance**

144 There are several ways of conceptualizing the school performance [16]. However, because of
145 the following reasons the scores in public or national examination were employed as
146 performance criterion for Secondary Schools. First, previous studies used the mean public or
147 national examination scores as central criterion for measuring the performance of schools [9].
148 Second, using the examination scores is rather objective and easily available method/means
149 for comparing schools with one another. Third, in Tanzania, people perceive better schools
150 are those that perform well in Final National Exams and lastly, the public interest and on-
151 going debate and discussions around the Form Four National examinations results in
152 Tanzania.

153

154 **2.3. Sampling Procedures, Samples Size and Data collection**

155 **2.3.1. Sampling of Schools**

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

161

162 **2.3.2. Sampling of Respondents (Teachers)**

163 A purposive sampling strategy was used to select teachers given that they had two or more
164 years of service in a selected school before the student sat for the national form four exams of
165 2013. In eight schools, 132 teachers were selected using a conventional sampling strategy
166 with a 95 % confidence level and a five (5) % confidence interval [18]. However, an
167 overestimate on the size of the sample was done in order to build in redundancy. Hence, the
168 numbers of respondents included in the study were 160 teachers (i.e. 20 teachers from each
169 school).

170

171 **2.3.3. The conduct of Questionnaire**

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

178
179 **2.4. Data Analyses**
180 The analysis of the data was performed using Statistical Package for Social Science (SPSS)
181 version 16. Both descriptive and inferential statistics were generated.

182
183 **2.4.1. Descriptive Statistics**
184 To assess the school climate, the subtest mean scores from each school were calculated and
185 converted to standardized scores. The current database on secondary schools used for
186 standardization was drawn from a large, diverse sample of schools from New Jersey in United
187 State of America. The school climate was described as *conducive or positive*, only if the
188 school climate had two (i.e. 67 %) or all three properties (open, healthy or humanistic) of the
189 conducive or positive school climate. For the *non-conducive or negative* climate case, the
190 school climate had two (i.e. 67 %) or all three of the negative properties (close, unhealthy or
191 custodial) of the non-conducive or negative school climate.

192
193 **2.4.2. Inferential Statistics**
194 To explore the relationships among variables under the study, Product - moment (Bivariate)
195 correlation was used. Product- moment (r) was deemed most suitable for describing the
196 relationship between the variables, because – this statistical technique bears very small
197 standard error than the other Bivariate correlation techniques [18]. The null hypotheses (H_0)
198 were tested at a $p < 0.05$ level of significance.

199
200 **3.0. RESULTS AND DISCUSSION**
201 **3.1. Demographic Information and Questionnaires Returning Rate**
202 Out of the 480 questionnaires sent (i.e. 160 for OCDQ-RS, 160 for OHI-S and 160 for PCI) to
203 teachers, only 217 (45.2%) questionnaires were returned completely filled. i.e. 74
204 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

238 the administration (low intimacy). In brief, the headmaster/mistress and teacher's relations are

239 disengaged, frustrating, distant, suspicious, and not professional. Such schools are

240 characterized by people going through motions, without concern for the overall purpose of the

241 institution [13].

242

243 The school healthy or climate, measured by OHI-S, in all eight schools was described as

244 *unhealthy;* except school number two which had *healthy climate* (Table 1). The unhealthy

245 schools are known to be vulnerable to destructive outside forces [19]. According to Hoy [13],

246 unhealthy climate is characteristics by; first, teachers and administrators are bombarded by

247 unreasonable parental demands, and the school is buffeted by the whims of the public (low

248 institutional integrity), teachers also feel unsecured and living in un-autonomous school.

249

250 **Table 1:** The Standadised Scores and Climate/Health Index of all Eight School Measured by

251 OHI-S[1] and OCDQ-RS[2]

252

School Number	Standardised Scores for OHI-S[1]							Healthy Index	Classification
	Institutional Integrity	Initiating Structure	Considera tion	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**

School Number									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

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).

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

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

276 undisciplined persons should be controlled through punitive sanctions [14]. Watchful mistrust

277 and autocratic control are the critical aspects of a custodial perspective.

278

279 The findings from this study on school climate concur with the study done on the working

280 environment on government secondary school [9]. Previous studies have shown that

281 government schools appeared to have negative or poor school working environment when

282 compared to non-governmental (religious based and private) owned secondary school [1, 20].

283

284 **3.3. Relationship between School Climate and School Performance**

285 Nine hundred and forty-two (942) students in all eight secondary schools sat for the national

286 form four examinations in 2013. However, the results of 256 students were withheld while the

287 results of the remaining (686) were displayed on the NECTA webpage. Only 7.1 % of

288 students had a chance of progressing for further studies (division I, II and III), the rest (92.9

289 %) were categorized as failed in all eight secondary schools. However, based on the NECTA

290 classifications, only 25.8 % of students who sat for CSEE in 2013 in all eight schools were

291 declared as having passed because they were found in the score range of division I to division

292 IV, and the rest (74.2 %) scored division zero and were declared as failure ones.

293

294 The second null hypothesis (*Ho*) was rejected. School climate determines the school

295 performance. The relationship between school climate and secondary school performance

296 showed that the subtests of intimate teachers' behaviour, frustrated teachers' behaviour,

297 initiating structure, academic emphasis, institution integrity and headmaster/mistress influence

298 as school climate subtests do influence the school performance or division categories. These

299 subtests were significantly correlated ($p < 0.05$ or $p < 0.01$) with division categories.

300 However, all of these subtests were from the OCDQ-RS and the OHI-S. Therefore, *non-*

301 *conducive* or *negative* school climate will lead to poor school performance and vice versa

302 [13].

303

304 Three significant correlations exist between the climate subtest of OCDQ-RS and division

305 categories (Table 3). First, the subtest of intimate teachers' behaviour indicated a statistically

306 high strong positive correlation ($p < 0.05$) with division II. Secondly, if a significant factor of

307 $p < 0.01$ were chosen, Division III would also have had strong positive significant correlation

308 with intimate subtest. The score on intimate subtest is very high (Table 1), this indicates that,

309 in these schools there is strong and cohesive network of social relationships among the staff
310 members (teachers). In addition, teachers know each other well, are close friends, and
311 regularly socialize together, the level of student academic achievement is a higher [9, 13].

312

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

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

323

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

324 *Significant at $p < 0.05$ (2 tail)
325 **Significant at $p < 0.01$ (2 tail)
326 [1]Pearson Correlation (r) with N = 8
327 [2]OCDQ-RS = Organizational Climate Descriptive Questionnaire for Secondary
328 [3]OHI-S = Organizational Health Inventory for Secondary School
329 [4]PCI = Pupil Control Ideology

330 One subtest of OCDQ-RS was not significant correlated with division categories despite of
331 having moderate strong positive relationships with division categories. The reason for
332 insignificance might be due to small number of respondents. Therefore, when r > 0.6 and
333 significance level falls within $0.05 < p < 0.1$, then the relationship was considered important
334 in this study. The engaged teachers' behaviour subtest was related with division III (r = 0.662
335 at p = 0.074). While this relationship is not considered statistically significant at $p < 0.05$ or
336 0.01 and does not show causation, it does indicate that in such schools, teachers are proud of
337 their school, enjoy working with each other, and are supportive of their colleagues. Teachers
338 are committed to the success of their students, they are friendly with students, trust students,
339 and are optimistic about the ability of students to succeed; schools with these characteristics
340 always have higher students' academic performance [9, 13].
341 There is a substantial body of literature indicating that the students' academic achievement is
342 significantly related the school climate assessed by OCDQ [8]. The findings of this study
343 concur with the study done by Sweetland and Hoy [20]. These researchers assessed the
344 climate of 86 middle schools in New Jersey by using OCDQ and revealed a significant
345 relationship between engaged teachers' behaviour, intimate teacher behaviour, frustrated
346 teachers and performance (students' academic achievement) and teacher empowerment.
347 Students' academic achievement and teacher empowerment are the elements of effective
348 schools [21]. Hoy [3] tested the OCDQ-RS to determine the school effectiveness (High
349 School Proficiency Test). The HSPT is a statewide test, which analyses academic
350 performance in reading, writing and mathematics [22]. Only one OCDQ-RS variable, teacher
351 frustration was related to academic achievement [22]. The correlation between teacher
352 frustration and academic achievement was negative with an r correlation of - 0.31 and a p
353 factor of less than 0.01 [22].

354

355 In school climate measured by OHI-S, there were four significant correlations ($p < 0.05$ or $p <$
356 0.01) that exist between the OHI-S subtests and School Performance (division categories)
357 (Table 2). First, the subtest of *initiating structure* showed a strong correlation with division II.
358 This relationship has an intuitive appeal that is, in schools where the headmaster/mistress
359 makes his or her attitudes and expectations clear to the staff members (teachers), and maintain
360 definite standards of performance, the academic achievements is always high. Secondly, if a
361 significant factor of $p < 0.01$ were chosen, Division II would also have had strong positive
362 significance correlation with the subtest of *academic emphasis*. While not a sign of causality,

363   this relationship has intuitive appeal because the stronger the press in the school for academic

364   achievement the higher the number of students in division II category.

365

366   Third, the subtest of *headmaster/mistress influence* indicated significant correlation ($p < 0.01$)

367   with division I. This indicates schools where the headmaster/mistress has an ability to affect

368   the actions of superiors. The influential headmaster/mistress is persuasive, works effectively

369   with the superintendent, and simultaneously demonstrates independence in thought and

370   action. Schools with these characteristics have higher academic achievements [13]. Lastly, the

371   subtest of *institution integrity* was significantly related ($p < 0.05$) with division IV,

372   respectively. This indicates that, in non-autonomous schools, the schools are vulnerable to

373   narrow, stakes of community groups. Indeed, teachers are not protected from unreasonable

374   community and parental demands. Table 1 shows the average score on institutional integrity is

375   450 (below average), as such in these schools, the pass rate will always be poor or low.

376

377   While not significant, three moderately strong positive relationships exist between school

378   climate assessed by OHI-S and division categories. The reason for non-significance might be

379   due to small number of respondents. Therefore, when $r > 0.6$ and significance levels falls

380   within $0.05 < p < 0.1$, then the relationships that bear these characteristics were considered

381   important in this study. First, academic emphasis is related, at a moderate level, to the division

382   III, as $r = 0.675$ at $p = 0.066$ level of significance. While this relationship is not considered

383   statistically significant and does not show causation, it does indicate the schools where higher

384   but achievable goals are set for students, the learning environment is orderly and serious;

385   obviously, the academic performance is high.

386

387   Secondly, initiation structure is related to division I, as $r = 0.694$ at $p = 0.056$ level of

388   significance and division III, as $r = 0.630$ at $p = 0.094$ level of significance. While the

389   relationship is not considered statistically significant, it does indicate school where the head

390   master/mistress makes his or her attitudes and expectations clear to the staff members

391   (teachers) and maintain definite standards of performance, the pass rate always is high.

392   Finally, the subtest of consideration is related to division IV, as $r = 0.682$ at $p = 0.062$ level of

393   significance. While the relationship is not statistically significant, it does indicate the school

394   where teachers experience headmaster/mistress's behaviour that is not friendly, unsupportive,

395   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 [23]. 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 [22] 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 [22], 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 [22]. 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

429   orientation) dominated the whole climate measured using PCI. While that relationship was not
430   considered statistically significant, it does indicate that schools that had a highly controlled
431   setting concerned primarily with the maintenance of order, teachers view misbehaviour as bad
432   and believe that irresponsible and undisciplined persons should be controlled through punitive
433   sanctions (custodial orientations), the academic performance is always poor.
434

435   **4.0. CONCLUSIONS**
436   This study has revealed that the type of school climate that dominated in the study area is *non-*
437   *conducive* or *negative* as perceived by the teachers. Indeed it is possible to improve school
438   climate if the Heads of school are trained on what is expected of them. The findings of this
439   study indicate that there is a significant relationship between climate subtests of the OCDQ-
440   RS and OHI-S with school performance in terms of division categories (division I, II, III, IV
441   and 0). Therefore, if climate of schools does not become positive or conducive and foster the
442   better learning environment, the public secondary schools in Tanzania will not thrive. The
443   positive or conducive climate in schools is inevitable [13].
444

445   **COMPETING INTERESTS**
446   The author declares that there are no competing interests regarding the publication of this
447   paper.
448

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