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Classroom Climate At The Higher Secondary Stage

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ABSTRACT

In the present study efforts have been made to study the influences of classroom climate on academic achievement of higher secondary students. Sample of four hundred students selected from various higher secondary schools located in Vellore District of Tamilnadu. Survey method adopted for data collection. Descriptive and inferential analyses are used to test the hypotheses. The findings revealed moderate level of classroom climate found in the schools. And no significant gender differences were observed in (i) physical climate; (ii) physiological climate and (iii) academic achievement.

KEYWORDS: Classroom Climate, Higher Secondary Stage

Introduction

Quality of education has determined by the climate of the classroom. The structural and functional characteristics of classroom climate play in the smooth functioning of the class and its pupils. The physical and physiological characteristics interact to produce a climate that can be significant to both the individual and the classroom. The individual in a classroom setting becomes the environment of one another. The general atmosphere of a classroom may be characterized in many ways. That is, a classroom climate may be competitive rather than non-competitive, restrictive rather than permissive, and elitist rather than universal in orientation. These properties will express themselves the physical facilities, presence and use of instructional aids, teacher-teaching approaches, learner-learning process, teacher-pupil relationship and classroom management in a classroom.

The Education Commission (1964-1966) has rightly pointed out in its report that destiny of India is being shaped in her classrooms. The shape undoubtedly, will depend on the activities in the classroom and how it goes. A well organized classroom with suitable teaching aids and methods can achieve better results.

According to Lawson et al. (2010), students and teachers bring into schools and classrooms their relationships and states of well-being, all of which have a powerful impact on teaching and learning.

Definition of Classroom Climate

Classroom climate has defined as the mood or atmosphere created by a teacher in her/his classroom, the way the teacher interacts with pupils, and the way the physical environment is set out (Mujis & Reynold, 2011) which supports and promotes students’ success (Hunt et al., 2009).

Classification of Classroom Climate

The classroom climate is classified into two major groups, they are:

1. Physical climate
2. Physiological climate

Physical climate is divided into two dimensions and physiological climate is further divided into five dimensions. They are as follows:

1. Physical Climate
   The factors and forces that influence passively the phenomena of the classroom are called structural climate or physical climate. The dimensions of physical climate are:
   i. Situation and facility
   ii. Instructional aids.

2. Physiological Climate
   The factors and forces that influence activities of the phenomena of the classroom are called physiological climate or functional climate.

The dimensions of physiological climate are:

i. Teacher and teaching
ii. Utilisation of instructional aids
iii. Learner and learning
iv. Teacher – pupil relationship
v. Classroom management

Angelika Anderson et al. (2004) stated that classroom climate is significantly related to all of the measures of motivation to learning.

Need and Importance of the Study:

An ideal classroom is having the more constraints and difficulties in India like developing countries. We should identify the conditions necessary to influence the classroom setting. The interaction of the factors that take place in the classroom plays an important role as the classroom is a hub of interaction network in a particular way. This interaction forms the basis for the prevailing environment in any classroom. The environment provides a network of forces and factors which play on the individual of any classroom. Some individual may resist this network and some rare individuals completely avoid or escape from these forces. The environment is a shaping and reinforcing forces which acts on the individual’s learning. At the same time every individual becomes the part or the component of the environment. It is an imperative to consider the interaction between the teacher and the pupil, teaching and learning, availability and utilization of instructional aids, discipline control, situation and facility available etc. It is believed that the different climate will have different effect on the achievement of pupils. That is, if one moves from classroom to classroom he/she finds that conditions differ. Hence, the investigator has chosen the present problem.

Statement of the Problem:

Identification of the conditions of the classroom setting is necessarily influence the students’ achievement and character. The factors in the classroom that take place a vital role in students’ classroom performance and behaviour in a particular way. This interaction forms the basis for the prevailing environment in any classroom. In this paper, the present investigation entitled as “CLASSROOM CLIMATE AT THE HIGHER SECONDARY STAGE”.

Objectives:

The objectives of the present study are as follows:

1. To find out the level of classroom climate of higher secondary students.
2. To find out whether there is any significant difference in physical climate of higher secondary students with respect to gender.
3. To find out whether there is any significant difference in physiological climate of higher secondary students with respect to gender.
4. To find out whether there is any significant difference in academic achievement of higher secondary students with respect to gender.
Hypotheses:
The following are the hypotheses of this study:

1. The level of classroom climate of higher secondary students is high.
2. There is no significant difference in physical climate of higher secondary students with respect to gender.
3. There is no significant difference in physiological climate of higher secondary students with respect to gender.
4. There is no significant difference in academic achievement of higher secondary students with respect to gender.

Research Design:
Survey method is adopted by the researchers.

Population:
The population of this study comprises of the first year higher secondary students studying in the higher secondary schools at Vellore District of Tamilnadu.

Sample and Sampling Procedure:
Four hundred standard XI Biology students randomly selected from the higher secondary schools located in Vellore District of Tamilnadu State.

Instruments Used:
The following tools were used in the present study:
1. Personal Data Sheet developed by the researchers.
3. Achievement Test in Biology developed and validated by the researchers.

Data Analysis:
Descriptive and inferential analysis were made to compute the data and to verify the hypotheses formulated in this study by using the Statistical Package for the Social Sciences (SPSS).

Results:

Table 1: Level of classroom climate of higher secondary students.

<table>
<thead>
<tr>
<th>Level of Classroom Climate</th>
<th>Frequency</th>
<th>Percent</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>115</td>
<td>28.8</td>
</tr>
<tr>
<td>Moderate</td>
<td>175</td>
<td>43.8</td>
</tr>
<tr>
<td>High</td>
<td>110</td>
<td>27.4</td>
</tr>
<tr>
<td>Total</td>
<td>400</td>
<td>100</td>
</tr>
</tbody>
</table>

From the above table, it is observed that 43.8% of higher secondary students (N=400) involved in the present study have moderate level of classroom climate, 28.8% of them have low level of classroom climate and the remaining 27.4% have high level of classroom climate.

Table 2: Mean, SD and t-value on physical climate of the classroom of higher secondary students with respect to Gender.

<table>
<thead>
<tr>
<th>Gender</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>190</td>
<td>6.34</td>
<td>3.13</td>
<td>0.378*</td>
</tr>
<tr>
<td>Female</td>
<td>210</td>
<td>6.46</td>
<td>3.10</td>
<td></td>
</tr>
</tbody>
</table>

Note: * Not significant at 0.05 level.

From the above table, there is no significant difference is noted in physical climate of higher secondary students with respect to gender at 0.05 level.

Table 3: Mean, SD and t-value on physiological climate of the classroom of higher secondary students with respect to Gender.

<table>
<thead>
<tr>
<th>Gender</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>190</td>
<td>16.68</td>
<td>6.73</td>
<td>0.211*</td>
</tr>
<tr>
<td>Female</td>
<td>210</td>
<td>16.54</td>
<td>7.10</td>
<td></td>
</tr>
</tbody>
</table>

Note: * Not significant at 0.05 level.

From the above table, there is no significant difference is noted in physiological climate of higher secondary students with respect to gender at 0.05 level.

Table 4: Mean, SD and t-value on academic achievement of higher secondary students with respect to Gender.

<table>
<thead>
<tr>
<th>Gender</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>130</td>
<td>755.15</td>
<td>89.04</td>
<td>0.260*</td>
</tr>
<tr>
<td>Female</td>
<td>270</td>
<td>752.62</td>
<td>87.56</td>
<td></td>
</tr>
</tbody>
</table>

From the above table, there is no significant difference is noted in academic achievement of higher secondary students with respect to gender at 0.05 level.

Major Findings:
From the analysis, the following findings are observed:

1. Table - 1 reveals that among higher secondary students, 43.8% of them are having moderate level of classroom climate, 27.4% of them are having high level classroom climate and the remaining 28.8% of them are having low level of classroom climate.

2. Table - 2 reveals that no significant difference is observed as the obtained t-value (0.378) is lesser than the table value at 0.05 level. Therefore, it is inferred that there exists no significant difference between the boys and girls of higher secondary students in their physical climate of the classroom.

3. From Table - 3, no significant difference is observed as the obtained t-value (0.211) is lesser than the table value at 0.05 level. Therefore, it is inferred that there exists no significant difference between the boys and girls of higher secondary students in their physiological climate of the classroom.

4. From Table - 4, no significant difference is observed as the obtained t-value (0.260) is lesser than the table value at 0.05 level. Therefore, it is inferred that there exists no significant difference between the boys and girls of higher secondary students in their academic achievement.

Discussion and Conclusion:
Present study was intended to know the status of classroom climate of higher secondary schools and the academic achievement of higher secondary students. Based on the findings, the level of classroom climate was moderate in nature. Soni (2005) found low level of classroom climate. No significant gender differences observed in the present study. The similar finding are observed by Aleida Gillen et al (2011); Sundararajan and Rajasekar (1993) and Huy Phans (2008). However, it was contradicted by the finding of Michelle L Peters (2003), he observed significant difference with respect to gender, although boys reported higher mean score than girls. Ajinshillings and Sharma (2005) observed the classroom factors play major role in affecting the students' academic performance. Achievement of students in the class is not only influenced by the motivation of the teachers but also by a positive climate. A classroom is a unique place marked by interpersonal relationship among its members. This interpersonal relationship precisely acknowledges the teacher-student relationship and the peer relationship (Chamundeswar and Uma, 2008). Ram Swaroop Vishwakarma (2008) observed the school environment increases the academic achievement of boys and girls. Teachers should try to create positive and congenial classroom climate and to make involve the parents who are unable to be actively involved in the classroom throughout the school day. A positive classroom envi-
environment is an important tool for establishing a successful and effective school year. There are numerous factors that may have an influence on positive classroom environments. However, it is critical that teachers create a positive classroom environment to encourage students’ growth. A positive classroom environment enhances the students’ ability to learn and to be productive in and out of the classroom.

REFERENCES

National Conference on
PROMOTING NEW TRENDS IN CLASSROOM CLIMATE
FOR THE TEACHERS AND STUDENTS
IN EDUCATIONAL INSTITUTIONS

22nd & 23rd March 2014

Dr. P. Karthikeyan,
M.E., M.B.A., M.C.A., M.Sc.,
M.A., M.Ed., B.T.I.Sc., M.Phil(Phy), M.Phil(Edu), Ph.D.

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Ph: 04181 - 222 689, E-mail: srceconference@gmail.com
INFLUENCE OF CLASSROOM CLIMATE ON ACHIEVEMENT AMONG HIGHER SECONDARY STUDENTS

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P. Thamil Selvi, & A. Swaminathan, Ph.D., Research Scholars, SCSVMV University, Kancheepuram.

Introduction
A full-fledged and well-organized classroom with appropriate instructional aids, teaching methods, influence of teacher personality and insist on value education has direct and cumulative impact on the classroom climate. Teacher has a multifaceted role and act as a friend, philosopher, facilitator and a guide. Teacher competencies, mastery of subject matter, physical and health status, personal attributes, emotional control, and understanding of student psychology bring favourable classroom environment. The continued professional training, cultural improvement and good parenting actively play their role to form the good classroom climate.

The Indian Education Commission (1964-1966) has aptly stated in its report that destiny of India is being shaped in her classrooms. The shape undoubtedly, will depend on the activities in the classroom and how does it go. A well organized classroom with suitable teaching aids and methods can achieve better results. At the beginning of the year teachers have the goal of establishing a good classroom environment that is favourable for helping all students work co-operatively in order to learn. The classroom environment can either improve or impede a student's ability to learn and feel safe and comfortable as a member of the class. Classrooms encourage emotional well-being that creates an atmosphere for both learning and emotional development. Educational research supports creating a conducive atmosphere of mutual respect, where students feel relaxed in asking questions and expressing their thoughts, views and feelings (Stronge, 2002). Some areas to consider when creating an atmosphere of mutual respect are classroom design, classroom procedures, and classroom strategies. Implementing a few strategies that addresses these areas can help to develop a strong sense of community and encourage positive interactions and cooperative learning for students with and without disabilities. A warm classroom environment can lead to increased academic achievement and a sense of pride and belonging in the school (Bucholz, J. L., and Sheffler, J. L. 2009). According to Scott et al, (2008) admirable, warm and inviting classroom; all areas of the classroom accessible to all children, and the walls with charming colours and decorations help to make the students feel comfortable.

Need and Importance of the Study:
One of the first things a teacher does at the beginning of the school year is organise, arrange, and decorate the classroom. The physical environment of a classroom plays a part in the belongingness of students feel about their school and more specifically their class. The classroom environment should do as much as to foster co-operation and acceptance as the instructional method the teacher uses. Children are sensitive to the atmosphere created in the classroom. They have a high regard to the classroom
that is easily accessible to all. Conducive classroom environment makes fearless, emotionally stable student community as well as the higher performance in the learning process. Further, only less number of students pursues the higher studies after their higher secondary education and majority of them loosing the higher education necessarily required for them. Therefore, it will be meaningful to get a clear idea regarding the extent of the students’ achievement and their classroom condition to know how it will control the students’ higher education process.

Definition of Classroom Climate:
Learning takes place in a structured situation is called classroom; where through certain procedures for formal learning is achieved. The Classroom is not a mere aggregate of pupils. The classroom is a place exposed to our society’s ways and values. The term climate has been variously understood in many ways as ‘the zeal’, ‘the atmosphere’, ‘the environment’, ‘the conditions prevailing’ and ‘the tone of institution’. Classroom climate can be considered as a product of the dynamic inter-relationship between the collective needs of the participants and the system maintenance requirements of the classroom.

Classification of Classroom Climate:
The classroom climate is classified into two major groups;
1. Physical climate, and
2. Physiological climate
Physical climate is divided into two dimensions and physiological climate is further divided into five dimensions. They are as follows:

1. Physical Climate
The factors and forces that influence passively the phenomena of the classroom are called structural climate or physical climate.

Dimensions of physical climate
1. Situation and facility
2. Instructional aids

2. Physiological Climate
The factors and forces that influence activities of the phenomena of the classroom are called physiological climate or functional climate.

Dimensions of physiological climate
1. Teacher and teaching
2. Utilisation of instructional aids
3. Learner and learning
4. Teacher-pupil relationship
5. Classroom management

Statement of the Problem:
The present study is entitled as “Influence of Classroom Climate on Achievement among Higher Secondary Students”.

Objectives:
The objectives of the present study are as follows:
1. To find out the level of classroom climate of higher secondary schools.

2. To find out the level of academic achievement of higher secondary students.

3. To find out whether there is any significant difference in conditions of the overall classroom climate of the higher secondary schools with respect to gender

4. To find out whether there is any significant difference in academic achievement of the higher secondary students with respect to gender.
Hypotheses:
The following are the hypotheses of this study:
1. The classroom climate of higher secondary students is high.
2. The level of academic achievement of higher secondary students is high.
3. There is no significant difference in conditions of the overall classroom climate of the higher secondary schools with respect to gender.
4. There is no significant difference in academic achievement of the higher secondary students with respect to gender.

Research Design:
The researchers adopted survey method.

Population:
Plus one (+1) students of higher secondary schools in Vellore District, Tamilnadu, constitute the population of the study.

Sample and Sampling Procedure:
Four hundred XI standard students were selected by random sampling technique from the higher secondary schools located in Vellore District of Tamilnadu.

Instruments Used in the Present Study:
The researchers used the following tools in this research.
1. Personal Data Sheet developed by the Investigators.
2. The researchers adopted the Classroom Climate Scale prepared and validated by Rajkumar (1984).

Data Analysis
The statistical techniques for the data collected varied in accordance with the nature of research hypotheses. Tables, differential counts are computed to answer the research hypotheses and by using the SPSS. The results of the analysis are presented in Tables 1 - 4.

Results:
HYPOTHESIS -1: The classroom climate of higher secondary schools is high.

Table 1: Level of classroom climate of higher secondary schools.

<table>
<thead>
<tr>
<th>Level of Classroom Climate</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>115</td>
<td>28.8</td>
</tr>
<tr>
<td>Moderate</td>
<td>175</td>
<td>43.8</td>
</tr>
<tr>
<td>High</td>
<td>110</td>
<td>27.4</td>
</tr>
<tr>
<td>Total</td>
<td>400</td>
<td>100.0</td>
</tr>
</tbody>
</table>

From the above table, it is observed that 43.8 % of higher secondary students (N=400) involved in the present study have moderate level of classroom climate, 28.8 % of them have low level of classroom climate and the remaining 27.4 % have high level of classroom climate.

HYPOTHESIS -2: The level of academic achievement of higher secondary students is high.

Table 2: Level of academic achievement of higher secondary students.

<table>
<thead>
<tr>
<th>Level of Academic Achievement</th>
<th>Frequency</th>
<th>Percentage</th>
</tr>
</thead>
<tbody>
<tr>
<td>Low</td>
<td>112</td>
<td>28.0</td>
</tr>
<tr>
<td>Moderate</td>
<td>185</td>
<td>46.2</td>
</tr>
<tr>
<td>High</td>
<td>103</td>
<td>25.8</td>
</tr>
<tr>
<td>Total</td>
<td>400</td>
<td>100.0</td>
</tr>
</tbody>
</table>

From the above table, it is observed that 46.2 % of higher secondary students (N=400) involved in the present study have moderate level of academic achievement, 28.0 % of them have low level of academic achievement and the remaining 25.8 % have high level of academic achievement.
HYPOTHESIS-3: There is no significant difference in the conditions of overall classroom climate of the higher secondary schools with respect to gender.

Table 3: Overall classroom climate of the higher secondary schools

<table>
<thead>
<tr>
<th>Gender</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>190</td>
<td>23.03</td>
<td>9.20</td>
<td>0.028**</td>
</tr>
<tr>
<td>Female</td>
<td>210</td>
<td>23.00</td>
<td>9.67</td>
<td></td>
</tr>
</tbody>
</table>

Note: ** Denotes not significant at 0.05 level

From the above table, there is no significant difference is noted in overall classroom climate of higher secondary students with respect to gender at 0.05 level.

HYPOTHESIS-4: There is no significant difference in academic achievement of higher secondary students with respect to gender.

Table 4: Academic achievement of higher secondary students

<table>
<thead>
<tr>
<th>Gender</th>
<th>N</th>
<th>Mean</th>
<th>SD</th>
<th>t-value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Male</td>
<td>190</td>
<td>59.11</td>
<td>7.24</td>
<td>0.387**</td>
</tr>
<tr>
<td>Female</td>
<td>210</td>
<td>58.82</td>
<td>7.37</td>
<td></td>
</tr>
</tbody>
</table>

Note: ** Denotes not significant at 0.05 level

From the above table, there is no significant difference is noted in academic achievement of higher secondary students with respect to gender at 0.05 level.

Major Findings:
1. The higher secondary schools involved in the present study, 43.8% have moderate level of classroom climate, 28.8% of them have low level of classroom climate and the remaining 27.4% have high level of classroom climate.
2. The higher secondary students involved in the present study, 46.2% have moderate level of academic achievement, 28.0% of them have low level of academic achievement and the remaining 25.8% have high level of academic achievement.

3. There is no significant difference is noted in overall classroom climate of higher secondary students with respect to gender at 0.05 level.
4. There is no significant difference is noted in Academic achievement of higher secondary students with respect to gender at 0.05 level.

Recommendations:
Based on the findings and conclusions from this study, the following recommendations are made for the improvement of classroom climate.1. Parents are the first teachers of the children at home. In this context, parents should be walk to the school and classroom, it is essential for enabling the school authorities and teachers to alert for their roles to do. 2. School authorities and teachers, especially the schools located in rural areas and offering Tamil medium education need to organise periodical meetings with parents and local authorities and discuss with them to pay attention towards the classroom and school condition to assist good atmosphere.

Conclusion:
It has been observed from the analysis that there is moderate level of classroom climate noticed; and the students’ academic achievement also in moderate level; no significant difference was found in the classroom climate of schools; students have shown no significant difference in the academic achievement with respect to gender. The teacher should genuinely build a interest in developing the congenial classroom atmosphere of her/his students apparently has to reduce the feeling of tension and anxiety and try to provide a relaxed, emotionally comfortable atmosphere in order to accomplish their mission.