

CONSTRUCTION AND VALIDATION OF SCALE TO MEASURE THE SCHOOL CLIMATE AMONG HIGHER SECONDARY STUDENTS

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ABSTRACT

The study was conducted to examine the school climate among higher secondary students. The sample consisted of 200 higher secondary students selected from various schools in Chennai. The main objective of the study was to develop a research tool to measure the school climate among higher secondary students. The researcher employed the survey method as the primary research approach for this study. This method was chosen to gather quantitative data from a large group of higher secondary students. The main objective was to develop and standardize a School Climate Scale suitable for assessing perceptions of the school environment. The tool aimed to measure various dimensions such as teacher–student relationships, peer interaction, safety, and learning environment. Through careful construction and validation, the scale ensured reliability and accuracy in measuring school climate among students.

KEY WORDS: School climate, higher secondary students.

INTRODUCTION

School climate refers to the overall atmosphere of the school as experienced by students, teachers, and staff. It includes relationships, teaching practices, and values that influence daily interactions. A positive school climate enhances academic achievement, emotional well-being, and social growth. At the higher secondary level, it helps students cope with academic pressure and identity formation. A supportive environment promotes safety, belonging, and motivation to learn. Healthy school climate fosters positive teacher-student relationships and reduces behavioral issues. It also boosts confidence, cooperation, and engagement. Conversely, a negative climate leads to stress, absenteeism, and poor performance. It strengthens emotional and social skills, promoting responsible behavior. Hence, a positive school climate is vital for holistic development and lifelong success of students.

OBJECTIVE

To develop a research tool to measure the school climate among higher secondary students.

SCHOOL CLIMATE

School climate refers to the overall quality and character of school life as perceived by students, teachers, and staff. It encompasses the norms, values, interpersonal relationships, and practices that define the school environment. Among higher secondary students, school climate reflects the extent to which they feel safe, respected, and supported within their academic setting. It involves the quality of teacher–student and peer interactions, which

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significantly influence learning experiences. A positive school climate fosters motivation, discipline, and active engagement in academic activities. It also enhances emotional well-being and nurtures a sense of belonging among students. Conversely, an unfavorable climate may lead to stress, conflict, and reduced academic performance. The school climate plays a crucial role in shaping students' attitudes, behaviors, and overall academic achievement. Ultimately, it contributes to the holistic development and lifelong success of higher secondary students.

ITEM ANALYSIS

The draft tool prepared by the investigator was administered on a sample of 200 higher secondary students. Each statement has five alternative responses; namely Strongly Agree (5), Agree (4), Neutral (3), Disagree (2) and Strongly Disagree (1) scoring was done for all the statements. The minimum score would be 50 and the maximum score would be 250. It is most efficient to do the checking as a single operation after all booklets have been scored.

Item analysis was adopted for the final selection of statements. The total scores were calculated separately and they were arranged in the descending order. The top 25% and the bottom 25% of scores alone were taken into account.

The difference in means of the high and low groups for each item was tested for significance by computing the t-ratios. Items with t-value of 1.96 and above were selected for the final tool. Thus, the final tool contains 40 items; the list of items with the t-value is presented in Table-1. Split-half method was also used to find out the consistency of the test.

Table 1:
School climate

S.No	t-value	Selected / Not Selected
1	3.212	Selected
2	3.213	Selected
3	3.190	Selected
4	3.191	Selected
5	2.141	Selected
6	3.129	Selected
7	4.345	Selected
8	0.752	Not selected
9	3.528	Selected
10	1.680	Not selected
11	2.432	Selected
12	2.232	Selected
13	3.127	Selected
14	4.432	Selected
15	3.985	Selected
16	1.458	Not selected
17	2.243	Selected
18	1.206	Not selected

S.No	t-value	Selected / Not Selected
19	3.390	Selected
20	1.998	Selected
21	3.039	Selected
22	0.498	Not Selected
23	3.543	Selected
24	3.793	Selected
25	4.410	Selected
26	0.729	Not selected
27	2.217	Selected
28	1.148	Not selected
29	4.411	Selected
30	3.298	Selected
31	0.217	Not selected
32	4.320	Selected
33	1.441	Not selected
34	7.720	Selected
35	4.198	Selected
36	3.026	Selected
37	3.218	Selected
38	2.178	Selected
39	2.376	Selected
40	2.329	Selected
41	2.388	Selected
42	3.432	Selected
43	0.367	Not selected
44	3.543	Selected
45	2.311	Selected
46	3.313	Selected
47	3.390	Selected
48	4.293	Selected
49	3.320	Selected
50	2.320	Selected

Reliability

Reliability refers to the correlation between two or more sets of scores obtained from equivalent tests administered to the same group of individuals. A test score is considered reliable when it demonstrates stability and trustworthiness over time. These qualities depend on the extent to which the score reflects the individual's true ability, free from random or chance errors. In the present study, the test-retest method was employed to determine the reliability of the tool.

This method involves administering the same test to the same group of participants on two different occasions and calculating the correlation between the two sets of scores. When an adequate time interval is maintained between the two administrations, the resulting

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correlation indicates the stability of the test scores. The value of correlation co-efficient shows that there is high positive degree of correlation between the two tests and are given in Table-2.

Table 2:
Reliability Co-Efficient of School climate

S.No.	Method of Reliability	Values
1.	Test-retest (Repetition)	0.89
2	Split-Half	0.73

Validity

Validity refers to the appropriateness, meaningfulness, and usefulness of the specific inferences drawn from test scores. In research, for findings to be considered accurate and applicable, the measuring instrument must possess validity. The foremost requirement for a valid test is that it should also demonstrate a high degree of reliability. In addition to ensuring content and face validity, the investigator sought to determine the intrinsic validity of the tool. According to Guilford (1950), intrinsic validity is defined as “the degree to which a test measures what it purports to measure.” It is calculated as the square root of the reliability coefficient. Accordingly, the intrinsic validity of the School Climate Scale was found to be 0.89, indicating a high level of validity.

DESCRIPTION OF THE FINAL TOOL

The final tool consisted of 40 statements were prepared in English with five dimensions, utilizing a five-point Likert-type rating scale. The scoring procedure assigned values to each response option as follows: Strongly Agree (5), Agree (4), Neutral (3), Disagree (2), and Strongly Disagree (1). Accordingly, the possible minimum score on the scale is 40, and the maximum score is 200. Higher scores indicate a more positive perception of the school climate.

DIMENSIONS OF THE SCHOOL CLIMATE SCALE

Table 3:

S.No.	Dimensions	Questions
1.	Physical and Infrastructural Environment	1-8
2.	Teacher–Student Relationship	9-16
3.	Peer Relationship	17-24
4.	Academic Environment	25-32
5.	Safety, Emotional Security, and Institutional Support	33-40

FINAL TOOL

Table 4:

SCHOOL CLIMATE SCALE

S.No.	Statement	SA	A	N	D	SD
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Dimension I – Physical and Infrastructural Environment					
1	The school classrooms are spacious and adequately ventilated.				
2	The sanitation and drinking water facilities in the school are often inadequate.				
3	Adequate furniture and learning facilities are available for every student.				
4	The school library provides a wide range of useful and updated books.				
5	Laboratory facilities support effective practical learning experiences.				
6	The playground and sports infrastructure are well maintained.				
7	The school classrooms are often congested and lack proper ventilation.				
8	ICT and digital learning facilities are available and functional.				
Dimension II – Teacher–Student Relationship					
9	Teachers treat all students with fairness and impartiality.				
10	My teachers are approachable and responsive to student concerns.				
11	Teachers encourage participation and expression of opinions in class.				
12	Teachers provide constructive feedback on my performance.				
13	Some teachers show partiality and do not treat all students equally				
14	My teachers demonstrate empathy and understanding toward students.				
15	Discipline in the school is maintained through respect rather than fear.				
16	Overall, my teachers are caring and supportive.				
Dimension III – Peer Relationship					
17	My classmates are friendly and cooperative.				
18	Students in my school respect one another’s differences and opinions.				
19	Group activities encourage teamwork and mutual respect.				
20	My friends encourage me to focus on studies and positive goals.				
21	Students avoid discrimination or bullying based on background or gender.				
22	Students support each other in academic and				

	extracurricular activities.					
23	I feel a strong sense of belonging in my school peer group.					
24	The school provides opportunities for creative and critical thinking.					
Dimension IV – Academic Environment						
25	Regular tests and evaluations help me track my academic progress.					
26	Teachers use different strategies to meet individual learning needs.					
27	The school organizes academic competitions and enrichment programs.					
28	I receive sufficient guidance for my higher education or career goals.					
29	Teachers provide timely feedback to help me improve academically.					
30	The academic environment in my school motivates me to achieve excellence.					
31	The overall learning atmosphere encourages curiosity and active participation.					
32	I feel physically and emotionally safe within my school premises.					
Dimension V – Safety, Emotional Security, and Institutional Support						
33	The school has effective policies against bullying and harassment.					
34	The school provides counselling or guidance services for students in need.					
35	The management and staff respond promptly to student concerns.					
36	There is a climate of trust and respect between students and staff.					
37	School authorities promote moral values and ethical behaviour.					
38	I can freely express my opinions without fear of criticism.					
39	The school fosters an environment of cooperation among all stakeholders.					
40	Overall, my school climate supports my academic and personal growth.					

Table 5:
Scoring procedure

Strongly Agree	Agree	Neutral	Disagree	Strongly Disagree
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5	4	3	2	1
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CONCLUSION

The present study successfully constructed and validated a Scale to Measure the School Climate among Higher Secondary Students. The tool was developed through a systematic process involving item generation, expert validation, pilot testing, and statistical analysis to ensure reliability and validity. The final version of the scale effectively measures key dimensions of school climate such as safety, relationships, teaching–learning environment, and institutional support. The findings confirm that the scale is a dependable and standardized instrument for assessing students’ perceptions of their school environment. Hence, it can be effectively used by researchers, educators, and policymakers to evaluate and improve the quality of school climate in educational institutions.

REFERENCES

1. Koth, C. W., Bradshaw, C. P., & Leaf, P. J. (2008). A multilevel study of predictors of student perceptions of school climate: The effect of classroom-level factors. *Journal of Educational Psychology*, 100(1), 96–104.
2. Loukas, A. (2007). What is school climate? *Leadership Compass*, 5(1), 1–3.
3. National School Climate Council. (2007). *The School Climate Challenge: Narrowing the gap between school climate research and school climate policy, practice guidelines and teacher education policy*. New York: NSCC.
4. Thapa, A., Cohen, J., Guffey, S., & Higgins-D’Alessandro, A. (2013). A review of school climate research. *Review of Educational Research*, 83(3), 357–385.
5. Vasudevan, V, & Rose, V, (2024). “Enhancing Higher Education through Behavioural Approaches”, *Multidisciplinary Approach in Research Area*, 14(1) Pages,17-19
6. Wang, M. T., & Degol, J. L. (2016). *School climate: A review of the construct, measurement, and impact on student outcomes*. *Educational Psychology Review*, 28(2), 315–352.
7. Zullig, K. J., Koopman, T. M., Patton, J. M., & Ubbes, V. A. (2010). *School climate: Historical review, instrument development, and school assessment*. *Journal of Psychoeducational Assessment*, 28(2), 139–152.