

## Construction And Standardization of School Environment Scale

**Anjana Rani,**

Research Scholar, Department of Education,  
Panjab University, Chandigarh

**Dr. M.L. Jaidka,**

Offg. Principal (Retd.),  
DM College of Education, Moga, Punjab

### Abstract

*This study is concerned with the construction and standardization of school environment scale. A reliable and standardized tool is an vital requirement for collecting information and data in research. For the item analysis of the school environment scale data was collected from the 100 Government Senior Secondary School Teachers (50 rural and 50 urban) of Abohar Tehsil by applying the simple random sampling technique. For the standardization of the school environment scale data was collected from the 120 Government Senior Secondary School Teachers (60 rural and 60 urban) of Jalalabad(w) Tehsil by applying the simple random sampling technique. For the item analysis t-ratio was employed. 72 items were finally retained for the final draft of the scale. Scale contained the high face validity and the reliability of the school environment scale was assessed 0.81 by using the test-retest method.*

**Keywords:** School environment, Construction, Standardization, Government senior secondary school teachers.

### Introduction

The school has a well-organized and structured environment that provides an excellent learning atmosphere for students. This can be seen through the physical, emotional, social, intellectual growth and development of students at the school. The environment can be defined by the aggregate factors that shape the internal development of students in a positive way. Different types of schools have different types of environment. Teachers are essential to the school's success; a good environment will take their effort to the next level by providing them with encouragement and intellectual stimulation. Schools need to be understood as places where experiences in life resonate; a place where teachers mold future citizens. School's components will have a profound effect on how your children learn. The attitudes of teachers, availability of play grounds, and the relationship they have with their students all contribute to the nature of the environment. Schools provide developmentally appropriate experiences and opportunities in an environment that supports

children's social, physical, cognitive, and moral growth.

**Bhatnager (1977)** expressed that the unique quality of a school largely depends on the treatment of the pupils in the classroom by teachers; the interactions between teachers and students.

**Oluchukwu (2000)** concluded that the school environment is a main component in the educational process. The school's buildings must be sufficiently constructed and equipped, as well as adequately maintained, so that they are conducive to learning and teaching.

**Center for Disease Control and Prevention (2005)** stated, School environment includes the physical surroundings and the psychosocial climate also with the culture of the school.

**National School Climate Council (2010)** concluded that a healthy school climate consists of people feeling socially, emotionally, and physically safe; being engaged and respected; working together to create a shared vision for the school and model an attitude that emphasizes the benefits of learning and everyone contributes to the operations of the school.

The school environment plays an important role in student learning. Whether it is the physical

setting or the social atmosphere, conducive learning environment can help students focus and achieve their goals. The positive effects of an environment that is conducive to learning include increased motivation and engagement, better focus and concentration, and greater satisfaction with the classroom experience. Students learn best when they feel comfortable and safe in their surroundings. Conversely, an unhealthy school environment can have negative consequences for students, including reduced motivation and engagement, decreased focus and concentration, and increased levels of stress. Students who feel unsupported or uncomfortable in their learning environment may experience difficulty in concentrating and engaging in class work.

It is important for educators to understand the various factors that contribute to a healthy or unhealthy school environment in order to create an environment that is effective for students. Factors that can affect student motivation include classrooms that are well maintained and clean, adequate resources available to students, teacher enthusiasm and positive reinforcement, and opportunities for hands-on learning. There is no doubt that the school environment has a significant impact on students' learning.

### **Operational Definition Used In The Study**

It is an aggregate of all physical, psychological and social conditions, it is an important factor accounting the physical conditions and technological infrastructure, academic climate, leadership, working environment and inter-personal relations.

### **Review Of Related Literature**

In order to construct the school environment scale, the researcher reviewed the related literature as mentioned below:

Moos and Trickett (1973) developed a scale to assess the high school and junior school classroom environment. The scale contained total 90 items divided into the nine dimensions under three headings: Relationship dimension, Personal Growth/ Goal orientation dimension, and System maintenance and change dimension.

Sinha and Bhargava (1994) developed and standardized Socio-Emotional School Climate Inventory to evaluate the social as well as emotional climate of school organization as perceived by the

pupils themselves separately as well as globally. It contains 70 items and 35 items belong to social school climate and 35 items belong to emotional school climate and total items belong to socio-emotional for class IX & X.

Shah and Shah (2012) constructed and standardized Academic Climate Description Questionnaire which includes 84 items divided into four sub-tests: physical material, inter personal trust, School provisions, and Academic provisions. It meant for XI & XII class.

Singh (2015) developed and standardized the organizational climate scale for teachers, which contained 66 statements divided into 4 Dimensions: Leadership, Organizational Structure and Design, Inter-personal Relations Co-working relations, and Member Quality and can be administered on secondary school teachers.

### **Objective of The Study**

To construct and standardize a School Environment scale to measure the School Environment of the Government senior secondary school teachers.

### **Rationale of The Study**

The school environment is ever changing and it is influenced from changes in many factors like technological advancements, philosophies, changing, societal needs and evolving students demands. Teachers have to play very key role to adapt all these changes In order to maintain their competency and dedication to the teaching process. To improve student's learning, Teachers must keep abreast of the most recent developments in the field of educational technology and develop essential strategies for integrating them into their lesson plans. Teachers ought to be receptive to instructional techniques and novel approaches, which are consistent with current theories in education. Although there are many instruments available to analyze school environments, schools are changing at a rapid pace due to societal changes. In order to obtain accurate measurements of a school environment, it is imperative that an updated school environment scale be constructed. As a result, the researcher made an effort to create and standardize a school environment scale.

**Sample of The Study**

Data was collected from the 100 Government Senior Secondary School Teachers (50 rural and 50 urban) of Abohar Tehsil by applying the simple random sampling technique. For the second sample 120 Government Senior Secondary School Teachers (60 rural and 60 urban) of Jalalabad(w) Tehsil were chosen by applying the simple random sampling technique.

**Method**

Descriptive Survey method was used in this study.

**Construction And Standardization of The School Environment Scale**

The development of the scale was done by following the three steps:

**1. Planning Phase**

Identification of various dimensions was done to measure the school environment. The selection of the dimensions was undertaken an comprehensive and meticulous study of the relevant literature, including scholarly journals, comprehensive catalogs, authoritative books, and reputable online sources. Considering the various definitions and interpretations, that can exert an impact on the overall school environment, the final selection of five distinct dimensions was done.

1. The physical conditions and technological infrastructure
2. Academic climate
3. Working environment
4. Leadership
5. Inter-personal relations

**2. Construction Phase**

A thorough process was undertaken to determine and finalize various test items, taking into consideration, the identified dimensions. After writing the test items, explanations were talked about, with the supervisor and as per his suggestions the alterations were made. For the preliminary draft, initially 127 items were finalized and these items were related to the 5 dimensions, which were in the form of positive and negative statements. All the

statements were in English language. Scale was based on the 'Five point Likert Scale'.

The first draft of 127 items was given to 11 experts for their valuable opinion. All the selected experts belong to the educational field and having a long-standing experience in their field. The items composed were checked on, criticized and changed after the intensive dialogue, with the experts for the items legitimacy. Some of the items were left and some were reworded. Finally 99 items were recollected after expert's opinion. The draft of the scale administered on the teachers, for the first try out 100 teachers from government senior secondary schools were selected.

**Table 1: Scoring Procedure for each item of School Environment scale**

Response ↓ Item	Strongly Agree	Agree	Undecided	Disagree	Strongly Disagree
Positive	5	4	3	2	1
Negative	1	2	3	4	5

**Item Analysis**

A study was conducted on 100 rural and urban secondary school teachers, wherein their total scores were collected and arranged in the descending order. From these scores, 27% of the higher scores and 27% of the lower scores were chosen. For each item, the mean, standard deviation, and t-ratio (discrimination value) were calculated separately for the higher and lower groups. These values helped to determine the discrimination value of each item. Items with a t-value above 2.674 (at a significance level of 0.01) and items with a t-value below 2.007 (at a significance level of 0.05) were considered insignificant. Consequently, out of the total 99 items, 27 items were rejected at the 0.01 level, while the remaining items were found to be significant at the 0.01 level.

**Table 2: Final draft (total number of items and dimension wise distribution)**

Dimension		Serial no. of item	Total
<b>The physical conditions and technological infrastructure</b>	Positive items	1-16	16
	Negative items	Nil	
<b>Academic climate</b>	Positive items	18-28,30-32	16
	Negative items	29,33	
<b>Working environment</b>	Positive items	34,36-41,45,46	13
	Negative items	35,42-44	
<b>Leadership</b>	Positive items	48-50,52,53,55-59	13
	Negative items	47,51,54	
<b>Inter-personal relations</b>	Positive items	60,63,66-68,70,72,73	14
	Negative items	61,62,64,65,69,71	
		<b>Total</b>	<b>72</b>

**3. Standardization Phase**

A sample of 120 teachers was randomly selected from the target population, for whom the test was being developed, to conduct the final trial. The reliability of the school environment scale was assessed using the test-retest method. To examine the reliability, the test was administered to a sample of 120 teachers from government senior secondary schools, selected from eight schools. After a time interval of 21 days, the same test was administered on the same sample of teachers. The reliability coefficient obtained from this analysis is presented in table given below:

**Table 3: Reliability of School Environment Scale**

Method	Interval	N	Reliability coefficient
<b>Test-Retest Method</b>	21 Days	120	0.81

In the present study, face and content validity cinched through consultations with experts from the initial draft to the final version of the scale. To ensure content validity, the operational definitions of the five dimensions provided to the experts, who

possessed experience in test development and had a good understanding of psychology. The experts were presented with the test items and were requested to provide the suggestions and judgments regarding the suitability and appropriateness of the test items.

During this evaluation process, the experts revealed concerns about the only two test items. These items amended based on the suggestions presented by the experts, while the left over items were kept back as they were. The evaluation by the experts clearly expressed, that the test displays high face validity and the test items were accordant with the concept of school environment. This outcome provided certitude that, the test had high content and face validity.

**Conclusion**

The investigator constructed the School Environment Scale, which can be used to measure the School Environment of the Senior Secondary School Teachers.

**References**

1. Anastasi, A. (1951). *Psychological testing*. New York: MacMillan and Co.
2. Bird, C. (1940). *Social Psychology*. New York: Appleton Century Crofts.
3. Edwards, A.L. & Kilpatrick, F.P. (1948). A Technique of the Construction of Attitude Scales. *Journal of Applied Psychology*, 32(4), 374-384. Retrieved from <https://doi.org/10.1037/h0057313>
4. Kelley, T.L. (1939). The selection of upper and lower groups for the Validation of Test Items. *Journal of educational psychology*, 30, 17-24. Available at <http://dx.doi.org/10.1037/h0057123>.
5. Koul, L. (2011). *Methodology of Educational Research*. New Delhi: Vikash publishing house PVT LTD.
6. Mangal, S. (2012). *Statistics and Psychology and Education*. New Delhi: PHI learning private Limited.
7. Mishra, K.S. (2013). *School Environment Inventory Manual*. Lucknow: Ankur Psychological Agency.
8. Singh, S. P. and Imam, A. (2015). *School Climate Scale Manual*. Agra: National Psychological Corporation.
9. Sinha, R.K. & Bhargava, R. (1983). *Socio-Emotional School Climate Inventory: Manual of Socio-Emotional School Climate Inventory*. Lucknow: Ankur Psychosocial Agency.

10. Trickett, E. J., & Moos, R. H. (1995). *Classroom Environment Scale Manual: Development, Applications, Research*. Austin, TX: Consulting Psychologists Press.
11. Wang, K.A. (1932). Suggested criteria for writing Attitude Statements. *Journal of social psychology*, 3(1932), 367- 373.

