

Impact of Classroom Environment on the Development of Soft Skills among Public Girls' High School Students

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Abstract

Soft skills, such as communication, teamwork, and problem-solving, are needed to make students grow personally and become employable in the future. In some Pakistani schools, especially in Mianwali, Chashma and Bhakkar, the mode of classroom practice in most schools is still lecture-based and does not allow students to engage actively and learn new skills. Although the importance of soft skills has been increasingly highlighted, few studies have been conducted to study their development at the secondary school level in developing countries like Pakistan. This research, based on Classroom Environment Theory, examines how classroom environment is related to the development of soft skills by public high school girls. The research design was quantitative correlational, whereby the population was female students in their grades 9 and 10 in Punjab. Convenience sampling was used to select 401 students and the data were collected using a bilingual language (Urdu-English) questionnaire consisting of Classroom Environment Scale as well as Soft Skills Development Scale. The analysis in Pearson correlation and regression indicated the existence of a significant positive correlation with significant prediction of soft skills by classroom environment. The results reveal that interactive, inclusive and supportive classrooms help in developing 21st-century skills. It is suggested that schools should introduce teacher training, flexible classroom layouts, and incorporate soft skills in the evaluations.

Keywords: Classroom environment, soft skills, interpersonal skills, cooperation, student participation, high school education

Introduction

The world is changing rapidly, and people are now living in an information-oriented era characterized by advanced knowledge and skills. Competition is very high across the world, and to meet these challenges, there is a need for top-notch human capital. To raise a generation that is resilient to societal issues and equipped with strong employability skills and high caliber, countries must build a firm educational

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foundation. Workplace complexity has increasingly drawn attention to the importance of soft skills such as problem solving, teamwork, communication, and leadership for success (Prabowo et al., 2025; Ritter et al., 2018).

Research has demonstrated that soft skills significantly influence professional success, educational development, and overall quality of life (Mulcahy-Dunn et al., 2018). In the development of human capital, soft skills are imperative because they make individuals capable, informed, and skilled. Education is responsible for preparing students at both national and international levels by cultivating their values, character, and identity in addition to academic knowledge.

Organizational culture, instructional techniques, and classroom environment collectively contribute to this process, and the school environment is therefore considered highly important (Hoy & Miskel, 2013; Sanchez-Gil-Machín et al., 2025). Schools serve as formal institutions for academic training, character building, and human development, while teachers play an essential role in incorporating moral principles, effective teaching strategies, and constructive interactions to foster both soft and hard skills. School culture refers to shared beliefs, norms, values, and principles that shape behavior (Sarjou et al., 2012).

A supportive school culture promotes personal development, resilience, and student engagement (Erwin, 2018), whereas a negative culture impedes student growth and achievement. Culture consists of values and traditions that mentors and pupils absorb and practice (De Vries et al., 2010). The cultural setting of schools strongly influences classroom practices and the development of soft skills. This perspective is aligned with Bronfenbrenner's Ecological Systems Theory (1977), which proposes that individuals actively engage with and influence their environments rather than being passive recipients. Consequently, pupils actively shape their learning environment, which directly affects the development of soft skills. These skills are also referred to as employability skills, non-technical skills, generic skills, or fundamental skills, and they are becoming increasingly important in educational and professional settings. Soft skills involve proficiency in communication, teamwork, and flexibility that lead to productive engagement and cooperation (Cimatti, 2016). They are not acquired solely through formal training but are developed through character building, social relationships, and life experiences (Seetha, 2013; Zogopoulos et al., 2025). Soft skills encompass norms, social sensitivity, language proficiency, attitudes, and personal qualities required in social and professional contexts. They have become an international concern because they are essential for personal well-being and sustainable development (Zhou, 2017). Developing interventions to improve soft skills is crucial for achieving long-term academic success (Heckman & Kautz, 2012). In employee selection processes, soft skills are given considerable importance (Pradeep & Dinakar, 2018; Young & Chapman, 2011), as technical skills alone are insufficient without them. Despite their recognized importance, most research on soft skills has been conducted at the university level, focusing on instructor preparation, entrepreneurship, and graduate employability (David & Saeipoo, 2018; Gibert et al., 2017; Supitcha et al., 2014).

Limited research has addressed the development of soft skills at the secondary level, where the formation of students' values, resilience, and interpersonal skills is critical. There remains a gap in knowledge regarding how classroom environment supports students in the cultivation of soft skills (Ahmad et al., 2019). The classroom is a place where students spend most of their time learning, interacting with peers, and developing interpersonal competencies. Physical and psychological aspects of the classroom, such as seating configuration, educational materials, classroom culture, and teacher–student interactions, influence learning outcomes (Hannah, 2013). Teacher motivation, classroom management strategies, and behavior can either enhance or hinder students' soft skill development. A friendly and supportive classroom environment promotes engagement, whereas a strict and unsupportive setting discourages participation. Therefore, the main purpose of this study is to examine how classroom environment influences the development of soft skills at the secondary level. Specifically, the study aims to determine which aspects of classroom environment, school culture, and teaching-learning organization most effectively contribute to the development of leadership, problem-solving, teamwork, and communication skills. By addressing this gap, the study provides insights into how schools can better prepare students for success both in the classroom and in the workforce.

Objectives

1. To examine the relationship between the classroom environment and soft skills development among girls' students
2. To determine the predictive effect of the classroom environment on the soft skills development of students

Hypotheses

H_{1.1}: There is a significant relationship between classroom environment and soft-skills development among girls' students

H_{1.2}: There is a significant effect of the classroom environment on soft-skills development among girls' students

Literature Review

The existing study is supported by the Classroom Environment Theory created by Moos (1979), which explains the implications of classroom environments on the social, behavioral, and cognitive performance of students. The theory divides the concept of classroom environment into a multidimensional concept that consists of teacher-student interaction, interactions among peers, student engagement, task orientation and classroom organization and management practice. These dimensions condition the psychosocial atmosphere of the classroom and directly determine the level of student involvement and participation, as well as the acquisition of skills. In this context, the classroom setting is considered an important aspect in learning soft skills, like communication, working with others, being a leader, cooperating and solving problems. The competencies can be observed, practiced and internalized in

well-managed and interactive classrooms and restricted in teacher-centered or unsupportive classrooms. This theoretical basis is quite consistent with the research objectives of investigating the connection between classroom environment and soft skills as well as establishing the predictive ability of classroom climate on the development of skills among public high school girls. Schools are very instrumental in the character building and overall growth of students in addition to academic education in that they are a structured institution of building the social and personal world. School environment consists of inner characteristics, values, and activities that impact the behavior and performance of students (Hoy & Miskel, 2013). The culture in the classroom that is created through the mutual values, norms, and traditions of the school community may support or inhibit the process of acquiring life skills (Erwin, 2018; Sarjou et al., 2012). The positive classroom culture promotes participation, collaboration and resilience whereas poor culture limits chances of development of soft skills. Classrooms are microsystems in which social and cognitive competencies depend highly on interplay of students and teachers. Debates, drama, project-based learning, and athletics are examples of curricular and extracurricular activities that help students to train leadership, teamwork, and communication skills in the real world (Ahmad et al., 2019; Li & Dewaele, 2021). Soft skills are commonly known to be critical in academic achievement, career growth as well as personal growth. They include such non-technical skills as problem-solving, teamwork, communication, leadership, and flexibility (Cimatti, 2016; Makaremi et al., 2024). Due to the fast change of technology and globalization, employers are more and more inclined toward hiring graduates with good interpersonal and social competencies, as well as technical skills (Pradeep & Dinakar, 2018). It has been noted by research and policy that schools have a role in nurturing such skills as soft skills bring about 75 percent career success, as compared to only less than 25 percent through technical skills (Klaus, 2010). Project-based learning, teamwork, and integrated soft skills curricula are instructional strategies that have been found to improve leadership, problem-solving, and communication skills at the university level (Cukierman & Palmieri, 2014; Lane, 2016). Skills should be developed using deliberate educational techniques (Deep et al., 2019). Though research on higher education has not been conducted widely, the research on secondary school, especially in developing nations, is sparse (Du et al., 2019; Yan et al., 2018). The literature is largely about Western settings or colleges, which is why there is a gap in the knowledge regarding the effects of classroom setting on the development of soft skills in younger students. As Ahmad et al. (2019) point out, there is a lack of research on the understanding and development of soft skills among students of secondary school, and it is necessary to examine the role of the classroom environment and the types of instructional strategies, as well as the culture of the school in creating these skills at this stage. Although it has been proposed that classroom environment is very important, it is still incongruent when it comes to the relative importance of classroom climate associated with extra-curricular activity or parent involvement.

However, the literature remains inconclusive regarding whether interactive and well-designed classroom settings increase the interest of students, their cooperation, and interpersonal skills. The aspects like teacher-student interaction, peer

collaboration and classroom organization play a great role in developing soft skills. These outcomes are further encouraged by the activities (curricular and extracurricular) but there is lack of research on how these forces work in Pakistani secondary schools. This experiment aims to fill this blank by analyzing the correlation between classroom climate and soft skills and establishing the predictive value of classroom climate on the development of skills among girls in the public high schools. In such a way, it will help understand the school culture and classroom practices better and offer practical information to educators and policymakers to make the learning process more effective and support the holistic development of students.

Although existing literature emphasizes the role of classroom setting and teaching methods in the development of soft skills, the bulk of the literature is focused in higher education or Western settings. Minor attention is given to the students in secondary schools and especially in developing countries whereby classroom activities are still largely teacher-centered. Moreover, earlier researchers tend to study soft skills in isolation of incorporating classroom setting into the predictive variable. It implies that there is a definite research gap that the current study is going to fill.

Materials and Methods

Study Design

A quantitative correlational research design was utilized to examine the relationship and predictive effect of classroom environment on soft skills development among secondary school students.

Participants

The population of the study comprised female students of Grades 9 and 10 from public schools in Mianwali, Chashma, and Bhakkar, Punjab.

Sampling Technique

The sample consisted of 401 female students from three public schools, selected using convenience sampling.

Inclusion and Exclusion Criteria

Included were female students enrolled in Grades 9 and 10 in the selected public schools. Students from other grades or private schools were excluded.

Data Collection Instruments

Data were collected using bilingual structured questionnaires assessing classroom environment and soft skills development, each scored on a five-point Likert scale.

Procedure

Questionnaires were administered to students after obtaining consent. Pilot testing was conducted to ensure reliability.

Variables and Measures

The independent variable was the classroom environment, and the dependent variable was soft skills development.

Ethical Considerations

Permission was obtained from school authorities, participation was voluntary, and confidentiality and anonymity were maintained.

Data Analysis

Data were analyzed using SPSS. Pearson correlation was used to examine the relationship between classroom environment and soft skills development, and simple linear regression was applied to determine the predictive effect.

Reliability and Validity

Pilot testing established reliability with Cronbach's alpha of .85 for the classroom environment and .82 for soft skills development. Validity was ensured through expert review

Results

Correlation Analysis

Table 1.

Correlational Analysis among Classroom Environment and Soft-skills of Students

Variable		SSD
Classroom	Pearson correlation	.702
Environment	Sig. (2-tailed)	.001
	N	401

Correlation is significant at the 0.01 level (2-tailed)

CE=Classroom environment, SSD= Soft skills Development

Pearson's correlation coefficient between Soft Skills Development (SSD) and Classroom Environment (CE) was $r = .702$ and $p < .001$. This is a measure of strong positive correlation between the two variables, and it indicates that students who perceive their classroom environment as supportive, inclusive, and engaging have higher reports on soft skills like communication, teamwork, and problem-solving.

The significance level ($p < .001$) indicates that this correlation is statistically significant at the 0.01 level (2-tailed), suggesting that the probability of this effect happening by chance is less than 1%. Given a sample size of $N = 401$, the statistical significance and strength of the correlation demonstrate strong support that better

classroom environment is related to improvements in students' soft skills development.

Regression Analysis

Table 2.

Effect of Classroom Environment of the Soft Skills of Respondents

Model Summary of Linear Regression Analysis

R	R²	F	Adjusted R²	S.E.
.702 ^a	.493	387.49	.491	5.37514

a. Predictors: (Constant), Classroom Environment (CE)

Table 2 reflected that $F = 387.49$ and $R^2 = 0.493$, indicating that 49.3% of the variance in Soft Skills development was accounted for by the predictor Classroom Environment. According to Ozili (2023), an R^2 value between 0.10 and 0.50 is considered acceptable in social science research, provided the predictors are statistically significant and fall within this acceptable range. The unexplained 50.7% could be due to additional factors outside the current model. These findings concluded that the classroom environment significantly influenced the development of Soft Skills.

Table 3.

Linear Regression Analysis between Classroom Environment and Soft Skills Development

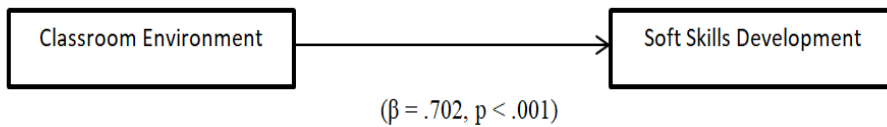
Coefficients

Model	Unstandardized Coefficients		Standardize Coefficients	t	Sig.
	Beta	Std.Error	B		
(Constant)	9.721	1.526		6.372	.001
CE	0.725	0.037	0.702	19.685	.001

a. Dependent variable Soft skills Development: SSD

Table 3 showed that the unstandardized coefficient ($B = 0.725$) suggested an increase of 0.725 units in Soft Skills development for each one-unit rise in Classroom Environment, assuming other variables stayed constant. The standardized beta ($\beta = 0.702$) indicated a strong positive contribution. With a t-value of 19.685 and a p-value $< .001$, the effect was statistically significant, leading to the acceptance of the alternative hypothesis. Hence, the classroom environment was a meaningful predictor of Soft Skills development.

Figure 1. Regression line showing the effect of classroom environment on soft skills development



Discussion

The current research involved the investigation of the classroom environment's contribution to the acquisition of soft skills in high school girls in rural and semi-urban areas in Punjab, such as in Mianwali, Chashma and Bhakkar. The correlation analysis showed a strong positive correlation between classroom environment and development of soft skills, as it was shown that students who view their classrooms as inclusive, engaging and supportive have higher scores on the development of communication, teamwork, problem-solving and leadership skills. Regression analysis also revealed that classroom environment is a significant indicator of the development of soft skills, which also indicates a predictive effect of classroom climate in the development of relevant competencies. These results are quite consistent with the Classroom Environment Theory developed by Moos (1979), which assumes that the psychosocial climate of a classroom, teacher-student relationships, peer relationships, student participation, task orientation, and management practices directly determine students' engagement and participation and the development of their skills. An interactive, supportive and well-managed classroom has the capacity to offer the student the chance to observe, implement, and internalize soft skills, whilst a rigid or teacher-oriented classroom can restrict such opportunities. The findings are in line with other previous studies that have highlighted the significance of positive classroom settings in the development of soft skills. To illustrate, Ahmad et al. (2019), identified supportive classroom culture as a factor promoting interpersonal and cooperative skills of students, whereas Zhang et al. (2022) discovered that inclusive learning environments support communication and collaboration. On the other hand, the studies also indicate that the classroom setting might be insufficient, so it can be facilitated by an active teacher and other social or instructional elements, like extracurricular activities and parental involvement, to moderate the skill development (Balaji & Somashekar, 2009; Susanti & Hasanah, 2017). These results show that the classroom environment is a powerful predictor, but its effect can be different according to instruction strategies and social support. This research has important practical implications for the academic institutions, both rural and semi-urban. To improve the development of soft skills, schools are supposed to look at having supportive and interactive classes, train their teachers on how to manage the classroom and encourage students to work together to enhance the development of these skills. This type of intervention can work more effectively to prepare students to be academically and professionally successful, closing the gap between the reception and the use of knowledge. This study is

important in providing empirical evidence on the importance of classroom environment in the development of soft skills, but the generalizability is restricted to female learners in the districts of Punjab of their choice. Further studies may be conducted on male students, in other areas and the interaction of classroom environment with other variables like teacher facilitation, peer mentoring, and extracurricular involvement. Longitudinal studies can also be used to offer some knowledge about the effects of the classroom climate on soft skills in the long run.

The significant predictive relationship indicates that the classroom environment is not just a supportive factor but a central process in determining interpersonal and cognitive competencies in students. This observation supports the thesis that learning is a socially constructed phenomenon and is also determined by the context of interaction. Nonetheless, the relatively unexplained variance suggests that other factors like teacher quality, parental involvement and extracurricular engagement may also play a significant role, which were not investigated in this study.

Conclusion

The results of the study indicated that there was a strong correlation between the classroom environment and the acquisition of soft skills in the public high schools' girls. Inclusive, well-structured, and supportive classroom environments positively affected the soft skills, i.e., communication skills, teamwork, adaptability, problem-solving, and emotional intelligence and structural regression analysis established a significant predictive role of classroom environment on student soft skills, which is why the adoption of inclusive, supportive, and well-structured classroom environments are critical in promoting student engagement, cooperation, and interpersonal competencies. These results are consistent with the Classroom Environment Theory (1979), by Moos, according to which the psychosocial climate of the classroom, such as teacher-student interaction, peer cooperation, classroom structure, and social-emotional climate, has a direct influence on the development of the skills of students, which attests to the theoretical connection between the dimensions of classroom environment and the formation of 21st-century competencies. In practice, schools, especially in the rural setting where rote learning is the norm, ought to focus on establishing conducive and interactive learning environments, where teacher education, classroom management, and peer-learning approaches can be used to develop students in terms of communication, collaboration, problem-solving, and flexibility to fit in the academic and workplace settings. The findings also call upon the education policies that the quality of classroom environment should be a primary consideration in the development of students and policymakers use instructions on interactive, inclusive and effectively managed classroom settings in teacher training curricula and curriculum planning to promote the development of soft skills in students. Although these efforts have been made, the study is also restricted to female students of the selected public high school in Mianwali, Chashma and Bhakkar, which can potentially be a limitation to generalizability and only investigated the classroom environment variables, but did not investigate other social or extracurricular variables that can also influence soft skills. Further studies could extend the sample to male students, other geographical

areas and examine relationships between classroom setting, teacher facilitation, parental involvement, and extracurricular activities and longitudinal investigations could determine the long-term effects of classroom setting on the development of the soft skills. To sum up, interactive, supportive, and inclusive classroom settings should be noted as the key points to developing soft skills in students and preparing them successfully in the contemporary academic, social, and professional environment.

Recommendations

1. The supportive, inclusive, and interactive classroom settings should be a priority in schools. This involves organizing a flexible seating system to work jointly, ensuring adequate learning resources and a healthy social-emotional atmosphere that fosters participation and engagement.
2. The teacher ought to be given special training on how to develop soft skills such as collaborative learning strategies, effective communication, conflict management as well as development of leadership skills. The teachers can be prepared to handle classrooms that facilitate academic and interpersonal development through continuous professional development programs.
3. The development of soft skills is to be included in the curriculum goals and evaluation systems. Group projects, presentations, role-playing, and peer feedback are some of the activities that can be used in schools so that students have a chance to practice and show communication, teamwork, problem-solving, and adaptation.
4. Use active approaches to learning such as problem-based learning, peer teaching and cooperative learning models. These methods enable learners to learn by experiencing interactive learning with other learners and the instructors, and encourage real-life learning of soft skills.
5. Schools ought to offer guided extra-curricular activities like debate clubs, community service, leadership camps, as well as cultural events, to supplement classroom studies and build interpersonal, leadership, as well as team work abilities.
6. The quality of the classroom environment and the integration of soft skills should be set as the standards by the education policymakers. Teacher-student ratios, the classroom infrastructure, student participation policies, and constant teacher training should be enforced guidelines so that the classroom environment is invariably made to foster the development of soft skills.
7. Institute accountable monitoring and evaluation systems to evaluate the classroom atmosphere and the development of soft skills in students. Surveys, classroom observation, and the teacher-student feedback loop may assist the schools in modifying tactics to produce the most impact.
8. In the context of the study, particular importance should be paid to the rural and semi-urban schools, the practice of which is dominated by rote-learning. These areas should be addressed through resource allocation, teacher support and

infrastructure improvement to ensure that the gap in soft skills development is addressed.

9. Educational institutions and schools ought to cooperate with researchers to assess the effectiveness of interventions that can help to improve the classroom setting. The evidence of scaling best practices can be generated through longitudinal studies and pilot programs.

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