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Relationship between Classroom Environment and Academic Achievement

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Abstract: Present research was conducted to study the role of the classroom environment in the achievement level of middle school students in Peshawar. The data was gathered from 250 participants, comprising 136 boys and 114 girls, aged between 13 and 14 years, from two private and two government schools in Peshawar. The tool used in the study "What Is Happening in This Class?" was used to collect information from the participants. Results indicated that different dimensions of the classroom psychosocial environment had different impacts on the student's achievement levels. Furthermore, considerable differences were detected between the government and private schools in Peshawar in terms of various dimensions of the classroom psychosocial environment.

Keywords: Psychosocial Classroom Environment, Students, Academic Achievement

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Introduction

Effective teaching and effective student learning have been a central focus of the classroom environment in the current educational situation. Education is undeniably a crucial aspect of our lives, with children spending a significant portion of their day in school. The classroom environment plays a key role in fostering students' attentiveness to learning and enhancing their educational performance (Fraser, 2007, 2012). According to the model of the school environment, schools are made up of several elements, and research correlates these elements with the educational achievement of students. "Student development and achievement are fundamental school processes that are inherently complex and multifaceted and can't be explained by merely one variable (Deakin Crick et al., 2013).

Past studies suggested that purposeful, secure, and focused educational settings increase students' attention and learning and also lead to high achievement levels (Bonem et al., 2020). A range of characteristics of the classroom environment, such as the technological sessions, testing centres, seminar halls, libraries, management systems, and teaching methods, also affect students' academic motivation and achievement (Bonsaksen et al., 2021). Therefore, the atmosphere of the teaching institution continues to be a crucial element that needs to be managed with attention so as to improve the overall performance of learners (Law et al., 2019). The environment of the institution is made up of students, teachers, design of instruction, material arrangement, and supervisory plans; all of these elements work together to accomplish the learning goal of the school. According to Law et al. (2019), it is reasonable to assume that a student will have greater freedom in their communal and civic lives, their learning pursuits, and economic standing if their school is properly run.

Modern education systems prioritize real teaching and learning within the classroom setting (Waseer, 2008). For parents, selecting a school that offers an optimal learning environment is a primary concern, as it can contribute to their children's better adjustment and academic success. A learning environment encompasses the physical, psychological, social, and educational conditions where learning occurs, influencing students' achievement and attitudes (Fraser, 2007, 2012).

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Kyriakides (2006) found a positive connection between teacher-student interaction and active learning outcomes for 12th-grade pupils in Cyprus. Other studies have also explored the impact of school settings on pupil performance in mathematics (Webster & Fisher, 2004). At the middle school level, a link was observed between schoolroom setting, academic achievement, and student attitudes in science classes (Wolf & Fraser, 2008). Based on these earlier studies, it is evident that new strategies should be developed and key classroom environment variables identified to significantly improve academic outcomes (Candeias & Rebelo, 2010).

In Pakistan, it is commonly observed that parents favour referring their offspring to private schools over government schools, as private institutions are perceived to offer an improved environment with increased learning opportunities for students. Numerous research studies worldwide have compared various aspects of public and private schools to determine the effectiveness of each educational system. The National Assessment of Educational Progress shared findings on schoolchildren's understanding of various subjects, revealing that private schools outperformed public schools in most areas, including mathematics and science (U.S. Department of Education, 2012). Similarly, a study in the United States discovered that private schools achieved improved outcomes in science and arts subjects compared to government schools (Lubienski, 2006; Peterson & Llaudet, 2006). However, upon reviewing the NAEP (2003) data, the National Center for Education Statistics (NCES) provided surprising evidence that public school students outperformed their private school counterparts in some cases.

In most private schools, English is the primary medium of instruction, and the teachers working there are highly competent and skilled. Additionally, private schools offer superior classroom facilities compared to government schools, such as advanced materials for creative activities. Numerous studies have indicated that schools with English as the medium of instruction provide improved practical resources, including computers, multimedia tools, and access to online libraries, in contrast to Urdu medium schools (Dogar et al., 2015; Khurshid et al., 2016; Siddiqui & Gorard, 2017). Exposure to advanced tools in English medium schools enhances students' skills and boosts their academic performance. (Shabbir et al., 2014). Additionally, other research has highlighted important changes in academic accomplishment between students from private and government schools (Siddiqui & Gorard, 2017).

The present research aims to discover the differences in the psychosocial classroom environments of private and government schools, focusing on key classroom environment variables. Schools that offer engaging activities for students, along with the way these activities are implemented, and involve both students and their families in school decisions, significantly impact how students feel about school and respond to school life (Abreu et al., 2006). Previous research has indicated a connection between the type of environment and the nature of student learning (Fraser, 1999). This study also seeks to examine how the psychosocial classroom environment, including various teacher and student factors, influences the academic achievement of 7th and 8th-grade students in Peshawar.

Rationale

Education is an important factor in human psychosocial development. The excellence of a nation's human capital is determined by the standard of its education. Supportable financial growth requires expert manpower, which is cultivated through the productivity and efficiency of individuals—achievable only through education. (Nasir & Nazli, 2010). Illiteracy poses a significant obstacle to financial growth, while private schools accommodate a substantial portion of school-aged children. The trend of enrolling children in private schools is steadily increasing, with even the poorest parents aspiring to send their children to such institutions. This raises questions about the underlying reasons for this preference, whether a performance gap exists between public and private schools, and what factors contribute to this disparity. To explore these issues, this study compares public and private schools, focusing on various dimensions of the psychosocial classroom environment as key performance indicators.

Objectives

○ To investigate the relative role of various classroom environment dimensions in enhancing the academic achievement of middle school students.
○ To compare the impact of the psychosocial classroom environment of government and private schools on the achievement level of middle school students.

❍ To find out gender differences in the impact of psychosocial classroom environment on the achievement level of middle school students.

Hypothesis

❍ Improving different aspects of the psychosocial classroom environment will improve academic achievement in the students of grades 7 and 8.
❍ Diverse magnitudes of psychosocial classroom environments will predict the achievement levels of government and private middle school students differently.
❍ Different dimensions of psychosocial classroom environment will predict the achievement levels of male and female middle school students differently.

Study Design

Sample

A sample of 250 students, aged 13 to 14, was carefully chosen from two government schools and two private schools in Peshawar through the cluster sampling technique. The sample comprised 71 male students and 37 female students from private schools, as well as 65 male and 77 female students from the 7th and 8th grades in government schools.

Instrument

The study utilized a 56-item scale; the questionnaire was composed of seven scales, each containing eight items. Due to its high reliability and validity, the WIHC has been widely used to gather data on related topics worldwide (Dorman, 2008). Each item was rated using a 5-point Likert scale. The seven subscales evaluated student cohesiveness, teacher support, involvement, task focus, enquiry, collaboration, and fairness, with responses on each item quantified through the 5-point Likert scale (Fraser et al., 1996).

Procedure

Following the approval from the principals of the chosen schools, consensus was also sought from the students to participate in this research. The students were given a briefing on the study's purpose before responding to the 56-item scale. The subjects, aged 13-14, were selected using the cluster sampling method, and the questionnaire was administered in groups to collect data. The students showed a high level of interest and cooperated fully throughout the study.

Results

Table 1

Psychometric Characteristics of the Scales (N=203)

Scale	N	Mean	SD	α	Range		Skew
					Potential	Actual	
WHICH	56	188.87	31.98	.92	56-280	75-270	-.19

Table 2

Multiple Regression Analysis of Classroom Environment Sub Scales predicting academic achievement (N=250)

Model		Unstandardized Coefficients		Standardized Coefficients	t	sig
		B	Std. Error	β		
1	(Constant)	86.59	3.10		27.88	.000
	cooperation	.42	.10	.243	3.94	.000
2	(Constant)	77.62	4.02		19.30	.000
	cooperation	.60	.11	.344	5.12	.000
	Involvement	.53	.15	.229	3.41	.001

Table 2 shows stepwise multiple regression analysis for classroom Psychosocial environment dimensions predicting achievement among grade seventh and eighth students of Peshawar KPK. This result clearly indicates that cooperation and involvement were found to be the significant predictors of achievement among all the eight dimensions of the class environment.

Table 3

Multiple Regression Analysis of Classroom Environment Sub Scales predicting academic achievement (N=250)

School Model		Unstandardized Coefficients		Standardized Coefficients	t	sig
		B	Std. Error	β		
1	(Constant)	3.045	34.422		.088	.000
	Investigation	4.974	1.567	.282	3.175	.002
2	(Constant)	94.695	7.602		12.456	.000
	Teachsupprt	.637	.293	.233	2.173	.033

Table 3 shows step wise multiple regression analysis for class room Psychosocial environment dimensions predicting achievement among grade 7th and 8th students of government and private schools of Peshawar KPK. This result clearly indicates that for govt school investigation and for private school teacher's support was obtained as significant predictors of student's achievement as measured through their percentage.

Table 4

Multiple Regression Analysis of Classroom Environment Sub Scales predicting academic achievement (N=250)

Gender	Model		Unstandardized Coefficients		Standardized Coefficients	t	Sig.
			B	Std. Error	Beta		
Male	1	(Constant)	54.337	6.469		8.400	.000
		Taskorien	.669	.193	.287	3.467	.001
	2	(Constant)	46.153	7.611		6.064	.000
		Taskorien	.647	.191	.277	3.382	.001
		Involvment	.337	.170	.163	1.986	.049
Female	1	(Constant)	89.032	3.908		22.780	.000
		cooperation	-.556	.127	-.382	-4.369	.000

a. Dependent Variable: Percentage

Table 4 presents a step-by-step multiple regression analysis for classroom Psychosocial environment dimensions predicting achievement among male and female students of grades 7th and 8th in Peshawar KPK. This result clearly indicates that for males, task orientation and involvement, whereas for females, cooperation was obtained as a significant predictor of student achievement as measured through their percentage.

Discussion

This study aimed to investigate the role of various classroom environment dimensions in the academic achievement of the students of classes 7th and 8th in Peshawar. Stepwise regression analysis showed that cooperation among classes and students' level of involvement in their studies has a positive and significant impact on student's academic achievement. Hoffner-Moss (2002) revealed that when students are provided with an optimal classroom environment, their involvement increases, which leads to improved learning outcomes. Similarly, Marjoribanks (2004) identified a connection between educational backgrounds, household surroundings, instructional goals, and scholastic accomplishment. Teaching strategies, curricula, teacher-student relationships, inter-student connections, school

obligations, classes and hours of instruction, uniform courses of study, quality of buildings, learning strategies, and homework are all aspects of education that have an impact on learning.

It was further hypothesized that "there would be differences in the impact of classroom environment dimensions on the educational accomplishment of government and private schools of Peshawar". Results of the stepwise regression analysis showed that among all the classroom environment dimensions, investigation was found to be the significant predictor of achievement for government schools, whereas teacher support was a significant predictor of academic achievement for private schools in Peshawar. Olivier et al. (2019) discovered that a supportive school environment promotes academic success by influencing students' learning and emotional, social, and ethical growth. Results across genders showed task orientation and involvement for males, whereas cooperation was a significant predictor of academic achievement for female students of grades 7th and 8th in Peshawar. Gender comparisons showed that boys had better task orientation and support from teachers, and girls had more cooperation with them (Nazneen & Ahmad, 2020). Another study, on the contrary, showed that Male students may seek help from their teachers less frequently, possibly due to social pressures or societal expectations (Wright, 2003).

Conclusion

The current research was intended to study the role of psychosocial dimensions of a classroom in the school achievement of middle-level students and also to compare government and private schools across numerous proportions of the classroom environment. The study sample consisted of 250 subjects, of which 136 were boys and 114 were girls. The study involved middle school students between the ages of 13 and 14. The study concluded that among all the Psychosocial Classroom Environment Dimensions, Investigation and Teacher support were identified as key predictors of academic achievement in government and private schools, respectively. Results across genders showed task orientation and involvement for males, whereas cooperation was a significant predictor of academic achievement for female students of grades 7th and 8th in Peshawar.

Limitations and Recommendations

A notable limitation of this study was the reliance on a comprehensive scale, which required a considerable period of time for students to complete. Initially, they showed a lot of interest, but by the end, they began to feel fatigued. The current study concentrated solely on the classroom environment as a factor influencing students' achievement levels; other variables like the educational background of the student's family, his/their health, socioeconomic status, teacher's educational level, and experience should also be taken into account when examining student's achievement levels. The classroom's physical environment and the student's intrinsic motivation for their studies should be considered as well.

Significance of the Study

The psychosocial aspects of a classroom are crucial to the academic success of middle-level students. These aspects encompass elements like emotional support, social interactions, and effective classroom management, which all affect students' levels of engagement, motivation, and academic performance. A positive psychosocial environment encourages students to share their thoughts and feelings, creating a nurturing atmosphere that can enhance their grades and overall school achievement. Key elements like peer relationships and the quality of teacher-student interactions play a vital role in shaping these dynamics.

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