

**Relationship between Classroom Climate and Undergraduate University Students
Motivation**

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ABSTRACT

This study was to explore the relationship between classroom climate and students' motivation of undergraduate University students. In this correlational research, population was all undergraduate students enrolled in Sargodha University. Using multi-stage random sampling; 14 departments were randomly selected from seven randomly selected faculties; from these departments, 406 undergraduate students of all semesters were randomly selected. An adapted classroom climate scale and motivation scale was used. The data were analyzed through mean, standard deviation, frequency, t-test ANOVA and Pearson r. Study found classroom climate have a relationship with students' motivation of undergraduate students. It is recommended that university teachers may use activities like small group discussion and role playing to make the classroom conducive for learning and enhance motivation.

Keywords: Classroom climate, Students Motivation, undergraduate students

INTRODUCTION

The quality of classroom environment consumes gained growing concern in the last many years after it was reported to be closely linked to the positive student outcomes like greater motivation, academic engagement and learning (Tyagi, 2020). Notion of classroom climate was positive in the sense that it proved to be advantageous to both students and teachers closely related to classroom climate, which is an alternately used instead of classroom environment and is viewed as part of classroom quality. Classroom climate represents the evaluation of the educational experience by students, (Derakhshan et al., 2022; Khalfaoui, et al., 2021). Over the last few years, scholars are taking interest in classroom climate which is something that determines the outcomes of learning among students. The classroom climate is a classroom learning environment such as the collaboration between the students and teacher, relationships among the students, the teaching methods and classroom management (BOROZAN & Safta-Zecheria, 2025; Moreira et al., 2024). The favorable classroom environment helps students feel psychologically comfortable, foster engagement, and enjoy positive learning experiences. The classroom environment may be perceived as a common perception of the classroom atmosphere by the scholars present in the classroom, (Alonso-Tapia & Diaz, 2022). Further, classroom climate refers to the worldliness in a classroom that is built through various forms of classroom interaction (Khuhro, 2024). A positive climate

in the classroom is suggested to be the result of active participation of the teacher and the students in social interactions, establishment of a connection with the classroom, and involvement in studying academic activities. Positive classroom climate is characterized by such a significant characteristic as the improvement of active personal relations, (Bayat et al., 2020; Qiu, 2022).

Optimistic climate of a classroom may enhance societal interactions in classes in different ways. One is through the establishment of an atmosphere where students would be free to express themselves to the colleagues and the instructor (Liang et al., 2025). Favorable classroom atmosphere may make language learners willing to engage in co-operative activities and work in groups, (Qiu, 2022). Interaction among students is a significant part of their learning in education and it echoes their practices in education. It is connected with student learning, approval, persistence, and academic success (Mandernach, 2015).

Motivation of students is also another critical element of undergraduate academic success. Motivation can be defined as the factors that stimulate the students to participate in learning process and attain educational objectives both internal and external (Rožman et al., 2025). The modern self-determination theory divides motivation into two, namely intrinsic and extrinsic, where the former is motivated by individual interest and satisfaction, and the latter is affected by the external rewards in the form of grades or recognition, (Ryan & Deci, 2020). Highly motivated students have high chances of exhibiting academic persistence, deeper learning strategies, and academic improvement. Motivation of a student was the most important aspect of the learning environment, especially in university education as the importance of scholastic accomplishment is concerned (Apriandi et al., 2022). To keep interest and motivation towards a goal of learning, this study will focus on the external dimensions of motivation that the student wants and feels motivated to achieve (Tokan, 2019).

Motivation is the primary marker of academic achievement since it inspires and focuses action on achievement. The tools which students require to achieve success should be made available to them. They require means, which is desire and direction, to achieve in institute. Motivated students spend more time in classes, work harder, have better learning time, and achieve higher scores in exams (Agustina et al., 2021). Motivation is the process through which an activity is initiated and maintained, with an instant goal in mind, and a circumstance or creation of a circumstance, which includes all the factors that influence the extent of preparedness of an activity. A study stated that our motivation (motion, energy, and direction) determines what we do, why we do it, and how we do it (Riyanto et al., 2021). Extrinsic motivation can be prompted at the initial stage and could evolve into intrinsic motivation as learning progresses. Lastly, externally motivated students strive to put themselves together on the academic front; motivation is an element that influences academic success (Cenić et al., 2019; Liu et al., 2022). The greatest element in the educational setting is motivation with reference to the performance of students in their studies or chores. The control of the classroom by the teacher is one of the most significant contributors to making the students motivated, (Han, & Yin, 2016). Effective classroom management is often associated with improvement in the capacity to learn, independent learning, students' output, and success. The fears over keeping good control of the classroom remain very tangible among the teachers (Abidin, 2024). Extrinsic motivation involves all outward factors of a person that exist around his environment such as awards, compensation, support and others. It is considered extrinsic motivation to be an act that involves carrying out a duty that is not directly linked to the job but to serve external interests of the task such as being valued or rewarded, (Mahadi & Jafari, 2012). Intrinsic motivation is associated with internal feelings and surroundings. Intrinsic motivation as performing a task which gives him a sense of enjoyment, a sense of effort and he can take charge of his learning (Domenico & Ryan, 2017).

LITERATURE REVIEW

Classroom environment is a specific developmental situation which presupposes the instructional, social and organizational relationships (Wang et al, 2020). A encouraging classroom climate was constituted by joint effort and assistance of a teacher, as well as collaboration which contributed to the development of an intrinsic drive and leads to positive academic results, (Alonso Tapia & Ruiz-Díaz, 2022). Multidimensional construction usually encompasses social climatic (teacher student relationship, peer support), emotional climatic (safety, trust) and instructional climatic (clarity, structure, feedback) and physical or organizational. The publications focus on different aspects, but balance on teacher behavior, interactions, and classroom norms, (Wang & Degol, 2016). Classroom climate refers to the worldly climate of a classroom built through the various forms of classroom interactions. These interactions will include student-teacher and student-student interactions (Gazelle, 2006). Active involvement of the instructor and learners in societal interaction of the classroom learning environment gives result of a positive classroom climate, (Derakhshan, 2021).

The classroom-climate captures the evaluation to students regarding their learning process (Khalifaoui et al., 2021). It was possible to assess the opinions of students regarding the rigor of the course they are taking, the interactional opportunities they have with the instructor and other students in the session, as well as the participation in the class tasks and actions. Each pupil has his or her own vision of classroom environment. Nevertheless, students and their teacher can also share a group and collective view and emotion. Therefore, classroom climate may be termed as classroom environment among the students (Alonso-Tapia & Ruiz-Diaz, 2022). The classroom environment itself consists of the students' insights which develop through the impact of experience to a few learning situations and the available chances and resources in the atmosphere which contribute to the formation of impressions and the generation of decisions respectively (Feng et al., 2024). As research evidence suggests, a positive and stable classroom climate and the emotional attachment between the teacher and student have the potential to enhance the levels of satisfaction, motivation among learners, the classroom contribution, engagement in group actions and group tasks, their overall presence and decrease their unease levels, as well as their inner intellect of anxiety, (Barr, 2016)(Yan et al., 2024). In the presence of a positive environment between language teachers and students, they can be more focused, feel less stressed, attain superior educational objectives (Elahi Shirvan & Taherian, 2020). It was important to mention that one of the primary characteristics of a good classroom atmosphere was the improvement of interpersonal relationships (Bayat et al., 2020, Qiu, 2022). An optimistic classroom climate allows teachers to establish positive relationships with the learners, (Barr, 2016; Elahi Shirvan & Taherian, 2022).

Student Agency: Student agency concept is defined as the ability of the learner to take active action and significantly alter their own learning process such as making choices, controlling their own behavior, and being accountable about their learning (Hooshyar et al., 2023). The systematic review, carried out by them, indicated that learning analytics (LA) can be useful in assisting agency by providing students with the resources to track their progress, assess their behavior, and make informed decisions thus fostering self-regulation and empowerment in learning (Kleimola et al., 2024).

Collaborative Learning Environment: The idea of collaborative learning is employed to designate a family of various what are known as educational practices which purport to entail combined intellectual effort by pupils and instructors, respectively of partners or insignificant groups with the purpose of learning collected i.e. shared, cooperative, partner, mutual and team-created learning (Zhang et al., 2020). Collaborative learning in advanced education has observed towards promote intellectual, social, and informative consequences. Students may not accept what the teacher believes they should learn but rather challenge the curriculum and make meaning out of it (Safitri et al., 2024).

Supportive & Inclusive Learning: The term supportive and inclusive learning environment can be defined as a classroom atmosphere where every learner feels emotionally secure, respected, and appreciated irrespective of their background, character, and performance (Margas, 2023). In such contexts, instructors would be optimistic toward establishing a sense of inclusive pedagogy, curriculum designs to meet the requirements of various learners, and such practices that reinforce the involvement of all learners (Jackson Summers et al., 2024).

Self-Directed Learning (SDL): The process of developing a setting, which will enable learners to decide concerning the information they wish to master can be considered self-directed learning, e.g. the situation, when a patient comes with an unknown disease condition, and students will have to seek the relevant resources and be informed about the data (Menon et al., 2023). Secondly, SDL can be considered in co-curricular activities where students get to know what they are interested in. Although SDL typically occurs in the experiential or co-curricular environment, the skills required in SDL are to be taught and learned in the didactic part of the curriculum. This will enable the students to build competencies gradually, what is also referred to as scaffolding (Robinson, 2021).

Student motivation has a noteworthy effect on their intellectual edifices, behavior patterns and overall learning experiences. The motivation of students has unique differences in their instructional effects. Intrinsic motivation, which is explained by the self-determination theory (Ryan & Deci, 2020). It also proves the consistency between intrinsic motivation and cognitive processing. This motivation ensures academic persistence by virtue of the natural interest of learners in knowledge acquisition as opposed to extrinsic motivation which is dependent on external contingencies. Even through extrinsic drives are associated with temporary compliance in tasks (Algharaibeh, 2020). The term motivation has become very common. The person in any profession must desire the drive to accomplish his objectives and targets. Some of the scholars had various ideas about the motivation. Ryan and Deci (2020) stated that the motivated person never stops. Motivation was a source of energy or stamina to the learners that is not only handy but also valuable to the learners (Motevalli et al., 2020).

Intrinsic Motivation: The intrinsic motivation was associated with the accomplishment of students, their persistence, and graduate opportunities. Instant messaging is also characterized by exploration and curiosity towards the task compared with behavior that is affected by external pressure or reward (Anwar et al., 2024; Atasever et al., 2022). This school of impulsive attention and proficiency in the learning process is a predictor of academic outcomes, such as persistence on difficult tasks, intensive learning strategies, academic achievement, school and college social connectedness, and well-being (AlHadi & Mossa, 2018). The intrinsic motivation relates with the feelings and environment. Intrinsic motivation is defined as the enjoyment that a person experiences to perform a task, an act of accomplishment in a person and autonomic learning, he viewed intrinsic motivation as doing a job that gives him a sense of enjoyment, a sense of effort and the capability of a learner to assume control of his learning (IDIKUT et al., 2021).

Extrinsic Motivation: Extrinsic motivation deals with outward aspects of an individual that encapsulate him that includes awards, compensations, assistance among others (Matthews et al., 2020). Extrinsic motivation is the one which is done as a sense of duty and it is simply connected with other activities conducted out of benefit (Lee et al., 2022).

Classroom climate is one of the most significant factors, which affects the establishment of the instructive process. The pupil psychological aspect depends on the classroom environment. The reason is that it increases the chances of developing a thought in the psychological mind of the student that he or she is the subject of the learning process, and that he or she is the most valuable aspect in the entire

learning process (Edgerton & McKechnie, 2023). The classroom climate aspects have a lot of consequences for the personality of a student, with the social, mental, and educational being the most important. A good classroom climate should be aimed at establishing good relationships between the teachers and learners hence, students begin to like their instructors. That also assists in teaching the pupil how to take regulate the learning process independently, as it allows creating the probability of active and productive participation in the education process overall (Darling-Hammond & Cook-Harvey, 2018).

An encouraging climate of a classroom may be helpful for fostering creativity, curiosity, and search of new prospects, while an adverse climate can cause demotivation and disentanglement among students (Ambrose et al., 2010). In university, classroom climate is much crucial for the learning process and students' motivation. Many educationists are of the view that a good climate in the classroom may be supportive for students' motivation, participation in teaching learning process and ultimately encourage meaningful learning. Here in Pakistani universities are not so advance to have teaching support gadgetry, so it was the need of the time to explore the Relationship between Classroom Climate and undergraduate University Students' Motivation (Ahmed et al., 2025; Joulide et al., 2020; Khan et al., 2019).

Research Questions

The following questions were formulated to find their answers:

1. Which factor is less working in the climate of classrooms of undergraduate students in Sargodha University?
2. What is the difference between opinion of female and male undergraduate students about classroom climate?
3. Who is intrinsically motivated and who is extrinsically motivated, Male or female undergraduate students?
4. What is the relationship of classroom climate with undergraduate students' motivation?

METHODOLOGY

This was correlational study and it was delimited to the University of Sargodha, which is one of the rising public sector universities in Pakistan. The population of the study comprises all undergraduate students enrolled in Sargodha University. The sample of the population was obtained through multi-stage random sampling of undergraduate students from six randomly selected faculties. These faculties encompass a total of 14 departments, selecting (29) undergraduate students from each department, making the sample of 406 undergraduate students.

“The Consensus Classroom Climate Inventory (CCCI)” developed by Olarte et al. (2024) was adapted for the assessment of classroom climate in undergraduate programs. Nevertheless, since the original scale was created in another educational and cultural environment, it was changed to fit in with the present research. Few changes in the wording of the selected items were made to provide contextual significance, clarity, and appropriateness among the undergraduate learners of the University of Sargodha. The scale was modified to include 16 items that were spread into four factors with each factor having four items. The responses were on 5-point Likert scale i.e. strongly disagree to strongly agree.

Student Motivation Scale developed by Martin (2001) under the name Assessing Motivation in University Students, was also adapted. As it offers a comprehensive evaluation of academic motivation and is close to the objectives of this study. In the interests of the current research, the instrument was modified to make it relevant to the local situation and the population under study. Few modifications were made to the wording of the items, to enhance clarity and relevance with undergraduate students at the University of Sargodha. Such changes did not affect the construction of the scale. The modified motivation scale had 16 questions, and again responses were on the 5-point Likert scale, where strongly disagree was the first and strongly agree the last option. The five experts PhD in Education and having vast research experience were requested for expert opinion. After incorporating suggestions of the expert, the instrument was administered to 100 students of all undergraduates for pilot testing and a good value .782 was of Cronbach's Alpha. Data was gathered through self-approach and analyzed through calculating mean, standard deviation, frequency and inferential statistics i.e. t-test ANOVA and Pearson r.

DATA ANALYSIS AND RESULTS

The data analysis and interpretation are given below.

Table 1

Student agency factor of Classroom Climate

S#	Statement	SA	A	SA+A	N	DA	SDA	DA+SDA	Mean	SD
1	I communicate with my classmates to exchange ideas and feedback.	154 (38%)	160 (40%)	314 (78%)	43 (10%)	26 (7%)	18 (5%)	44 (12%)	4.01	1.07
2	I consistently follow classroom rules and guidelines.	177 (44%)	143 (36%)	320 (80%)	51 (13)	15 (4%)	15 (4%)	30 (8%)	4.13	1.02
3	I conduct my own research to find answers and enhance my knowledge	161 (40%)	163 (41%)	324 (81%)	49 (12%)	16 (4%)	12 (3%)	28 (7%)	4.11	.97
4	Students discuss the pace of learning and share their opinions	129 (32%)	169 (42%)	298 (74%)	60 (15%)	26 (7%)	16 (4%)	42 (11%)	3.92	1.04
	Total	621 (39%)	635 (40%)	1156 (79%)	203 (12%)	83 (16%)	61 (4%)	144 (10%)	4.04	1.02

Note: SA= Strongly Agree, A= Agree, SA+A= Strongly Agree+ Agree, N= Neutral, DA= Disagree, SDA= Strongly Disagree

Table 1 gives the descriptive analysis of students' perception about the student agency factor of classroom climate statement (1-4). In terms of communication with classmates to share ideologies and feedback, the majority of the respondents 78% with mean score 4.01 and SD 1.076 agreed and strongly agreed with the statement. Equally, the perception of the students regarding classroom rules and guidelines was highly endorsed by majority 80% of the respondents with mean score 4.13 and SD 1.020, indicating consistency of the students for acting upon classroom rules. The statement concerning the implementation of independent research to deepen knowledge, majority 81%, students with mean 4.11 and SD .971 responded that they do independent research for their learning. Further majority 74% of students with a mean score 3.92 and SD 1.044 agreed and strongly agreed that they discuss and share their opinion. Overall majority of the undergraduate students (79%) with the mean score 4.04 and SD 1.027 expressed that student agency contributes to classroom climate the by communicating with each other, following classroom rule, doing independent research and sharing ideas and opinion.

Table 2

Collaborative learning environment factors of classroom climate

S#	Statement	SA	A	SA+A	N	DA	SDA	DA+SDA	Mean	SD
5	I collaborate in teams to solve challenging problem	143 (36%)	149 (37%)	292 (73%)	63 (16%)	30 (8%)	16 (4%)	46 (12%)	3.93	1.08
6	I take the initiative to organize group study sessions.	125 (31%)	126 (31%)	251 (63%)	79 (20%)	47 (12%)	24 (6%)	71 (18%)	3.70	1.19
7	Our teachers adjust teaching methods based on student feedback.	111 (28%)	170 (42%)	281 (70%)	56 (14%)	36 (9%)	28 (7%)	64 (16%)	3.75	1.16
8	Our class engages in group activities catering to diverse learning styles.	118 (29%)	144 (36%)	262 (65%)	64 (16%)	41 (10%)	34 (9%)	75 (19%)	3.68	1.23
	Total	497 (31%)	589 (37%)	1086 (68%)	262 (16%)	154 (10%)	102 (7%)	256 (17%)	3.75	1.17

Note: SA= Strongly Agree, A= Agree, SA+A= Strongly Agree+ Agree, N= Neutral, DA= Disagree, SDA= Strongly Disagree

Table 2 illustrates the report of students about the collaborative learning environment a factor of classroom climate in four statements (5-8). The analysis indicates that the statement regarding teamwork to resolve difficult issues was highly endorsed by majority (73%) of the respondents with mean score 3.93 and SD 1.082 giving agreement or strong agreement. Similarly, the initiative of students in conducting group study sessions was endorsed by percentage of 63% of the respondents with a mean of 3.70 and SD

1.196. The adaptation of teaching strategies by teachers according to the student feedback was perceived as positive with the agreement of 70% of the students with mean of 3.75 and SD 1.159 indicating responsiveness to learning needs of the students. Further, majority (65%) of the respondents with mean score 3.68 and SD 1.235 confirmed the presence of class interaction in group activities. Overall majority (68%) with mean score 3.75 and SD 1.168 signifies the collaborative learning in the classroom.

Table 3

Supportive inclusive learning factor of classroom climate

S#	Statement	SA	A	SA+A	N	DA	SDA	DA+SDA	Mean	SD
9	Our teachers assign group projects and collaborative tasks.	148 (37%)	166 (41%)	314 (78%)	52 (13%)	17 (4%)	18 (5%)	35 (9%)	4.02	1.03
10	The teachers encourage students to express their viewpoints openly.	139 (35%)	162 (40%)	301 (75%)	49 (12%)	29 (7%)	22 (6%)	51 (13%)	3.92	1.12
11	I present my research findings and projects to the class.	128 (32%)	167 (42%)	295 (74%)	54 (14%)	31 (8%)	21 (5%)	52 (13%)	3.87	1.10
12	Class activities include teamwork that supports collective learning goals	120 (30%)	167 (42%)	287 (72%)	70 (18%)	29 (7%)	15 (4%)	44 (11%)	3.87	1.04
	Total	535 (33%)	662 (41%)	1197 (75%)	225 (14%)	106 (7%)	76 (5%)	182 (12%)	3.92	1.07

Note: SA= Strongly Agree, A= Agree, SA+A= Strongly Agree+ Agree, N= Neutral, DA= Disagree, SDA= Strongly Disagree

Table 3 indicates students' perceptions about the supportive and inclusive learning element of classroom climate to four statements (9-12). The results indicate a strong agreement with the assignment of group projects and collaboration activities by the teacher was recorded, by majority (78%) of students with mean was 4.02 and SD 1.037, agreed or strongly agreed with the statement. Likewise, the promotion of students to give their opinions freely by the teachers was found to be widely accepted by 75% of the respondents with mean score 3.92 and SD 1.117. The possibilities to deliver research findings and projects in the classroom were also viewed positively by majority (74%) of the students with mean score 3.87 and SD 1.105. Further, 72% of students with mean score 3.87 and SD 1.042 supported class activities that were aimed at encouraging teamwork and shared learning objectives. Overall majority (75%) of the students with mean score 3.92 and SD of 1.073 agreed or strongly agreed for inclusivity in the classroom to make an affirmative learning environment.

Table 4

Self-directed learning factor of classroom climate

S#	Statement	SA	A	SA+A	N	DA	SDA	DA+SDA	Mean	SD
13	I actively participate in classroom activities and discussions.	132 (31%)	159 (38%)	291 (69%)	57 (14%)	33 (8%)	20 (5%)	53 (13%)	3.87	1.11
14	I set specific learning goals and monitor my progress regularly.	120 (29%)	152 (36%)	272 (65%)	85 (20%)	29 (7%)	15 (4%)	44 (11%)	3.83	1.05
15	I seek additional resources to deepen my understanding of lessons.	133 (32%)	177 (42%)	310 (74%)	55 (13%)	24 (6%)	12 (2.9%)	36 (9%)	3.99	.99
16	I reflect on my learning process and make improvements when needed.	152 (36%)	154 (38%)	306 (73%)	61 (15%)	23 (6%)	11 (3%)	34 (9%)	4.03	1.00
	Total	537 (32%)	642 (38%)	1179 (70%)	258 (15%)	109 (7%)	58 (4%)	167 (10%)	3.93	1.04

Note: SA= Strongly Agree, A= Agree, SA+A= Strongly Agree+ Agree, N= Neutral, DA= Disagree, SDA= Strongly Disagree

Table 4 provides perceptions of students about self-directed learning variables in a classroom climate, summarizing reactions to 4 statements (13-16). The result of statement 13 is that the 69% of the respondents with mean score is 3.87, and SD 1.112 reported to be engaged in classroom activities and discussions. In statement 14, 64.8% of participants had specific learning objectives and tracked their progress, their mean 3.83 and SD 1.054. There was highest rate of agreement, of 74% respondents with mean of 3.99 and SD 0.990 on pursuing more resources to further learning. Further majority (73 %) of students with mean of 4.03 and SD 1.005 showed agreement about reflective learning and improvement. Overall majority 70% of the students with mean score 3.93 and SD 1.040 tends towards positive self-directed learning.

Table 5

Gender Difference in factors of Classroom Climate

Factor	Gender	N	Mean	SD	t	df	P-value
Student Agency	Male	157	16.22	2.94	.224	399	.82
	Female	244	16.15	3.00			
Collaborative Learning	Male	157	15.08	3.34	.132	399	.895
	Female	244	15.04	3.43			
Inclusive Learning	Male	157	15.73	3.21	.282	399	.778
	Female	244	15.64	3.23			
Self-Directed Learning	Male	157	15.56	3.33	-.787	399	.432
	Female	244	15.82	3.14			
Overall of Classroom Climate	Male	157	62.59	10.4	-.057	399	.995
	Female	244	62.65	10.8			

Table 5 shows the gender-based comparison of factors of classroom climate. This analysis through independent -sample t-test and showed that there is no significant difference between male and female undergraduate students' report about students agency (t -value = 0.224, df= 399 and the p -value = 0.82>.05), Further no significance difference was also revealed between male and female students' reports about collaborative learning (t-value = 0.132, df=399 and the p-value = 0.895>.05), inclusive learning (t-value = 0.282, df= 399 and P-value = 0.778>.05), self-directed learning (t -value = -0.787, df = 399 and p -value =.432>.05), which does not indicate a significant difference between the self-directed learning scores between genders. Overall there is also no difference of responses of male and female students about classroom-climate (t -value = -0.057, df= 399, and p -value =.995>.05).

Table 6

Intrinsic motivation factor of students' motivation

S#	Statement	SA	A	SA+A	N	DA	SDA	DA+SDA	Mean	SD
1	I enjoy learning new and interesting topics.	191 (48%)	149 (37%)	340 (85%)	35 (9%)	12 (3%)	14 (4%)	26 (7%)	4.22	.974
2	Whenever I read something interesting, I lose track of time.	164 (41%)	163 (41%)	327 (82%)	45 (11%)	16 (4%)	13 (3%)	29 (7%)	4.12	.98
3	I feel excited when I discover something new through learning.	169 (42%)	154 (38%)	323 (81%)	42 (11%)	25 (6%)	11 (3%)	36 (9%)	4.11	1.01
4	I like questions which help me think and comprehend.	183 (46%)	147 (37%)	330 (82%)	39 (10%)	18 (5%)	14 (4%)	32 (8%)	4.16	1.01
5	I lose track of time when I am learning something interesting	169 (42%)	149 (37%)	318 (79%)	51 (13%)	22 (6%)	10 (3%)	32 (8%)	4.11	.99
	Total	876 (44%)	762 (38%)	1638 (82%)	212 (11%)	93 (5%)	62 (3%)	155 (8%)	4.14	.99

Note: SA= Strongly Agree, A= Agree, SA+A= Strongly Agree+ Agree, N= Neutral, DA= Disagree, SDA= Strongly Disagree

Table 6 summarizes the perceptions of students about intrinsic motivation. For statement 1, 85% students with mean score 4.22 and SD 0.974, reported that they enjoy new topics very much. For statement 2, majority 81.5% of students with mean score 4.12 and SD 0.980 expressed for deep interest. For statement 3, majority (81%) of students with mean score 4.11 and SD 1.006 agreed and strongly agree for excitement in discovery. For statement 4, majority 82% of students with mean score 4.16, and SD 1.011, showed the preference for thought-provoking tasks. For statement 5, majority (79%) of respondents with mean 4.11 and SD.992, supported time-loss immersion. Overall, majority (82%) of respondents with mean score 4.14 and SD 0.993 agreed or strongly agreed for high intrinsic motivation levels among students.

Table 7

Extrinsic motivation factor of students' motivation

S#	Statement	SA	A	SA+A	N	D	SD	D+SD	Mean	SD
6	I feel motivated when my teachers appreciate my performance.	187 (47%)	144 (36%)	331 (83%)	35 (9%)	22 (6%)	13 (3%)	35 (9%)	4.17	1.01
7	Good grades encourage me to study harder.	159 (40%)	152 (38%)	311 (78%)	61 (15%)	15 (4%)	14 (4%)	29 (7%)	4.06	1.00
8	I feel motivated when my peers acknowledged my academic achievements.	152 (38%)	156 (39%)	308 (77%)	51 (13%)	26 (7%)	16 (4%)	42 (11%)	4.00	1.06
9	Recognition and rewards inspire me to put more effort into my studies.	177 (44%)	138 (34%)	315 (79%)	55 (14%)	21 (5%)	10 (3%)	31 (8%)	4.12	1.00
10	I want to be among the top-performing students in my class.	171 (43%)	133 (33%)	304 (76%)	53 (13%)	28 (7%)	16 (4%)	44 (11%)	4.03	1.09
	Total	846 (42%)	723 (36%)	1569 (78%)	255 (13%)	112 (6%)	69 (4%)	181 (9%)	4.08	1.03

Note: SA= Strongly Agree, A= Agree, SA+A= Strongly Agree+ Agree, N= Neutral, DA= Disagree, SDA= Strongly Disagree

Table 7 summarizes the results of five statements of factors extrinsic motivation of students. Majority (83%) of student with mean score of 4.17 and SD 1.019, reported for a lot of teacher-based encouragement. Similarly, majority (78%) with mean 4.06 and SD 1.005 reported that grades are motivator. Likewise, majority (77%) students with a mean score 4.00 and SD 1.062 agreed and strongly agreed, for peer recognition. Moreover, majority (79%) of students with mean score 4.12 and SD 1.0 showed agreement for the influence of rewards. For statement 10, majority 75% of respondents with means 4.03, SD 1.095 agreed that depicts competitive drive. Overall majority (78%) of students with mean score 4.08 and SD of 1.036 expressed that extrinsic variables do have effect on students' motivation.

Table 8

Correlation analysis between classroom climate and students' motivation

Classroom Climate	Classroom Climate	r	N	p-value
Classroom Climate	Students' Motivation	.688**	401	.000

Table 8 provides a correlation analysis of classroom climate and the motivation of students. Based on the results that $r = .688$, $p = .000$ reflects that there was strong positive relationship between classroom climate and motivation of the students. As the classroom climate becomes better the students' motivation increases.

CONCLUSION AND DISCUSSION

The study was to investigate the relationship of classroom climate with undergraduate university students' motivation. Undergraduate students both male and female, reported that all the factors i.e. student agency, collaborative learning, inclusivity, and self-directed learning are present in the classroom climate in the university of Sargodha. Previous researches reported similar results such as Ahmad et al. (2020) found that better climate in the university classrooms. Ahmed et al., (2025) concluded that increases students' satisfaction of the classroom climate increase their relationships with classmates. A study by BOROZAN & Safta-Zecheria, (2025) found that the dimensions of classroom climate, as measured by Classroom Inventory, were noteworthy.

Undergraduate students were both intrinsically and extrinsically motivated. But females are intrinsically motivated as compared to male students whereas male undergraduate students are extrinsically much motivated than their female counterparts. Similar to this result researches conducted by Anwer, (2025) and Naz et al., (2020) found that female students had higher intrinsic motivation, while male students had higher extrinsic motivated. A strong positive relationship was found between classroom climate and motivation of the students. As the classroom climate becomes better the students' motivation increases. Assadi, (2023) found that favorable classroom-environment is supportive to and has positive effects on students' motivation.

RECOMMENDATION

On the basis of findings, it is recommended that university teachers may establish an interactive classroom climate and encourage undergraduate students to participate in role playing, such as group leader, use small group discussion and use reward-based strategies, participation marks, career-oriented rewards to extrinsically motivate students.

REFERENCES

- Abidin, Z. (2024). Effective Classroom Management as a Quick Solution to Improve Student Participation and Motivation in the Learning Process. *Zabags International Journal Of Education*, 2(2), 75. <https://doi.org/10.61233/zijed.v2i2.22>
- Agustina, E. T., Wahyudin, A. Y., & Pratiwi, A. A. (2021). THE STUDENTS' MOTIVATION AND ACADEMIC ACHIEVEMENT AT TERTIARY LEVEL: A CORRELATIONAL STUDY. *Journal of Arts and Education*, 1(1). <https://doi.org/10.33365/jae.v1i1.33>
- Ahmed, G., Tayyub, M., & Ismail, R. (2020). Effects of classroom environment for improving students' learning at secondary level in Punjab province, Pakistan. *Science Academies International Journal of Educational Research and Innovation*, 2(3), 55–63.
- Ahmed, Y., Yousuf, T., Shoaib, S., Nawaz, B., Maheshwary, N., Ahmed, A., & Khan, M. A. (2025). Exploring the relationship between classroom climate, academic satisfaction, and life satisfaction of university students. *Journal of Pakistan Psychiatric Society*, 22(1). <https://doi.org/10.63050/jpps.22.1.950>
- Algharaibeh, S. A. S. (2020). Should I ask for help? The role of motivation and help-seeking in students' academic achievement: A path analysis model. *Cypriot Journal of Educational Sciences*, 15(5), 1128. <https://doi.org/10.18844/cjes.v15i5.5193>
- AlHadi, S., & Moosa, V. (2018). Teacher–student relationships and student motivation: A systematic review. *Journal of Education and Learning*, 7(4), 1-12. <https://doi.org/10.5539/jel.v7n4p1>
- Alonso-Tapia, J., & Ruiz-Díaz, M. (2022). Student, teacher, and school factors predicting differences in classroom climate: A multilevel analysis. *Learning and Individual Differences*, 94, 102115. <https://doi.org/10.1016/j.lindif.2022.102115>
- Ambrose, S. A., Bridges, M. W., DiPietro, M., Lovett, M. C., & Norman, M. K. (2010). *How learning works: Seven research-based principles for smart teaching*. Jossey-Bass. <https://doi.org/10.1111/j.1467-8535.2011.01244.x>
- Anwar, M. N., Sultan, A., Ali, F., & Hayat, S. (2024). Application of Behaviorist Theory in Classroom Instructional Reforms. *Qlantic Journal of Social Sciences and Humanities*, 5(2), 341. <https://doi.org/10.55737/qjssh.319972469>
- Anwer, B. (2025). Linguistic Markers of Motivation in Pakistani Higher Education: A Mixed-Methods Psycholinguistic Study of Intrinsic and Extrinsic Orientation. *International Educational Research*, 8(5). <https://doi.org/10.30560/ier.v8n5p1>
- Apriandi, D., Retnawati, H., & Abadi, A. M. (2022). Construct Validity and Reliability of the Learning Motivation Questionnaire. *TEM Journal*, 1494. <https://doi.org/10.18421/tem114-09>
- Assadi, N. (2023). Impact of a positive classroom climate on sixth graders' motivation to learn mathematics at Northern Israel's Arab minority schools. *International Journal of Learning, Teaching and Educational Research*, 22(1), 35–54. <https://doi.org/10.26803/ijlter.22.1.3>

- Atasever, A. N., Çelik, L., & Eroğlu, Y. (2022). Mediating Effect of Digital Addiction on The Relationship Between Academic Motivation and Life Satisfaction in University Students. *Participatory Educational Research*, 10(1), 17. <https://doi.org/10.17275/per.23.2.10.1>
- Barr, J. (2016). The impact of teacher–student relationships on student motivation: A systematic review. *Journal of Educational Research*, 109(3), 251–265. <https://doi.org/10.1080/00220671.2014.917649>
- Bayat, A., et al. (2020). The role of teacher–student relationships in students’ academic engagement. *Psychology in the Schools*, 57(10), 1235–1250. <https://doi.org/10.1002/pits.22405>
- BOROZAN, D.-T., & Safta-Zecheria, L. (2025). EXAMINING PRIMARY SCHOOL PUPILS’ PERCEPTIONS OF CLASSROOM CLIMATE USING THE CLASSROOM CLIMATE QUESTIONNAIRE AND CHILDREN’S DRAWINGS. *Revista de Pedagogie - Journal of Pedagogy*, 2, 95. <https://doi.org/10.26755/revped/2024.2/95>
- Cenić, D., Petrović, J., & Cenić, S. (2019). THE MOST IMPORTANT MOTIVATION FACTORS FOR KNOWLEDGE ACQUISITION AND SUCCESSFUL LEARNING. *Facta Universitatis Series Teaching Learning and Teacher Education*, 149. <https://doi.org/10.22190/futlte1802149c>
- Darling-Hammond, L., & Cook-Harvey, C. M. (2018). Educating the whole child: Improving school climate. *Learning Policy Institute*. <https://learningpolicyinstitute.org/product/educatingwholechild>
- Derakhshan, A. (2022). *The “5Cs” Positive Teacher Interpersonal Behaviors: Implications for Learner Empowerment and Learning in an L2 Context*. Springer. <https://doi.org/10.1007/978-3-031-16528-3>
- Derakhshan, A., et al. (2022). Teacher–student relationships and student motivation: A systematic review. *Educational Psychology Review*, 34(1), 1–25. <https://doi.org/10.1007/s10648022096568>
- Domenico, S. I. D., & Ryan, R. M. (2017). The Emerging Neuroscience of Intrinsic Motivation: A New Frontier in Self-Determination Research. *Frontiers in Human Neuroscience*, 11, 145. <https://doi.org/10.3389/fnhum.2017.00145>
- Edgerton, E., & McKechnie, J. (2023). The relationship between student’s perceptions of their school environment and academic achievement. *Frontiers in Psychology*, 13, 959259. <https://doi.org/10.3389/fpsyg.2022.959259>
- Elahi Shirvan, M., & Taherian, T. (2022). Teacher–student relationships and motivation. *International Journal of Academic Research in Progressive Education and Development*, 11(3). <https://ijarped.com/index.php/journal/article/view/1730>
- Feng, Z., Hou, H., & Lan, H. (2024). Understanding university students’ perceptions of classroom environment: A synergistic approach integrating grounded theory (GT) and analytic hierarchy process (AHP). *Journal of Building Engineering*, 83, 108446. <https://doi.org/10.1016/j.job.2024.108446>
- Gazelle, H. (2006). Classroom behavioral climate and children’s peer relationships. *Journal of Educational Psychology*, 98(1), 1–15. <https://doi.org/10.1037/0022-0663.98.1.1>

- Hamre, B. K., & Pianta, R. C. (2001). Relationships between teachers and students. *Journal of Applied Developmental Psychology*, 22(1), 1–18. [https://doi.org/10.1016/S01933973\(01\)000929](https://doi.org/10.1016/S01933973(01)000929)
- Han, J., & Yin, H. (2016). Teacher–student relationships and student engagement. *Learning and Instruction*, 43, 27–36. <https://doi.org/10.1016/j.learninstruc.2015.12.007>
- Hooshyar, D., et al. (2023). Teacher–student relationships and student engagement. *Journal of Educational Psychology*, 115(3), 567-582. <https://doi.org/10.1037/edu0000735>
- İDİKUT, S., Kutlu, M., & Akman, P. (2021). Comparison of State and Private Elementary School Students’ Motivational Attitudes Towards the English Course-Adana Province Example in Turkey. *Journal of Education and Learning*, 10(2), 71. <https://doi.org/10.5539/jel.v10n2p71>
- Jackson-Summers, A. G., Mrakovcich, K. L., Gray, J. P., Fleischmann, C. M., & Emami, T. (2024). A systematic review of inclusive pedagogical research using the CIRTl inclusive pedagogy framework: Multi-disciplinary and STEM perspectives. *Discover Education*, 3, Article 30.
- Johnson, D. W., et al. (2007). Cooperative learning: Improving instruction. *Journal on Excellence in College Teaching*, 8(2), 3–24. <https://eric.ed.gov/?id=EJ758196>
- Joulide, S., Faravani, A., & Boori, A. A. (2020). Conjuring up the correspondence of high-school students’ self-determination and classroom climate with reading achievement. *English Language Teaching Educational Journal*, 3(3), 198. <https://doi.org/10.12928/eltej.v3i3.3196>
- Khalifaoui, A., et al. (2021). Exploring teacher–student relationships and engagement. *Journal of Educational Psychology*, 113(5), 1021–1035. <https://doi.org/10.1037/edu0000557>
- Khan, S., Sadia, R., Hayat, S. Z., & Tahir, S. (2019). Relationship between Academic Boredom, Learning Climate and Academic Motivation Among University Students. *Pakistan Journal of Psychological Research*, 34(3), 621. <https://doi.org/10.33824/pjpr.2019.34.3.34>
- Kuhro, N. (2024). Study of Classroom Climate, Student Engagement, Self-Efficacy and Learning Experiences An Analyses Employing Social Cognitive Theory. *Academy of Education and Social Sciences Review*, 4(1), 118. <https://doi.org/10.48112/aessr.v4i1.722>
- Kleimola, R., Hirsto, L., & Ruokamo, H. (2024). Promoting higher education students’ self-regulated learning through learning analytics: A qualitative study. *Education and Information Technologies*, 30(4), 4959. <https://doi.org/10.1007/s10639-024-12978-4>
- Lee, Y., Kim, H. L., & Hyun, S. S. (2022). Effect of Intrinsic and Extrinsic Motivations on Service Performance after Parental Leave. *International Journal of Environmental Research and Public Health*, 19(5), 2715. <https://doi.org/10.3390/ijerph19052715>
- Liang, S., Li, Y., & Yang, Y. (2025). Is student engagement without classroom social climate possible? A necessary condition analysis. *Humanities and Social Sciences Communications*, 12(1). <https://doi.org/10.1057/s41599-025-05910-9>
- Liu, C., Shi, Y., & Wang, Y. (2022). Self-Determination Theory in Education: The Relationship between Motivation and Academic Performance of Primary School, High School, and College Students.

- Advances in Social Science, Education and Humanities Research/Advances in Social Science, Education and Humanities Research. <https://doi.org/10.2991/assehr.k.220704.167>
- Mahadi, T. S., & Jafari, S. M. (2012). Teacher–student relationships and motivation in EFL contexts. *English Language Teaching*, 5(6), 40–47. <https://doi.org/10.5539/elt.v5n6p40>
- Mandernach, B. J. (2015). Getting students to do the reading. *Journal of Educators Online*, 12(2), 1-10. <https://doi.org/10.9743/JEO.2015.2.1>
- Margas, G. (2023). Teacher–student relationships and motivation: A systematic review. *Educational Psychology Review*, 38, 4. <https://doi.org/10.1007/s10648-025-10107-2>
- Martin, A.J. (2001). The Student Motivation Scale: A tool for measuring and enhancing motivation. *Australian Journal of Guidance and Counselling*, 11, 1-20. DOI: 10.1017/S1037291100004301
- Matthews, B. L., Daigle, J., & Cooper, J. (2020). Causative effects of motivation to transfer learning among relational dyads: the test of a model. *European Journal of Management and Business Economics*, 29(3), 297. <https://doi.org/10.1108/ejmb-07-2019-0120>
- Menon, B., Matus, C. D., & Laukka, J. J. (2023). Two Novel Approaches for the Implementation and Assessment of Self-Directed Learning in the Pre-Clinical Medical School Curriculum. Research Square (Research Square). <https://doi.org/10.21203/rs.3.rs-3043551/v1>
- Moreira, S. V., Silva, H., Lopes, J., Moreira, J., Moreira, L., & Barros, R. (2024). Development and Validation of the Teachers’ Perceptions of Classroom Climate Scale for the Portuguese Population. *International Journal of Instruction*, 17(4), 163. <https://doi.org/10.29333/iji.2024.17410a>
- Motevalli, S., Perveen, A., & Michael, M. T. A. (2020). Motivating Students to Learn: An Overview of Literature in Educational Psychology. *International Journal of Academic Research in Progressive Education and Development*, 9(3). <https://doi.org/10.6007/ijarped/v9-i3/7779>
- Naz, S., Shah, S. A., & Qayum, A. (2020). Gender Differences in Motivation and Academic Achievement: A Study of the University Students of KP, Pakistan. *Global Regional Review*, V(I), 67-75. [http://dx.doi.org/10.31703/grr.2020\(V-I\).09](http://dx.doi.org/10.31703/grr.2020(V-I).09)
- Olarte, J. V. Fetalvero, E. G. Blancia, G. V. (2024). Consensus Classroom Climate Inventory: Scale Development and Validation. *Problems of Education in the 21st Century Vol. 82, No. 5*. <https://doi.org/10.33225/pec/24.82.708>
- Qiu, F. (2022). The impact of teacher–student relationships on student engagement. *Educational Research Review*, 37, 100–115. <https://doi.org/10.1016/j.edurev.2022.100396>
- Riyanto, S., Endri, E., & Herlisha, N. (2021). Effect of work motivation and job satisfaction on employee performance: Mediating role of employee engagement. *Problems and Perspectives in Management*, 19(3), 162. [https://doi.org/10.21511/ppm.19\(3\).2021.14](https://doi.org/10.21511/ppm.19(3).2021.14)
- Robinson, K. (2021). Teacher–student relationships and student motivation. *Journal of Educational Psychology*, 113(6), 1173-1185. <https://doi.org/10.1037/edu0000752>

- Rožman, M., Vrečko, I., & Tominc, P. (2025). Psychological Factors Impacting Academic Performance Among Business Studies' Students. *Education Sciences*, 15(2), 121. <https://doi.org/10.3390/educsci15020121>
- Ryan, R. M., & Deci, E. L. (2020). Toward a social psychology of motivation: Self-determination theory. *Contemporary Educational Psychology*, 61, 101860. <https://doi.org/10.1016/j.cedpsych.2020.101860>
- Safitri, M., Suryani, N., Asrowi, A., & Sukarmin, S. (2024). Collaborative Digital Learning as a Virtual Learning Environment on Mathematics. *International Journal of Interactive Mobile Technologies (IJIM)*, 18(5), 4. <https://doi.org/10.3991/ijim.v18i05.47925>
- Tokan, M. K. (2019). Teacher–student relationships and student motivation. *Journal of Physics: Conference Series*, 1175(1), 012156. <https://doi.org/10.1088/1742-6596/1175/1/012156>
- Tyagi, S. (2020). Effective Classroom Environment. *International Journal of Advanced Scientific Research and Management*, 5(1). <https://doi.org/10.36282/ijasrm/5.1.2020.1678>
- Wang, M. T., & Degol, J. L. (2016). School climate: A review of the construction and its impact on student outcomes. *Educational Psychology Review*, 28(2), 315–352. <https://doi.org/10.1007/s1064801593191>
- Wang, M. T., Hofkens, T., et al. (2020). Teacher–student relationships and engagement. *Journal of Educational Psychology*, 112(3), 451–465. <https://doi.org/10.1037/edu0000428>
- Yan, Y., Zhang, X., Lei, T., Zheng, P., & Jiang, C. (2024). The interrelationships between Chinese learners' trait emotional intelligence and teachers' emotional support in learners' engagement. *BMC Psychology*, 12(1). <https://doi.org/10.1186/s40359-024-01519-w>
- Zhang, A., Olelewe, C. J., Orji, C. T., Ibezim, N. E., Sunday, N. H., Obichukwu, P. U., & Okanazu, O. O. (2020). Effects of Innovative and Traditional Teaching Methods on Technical College Students' Achievement in Computer Craft Practices. *SAGE Open*, 10(4). <https://doi.org/10.1177/2158244020982986>