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Do Teachers have Imperative Role in Shaping Student Engagement: A Mediating Effect of Student Experience

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Abstract: Students' classroom experiences and engagement are prominent research areas, predominantly in teaching and learning studies. Considerable attention is dedicated to identifying factors associated with higher levels of student engagement and the underlying reasons; nevertheless, the concept of student engagement is still unclear. The purpose of this study is to explore factors that influence higher education students' engagement. The present study examined the relationship between teacher enthusiasm, quality of content, and social support on student engagement with the mediating role of student enjoyment, student self-efficacy, and student boredom. The study utilized SEM to analyze the proposed hypotheses. The results indicate that all hypotheses are positively and significantly linked with student engagement. However, the quality of content and social support has a negative and insignificant influence on student boredom. Moreover, the outcome highlights that student enjoyment, self-efficacy, and boredom have partial and no mediation between variables. Irrespective of the extensive literature on SENG, significant gaps in the pertinent literature have impeded the practical application of the examined data. Investigation on student engagement has gained minimal attention; hence, limited observation is identified regarding the nature of student engagement. Consistent with authors' best knowledge, previous research studies have not explored the student's perspectives on student engagement, while the teacher's perspective has been thoroughly explored. Moreover, a limited number of studies have been discovered in the context of Pakistan.

Keywords: Student engagement; teacher enthusiasm; self-efficacy; higher education; PLS-SEM.

Introduction

Students' experience and students' engagement in the classroom are the contemporary research areas in the field of teaching and learning studies (Wang et al., 2020). Primarily, Student Engagement (SENG) in academic activities is a significant aspect to predict the performance of students enrolled in universities. However, the different factors that influence SENG in academic activities have remained relatively unexplored (Xerri, Radford, & Shacklock, 2018). Several studies have established the major impact of SENG on the students' development in multiple domains. Student determination/efforts to actively

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participate in learning activities and assessment develops a strong sense of enjoyment, attachment with the institute and high self-efficacy (Pirani & Hussain, 2019).

In accordance with Luan, Hong, Cao, Dong, and Hou (2023), teacher enthusiasm was interpreted as an important contextual component in boosting students' perceptions regarding their task performance. Predominantly, the previous research focused on different components of teacher enthusiastic behavior and its implications on students learning i.e. positive emotions, motivation, and accomplishment. However, few researchers have analyzed the influence of teacher enthusiasm (TENT) on students' class-related engagement and emotions; particularly negative emotions like class-related boredom. Enthusiastic teaching engages, inspires, and excites students to participate in the classroom activities and discussions, which significantly improves their learning and develops their abilities. Moreover, TENT has been highlighted as a distinguishing attribute of effective teachers in consort with/together with a crucial predictor of content quality (Kunter & Holzberger, 2014; Fauth et al., 2019). Furthermore, Keller, Becker, Frenzel, and Taxer (2018) states "passionate teachers tend to be happier and healthier and are more successful in teaching quality of content" (p. 744). Motivated/passionate teachers adopt innovative and effective teaching techniques to keep students engaged in classroom activities. Furthermore, enthusiastic teaching focuses on quality of course content in order to make students engage and enjoy the class. Moreover, Jaggars and Xu (2016) amalgamate the findings of several research analogous to content quality. The study discovered high-quality content should have the following characteristics: achievable/attainable objectives, coherent structure, various possibilities for interpersonal engagement, and comprehensive information. Currently, students want reliable course information to assist them in selecting between several programs of study (Alawamleh, Al-Twait, & Al-Saht, 2020). Thus, social support provided by teacher-student relationships or student-student relationships, can significantly influence student engagement in academic activities. These interpersonal relationships influence student perceptions and engagement in academic activities. Additionally, students who receive social support from their teachers achieve higher results as compared to students who have not experienced high levels of social support (Xerri et al., 2018).

With the exception of an alternative focus, a significant section of literature has addressed the concept of student engagement from a broader perspective. Therefore, this concept has evolved significantly in the course of previous years. For instance, there are different definitions and interpretations for the concept of engagement in the literature. In this study, we have investigated engagement using a multidimensional definition. According to research, student engagement is essential; nevertheless, not every class is engaging. However, some classes are relatively uninteresting and boring for both teachers and students. Research on classroom boredom discovered that 59% of students in universities claimed their lectures to be boring, while 30% claimed they were uninterested most of the time. Boredom can instigate student disengagement which is directly linked with lower motivation to attend class and lesser enjoyment will cause inactive participation in class. Indeed, students' engagement, learning, self-efficacy, and enjoyment will be adversely affected if they perceive the topic and teacher are boring.

Irrespective of the extensive literature on SENG, significant gaps in the pertinent liter-

ature have impeded the practical application of the examined data. Investigation on student engagement has gained minimal attention; hence, limited observation is identified regarding the nature of student engagement. Furthermore, few studies have examined the relationship between student engagement and students' experience; and found a positive and significant connection between factors like enjoyment and self-efficacy that can promote students' academic engagement (Liu & Zhang, 2020), whereas negative experience like boredom can cause students' disengagement from the learning activities in classroom. More extensive research is mandatory to better evaluate and understand the impact of students' experience on classroom engagement in terms of activities (Derakhshan, Fathi, Pawlak, & Kruk, 2022). Consistent with authors' best knowledge, previous research studies have not explored the student's perspectives on student engagement, while the teacher's perspective has been thoroughly explored. Moreover, a limited number of studies have been discovered in the context of Pakistan. Therefore, the purpose of current research study is to explore the effect of factors i.e., teacher enthusiasm, quality of content, and social support on student engagement. This study contributes to the existing literature in the following aspect; first, it provides a detailed/comprehensive analysis on account of student's engagement. Hence, it will provide insights on how students respond to diverse situations and content. It will help policymakers, private university owners, and educationalists to enhance students' efficiency.

Literature Review

Theoretical Background

This research study has employed Social Cognitive theory proposed by Albert Bandura in 1960. It emphasizes the significance of cognitive processes of/in individuals to analyze different situations and environments. Moreover, it alters their self-regulatory functions corresponding to their thoughts and behaviors. In triadic interaction, personal, environmental, and self-processing elements all accumulate to determine self-efficacy, motivation, student boredom, behavior, and student enjoyment. Bandura (1986) perceived students as active agents in their learning. In addition, students play an active role in altering their learning and influence their process and competence; which substantially improves performance, engagement, and self-efficacy. Social-cognitive theories in education represent teaching and learning as highly social processes. Furthermore, quality of content and interactions with instructors and classmates in the classroom have an impact on students' cognitive and affective development. Throughout the learning process, teacher enthusiasm and social support can considerably improve students' performance and engagement in the classroom. Accordingly, the following factors are used in the study: teacher enthusiasm, quality of content, social support, student enjoyment, student self-efficacy, student boredom, and student engagement.

Hypothesis Development

Teacher Enthusiasm (TENT)

Teacher enthusiasm is habitual, trait-like, recurrent experience (Kunter & Holzberger, 2014). According to several researchers, teachers' enthusiasm is constant and unique. TENT is often characterized as a teacher's level of enthusiasm, excitement, and satisfaction in their assigned activities (Huangfu et al., 2022). Various elements can influence and boost student engagement. One significant element is the teacher's enthusiasm in the classroom. The techniques used by teachers to engage, motivate and encourage students impact the development of self-efficacy. Teachers must set realistic expectations for students by leading them in a scaffolding manner in which information is gradually built. These practices will instigate a sense of accomplishment, learning, engagement, comprehension, and enjoyment among students; thus, resulting in positive self-efficacy and negative level of boredom (Huangfu et al., 2022).

Previous research studies has persistently validate a favorable association between teachers' enthusiasm and students' enjoyment (Frenzel, Becker-Kurz, Pekrun, Goetz, & Lüdtke, 2018; Kunter & Holzberger, 2014), self-efficacy, and engagement. According to Liew, Mat Zin, and Sahari (2017), instructional enthusiasm (such as frequent nodding, smiling, gestures, and enthusiastic lecturing) substantially boosted students' engagement and pleasure. Consistent with Arguedas and Daradoumis (2021), effective pedagogy and teacher feedback can lessen students' negative emotions such as boredom and aggression. Conversely, teachers' enthusiasm and encouragement in class can extensively influence students' self-efficacy. Teachers who are enthusiastic plausibly boost students' enjoyment, and self-efficacy; thus, reducing students' boredom. Accordingly, highly motivated students are likely to acquire a strong sense of self-efficacy. As a result, we hypothesize the following:

H1: Teacher Enthusiasm positively influences Student Enjoyment

H2: Teacher Enthusiasm positively influences Student Self-efficacy

H3: Teacher Enthusiasm negatively influences Student Boredom

H4: Teacher Enthusiasm influences Student Engagement

Quality of Content

Currently, educational institutions are focusing on the quality of content to encourage students to actively participate in the classroom, resulting in more active student engagement (Shakhnoza & Makhbuba, 2020). Moreover, the factor of content quality (CQ) represents student involvement, enjoyment, participation, and engagement in the learning process. Simultaneously, another study has discovered content quality to substantially impact student engagement (Zydney, Warner, & Angelone, 2020). Furthermore, preceding studies have discovered a favorable relationship between QOC and student enjoyment, self-efficacy, and student boredom. According to Lee and Hannafin (2016), precise and structured content with various activities and assessments escalate student engagement and participation in the learning process.

Furthermore, [Liu and Zhang \(2020\)](#), diverse content classifications; for instance, lectures, activities and discussions contribute to students' engagement. Furthermore, [Wong and Chong \(2018\)](#) advocated higher student self-efficacy and lower level of student boredom, if the quality of content is suitable. Finally, [Bovermann and Bastiaens \(2020\)](#) determined different strategies to engage students during learning; thus, the teacher should deliver a good quality of content, ultimately leading to higher students' enjoyment. Therefore, the following hypotheses were formulated:

H5: Quality of Content positively influences Student Enjoyment

H6: Quality of Content positively influences Student Self-efficacy

H7: Quality of Content negatively influences Student Boredom

H8: Quality of Content positively influences Student Engagement

Social Support

Teachers' concerns and willingness to assist students in hardships and students' perception regarding their teachers' concern is referred as social support. Scholars perceive social support as a contextual factor that enhances student engagement ([Wang et al., 2020](#)). Generally, social support and student engagement have a close relationship. According to the researchers, social support includes both behavioral and emotional components. Preceding research study has validated that teacher support significantly enhances students' learning, engagement, competence, enjoyment and self-efficacy. Teachers' social support in the classroom is an essential factor to improve determination, diligence, and self-efficacy ([Datu, King, & Valdez, 2017](#)). In addition, social support is an imperative aspect/component to increase student engagement and mitigate boredom. Furthermore, [Khodarahimi, Hashim, and Mohd-Zaharim \(2012\)](#) highlights significant negative associations between higher social support and lower level of boredom among university students. Therefore, social support acts as a significant moderator for student enjoyment, self-efficacy, engagement, and reducing boredom among university students. As a result, the following hypotheses were developed:

H9: Social Support positively influences Student Enjoyment

H10: Social Support positively influences Student Self-efficacy

H11: Social Support negatively influences Student Boredom

H12: Social Support positively influences Student Engagement

Student Enjoyment

Scholars have substantially concentrated on student enjoyment in the classroom ([Pan & Zhang, 2021](#); [Liu & Zhang, 2020](#)). Enjoyment is a positive affective factor that amalgamates struggle, enthusiasm, excitement, and pleasure, in addition with a sense of accomplishment and direction. It occurs most frequently in activities where students are independent and are also exposed to new or critical challenges. Correspondingly, students

enjoy the learning, when they tackle challenges. Enjoyment is analogous to pleasure; nevertheless it differs in terms of effectively facing challenges. Accordingly, [Dewaele and Li \(2021\)](#) states students enjoy their classes when teachers provide more academic, social, and emotional support, deliver high-quality content, demonstrate enthusiasm in teaching, and develop friendly relationships with students. As a result, these practices will increase self-efficacy while boredom will decrease. Thus, enjoyment and boredom depend on the learning activity, requiring learners' participation and engagement. As a result, the correlation between student emotions and learning engagement must be established. Similarly, several previous studies in general educational psychology exhibits that stronger support and enthusiastic teachers influence students' participation and engagement, particularly in socially involved classrooms. Enjoyment has been acknowledged as a crucial component of SENG, while boredom has been regarded as disengagement, lack of attention, and low motivation. Additionally, enjoyment encourages participation and engagement. Students enjoy learning when the content is of high quality, the teacher is supportive, and the classroom is more interactive. As a result of the above discussion, the following hypothesis were developed:

H13: Student Enjoyment positively influences Student Engagement

H16: Student Enjoyment mediates the relationship between Teacher Enthusiasm and Student Engagement

H19: Student Enjoyment mediates the relationship between quality of content and Student Engagement

H22: Student Enjoyment mediates the relationship between Social Support and Student Engagement

Student Self-Efficacy

Students' perceptions about their abilities to attain a certain level of performance for additional learning competencies are termed as self-efficacy ([Lauermann & ten Hagen, 2021](#)). It determines how students feel, perceive, believe, motivate, and engage. Students' engagement is increased when they address issues with confidence, and recognize these conflicts as challenges rather than hurdles and threats to be avoided. According to [Pellas \(2014\)](#), students' self-efficacy augment their learning engagement and attitudes. Students' perceptions and attitudes pertaining to learning are important factors in student engagement and participation. In addition, [Lee and Hannafin \(2016\)](#) establish self-efficacy mediates the relationship between teachers' enthusiasm, delivery of content, and their support to enhance student engagement in the learning. Previous studies have been conducted in diverse contexts; thus, influencing student self-efficacy to enhance a good quality of content and maintain teacher support in the classroom.

H14: Student Self-efficacy positively influences Student Engagement

H17: Student Self-efficacy mediates the relationship between Teacher Enthusiasm and Student Engagement

H20: Student Self-efficacy mediates the relationship between quality of content and Student Engagement

H23: Student Self-efficacy mediates the relationship between Social Support and Student Engagement

Student Boredom

Academically, boredom is a prevalent deactivating experience (Kruk & Zawodniak, 2018). It is a moderate and uncomfortable emotional or psychological consciousness that encourages students to be apprehensive about their surroundings. It is an integration of discontent, disappointment, and motivation. Students become bored when they are unable to engage in classroom activities and discussions, receive no social support from teachers and have not a good quality of content. Boredom has been divided into various forms by various experts in order to shed light on the intricacies of this concept (Pawlak, Derakhshan, Mehdizadeh, & Kruk, 2021). In accordance with the researchers, numerous elements of students' boredom have been identified; for example, less enthusiastic teacher, lack of quality content, and lack of social support, these factors causes students to be less engaged in the classroom. Limited studies have focused on the mediating impact of student boredom and identified the prerequisite need of teacher enthusiasm, social support, friendliness, and quality of content in improving student engagement (Dewaele & Li, 2021). According to the above discussion, the following hypotheses were developed:

H15: Student Boredom negatively influences Student Engagement

H18: Student Boredom mediates the relationship between Teacher Enthusiasm and Student Engagement

H21: Student boredom mediates the relationship between quality of content and Student Engagement

H24: Student Boredom mediates the relationship between Social Support and Student Engagement

Methodology

Research Model

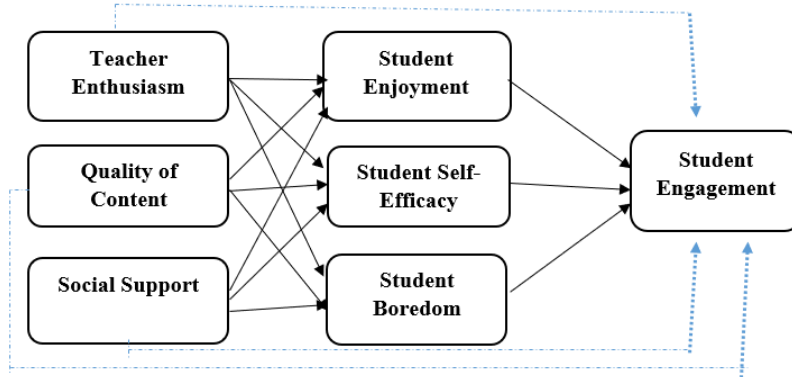
Figure 1 demonstrates the theoretical framework of the study. It contains factors affecting Student engagement by mediating the role of student enjoyment, student self-efficacy, and student boredom in the private sector universities in Pakistan.

Data Collection & Instrumentation

The study aims to explore the factors affecting Student engagement in the Private Sector University. For this study Private Sector University is the suitable option because it give more attention to their students. This study uses a quantitative method to investigate the association between the variables. A representative sample of the population is essential

for collecting data since it is challenging to obtain response from a large group, also regarded as the study's target audience. Correspondingly, the selected population includes students from the private sector University of Karachi, Pakistan. [S. A. Raza and Hanif \(2013\)](#) suggest that a sample of 300 or above is ample. Accordingly, a sample size of 339 participants was selected for this research.

Figure 1
Conceptual Model



The data was collected from the targeted participants by using convenience sampling technique. Statistical tests were used to evaluate the data empirically. A self-administered questionnaire with closed-ended questions was devised to collect data from the responders. The structured questionnaire uses a 5-point Likert scale, with 1 being strongly disagree and 5 being strongly agree. During data collection, students were free to participate in this study and their response was greatly appreciated. Respondents were also assured regarding ethical considerations and security of the provided information.

Demographic Profile

Details of demographic profile of respondents is represented in Table 1. The demographic summary was obtained using SPSS 22 software through the descriptive statistics method, i.e., frequencies. The demographic variables included were gender, age, and education level. According to the demographics summary, 339 students participated in this study, where 52.5% were male and 47.5% were female respondents. Age brackets of participants were also analyzed; where 26.3% of respondents conform in the category of 18-25 years, 41.9% of respondents belonged to the category of 26-33 years, and 24.2% of participants were from the age of 34-41 years. The remaining 7.7% of respondents were aged 42 and above. Conforming to educational level, 52.5% of respondents were undergraduate students, 35.4% of students had graduated, 7.4% were postgraduates, and the remaining 4.7% had obtained education in other fields of study.

Table 1
Demographic Profile (N=339)

Demographics	Categories	Frequencies	Percentage
Gender	Male	178	52.5
	Female	161	47.5
	Total	339	100
Age	18-25	89	26.3
	26-33	142	41.9
	34-41	82	24.2
	42 and above	26	7.7
	Total	339	100
Education	Undergraduate	178	52.5
	Graduate	120	35.4
	Postgraduate	25	7.4
	Others	16	4.7
	Total	339	100

Source: Authors' Estimation

Discussion and Results

The data was analyzed by utilizing Smart PLS (PLS-SEM). According to [Hair and Christian \(2011\)](#), PLS is a technique that efficiently analyzes data with fewer restrictive assumptions, lower sample sizes, greater model complexity, and gives emphasis on exploration rather than confirmation. As a result, the SmartPLS 3.2.9 software was utilized for estimations ([Ringle, Da Silva, & Bido, 2015](#)). In addition, the bootstrapping method (5000 re-samples) was used to determine the relevance of path coefficients ([S. Raza, Kuzyakov, & Zhou, 2021](#)). The suggested model was examined in two stages: initially, the reliability and validity of the measurement model were evaluated, together with the evaluation of the structural model.

Measurement Model

Table 2 exhibits the measuring approach that gives quantitative measurements of the validity and reliability of conceptions. Moreover, researchers must examine specific items' reliability, internal consistency, content validity, and convergent and discriminant validity criteria for testing the study's model ([Henseler, Ringle, & Sinkovics, 2009](#)).

Cronbach's alpha was employed in PLS to assess item internal consistency. Nunnally (1987) established a rule of thumb to determine the alpha value i.e. larger than 0.55 or 0.7. According to the acceptance criterion, the score varies from 0.668 to 0.844, indicating that the current study adequately attains the threshold for the item dependability. Subsequently, the convergent and discriminant validity were assessed. Finally, convergent validity was determined using composite reliability and average variance. Composite reliability varied from 0.815 to 0.889, indicating all variables had met the suggested threshold of 0.7 or above ([Bagozzi & Yi, 1988](#)) and the measures are sufficiently reliable.

Moreover, according to the rule of thumb, AVE should be equal to or greater than 0.5 ([Fornell & Larcker, 1981](#)). According to the findings, research indicated an appropriate range for AVE. According to the acceptable criterion stated by Churchill Jr (1979), all variables have individual reliability more than 0.5, and each loading should be greater than

0.7. Thus, the instrument is reliable as the Loadings are greater than 0.7. As a result, convergent validity has been established, and we may proceed to investigate discriminant validity.

Table 2
Measurement Model Results

	Items	Loadings	Cronbach's Alpha	Composite Reliability	Average Variance Extracted
QOC	QOC1	0.789	0.846	0.897	0.684
	QOC2	0.837			
	QOC3	0.854			
	QOC4	0.827			
SB	SB1	0.842	0.858	0.898	0.638
	SB2	0.784			
	SB3	0.813			
	SB4	0.799			
SENG	SENG1	0.754	0.859	0.904	0.703
	SENG2	0.844			
	SENG3	0.882			
	SENG4	0.850			
SENJ	SENG4	0.775	0.829	0.886	0.661
	SENG1	0.797			
	SENG2	0.824			
	SENG3	0.818			
SS	SENG4	0.812	0.801	0.870	0.626
	SS1	0.770			
	SS2	0.812			
	SS3	0.816			
SSE	SS4	0.766	0.826	0.885	0.658
	SSE1	0.799			
	SSE2	0.846			
	SSE3	0.824			
TENT	SSE4	0.774	0.833	0.882	0.601
	TENT1	0.708			
	TENT2	0.784			
	TENT3	0.824			
	TENT4	0.829			
	TENT5	0.723			

Notes: QOC: Quality of Content, SB: student boredom, SENG: student engagement, SENJ: student enjoyment, SS: Social support, SSE: student self-efficacy, TENT: teacher enthusiasm

Table 3
Correlation Matrix

	QOC	SB	SENG	SENJ	SS	SSE	TENT
QOC	0.827						
SB	0.696	0.799					
SENG	0.706	0.688	0.839				
SENJ	0.709	0.725	0.699	0.813			
SS	0.711	0.734	0.703	0.725	0.791		
SSE	0.666	0.741	0.706	0.718	0.739	0.811	
TENT	0.701	0.617	0.651	0.625	0.665	0.649	0.775

Cross-loadings analysis, AVE, and HTMT were used to evaluate discriminant validity. Fornell and Larcker (1981) state that the square root of AVE for each construct should be higher than the relationship between construct and other model constructs. As illustrated in Table 3, all diagonal values are more significant than off-diagonal values. Furthermore, cross-loadings of indicators are greater than any other opposing hypothesis (Hair

& Christian, 2011). As shown in Table 4, the specified requirement was met. In addition, the HTMT test was employed to assess discriminant validity as it is more consistent than other approaches. HTMT value should be less than 0.85 or 0.9. According to Table 5, discriminant validity was achieved as all HTMT values were less than the specified requirement.

Table 4
Loadings and Cross Loadings

	QOC	SB	SENG	SENJ	SS	SSE	TENT
QOC1	0.789	0.515	0.541	0.488	0.553	0.478	0.561
QOC2	0.837	0.591	0.580	0.572	0.596	0.564	0.595
QOC3	0.854	0.586	0.620	0.631	0.596	0.594	0.593
QOC4	0.827	0.606	0.593	0.643	0.606	0.560	0.572
SB1	0.661	0.842	0.637	0.644	0.660	0.631	0.612
SB2	0.574	0.784	0.527	0.594	0.595	0.593	0.503
SB3	0.536	0.813	0.537	0.570	0.584	0.590	0.467
SB4	0.497	0.799	0.530	0.562	0.559	0.583	0.434
SB5	0.492	0.754	0.504	0.515	0.519	0.561	0.423
SENG1	0.629	0.575	0.844	0.614	0.595	0.575	0.552
SENG2	0.614	0.613	0.882	0.635	0.639	0.598	0.577
SENG3	0.601	0.571	0.850	0.548	0.583	0.629	0.555
SENG4	0.521	0.548	0.775	0.544	0.537	0.567	0.496
SENJ1	0.595	0.607	0.596	0.797	0.630	0.579	0.509
SENJ2	0.567	0.545	0.514	0.824	0.572	0.558	0.504
SENJ3	0.576	0.626	0.576	0.818	0.578	0.622	0.490
SENJ4	0.566	0.573	0.581	0.812	0.572	0.573	0.526
SS1	0.475	0.531	0.513	0.500	0.770	0.490	0.452
SS2	0.569	0.570	0.548	0.574	0.812	0.598	0.546
SS3	0.579	0.540	0.584	0.601	0.816	0.557	0.519
SS4	0.612	0.665	0.572	0.607	0.766	0.673	0.573
SSE1	0.591	0.624	0.601	0.580	0.642	0.799	0.541
SSE2	0.528	0.630	0.575	0.594	0.618	0.846	0.537
SSE3	0.527	0.590	0.554	0.598	0.561	0.824	0.522
SSE4	0.510	0.557	0.556	0.557	0.572	0.774	0.503
TENT1	0.466	0.407	0.481	0.425	0.458	0.403	0.708
TENT2	0.499	0.411	0.477	0.456	0.474	0.432	0.784
TENT3	0.534	0.484	0.508	0.517	0.590	0.554	0.824
TENT4	0.613	0.522	0.536	0.527	0.539	0.566	0.829
TENT5	0.587	0.547	0.516	0.483	0.502	0.534	0.723

Table 5
Heterotrait-Monotrait Ratio (HTMT)

	QOC	SB	SENG	SENJ	SS	SSE	TENT
QOC							
SB	0.808						
SENG	0.826	0.798					
SENJ	0.841	0.854	0.826				
SS	0.857	0.875	0.844	0.883			
SSE	0.792	0.878	0.838	0.867	0.898		
TENT	0.829	0.716	0.768	0.748	0.805	0.773	

Structural Model

After finalizing the initial stage of PLS-SEM, specifically analyzing the measurement model; the study utilized SEM analysis to examine structural models for testing hypothetical re-

relationships between constructs. The structural model connects latent variables that can be examined by using standardized regression methods. In addition, the path coefficient offers structural model outputs. The bootstrapping approach was used to determine the importance of path coefficient. Moreover, table 6 demonstrates the results of the regression analysis, highlighting the direct correlations between variables. However, table 7 represents how student enjoyment, self-efficacy, and boredom performs a mediating role in Private Sector universities. P-value should not be more significant than 0.01 (1%), 0.05 (5%), or 0.1 (10%) for a hypothesis to be accepted. As demonstrated in Table 6, all determined hypotheses were validated with the exception of H7 and H11, which had a negative and significant effect.

Table 6
Results of Path Analysis

Hypothesis	Regression Path	Effect type	β -Coeff	P Values	Remarks
H1	TENT ->SENJ	Direct Effect	0.120	0.067	Supported
H2	TENT ->SSE	Direct Effect	0.210	0.007	Supported
H3	TENT ->SB	Direct Effect	0.114	0.157	Supported
H4	TENT ->SENG	Direct Effect	0.120	0.077	Supported
H5	QOC ->SENJ	Direct Effect	0.335	0.000	Supported
H6	QOC ->SSE	Direct Effect	0.192	0.000	Supported
H7	QOC ->SB	Direct Effect	0.303	0.000	Not Supported
H8	QOC ->SENG	Direct Effect	0.198	0.003	Supported
H9	SS ->SENJ	Direct Effect	0.407	0.000	Supported
H10	SS ->SSE	Direct Effect	0.461	0.000	Supported
H11	SS ->SB	Direct Effect	0.442	0.000	Not Supported
H12	SS ->SENG	Direct Effect	0.130	0.082	Supported
H13	SENJ ->SENG	Direct Effect	0.168	0.043	Supported
H14	SSE ->SENG	Direct Effect	0.197	0.043	Supported
H15	SB ->SENG	Direct Effect	0.115	0.230	Supported

Table 7
Results of Mediation Analysis

Hypothesis	Regression Path	Effect type	β -Coeff	P Values	Remarks
H16	TENT ->SENJ ->SENG	Direct Effect	0.021	0.267	No Mediation
H17	TENT ->SSE ->SENG	Direct Effect	0.044	0.173	No Mediation
H18	TENT ->SB ->SENG	Direct Effect	0.012	0.414	No Mediation
H19	QOC ->SENJ ->SENG	Direct Effect	0.055	0.049	Partial Mediation
H20	QOC ->SSE ->SENG	Direct Effect	0.038	0.103	No Mediation
H21	QOC ->SB ->SENG	Direct Effect	0.035	0.274	No Mediation
H22	SS ->SENJ ->SENG	Direct Effect	0.069	0.070	Partial Mediation
H23	SS ->SSE ->SENG	Direct Effect	0.089	0.035	Partial Mediation
H24	SS ->SB ->SENG	Direct Effect	0.051	0.238	No Mediation

Discussion

Hypotheses H1, H2, H3, and H4 indicate a positive and significant relationship between teacher enthusiasm and student enjoyment, self-efficacy, boredom, and engagement. The previous study by [Dewaele and Li \(2021\)](#) also sustains the positive result of H1, H2, H3, and H4. Consistent with [Dewaele and Li \(2021\)](#), the research findings demonstrate that students considered their teachers to be extremely passionate and enthusiastic. Therefore, they enjoy participating in the classroom discussion and activities. Similarly, they also

observe a sense of self-efficacy and engagement. Furthermore, students also reported as they perceive medium to high levels of enjoyment, high self-efficacy, high engagement; it ultimately lowers their boredom class.

Hypothesis H5, H6 & H8 show a positive and significant relationship between Quality of content and student enjoyment, Quality of content and student self-efficacy, and Quality of content and student engagement. In contrast, H7 exhibits a negative and insignificant relationship between the quality of content and student boredom. Findings were consistent with the studies of [He, Zheng, Di, and Dong \(2019\)](#), which indicates high content quality helps to engage students in the classroom activities and discussion. Alternatively, lack of content quality increases student boredom in the classroom. According to Education and Information Technologies (2021), instructional design principles are essential to consume a high quality of content in academics; as it enhances academic knowledge, academic performance and level of engagement ([Ramakrishnan, Prybutok, & Peak, 2014](#); [Ashrafi, Zararavasan, Savoji, & Amani, 2022](#)). Predominantly, a high-quality content can respond to the educational needs of a student's desire and provides in-depth knowledge to increase students' self-efficacy. Thus, resulting in increased student enjoyment.

Hypothesis H9, H10 & H12 illustrates a positive and significant relationship between social support and student enjoyment, social support and student self-efficacy, and social support and student engagement. In contrast, H11 indicates a negative and insignificant relationship between social support and student boredom. Findings are consistent with the studies of [Sadoughi and Hejazi \(2021\)](#), the findings indicate that students who are socially supported during their learning enjoy and engage in their classes at university. Accordingly, students form close relationships with their teachers and receive more assistance from them. Moreover, getting social support from their teachers enhances students' self-efficacy; thus, resulting in student engagement and lower level of student boredom.

The 13 hypotheses reveal a positive and significant relationship between student enjoyment and engagement. In addition, they conducted an experimental study to measure the level of enjoyment between university and high school students; the study established university students attain higher levels of enjoyment as compared to the students in high school. Furthermore, the outcome reveals that since university students acquire a skill-oriented educational learning which increases enjoyment level while high school students learn in examination-oriented settings.

Hypothesis 14 depicts a positive and significant relationship between Student Self-efficacy and Student Engagement. The results were consistent with the previous finding of [Sökmen \(2021\)](#), the study proposed students' self-efficacy as a significant predictor of their engagement. In addition, a recent longitudinal study by Reeve and Lee (2014) discovered the changes in student engagement lead to changes in student self-efficacy. Therefore, it is recommended for teachers to enhance the learning environment in the classroom through different activities and tasks; thus, leading to high student self-efficacy.

Additionally, it was discovered that student boredom had a negative and subsidiary impact on student engagement. This observation is supported with Hypothesis 15. This result is consistent with the study by [Derakhshan et al. \(2022\)](#); [Nakamura, Darasawang, and Reinders \(2021\)](#); the findings discovered student disengagement and non-participation in the classroom as the strongest predictors of boredom. The preceding literature has

highlighted the connection between boredom and lack of engagement. Boredom generates fatigue in learners, instigating them to give up and demand other relevant activities and assignments. Bored students put less effort to complete assigned activities, commit less time in learning, reflect less involvement in the discussions, and are less focused during the process; which results in lesser engagement.

Moreover, the findings determine the mediating effect of student enjoyment, student self-efficacy, and student boredom on student engagement. Consequently, H19, H22, and H23 were partially mediated, while H16, H17, H18, H20, H21, and H24 did not affect student engagement. Although, previous research have concentrated on mediating effect of student enjoyment, student self-efficacy, and student boredom on student engagement (Wang et al., 2020; Dewaele & Li, 2021); nevertheless, there is limited evidence regarding the existence of same effect on the relationships represented in the proposed model. Furthermore, the findings conclude that teachers naturally transfer enjoyment to the students through facial expressions, teachers' enthusiasm, posture, gesture, phonetics, quality content, and social support. Students achieve higher self-efficacy when their teachers provide academic, social, and emotional support, display enthusiasm, quality of content in teaching, and form friendly and caring relationships; these practices reinforce and increase student engagement.

Additionally, students experience a low level of boredom when they are more engaged in their classroom. The researchers established that students who are taught by enthusiastic teachers and consistently experienced social support will face less boredom in the classroom (Cui et al., 2020; Wang et al., 2020). According to the study results, incompetent, insupportable, less enthusiastic, unmotivated teachers together with low quality content in the classroom increase students' boredom level.

Conclusion & Recommendations

Conclusion

The purpose of this study was to investigate factors that impact student engagement at the Private Sector Universities in Karachi, Pakistan. The current study examined the role of teacher interaction in shaping students' engagement. Accordingly, we explore teacher enthusiasm, quality of content, and social support on student engagement, with the mediating role of student's experience (i.e., student enjoyment, self-efficacy, and boredom). According to the best of our knowledge, this is the first study to investigate structural relationships between these latent variables. The created model was validated using data from the survey questionnaire. The gathered data was analyzed using PLS-SEM. The Results demonstrate all hypotheses were positively and significantly linked with student engagement in the private sector universities in Karachi, Pakistan. However, hypotheses H7 and H11 have a negative and insignificant influence on student engagement. Moreover, the study observed student enjoyment, self-efficacy, and boredom have partial and no mediation between variables. The findings indicate strategies used in educational institutions are the crucial variable with respect to student engagement in the classroom.

Students claimed teacher's engagement and involvement in their activities result in better engagement in learning.

Implications

The following are theoretical implications of the current study. Firstly, the conceptual model explores the determinants influencing student engagement in the private sector university in Karachi, Pakistan. Higher education institutions will be able to recognize the techniques, strategies, and organizational activities by linking given information to boost students' involvement and engagement in the classroom. This study will help the institution to identify different problems related with/to student participation and boredom in the classroom. Secondly, it highlights various factors that perform a crucial role in affecting and shaping student engagement; for instance, teacher enthusiasm, quality of content, social support, student enjoyment, student self-efficacy, and student boredom. Thirdly, the current research has employed "Social Cognitive Theory" which provides theoretical insight to the proposed conceptual model.

This study has practical consequences for the higher education institutions, academics, educators, and policymakers in Karachi, Pakistan. The fundamental and important recommendation is to implement student engagement techniques such as assessment and classroom discussion in the institutions in Karachi, Pakistan. Secondly, it is advisable for the teacher to be more passionate and enthusiastic while providing quality content together with providing social support. Teachers' assistance and social support allows students to develop learning enjoyment and reduce boredom; thus, students become more interested in their studies. For instance, Teachers can emotionally connect with their students, encourage them to ask questions, and establish an equitable environment (Tennant et al., 2015). Thus, these programs should provide training for the teachers to tackle different aspects like appropriate emotional, instrumental, evaluation, and informational support to their students; hence enhancing student engagement in the classroom.

Furthermore, consistent with the significance of students' emotions in academic engagement; these programs will increase instructors' comprehension regarding students and their control over emotions. Furthermore, instructors can ensure practical steps to create a supportive and productive social environment by delivering intriguing concepts and various learning assignments that augment students' engagement and their interpersonal relationships. This enables students to participate in learning activities, tasks, and discussions; thus, reducing boredom and enhancing engagement. Finally, teachers, policymakers, and stakeholders in the educational system should cultivate student engagement in the classroom, as engaged students transcend others.

Limitations and Future Recommendations

The current investigation has limitations irrespective of essential contribution in the pertinent literature. Firstly, the study is focused on only one city in Pakistan i.e. Karachi. Accordingly, it is suggested to target other cities of Pakistan for better generalization. Secondly, sample size can be further amplified to obtain more generalizable conclusions.

The study's sample comprises students enrolled at Private Sector University in Pakistan; thus, other researchers can further investigate these dimensions by focusing on other disciplines or universities. Thirdly, we have utilized closed-ended questionnaires to gather data. Hence, interviews are another possible option for gathering data, as it offers comprehensive information about the research. Fourthly, this study is quantitative in nature; thus, future researchers can utilize a qualitative approach to get in-depth knowledge regarding students' perception. Moreover, this research model includes limited variables with mediation effect only. As a result, future researchers are advised to incorporate moderation into the conceptual framework. Finally, a comparative study between developed and developing nations can be conducted to evaluate the data in the cross cultural and diverse settings.

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