

From Students' Disruptions to Engagement: The Mediating Role of Classroom Management Strategies in Public Secondary Schools

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ABSTRACT: Classroom management is often conceptualized as the process of organizing and regulating classroom activities to enhance the effectiveness and efficiency of learning. A well-managed classroom fosters student engagement and minimizes disruptions. Given the significance of this issue in secondary schools, this study aimed to explore the relationship between student engagement and disruptive behaviors, with classroom management strategies as a mediating factor in public secondary schools. A quantitative survey was conducted to collect data from secondary school teachers using a simple random sampling technique, resulting in a sample of 630 teachers. To ensure reliability and validity, existing standardized instruments were used for data collection. Data analyses were performed using SPSS, employing simple linear regression, the Sobel test, and an independent samples t-test. The findings revealed a significant relationship between student engagement and classroom management strategies. Additionally, a significant relationship was observed between students' disruptive behaviors and classroom management strategies. Although some variability was present in the results, the overall findings indicate that effective classroom management strategies positively impact student engagement while reducing classroom disruptions. Furthermore, the study found that while male and female teachers generally employed similar strategies to engage students and minimize disruptions, their specific classroom management approaches differed.

KEYWORDS: Classroom Management, Students' Engagement, Disruptive Behaviors, Survey, Simple Linear Regression

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Introduction

The teachers play a pivotal role in the learning process and in achieving educational goals (Wettstein, et al., 2021). A successful classroom is one where both teachers and students actively fulfil their roles and responsibilities to promote effective learning. Extensive research emphasizes the importance of classroom management in ensuring effective learning in schools (Hattie & Yates, 2013). Classroom management refers to the actions a teacher takes to maintain an efficient and conducive learning environment, encompassing both the physical and social aspects of the classroom. It has consistently been a challenge for both novice and experienced teachers (Hamre & Pianta, 2010). Among the various challenges, managing discipline stands

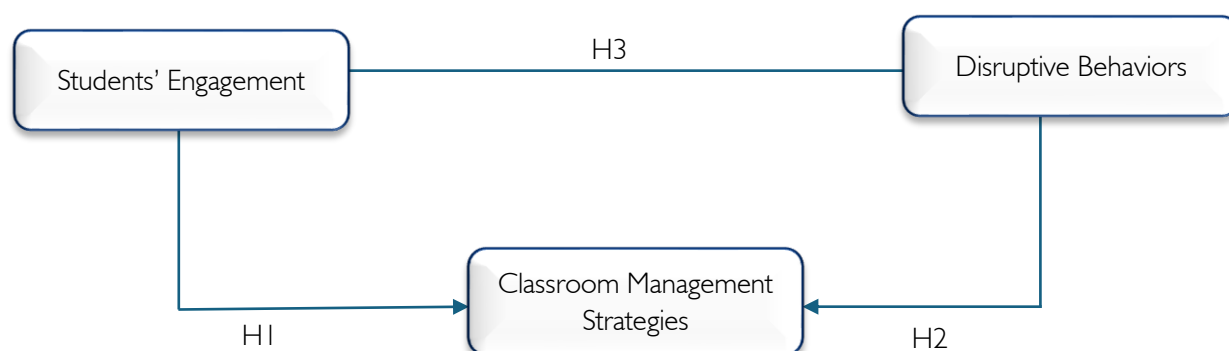
out as one of the most significant issues, as it directly impacts the teaching and learning process (Aldrup et al., 2018). To address this, teachers need to engage students in learning activities to prevent and control disruptive behaviors. Maintaining discipline and managing disruptions remain daunting tasks for many teachers (Aloe et al., 2014). Research indicates that disruptive behaviors in the classroom can trigger frustration and anger among teachers and students, leading to negative emotions and feelings (Bottiani et al., 2019; Li et al., 2022). These challenges adversely affect the teaching and learning process, ultimately hindering students' academic achievement (Hopman et al., 2018). However, literature suggests that competent teachers can effectively engage students, helping them remain focused and attentive. This highlights the concept of student engagement, which has been explored in various contexts, from reducing dropout rates to fostering motivation for learning (Skinner et al., 2009). Notably, student engagement serves as a bridge between teachers and students, ensuring effective learning in the classroom (Pianta et al., 2012). Personal observations and existing research underline the importance of addressing this critical issue, which significantly affects students' learning and challenge teachers' teaching methods and expertise. Teachers who lack classroom management strategies often struggle with maintaining discipline and creating an orderly environment. This issue is particularly evident in overcrowded classrooms, where conventional teaching methods dominate, and fostering student engagement becomes difficult (Ullah, 2022). The purpose of this research was to study the teachers' classroom management strategies employed by secondary school teachers to enhance students' engagement and reduce disruptions for effective and efficient learning. Classroom management strategies will be studied as a mediator between students' engagement and students' disruptive behaviors.

Conceptual Background

The following section presents the interrelationship between the variables:

Figure 1

Hypothetical Interrelations between Variables



Students' Engagement

Student engagement has been one of the most desired educational outcomes over the past decade due to its strong link to student well-being (Finn & Rock, 1997). Research highlights that students who are actively engaged in their education achieve higher academic goals, have lower dropout rates (Skinner et al., 2009), and have a natural drive to learn, attend courses and do their homework. (Bakker et al., 2015). Research consistently shows that students who are actively engaged in their education tend to achieve higher academic

goals and have lower dropout rates. An engaged student is one who actively participates in studying and extracurricular activities, identifies with the school and is willing to put in extra effort to attain higher academic results. Student engagement can be broken down into three primary components: behavioural, cognitive and emotional engagement (Devito, [2016](#)). These dimensions highlight several aspects of how students engage with their learning environment.

Behavioral engagement focuses on a student's involvement in academic, social, and extracurricular activities inside the school (Fredricks et al., [2004](#)). Modifying the elements of the learning environment can promote behavioral engagement, which acts as a mediator between contextual factors and the desired learning outcomes. Specific student behaviors linked to learning are included in behavioral engagement. These behaviours include paying attention, exerting effort, taking the initiative, showing tenacity in the face of difficulties, following rules, and responding in a constructive manner toward peers and teachers (Hattie & Anderman, [2013](#)).

Cognitive engagement is referred to as student's investment in their educational experience and the learning process (Fredricks et al., [2004](#)). A thoughtful, methodical, and prepared to put in the work necessary to comprehend difficult ideas or acquire difficult abilities is what makes a learner intellectually engaged (Reschly & Christenson, [2022](#)).

Emotional engagement, as described by Fredricks et al. ([2004](#)), is a student's perception of their relationship with their school. This connection includes sentiments of belonging, appreciating the institution, seeing oneself as important within it, and celebrating academic accomplishment (Christenson et al., 2022). Emotional involvement focuses on students' positive or negative responses to teachers, peers, academics, and the entire school environment. Positive emotional engagement enhances students' connections to their school or educational institutions, such as colleges and universities, and boosts their willingness to study and participate in various school-related activities.

Students' Disruptions in Classroom

Disruption in the classroom refers to student behaviour that can interrupt lessons and distract teachers and peers, ranging from low-intensity level disruptions, such as whispering to classmates and making noise, to high-intensity level disruptions, like making threatening statements or vandalizing property (Gage & MacSuga-Gage, [2017](#)). These disruptions can have a range of effects, significantly hindering the learning environment and making it difficult for teachers to maintain control and facilitate effective learning. A variety of viewpoints have been used to analyze student behaviour in the classroom, including the most common disruptive behaviour, the most problematic disruptive behaviour and the behaviours that worry teachers the most (Wheldall & Merrett, [1988](#)). Individuals behave in certain ways due to a range of genetic and socio-cultural forces that have influenced their development. For example, students affiliated with government schools and rural areas usually behave differently compared to students from urban areas and private schools. Thus, addressing students' behavior problems with an understanding of their context can be an effective way to manage the classroom (Swick, [1985](#)). By acknowledging these influences, teachers can tailor their interventions to address the root causes of problematic behavior. This emphasizes the significance of successfully controlling the classroom to ensure that all students have an equal opportunity to study without

being distracted. Disruptive student behaviour creates frustration and serves as a barrier to effective learning (Douglas et al., [2016](#)). Disruptive and off-task behaviors in the classroom are bad for the learning environment and provide a special challenge for teachers to deal with (Collins et al., [2016](#)). A disruptive classroom environment may hinder the process of learning and lower overall class achievement, regardless of the behavior of individual students (Blank & Shavit, [2016](#)).

Classroom Management Strategies

Classroom management strategies influence student achievement gains by affecting the amount of time students spend engaged in activities. The pattern of high standards and academic emphasis linked to effective schooling includes excellent classroom management (Brophy, [1984](#)). Classroom management and student disruption continue to be subjects of study for psychologists and educators (Haroun & O'Hanlon, [1997a](#)). Continuous observation, also known as "whiteness", is a crucial classroom management technique (Kounin, [1977](#)). Effective classroom managers always have a keen sense of what's going on and are able to handle possible disruptions before they get out of hand. Subtle interventions, like nonverbal cues, are used by skilled educators to reroute students without interfering with the lesson's flow (Doyle, [2013](#)). This keeps things in check while fostering a happy, concentrated learning atmosphere. *Supportive classroom management strategy* is a kind of classroom management technique that enables teachers to monitor student conduct, supervise student activities, and support efficient teaching and learning (Doyle, [2013](#)). This tactic focuses on the elements of efficient classroom management. *Corrective classroom management strategy*, as the name implies, is used as a last choice by teachers and is intended to handle inappropriate or disruptive behavior as it occurs. Eliamani et al. ([2014](#)) define this strategy as a method of disciplining pupils in response to substantial rule infractions or major disturbances. They point out that this technique requires the employment of coercive measures when all other options have failed. Anitra ([2013](#)) highlights that this method entails applying consequences and should be regarded as a last resort rather than the first response.

Gender Differences in Classroom Management

Student disruptive behavior is a significant challenge in secondary schools, with teachers consistently reporting similar types and causes of disruption regardless of school background (Rehman et al., [2013](#)). Managing disruptive behavior is particularly important as it can affect the learning environment and hinder academic progress. Management tactics differed between male and female students, especially with an increase in aggressive behavior among male students (Arbuckle & Little, [2004](#)). These behavioral differences may require distinct management approaches to ensure effective discipline and student engagement. Studies show that there is no statistically significant difference between male and female teachers in terms of student engagement or instructional tactics. However, male teachers are generally better at managing the classroom, probably because they are more adept at enforcing discipline and controlling disruptive behaviours (Sadia & Hafiz, [2012](#)). Some studies suggest that female teachers' efforts in classroom management appear more intrusive than those of male teachers (Martin et al., [2006](#)). This intrusiveness may reflect different strategies in maintaining classroom order and addressing disruptive behavior. Gender influences classroom management, with female teachers outperforming male teachers on four of six dimensions, specifically "teamwork," "building relationships with students," "love and logic approach," and "organization in the

classroom"(Ahmed et al., [2018](#)). These strengths suggest that female teachers may adopt more relational and organized approaches to maintain a productive learning environment.

Research Objectives

The following research objectives were framed to conduct this research:

1. To investigate the relationship between students' engagement and classroom disruptions and to analyze the mediating role of classroom management strategies of secondary school teachers.
2. To examine the differences in classroom management approaches between male and female teachers in secondary schools.

Research Hypotheses

Based on the first research objective, the following research hypotheses were designed to achieve the study objectives:

- H1: *Teachers' effective classroom management strategies are positively associated with students' engagement in public secondary schools.*
- H2: *Teachers' effective classroom management strategies are positively associated with disruptive behaviors in public secondary schools.*
- H3: *Teachers' effective student engagement helped reduce disruptive behaviors in public secondary schools.*

Materials and Methods

Population and Sampling

There is a total of 234 secondary schools in Multan, which is considered the population for this research (School Census, 2024). All these schools were selected as a sample for this research. As for teachers, the researchers want to collect data from at least 15% of the total teachers to ensure the representation of each school. Thus, a simple random sampling technique was utilized to select the required sample. As the data of all the schools and teachers were available online, we applied the RAND method. This helps to assign numbers to everyone in the population to pick a subset of the population. We use Microsoft Excel to allot these numbers. Thus, 630 teachers were involved in this research. Out of this sample, 271 were male and 359 were female teachers.

Measures

This small-scale research considers the existing available research instruments. A careful and thorough search was done to examine the tools to measure the research variables. To measure the students' engagement, the Students' Engagement at School questionnaire was developed by Veiga (2016) and was considered best suited to our research. This questionnaire comprises 20 items in four dimensions. This questionnaire is designed on the Likert scale, and it ranges from total disagreement (1) to total agreement (6). To measure the classroom management strategies by the teachers, the Behavior and Instructional Management Scale (BIMS) developed by Martin and Sass ([2010](#)) was adopted. This questionnaire is designed in a classroom context to measure students' behavior to manage instructions. This questionnaire is based on 12 items designed on a scale ranging from Always (3) to Never (0). To measure students' disruptions in the classroom, the Disruptive

Behavior Scale for Adolescents (DISBA) developed by Karimay et al. (2018) was adopted for this study. The 29-item scale is also designed on the Likert scale from Strongly agree (6) to Strongly disagree (1).

Data Collection

Data were collected from secondary school teachers. Initially, permission was sought from each individual school principal to collect data from teachers. Later, the selected teachers were oriented towards the research purpose, and all three compiled questionnaires were presented to teachers to get their opinions on it. Teachers were requested to fill in the questionnaire in the presence of a researcher so that if they faced any difficulty with questions, the researcher would be there to facilitate them with additional information. Moreover, this also motivates the teachers to fill out the questionnaire with care and concentration. All the teachers were thanked for their cooperation. Many of the teachers asked to return the questionnaire later, which was collected during the second visit to the schools. The participants' ages ranged from 25 years to 55 years. Their qualification ranged from Master's to M.Phil. All the ethical concerns were ensured during this research.

Data Analyses

SPSS was utilized to analyze the data. A data sheet was designed to enter all the collected data. After completing the data entry, all the missing values and outliers were checked by calculating the frequencies and box plots. No missing values and outliers were identified in the data. Since all three questionnaires were designed on various scales, we paralleled the scores to comprehend the results. After calculating the descriptive statistics, we applied inferential statistics, e.g., Pearson Correlation, which was calculated to launch a simple linear regression. To identify the role of the mediator variable, Process macro was calculated. A t-test was also applied to measure the difference between male and female teachers in managing their classroom, student engagement, and reducing disruptions.

Results

Descriptive Statistics of Demographic Variables

There were in total (359) male and (271) female teachers participated in this research. The mean score of gender was ($M=1.43$; $SD=.49$). As to teachers' qualifications, their qualifications ranged between Masters to M.Phil. The mean score of qualification was ($M=2.12$; $SD=.50$).

Descriptive Statistics of Research Variables

Table 1 presents the descriptive statistics of research variables. Results show that, on average, teachers rated their students' engagement relatively high as the mean score was (5.85 ; $SD=.93$). Low standard deviation presents the consistency in teachers' scores. As to measuring disruptive behaviors of students in classrooms, results show that the mean score was ($M=3.94$; $SD=1.29$). This means that the disruptive behaviors were moderate and were not overly prevalent in secondary schools. However, the value of SD presents variations in the responses of teachers, which means some classrooms experience significantly more disruptive behaviors than others. As to measuring classroom management strategies, the mean score was ($M=5.20$;

SD=1.34). This means that a higher mean value shows that teachers are employing effective classroom management strategies in their schools. The SD score presents variations in the choice of classroom management strategies by secondary school teachers.

Table 1

Descriptive Statistics of the Research Variables

Research Variables	Mean	Standard Deviation
Students Engagement	5.85	.93
Disruptive Behaviors	3.94	1.29
Classroom Management	5.20	1.34

N=630

Pearson Correlations

Correlations among the variables were calculated to see the relationship between variables. This helps to run the simple linear regression. The correlation between students' engagement and disruptive behavior was $r = -.360^*$, a moderate but significant relationship. The relationship between students' engagement and classroom management strategies was $r = -.396^*$. This also means a moderate level of significant relationship existed between these two variables. Next, the relationship between disruptive behaviour and classroom management strategies was $r = -.210^*$, which shows a weak relationship between these two variables. Though negative values were identified, all these correlations were significant and provided a base on which to run the linear regression analysis.

Simple Linear Regression

Simple linear regression was calculated to see the relationship between variables and the impact of the mediator on both students' engagement and students' disruptive behaviors. The following table presents the results of simple linear regression. All the variables were entered one by one in the linear model. As to measuring the relationship between students' engagement and classroom management strategies by the secondary school teachers, the following regression equation was found: $F(109.906)$; $aR^2 = .148$, $p = .00$. The regression results showed that teachers employed classroom management strategies effectively to engage students in the classroom. Though the level of variance of .39% was not sufficient, it significantly impacted the regression model. The model also showed that if teachers enhance their classroom management strategies, it will more effectively engage their students, as the regression coefficient shows that one unit increase in classroom management will increase the students' engagement to .267. Next, to measure the relationship between classroom management strategies and students' disruptive behaviors the regression results showed that $F(46.559)$; $aR^2 = .043$, $p = .00$. Again, the level of variance between these two variables was not sufficient but statistically found significant. This interpretation of the regression coefficient shows that a unit increase in teachers' classroom management strategies by 0.43 will reduce the disruptive behaviour of students in the classroom. As to measuring the relationship between students' engagement and disruptive behaviors of students in the classroom. The results showed a small but significant variance $F(28.964)$; $aR^2 = .128$, $p = .00$.

The regression model also revealed that if teachers engage their students in classroom activities it will reduce their disruptive behaviors as unit increases in students' engagement will reduce the disruption to -.500.

Table 2

Simple Linear Regression

Independent Variables	Dependent Variables	<i>R</i>	ΔR^2	<i>p</i>	<i>t</i>	<i>B</i>	<i>SE</i>	β
Students Engagement	Classroom Management Strategies	.396	.148	.000	10.484	.267	.025	.396
Students' Engagement	Disruptive Behaviors	.360	.128	.000	-9.66	-.500	.052	-.360
Classroom Management Strategies	Disruptive Behaviors	.210	0.43	.000	-5.38	22.391	.038	-.210

N=630; *p*=0.05

Sobel Test to Map the Effect of Mediating Variable

A Sobel test was conducted to see the effect of the classroom management strategies as a mediator variable between students' engagement and students' disruptive behaviors. The Sobel test (Sobel, 1982) helps to collectively trace the significance of the indirect effect of classroom management strategies on students' engagement and students' disruptive behaviors. The Sobel test was calculated through an online Sobel calculator. The *p*=0.05 value of this test was found to be significant, which means the mediator variable classroom management strategies have a significant indirect effect on students' engagement and students' disruptive behaviors.

Independent Sample t-test

An independent sample t-test was conducted to see the gender differences in managing classrooms, engaging students in classroom activities, and reducing disruptive behaviors among students at schools. The results of the independent sample t-test are presented below in Table 3. The mean score of male and female teachers adopting classroom management strategies was (Male =5.29; SD = 1.36 and Female= 5.09; SD= 1.31) where, $t(628) = 1.82, p = .84$. Although the mean scores are slightly difference, statistically it was not significant which means the classroom management strategies employed by the male are female teachers in public secondary schools were different. As to measure the difference in view of teachers' students' engagement in the classroom the means score (Male = 5.80; SD = .85; Female= 5.91; SD=1.02) where, $t(628) = -1.48, p = .01$. The mean values of male and female are found slightly difference and statistically difference which means the students' engagement strategies used by secondary school male and female teachers were different. As to measuring the difference in controlling disruptive behaviors of students by the teachers. The mean score (Male = 3.91; SD = 1.30; Female= 3.97; SD=1.27) where $t(628) = -.61, p = .36$, which shows that the strategies to control disruptive behaviours of the students by male and female were the same.

Table 3
Presents the Results of the Independent Sample T-test

Variables	Gender	Mean	Std. Deviation	F	t	Sig
Classroom Management Strategies	Male	5.29	1.36	.037	1.82	.84
	Female	5.09	1.31			
Students' Engagement	Male	5.80	.85	5.76	-1.48	.01
	Female	5.91	1.02			
Disruptive Behaviors	Male	3.91	1.30	.82	-.61	.36
	Female	3.97	1.27			

N= 630; p=0.05

Discussion

This study aimed to examine the relationship between public secondary school teachers' student engagement and strategies to manage disruptive behaviors, with classroom management strategies serving as a mediating variable. The result shows a significant relationship between students' engagement and classroom management strategies employed by public secondary school teachers. This finding is in line with the study results of Virtanen et al. (2015), who conducted their research to identify the relationship between classroom quality and students' engagement in schools. They have found that the effective engagement of students in the classroom has a positive impact on students' learning and provides them with support to move on in their learning journey. This finding is further endorsed by the study results of Ahmad (2010), who conducted research on teachers' effective classroom management strategies in the Pakistani context. Their results also highlighted that effective classroom management strategies create a positive learning environment that facilitates students in their academic achievement.

Our results identified that the relationship between classroom management strategies and disruptive behavior is also significant, which is aligned with the study results of Banzon-Librojo (2017). They have conducted research in a school context and identified that school discipline strategies effectively shape students' behaviours towards learning. Maintaining discipline in the classroom helps teachers deal with difficult and harsh behaviours, which ultimately create a positive school climate, as identified by the study findings of Bosworth & Judkins (2014). Our findings also highlighted a significant relationship between effective student engagement and the reduced disruptive behaviors of students in the classroom. This finding corroborates with the existing research (Hopman, 2018; Haug, 2020), which identified that teachers' classroom activities, support and relationships with students reduce the disruption in the classroom. Oplatka & Atias (2007) conducted a study to see the gender differences in view of classroom management strategies. They have found a variety of results that male and female school principals used a variety of strategies, e.g., counselling, support, appreciation, etc., to ensure discipline in school. These findings are aligned with our study results that male and female teachers used a variety of strategies to manage the classroom, while no difference was found in managing disruptions and engaging students in classroom activities.

Limitations and Recommendations

The study aimed to investigate the relationship between students' engagement and disruptive behaviors with a mediating role of classroom management strategies of teachers teaching at public secondary schools in

Multan. This research has several limitations that reduce its generalizability to other contexts. First, this study includes students' engagement, disruptive behaviors of students and teachers' classroom management strategies. We did not see the impact of these variables on students' academic performance, which is the ultimate yardstick to see the impact of students' engagement, creating disruptions in the classroom and the effects of teachers' classroom management strategies. Moreover, studying students' backgrounds and motivation towards learning could also be other variables that could be studied in future research. As to the sample of the research, this study was limited to district Multan and further to a few schools. We could not cover all schools due to time and available funds for this research. Future research can include other districts to generalize the results to study the impact of these variables on students' learning and achievement. Moreover, future research could also engage students in their research to see the impact of the above-mentioned variables. This will also enhance the data analysis options and could draw better results and interpretations of collected data. The study depends on existing research instruments, which could limit the responses of teachers and could reduce the variability of the results. Future research could consider developing the instruments to align with the local situation and context of teaching and learning. This will give us better results when studying such problems at school.

Conclusion

This research reaches the following conclusions. First, this research found a positive relationship between classroom management strategies and students' engagement and disruptive behaviors. This means that teachers' effective classroom strategies can enhance students' engagement and reduce disruptions in the classroom. This means all the research hypotheses were accepted. As to measuring the gender differences, we can conclude that male and female teachers adopt different classroom management strategies to engage their students and reduce disruptions in their classrooms.

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