

The Moderating Role Of Perceived Teachers Support In The Impact Of School Environment Quality And Emotional Exhaustion On Fresh Secondary School Students' Academic Engagement

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Abstract: The purpose of this study was to evaluate the moderating influence that perceived teacher support has in the relationship between fresh secondary school students' academic engagement and the impact that school environment quality and emotional weariness have on that engagement. The research design that was adopted was correlational. The data gathering method of choice was the survey that was carried out. Convenience sampling was used to determine the study sample, which consisted of 513 freshmen and sophomores enrolled in secondary schools. The results of the research indicate that the level of academic engagement displayed by pupils is strongly positively connected with the quality of the school environment. Additionally, there is a negative association between emotional weariness and academic involvement. This may be shown by looking at the correlation between the two. Furthermore, the association between the quality of the school environment and academic engagement is controlled by students' perceptions of the support they receive from their teachers. The findings indicate that students entering their first year of secondary education do not have their perceptions of their teachers' support acting as a moderating factor in the association between emotional weariness and academic engagement.

Keywords: Perceived Teachers Support; School Environment Quality; Emotional Exhaustion; Academic Engagement; Secondary School Students.

I. Introduction

Teachers can provide support to students in the areas of autonomy, competence, and relatedness because these areas are closely related to their core psychological needs. Because of how much time kids and teenagers spend in school these days, teachers are, without a doubt, perceived as a source of social support. As a result, this phenomenon has drawn the attention of several experts from various scientific domains. It has

been proven that how pupils feel their teachers are assisting them directly affects how motivated and interested they are to learn and perform. Students show higher levels of interest and satisfaction in their assignments, as well as better levels of self-esteem and higher expectations of academic success when they perceive that their teacher is on their side. However, there is limited consensus among academics about the impact of teachers' help on students' academic success.

The relationship between School Environment Quality and Academic Engagement

Numerous characteristics outside of intelligence have been identified by research as being able to predict the level of academic achievement reached by pupils. Student characteristics such as motivation (Bakker & Demerouti, 2017) and self-efficacy (Bakó-Biró, Clements-Croome, Kochhar, Awbi, & Williams, 2012); the school climate (Barrett, Davies, Zhang, & Barrett, 2015); socioeconomic status (SES) (Bauer, Hämmig, Schaufeli, & Taris, 2014); gender (Dockrell & Shield, 2006); parental education (Edgerton & McKechnie, 2022); and attendance are among these. Parental education is another important factor (Fairbairn et al., 2022). An increasing body of evidence also suggests that a school's physical learning environment can be used as a predictor of other types of educational outcomes, including student achievement. More study is needed in this area because of its significance (Ghazvini & Khajepour, 2011). However, research in environmental psychology has shown that the layout of the classroom, the kind of materials used in the classroom, and other physical aspects of the classroom are linked to a wide variety of learning outcomes and experiences for the students. The study of environmental psychology has demonstrated that this is in fact the case. When compared to other types of artificial lighting, full-spectrum fluorescent lights that include UV supplements have been demonstrated to improve academic achievement. As a result, these lights have been installed in a number of different schools. This finding is supported by evidence gleaned from studies that focused on investigating particular physical features (Hathway, 1995). According to research that was carried out by Bakó-Biró and colleagues on the topic of classroom ventilation, it was shown that low (poor) ventilation considerably decreased children's attention and had a negative impact on students' memory and

focus (Hotz & Pantano, 2015). "Classroom babble" (noise by children alone) has been shown to reduce performance on verbal tasks, and "classroom babble plus environmental noise" has been shown to slow down performance on the speed of processing activities. There is evidence that the acoustic environment of a classroom can have a significant effect on students' ability to concentrate and learn. Both of these impacts were shown to have results that were statistically significant when analysed by Liu, Zhang, Wong, and Hyun (2020). According to the findings of a comprehensive literature analysis on the relationship between learning environments and students' educational outcomes and experiences (Maddox et al., 2021), the physical aspects of the learning environment, such as the amount of background noise and the cleanliness of the air, play a crucial role in the learning process.

Emotional Exhaustion and Academic Engagement

Several characteristics outside of intelligence have been demonstrated to be strong predictors of academic success in pupils. Some of these include the student's motivation (Edgerton & McKechnie, 2022), parental education, the student's socioeconomic position (SES), the student's gender (Dockrell & Shield, 2006), and the school's environment (Barrett, Davies, Zhang, & Barrett, 2015). A parent's level of education is also important (Fairbairn et al., 2022). An increasing amount of research suggests that a school's physical learning environment can be used to predict other aspects of educational results, such as student achievement. More study is needed because of the significance of this topic (Ghazvini & Khajepour, 2011). However, studies in environmental psychology have revealed that classroom layout, materials, and atmosphere all influence students' performance and engagement. This has been proven by studies on environmental psychology. Many schools now use full-spectrum fluorescent lights enhanced

with UV bulbs because studies show they improve student performance. Evidence from studies focusing on certain physical characteristics supports this conclusion (Hathway, 1995). Low (poor) ventilation in the classroom, according to research by Bako-Biro et al. (Hotz & Pantano, 2015), significantly reduced children's attention and negatively impacted students' focus and memory. "Classroom babble" (noise made only by children) has been shown to reduce performance on verbal tasks, while "classroom babble plus environmental noise" has been shown to slow down performance on the speed of processing tasks, suggesting that the acoustic Environment of a classroom has a significant impact on students' ability to focus and learn. Liu, Zhang, Wong, and Hyun (2020) found statistically significant effects for both of these factors. Physical factors of the learning environment, such as the amount of noise and the quality of the air, are important to the learning process, as shown by a large literature research on learning environments and students' educational results and experiences (Maddox et al., 2021).

Relationship between Perceived Teacher Support and Academic Engagement

According to the findings of study that was conducted by Barrera Jr. (2000), there is a connection between the level of engagement that students have in their schoolwork and their perceptions of the degree to which their teachers encourage them. What Berkman and Syme (1979) refer to as "perceived teacher support" is the way in which students view the attitudes and behaviours of their teachers in regard to the students' academic work and personal lives. In addition to academic aid, it also provides support in terms of the student's mental well-being (Bochaver, Korneev, & Khlomov, 2022). To be more specific, students' perceptions of academic support are linked to their belief in the instructor's interest in and investment in their learning (Boud & Cohen, 2014). On the other hand, students'

perceptions of emotional support are linked to their belief in the instructor's investment in and investment in them as unique individuals (Boud & Cohen, 2014). Both perspectives are connected to the level of academic help that students perceive they receive from their teachers. Teachers' influences, which were viewed as a contextual element, were located within a range of theoretical frameworks. These frameworks included, amongst others, social support theory (Caleon et al., 2017) and self-determination theory (Cooper, 2014b). The theories of self-determination (Cooper, 2014b) and social support (Caleon et al., 2017) were explicitly applied in this study. People tend to believe that the supportive activities taken by their social network are generally advantageous to both their mental health and their growth (Cooper, 2014a). This is one of the foundations of the social support theory. According to the self-determination theory (Deci & Ryan, 2000), when the external environment of an individual satisfies three fundamental psychological needs—autonomy, competence, and belonging—it has the potential to increase the individual's internal motivation, encourage the individual to internalise the external motivation, and keep the individual engaged. These effects can keep the individual engaged in their activities. It is generally agreed that Edward L. Deci and Richard M. Ryan are responsible for the development of the notion of self-determination. It is generally accepted that the level of involvement that students have in their own education is directly proportional to the level of social support that they receive from their instructors. According to Deci and Ryan (2013), there is a substantial relationship between the level of participation in class and the students' impressions of the level of assistance they receive from their teachers. Therefore, the encouragement that teachers provide might have an effect on the level of dedication that students have towards their studies. Students' propensities to engage in gender stereotyping and their job

decisions are more likely to be influenced by their parents (Hassan et.al., 2022).

According to Barrera Jr. (2000), there is a correlation that can be established between the level of support that students believe they receive from their instructors and the degree to which they are devoted to their academic pursuits. The level of support that students believe they receive from their instructors may be determined by asking them how much they believe their professors assist them. According to Berkman and Syme (1979), the idea of "perceived teacher support" refers to the students' perceptions of the attitudes and behaviours of their teachers in reference to the students' academic work and their lives outside of school. This includes both the students' academic lives and the students' lives outside of school. This term relates to both the academic work that kids do in school as well as the lives that students lead outside of school. It encompasses a wide variety of aspects, including academic and emotional support (Bochaver, Korneev, & Khlomov, 2022). To be more specific, students' perceptions of the teacher's level of academic support are related to how much they believe the teacher cares about them as individuals, whereas students' perceptions of the teacher's emotional support are related to how much they believe the teacher cares about them as a whole (Boud & Cohen, 2014). These findings were found in a study conducted by Boud and Cohen (2014). Both of these perspectives are connected to the extent to which the pupils believe that their instructor cares about them as individuals. Both of these perspectives are connected to the way in which the students see the amount of academic help that is provided for them by their teacher students' heavy usage of mobile phones and their psychological and social well-being, regardless of where in the world they are located (Mushtaque, et.al, 2022). Teachers' impacts, which were regarded to be a contextual component, were framed using a variety of theoretical frameworks. These frameworks

included social support theory (Caleon et al., 2017) and self-determination theory (Cooper, 2014b), amongst others. Both of these theories were considered along with the other numerous possibilities. In specifically, the research for this study made use of the theories of self-determination (Cooper, 2014b) and social support (Caleon et al., 2017). According to the assumptions that form the basis of the social support hypothesis (Cooper, 2014a), individuals view supportive behaviours from their social network as typically helpful and as contributing to their psychological well-being and development. It has also been observed that attending online classes might have a significant negative impact on a student's health. Students suffered from poor eyesight, behavioural issues, increased body mass, and insufficient amounts of sleep (Mushtaque, et.al, 2021). This finding is consistent with the social support theory. According to the self-determination theory, when an individual's external environment satisfies the three basic psychological needs of autonomy, competence, and belonging, it can increase that person's internal motivation, promote the internalisation of the external motivation, and keep that person engaged (Deci & Ryan, 2000). Self-determination theory was developed by Edward L. Deci and Richard M. Ryan. Edward L. Deci and Richard M. Ryan are credited with the development of the self-determination hypothesis. It is generally agreed that Richard M. Ryan and Edward L. Deci were the ones responsible for developing the self-determination theory. It is general knowledge that a big component in determining the degree to which students are actively involved in the process of their own learning is the amount of social support that students receive from their teachers. This support can come in the form of feedback, encouragement, or other forms of social interaction. According to Deci and Ryan (2013), studies have proven a considerable association between the level of interest students have in the

subjects they are studying and the students' perceptions of the support they receive from their teachers. As a direct result of this, the encouragement that is offered by instructors has the potential to have an effect on the amount of interest that students have in the subject matter that they are presently learning.

However, there is no consensus among academics about the impact that the support of teachers has on the academic achievement of the student (Ladd, 1999). It is impossible to show beyond a reasonable doubt the specific benefits that come from a given form of supportive behaviour on the part of teachers, despite the fact that there is no question that teacher support has a positive impact. This is despite the fact that there is no question that teacher support has a positive impact. In most cases, a large number of intervening circumstances that have an effect are responsible for the outcome. Nevertheless, it is abundantly clear that student-teacher interaction that is based on a positive relationship has synergistic effects and is beneficial in a variety of ways. These advantages may be found in a wide range of contexts.

According to Lam and Jimerson (2008), successful student-school relations can only be accomplished with the assistance of educators. The concept of "teacher support" can be construed in a number of different ways, from an intellectual standpoint. According to the social support paradigm, teachers who offer their students assistance in any one of the following categories (knowledge, tools, feelings, and assessments) are offering "teacher support" (Lee & Ashforth, 1996). In the past 20 years, there has been a rise in the amount of interest that educators have shown in the self-determination theory (SDT) (Martnez-Lbano, Yeomans, & Oyanedel, 2022). "Teacher support" in SDT is defined as the obligation of the teacher to actively connect with and address the psychological needs of the students, with the ultimate goal of encouraging

greater student decision-making independence and improved intrinsic motivation. This is done with the intention of promoting greater student autonomy in decision-making and higher intrinsic motivation. According to the 'fundamental psychological needs mini-theory' (BPNT) proposed by the SDT, human beings are highly motivated to develop and perform at their best when their fundamental psychological needs of autonomy, competence, and relatedness are satisfied (Parker et al., 2015).

According to Pekrun and Linnenbrink-Garcia (2012), there are three different types of teacher support that can directly meet the fundamental psychological needs of students. These types of support include autonomy, competence, and relatedness. Examples of autonomy support include enabling students to make their own decisions by providing them with the flexibility and independence to do so, enabling students to express their alternative perspectives, and use welcoming language to speed the process of internalisation. Other parts of providing support for the student's autonomy include considering the student's point of view and taking steps to reduce the number of compulsive acts taken towards them, (Rizwan et.al., 2021) indicated that there were considerable variations between the educational backgrounds of the moms of different groups of students. According to the findings of the study, responsiveness and control are not significantly different in parenting styles throughout the various locations of the world. The term "teacher competence support" refers to the practise of assisting instructors in developing their own expertise in order to better organise their classes and encourage their students to put forth their utmost effort while they are present in the classroom. As a consequence of this, there is an increased likelihood that the pupils would have the perception that they are able to successfully complete meaningful learning tasks. According to the definition of "teacher relatedness support" provided by Reeve and Jang

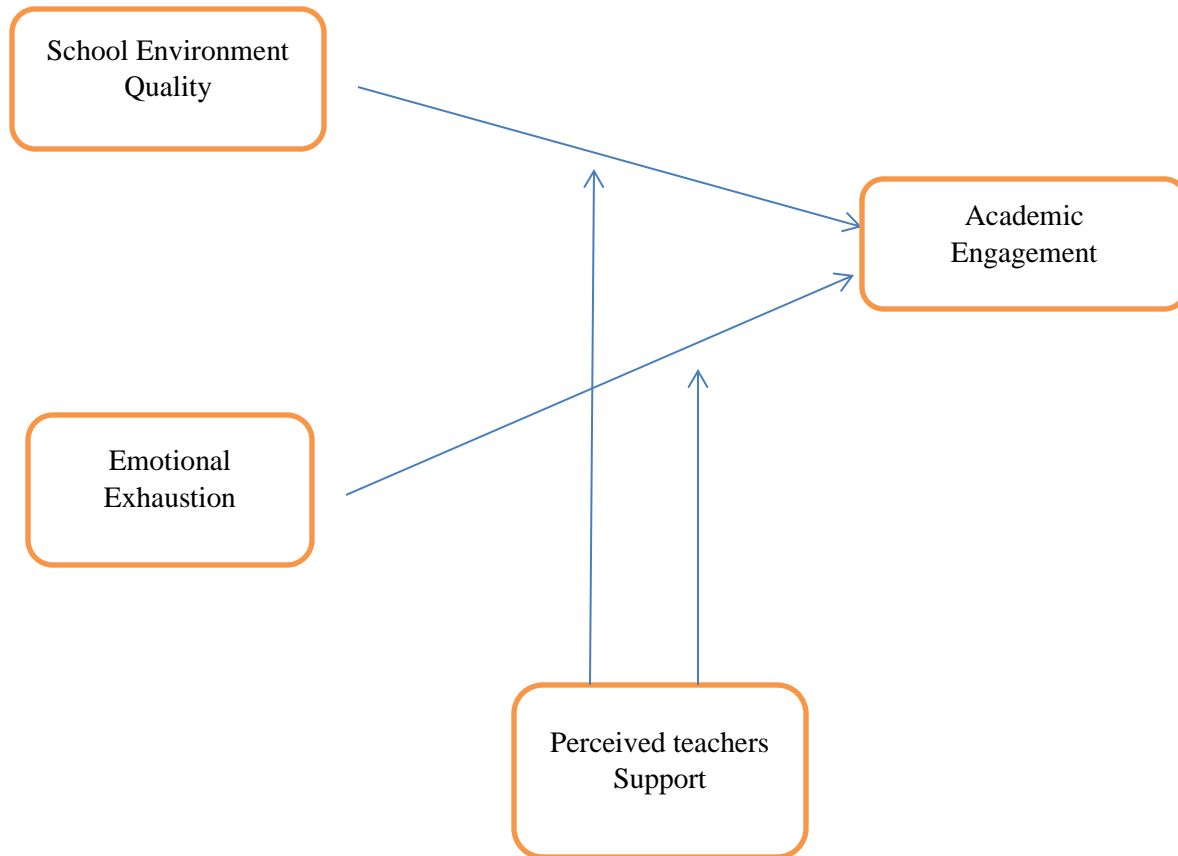
(2006), "teacher relatedness support" is provided by educators who take the time to get to know their pupils and express real affection for them. The dynamic structural theory provides a solid theoretical foundation, which can be utilised in order to appreciate the positive effects that can result from teacher support. Because it may be used to evaluate students' engagement and because it reflects data on PE instructors' practises, SDT is a popular choice among academics who teach physical education.

Moderating Role of Perceived Peer Support

The term "perceived teacher support" refers to the encouragement and assistance that students believe they receive from their teachers. Students need to communicate with their classmates in order to complete both in-class activities and outside-of-class intellectual assignments (Roché, 2001). According to Hofmann and Muller, one of the most important aspects of this process is the degree to which students feel supported in their academic efforts (Roorda, Jak, Zed, Oort, & Koomen, 2017; Wentzel, Battle, Russell, & Looney, 2010). Students' relational needs are met by this method, and they are more likely to participate in class and feel accepted by teachers (Ryan & Deci, 2000). It is founded on the principle of relatedness and self-determination (Ruzek et al., 2016). Students' relationships with

their peers play a significant role in their development (Ryan & Deci, 2019). Young people support self-control by meeting the basic and developmental needs of their peers, particularly the urge to socialize or be accepted. Moreover, several studies (Skinner & Belmont, 1993) show that students' positive attitudes towards one another in the classroom can contribute to the growth of a productive learning environment and that when students are free to openly discuss their academic successes, anxieties, and worries, it forges an emotional connection that can serve as a source of peer support. There was a correlation between being female and having higher levels of anxiety and despair (Rizwan et al., 2021). Research conducted in 2012 by Standage, Gillison, Ntoumanis, and Treasure. In addition, research shows that teenagers' learning interests and motivation are positively correlated with the values that are supported by peers and the experience of having a close relationship with peers (Tal & Babad, 1990; Yang, Li, Su, & Yuan, 2021). However, some studies have found that students' motivating beliefs and emotional experiences are affected by peer support (Vázquez, L. Aza, & Lanero, 2015). According to the social cognition hypothesis, one's sense of self-efficacy might improve when they get personal, emotional, material, and intellectual support from those around them.

Conceptual Framework



Objectives

1. To explore the association of school environment quality and academic engagement among fresh secondary school students
2. To examine the association of emotional exhaustion and academic engagement among fresh secondary school students
3. To investigate the moderating role of perceived teacher support in the relationship between school environment quality and academic engagement
4. To know the moderating role of perceived teacher support in the relationship between emotional exhaustion and academic engagement.

Hypotheses

1. There would be a significant association between school environment quality and academic engagement.
2. There would be a significant association between emotional exhaustion and academic engagement.
3. There would be a significant moderating effect of perceived teacher support on the relationship between school environment quality and academic engagement.
4. There would be a significant moderating effect of perceived teacher support on the relationship between emotional exhaustion and academic engagement.

2. Material and Methods

The research is quantitative in nature, and correlational analysis was used to conduct the study. Information gleaned from a survey or questionnaire. Five hundred thirteen fresh

secondary school student participants were chosen as the sample using a reasonable sampling technique. Demographic characteristics include but are not limited to gender, location, geography, and educational background. The research employs a total of four methods. Research on the ambiance in schools (Wentzel et al., 2010). The school environment has a significant impact on how children develop socially. Friendship, mutual support, and healthy competitiveness are just a few of the social and emotional skills that kids learn and practice at school. Young people's future social behavior and expectations are profoundly shaped by their experiences in school. The SCQ consists of 22 statements that describe various facets of the school environment.

Each question required a yes/no response from the participants. Emotional Exhaustion Scale (Williams, 2005). The ECE is a single-dimensional scale with 10 items. On a scale from 1 to 5, 1 means never, 2 means sometimes, 3 means sometimes but not always, 4 means often, and 5 means always. The ECE can provide a score between 10 and 50. Informed consent was acquired from all respondents. They were assured that their anonymity and the confidentiality of their responses would be protected. Inferential statistics were used to analyse the information gathered. The Teacher Support Scale (TSS) (Yang et al., 2021) is one of the questionnaires in the battery. It asks respondents to rate their level of support for 21 different teachers on a scale from 1 (strongly disagree) to 5 (strongly agree). the Student Engagement in School Questionnaire

(SESQ) (Cooper, 2014a). Student engagement in school, motivational beliefs, social-related situations, and student outcomes make up the SESQ's four composites, each with 13 domains and 15 sub-domains. On a scale from 1 (never) to 5 (always), students indicate their agreement with statements made in the lesson using a Likert-type scale. Each question required a yes/no response from the participants. Emotional Exhaustion Scale (Williams, 2005). The ECE is a single-dimensional scale with 10 items. On a scale from 1 to 5, 1 means never, 2 means sometimes, 3 means sometimes but not always, 4 means often, and 5 means always. The ECE can provide a score between 10 and 50. Informed consent was acquired from all respondents. They were assured that their anonymity and the confidentiality of their responses would be protected. Inferential statistics were used to analyse the information gathered. The Teacher Support Scale (TSS) (Yang et al., 2021) is one of the questionnaires in the battery. It asks respondents to rate their level of support for 21 different teachers on a scale from 1 (strongly disagree) to 5 (strongly agree). the Student Engagement in School Questionnaire (SESQ) (Cooper, 2014a). Student engagement in school, motivational beliefs, social-related situations, and student outcomes make up the SESQ's four composites, each with 13 domains and 15 sub-domains. The average student takes 35 minutes to complete the survey, which uses a Likert-type scale from 1 to 5 (1 = never, 5 = often) to gauge their responses. to conclude.

3. Results

Results 1: Relationship between School Environment Quality and Academic Engagement

	Variables	Mean	Std. Deviation	SEQ	AE
1	School Environment Quality	99.4503	6.30119	1	.217**
2	Academic Engagement	27.8674	1.37428		1

Table 1 shows the relationship between school environment quality and academic engagement of secondary school students. The findings of the

study reveal that there is a significant positive relationship between school environment quality and academic engagement.

Results 2: Relationship between Emotional Exhaustion and Academic Engagement

Variables	Mean	Std. Deviation	EE	AE
1 Emotional Exhaustion	15.6920	6.91287	1	-.230**
2 Academic Engagement	27.8674	1.37428		1

Table 2 describes the association between emotional exhaustion and academic engagement. Results depict that academic engagement is

negatively associated with the emotional exhaustion of fresh secondary school students.

Table 3: The moderating role of Perceived Teacher Support in the relationship between School Environment Quality and Academic Engagement

Model	Unstandardized Coefficient	Std. Error	Standardized Coefficients Beta	t-test	p-value
(Constant)	37.879	1.776		21.323	.000
Perceived Teacher Support	-.104	.019	-.369	-5.639	.000
Interaction -Term	.325	.059	.358	5.460	.000

Table 3 shows the moderating role of perceived teacher support in the relationship between emotional exhaustion and academic engagement. The findings of the study reveal that the

relationship between emotional exhaustion and academic engagement is significantly moderated by perceived teacher support.

Table 4: The moderating role of Perceived Teacher Support in the relationship between Emotional Exhaustion and Academic Engagement

Model	Unstandardized Coefficient	Std. Error	Standardized Coefficients Beta	t-test	p-value
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(Constant)	50.355	1.903		26.464	.000
Emotional Exhaustion	-.169	.014	-.851	-11.730	.000
Perceived Teacher Support	-.207	.019	-.731	-11.109	.000
Interaction -Term	-.048	.062	-.53	-.785	.433

Table 4 indicates the moderation effect of perceived teacher support on the relationship between emotional exhaustion and academic engagement. Results suggest that there is no mediating effect of perceived teacher support on the relationship between emotional exhaustion and academic engagement.

4. Discussion

Research has uncovered a plethora of traits other than IQ that are capable of predicting the level of academic performance obtained by students. These characteristics are able to predict the level of academic accomplishment reached by students. A student's academic achievement can be affected by a number of factors, including motivation, self-efficacy, school culture, socioeconomic level (SES), gender, the education level of the student's parents, and attendance. According to Lee and Ashforth (1996), another determinant is the education level of the parents. According to the findings of this research, there is a beneficial and statistically significant connection between the quality of the school environment and the amount of academic engagement exhibited by pupils. When compared to other types of artificial lighting, full-spectrum fluorescent lights that include UV supplements have been demonstrated to improve academic achievement. As a result, these lights have been installed in a number of different schools. (Metheny et al., 2008) Simply stated, this finding

is supported by research that has focused specifically on certain physical components. An extensive literature study of learning environments and students' educational outcomes and experiences (Pekrun & Linnenbrink-Garcia, 2012) found that the physical features of the learning environment, such as the amount of noise and the quality of the air, are significant to the learning process. Some examples of these types of physical aspects are the air quality and the degree of noise. A growing amount of evidence suggests that a school's physical learning environment can be used as a predictor of various sorts of educational outcomes, including student achievement. One of the most important aspects of a school's physical learning environment is the quality of the lighting. This line of investigation is extremely important, and Martinez-Lbano et al. (2022) recommend that it be followed further. Both mental and emotional weariness has been shown to have a detrimental correlation with academic engagement. Students' reports of having more work to complete during the pandemic are consistent with the findings of two recent studies (Deci & Ryan, 2000) that revealed that the perception of having too much to do is a major source of dissatisfaction and is positively associated with stress as well as poor mental and physical health. These findings are consistent with the findings of the research. A moderating role is played by students' perceptions of the support they receive from their teachers in

the relationship between academic engagement and the quality of the school environment. According to the findings of a number of studies (Ryan & Deci, 2000), "When classmates are allowed to freely share their successes, fears, and concerns regarding school, it creates an emotional bond that can serve as a source of peer support, and this, in turn, can help to create an environment in the classroom that is conducive to learning." (Ryan & Deci, 2019) According to the data, the link between emotional exhaustion and academic engagement among freshmen secondary school students is not modulated by teachers' perceived support.

5. Conclusion

The study was concluded that students' academic engagement is significant positive correlated with school environment quality. In addition, there is negative relationship between emotional exhaustion and academic engagement. Furthermore, the relationship between school environment quality and academic engagement is moderated by perceived teachers support. Results show that perceived teachers support does not moderate the relationship of emotional exhaustion and academic engagement of fresh secondary school students. Student characteristics such as motivation, self-efficacy, the school climate, socioeconomic status (SES), gender, parental education, attendance and parental education enhance their level of academic engagement.

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