

The Mediating Effect of Teachers Engagement on the Relationship Between Students Intellectual Stimulation and Their Engagement

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Abstract— This study was conducted to determine the mediating effect of Teachers Engagement on the relationship between student's intellectual stimulation and their engagement. Specifically, this study aimed to determine the level of students' intellectual stimulation ; to determine the level of student's engagement; to determine the level of teacher's engagements; to determine the significant relationship of student's intellectual stimulation and their engagement determine the significant relationship of students intellectual stimulation and teacher engagement; to determine the significant relationship of teacher engagement and student engagement; to determine the mediating effect of teacher engagement to the relationship between students intellectual stimulation and their engagement. Data were analyzed through getting the mean, standard deviation and regression analysis. Results revealed that that teacher's engagement were the very reason how student's intellectual stimulation can influence student engagement. this indicates that teacher's engagement can be one of the reasons how school culture can influence student's engagement. Furthermore, the study recommends the following: (a) Panabo City Secondary School should plan an improve differentiated instruction and pedagogical seminars to enhance teaching style to boost students' interest in (b) to expose Panabo City Secondary School students to varied reading materials incorporating multimedia materials, real-world examples, and interactive exercise.

Keywords— mediating effect, teachers' engagement, students' intellectual stimulation, students' engagement

INTRODUCTION

Student engagement is one of the elements that influences a learners academic success and intellectual development in the classroom (Kahu and Nelson(2017),and it has received considerable attention from academics throughout the world (Bond and Bedenlier, 2019). The degree of commitment, enthusiasm, and dedication teachers show in their teaching methods is referred to as teacher engagement. The learning outcomes and engagement of students may suffer when teachers are not sufficiently involved. Disengaged teachers may not challenge their students intellectually, which will lower student engagement. A study on the relationship between teacher engagement and student engagement by Fredricks, Blumenfeld, and Paris (2004) suggested that teacher engagement positively influences student engagement, highlighting the significance of teachers' active involvement in fostering student engagement. A theoretical framework for comprehending the significance of teacher engagement is provided by the Self-Determination Theory (Deci & Ryan, 1985). This theory asserts that students' motivation and engagement are influenced by three psychological needs: relatedness, competence, and autonomy. To provide these needs and encourage student participation, teacher engagement is essential.

Students are more likely to be engaged in their study when their minds are challenged. The degree to which teachers develop pupils' curiosity, critical thinking, and problem-solving skills is referred to as intellectual stimulation. However, if there isn't enough intellectual stimulation, kids could lose interest and motivation. In a 2003 study, Willms looked at the connection between student participation and intellectual stimulation. The findings suggested a beneficial relationship between student engagement and the intellectual stimulation offered by teachers. Students who felt intellectually stimulated to a high degree reported being more engaged. Willms looked at the connection between student participation and intellectual stimulation (Fredricks et al., 2004).

The relationship between student engagement and intellectual stimulation may be mediated by teachers' engagement. In other words, highly engaged teachers are more likely to engage students intellectually through effective intellectual stimulation. In contrast, the effect of intellectual stimulation on student involvement may be diminished or even neutralized if teachers lack engagement. Only a few empirical research has looked directly at the role that teacher engagement plays in mediating the connection between students' engagement and intellectual stimulation. This idea would support the

potential mediating impact if applied to the particular context of intellectual stimulation and student involvement. A theoretical framework for comprehending mediation is provided by the Social Cognitive Theory (Bandura, 1986). This idea contends that self-efficacy—a person's sense of competence— influences motivation and subsequent involvement. In the context of student engagement, teacher engagement can influence students' motivation and engagement levels through altering their perceptions of their own capacity to engage in intellectual tasks.

Students who are actively involved in class activities, finish their tasks, and exhibit better levels of knowledge and skill are more likely to be engaged. By examining student involvement, researchers and educators can pinpoint the elements that support productive engagement and create plans to improve academic performance. Students who are actively participating in class are intrinsically driven, exhibit a positive outlook on learning, and are more likely to set and meet their academic goals. They also comprehend more deeply and are better able to retain information. Teachers may build motivating learning environments that foster motivation and support the best learning outcomes by having a thorough understanding of the factors that affect student engagement. Students that are actively involved in class frequently have higher feelings of pleasure, self-worth, and a sense of community.

Additionally, they are less prone to exhibit dangerous behavior or have behavioral issues. Researchers can learn more about the relationships between student involvement, wellbeing, and socioemotional growth by researching it. This knowledge can help educators establish complete support systems in their schools. In order to avoid dropouts and boost retention rates, student engagement is essential. Disengaged children are more likely to be absent from class, do poorly in class, and drop out of school early. Teachers can design tailored interventions and support systems to re-engage at-risk children and encourage successful school completion by identifying the factors that contribute to student disengagement. Evidence-based strategies for intervention have benefited from research on student engagement. Studies have looked at the efficiency of treatments like mentoring programs, cooperative learning, student-centered teaching methods, and extracurricular activities in encouraging engagement. Educators now have advised on proven methods and strategies that can improve student engagement

according to these studies. Engagement levels have been found to be highly influenced by elements like teacher-student interactions, instructional strategies, classroom climate, school culture, and student motivation. Researchers have shed light on the intricate interplay of factors that affect student engagement by identifying these elements, enabling educators to focus on certain areas for development.

Understanding how teacher involvement affects student engagement help inform instructional strategies. The study can illuminate effective methods for teachers to intellectually engage their pupils by exploring the roles of intellectual stimulation and teacher engagement. The goal of the study is to pinpoint specific instructional strategies that optimize the positive effects of intellectual stimulation on student engagement and hence enhance learning results.

The level of intellectual stimulation describes how much pupils are encouraged intellectually, encouraged to think critically, and involved in worthwhile learning activities. The intellectual stimulation of students and their engagement are strongly correlated. Students are more likely to actively participate in the learning process, display curiosity, and show higher levels of motivation and interest when they are intellectually engaged. Cognitive engagement can be sparked by intellectual stimulation, which boosts student involvement, focus, and perseverance in academic endeavors.

The engagement of teachers can also be influenced by the intellectual stimulation of students. High levels of intellectual stimulation among students can have a favorable effect on teachers' drive, zeal, and dedication to their subject matter. Teachers may feel motivated and inspired to present more intellectual challenges and promote a supportive learning atmosphere when they observe students actively and enthusiastically interacting with the content. Teachers' own engagement and commitment to promoting student learning can be reinforced by the intellectual stimulation of the students. The use of intellectual stimulation by instructors was operationalized by Bolkan and Goodboy (2010) as taking place when instructors used an interactive teaching approach, posed challenges to students, and promoted independent thought.

The same author viewed that interactive teaching approach is providing students with a novel way to learn

through engaging lesson plans and classroom activities. To guarantee that students understand the course subject properly and to let students realize that their diligent effort in class is a worthy endeavor, instructors who want to challenge their students give them challenging yet manageable projects. Encourage independent thought by making students think carefully and critically about the topics covered in class. This will force them to come to their own conclusions.

The degree of passion, zeal, and dedication teachers show in their teaching methods is referred to as teacher engagement. There is a strong link between student involvement and instructor engagement. Teachers who are actively involved in their work foster an environment in the classroom that is stimulating and supportive of student participation. Effective teaching strategies are used by engaged teachers, who also give prompt feedback, build positive rapport with their pupils, and provide opportunities for active participation. These methods help students become more engaged, motivated, and all-around motivated in their studies. In contrast, if teachers lack enthusiasm or are disengaged, it may affect students' academic performance and reduce their level of engagement.

Teachers have enormous impacts on how students learn, and the degree of participation can have a big impact on how students perform. Our awareness of how teachers' engagement specifically mediates the connection between students' intellectual stimulation and their engagement, however, is lacking. Hence this study was conducted.

This study determined the mediating effect of Teachers Engagement on the relationship between students' intellectual stimulation and their engagement. More specifically, this sought to realize the following objectives: 1. To determine the level of students' intellectual stimulation in terms of: Interactive Teaching Style, Challenging Students, Encouraging Students Independent Thought. 2. To determine the level of Students Engagement in terms of: Cognitive Items, Affective Items, Behavioral Items, Agency Items. 3. To determine the level of Teachers Engagement in terms of: Cognitive Engagement, Emotional Engagement, Social Engagement: Students, Social Engagement: Colleagues. 4. To determine the significant relationship of Students Intellectual Stimulation and their Engagement, Students Intellectual Stimulation and Teacher Engagement, Teacher Engagement and Student

Engagement. 5. To determine the mediating effect of Teacher Engagement to the relationship between Students Intellectual Stimulation and their Engagement.

The results of this study can influence methods of instruction and educational practices. Instructors can develop and put into practice ways that improve the involvement of both instructors and students by recognizing the mediating influence of teachers' engagement. This can result in enhanced educational possibilities, academic success, and general student outcomes. Students who feel like they belong, are motivated, and are enthusiastic can be fostered by teachers who are actively involved and offer intellectual stimulation. Students' general well-being and social growth may as a result benefit from this.

The findings can be used by school administrators to develop endeavors that support a school culture that values and promotes teacher participation. This can involve creating areas where instructors can work together to discuss best practices, encouraging a positive environment, and praising and rewarding teachers for their efforts to engage children. This can encourage a love of learning in children and make the learning process more interesting and pleasurable. The researcher can gain experience in the areas of teacher engagement, intellectual stimulation, and student engagement as a result of conducting this study. The researcher acquires in-depth understanding of the topic and methodology by focusing on the specific mediating processes, which can improve their professional standing and research abilities. The results of the study might encourage additional research on the study's research issues in the future. They can look into additional elements that might affect the link between student engagement, intellectual stimulation, and teachers' engagement.

This segment contains related writing and considers that clarifies each of the factors and their affiliations.

A meaningful commitment to studying is referred to as student engagement. The easiest way to think of it is as a correlation between the learner and the curriculum, teachers, and peers (Martin and Torres 2014). The phrase has historical roots in a collection of Work that involves student engagement is popular, especially in the North. Through annual large-scale national elections, it has been deeply ingrained in America and Australia. (Trowler, 2010)

The productive involvement is a crucial method for helping students experience emotions about the people and organizations who serve as their peers, teachers, and mentors. Providing abundant possibilities for learning and growth, as well as fostering a sense of community. The amount of time and effort students put into activities with a learning objective is the lone factor that will most accurately predict their academic and career success. It's been noted as a key factor in understanding dropout, especially when it occurs gradually at play in a student's life that contributes to their decision to leave Jimerson and others (2009) Additionally, it has frequently been connected to enhanced academic performance and proved to be a reliable indicator of performance and conduct in schools (Appleton, Christenson & Furlong, 2008).

Fredricks, Blumenfeld, and Paris (2004) investigated the link between student engagement and intellectually stimulating classroom activities. The results showed a link between intellectual stimulation and student engagement, indicating that engaging students in cognitively difficult tasks and activities is beneficial. Wang and Holcombe's (2010) research mentioned that there is a substantial positive association between students' perceptions of the intellectual stimulation their professors provide and their general classroom participation. The study emphasized the value of engaging students intellectually through instructional strategies.

In the context of vocational education, a study by Hakanen, Bakker, and Schaufeli (2006) looked at the connection between students' intellectual stimulation and teachers' engagement. The results showed that teachers reported greater levels of involvement in their teaching duties when they thought their students were intellectually stimulating. In a 2011 study, Roorda et al. looked into the relationship between teachers' engagement and interactions with students that were intellectually stimulating. The findings demonstrated that teachers' own engagement in the teaching process was positively correlated with their ability to engage students in intellectually challenging exchanges.

Poor student achievement, low teacher morale, and high turnover rates. (Basikin, 2007) Studies discovered that students benefited from higher levels of teacher engagement. Academic success and involvement. Consequently, to guarantee that teachers are to be productive at work, it's critical to find efficient ways to

evaluate teachers' engagement. A review of earlier studies reveals that teacher engagement in online settings has been linked to positive student results, including increased achievement. According on online data, Bulger et al. (2007) discovered a positive correlation between student academic achievement and teachers' use of online support tools. In an eLearning context, Farhan et al. (2016) proposed a qualitative assessment methodology that included an analysis of students' attention and teachers' participation. The findings showed a positive correlation between teacher engagement and students' eLearning performance and visual attention. Suh and Michener (2019) claim that one-way teachers might be involved in their students' learning is through dialogic online discussion prompts (see also Zhang and Zhang, 2020).

Through Schoology, an online learning management system, Saiful et al. (2019) investigated the impact of peer and teacher feedback on students' writing performance. The findings showed that teacher feedback improved students' writing abilities, but students who received teacher and peer input via Schoology did not outperform students who received traditional teacher feedback in this area. Through the use of qualitative research methods, Zhong and Li (2020) examined how teachers' involvement in the classroom affected students' success in learning in an online setting. The findings demonstrated that teachers' participation in instructional design, knowledge explanation, relationships with and interactions with their students, and interactions themselves all benefited students' progress and pleasure.

Additionally, previous research has demonstrated that there is no connection between teachers' engagement and students' academic success. The growth of internal factors is frequently necessary for the promotion effect of teacher involvement as an external factor (Cho and Heron, 2015; Zhong and Li, 2020). Our grasp of the internal mechanism of teacher involvement in boosting EFL accomplishment is however limited because the relationship between teacher engagement and students' achievement in online classrooms is unclear and no study has addressed it in foreign language acquisition.

The Self-Determination Theory (SDT) is one anchor theory that highlights the interrelationship between students' intellectual stimulation, teachers' engagement, and students' engagement. SDT is a well-known theory in the field of motivation and self-control that presents emphasis on how students' psychological requirements

and the social environment affect their intrinsic motivation and engagement.

Autonomy, competence, and relatedness are the three primary psychological requirements identified by SDT as being responsible for motivation and engagement. When students feel autonomous, they have a sense of control and choice over their education. Being confident in one's ability and effectiveness to complete difficult tasks is known as competence. Feeling linked, supported, and in good connections with others, especially instructors and peers, is referred to as relatedness.

According to this concept, pupils' cognitive engagement is positively influenced by intellectual stimulation, such as difficult and thought-provoking exercises. Students that are intellectually challenged are better able to concentrate, pay attention, and actively participate in the learning process. Through instructional strategies that encourage critical thinking, problem-solving, and deep learning, teacher engagement is essential in promoting students' intellectual stimulation. As a result, as they become more intellectually engaged in their learning, student engagement is increased.

The importance of strong teacher-learner bonds in fostering student involvement is emphasized by the teacher-student relationship paradigm. Positive teacher-student relationships are fostered when teachers are involved and show high levels of excitement, caring, and support for their pupils. The trust, respect, and effective communication that characterize this healthy relationship help the children feel a sense of relatedness and belonging. As a result, students become more engaged because they feel more a part of the learning community, their teachers, and their classmates.

A mastery-oriented classroom environment that fosters students' motivation and competency is the goal of the mastery climate framework. In a mastery environment, teachers stimulate students' minds by assigning difficult tasks, emphasizing growth and improvement in feedback, and offering chances for skill development.

The conceptual framework of the study explores the mediating effect of teacher engagement on the relationship between students' intellectual stimulation and their engagement. It posits that students' intellectual stimulation positively influences their engagement, and this relationship is mediated by teacher engagement.

The framework considers three main variables: students' intellectual stimulation, teacher engagement, and student engagement.

Anderman and Midgley (2004) mentioned in his study that students' Intellectual Stimulation refers to the Challenging and thought-provoking tasks: Activities that require students to think critically, analyze information, and apply knowledge in complex ways. Opportunities for critical thinking and problem-solving: Providing students with tasks or assignments that encourage them to analyze, evaluate, and solve problems independently. Tarris(2008) stressed about teacher's engagement that refers to the teachers' motivation, enthusiasm, and dedication to their teaching role as teachers' intrinsic drive, passion, and commitment to their profession and the success of their students.

Student Engagement refers to Students' involvement in discussions, asking questions, and completing assigned tasks with enthusiasm and attentiveness. Intrinsic motivation and interest in learning: Students' internal drive and curiosity to explore and understand the subject matter, going beyond external rewards. Paris (2004)

In educational setting, teachers take on leadership roles in addition to serving as knowledge facilitators. According to Freitas (2018), transformational leadership is a type of leadership that elevates followers' attitudes, beliefs, and behaviors to a higher level of motivation by inspiring them to go above and beyond their current levels of performance and achievement to even higher levels and the act of a leader moving a follower beyond their immediate self-interests by persuasive reasoning, inspiration, intellectual stimulation, or careful reflection is known as transformational leadership. According to Mc Gahey (2018), transformational leaders foster creativity, reframe challenges, and look for innovative solutions.

Additionally, a number of traits that made up a teacher thought to exhibit transformational leadership skills in the educational setting were found. Transformational leadership can be tapped into through charismatic leadership, individualized consideration, and intellectual stimulation. When a leader sees a desirable future, explains how it may be achieved, provides an example that others can follow, sets high expectations for performance, and exhibits tenacity and confidence, Freitas (2018), charismatic leadership can be seen.

Finally, intellectual stimulation is demonstrated when the leader supports and coaches the development of their followers. When leaders pay attention to the followers' developmental needs, they are demonstrating individual consideration. (Bass, 1999).

Additionally, Freitas (2018) looked at this idea of transformational leadership in the context of the classroom in connection to the attitudes and evaluations of the students. They came to the conclusion that a teacher's capacity to engage pupils intellectually may have a significant impact on their engagement and perceptions of the teacher as a whole. Therefore, students were more likely to have a favourable opinion of their instructor's performance in the classroom if they believed their instructor had intellectually stimulated them. One of the most crucial things a teacher can do to engage and inspire pupils in learning is to provide intellectual stimulation in the classroom, according to earlier research on transformational leadership and teaching.

Following Shin and Bolkan (2020) recognizing intellectually stimulating actions. Shin and Bolkan (2020) operationalized instructors use of intellectual stimulation as occurring when instructors used interactive teaching style, challenged students and encourage independent thought. In their research, Chowdhry and Osowska (2017) additionally added a component to stimulate students' minds. They came to the conclusion that in order for a teacher to be successful in stimulating the minds of their students, they needed to develop challenging learning activities that called for in-depth thought as well as challenging course material to make sure the students were thinking critically and were able to draw their own conclusions about the content.

Moreover, Shin and Bolkan (2020) identified that learners' intrinsic motivation mediated the relationship between their perceptions of intellectual stimulation and their accounts of using in-depth strategic methods rather than more cursory ones to learn the course material.

The level of focus, interest, enthusiasm, optimism, and passion among students is known as engagement. Technology, students' choice in what they study and how they present their learning, and access to wanted and relevant content through desired and relevant means are all common aspects that can affect student engagement in a number of contexts (Robinsons, 2019).

Disengagement from school has a significant impact on students' learning outcomes and cognitive progress and is an indicator of student dropout in both secondary and higher education (Bond et al. 2020). It is likely that students would channel their energy back into their learning increases with their level of engagement and empowerment within their learning community. This can result in a variety of short- and long-term benefits, which can also further fuel engagement. (Bedenlier et al.,2020)

The term "student engagement" refers to students' active participation in educationally effective activities and their attention to educational goals and learning, which is a vital step toward highly desired educational outcomes like academic success. The four aspects are behavioral, cognitive, affective, and agentic, making it a multidimensional construct (Chiu, T. K. 2021).

The majority of researchers concur that student engagement is a crucial and effective indicator of academic success. In middle school, pupils who are actively involved in their coursework have a higher likelihood of finishing college than those who are not. Engagement is seen as crucial to the growth of an enduring academic identity and long-term learning methods in addition to playing a significant effect in the quality of everyday school experiences (Goodman, A. 2016).

Research focused on understanding teacher engagement has increased because there is evidence that the teachers' beliefs, behaviors, and emotional state have significant repercussions on their students' engagement and their academic performance (Tucker,2020). The level of commitment or investment that teachers have in their profession is referred to as teacher engagement. It shows how motivated and interested teachers are to integrate practical knowledge and engaging activities into their instruction. A multidimensional term known as "teacher engagement" includes a person's overall level of energetic commitment in their professional work as well as the closely associated physical-cognitive, emotional, and social sub dimensions. (Zou, M., Kong, D., & Lee, I. 2021)

Burnout and disengagement are two outcomes that could result from teaching stress. According to recent studies on the subject of teacher engagement, the partnership between school administrators and teachers is essential for fostering a secure and joyful atmosphere that encourages each student to reach their full potential.

This link encourages teacher engagement, which results in higher job satisfaction, enhanced goal-setting and performance monitoring, more precise identification of students who need extra support, and more efficient support systems. (Coelho,2017).

This study aims to determine the mediating effect of Teachers Engagement on the relationship between student's intellectual stimulation and their engagement. The null hypothesis was formulated and tested at .05 level of the significance which stated that there is no significant relationship among students' intellectual stimulation, teachers' engagement and students' engagement. Teachers' engagement has no mediating effect on the relationship between Students' intellectual stimulation and their engagement. The research demonstrates that teacher involvement increases student progress. Teacher engagement is a critical issue pertaining to education since it has a considerable impact on student learning and student outcomes. (Coelho,2017) According to Campbell (2017), an engaged teacher is one who is aware of the what, how, and why of what is occurring in their classroom, is able to discuss all facets of education with their colleagues, is a valuable team member, and prefers to drive change rather than sit back and let it happen.

METHODS

The specifics of how this study be carried out were covered in this section. The individuals, tools & materials, design, and methods used in the study were also presented.

The respondents were chosen via random sampling. Study participants included senior high school students in the province of Davao del Norte particularly in Panabo City, and the respondents were 300 students who were from private and public senior high schools in Panabo City Division. Two hundred to three hundred responders in a sample size offers a reasonable margin of error and is below the threshold of diminishing returns. (Minsel, 2022). Only Panabo City secondary school seniors who were formally enrolled in both private and public schools were qualified to attain homogeneity. Table 1 shows the research respondents who were senior high school students from different schools in Panabo City.

The selection of respondents of the study used a random sampling of 300 senior high school students in Panabo City. These students were selected based on the

following criteria: (1) they were currently enrolled for senior high school in any private and public school in Panabo City (2) they would agree to answer the survey questionnaire to this study. The distribution of the respondents, as shown in Table 1 were as follows: 120 from School A ,63 from School B, 30 from School C, 27 from School D, 24 from School E, 36 from School F. Thus, the total number of senior high school students involved in this research is 300. The participants were limited only to those who are were enrolled in Panabo City Division.

Students that are not qualified on the following criteria: (1) they are not currently enrolled for senior high school in any private and public school in Panabo City (2) they will not agree to answer the survey questionnaire to this study. Participation of participants is optional. There will be no consequences or loss of benefits for declining to participate.

In the Philippine province of Davao del Norte sits Panabo City, a city that is fast growing. It is located in Mindanao, the second-largest island in the nation, in its southernmost region. Here are some geographical details about the research location in Panabo City: Panabo City is situated about 32 kilometers north of Davao City, the region's capital. The city is located on the eastern shore of the Davao Gulf, facing the huge Pacific Ocean. The geography of the city is mostly flat, with some parts having gentle slopes. It is located in the Davao River Valley's lowlands, which are renowned for their productive agricultural grounds. It is appropriate for a variety of land uses, including residential, commercial, and agricultural, due to the flat topography.

The researcher resides presently at Panabo City and the researcher focused on the student engagement observed during classes which affected the teaching and learning process. With this situation it was evidenced that most senior high school students were involved in the performance-based assessment.

Information from the respondents was gathered using three sets of study surveys that were modified from previous ponder. The surveys would be submitted to a substantive legitimacy and unshakable quality assessment to ensure the accuracy of the estimates. The unruly overviews would receive approval from external validators with competence in social research and statistics. Some of the instruments' declarations and contents would need minor adjustment. Three sets of

study surveys were utilized in getting information from the respondents which were adjusted from past ponderers. To guarantee precision of estimations, the surveys would be subjected for substance legitimacy and unwavering quality investigation. Minor revision would some be recommended in some contents and statements of the instruments.

In evaluating the level of students' intellectual stimulation. The results from the data gathered shall be interpreted and analyzed through a rating scale. The range of means between 4.20 - 5.00 has a very high descriptive level which indicates that the items relating to students' intellectual stimulation constructs are evident all the time. Second, the range of means between 3.40 - 4.19 has a high descriptive level which indicates that the items relating to students' intellectual stimulation are evident most of the time. Third, the range of means between 2.60- to 3.39 has a moderate descriptive level which indicates that the items relating to students' intellectual stimulation are evident occasionally. Fourth, the range of means between 1.80 to 2.59 has a low descriptive level which indicates that the items relating to students' intellectual stimulation are evident in the few instances. Lastly, the range of means 1.00-1.79 has a very low descriptive level which indicated that the items relating students' intellectual stimulation are not evident at all.

In determining the extent of Teachers Engagement, the means were interpreted using the scale. The range of means between 4.20-5.00 has a very high descriptive level which indicates that the items relating to teachers' engagement are evident at all times. Second, the range of between 3.40 - 4.19 has a high descriptive level which indicates that the items relating to teachers' engagement are evident most of the time. Third, the range of between 2.60- 3.39 has a moderate descriptive level which indicates that the items relating to teachers' engagement are evident occasionally. Fourth, the range of between 1.80-2.59 has a low descriptive level which indicates that the items relating to teachers' engagement are evident in few instances. Lastly, the range between 1.00- 1.79 has a very low descriptive level which indicates that the items relating to teachers' engagement are not evident at all. To analyze the students' engagement, the means were used using this scale. The range of means between 4.20-5.00 has a very high descriptive level which indicates that the items relating to students' engagement are evident at all times. Second, the range of between 3.40 - 4.19 has a high descriptive

level which indicates that the items relating to students' engagement are evident most of the time. Third, the range of between 2.60- 3.39 has a moderate descriptive level which indicates that the items relating to students' engagement are evident occasionally. Fourth, the range of between 1.80-2.59 has a low descriptive level which indicates that the items relating to students' engagement are evident in few instances. Lastly, the range between 1.00- 1.79 has a very low descriptive level this indicates that the items relating to students' engagement are not evident at all. The scale was used to interpret the means in order to determine the degree of teachers' engagement. The range of means between 4.20 and 5.00 has a very high descriptive quality, meaning that the items related to teachers' engagement are always obvious. Second, the descriptive level for the range of 3.40 to 4.19 is high, indicating that the items related to teachers' engagement are frequently visible. Third, the descriptive level for the range of 2.60 to 3.39 is moderate, indicating that items linked to teachers' participation are occasionally noticeable. Fourth, the descriptive level for the range of 1.80 to 2.59 is low, meaning that the items linked to teachers' engagement are rarely apparent.

Five experts of their field in relevance to the study validated the survey questionnaire had a mean of 4.17 which means very good.

Correlational research, often known as non-experimental research, examines the link between two variables using statistical analysis. Simply put, an association between two variables is called a correlation. In research, correlations are utilized to pinpoint the variables that should be associated. I'll start referring to the items as variables as well. A correlation coefficient, defined as a numerical representation of the strength and direction of a link, is the outcome of numerous statistical tests that are based on this straightforward description. The levels of intellectual stimulation, teacher engagement, and student engagement were assessed in this study. It was also looked into how teachers' engagement mediated the link between intellectual stimulation and student engagement. The researcher recorded and tallied the answer correspondingly. The following statistical techniques were employed in this study: Mean and standard deviation was utilized in objective number 1,2,3 to determine the level of students' intellectual stimulation, student engagement and teacher engagement. Meanwhile the objective 4 Pearson Correlation Coefficient was used to determine

the significant relationship of students' intellectual stimulation and their engagement, students' intellectual stimulation and teacher engagement, teacher engagement and student engagement. Finally, for objective number 5 regression analysis was employed to identify the mediating effect of teacher engagement to the connection between students' intellectual stimulation and their engagement.

RESULT AND DISCUSSION

The information gathered, assessed, and interpreted in light of the study's goals is presented in this part.

Table 1: Level of Students Intellectual Stimulation

Indicator	SD	Mean	Descriptive Level
Interactive Teaching Style	0.83	4.17	Very High
Challenging Students	0.87	4.30	Very High
Encouraging Independent Thought	0.86	4.26	Very High
Over-all	0.86	4.24	Very High

The lowest mean and SD for interactive teaching style are 4.17 and 0.83, respectively, and it has a high descriptive level, meaning that it is typically seen. This indicates that senior high school students require a consistent instructional approach. Each of the following measures of student intellectual stimulation had a mean and standard deviation of 4.17 and 0.83, encouraging independent thought had a mean and SD of 4.26 and 0.86, and challenging students had a mean and SD of 4.30 and 0.87. The information showed that the indicator Interactive Teaching Style has a descriptive level of high which indicates that is frequently noticeable.

Level of Students Intellectual Stimulation

The data on students, intellectual stimulation level is reflected in Table 1. The overall mean score of 4.24 with an SD of.86, which is considered to be very high, is shown in Table 1. This means that components linked to the concept of intellectual stimulation for students are always apparent. Additionally, the results demonstrate that difficult students have the highest mean of 4.30 and SD of.87 with descriptive level of very high, which indicates that their constructions are always evident.

Level of Student Engagement

Table 2 shows the degree of student engagement. The overall level of student engagement is 4.02, as indicated in Table 2, with a standard deviation of 0.99 considered as high. The results also show that Affective Items has the highest mean of 4.27 and SD of 0.95 with a descriptive level of very high, indicates that the affective items is always observed. Students of Senior high usually learn when they demonstrate acceptance, interest, respect, and belongingness. Additionally, Behavioral Items got the lowest mean of 3.90 and SD of 0.94 with a descriptive level of high. The high level may be explained by the senior's overwhelmingly very high rating.

Table 2: Level of Student Engagement

Indicator	SD	Mean	Descriptive Level
Cognitive Items	0.99	3.98	High
Affective Items	0.95	4.27	Very High
Behavioral Items	0.94	3.90	High
Agency Items	0.97	3.96	High
Over all	0.99	4.02	High

The data revealed that the indicators' cognitive and affective items have very high descriptive levels, meaning they are almost often noticed. In contrast, the indicators' cognitive, behavioral, and agency components have high descriptive levels and are frequently apparent.

Level of Teachers Engagement

Shown in Table 3 is the overall mean score of 4.40 and SD of 0.82 in the table is characterized as being extremely high. This shows that teacher's engagement is always apparent. The extremely high degree of instructor engagement suggests that student engagement had an impact on teachers' conduct, performance, and handling of students, as well as on the intellectual stimulation of students.

Table 3: Level of Teacher Engagement

Mediating Variable	SD	Mean	Descriptive Level
Teacher Engagement	0.82	4.40	Very High

Table 4. Significant Relationship

Pair Decision	Variables	Correlation Coefficient	p-value	Decision
IV and DV	Students Intellectual Stimulation and Student Engagement	.701**	0.000	Reject
IV and MV	Students Intellectual Stimulation and Teacher Engagement	.689**	0.000	Reject
MV and DV	Teacher Engagement and Student Engagement	.638**	0.000	Reject

Relationship between Students Intellectual Stimulation and Student Engagement

It was shown in Table 4 the overall coefficient of correlation is .701 and has a p value of 0.000, which is less significant than the threshold of 0.05. As the probability value p0 indicates, there is a considerable correlation between students' intellectual stimulation and student engagement. 000. As a result, the null hypothesis that there is no meaningful association is disproved. There is a correlation between the two variables, as seen by the overall correlation of .701.

Relationship between Students Intellectual Stimulation and Teacher Engagement

It was shown in Table 4 is the correlation data between Student Intellectual Stimulation and Teacher Engagement. The null hypothesis that there is no significant relationship between student intellectual stimulation and teacher engagement is therefore rejected because the overall coefficient of correlation is .689 and the p value is 0.000, which is lower than the 0.05 level of significance. There is a correlation between the two variables, as seen by the overall correlation coefficient of .689.

Relationship between Teacher Engagement and Students Engagement

The association between teacher and student engagement was displayed. The overall coefficient of correlation is .638, and the significance level is below the threshold of 0.05 with a p-value of 0.000.

Since the probability value is p0.000, this indicates that there is a considerable relationship between teacher engagement and student engagement. As a result, the null hypothesis that there is no meaningful association is disproved. There is a correlation between the two

variables, as seen by the overall correlation coefficient of .638.

Mediating Effect of Teacher Engagement on the Relationship between Students Intellectual Stimulation and Their Engagement

The regression study on the mediating role of teacher engagement in the association between student intellectual stimulation and engagement is presented in Table 5. According to the data from Baron and Kenny's (1986) study, three conditions must be satisfied before a third variable can operate as a mediator. These are classified as Steps 1 through 3 in Table 5. The fourth and last step is. In Step 1 (Path C), Teacher Engagement, the mediator (MV), and Student Intellectual Stimulation, the independent variable (IV), strongly predict each other. Step 3 of the process shows a strong correlation between teacher and student engagement. In step 4, the interaction between students' intellectual stimulation and teachers' engagement has a substantial impact on students' engagement.

To assess the importance of the mediation effect, additional mediation analysis using the med graph (Jose, 2003) is required. This study should also include the Sobel Test. Full mediation will be attained if the effects of IV and DV cease to be statistically significant at the conclusion of the analysis.

It denotes that the mediating variable mediates all of the effects. Only partial mediation is accomplished if the regression coefficient is significantly decreased but still significant at the last stage.

This indicates that while some of the IV is mediated by the MV, other portions are either direct or are mediated by additional variables that are outside the model's purview.

Table 5. Regression Results

STEP	PATH	BETA (UNSTANDARDIZED)	STANDARD ERROR	BETA (STANDARDIZED)
Step 1	c	.714	.042	.701
Step 2	a	.717	.044	.689
Step 3	b	.289	.053	.296
Step 4	c'	.507	.055	.497

Since the p-value for the 5.171 Sobel z-value was less than 0.05, there was significant mediation. The introduction of the mediating variable, teacher engagement, has dramatically weakened the correlation between students' intellectual stimulation (IV) and student engagement (DV). As observed in the graph, the subsequent regression causes the initial value of .701 to drop to .497.

The effect (1.005) quantifies the portion of the indirect pathway (IV to MV to DV) that may be attributed to the impact of students' intellectual stimulation (IV) on student involvement (DV). The correlation between students' engagement and intellectual stimulation is .714, which is the total effect. The extent of the association between student intellectual stimulation and student engagement with teacher involvement is the direct influence (.507). The amount of the initial correlation between the IV and DV that now passes through the mediator to the DV ($a*b$)—where "a" denotes the path between the IV and MV and "b" denotes the path between the MV and DV—is the indirect effect. By dividing the indirect effect by the overall effect—in this case, 0.717 divided by 0.714—the ratio index is calculated.

The researcher established that mediation in risk management is significant by employing Baron and Kenny's (1986) procedures in testing. In the first regression, the mediator (teacher engagement) is influenced by the independent variable (student intellectual stimulation) at a beta coefficient of .689, and the link is significant at a p-value of 0. In the second regression, the independent variable (student intellectual stimulation) has a .701 beta coefficient effect on the dependent variable (student engagement), and the link is significant with a P-value of 0.

Third regression for the mediation to hold the mediator (Teacher Engagement) impacts the dependent variable (Student Engagement), and the association is significant at a p-value of 0. Finally, regression analysis is performed on the dependent.

The probability value of 0.05 significance, which is less than 0.05 level of significance, is associated with the Sobel's Z value of 5.171. As a result, significant mediation is found, and hypothesis 1 is disproved. A considerable amount of mediation of Teacher Engagement on the correlation linking students' intellectual stimulation and students' engagement.

Since there is a mediation, it could really totally claim that teachers' engagement was the reason why students' intellectual stimulation can influence student engagement. This indicates that teachers' engagement can be one of the reasons how school culture can influence students' engagement. Last but not least, the mediator (Teacher Engagement) and both the independent variable (Students Intellectual Stimulation) and dependent variable (Students Engagement) are regressed. The association between student involvement and intellectual stimulation is successfully mediated by teachers' engagement, despite the fact that the coefficient of student intellectual stimulation has decreased from .701 to .497 but is still substantial.

This section presents the discussion of the data on students' intellectual stimulation, teacher engagement and student engagement.

According to studies, active learning techniques can help students become more adept at problem-solving and critical thinking (Prince, 2007). Teachers have high expectations for their pupils and push them to attain their maximum potential, as seen by the high degree of challenging students. According to Bandura (1997), self-efficacy and motivation are crucial for academic achievement, and teachers' strong support for independent thought may be an indication that they place a high priority on originality and creativity in their students' work. Students may benefit from developing their own beliefs and ideas in this way, which is crucial for both personal development and future professional success. The outcome of the study suggests that the sample teachers are successful in promoting a high level of student's intellect stimulation, which can positively

affect the learning outcomes and personal growth of their students. To better understand the relationship student's intellect stimulation between the level and particular learning outcomes, more research is needed. The study's second goal was to estimate the quantity of in four categories: cognitive items, affective items, behavioral items, and agency items. The high mean scores show that students' perceptions of the learning environment, which includes intellectual challenge, the caliber of their contacts with instructors, and their involvement in the learning process, are generally positive. On the other side, a high standard deviation indicates that student responses are scattered, indicating that different students have different perspectives on the learning environment. The mean score for the affective items was the highest, followed by the mean scores for the cognitive items, agency items, and behavioral items. The findings demonstrate that the study's participants' emotional investment in their learning environment and their conviction that their educational environment fosters intellectual growth and development are both present.

These results suggest that the setting for learning created by teachers has a positive result for students' perceptions, attitudes, and behaviors. This information is helpful to educators because it provides a clear picture of how well the learning environment they create is working. By raising the standard of the learning environment, teachers can encourage students' learning and help them realize their full potential.

Table 3 shows that the study's teacher's care deeply about their students' high level of teacher engagement has various impact. To begin with, it suggests that the instructors are committed to their jobs and actively engaged in promoting student learning. Improvements in academic performance and general engagement with the learning process are anticipated as a result. A positive school culture that places a high value on relationships between teachers and students and promotes a safe learning environment may also be responsible for the high level of teacher engagement. This may contribute to improving the school environment, which may have wider positive effects on children, including increased motivation, improved mental health, and a decline in bullying and other negative behaviors.

Table 4 shows that the variables significantly correlate with one another. The conclusion that students are more

likely to be involved in learning when teachers are more engaged in teaching is supported by the high positive connection. These findings are important for both teachers and policymakers. By adopting engaging teaching methods, pushing students to think critically, and promoting independent learning, educators can increase both student and instructor engagement. The allocation of resources and the creation of policies that support various instructional methods are the responsibility of policymakers. The results of this study imply that involving teachers more can improve learning outcomes and student engagement. The table displays the regression results for the variables for each of the four requirements for the existence of a mediating effect. The mediating role of teachers' engagement in the connection between intellectual stimulation and student engagement is being evaluated.

The regression findings demonstrate that teacher engagement mediates the relationship between student engagement and intellectual stimulation. The results of this study allow us to draw the conclusion that teacher engagement mediates the association between intellectual stimulation and engagement in students. This implies that teachers who successfully engage their pupils academically may also succeed in successfully engaging them emotionally and behaviorally. Since teacher involvement is suggested to be a key factor in enhancing student engagement in learning, this research has significant implications for educators and teachers.

The study's findings show that teachers' engagement in the classroom is an important factor in promoting student engagement and that fostering students' intellectual curiosity can indirectly boost engagement through the mediation of teachers' involvement. Teachers should be encouraged to use interactive teaching methods, challenge students, and promote independent thought as these are all signs of intellectual stimulation and will boost student engagement. Between students' intellectual stimulation and to encourage teachers to participate more in the classroom, schools must to offer them opportunities for professional development. Classroom participation is modulated by teachers' engagement. This conclusion implies that offering intellectually challenging tasks to learners can enhance teacher engagement, which can result in better student results. Engaged teachers are more likely to foster a supportive learning atmosphere and deliver efficient instruction, both of which can enhance student learning results. As a result, educational institutions

must to give students the chance to participate in intellectually engaging activities, and educators ought to support their use of instructional strategies that enhance student engagement.

The findings of the regression analysis demonstrate a strong positive link between the independent variable (IV), Students Intellectual Stimulation, and the dependent variable (DV), Student Engagement. This implies that there is an increase in student engagement when intellectual stimulation among students rises. These conclusions have significant implications for educational practice overall. By enhancing intellectual stimulation in the classroom, teachers can raise student engagement while also enhancing instructor engagement. This implies that student engagement tends to rise along with teacher engagement. According to this correlation, students that have more engaged professors also likely to have more engaged students. The findings point to positive correlations between the variables, showing that student intellectual stimulation is related to engagement of both teachers and students, as well as that student engagement is related to teacher engagement. Thus, enhancing students' intellectual stimulation may result in greater engagement on the part of both students and teachers, which may be advantageous for their academic achievement and overall educational experience.

The study's findings provide solid evidence for the research's underlying theories. The findings support the current theoretical paradigm, which holds that student intellectual stimulation, teacher engagement, and student engagement are related to and have an impact on one another. The descriptive results show a high degree of intellectual stimulation among students, proving that they believe their learning environment to be stimulating. This is in line with theories that stress how important it is to give students challenging and thought-provoking learning opportunities. The inferential results show how teacher involvement mediates the link between student engagement and intellectual stimulation. This lends credence to the idea that teacher engagement serves as a mechanism by which the stimulation of students' minds results in greater student engagement. The moderation analysis supports the theoretical idea that there is a moderating effect of student engagement on the link between teacher and student engagement, demonstrating that the degree of student engagement's interesting learning environments can greatly increase student engagement. These results

also emphasize the interdependence of these factors, highlighting the necessity of a thorough strategy that takes into account the interactions and dynamics between students, teachers, and the learning environment.

The study's conclusions underline the importance of student engagement in affecting the overall engagement outcomes, hence encourage active student participation. Teachers should use teaching methods that encourage active student participation, such as cooperative group projects, discussions, and practical exercises. Student engagement can be raised by creating a learning environment in the classroom that appreciates and supports student choice, participation, and voice. A healthy school culture and strong teacher-student interactions are essential for enhancing student learning and welfare, as evidenced by the study's high level of teacher engagement.

CONCLUSION AND RECOMMENDATIONS

Improving student engagement can encourage a more intellectually challenging learning environment. The learning materials provided are interesting and engaging" obtained one of the lowest mean ratings in the study.

The teacher encourages us to think critically and analyze information obtained one of the highest mean ratings, indicating its significance in enhancing student intellect. Teachers should deliberately create learning activities and assignments that foster critical thinking skills in order to further increase student involvement

Teachers should include chances for self-reflection and goal-setting within the learning process to increase student involvement.

It is important to improve the selection of learning materials. Teachers should concentrate on choosing and creating educational resources that are interesting, pertinent, and in line with students' interests and preferences in order to solve this. Students' learning can be made more interesting and stimulating by incorporating multimedia materials, real-world examples, and interactive exercise. Students' intellectual curiosity can be stimulated and a deeper level of engagement with the material can be promoted by encouraging them to examine information, assess evidence, and take part in problem-solving

Enhance teacher engagement: Given that the study showed that teacher engagement serves a mediating part in learning, it is crucial to give top priority to strategies that encourage teacher involvement and excitement in the classroom. It is possible to design professional development programs to give teachers the abilities and information they need to successfully engage learners. Students' sense of ownership and motivation can be increased by encouraging them to evaluate their educational experiences, create personal objectives, and monitor their progress. Regularly giving feedback and direction that is specific to each student's requirements can also help create a learning environment that is more engaging and individualized.

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