

Exploring the Relationships of Teacher-Student Interactions on Student Motivation and Achievement

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ABSTRACT

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Teachers who take time to create classroom environments that promote positive cultures can motivate students to channel their energies and desires to reach their goals. Using Vroom's Expectancy Theory as the theoretical framework of this study, the researcher explored the extent to which teachers and students differ in their perceptions of teacher-student interactions and their relationships to student motivation and achievement. Based on the expectancy theory, individuals are motivated by the desire to experience positive instead of negative outcomes. In this study, the researcher conceptualized the importance of classroom environments that promote healthy teacher-student interactions. Descriptive-correlational method was used to find out the extent of relationships between and among the variables included in the study. A sample of 175 (55%) teacher education students and 11 (61%) teachers were



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involved in the study. Two sets of modified questionnaires were used to gather data about teacher-student interactions and student motivation with a reliability index of 0.80. Paired samples test on teacher-student interactions did not show a significant difference, $t(10) = 0.091$, as perceived by both students and teachers. Pearson r indicated a significant relationship at 0.01 level between teacher-student interactions and achievement. However, it did not show significant relationships between teacher-student interaction and motivation. The findings of this study highlight the crucial role of active teacher-student interactions in improving students' learning outcomes.

INTRODUCTION

Educating the young generation in the global context requires a comprehensive approach that emphasizes both cognitive and socio-emotional aspects. Various factors inside the classroom such as teachers, students and environments determine the success of the learning process (Ahmad et al., 2010). Teachers shape a comfortable classroom environment to improve students' ability to learn (Bucholz & Sheffler, 2009). Their ability to select appropriate teaching methods and techniques are vital to ensure students' understanding of issues and concept at the highest level (Akçay & Doymuş, 2014).

In 2024, Yang et al. conducted a longitudinal study that confirmed the critical role of high-quality teacher-student relationships on student outcomes. Their study affirmed that the influence of positive teacher-student relationships on student outcomes remained consistent as students progressed through different educational stages. García-Madruga (2014) also confirmed that students' developed high self-efficacy beliefs when they perceived their teachers as caring and supportive. Her study underscored that students' greater confidence in their abilities leads to higher levels of motivation and academic achievement. In the same vein, Hama and Yamamoto (2019) stressed that when teachers create supportive and caring classroom environments the students enhance their intrinsic motivation and academic performance. Furthermore, the study of Suemori (2023) in Japan indicated that positive relationships characterized by mutual respect, understanding, and effective communication have a positive influence on students' academic performance. The stronger the connections students have with their teachers, the more likely they will demonstrate higher levels of motivation and achieve better grades. Meanwhile, Roorda et al. (2011), have drawn a similar conclusion that teacher's emotional support as well as their capacity to manage the classroom fosters student motivation and achievement. Thus, exploring all aspects of the learning environment is crucially important to

provide empirical support towards a deeper understanding of teacher-student interactions in outcomes-based education.

Good teacher-students' interaction creates positive relationships in the classroom and contributes to effective learning. The survey of related literature and studies in Asia, Europe and America shows the broad consensus on the importance of nurturing positive teacher-student relationships for enhancing student motivation and achievement. However, only few studies explored how the teachers and students perceived the extent of their interactions and whether their perceptions are related to students' motivation and achievement. This current study aimed to fill that gap in order to provide empirical knowledge that may serve as guide in policy formulation and in designing in-service training programs related to classroom management.

Observations of classes and interviews among students conducted by the researcher have shown the overwhelming presence of seemingly unmotivated college students who remain to be passive recipient of information in a traditional classroom. This situation needs drastic measures that will help translate these students into active constructors of their own learning. Thus, the need to gather research-based information on the impact of teacher-student interactions on motivation and achievement. Using Vroom's expectancy theory as theoretical framework of this study, the researcher explored as to what extent teachers and students differ in their perceptions of teacher-student interactions and their relationships to student motivation and achievement.

Based on the expectancy theory individuals are motivated by the desire to experience positive instead of negative outcomes (Vroom, 1995 as cited Nugent, 2009). In this study, the researcher conceptualized the importance of classroom environments that promote healthy teacher-student interactions. Good teacher-student relationships positively influenced learning. The more connected a student feels, the more willing he/she is to attempt tasks and seek help when necessary. The student who feels this sense of connectedness may want to maintain it or please the teacher by doing well in class. A student wants to feel connected to people and to feel as though he/she deserves to be loved and respected (Nugent, 2009).

The researcher had observed that many of the students who are not doing well academically are those who have poor relationships with their teachers. Typically, the more they fall behind academically, the more this relationship is weakened. If they are constantly reprimanded in class, the environment and the teacher-student relationships begin to hold negative associations. Students who experienced a nurturing relationship with teachers develop good attitudes towards their studies and often excel academically compared to their peers who

lacked the same support system.

This research aimed to gather research-based knowledge to be used as a basis for designing in-service training to enhance the faculty's motivational and classroom management techniques. It also provided research-based feedback to faculty about teacher-student interactions, which may help them realize the impact of connecting emotionally with students on motivation and achievement.

OBJECTIVES OF THE STUDY

This research focused on exploring the association of teacher-student interactions, student motivation, and achievement. Specifically, it determined to what extent teachers and students differ in their perceived interactions in the classroom. It also analyzed the relationship between and among students' perceptions of teacher-student interactions, student motivation, and achievement.

FRAMEWORK

Students benefit academically and emotionally from supportive relationships with their teachers. Studies conducted in various countries confirmed the universal impact of teacher-student relationships on academic outcomes, student motivation, and educational equity (Hughes & Cao, 2018; Hughes & Chen, 2019; Lin et al., 2020; Martin & Collie, 2018; Roorda et al., 2017; van Uden et al., 2014; Wang & Holcombe, 2022). Students who have positive relationships with their teachers exhibit higher motivation and academic achievement regardless of cultural or socio-economic differences (Curran et al., 2021; Quin, 2019; Roorda et al., 2017; Yoshimoto et al., 2023). The quality of teacher-student relationships has also been linked to reducing achievement gaps and learning difficulties among students from diverse socio-economic backgrounds.

Several studies highlighted how motivation influences learners' engagement in the learning process and how intrinsic and extrinsic motivation and engagement can influence learning outcomes (Che Ahmad et al., 2017; Hughes & Cao, 2018; Maulana et al., 2011; Urdan & Schoenfelder, 2006).

One of the crucial tasks of the teacher is to design learning activities that will authentically and meaningfully engage students in learning. Yee Mikami et al. (2020) argued that aside from the emotional aspects of the teacher-student relationships, instructional interactions are also critical to student achievement. In 2019, the study of Martin and Collie also emphasized that teachers' ability to balance closeness and autonomy can help to sustain students' motivation in

their academic activities. Their study conducted in the European context revealed that perceived teacher-student closeness positively influenced student motivation while conflict or dependency negatively influenced motivation.

The study of Saeed and Zyngier (2012) revealed that a good teacher-student relationship enhances student motivation and engagement in learning. Their findings confirmed that disengaged students do their work without interest and commitment, but engaged students strive to obtain the highest grade they can within their learning context.

In this study, the researcher conceptualized that individuals are motivated by the desire to experience positive instead of negative outcomes. Crosnoe et al. (2004), as cited by Gablinske (2014), studied how the affective dimension of the teacher-student relationship predicts academic success and behavior problems. They concluded that positive teacher-student relationships were associated with better student outcomes both academically and behaviorally. Students who had more positive views of their teachers did better and had fewer problems in school.

The classroom climate affects student-teacher interactions and student motivation. The research done by Tileston in 2010 focused on the physical and emotional climate in the classroom. When the students feel safe, accepted, and not afraid to try, they can interact freely with the teacher and become more active in completing their tasks even in difficult circumstances. In their study about instructional climate, Wiseman and Hunt (2013) concluded that teachers should provide interactive lessons, timely and appropriate feedback, and connect the lessons to real situations. In 2000, Carter stressed that teachers must communicate high expectations to students to motivate them to achieve more. When students feel that their teachers believe in their abilities, they become more confident in doing their academic tasks. Tileston (2010) supported this idea in his statement that teachers' expectations are catalysts for students' development. Teachers must assist their students to set high standards by nurturing in them the desire for greater accomplishment and attitude for success. In addition, to become highly motivated, students must be exposed to an environment that prompts both achievement and competence. Ibañez et al. (2004) suggested that desires for achievement among students can be developed by providing strong support and integration services.

According to Wilson and Trainin (2007), teachers must help students understand their ability to manage performance on a task and know how these students perceive competence and self-efficacy. Students with high motivational beliefs also reported high teacher support. Much has been said by researchers in the review of related literature about the impact of positive classroom climate on the motivation and performance of the students. Linnenbrink-Garcia et al.

(2008), and Kaplan (2016), stated that motivation theorists develop theories and conduct research to explain the effect of motivation on student achievement. However, inconsistent relationships between motivational constructs and students' achievement, which range from null to moderate in magnitude, have been revealed by most meta-analyses. Such inconsistency was evident in the study of Linnenbrink-Garcia et al. (2008), which revealed that performance and mastery goals are sometimes positively, sometimes negatively, and sometimes unrelated to students' achievement. These were confirmed by several researchers cited in this research. In 2009, Nugent conducted a similar study and found that student motivation and achievement have positive relationships with teacher-student interactions. Based on his findings, Nugent (2009) suggested that teachers must engage in workshops that would equip them with knowledge and skills in enhancing student-teacher interactions. Lin and Lin (2015) also examined the relationships between teacher-student interaction and students' learning performance in an E-tutor environment. They found out that teacher-student interaction has a significant relationship to students' learning performance. Students with high teacher-student interaction performed better than students with low teacher-student interactions.

In 2008, Downey conducted a study on how classroom practices influence students at risk of academic failure and found that teachers' personal interaction with his/her students made a significant difference. His findings suggest that teachers need to build strong interpersonal relationships with students, built on respect, trust, caring, and cohesiveness, while maintaining high and realistic expectations for success. Hamre et al. (2012) stated that teachers need actual skills involving identification of effective interactions with a high degree of specificity to transfer the coursework into changes in their practice.

METHODOLOGY

Descriptive-correlational method was used to find out the extent of relationships between and among the variables included in the study. Eleven classes composed of 175 (55%) teacher education students and 11 (61%) teachers selected through purposive sampling were involved in the study.

To comply to research ethics, the objectives of the study were explained to the students and teachers, and their decisions to participate were respected. Two sets of modified questionnaires adapted from Nugent (2009) were used to gather data: one measured teacher-student interactions, composed of 48 statements, and another measured student motivation, consisting of 12 statements. Each statement in the questionnaire used a five-point Likert scale ranging from 1

(never) to 5 (always). The teacher-student interactions questionnaire has four domains (dominance, submission, opposition, and cooperation), which have eight subscales, namely: leadership, helping/friendly, understanding, student responsibility/freedom, uncertain, dissatisfied, admonishing, and strict.

The pilot testing of the questionnaire resulted in a reliability index of 0.80 for teacher-student interactions and 0.86 for student motivation. The general weighted average of the students in all the subjects they have taken was used as a measure for achievement. Descriptive statistics were used to describe students' motivation and achievement. T-test, and Pearson r were used in the statistical analysis of the data.

The informed consent of each respondent was obtained before the data gathering and the anonymity of the respondents were preserved.

RESULTS AND DISCUSSION

Table 1

Descriptive Statistics of Students' Motivation and Achievement

	Mean	SD	Interpretation
Student Motivation	3.81	0.47	High
Achievement (GWA)	2.02	0.21	Satisfactory

It can be inferred from Table 1 that the students' motivation is high while their achievement is satisfactory. The small standard deviation for the general weighted average shows that the students' achievement is more or less the same. Moreover, the students' level of motivation is also less varied, as shown by the standard deviation of 0.47.

The study of Hughes and Chen (2019) in the Japanese context revealed that students who felt connected with their teachers, experiencing a nurturing, positive, and understanding environment, performed better academically. These students were more likely to participate in class, tackle challenging assignments, and demonstrate persistent effort, leading to higher academic success.

Table 2
Matched-Pairs Comparison of Teacher and Students’ Perceptions of Teacher-Student Interactions

	Mean	SD	T	df	Sig. (2-tailed)	Interpretation
Perceptions of Teacher-Student Interactions						Not significant at 0.01 level
• Teachers	185.27	15.64				
• Students	184.78	12.23	0.091	10	0.929	

Table 2 shows that at degrees of freedom 10 at 0.01 level of significance, the t-critical value of 3.169 is required. The computed t-value is 0.091, which means that the perceptions of teachers and students about teacher-student interactions do not differ significantly. However, it is important to note that the higher mean (185.27) of teachers’ perceptions indicates that teachers perceived more positive interactions compared to their students.

The study of Che Ahmad et al. (2017) among students of foreign language in Turkey revealed the association of students’ perceptions of teacher interpersonal behavior and their learning motivation. In 2019, the study of Martin and Collie emphasized that teachers’ ability to balance closeness and autonomy can help to sustain students’ motivation in their academic activities. Their study conducted in the European context revealed that perceived teacher-student closeness positively influenced student motivation while conflict or dependency negatively influenced motivation. Yee Mikami et al. (2020) argued that aside from the emotional aspects of the teacher-student relationship, instructional interactions are also critical to student achievement. In Hongkong, the study of Dai (2024) disclosed the significant influence of teacher-student relationships on student motivation. When teachers were approachable and open to dialogue, the students become more motivated to engage in the learning process.

Table 3

Correlation of Respondents' Perceptions of Teacher-Student Interactions, Motivation and Achievement

	Pearson r	Sig. (2-tailed)	
Teacher-student interactions and motivation	0.003	0.972	Not significant at 0.01 level
Teacher-student interactions and achievement	-0.291	0.000	Significant at 0.01 level
Achievement and motivation	0.035	0.647	Not significant at 0.01 level

Table 3 shows a negative significant relationship at 0.01 level between achievement and teacher-student interactions. The negative correlation can be explained by the value of the GWA, where 1.0 is the highest and 5.0 is the lowest, and the Likert scale used to quantify the teacher-student interactions, where 5 is the highest and 1 is the lowest. It means that those students with high GWA (1.75 to 1.0) rated their interactions with their teachers from 4 to 5. This result confirms the findings of Lin and Lin (2015) that teacher-student interaction has a significant relationship to students' learning performance. Students with high teacher-student interaction performed better than students with low teacher-student interaction. In 2018, Martin and Collie also found that teacher-student interactions influence students' academic performance significantly. In the following year, the study of Hughes and Chen (2019) in the Japanese context revealed similar findings confirming strong correlation between teacher-student relationships and academic achievement. Furthermore, the studies of Lee (2012) Lin et al. (2020) and Wang and Holcombe (2022) also have the same findings.

Moreover, it is noteworthy that the correlation between student motivation and teacher-student interactions is not significant so with achievement and motivation. It means that students' motivation is not a contributing factor to teacher-students interaction and achievement. These results contradict with what most related studies have confirmed. It implies that there are other factors affecting their interactions with their teachers and their academic achievement. Such inconsistency was also evident in the study of Linnenbrink-Garcia et al. (2008), which revealed that performance and mastery goals are sometimes positively, sometimes negatively, and sometimes unrelated to students' achievement.

CONCLUSIONS

The findings of this study served as empirical support to prior studies that confirmed the critical role of teacher-student interactions to student achievement. It emphasized the collaborative functions of both teachers and students in the teaching learning process. Teachers must continue to update their knowledge and skills in classroom management to keep 21st century learners well-engaged in classroom activities. The results of this study also suggest the implementation of classroom observation feedback mechanism to ensure effective and efficient monitoring and evaluation of instruction. Dissemination of these research findings is also important to promote reflective practice among teachers.

TRANSLATIONAL RESEARCH

The academic division of the university may consider the findings of this study as basis of a policy that support in-service training programs that will include mentoring workshops where faculty may share best practices and techniques in classroom management.

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