

THE IMPACT OF TEACHER-STUDENT INTERACTIONS ON STUDENT MOTIVATION AND ACHIEVEMENT

SHIRLEY D. DANGAN

Palawan State University-Cuyo Campus, Philippines. Orcid id: <http://orcid.org/0000-0001-7095-852>
Email: danganshirleyd@gmail.com

Abstract

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 theoretical framework of this study, the researcher explored as to what extent teachers and students differ in their perceptions of teacher-student interaction 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 or 55% of teacher education students and 61% of their teachers were involved in the study. Two sets of modified questionnaires were used to gather data about teacher-student interactions and motivation strategies with reliability index of 0.80. Paired samples test on teacher-student interactions did not show significant difference $t(10)$ as perceived by both students and teachers. The relationships between teacher-students' interaction and motivation and between achievement and motivation were not statistically significant. However, Pearson r indicated a significant relationship at 0.01 level between teacher-students' interaction and achievement. The findings of this study imply that the continuing professional development of faculty may include workshops to share best practices in building positive relationships that can influence student achievement and motivation.

Keywords: impact, teacher-student interaction, student motivation, achievement

INTRODUCTION

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 interaction 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 relationship positively influenced learning. The more connected a student feels, the more willing he/she is to attempt tasks and to 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 relationship begin to hold negative associations. Students who experienced 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 basis in designing in-service training to enhance the faculty's motivational and classroom management techniques. It also provided research-based feedback to faculty about teacher-students interactions which may help them realize the impact of connecting emotionally with students to motivation and achievement.

Statement of the Problem

1. To what extent, if any is the difference in the perception of teacher-student interactions between teachers and students?
2. Is there a significant relationship between and among students' perceptions of teacher-student interactions, student motivation and achievement?

Research Hypotheses

1. There is a difference in the perceptions of teacher-student interactions between teachers and students.
2. There is a significant relationship between and among students' perceptions of teacher-student interactions, student motivation and achievement.

REVIEW OF RELATED LITERATURE

Several studies highlighted how motivation influences learner's engagement in the learning process and how intrinsic and extrinsic motivation and engagement can influence learning outcomes. One of the crucial tasks of the teacher is to design learning activities that will authentically and meaningfully engage students in learning. To engage students in challenging learning experiences involves not only motivating students but also a focused teacher efforts on student diversity, academic tasks, classroom climate, and external environment that may affect the students' engagement. The study of Saeed and Zyngier (2012) revealed that 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, Johnson and Elder (2004) as cited by Gablinske (2014) studied how the affective dimension 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 interaction and student motivation. The research done by Walker Tileston in 2004 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 to complete their tasks even in difficult circumstances. In their study about instructional climate, Wiseman and Hunt (2001) 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. Walker Tileston (2004) 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, Payne (2003) also emphasized the role of educators in creating a culture of achievement by instilling in the minds of each student that he/she can be successful. To become highly motivated, students must be exposed to an environment that prompt both achievement and competence. Ibañez, Kuperminc, Jurkoric and Perilla (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 to understand their ability to manage performance on a task and know how these students perceived competence and self-efficacy. Students with high motivational beliefs also reported high teacher support.

Much have been said by researchers in the review of related literature about the impact of positive classroom climate to the motivation and performance of the students. Linnenbrink-Garcia, Tyson and Patall (2008) as cited by Kaplan (2016) stated that motivation theorists develop theories and conduct researches to explain the effect of motivation to student achievement. However, inconsistent relationships between motivational constructs and students' achievement which ranges 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 (2009) conducted a similar study and found out that student motivation and achievement have positive relationships to teacher-student interactions. Based on his findings, Nugent (2009) suggested that teachers must engaged 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 student's learning performance in E-tutor environment. They found out that teacher-student interaction has significant relationship to students learning performance. Students with high teacher-student interaction performed better than the students with low teacher-student interaction.

In 2008, Downey conducted a study how classroom practices influence students at risk of academic failure and found out that teacher’s personal interaction with his/her students made a significant difference. His findings suggest that teachers need to build strong interpersonal relationship with students build on respect, trust, caring and cohesiveness while maintaining high and realistic expectations for success. Hamre, Pianta, Burchinal, Field, Crouch, Downer, Howes, LaParo, and Little (2012) stated that teachers need actual skills involving identification of effective interactions with high degree of specificity to transfer the course work 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 or 55% of teacher education students and 11 or 61% of their teachers selected through purposive sampling were involved in the study. Of the 175 students, 83.42% are females; 31.42% are BSED; 19.42% are BEED; and 49.14% are BTTE. Majority (73%) of the teacher-respondents are females. To comply with research ethics, the objectives of the study were explained to the students and faculty 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) and 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 into 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 measure for achievement. Descriptive statistics were used to describe students’ motivation and achievement. T- test, Pearson r and regression were used in the statistical analysis of the data.

FINDINGS

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.

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, 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 higher mean (185.27) of teachers’ perceptions indicates that teachers perceived a more positive interactions compared to their students. To show the nuances of teacher and students’ perceptions, comparisons of means by class and subscales are presented in figures 1 and 2.

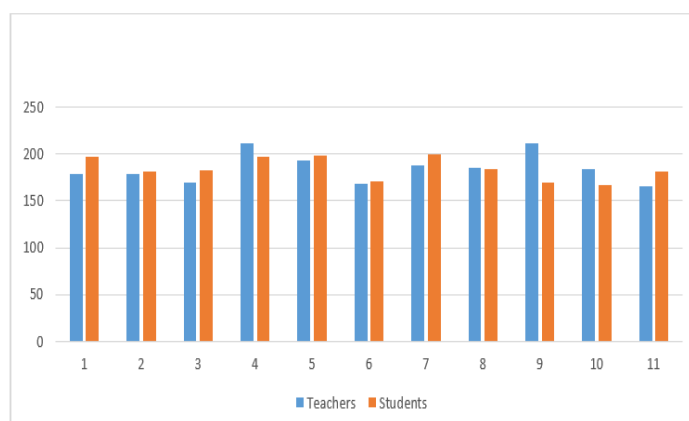


Figure 1: Comparison of Teacher and Students’ Perceptions of Teacher-Student Interactions by Class

Figure 1 shows that although the perceptions of the teachers and students of teacher-student interactions do not differ statistically as shown in table 2, class by class analysis, shows that the teacher in class numbers 1,2,3,5,7 and 11 rated themselves lower than their students. It means that their students feel a more positive teacher-student interactions than what their teachers have perceived.

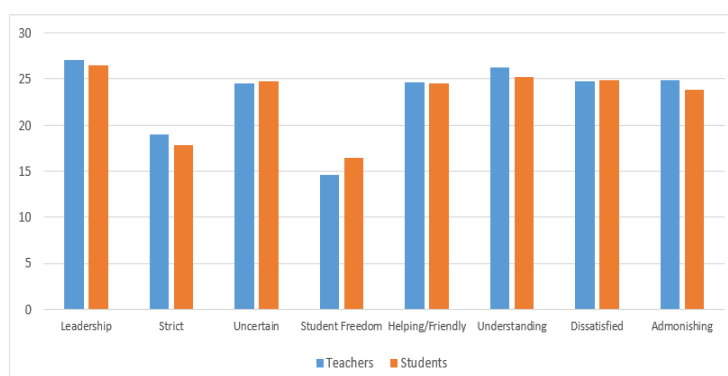


Figure 2: Comparison of Teacher and Students' Perceptions of Teacher-Student Interactions by Subscales

The 48 statements in the teacher-student interactions questionnaire were classified into eight subscales. The graph on figure 2 discloses slight differences in the perceptions of the respondents by subscales. It is an interesting observation that teachers reported higher means in strict, understanding and admonishing- related interactions. It means that the teachers perceived themselves stricter, more understanding and more admonishing while the lower means on students' perceptions reveals that students perceived their teachers as less strict, less understanding and less admonishing.

The findings of this study confirmed the findings of earlier researches. Nugent in 2009, found out that teachers' and students' perceptions of classroom interactions do not differ significantly. However, slight differences were also noted in his study when the perceptions of the students and teachers were analyzed by subscales.

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 lowest and the Likert scale used to quantify the teacher-student interactions, where 5 is 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 significant

relationship to students learning performance. Students with high teacher-student interaction performed better than the students with low teacher-student interaction.

Furthermore, this study does not reveal a significant relationship between motivation and teacher-student interactions and between achievement and motivation. Based on the review of related literature, most meta-analyses revealed the inconsistent relationships between motivational constructs and students' achievement which ranges from null to moderate in magnitude. 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.

CONCLUSIONS

The following conclusions were based on the result of this study.

1. The perceptions of the teachers and students about teacher-student interactions do not differ significantly. Thus, the alternative hypothesis is rejected.
2. The hypothesis stating a significant relationship between students' perceptions of teacher-student interactions and achievement is accepted while that stating a relationship between students' perceptions of teacher-student interactions and motivation and between student motivation and achievement is rejected.

RECOMMENDATIONS

Based on the findings of this study, the researcher recommended the following:

1. The faculty may engaged in workshops to share best practices in building positive relationships that can influence student achievement and motivation.
2. Since this study utilized the general weighted average (GWA) of the students, an action research may be done utilizing students' grade in a specific class as the achievement variable to determine the relationship between motivation and achievement.
3. Future research may include other variables such as gender, age and socio-economic status to identify other factors that may explain the variance.

Acknowledgement

A research work cannot be done alone. The researcher must learn to cultivate the habit of being grateful to all who have contributed to the completion of his/her study. In this piece of work, the researcher is especially thankful to the following:

Lord Jesus Christ, for His love and mercy and for making all things possible;

PSU-Cuyo administration for the support and encouragement;

Faculty and students of PSU-Cuyo who willingly participated in this study as respondents;

All researchers and authors whose works are cited in this paper; and

To Charlie, Kent and Janz, her constant inspiration in life.

References

1. Anderman, L.H. & Kaplan, A. (2013). The role of interpersonal relationships in student motivation: Introduction to the special issue. *Journal of experimental education* 76(2), 115-119.
2. Crosnoe, R., Johnson, M., and Elder, G., (2004). Intergenerational bonding in school the Behavioral and contextual correlates of student-teacher relationships. *Sociology of Education*, 77:1, 60-81.
3. Downey, J.A. (2008). Recommendations for fostering educational resilience in the classroom. *Preventing School Failure*, 53, 56-63.
4. Gablinske, P. (2014). A case study of student and teacher relationships and the effect on student learning. Retrieved at http://digital commons.uri.edu/oa_diss
5. Hamre, B., Pianta, R., Burchinal, M., Field, S., Crouch, J., Downer, J., Howes, C., LaParo, K., and Little, C. (2012). A course on effective teacher-schild interations: effects on teacher beliefs, knowledge and observed practice. *American Educational Research Journal*, 49:1, 88-149.
6. Ibañez, G., Kuperminc, G., Jurkoric, G., and Perilla, J. (2004).. Cultural attributes and adaptation linked to achievement motivation among Latino adolescents. *Journal of Youth and Adolescence*, 33(6), 559-568.
7. Kaplan, A. (2016). Research on motivation and achievement: Infatuation with constructs and losing sight of the phenomenon. Retrieved from: https://www.researchgate.net/publication/308104568_Research_on_Motivation_and_Achievement_Infatuation_with_Constructs_and_Losing_Sight_of_the_Phenomenon on November 4, 2018.
8. Lin, E. and Lin, C. (2015). The effect of teacher-student interaction on students' learning achievement in online tutoring environment. *International Journal of Technical Research and Application*. Special Issue 22. Retrieved at www.ijitra.com on November 4, 2018.
9. Linnenbrink-Garcia, L., Tyson, D. and Patall, E. (2008). When are achievement goal orientations beneficial for academic achievement? A closer look at main effects and moderating factors. *International Review of Social Psychology*, 21(1), 19-70.
10. Nelson, R.M. & DeBacker, T.K. (2008). Achievement motivation in adolescents: The role of peer climate and best friends. *Journal of experimental education* 76(2), 115-119.
11. Nugent, T. (2009). The impact of teacher-student interaction on student motivation and achievement. *Electronic Theses and Dissertation*. Retrieved at <http://library.ucf.edu> Retrieved on: October 2, 2017.
12. Payne, R. (2003). *A framework for understanding poverty*. Highlands, Texas: Aha! Process Inc., (Original work published in 1996)
13. Saeed, S. and Zyngier, D. (2012). How motivation influences student engagement: a qualitative case study. *Journal of Education and Learning*. Vol. 1, No. 2. URL: <http://dx.doi.org/10.5539/jel.v1n2p252>.
14. Walker Tileston, D. (2004). *What every teacher should know about student motivation*. California Crowin Press.
15. Wilson, K. and Trainin, G. (2007). First grade students' motivation and achievement for reading, writing and spelling. *Reading Psychology*, 28(83), 257-282.
16. Wiseman, D., and Hunt, G., (2001). *Best practice in motivation and management in the classroom*. Springfield, Illinois. Charles C. Thomas Publisher, Ltd.