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TEACHER-STUDENT RELATIONSHIP AND ACADEMIC ACHIEVEMENT OF UNIVERSITY STUDENTS

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ABSTRACT

The goal of the current correlational study is to investigate how university students' and teachers' interpersonal relationships affect their academic performance. Using stratified purposive sample, 120 post-graduate students (60 girls and 60 boys) were chosen. The researcher used a self-made questionnaire to gather data. Simple percentage, mean, standard deviation, t-test, product-moment correlation, and ANOVA (two-way) were used to analyze the data. According to the study, 40% of college students report having extremely strong relationships with their teachers, and these relationships have a major positive impact on the students' academic success. This study also demonstrated that there is no gender-based difference in the relationships between teachers and pupils. Additionally, the two-way ANOVA result showed that there is a significant difference in academic accomplishment based on the relationship categories; however, there is no difference when the interaction between gender and relationship categories is taken into account.

Keywords: Teacher-Student Relationship, Academic, University

INTRODUCTION

A child with a quality education can work and make a positive contribution to the country's and society's well-being. The academic growth and achievements of children serve as indicators of the quality of education received from an educational institution. When considering academic accomplishment, numerous elements that have been the subject of prior research studies have been taken into consideration. Research indicates that psychological characteristics and environmental elements have a noteworthy impact on pupils' academic achievement. Study habits (Credé & Kuncel, 2008), IQ (Naderi et al., 2010), academic motivation (Amrai et al., 2011), and academic self-efficacy (Richardson et al., 2012) are examples of psychological traits. The psychological components could have to do with the psyche of the students, instructors, and other people who are involved in it both directly and indirectly. A vast array of elements are included in the contextual factors, including educational interventions (Donker et al., 2014), parental expectations and involvement (Sarier, 2016; Jeynes, 2003); socioeconomic status (Sarier, 2016); the assessment of students' academic achievement by teachers (Südkamp et al., 2012); the openness and support of teachers (Poropat, 2014; Rolland, n.d.); school culture (Bektas et al., 2015); classroom activities (Watson et al., 2017); peer group (Kalaian & Kasim, 2014), etc.

Families are the first people that students socialize with. Students may develop positively in areas including language (Son & Morrison, 2010), cognitive function, and emotional health (Orri et al., 2019) if they live in a positive family environment. In a similar vein, a bad home environment could hinder pupils' growth (Dev, 2016). It has been discovered that there is a direct correlation between a family's culture and the socioeconomic position of its parents and their children's academic success. According to earlier research, parents' involvement in their children's schooling may boost their academic achievement (Bacete & Remírez, 2001). In a family, parents' expectations of children's educational accomplishment may have a favorable consequence on their academic achievement (Li et al., 2021). Academic self-efficacy is developed through the biological relationship that exists between parents and children. One of the factors that predicts children's academic progress is their academic self-efficacy (Xu & Qi, 2019). Sometimes a child's conduct is harmed by family. Overindulgence in maternal affection and care can result in aggressive conduct and be a bad indicator of a child's attachment to their peers (Llorca et al., 2017).

As the kids become older and start school, they spend less time with their parents and more time with their friends and teachers. Children's academic performance has been greatly impacted by their peer groups (Filade, 2019). However, the influence of peers varies according on a child's perception and their social circle. Students' intellectual achievement is greatly influenced by their teachers. According to Yunus et al. (2011), the teacher directly affects students' academic performance since they are both their instructor and a participant in their academic activity. When students feel that a teacher is providing them with cognitive, emotional, or autonomous help during their learning process, this is known as teacher support (Lei H, 2018). Students' behavioral and emotional involvement, which affects their academic progress at school, has a favorable correlation with their view of having a good relationship with their teachers (Lee, 2012). Prior research has demonstrated a noteworthy positive correlation between TSR and children's academic achievement (Hughes JN et al., 2012; Xu & Qi.,2019; Li Y et al., 2020). Self-determination theory (Deci, 2008) and attachment theory (Riley, 2010) have been the main theoretical foundations for TSR in schools. However, TSR has not been thoroughly or less methodically studied by academics in higher education. Thus, the evolution of TSR and its effect on university students' academic achievement were methodically investigated in this study.

Development of TSR

Numerous studies examine the impact of different characteristics, such as TSR, on kids' academic growth and achievement. Positive school outcomes and an efficient teaching-learning process depend on a friendly, trustworthy, and low-conflict TSR (Baker & al., 2008). (Hughes, 2012) demonstrates how a child's bond with their teachers might affect how well they acclimate to school. A study in Malaysia of first-year undergraduate students suggests that university adjustment and academic achievement have favorable link (Abdullah et al., 2010). The teacher's wellbeing may benefit from their interactions with the pupils (Spilt et al., 2011). As a result, raising TSR can benefit educators in general as well as students and instructors. Previous research on the quantity and quality of teacher-student contact as viewed by educators

and learners is pertinent to the advancement of TSR (Hagenauer & Volet, 2014). Positive relationships can be formed between teachers and students through interactions, whether they are formal or casual. But the quality of how teachers and students view or feel their interactions with one another matters just as much in the development of TSR as the quantity of interactions. Figure 4.1 below illustrates how the connection between teachers and students has developed.

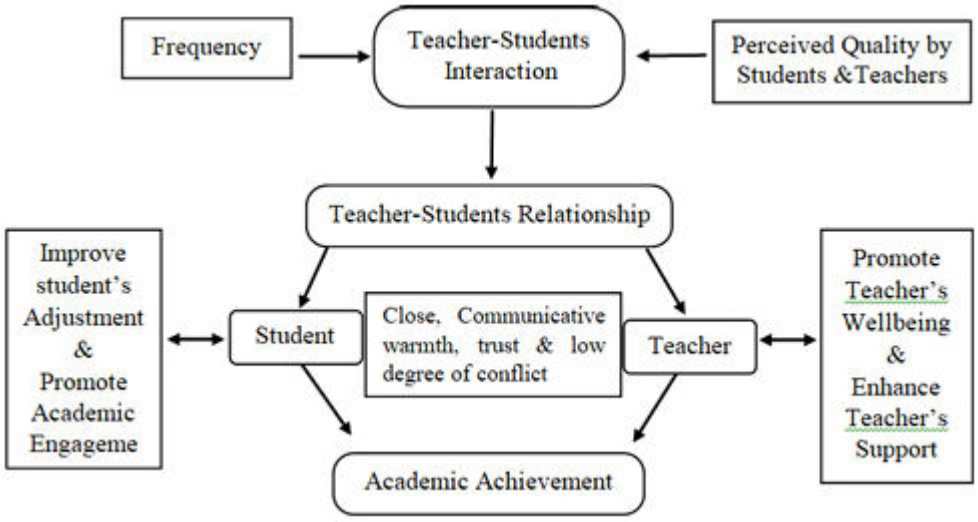

Figure 1: Development of Teacher-Student Relationship

Objectives of the study

- To study the perception of university students towards the relation with their teachers.
- To study the association between the teacher-student relationship and academic achievement of university students.
- To investigate the difference in the teacher-student relationship of university students in terms of gender.
- To examine whether the academic achievement of university students differed due to gender, category of relation, and the interaction of both.

Hypotheses of the Study

- There is no significant correlation between the teacher-student relationship and academic achievement of university students.
- There is no significant difference in the teacher-student relationship of university students in terms of gender.
- There is no significant difference in the academic achievement of university students due to gender, category of relation, and the interaction of both.

METHODOLOGY

This study used a descriptive survey cum correlational approach to examine the association between student-teacher interactions and academic achievement at the university level. As a result, 120 post-graduate students from G.M. University in Sambalpur who had taken at least two semesters of exams were specifically included in the study. Gender was taken into

consideration while examining the mediating effect on academic attainment. A self-created questionnaire with 26 items was used to collect the data. Using SPSS v26, the acquired data were analyzed using the following methods: simple percentage, mean, standard deviation, t-test, product-moment correlation, and ANOVA (two-way).

Table 1: Sample distribution

Variable	Category	Frequency	Percentage
	High relation	77	64.14 %
Teacher-Student relationship	Medium relation	26	21.66 %
	Low relation	17	14.16 %
Gender	Male	60	50 %
	Female	60	50 %

Analysis and interpretation of results

Perception of university students towards the relation with their teacher

Table 2: An attitude of university students towards TSR

Range of TSR	Frequency	Percentage	Interpretation
0-26	0	0 %	Very low relation
27-52	21	17.5 %	Low relation
53-78	10	8.33 %	Average relation
79-104	41	34.16 %	High relation
105-130	48	40 %	Very high relation
Total	120	100 %	

The above table 2 depicts the perception of university students on their relationship with teachers. Out of the entire sample, 40% of students have very high teacher-student ratings, falling between 105 and 130. 34.16 percent of pupils gave their professors high ratings, and they were spread among the scores of 79 to 104. Out of the 120 samples in total, 10 students (8.33%) said their relationships are average. The kids having low relationships with their professors are 17.5 %. There are no pupils with really poor ratings.

Association between the teacher-student relationship and academic achievement

Product moment correlation was used to examine the association between the teacher-student relationship andthe academic achievement of university students. The analysed result is given below in Table 3.

Table 3: Result of Product moment correlation

Variable	Mean	SD	N	Person r	Significance
TSR	108.72	11.99	120	-0.255	0.01 (2-tailed)
Academic Achievement	434.10	50.81			

Table 3 above makes clear that information regarding the relationship between students (N) and their professors as well as their academic accomplishment was gathered. Academic achievement and TSR have mean values of 434.10 and 108.72, respectively. Comparably, the academic achievement standard deviation is 50.81 and the TSR standard deviation is 11.99. Academic achievement and TSR have a significant connection of -0.255 (Persson r) at the 0.01 level. Here, the null hypothesis—that is, the idea that there is no meaningful association between academic achievement of university students and the teacher-student interaction—is rejected.

Differences in TSR due to gender

This study investigated whether the difference exists in TSR due to gender or not. Therefore 60 boys and 60 girls are taken to perform a t-test with the mean score of 107.13 and 110.30 respectively. Similarly, the standard deviation for boys is 13.49 and 10.15 for girls. The analysed t-test result is given below in Table 4.

Table 4: Result of T-Test

Group	N	Mean	SD	df	t value	Significance
Boys	60	107.13	13.49	118	1.452	Not significant at 0.05 level.
Girls	60	110.30	10.15			

The degree of freedom is 118. The calculated t value between the group is 1.452 which is not significant at 0.05 level. Therefore, the hypothesis – "there is no significant difference in the teacher-student relationship of university students in terms of gender" is accepted.

Variation in academic achievement in terms of different categories of relation

The investigator attempts to study the variation in academic achievement according to different categories of the relationship between university students and their teachers. Therefore, the investigator applied one-way ANOVA. The result of one-way ANOVA is given below.

Table 5: Results of one-way ANOVA

Source of variation	Sum of squares	Df	Mean square	F- value	P-value	Remark
Between Group	90496.086	2	45248.043			

Within Group	193559.381	117	1654.354	27.351	0.000	Sig. P< 0.05
Total	284055.467	119				

The table 5 above indicates that the degree of freedom 119 has an f-value of 27.351. Therefore, at the 0.05 level of significance, the null hypothesis—that is, that there is no significant difference in university students' academic achievement owing to the category of relation—is rejected. It indicates that differences in high, medium, and low teacher-student relations contribute to differences in academic attainment.

The one-way ANOVA result is significant, so the researcher conducted a post-hoc (Turkey method) test to see whether or not each group differs significantly from the others. The post-hoc test results are displayed below.

Table 6: Mean, SD, and N of Category of relation

Category of relation		**N**		**Mean**		**SD**
High relation		77		449.04		40.858
Medium relation		26		398.23		48.235
Low relation		17		383.65		23.079
Total		120		428.77		48.857

Table 7: Result of post-hoc test

Multiple comparisons						
Category of relation(I)	**Category of relation(J)**	**Mean difference (I-J)**	**Std. Error**	**Sig.**	**95% confidence interval**	
					Lower Bound	**Upper Bound**
High relation	Medium relation	50.808*	9.226	0.000	28.91	72.71
	Low relation	65.392*	10.900	0.000	39.52	91.27
Medium relation	High relation	-50.808*	9.226	0.000	-72.71	-28.91
	Low relation	14.584	12.686	0.486	-15.53	44.70
	High relation	-65.392*	10.900	0.000	-91.27	-39.52
Low relation	Medium relation	-14.584	12.686	0.486	-44.70	15.53

The mean difference is significant at the 0.05 level.

Multiple comparisons are clearly depicted in Table 7 above. Three different analyses were conducted for this multiple comparison: High against Medium, High versus Low, and Medium versus Low. The mean difference between the high and medium relation is 50.808, and at the 0.05 level of significance, this is significant. At the 0.05 threshold of significance, the mean difference between the high and low relation is 65.392, which is likewise significant. At the 0.05 level of significance, the mean difference between the medium and low relation is 14.584, which is not significant. So, it can be concluded that there is a significant difference in academic achievement between high vs medium and high vs low but there is no significant difference in academic achievement between medium vs low relationship.

Interaction analysis of the category of relation and gender

The researcher employed two-way ANOVA to examine if there were any differences in academic accomplishment based on gender, relation category, or the interaction between the two. Gender (boys and girls) and connection category are its two constituents. Students' ratings of their relationships with their professors fall into three categories: high, medium, and low. The two-way ANOVA results are displayed below.

Table 8: Category of relation and Gender wise N, Mean, and SD

Gender	Category of relation	N	Mean		SD
Girls	High relation	40	444.86		42.06
	Medium relation	12	383.42		38.07
	Low relation	8	378.00		16.73
	Total	60	423.65		48.88
Boys	High relation	37	453		39.57
	Medium relation	15	410.93		53.58
	Low relation	9	388.67		27.56
	Total	60	433.88		48.69
Total	High relation	77	449.04		40.85
	Medium relation	26	398.23		48.23
	Low relation	17	383.65		23.07
	Total	120	428.77		48.85

Table 9: Result of Two-way ANOVA (2×3)

Source	Sum of Squares	df	Mean Square	F value	Sig.
Gender	4965.563	1	4965.563	3.032	0.084
Category of relation	92895.124	2	46447.562	28.357**	0.000

der*Category of relation	1736.240	2	868.120	0.530	0.590
Error	186726.026	114	1637.948		
Total	22344958.00	120			
Corrected Total	284055.467	119			

R Squared = .343 (Adjusted R Squared = .314) Significant at 0.05 level.
Significant at 0.01 level

The above table 4.9 shows the F-value of interaction between gender and category of teacher-students relationship i.e., 0.530 which is not significant at 0.05 level of significance (P>0.05). So, it can be said that there is no significant difference in high, medium, and low TSRs concerning their gender. So, the null hypothesis i.e., there is no significant difference in the academic achievement of university students due to the interaction between the category of relationship and gender is accepted.

DISCUSSION

This paper's main goal was to theorize the TSR and investigate how it related to students' academic success during their time in college. Based on the data analysis, it can be inferred that a significant proportion of college students had positive relationships with their teachers during their time in school. It is the outcome of their frequent meetings with the teachers, which include office and class visits, as well as their favorable opinions of such interactions, which may improve the caliber of their connections (Hagenauer & Volet, 2014). Positive perception, or TSR, is highly correlated with students' involvement and academic performance (Fan & Chen, 2001). But a considerable number of university students reported low relation (17.5%) and also the TSR negatively correlated with academic achievement (r = -0.255) of university students. Some studies highlighted that negative TSR and their quality of relationship may influence student's behaviour, peer relations, their attitude towards school, adjustment, their school attendance and academic engagement as well as achievement (McGrath & Van Bergen, 2015).

This study focused solely on how students regarded their relationships with their professors; however, it was not made obvious how much of both good and negative relationships they had. Additionally, compared to kindergarten and high school students, older pupils reported more negative teacher-student relationships (Jerome et al., 2009; O'Connor, 2010). Children's relationships become less close and supportive as they move from kindergarten to higher education, which increases conflict. Peer relationships grow more significant when students go to higher levels and become more independent. According to McGrath and Van Bergen (2015), students may view their teacher as a discipline specialist who is solely qualified to offer academic advice. The quality of TSR could be impacted by this type of student's perception. All things considered, it indicates that boys and girls perceive the same TSR. It's uncertain even. Thus, more research should be required in this area. However, the results of the post hoc analysis show that there is a statistically significant difference in academic accomplishment

between high and low relation and high and medium relation. It is also discovered that the relationship between gender and relational categories does not significantly affect academic achievement.

CONCLUSION

The social features of children, particularly their relationships with teachers, are crucial for the improvement of education and have a big impact on students' academic performance. This will make the educational system more successful in addition to helping to develop it. It has numerous academic ramifications. It might be useful to the policy makers in creating an educational policy that works and gives teachers and students enough room to grow into positive relationships. Apart from that it may beneficial to outline the job of professors, the academics, environmental factors of any university etc.

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