

Relationship between Teachers' Behavior, Students' Exam Anxiety and Academic Achievement in English at Secondary Level

Dr Rizwan Ahmad

Assistant Professor, University of Education Lahore, rizwanahmad@ue.edu.pk

Kalsoom Javed

MPhil Scholar

Dr Sumaira Majeed

Assistant Professor (Visiting), University of Education Lahore, sumaira3792@gmail.com

Abstract

The purpose of the study was to find the relationship between teachers' behavior, students' exam anxiety and academic achievement in English. The population of the study was the province of Punjab and using cluster sampling technique selected sample was 1526 students studying at tenth grade in the public sector schools. Researcher developed Student-Reported. Teacher Behavior Scale (SRTBS) and Anticipatory Exam Anxiety Scale (AEAS) in Urdu (national) language were used for collection of data. Students obtained marks in English subject exam were collected from their school record and were used as academic achievement. The coefficient of alpha for the Anticipatory Exam Anxiety Scale was .908 and for Teacher Behavior scale .850 and for Sub-categories i.e instructional, organizational, and socio-emotional behaviors was .846, .753 and .704 respectively. Data were collected by visiting the selected schools. The findings of the study showed positive and

significant simple as well as partial correlations in all the dimensions of teacher behavior and academic achievement of the students. On the contrary, negative simple and partial correlations were found in teachers' behavior and students exam anxiety. The highest negative relationship was found in teachers' organizational behavior and students' exam anxiety. Students' exam anxiety and academic achievement scores were also negatively correlated. Male and female teachers' instructional, organizational, and socio-emotional behaviors were found significantly different. It was suggested that by making their behavior positive in the class, teachers can help students in reduction of exam anxiety and performance improvement. Students should also reconsider their opinion about their teachers' behavior and should avoid developing biased opinion because it was important in terms of their exam anxiety and academic achievement.

Keywords: Teacher Behavior, Exam Anxiety, Academic Achievement, Teachers' instructional behavior, Teachers' organizational behavior, Teachers' social emotional behavior

Introduction:

Teacher's role in education system is not less than the role of a heart in human body. As heart keeps the body system functional by pumping the blood, teachers keep the classrooms and in turn educational process active in their presence. Their role is of a guide and helper where every action is noticed and leaves a deep print on students' mind because they spend half of their day with them during academic life. Their behavior towards students sets the limits to seek help and guidance from them to move forward and succeed. Therefore, teacher's behavior is influential to their students' academic success (Davis, 2006). In fact, teacher's behavior sets the scenario for learning. All activities carried out in the class depend heavily on it. "Positive, encouraging, and supportive behavior is conducive for learning" (Spivak, & Farran, 2012). Such type of classroom environment allows students to interact with teachers openly and be active in the process of learning. Through verbal and non-verbal actions, effective teacher provides on the spot guidance not only to keep the students on track but to guide the students

towards improvement. In all types of situations, teacher's "teaching behavior has important implications for students' emotional well-being" (Possel et al., 2013).

Teachers create a great difference in students' performance by expressing their expectations, sharing their ideas, asking pertinent questions and by replying positively to the students' queries. It is also essential to understand that (Connor et al., 2009) "children who share the same classroom have very different learning opportunities and that instruction occurs through interactions among teachers and students" and that "to match students' abilities to learn, teachers must produce clearer instructional presentations" (Chilcoat, 1989) because (Awang et al., 2013) pupils are diverse in terms of their skills, ability and knowledge, getting prepared for learning requires different stimulus and strategies. Therefore, teachers need to realize that their actions influence the behavior of pupils in classroom; hence teachers must be aware of their actions and strategies in managing the pupils. Teachers are required to reduce reprimands and increase praise when interacting with children because based on this student get an image of their teacher (Weyns et al., 2017). Their views regarding their teacher's behavior are important according to constructivists' point of view of students' independent construction of knowledge and perception in varying learning situations (Den Brok, et al., 2004). Since teacher's behavior plays a central role in classroom and teachers are largely responsible for shaping the classroom milieu; the classroom climate may mediate the association between observed teacher characteristics and students' test anxiety (Zeidner, 1998). Many reasons of exam anxiety have been given in the literature and excessive anxiety is recognized as risk for students' performance therefore, in addition to traditional academic measures it is important to examine behavioral factors for better signaling of student risk (ACT, 2013). Here it is essential to notice that teachers' behavior is a broad concept and has several components, so it has been categorized differently in several research studies. A major dimension is the instructional behavior which has a great importance in academia. In case of teacher's irresponsible instructional behavior, very harmful consequences can appear. At the same time, teachers' responsible instructional behavior may work wonder. Similarly, ignoring the rules or poor skill of keeping the things orderly create fuss and commotion which is not, at all, required in educational institutions.

Students' unclarity and confusion in taught concepts of a subject may become a source of worry for passing their subject yet in the case of presence of facilitative and supportive teacher's behavior during classroom teaching process this situation may be controlled. Overall, worry or anxiety for passing examination is a psychological risk for which the identified dimensions are negativity and unclear structuring of the class established by the teacher (Hasan, 2014). This makes the teachers' role reasonably logical in students' routine academic life and specifically in examination context. Although, a study in Australia has been conducted in focusing on teacher's classroom behavior, students' foreign language anxiety and achievement" but for future study he recommended that

there is “need to examine the effects of students’ perceptions of teachers’ classroom behavior on students’ test anxiety” therefore, it was practicable to conduct a study in Pakistani context for understanding the relationship between “teacher behavior, students’ exam anxiety and their academic achievement (Hassan, 2014).

Objectives of the Study:

The objectives of the study were to:

- I- Find out the relationship between teacher’s (instructional behavior, socio-emotional behavior and instructional behavior) and secondary school students’ exam anxiety in the subject of English.
- 2- Investigate the relationship between teacher’s (instructional behavior, socio-emotional behavior and instructional behavior) and secondary school students’ academic achievement in the subject of English.
- 3- Examine the relationship between students’ exam anxiety and academic achievement based on gender.

Research Methodology

Present study was quantitative in nature and relationships of teachers’ behavior, students’ exam anxiety and academic achievements were determined. “Comparisons between male and female English teachers’ behavior and students’ exam anxiety” were also made to see the difference. It was correlational design for which a survey method was used for data collection. Through researcher developed scales, correlations between teachers’ behavior, students’ exam anxiety and academic achievement were computed, and comparisons based on gender were made. All 10th grade male and female students studying English compulsory in “public sector schools in the province of the Punjab comprised the population of this study.

Gender		Enrolment
Tenth Enrollment		grade
M	F	
299,323	264,822	

From the population mentioned above sample was selected by following the below mentioned procedure. Only 10th grade students studying English as compulsory subject were selected for study. Sample was selected in multiple stages using cluster sampling. At first stage, from Punjab province four districts were selected randomly by using draw technique. In the second stage, one male and one female secondary schools from each identified district were selected randomly. Overall, four male and four female schools were selected for study. In the last stage, all tenth graders from the selected eight

schools were included in the sample. Two instruments, a scale for measuring teachers' behavior and an exam anxiety scale were used for collection of data. For measuring teacher's behavior, three indicators instructional, socio-emotional, and organizational were considered. Exam anxiety was taken in terms of students worry before English exam. Students' academic achievement was their obtained marks in the school exam of English subject.

Data Analysis

After collection of the data, scores of each respondent were calculated and a total score was obtained. This data was tabulated and analyzed by descriptive statistics, correlations by using Pearson 'r', partial correlations, and comparisons by using t test. "Results were interpreted in the light of the objectives, research questions and hypotheses of the study. Simple and partial correlations of the study variables were calculated and presented below according to the requirement of the research objectives and to test the null hypotheses of study. Mean scores, SD values and correlations for all respondents together and gender wise were presented in the following tables.

Table I

Descriptive of Variables

Gander	Variables	Mean	S. D
Male	Instructional behavior	40.24	8.00
	Socio-emotional behavior	26.73	6.00
	Organizational behavior	41.02	7.11
	Exam Anxiety	29.83	9.46
	Academic Achievement	44.57	11.83
Female	Instructional behavior	40.96	7.64
	Socio-emotional behavior	28.44	5.79
	Organizational behavior	43.22	5.29
	Exam Anxiety	34.78	9.88
	Academic Achievement	42.85	12.70
Total	Instructional behavior	40.59	7.84

Socio-emotional behavior	27.54	5.96
Organizational behavior	42.07	6.40
Exam Anxiety	32.18	9.97
Academic Achievement	43.75	12.28

Table represented the descriptive statistics of all variables overall and gender wise. Male students reported Mean score on teacher's instructional, socio-behavioral and organizational behavior (40.24, 26.73 & 41.02) along with the SD (8.00, 6.00 & 7.11), on exam anxiety (M=29.83 & SD 6.17) and on academic achievement (M=44.57 & 11.87) was given first. Then female students reported Mean (40.96, 28.44, 43.22, 34.78, 42.85) and SD (7.64, 5.79, 5.29, 9.88, 12.70) are presented. Overall, estimated Mean values of all sampled students' teacher's instructional, socio-emotional and organizational behavior (40.59, 27.54 & 42.07) along with the SD (7.84, 5.96 & 6.40), exam anxiety (M= 32.18 & SD= 9.97) and academic achievement (M=43.75 & SD=12.28) were also presented to show the average scores and the deviation of the scores from mean score.

Table 2

Correlation Matrix of Variables for all Respondents

Sr.No	Variables	Ins	Org	SE	EA	AA
1	Ins	1				
2	Org	.443**	1			
3	SE	.224**	.292**	1		
4		-.111**	-.211**	-.176**	1	
5		.093**	.153**	.083**	-.275**	1

Table showed the correlations of instructional, organizational & socio-emotional behavior of teachers, student's exam anxiety and academic achievement that cover first to sixth objective & null hypotheses of the study. All variables have significant association among them, and exam anxiety had negative association (-.111**, -.211**, -.176** & -.275**) with all other variables presented in this table. However, instructional, organizational & socio-emotional & behaviors of teachers had positive association (.443**, .224**, & .292**) among them and also with academic achievement (.093**, .153** & .083**) of students.

Table 3

Partial Correlation Matrix of Variables for all Respondents

Sr No	Variables	TB	ES	AA
1	TB	1		
2	EA	-.187**	1	
3	AA	.092**	-.250*	1

Table showed the partial correlations of teacher behavior, students' exam anxiety and academic achievement. Partial relationship between teacher behavior and students' exam anxiety (-.187**) and exam anxiety and academic achievement (-.250**) were negative and significant at .05 level whereas partial correlation between behavior and academic achievement was positive (.092**) and significant ($p < .05$).

Table 4

Comparison of Variables on the Basis of Gender

Variable	Gender	Mean	SD	t value	p
Instructional Behavior	Male	40.24	8.00	-1.79	.07
	Female	40.96	7.64		
Organizational behavior	Male	41.02	7.11	6.80	.00
	Female	43.22	5.29		
Socio-emotional behavior	Male	26.72	6.00	-5.66	.00
	Female	28.44	5.79		

Analysis shows that the difference between the mean scores of boys ($M=40.24$, $SD=8.00$) and girls ($M=40.96$, $SD=7.64$) on instructional behavior is not significant as the ($t = -1.79$, $p=.073$) $p > .05$. However, t of organizational and socio-emotional are 6.80 ($p=.000$) and -5.66 ($p=.000$) respectively which are significant $P < .05$. It may be interpreted that male and female teachers' instructional behavior is same. However, there is significant difference in male and female teacher's organizational and socio-emotional behaviors therefore, the null hypothesis was rejected.

Table 5

Comparison of Exam Anxiety on the Basis of Gender

Variable	Gender	Mean	SD	t value	p
Exam Anxiety	Male	29.83	9.46	-10.03	.00
	Female	34.80	9.87		

Exam anxiety analysis of scores of both genders reflected a significant difference in girls ($M=29.83$, $SD=9.46$) and boys ($M=34.80$, $SD=9.87$) exam anxiety. The calculated value of t was -10.03 ($p=.000$) which was significant $P < .05$. These

results highlighted that male and female students' exam anxiety experience was different and girls had higher exam anxiety than boys. Due to the findings of the results of this comparison, null hypothesis, which stated that there was no significant difference in students' exam anxiety based on gender, was rejected.

Findings and Discussion

This study was about finding the correlations among teacher's behavior, students' exam anxiety and academic achievement. To address the research questions, objectives, and the hypotheses of the study, findings about students' general profile were presented first. Then, findings of correlations and comparisons were provided. Followings were the main findings of the present study. Descriptive statistics applied on teacher's instructional behavior showed high Mean score of all students while females and males. Mean scores separately calculated was different. Female students' anxiety score range was while males' anxiety range was which showed that female had greater score. The first objective of the study was to find out the relationship between teacher's instructional behavior and students exam anxiety in English at Secondary level. It was found that teacher's instructional behavior was significantly associated with students' exam anxiety and the Pearson r and partial r resulted in negative associations which represented that students' opinions about teacher's instructional behavior contributed to their exam anxiety. Eighth objective and eighth hypothesis of the study were about comparison of male and female teachers' instructional, socio-emotional & organizational behaviors. It was found, after analysis, that male and female English teachers had significantly different organizational and socio-emotional behavior. Their instructional behavior, however, was almost similar because the difference was not significant as it was in other two (organizational & socio-emotional) behaviors. Based on this finding, the null hypothesis, which stated that there was no significant difference in male and female teachers' behavior, was rejected

Recommendations

In the light of findings and conclusions it is suggested for the teachers that to help minimizing students' exam anxiety they must be conscious about their behavior in the class because students not only observe them keenly but are influenced by them. So, teachers must adopt favorable instructional behavior which suits the needs of pupils. Similarly, teachers should also maintain a healthy emotional behavior in class. Teachers should avoid exhibiting insulting and strict behaviors. Along with it, setting clear classroom rules and effective utilization of class time in productive activities can also help to overcome students' exam anxiety. It is needed on the part of teachers that they realize students' needs and skills and deal with them accordingly. This study also recommends that students need to be vigilant about the fact that their performance is affected by anticipatory exam anxiety so try to be relax before exam and concentrate on preparation for the sake of getting better higher achievement.

References

- ACT. (2013). Student and teacher-reported behavioral measures: Do they agree? Iowa City, IA: Author.
- Ahmed, W., Minnaert, A., Kuyper, H., & Werf, G. (2012). Reciprocal relationships between math self-concept and math anxiety. *Learning and Individual Differences*, 22(3), 385-389.
- Ahmad, I., Rehman, S., Ali, S. I. S., Ali, F., & Badshah, R. (2013). Problems of government secondary school system in Pakistan: Critical analysis of literature and finding a way forward. *International Journal of Academic Research in Business and Social Sciences*, 3(2), 85-96.
- M.S., & Talib, R. (2013). Test anxiety in school settings: implication on teachers. *Indonesian Journal of Educational Review*, 2(2), 67-75.
- Alizadeh, M., Karimi, F., Valizadeh, S., Jafarabadi, M. A., Cheraghi, P., & Tanomand, A. (2014). Investigation on relationship between test anxiety and academic performance of nursing and midwifery students in Tabriz and Maragheh— Iran. *Health*, 6(21), 3045-3055.
- Mary, A. R., Marslin, G., Franklin, G., & Sheeba, C. J. (2014). Test anxiety levels of board exam going students in Tamil Nadu, India. *BioMed research international*, 2014(1), 1-9.
- Arends, R. (2001). *Exploring teaching: An introduction to education*. McGraw-Hill.
- Asghari, etal. (2012). Test anxiety and its related concepts: a brief review GESJ: *Education Science and Psychology*, 3 (22), 3-8.
- Atasheneh, N., & Izadi, A. (2012). The role of teachers in reducing/increasing listening comprehension test anxiety: a case of Iranian EFL learners. *English Language Teaching*, 5(3), 178-187.
- Awang, M. M., Ahmad, A. R., Wahab, J. L. A., & Mamat, N. (2013). Effective teaching strategies to encourage learning behaviour. *IOSR Journal*, 8(2), 35-40.
- Aydin, S. (2012). The effects of young EFL learners' perceptions of tests on test anxiety. *Education*. 40(2), 189-204.

- Baldwin, C. A. (2001). Achievement goals and exam performance: An exploration of the role of study strategies and anticipatory test anxiety. Indiana State University.
- Benedict, G.E. (2014). Test anxiety: An educational intervention. Master of Arts in Psychology. Middle Tennessee State University.
- Berk, R. A. (2005). Survey of 12 strategies to measure teaching effectiveness. *International Journal of Teaching and Learning in Higher Education*, 17(1), 48-62.
- Biemans, H. J. A., Jongmans, C. T., de Jong, F. P. C. M., & Bergen, T. (1999). The instructional behaviour of teachers in secondary vocational education as perceived by the teachers themselves and by their students. Proceeding of the European Conference on Educational Research, Lathi, Finland, 22-25.
- Birenbaum, M., & Nasser, F. (1994). On the Relationship between Test Anxiety and Test Performance. *Measurement and Evaluation in Counseling and Development*, 27(1), 293-301.
- Black, W. D., & Grant, E.J. (2014). DSM-5TM Guidebook: The Essential Companion to the Diagnostic and Statistical Manual of Mental Disorders. American Psychiatric Association.
- Blazar, D., & Kraft, M. A. (2017). Teacher and teaching effects on students' attitudes and behaviors. *Educational Evaluation and Policy Analysis*, 39(1), 146-170.
- Brackett, M. A., Reyes, M. R., Rivers, S. E., Elbertson, N. A., & Salovey, P. (2011). Classroom emotional climate, teacher affiliation and student conduct. *Journal of Classroom Interaction*. 46(1), 27-36.
- Brekelman, M., Wubbels, T., & Creton, H. (1990). A study of student perceptions of physics teacher behavior. *Journal of Research in Science Teaching*. 27(4), 335- 350
- Britt, J. (2013). Teacher-student relationships and student achievement in grades six and seven math. Doctoral dissertation, Liberty University.
- Brophy-Herb, H. E., Lee, R. E., Nievar, M. A., & Stollak, G. (2007). Preschoolers' social competence: Relations to family characteristics, teacher behaviors and classroom climate. *Journal of Applied Developmental Psychology*, 28(2), 134-148.
- Cassady, J. C. (2004). The impact of cognitive test anxiety on text comprehension and recall in the absence of external evaluative pressure. *Applied Cognitive Psychology: The*

Official Journal of the Society for Applied Research in Memory and Cognition, 18(3), 311-325.

Cassady, J. C., & Johnson, R. E. (2002). Cognitive test anxiety and academic performance. *Contemporary educational psychology, 27(2)*, 270-295.

Chamberlain, S., Daly, A. L., & Spalding, V. (2011). The fear factor: Students' experiences of test anxiety when taking A-level examinations. *Pastoral Care in Education, 29(3)*, 193-205.

Chesebro, J. L. (2003). Effects of teacher clarity and nonverbal immediacy on student learning, receiver apprehension, and affect. *Communication Education, 52(2)*, 135-147.

Chilcoat, G.W. (1989). Instructional behaviors for clearer presentations in the classroom. *Instructional Science, 18(4)*, 289-314

Chin, E. C. H. (2014). Emotional determinants of test anxiety and academic performance. Doctor of Clinical Psychology Thesis. Massey University, Palmerston North, New Zealand. Doctoral dissertation, Massey University.

Chua, P., Krams, M., Toni, I., Passingham, R., & Dolan, R. (1999). A functional anatomy of anticipatory anxiety. *Neuroimage, 9(6)*, 563-571.

Clark, C. M., Corno, L., Gage, N. L., Marx, R. W., Peterson, P. L., Stayrook, N. C., & Winne, P. H. (1976). Student perceptions of teacher behavior as related to student achievement. *The Journal of Classroom Interaction, 1(1)* 17-30.

Collins, L. (1999). Effective Strategies for Dealing with Test Anxiety. Teacher to Teacher Series. U.S. Department of Education Center (ERIC). ED 426214. Ohio Literacy Resource Center.

Crisan, C., Albulescu, I., & Copaci, I. (2014). The relationship between test anxiety and perceived teaching style. Implications and consequences on performance self- evaluation. *Procedia-Social and Behavioral Sciences, 142(1)*, 668-672.

Croninger, R. G., & Valli, L. (2009). "Where is the action?" Challenges to studying the teaching of reading in elementary classrooms. *Educational Researcher, 38(2)*, 100-108.

De Naeghel, J., Valcke, M., De Meyer, I., Warlop, N., Van Braak, J., & Van Keer, H. (2014). The role of teacher behavior in adolescents' intrinsic reading motivation. *Reading and Writing, 27(9)*, 1547-1565.

Deacon, B. J., Abramowitz, J. S., Woods, C. M., & Tolin, D. F. (2003). The anxiety sensitivity index-revised: Psychometric properties and factor structure in two nonclinical samples. *Behaviour Research and Therapy, 41*(12), 1427-1449.

Dogarel, C., & Nitu, A. (2007). Teacher's Behaviour in the Classroom. The Proceedings of the "European Integration-Between Tradition and Modernity", 428-434.

Driscoll, R. (2007). Westside test anxiety scale validation. American test anxiety association. ERIC. ED495968

Duan, H., Yuan, Y., Yang, C., Zhang, L., Zhang, K., & Wu, J. (2015). Anticipatory processes under academic stress: An ERP study. *Brain and Cognition, 94*(1), 60-67.

Durualp, E., & Aral, N. (2008). The relationship between test anxiety and family support, frequency of the anxiety, factors decreasing and increasing test anxiety and sex factors affecting test anxiety. *Medwell Journals the Social Sciences, 3*(7) 488-493