



RESEARCH PAPER

Relationship between Teacher's Behavior and Academic Achievement of Secondary School Students in Punjab, Pakistan

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ABSTRACT

The study was conducted to explore the relationship between teachers' behavior and the academic achievement of students. All Government secondary school students (45856) of district Bahawalnagar, Punjab, Pakistan comprised the population of the study. A sample of 900 pupils was selected by using a stratified sampling technique. A self-developed questionnaire was used for data collection. The academic achievement of the students was assessed by the % age of 9th-class. The validity of the tool was measured by taking the opinion of three experts and pilot testing. The calculated value of the Cronbach Alpha reliability test was 0.888. Data were collected by the researcher through personal visits. Multi-variant regression models were applied for the analysis of the data. The major findings of the research show that 7 components (Clarity, expression, interaction, organization, pacing, disclosure, and rapport) have a significant while 2 components (Speech and teaching aids) did not show significant relation with the dependent variable.

KEYWORDS Academic Achievements, Secondary School, Students, Teacher's Behavior

Introduction

Education is "a process necessary for the production of a sound mind in a Sound body," according to Aristotle. The Latin terms Educere, Educare, or Educate are the source of the English word education. Educare means "to lead forth," but education and Educare indicate "to train, raise up, and nourish." "In its narrowest definition, education refers to the influences that the community has purposefully chosen, planned, and put to use for the welfare of future generations.

The intention is to alter the children's or students' conduct and mold their personality into a more desirable state than they would have been in without formal education. Nowadays, it is widely acknowledged that education holds the key to a country's moral, cultural, political, and socioeconomic progress.

The previous 20 years have seen remarkable advancements achieved by the major initiative nations. Without a doubt, their strong educational system provides the foundation for this amazing accomplishment (Ahmad, 2001). For the country to survive, a thorough and efficient educational system must be established (Saeed, 2001). Behavior is lawful and sensitive to environmental circumstances. "He went on to say that behavior is a visible, recognizable phenomenon. The basic material for teaching behavior is its content, which takes the shape of the instructions given by the teachers to the class.

Our thoughts and feelings have an impact on our attitudes. The culmination of associated values and beliefs is attitude.

Behavior

The relationship between teachers' behavior has been the subject of extensive research in the field of education. Teacher behavior in compasses instructional method classroom, management, communication, motivation and overall teacher style. Understanding how teacher behavior influences student achievement is essential for optimizing educational outcomes.

Student Achievement and Instructional Methods

Effective instructional method plays a vital role in student achievement. Research has shown that instructional strategies such as active learning, differentiated instruction, formative assessment, and problem-solving approaches positively impact student learning (Hattie, 2009; Marzano, 2007).

Student Achievement and Classroom Management

A well-managed classroom environment contributes to improving student achievement. Studies indicate that effective classroom management techniques including classroom management techniques, including classroom expectations, positive reinforcement, and consistent discipline enhance student engagement and academic performance (Emmer & Stough, 2001).

Teacher-Student Relationships and Student Achievement

Positive teacher-student relationships are linked to better student achievement. Establishing rapport, providing emotional support, and demonstrating genuine interest in students 'progress can motivate students to perform better academically (Roorda et al., 2011)

Communication and Student Achievement

Effective communication between students and teachers is a critical factor in student achievement. Clear communication of learning objectives feedback on assignments and encouraging open dialogue can lead to enhance understanding and improved academic performance (Weinstein, 2002)

Teacher behavior significantly influences student achievement through instructional methods, classroom management, teacher-student relationships, and communication. It is imperative for educators to employ effective teaching strategies and foster positive teacher-student interactions to optimize student outcomes.

Conceptual Framework of the study



Teacher's behavior measured by
Self-developed questionnaire

Student's achievement measured by
Obtained marks of the students (9th grade)

Teacher behavior is composed of these nine components;

1. Clarity
2. Expression
3. Interaction

4. Organization
5. Pacing
6. Disclosure
7. Speech
8. Rapport
9. Teaching Aids

Material and Methods

The study was descriptive in nature. Self-developed, Five-point Likert scale questionnaire was used in this research study to measure the behavior of the teachers. Achievement of the students was measured by taking their % age of 9th grade.

Research Designs

A quantitative research design was used.

Population of study

All students (45856) of public secondary schools of district Bahawalnagar comprised the population of the study (E.D.O office Bahawalnagar).

Sample of study

According to Suresh (2011), “a sample is a subset of the population selected, which is an unbiased representative of the larger population”. At 1st stage, 6 schools were selected from each Tehsil. 3 schools for boys and 3 for girls were selected by applying the stratified Random Sampling technique.

At 2nd stage from each school, 30 students were selected by applying the Convenient Sampling technique. In this way sample of 900 students was selected i-e 450 girls and 450 boys. The detail of the sample is here

**Table 1
Sampling detail of students**

Tehsils	No. of Students			No. of Students		
	Girls			Boys		
Bahawalnagar	3	30	30*3=90	3	30	30*3=90
Chishtian	3	30	30*3=90	3	30	30*3=90
Fort Abbas	3	30	30*3=90	3	30	30*3=90
Haroon Abad	3	30	30*3=90	3	30	30*3=90
Minchin Abad	3	30	30*3=90	3	30	30*3=90
Total	15	150	450	15	150	450

Development of tool

A self-developed questionnaire was used for the collection of data. The questionnaire assesses teachers' behavior concerning nine different behavior domains. i.e. clarity, expressions, interaction, organization, pacing, disclosure, speech, rapport, and teaching aids as behavior indicators. There were two parts of the questionnaire. i.e. Part A and Part B. “Part A” comprised demographic data and Part B included 34 items to measure the teacher’s behavior.

Validity and Reliability of the tool

The validity of the tool was measured by taking opinion of three experts from the field and pilot testing. For pilot testing four schools (2 for girls and 2 for boys) were selected randomly and from each school, 20 students were selected. So the sample size for pilot testing was 80.

To measure the reliability of the tool, Cronbach Alpha reliability test was applied and the calculated value was 0.888.

Data Collection

For the collection of data, the researcher personally visited secondary and higher secondary schools of district Bahawalnagar. The response rate was 100% due to personal visits.

Data Analysis

Data was analyzed by using multi-variate model regression.

Table 2
Determinants of academic achievements- linear multi-variate regression model clarity

Statement	Mean	SD	Coefficients(B)
Constant			217.36***
Teacher gives good examples of each concept.	4.71	0.67	1.93
Teacher defines new terms.	4.48	0.77	1.48
Teacher repeats difficult ideas many times.	4.60	0.79	0.126
Teacher emphasizes the important points.	4.60	0.78	16.83***
Teacher uses diagrams to explain the difficult concept.	4.30	0.92	6.99**
Teacher points out practical application of concepts.	4.24	0.94	-5.375*
Teacher answers student questions thoroughly.	4.67	0.67	-3.098
Teacher highlights key terms.	4.54	0.74	2.466
Teacher explains a topic in easy language.	4.74	0.6	1.078

Results observed at 1 %< *** 5 %< ** and 10 %<* level of significance

Table 2 portrays the effect of teachers behavior on the academic achievement of secondary school students, teachers emphasize the important points at is positively highly significant level on academic achievements. The mean value was 4.60 and standard deviation was 0.78. The teacher using diagrams to explain the difficult concept also has a high statistical significance on academic achievement, The mean value was 4.30 and standard deviation was 0.92.while the variables such as the teacher pointing out practical applications of concepts and the teacher answering students questions thoroughly. Teacher points out practical applications of concepts are statistically significant but negatively impact teacher behavior and all others are not statistically significant on teacher behavior

Table 3
Determinants of academic achievements- linear multi-variate regression model expression

Statement	Mean	SD	Coefficients(B)
Constant			273.887***
Teacher move about while lessoning	4.26	1.04	12.19***
Teacher gestures with their hand or arms	4.55	0.84	7.17***
Teacher uses prepared notes	3.52	1.3	-6.86***
Teacher gives a Smile while teaching	4.03	1.1	-3.60*

Results observed at 1 %< *** 5 %< ** and 10 %<* level of significance

Table 3 demonstrates the linear model effect of teachers’ behavior on the academic achievement of secondary school students, Teacher moves about while lessoning and teacher gestures with their hands or arms are highly significant on the academic achievement of students. The teacher use of prepared notes is highly significant but negatively impacts students’ marks. Teacher who give a smile while teaching is significant but had a negative impact on the academic achievement of student.

Table 4
Determinants of academic achievements- linear multi-variate regression model interaction

Statement	Mean	SD	Coefficients(B)
Constant			313.016***
Teacher asks questions from individual students.	4.45	0.79	-2.540
Teacher asks questions from the class as a whole.	4.37	0.93	13.24***
Teacher uses a variety of activities in class.	4.07	1.1	-9.77***

Results observed at 1 %< *** 5 %< ** and 10 %<* level of significance

Table 4 illustrates the effect of teachers’ behavior on the academic achievement of secondary school students teacher asking questions from the class as a whole is positively highly significant on student’s academic marks. The mean value was 4.37 and standard deviation was 0.93. The teachers’ use of a variety of activities in class is negatively highly significant on students’ academic marks. Teacher asks questions from individual students that negatively impact teacher behavior and are not statistically significant on teacher behavior.

Table 5
Determinants of academic achievements- linear multi-variate regression model organization

Statement	Mean	SD	Coefficients(B)
Constant			244.241***
Teacher uses heading to organize the lesson.	4.44	0.84	12.50***
Teacher writes the outline of a lesson.	4.60	0.76	4.87
Teacher reviews topics cover in the previous lesson.	4.34	0.99	-0.576

Results observed at 1 %< *** 5 %< ** and 10 %<* level of significance

Table 5 describes the *linear variate regression model organization* effect of teachers behavior on the academic achievement of secondary school students, Teacher uses of heading to organize the lesson is positively highly significant on student’s academic marks. The mean value was 4.44 and standard deviation was 0.84. The teacher writing the outline of a lesson on the whiteboard is not statistically significant. Teacher reviews topics covered in the previous lesson at the beginning of each class are not statistically significant but have a negative impact on teacher behavior.

Table 6
Determinants of academic achievements- linear multi-variate regression model pacing

Statement	Mean	SD	Coefficients(B)
Constant			259.217***
Teacher clarifies important points.	4.60	0.75	9.03***
Teacher stays with major theme of the lesson.	4.32	0.85	4.37

Results observed at 1 %< *** 5 %< ** and 10 %<* level of significance

Table 6 reveals the effect of teacher’s behavior on the academic achievement of secondary school students; Teacher clarifies important points that are highly significant in students’ academic achievement. The mean value was 4.60 and standard deviation was 0.75. The teacher stays with the major theme of the lesson is not statistically significant but has no impact on teacher behavior.

Table 7
Determinants of academic achievements- linear multi-variate regression model disclosure

Statement	Mean	SD	Coefficients (B) add within proper column
Constant			241.171***

Teacher advises student on how to prepare for exam.	4.73	0.64	10.44***
Teacher provides sample papers.	4.19	1.03	4.91*
Teacher states the objectives of each lesson.	4.45	0.88	2.22
Teacher states the objectives of each subject as whole.	4.36	0.87	-0.306

Results observed at 1 %< *** 5 %< ** and 10 %<* level of significance

Table 6 explains the effect of teachers' behavior on the academic achievement of secondary school students, Teacher advising students on how to prepare for exams is positively highly significant on student's academic achievement. The mean value was 4.73 and standard deviation was 0.64. The teacher provides sample exam papers are also significant for students' academic marks. The teacher states the objectives of each lesson as a whole is not statistically significant. The teacher states the objectives of each subject as a whole are not significant but negatively impact teacher behavior.

Table 8
Determinants of academic achievements- linear multi-variate regression model speech

Statement	Mean	SD	Coefficients(B)
Constant			303.855***
Teachers speak at an appropriate volume.	4.53	0.78	-3.43
Teachers speak clearly.	4.52	0.79	4.35
Teachers speak at an appropriate pace.	4.50	0.80	2.62

Results observed at 1 %< *** 5 %< ** and 10 %<* level of significance

Table 8 tells the effect of teachers behavior on the academic achievement of secondary school students teacher speaking at an appropriate volume is not significant but has negative effects on student's academic achievements. A teacher speaks clearly and a teacher speaks at an appropriate pace is not significant.

Table 9
Determinants of academic achievements- linear multi-variate regression model rapport

Statement	Mean	SD	Coefficients(B)
Constant			306.273***
Teacher addresses individual students by name.	4.29	0.98	-8.151***
Teachers offer to help students.	4.31	0.90	10.34***
Teacher talks with students before or after class.	4.27	0.97	0.92

Results observed at 1 %< *** 5 %< ** and 10 %<* level of significance

Table 9 shows the effect of teachers behavior on the academic achievement of secondary school students Teacher addressing individual students by name is highly significant but has a negative impact on students obtained marks, Teacher offers to help students with course-related problems are positively highly significant on student's academic achievements. A teacher talking with students before or after class is not significant.

Table 10
Determinants of academic achievements- linear multi-variate regression model teaching aids

Statement	Mean	SD	Coefficients(B)
Constant			319.176***
Teacher uses visual teaching.	4.36	1.0	1.175
Teacher uses video aids.	2.99	1.46	-0.605
Teacher uses audio aids.	3.01	1.49	-0.898

Results observed at 1 %< *** 5 %< ** and 10 %<* level of significance

Table 10 tells the effect of teachers behavior on the academic achievement of secondary school students' teacher uses of visual teaching is not significant. Teacher uses video aids and teacher uses audio aids are not significant but have a negatively impact on teachers behavior.

Conclusion

The aim of the current study was to express how teacher's behavior affects students' academic progress. Academic achievement is said to be predicted by teacher's behavior. There are nine components to it: organization, pacing, disclosure, speech, rapport, expression, clarity, interaction, and teaching tools. As a dependent variable, student's grades were obtained.

According to the argument made by Babad (2009), teachers prospect are mostly reflected in how well a student performs, with an overrated student performing better than an underrated student. Even though they occasionally exceed those in the middle and those regarded as below average (Urhahne, Chao, Florineth, Luttenberger, & Paechter, 2011; Urhahne, Schanze, Bell, Mansfield, & Holmes, 2010). When viewed through the perspective of a teachers perception of these incorrectly identified or underperforming below-average children, this conclusion assumes even greater significance. Meaning that it is not necessary for a student who is overrated to perform well or for a student who is underestimated to perform poorly overall (Urhahne, 2015). Additionally, it would not be incorrect to rule out a teachers discriminatory actions or favoritism towards a student who declares themselves to be a high achiever because they almost always outnumber those undervalued, low-ranked students (Bates & Nettelbeck, 2001; Begeny, Eckert, Montarello, & Storie, 2008 and Feinberg & Shapiro, 2009). A important lead is that groups of students who overachieve or underachieve demonstrate different personal qualities, regardless of a teachers prejudice on students' performance outcomes. This study examined the effect of a teachers behavior classroom conduct on pupil's academic performance in the Bahawalnagar area. In this study, nine categories sets of conduct each subdivided into a number of descriptive indicators were used to examine a teacher's classroom behavior. In parallel, student's current grades a estimate of their academic performance were recorded. The student's replies on a Likert scale were used to record the 34 descriptors of the teacher's behavior. New aspects of teacher's behavior that clearly have an impact on students' academic success have been found and characterized using the statistical processes used in the study. As stated in the study overarching goal, this research aims to correlate 34 distinct aspects of teacher's behavior with students' academic success, as determined by the students self-reported current marks.

Recommendations

Following were the recommendations from the study

1. Audio and video teaching aids might be used by teachers in the classrooms to enhance the academic marks.
2. Teacher points out practical applications of concepts are statistically significant but negatively impact teacher's behavior. Teachers might improve this area of behavior.
3. Academic achievements linear multivariate regression model speech in this model teachers need a lot of work to improve their oral communication skills.
4. Only district Bahawalnagar was selected by the researcher; next research may cover in more districts.

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