



A Psychological Study on Frustration and Academic Achievement among Class 10 Students in Secondary Schools of Madhya Gujarat

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Abstract

This research article explores the impact of frustration on academic achievement among class 10 students in secondary schools of Madhya Gujarat. Academic success, while often viewed through the lens of cognitive abilities and instructional quality, is also significantly influenced by emotional and psychological factors. The study employed a descriptive survey method, collecting data from a stratified sample of Gujarati medium class 10 students across urban and rural schools. Standardized tools were used to measure levels of frustration, and academic achievement was assessed through students' official examination scores. The study examined the influence of independent variables such as gender, area of residence, and type of school on the dependent variables frustration and academic achievement.

Findings revealed a significant inverse relationship between frustration and academic achievement, indicating that higher frustration levels are associated with lower academic performance. The analysis also highlighted differences based on gender and school type. The study concludes that emotional well-being plays a critical role in shaping academic outcomes and suggests the need for psychological support systems within schools to help students manage frustration effectively.

This research contributes to the growing body of knowledge on the emotional dimensions of academic performance and provides valuable insights for educators, counselors, and policymakers seeking to foster supportive learning environments.

Keywords: Frustration, Academic Achievement, Class 10 Students, Secondary Education, Emotional Factors, Gujarat, Gender Differences, Urban-Rural Schools

Introduction

One of the primary outcomes of the educational process and a crucial predictor of student success is academic achievement. Nonetheless, it is becoming more widely acknowledged that a learner's academic achievement is greatly influenced by emotional and psychological aspects. Among these, frustration—a negative emotional

state brought on by the impediment of goal-directed behavior—has become a key factor in determining how well students perform academically. Students frequently deal with high expectations, performance pressure, and difficulties that might cause emotional anguish in today's cutthroat academic climate. If frustration is not properly controlled, it can lead to behavioral problems, a loss of attention, decreased motivation, and poorer academic achievement.

Adolescents, especially those in Class 10, are more susceptible to emotional disorders like dissatisfaction because they are in a vital developmental stage where they must make academic decisions that will affect their future. Madhya Gujarat offers a distinctive setting for investigating the emotional aspects influencing children because of its varied population and educational system. Knowing how frustration and academic achievement are related in this area can help guide educational initiatives and offer important insights into students' psychological health.

This study, therefore, aims to investigate the nature and extent of frustration experienced by Class 10 students and its correlation with their academic achievement. It seeks to identify patterns, differences (e.g., gender or urban-rural divide), and implications that can be utilized by educators, counselors, and policymakers to enhance academic outcomes through emotional support strategies.

Concept of Frustration

When someone's goal-directed conduct is obstructed or thwarted, frustration is a psychological condition that results in tension, worry, and discontent. It happens when a perceived or actual barrier stands in the way of reaching a need, goal, or intended result. Internal issues (personal constraints, self-doubt) and external forces (failure, rejection, environmental barriers) can both lead to frustration, which is a normal emotional reaction. It frequently takes the form of annoyance, rage, helplessness, or withdrawal, and if severe or persistent, it can have a detrimental effect on performance, interpersonal relationships, and mental health, particularly in educational settings.

According to Dollard et al. (1939), frustration is defined as “the condition which exists when a goal-response suffers interference.” Psychologists also note that frustration is closely linked with aggression, as unrelieved frustration may lead to aggressive behavior.

In the context of education, frustration may arise from poor academic performance, lack of support, unrealistic expectations, or difficulty in understanding the subject matter. This emotional disturbance can significantly hinder a student's motivation, focus, and overall academic achievement.

Concept of Academic Achievement

The degree to which a student has met their immediate or long-term learning objectives is referred to as academic achievement. Usually, grades, exam results, classroom evaluations, and general academic achievements are used to gauge it. Academic success is regarded in educational psychology as a key sign of a student's development as a thinker, advancement in their learning, and command of the material. It displays not just cognitive aptitude but also study habits, motivation, emotional stability, and how well the learning environment works.

According to Crow and Crow (1969), “Academic achievement means the extent to which a learner is profiting from instruction in a given area of learning.” It shows how well a student has learned or achieved in specific subject areas, often in comparison with a standard or with other students. In the context of this study, academic achievement specifically pertains to the Class 10 students' performance in board or school-level examinations, which is a crucial milestone in their educational journey and often determines future academic and career opportunities.

Definitions of the important terms

Frustration

In this study, ‘Frustration’ score obtained by students on ‘Frustration measuring rating scale’ which is constructed by Dr. Kiransinh C. Rajput.

Academic Achievement

In this study, ‘Academic Achievement’ means percentage obtained by students in class 10th board exam of GSEB.

Need of the Study

In the present educational landscape, academic achievement has become a central focus for students, parents, educators, and policymakers alike. However, academic performance is not solely dependent on intellectual ability or instructional quality; it is also deeply influenced by emotional and psychological factors. One such critical factor is frustration, which, if not managed effectively, can act as a significant barrier to student success. Students in Class 10, particularly in the Indian education system, face immense pressure due to board examinations, societal expectations, and the need to make career-defining choices. This phase often leads to emotional disturbances, especially frustration resulting from repeated failures, lack of support, competitive environments, and unrealistic goals. Such psychological states can lower motivation, affect concentration, and ultimately hinder academic performance.

Despite growing awareness about the role of mental health in education, there remains a lack of focused research on how frustration affects academic achievement, especially in regional contexts like Madhya (Central) Gujarat. Each region has its own unique socio-economic and educational characteristics, and understanding students' emotional states within these specific contexts is crucial for implementing effective interventions.

Objectives of the Study

Research is a problem-oriented scientific process with a specific purpose, known as objectives.

1. To study the frustration of class 10th students with reference to gender, area and types of school.
2. To study the academic achievement of class 10th students with reference to gender, area and types of school.
3. To study the relationship between frustration and academic achievement among class 10th students.

Variables of the Study

[A] Independent variables include

Gender: Boys and Girls.

Area of Residence: Urban and Rural.

Types of School: Government and Grant in aid.

[B] Dependent variables

Frustration

Academic Achievement

Hypotheses of the Study

A hypothesis is a tentative statement that predicts the relationship between variables in a research study. Following are the hypotheses of the present study,

1. **H₀₁**: There will be no significant difference between the mean score on frustration measuring rating scale obtained by boys and girls of 10th class.
2. **H₀₂**: There will be no significant difference between the mean score on frustration measuring rating scale obtained by class 10th students belong into urban and rural area.
3. **H₀₃**: There will be no significant difference between the mean score on frustration measuring rating scale obtained by class 10th students of government school and grant in aid school.
4. **H₀₄**: There will be no significant difference between the mean score of academic achievement obtained by boys and girls of 10th class.
5. **H₀₅**: There will be no significant difference between the mean score of academic achievement obtained by class 10th students belong into urban and rural area.
6. **H₀₆**: There will be no significant difference between the mean score of academic achievement obtained by class 10th students of government school and grant in aid school.
7. **H₀₇**: There will be no significant relationship between frustration and academic achievement of class 10th students.

Area of the Research

The area of this research was Educational Psychology.

Delimitations of the Study

1. The study was limited to selected secondary schools in Madhya Gujarat; therefore, its findings may not be generalized beyond this specific region.
2. This study focused exclusively on Class 10 students enrolled in Gujarati medium secondary schools and does not encompass other stages or mediums of education.
3. The scope of the study is confined to three independent variables, gender, area of residence, and type of school and two dependent variables, namely frustration and academic achievement.

Research Design

Research Method

For the present study, survey method was used by the researcher.

Population

In this study, the population comprises 10th standard students enrolled in the Gujarati medium under the Gujarat Secondary Education Board (GSEB) in Madhya Gujarat. The population size of the students was 144003.

Sample

In this study, stratified random sampling method has been used in the selection of schools situated in Madhya Gujarat. In this study, the sample consisted of 1827 students selected from different secondary schools of 10th class. Sample was 1.3% of the total population. Out of these 1827 students, 892 were male and 935 were female students.

Research Tools

The following research instruments are used to gather the data required for the study: (i) Dr. Kiran C. Rajput's Frustration Measuring Rating Scale (ii) Academic achievement as determined by the GSEB class 10 board exam. Below are the specifics of these tools.

Frustration Measuring Rating Scale (Dr. Kiran C. Rajput)

"Frustration" is the main variable in this study, and an accurate and trustworthy measurement technique was needed for it. The "Frustration Measuring Rating Scale" developed by Dr. Kiran C. Rajput has been used to gauge the degree of frustration among secondary students. Dr. Kiran C. Rajput created and standardized this scale. The validity and reliability of the "Frustration Measuring Rating Scale" tool are 0.73 and 0.83, respectively. Regression, obsession, resignation, and aggressiveness are the four types of frustration that make up the scale. There are ten items in each phase of frustration.

Academic Achievement Score

In order to collect Academic Achievement score of students, researcher has contacted to school authority and requested to provide Gujarati Medium 10th class board examination marks of GSEB.

Procedure for Data Collection

The researcher herself was in charge of gathering the data. The researcher asked for permission from the heads of the institutions or principals to gather data from pupils in the tenth grade. Following approval, the researcher reached out to the relevant student classes and gave them both instruments at the same time. One by one, the researcher gave each student in class 10 a rating scale for frustration. The responders were given a clear explanation of the test's objective.

Data Analysis

Collected data were analyzed using appropriate methods based on the objective of the research. By employing Survey design, the data acquired from the scales were analyzed quantitatively. Quantitative data were analyzed using mean, standard deviation, t-test and Pearson's correlation. The significance at 0.01 level of confidence was considered satisfactory for the acceptance or rejection of the null hypotheses.

Testing of Hypothesis

Present study was carried out with H_0 null hypothesis testing shown as below:

H₀1: There will be no significant difference between the mean score on frustration measuring rating scale obtained by boys and girls of 10th class.

Table 1

Number of students, mean, standard deviation, standard error of mean and t-value of frustration scores of boys and girls based on gender of students

(df= 1825)

Group	<i>N</i>	<i>M</i>	<i>SD</i>	<i>SE_M</i>	<i>t ratio</i>
Boys	892	171.23	15.09	0.78	4.79*
Girls	935	167.48	18.26		

*Table value of 't' significant at 0.01 level is 2.58.

According to table 1, Boys' and girls' mean scores on the frustration measurement rating scale were 171.23 and 167.48, respectively, with standard deviations of 15.09 and 18.26, standard error of mean difference is 0.78 and 4.79 is the computed t-value. Thus, at the 0.01 level, the computed t-value is greater than the table value of 2.58. Therefore, at the 0.01 level, the null hypothesis (H_01) is rejected.

H₀2: There will be no significant difference between the mean score on frustration measuring rating scale obtained by class 10th students belong into urban and rural area.

Table 2

Number of students, mean, standard deviation, standard error of mean and t-value of frustration scores of urban and rural students based on area of residence

(df= 1825)

Group	<i>N</i>	<i>M</i>	<i>SD</i>	<i>SE_M</i>	<i>t value</i>
Urban	936	168.26	16.93	0.79	2.74*
Rural	891	170.42	16.79		

*Table value of 't' significant at 0.01 level is 2.58.

According to table 2, Students in urban areas scored an average of 168.26 on the frustration scale, while students in rural areas scored an average of 170.42; the standard deviations were 16.93 and 16.79, respectively, the standard error of the mean difference is 0.79 and 2.74 is the computed t-value. Therefore, at the 0.01 level, the estimated t-value is greater than the table value of 2.58. Thus, at the 0.01 level, the null hypothesis (H_02) is rejected.

H₀3: There will be no significant difference between the mean score on frustration measuring rating scale obtained by class 10th students of government school and grant in aid school.

Table 3

Number of students, mean, standard deviation, standard error of mean and t-value of frustration scores of govt. and grant in aid school students based on type of School

(df= 1825)

Group	<i>N</i>	<i>M</i>	<i>SD</i>	<i>SE_M</i>	<i>t value</i>
Govt. School	788	172.89	16.27	0.78	8.04*
Grant in Aid School	1039	166.61	16.88		

*Table value of 't' significant at 0.01 level is 2.58.

According to Table 3, the average scores on the frustration scale attained by students at Government and Grant schools are 172.89 and 166.61, respectively; the standard deviations are 16.27 and 16.88, and the standard error of the mean difference is 0.78. The calculated t-value is 8.04. Therefore, at the 0.01 level, the estimated t-value is greater than the table value of 2.58. Thus, at the 0.01 level, the null hypothesis (H_03) is rejected.

H₀₄: There will be no significant difference between the mean score of academic achievement obtained by boys and girls of 10th class.

Table 4

Number of students, mean, standard deviation, standard error of mean and t-value of academic achievement scores of boys and girls based on gender of students

(df= 1825)

Group	N	M	SD	SE _M	t value
Boys	892	66.09	10.14	0.55	10.34*
Girls	935	71.80	13.32		

*Table value of 't' significant at 0.01 level is 2.58.

According to table 4, the average academic achievement scores for boys and girls students are 66.09 and 71.80, respectively, with standard deviations of 10.14 and 13.32 and a standard error of mean difference of 0.55. The calculated t-value is 10.34. Therefore, at the 0.01 level, the estimated t-value is greater than the table value of 2.58. Therefore, the null hypothesis (H₀₇) is rejected.

H₀₅: There will be no significant difference between the mean score of academic achievement obtained by class 10th students belong into urban and rural area.

Table 5

Number of students, mean, standard deviation, standard error of mean and t-value of academic achievement scores of urban and rural students based on area residence of students

(df= 1825)

Group	N	M	SD	SE _M	t value
Urban	936	70.58	13.99	0.56	5.73*
Rural	891	67.36	9.74		

*Table value of 't' significant at 0.01 level is 2.58.

As shown in table 5, Mean of scores achieved on the academic achievement by students of urban area is 70.58 and students of rural area is 67.36; standard deviation is 13.99 and 9.74 respectively, standard error of mean difference is 0.56. The calculated t-value is 5.73. So, it can be said that calculated t-value is higher than table value 2.58 at 0.01 level. So, Null Hypothesis (H₀₈) is rejected at 0.01 level.

H₀₆: There will be no significant difference between the mean score of academic achievement obtained by class 10th students of government school and grant in aid school.

Table 6

Number of students, mean, standard deviation, standard error of mean and t-value of academic achievement scores of govt. and grant in aid school students based on type of school

(df= 1825)

Group	N	M	SD	SE _M	t value
Govt. School	788	62.94	10.26	0.51	20.27*
Grant in Aid School	1039	73.56	11.69		

*Table value of 't' significant at 0.01 level is 2.58.

As shown in table 6, Mean of scores achieved on the academic achievement by students of government school is 62.94 and grant in aid school student is 73.56; standard deviation is 10.26 and 11.69 respectively, standard error of mean difference is 0.51. The calculated t-value is 20.27. So, it can be said that calculated t-value is more than table value 2.58 at 0.01 level. So, Null Hypothesis (H₀₉) is rejected at 0.01 level.

H₀₇: There will be no significant relationship between frustration and academic achievement of class 10th students.

Table 7

Number of students, mean, standard deviation and correlation between frustration and academic achievement of 10th class students

Tools	<i>N</i>	<i>M</i>	<i>SD</i>	<i>Co-relation</i>
Frustration Scale	1827	169.33	16.90	-0.79
Academic Achievement	1827	69.01	12.21	

According to table 7, 10th class students' mean scores on academic achievement and frustration are 169.33 and 69.01, respectively; the standard deviations are 16.90 and 12.21, and the correlation is -0.79. Thus, it may be concluded that academic achievement and frustration are negatively correlated. The correlation between academic achievement and frustration is -0.79, indicating a very negative relationship. Therefore, the null hypothesis (H₀₁₀) is rejected.

Major Findings of the Study

The data collected by the investigator were analyzed by using the statistical technique like mean, standard deviation, 't' test and Pearson correlation. The 't' test was applied to test the significance of the null hypothesis mentioned below:

There was a noticeable difference in the levels of frustration between the boys and girls, with the boys displaying higher levels of frustration than the girls. Students from urban and rural locations showed significantly different levels of frustration. When compared to their urban counterparts, students from rural areas showed somewhat higher levels of frustration.

Students of government and grant-in-aid schools showed significantly different levels of frustration. Students attending government schools were more frustrated than those attending grant-in-aid schools.

1. A significant difference was observed in academic achievement of 10th class boys and girls. The girls achieving higher academic scores than boys, suggesting that gender affects academic achievement.

2. A significant difference was observed in academic achievement of 10th class students belong to rural and urban area. Students belong to urban area achieving higher academic scores compared to rural students, suggesting that the area of residence affects academic achievement.

3. A significant difference was observed in academic achievement of students who are studying in government and grant in aid school. The grant in aid school students were achieved higher academic scores compared to government school students, suggesting that the type of school affects academic achievement.

4. Boys and girls of 10th class showed significantly different academic achievement. The fact that girls outperform than boys, academically suggests that gender influences academic success.

5. There was a notable distinction between the academic performance of 10th grade students from rural and urban areas. Students from urban areas score higher academically than those from rural areas, indicating that academic achievement is influenced by one's place of residence.

6. Students enrolled in government and grant-in-aid schools showed significantly different academic performance. Students attending government schools received lower academic scores than those attending grant-in-aid schools, indicating that the type of school has an impact on academic performance.

7. A significant negative correlation was observed between frustration and academic achievement of 10th class students. The correlation coefficient of -0.79 indicates a strong negative correlation. This means that as frustration increases, academic achievement tends to decrease.

Suggestions from the Study

1. The present investigation was carried on 1827, 10th class students. Studies can be carried on a large sample of higher senior secondary students.

2. Comparison can be done on the basis of other socio-economic background variables in government and private schools and colleges.

3. To see the difference in academic achievement comparisons can be carried out between hill area and plain area.
4. The similar study can be conducted to find out the academic achievement of students of Navodaya Vidyalaya, CBSE, and Gujarat state board.
5. The variables used in the study frustration. It can be studied taking other variables like emotional intelligence, achievement motivation in school environment.
6. Any other statistical technique can also be used on the same sample.
7. Comparative studies can also be conducted on a state board and Central Board of education regarding the academic achievement of the students.

Discussion on Result

1. The study emphasizes how students' frustration is leading to a rise in behavioral problems that impair their academic achievement, emotional health, and social intelligence.
2. The results indicate that in order to lessen resentment among 10th grade, parents, educators, legislators, and school officials need to take action.
3. The study discovered that overall academic achievement is negatively impacted by frustration. This indicates that when parents and instructors provide emotional support and encouragement, students do better.
4. According to the survey, boys are more frustrated than girls. In order to assist guys cope with stress, schools should encourage them to engage in both academic and extracurricular activities.
5. To establish a supportive learning environment, parents and educators need to collaborate. Students can gain confidence and improve their academic performance by receiving love, support, and care. To lessen tension and annoyance, schools can also implement evaluation procedures that are easy for students to understand.
6. Schools can plan training sessions and awareness campaigns for instructors and parents. To help children and families, government and non-governmental groups should set up resource centers that emphasize behavior reinforcement, problem-solving techniques, and language proficiency.
7. To assist students in overcoming obstacles, schools should also host seminars and workshops on time management, stress management, and mental wellness.

Overall, the study serves as an eye-opener for educators, parents, and policymakers. Creating a positive school and home environment will help students develop both academically and emotionally. Schools should establish counseling centers and focus on gender-equal education to support students in the right direction. Students are valuable assets to society, and all efforts should be made to help them achieve success.

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