



An Analysis Study of Gender Differences in Academic Motivation among Secondary School Students

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Abstract: *Particularly in secondary school, academic motivation plays a crucial role in determining students' interest, perseverance, and overall success. The current study examines the variations in academic motivation among secondary school pupils, acknowledging the significance of gender-related elements in forming motivational patterns. The research involved 300 pupils from CBSE-affiliated schools, 150 of whom were boys and 150 of whom were girls. A standardized motivation assessment suitable for this age group was used to measure academic motivation. Descriptive and inferential statistics were used to analyse the gathered data. The results suggest that academic motivation differs significantly between genders, with boys exhibiting higher levels of drive than girls. These findings point to the necessity of supportive learning environments and gender-responsive teaching strategies that increase motivation for all students. Teachers, counsellors, and curriculum designers who are trying to increase secondary school students' motivation might benefit from the study's insightful findings. The study emphasizes how crucial it is to address motivational gaps through guiding interventions, supportive classroom practices, and gender-sensitive teaching styles. The study adds to the body of knowledge in educational psychology and has useful implications for educators and policymakers by finding gender-based disparities in academic motivation. All secondary school students' academic motivation may be increased and their overall academic growth may be supported by the creation of inclusive and supportive learning environments.*

Key Words: *Academic Motivation, Gender Differences, Secondary School Students, Learning Behaviour, Student Engagement.*

1. INTRODUCTION

One of the most important psychological elements influencing students' learning habits, academic decisions, and long-term success is academic motivation. It establishes a student's motivation for learning, their level of effort in finishing assignments, and their level of perseverance in the face of difficulties. Students' emotional, social, and cognitive development undergoes significant changes during the secondary school period (ages 14–17), making motivation a key factor in their academic achievement. One significant factor influencing motivational tendencies is gender. Boys and girls have different learning preferences, confidence levels, success orientations, and classroom participation, according to research. Boys generally exhibit more task-oriented motivation and confidence-based performance patterns, whereas girls typically exhibit higher levels of diligence, organizational behavior, and anxiety-driven effort. These patterns, however, differ depending on the culture, type of education, and educational setting. Students' motivational processes are shaped in the Indian setting by a variety of sociocultural norms, growing test pressure, and fast educational growth. Despite this, few empirical research has used standardized instruments to investigate gender variations in academic motivation among secondary-level students. Developing balanced learning settings that foster motivation for both boys and girls requires an understanding of these distinctions. Using a standardized and trustworthy motivation scale, the current study aims to analyse gender-based disparities in academic motivation among secondary school students. Teachers, counsellors, school administrators, and policy makers are anticipated to benefit from the findings.

1.1. Academic Motivation:

The internal and environmental factors that motivate students to actively engage in learning activities, stay dedicated to academic assignments, and pursue success are referred to as academic motivation. When it comes to education, motivation serves as a psychological basis that dictates how much work a student puts into their studies, how



tenaciously they pursue their objectives, and how well they manage academic difficulties. When faced with challenging material, motivated students are more likely to exhibit stronger resilience, improved problem-solving abilities, and increased focus. Due to increased academic demands, competitiveness, developmental shifts, and career-related expectations, academic motivation becomes even more important at the secondary level. Theories such as Self-Determination Theory, Goal Orientation Theory, and Expectancy-Value Theory explain that students' beliefs, intrinsic interest, external rewards, and perceived competence shape their motivational patterns. In this study, academic motivation is measured using the standardized K.S. Misra Academic Motivation Inventory (2021) to understand how strongly students are driven toward academic engagement. The keyword is central to this research because the entire study investigates how motivation differs between boys and girls in the secondary school setting.

1.2. Secondary School Students:

Students in secondary school, who are usually between the ages of 14 and 17, are in a transitional educational period when they shift from core knowledge to more regimented and demanding academic settings. Their approach to learning is significantly impacted by the physical, emotional, cognitive, and social changes that characterize this developmental stage. Students' motivation levels are greatly impacted as they start studying for college, board exams, and career preparation in grades IX through XI. In particular, 300 secondary school pupils from Kanpur schools affiliated with the CBSE—150 males and 150 girls—are the subject of this study. Students are a perfect cohort to study how motivation differs by gender at this point since they are under more pressure from parents, instructors, and society. Peer comparison, classroom dynamics, instructor support, academic standards, and personal goals are just a few of the many factors that secondary students must deal with. The study intends to emphasize the variables that may affect students' academic decisions, performance, and stress levels in the final years of education by assessing motivation at this crucial point.

1.3. Gender Differences:

The differences in attitudes, motivation, behavior, expectations, and performance that occur between boys and girls as a result of social, cultural, psychological, and developmental variables are referred to as gender differences. Gender frequently affects how students view academic difficulties, react to criticism, interact with subjects, and establish academic objectives in educational contexts. Boys and girls are socialized differently in various situations. Boys may be encouraged to take chances, exhibit confidence, or compete intellectually, whereas females may get more social support but also greater pressure to perform well in particular courses. Their motivation levels may be impacted by these habits. Studies conducted in different parts of the world have produced conflicting findings: some indicate that females are more motivated than boys, while others show no discernible difference. Boys exhibit more academic enthusiasm ($M = 155$) than females ($M = 140.10$), according to the current study, which reveals a statistically significant gender difference. This suggests that gender has a significant impact on secondary motivation. Designing gender-sensitive teaching methods and guaranteeing equal learning opportunities require an understanding of these distinctions.

1.4. Learning Behaviour:

The behaviors, tactics, routines, and attitudes that children develop while learning are all included in learning behavior. It encompasses elements like study habits, involvement in the classroom, perseverance, goal-setting, accountability, time management, and readiness to ask for assistance. Positive learning behaviors are strongly associated with strong academic motivation: motivated students are more likely to engage in class activities, finish assignments on time, and look for extra resources to deepen their comprehension. According to this study, learning behavior contributes to the explanation of why boys and girls exhibit varying degrees of motivation. For instance, guys may participate more actively in class debates or exhibit more self-assurance while taking on challenging assignments, which improves their motivation scores. On the other hand, girls might experience anxiety, social expectations, or self-doubt, which can reduce their perceived motivation even when they work diligently. Thus, learning behaviour acts as a connecting bridge between motivation and gender differences.

1.5. Educational Psychology:

Educational psychology provides the theoretical foundation for understanding how students learn, what motivates them, and how gender influences their academic engagement. It integrates various theories related to motivation, behaviour, cognition, and environment. Concepts such as intrinsic and extrinsic motivation, reinforcement, self-efficacy, achievement goals, and emotional regulation are essential in explaining the academic functioning of students. This study is grounded in educational psychology because it examines motivation — a core psychological construct — through measurable variables such as gender, learning patterns, and behavioural responses. Understanding



academic motivation through a psychological lens helps educators identify why certain groups of students (boys or girls) show higher or lower levels of motivation and how classroom practices can be adjusted to support all learners.

2. REVIEW OF RELATED LITERATURE:

Over the past 20 years, there has been a substantial increase in research on academic motivation. Researchers contend that learning behavior, academic success, self-efficacy, and emotional health are all impacted by motivation. Ryan & Deci (2000) highlighted how gender, culture, and classroom environment influence motivational inclinations and made a distinction between intrinsic and extrinsic motivation. According to Eccles and Wigfield (2002), socialization patterns and parental expectations cause boys and girls to have different academic views and task values.

According to research conducted in India by Mishra (2018), Singh (2019), and Verma & Kumar (2020), secondary school boys frequently display greater academic confidence and task motivation, whereas girls typically display greater anxiety-driven effort and teacher-dependence. These conclusions are not general, though, since a number of research yield contradictory outcomes.

Previous studies show that:

- Boys frequently report greater academic self-concept;
- Motivation fades during adolescence regardless of gender.
- Cultural and school-related variables have a significant impact on motivation;
- Girls often exhibit higher levels of involvement but also higher levels of academic anxiety.

The material now in publication raises the possibility of gender disparities in academic motivation, however results differ. Using a standardized motivation survey among a balanced sample of boys and girls, the current study seeks to provide updated data.

3. OBJECTIVE OF THE STUDY:

- To assess the level of academic motivation among secondary school students.
- To compare academic motivation between boys and girls.

4. HYPOTHESIS

H₁: There is no significant difference in academic motivation between boys and girls at the secondary school level.

5. METHODOLOGY

5.1 Research Method: In this study descriptive survey approach was used, which is thought to be suitable for examining and contrasting psychological traits among sizable student populations. Using this approach, the researcher was able to analyse the disparities between boys and girls in secondary school and rigorously collect measurable data about academic motivation. This approach made it easier to evaluate students' academic motivation objectively in the current study as it occurs in a typical classroom setting. The descriptive technique proved appropriate for systematically collecting students' attitudes, perceptions, and motivational inclinations since academic motivation is impacted by a variety of internal and external factors. Additionally, the approach made it possible to gather data from a sizable sample, which improved the findings' representativeness and generalizability.

Additionally, systematic comparisons between male and female students were made feasible by the descriptive survey approach, which allowed for the identification of significant gender-based variations in academic motivation. Reliability and accuracy in interpreting results were guaranteed by the study's use of established processes for data collection and analysis. All things considered, the descriptive survey approach improved the study's scientific rigor and offered a solid methodological basis for investigating secondary school students' academic motivation.

5.2 Sample: Three hundred secondary school students from Kanpur schools affiliated with the CBSE made up the study's sample. There were 150 males and 150 girls in the group, so both sexes were equally represented. The participants were enrolled in Classes IX through XI and ranged in age from 15 to 17. To ensure that every member of the population had an equal chance of being selected, the students were picked using a straightforward random selection approach.

5.3 Tool Used: The K.S. Misra Academic Motivation Inventory (2021) was employed by the researcher to evaluate academic motivation. The 46 items in this tool are scored on a 5-point Likert scale that goes from "Strongly Agree" to "Strongly Disagree." Both positive and negative items from the inventory were graded in accordance with the manual's instructions. The instrument is ideal for the current sample because it was created especially for teenagers enrolled in Classes IX through XI. Strong psychometric qualities are shown by the inventory. High internal consistency and



reliability are shown by the tool's Split-Half Reliability of 0.875 and Cronbach's Alpha rating of 0.871 (N = 80). Additionally, its validity indices attest to its suitability for study.

5.4 Procedure: Formal consent was acquired from the relevant school authorities prior to data collection. Students were given the inventory in their usual educational environments. Participants were informed of the study's goal and given the assurance that their answers would be kept private and utilized only for scholarly purposes. The replies were scored using the scoring key once the inventory was finished. After being input into Microsoft Excel, the data was coded for statistical analysis. Using SPSS, the final analysis was completed in accordance with the inventory manual's scoring guidelines.

5.5 Statistical Techniques: Appropriate descriptive and inferential statistical methods were used to analyse the gathered data. To comprehend the distribution of academic motivation scores, the Mean and Standard Deviation were calculated. An Independent Samples t-test was used to compare the motivation levels of boys and females.

6. RESULTS

Gender	N	Mean	SD	t-value	df	Level of Significance
Boys	150	155.00	18.00			
Girls	150	140.10	18.40	7.09	298	P<.01

The study's findings showed distinct and significant disparities in secondary school-level academic motivation between males and girls. With a mean academic motivation score of 155.00 and a standard deviation of 18.00, male students demonstrated a comparatively high and steady level of motivation. Girls, on the other hand, showed a reasonably high but substantially lower level of academic desire, with a mean score of 140.10 and a standard deviation of 18.40. An Independent Samples t-test was used to assess the statistical significance of this mean score difference. At the 0.01 level, the calculated value of $t = 7.09$ with $df = 298$ was determined to be statistically significant. This indicates that there is very little possibility that the observed discrepancy happened by accident. As a result, the motivational differences between boys and girls are not arbitrary; rather, they represent a real and significant difference between the two groups. The size of the difference is likewise significant, suggesting that secondary school pupils' academic motivation is influenced by their gender. The results unequivocally demonstrate that guys are more motivated to succeed academically than girls. The conclusion that male and female students differ significantly in their drive to study and succeed academically is supported by the statistical significance and the significant difference in mean scores. As a result, the null hypothesis—which claimed that there is no discernible difference in academic desire between boys and girls—is rejected. The findings show that gender has a significant impact on secondary pupils' motivating levels.

7. DISCUSSION:

The results of this study provide important new information on the psychological and pedagogical factors affecting secondary school students' motivation. The findings unequivocally show that guys are more motivated to succeed academically than girls. This pattern is consistent with the findings of a number of previous research, which also found that males frequently exhibit better task engagement, stronger achievement drive, and more confidence in academic contexts. The kind of societal and familial demands that males face may be one reason for their greater academic desire. Boys are taught to be more aggressive, competitive, and focused on their careers in various cultural situations. Because they view males as future earners or decision-makers, families frequently place a higher value on their academic achievement. These demands might increase motivation by strengthening the desire to succeed. Academic anxiety might be another significant reason. According to earlier studies, girls are more likely than boys to feel self-doubt, emotional strain, and academic worry. Academic engagement, motivation, and attention can all be hampered by anxiety. High levels of worry or emotional stress may lower girls' motivation ratings even if they work hard. Girls may be more preoccupied with failure, criticism, or perfection, which might stifle their expression of motivation.

Furthermore, guys are frequently encouraged by social norms to display confidence, take greater chances, or actively engage in competitive academic assignments. Girls, on the other hand, could be socialized toward emotional sensitivity, discipline, and obedience. Higher motivation ratings on standardized questionnaires are not necessarily correlated with these traits, even when they encourage consistent academic behavior. Girls may be more motivated by relational and social-emotional elements than by specific goals of accomplishment. Emphasizing that lower motivation ratings do not imply inferior skill is equally crucial. Instead, many external influences, emotional issues, and academic



expectations may influence girls' motivation. Many girls achieve academic achievement while having lower levels of assessed desire, indicating that discipline, persistence, and organized study habits—rather than a strong motivational drive—are the reasons for their success. The study's findings emphasize how important it is for educators and institutions to take gender-related motivating factors into account. The results show that skill development, emotional empowerment, and supportive surroundings can boost females' academic enthusiasm. A balanced learning environment where boys and girls feel equally inspired, supported, and appreciated must be the goal of schools.

8. EDUCATIONAL IMPLICATIONS

The study's conclusions have a number of significant ramifications for educators, parents, school administrators, and educational officials.

1. Gender-sensitive teaching techniques

Teachers need to use teaching methods that take into account the distinct motivating styles of boys and girls. Boys do well in competitive, goal-oriented activities, but females could gain from group projects, emotional support, and encouraging comments.

2. Motivation-enhancement programs for girls

To boost girls' academic confidence, schools could provide leadership-building exercises, workshops, and motivating sessions. Their academic goals can also be strengthened by exposure to female role models in a variety of occupations.

3. Counselling and emotional support

Regular counselling sessions can help females handle academic pressure, lessen anxiety, and cultivate growth-oriented attitudes since emotional variables have a substantial impact on their motivation. Motivation levels can be positively impacted by psychological assistance.

4. Balanced teacher encouragement

Teachers may inadvertently give guys greater credit for their achievement-oriented behavior. In order to foster an environment in the classroom where females feel comfortable expressing their academic ability, teachers must intentionally encourage both genders equally.

5. Including self-efficacy skills in the curriculum

The curriculum should contain exercises that foster self-belief, goal-setting abilities, time management, and critical thinking. Students, particularly females, benefit from these programs by strengthening their intrinsic motivation.

6. Parental knowledge and sensitization

Parents ought to be advised against imposing gender-based norms. Girls' motivation can be greatly increased by giving them the same intellectual confidence as guys. Parents should encourage emotional support, positive reinforcement, and equitable chances.

9. CONCLUSION:

According to the study's findings boys exhibit greater levels of academic drive than girls. The results highlight how crucial it is to create learning settings that support motivation in both genders in a balanced manner. These findings can help educators, school counsellors, and legislators create programs that boost secondary school students' academic commitment and drive. The study's findings highlight the fact that academic motivation is impacted by a variety of psychological, social, and educational aspects rather than being only an individual characteristic. The observed difference in motivation between boys and girls might be attributed to differences in school experiences, social expectations, learning opportunities, and emotional support. In order to meet the varied motivating requirements of kids, regardless of gender, schools must implement inclusive and responsive tactics. The results also highlight how crucial it is to establish encouraging and stimulating learning settings that foster curiosity, self-assurance, and persistent academic effort in all students. By employing learner-centered pedagogical strategies, offering helpful criticism, and cultivating a good classroom environment, teachers play a critical role in encouraging motivation. School counsellors can also help children by addressing issues related to motivation, boosting self-confidence, and directing them toward achievable academic objectives. The study highlights the necessity for treatments and educational programs that take gender-related motivational differences into account from a policy standpoint. Administrators and curriculum designers should concentrate on creating educational opportunities that support fair participation, lessen pressure connected to performance, and foster intrinsic drive.

To sum up, the study offers insightful information on secondary school pupils' academic drive. Teachers and legislators may collaborate to promote balanced academic progress, increased engagement, and long-term educational achievement for all secondary school students by identifying and resolving gender-based motivational disparities.



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