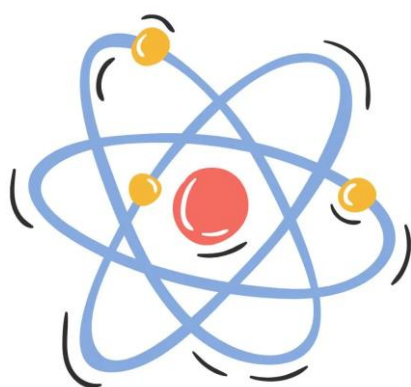




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HABIT OF HIGHER SECONDARY
LEVEL STUDENTS IN WEST BENGAL

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ASSESSMENT OF ACADEMIC ACHIEVEMENT ON PARENTAL ENCOURAGEMENT AND STUDY HABIT OF HIGHER SECONDARY LEVEL STUDENTS IN WEST BENGAL

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Abstract: *This research aims to compare the study habits and academic achievement of higher secondary level students under various categorical variables: Gender (Boys and Girls), Location of School (Rural and Urban), Stream (Arts and Science), and Family Type (Single and Joint). “Assessment Of Academic Achievement on Parental Encouragement and Study Habit of Higher Secondary Level Students in West Bengal” The study investigates how these factors influence the students’ approach to their studies and their overall academic performance. Study habits encompass the organization, time management, focus, and study techniques employed by students, while academic achievement is measured through students’ grades and performance on standardized tests. By employing a cross-sectional survey design, data will be collected from a diverse sample of students across different regions and school types. Statistical tools, such as t-tests, ANOVA, and chi-square tests, will be utilized to analyze the relationships between the categorical variables and both study habits and academic performance. The objective is to uncover patterns, trends, and differences that can offer insights into how gender, location, stream, and family type influence students’ educational experiences. The research is expected to contribute valuable information for educators, policymakers, and researchers, with the potential to inform strategies aimed at improving study habits and academic outcomes for higher secondary students. By understanding these influences, interventions can be designed to support students from diverse backgrounds, enhancing their academic success in higher secondary education.*

Key words – 1. Academic Achievement 2. Parental Encouragement 3. Study Habit 4. Secondary Level 5. Educational System

Introduction:

Academic achievement at the higher secondary level can be assessed using various performance indicators such as grades, test scores, and overall academic progress. These achievements are often influenced by multiple factors, including cognitive abilities, socio-economic status, school environment, and, significantly, parental encouragement and student study habits. Higher secondary education is a critical phase that significantly influences students' future educational and career opportunities. Academic achievement during this period is shaped by cognitive abilities and external factors like socio-economic status, school environment, and familial support. Among these, parental encouragement and effective study habits are particularly pivotal. Parental encouragement involves emotional, motivational, and practical support, such as helping with homework and fostering academic aspirations. Studies highlight that active parental involvement correlates with improved academic performance,

motivation, and attendance. Similarly, effective study habits—such as time management, goal setting, and active note-taking—are vital for academic success. These habits enhance learning efficiency and reduce stress, while poor habits often result in underachievement. Parental support and study habits are closely linked. Supportive parents create conducive learning environments, promote regular study routines, and guide effective study techniques. This not only improves study habits but also boosts students' confidence and motivation. Theoretical frameworks, including Bronfenbrenner's Ecological Systems Theory and Bandura's Social Learning Theory, underscore the influence of parental involvement on students' behaviors and academic outcomes. Research shows that strong parental encouragement and good study habits significantly enhance academic achievement. Understanding this relationship can guide interventions and policies to support students' educational journeys, fostering collaboration between parents, educators, and policymakers for improved academic outcomes.

Linking Parental Encouragement and Study Habits to Academic Achievement in Context of West Bengal

Studies show that positive parental reinforcement leads to higher levels of self-esteem, motivation, and academic success. If parents encourage and actively support learning, students are more likely to have a positive attitude toward education, resulting in better performance. Research consistently indicates that students with strong, consistent study habits achieve higher academic results. Habits such as regular revision, preparation for exams, and setting goals contribute to academic success. In West Bengal, as in many parts of India, education is highly valued, and there is often significant parental involvement. However, the level of involvement can vary by socio-economic background, family structure, and educational awareness. Additionally, the state has a unique educational system with its own curriculum, cultural expectations, and challenges such as limited access to resources in rural areas.

Significance of the Study:

This study holds significant implications for students, parents, educators, policymakers, and the academic community by examining the relationship between parental encouragement, study habits, and academic achievement among higher secondary students. For students, the study highlights the positive impact of parental support and disciplined study routines on academic success. It equips them with strategies like time management and active learning to enhance performance. Parents benefit by understanding how their involvement—through emotional support, setting expectations, and engaging in educational activities—can foster motivation and better academic outcomes for their children. Educators gain insights into how external factors influence student success, guiding them to design programs that encourage parental involvement and foster effective study skills. Workshops and curriculum enhancements can be informed by the study's findings. For policymakers, the research underscores the need for initiatives that promote parental engagement and support study habits. It provides evidence to advocate for reforms, such as community-based programs and resources for skill-building. The academic community benefits from the study's contribution to existing literature, offering a foundation for future research on the interplay of external influences and

academic performance. Overall, the study aims to improve educational outcomes, foster student success, and create a supportive learning environment for long-term achievement.

Objectives of the Study:

Objective – 1

To compare Study Habits of Higher Secondary Level Students under different categorical variables like Gender (Boys and Girls), Location of School (Rural and Urban), Stream (Arts and Science) and Family Type (Single and Joint).

Hypothesis of Studies as per 1st Objective

H01 , There would be no significant difference in Study Habits between Boys and Girls students at Higher Secondary Level.

H02 , There would be no significant difference in Study Habits between the students at Rural school and Urban school at Higher Secondary Level.

H03, There would be no significant difference in Study Habits between the students of Arts stream and Science stream at Higher Secondary Level.

H04, There would be no significant difference in Study Habits between the students came from Single and Joint Family at Higher Secondary Level.

Objective – 2

To compare Academic Achievement of Higher Secondary Level Students under different categorical variables like Gender (Boys and Girls), Location of School (Rural and Urban), Stream (Arts and Science) and Family Type (Single and Joint).

Hypothesis of Studies as per 2nd Objective

H01, There would be no significant difference in Academic Achievement between Boys and Girls students at Higher Secondary Level.

H02, There would be no significant difference in Academic Achievement between the students at Rural school and Urban school at Higher Secondary Level.

H03, There would be no significant difference in Academic Achievement between the students of Arts stream and Science stream at Higher Secondary Level.

H04, There would be no significant difference in Academic Achievement between the students came from Single and Joint Family at Higher Secondary Level.

Delimitations of the Study:

This study is confined to the state of West Bengal. The study focuses specifically on the districts of Paschim Medinipur and Purba Medinipur within West Bengal. This study is delimited to government-aided schools only. Class XI students are taken as the sample for this

study. This study is delimited to Bengali Medium schools only. The variables considered in this study are Gender, Location of the School, Stream and Family Type.

Review of Related Literature:

Survey of Related Writing is a basic examination and blend of existing exploration on a particular theme. It includes summing up, assessing, and coordinating applicable investigations to give setting and foundation to new research. The Audit of Related Writing assists with distinguishing research holes, guide strategic decisions, and lay out a hypothetical structure, subsequently upgrading the believability and pertinence of the review. It is fundamental for arranging new exploration inside the more extensive scholarly talk and illuminating future examinations. Survey of Related Writing is a deliberate and basic assessment of existing insightful work pertinent to a particular examination theme. It includes assembling, summing up, and assessing past examinations to develop an extensive outline of the present status of information in a specific region (Creswell, 2014). The significance of the Audit of Related Writing lies in its capacity to illuminate and uphold the examination cycle. It empowers analysts to approach their investigations inside the setting of existing information, guaranteeing that their work contributes genuinely to the field. Moreover, a very much led Survey of Related Writing improves the believability and significance of the exploration by exhibiting an intensive comprehension of the point and recognizing how the new review squeezes into the continuous scholarly discussion (Machi and McEvoy, 2016).

Methodology of the Study:

Research methodology is a crucial component of any systematic investigation, guiding the process from initial planning to the final analysis of results. It ensures that a study is conducted in a structured manner, thereby minimizing confusion and enhancing the reliability of findings. A well-formulated research methodology begins with a clear understanding of the research objectives. It lays out the plan for how these objectives will be achieved, detailing the design and techniques that will be employed to gather and analyse data. The research design is the blueprint of the study, outlining the approach to be taken in order to address the research questions or hypotheses. This design could be experimental, correlational, descriptive, qualitative, or quantitative, depending on the nature of the study and the goals set. The choice of design is critical as it influences how data will be collected and interpreted, ensuring that the research objectives are met effectively. For instance, a quantitative design may involve statistical analysis to test hypotheses, while a qualitative design may focus on in-depth understanding of phenomena through interviews or observations.

Population: All the Higher Secondary Students of Govt. aided schools of West Bengal were considered as the population of the study by the researcher.

Sample: The sample were selected randomly from the different schools of Purba and Paschim Medinipur districts. A total of 48 schools from Urban (Municipality) and Rural (Panchayat) areas of those chosen districts were chosen randomly. A total number of 678 Higher Secondary Students who are read in Class XI of Govt. aided schools under West Bengal Council of Higher Secondary Education (WBCHSE) were selected as sample for this study.

Analysis and Interpretation:

Research work is not finished solely by gathering data; rather, the analysis and interpretation of data are equally crucial steps in the research process. Tabulation, which involves documenting the number of different sorts of responses in the relevant categories, is an essential component of this process. Once data has been processed, it must be analyzed to determine the statistical significance of the formulated hypothesis. Analysis is an integral part of the research process, starting from the initial problem selection, through the technique determination, and culminating in the interpretation and drawing of conclusions from the collected data. The process of examining structured information to uncover inherent facts is referred to as data analysis. The data are thoroughly analyzed from multiple perspectives to uncover a limited number of facts. An aware, adaptable, and receptive mindset is necessary for analysis. Prior to the actual gathering of data, it is beneficial to develop a strategy of analysis.

Summary of the Data:

Gender	N (Number of Students)	Mean	Standard Deviation	Standard Error Mean
Boys	368	148.82	14.688	0.766
Girls	310	147.65	15.467	0.878

- ❖ **Boys:** The mean study habit score for boys is 148.82.
- ❖ **Girls:** The mean study habit score for girls is 147.65.
- ❖ This indicates that boys, on average, have slightly higher study habit scores compared to girls. **Standard Deviation (SD):**
- ❖ **Boys:** The standard deviation is 14.688, which suggests there is a moderate spread or variation in the study habit scores among boys.
- ❖ **Girls:** The standard deviation for girls is 15.467, which is slightly higher than that of boys, indicating a somewhat greater variability in study habits among girls.
- ❖ **Boys:** The standard error for boys is 0.766, which reflects how much the sample mean is likely to vary from the true population mean.
- ❖ **Girls:** The standard error for girls is 0.878, which is slightly higher than that of boys. This suggests that the sample mean for girls might be a little less precise.

Interpretation:

- ❖ **Mean Difference:** The difference between the mean study habit scores for boys (148.82) and girls (147.65) is quite small. While boys seem to have slightly better study habits on average, the difference is minimal.
- ❖ **Variability:** The slightly higher standard deviation for girls suggests that there may be more variation in how girls approach their studies compared to boys, but the difference is not very large.



- ❖ **Sample Size and Precision:** Both sample sizes (368 boys and 310 girls) are large enough that the standard errors are relatively small, indicating that the means for both groups are likely to be fairly accurate representations of the population.

		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)
Study Habits	Equal variances assumed	3.531	0.061	1.013*	676	0.312

The **p-value** (0.312) is **greater than 0.05**, meaning there is no statistically significant difference between the study habits of boys and girls. Thus, **we fail to reject the null hypothesis** of the t-test, implying that the difference in the mean study habits between boys (148.82) and girls (147.65) is not statistically significant.

	Stream	N	Mean	Std. Deviation	Std. Mean Error
Study Habits	Arts	432	150.09	15.781	.759
	Science	246	145.12	13.112	.836

Standard Error of the Mean (SE):

Arts: The standard error of the mean for Arts students is **0.759**, which reflects the precision of the mean for the Arts group.

Science: The standard error for Science students is **0.836**, which is slightly higher than that of Arts students, indicating that the estimate of the mean for Science students might be a little less precise.

Interpretation and Conclusion:

Mean Difference: The mean study habit score for Arts students (150.09) is higher than that of Science students (145.12), suggesting that, on average, Arts students have slightly better study habits.

Variability: Arts students show more variation in their study habits (higher standard deviation), while Science students exhibit less variability in their study habits.

Precision of the Mean: The standard error for Science students is a little higher, indicating that the average study habit score for Science students may be less precise in comparison to Arts students.

		Levene's Test for Equality of Variances		t-test for Equality of Means		
		F	Sig.	t	df	Sig. (2-tailed)
Study Habits	Equal variances assumed	1.661	0.198	0.504*	676	0.615

Since the **p-value (0.198)** is **greater than 0.05**, we **fail to reject the null hypothesis** of Levene's test. This means that the variances of study habits between Arts and Science students are **not significantly different**, so it is appropriate to assume **equal variances** for the subsequent t-test. The **p-value (0.615)** is **greater than 0.05**, which indicates that the difference in study habits between Arts and Science students is **not statistically significant**. Thus, we **fail to reject the null hypothesis** of the t-test, implying that the mean difference in study habits between the two groups is not large enough to be considered statistically significant.

Objective No.2

To compare Academic Achievement of Higher Secondary Level Students under different categorical variables like Gender (Boys and Girls), Location of School (Rural and Urban), Stream (Arts and Science) and Family Type (Single and Joint).

For fulfillment of the above mentioned objective, four null hypotheses were formulated and tested which were as follows:

H₀₁: There would be no significant difference in Academic Achievement between Boys and Girls students at Higher Secondary Level.

H₀₂: There would be no significant difference in Academic Achievement between the students at Rural school and Urban school at Higher Secondary Level.

H₀₃: There would be no significant difference in Academic Achievement between the students of Arts stream and Science stream at Higher Secondary Level.

H₀₄: There would be no significant difference in Academic Achievement between the students came from Single and Joint Family at Higher Secondary Level.

Groups: Boys and Girls Students

Number and Mean Ranks of Academic Achievement_Gender



	Gender	N	Mean Rank	Sum of Ranks
Academic Achievement	Boys	368	328.07	120728.00
	Girls	310	353.07	109453.00

Test Statistics of Academic Achievement_Gender

Academic Achievement	
Mann-Whitney U	52832.000
Wilcoxon W	120728.000
Z	-1.656
Asymp. Sig. (2-tailed)	.039

The results you've provided are from the **Mann-Whitney U test**, which is used to determine if there is a significant difference between the ranks of two independent groups (in this case, boys and girls) in terms of academic achievement. Let's break down the results:

Mann-Whitney U Test Results:

Mann-Whitney U: 52832.000

Wilcoxon W: 120728.000

Z-value: -1.656

Asymptotic Significance (p-value): 0.039

Interpretation of Results:

Mann-Whitney U:

The U statistic (52832.000) is the test statistic used to determine the difference in the ranks between the two groups (boys and girls). This value itself doesn't tell us whether the difference is significant, but it is used to calculate the Z value and p-value.

Wilcoxon W:

This is the sum of the ranks for one of the groups (in this case, for boys), and it was reported as **120728.000**. This is consistent with the sum of ranks you provided earlier for boys.

Z-value:

The **Z-value** of **-1.656** represents the standardized value of the Mann-Whitney U statistic. The negative sign indicates that the ranks for boys tend to be lower than those for girls. In this context, a negative Z value suggests that girls have higher academic achievement on average compared to boys.

Asymptotic Significance (p-value):

The **p-value** is **0.039**. Since this value is **less than 0.05**, it indicates that there is a **statistically significant difference** in academic achievement between boys and girls. This means that the difference in the ranks of boys and girls in terms of academic achievement is not due to chance.

Number and Mean Ranks of Academic Achievement_ Location of School

	Location of School	N	Mean Rank	Sum of Ranks
Academic Achievement	Rural	414	344.24	142517.00
	Urban	264	332.06	87664.00

Test Statistics of Academic Achievement_ Location of School

Academic Achievement	
Mann-Whitney U	52684.000
Wilcoxon W	87664.000
Z	-.790
Asymp. Sig. (2-tailed)	0.430

Mann-Whitney U:

The **U-statistic** of **52684.000** represents the result of the test comparing the ranks of Arts and Science students in terms of their academic achievement. The U-statistic by itself doesn't directly tell us whether the difference is significant.

Wilcoxon W:

This is the sum of the ranks for one of the groups (in this case, either Arts or Science students). The value is **87664.000**.

Z-value:

The **Z-value** is **-0.790**. A negative Z-value suggests that, on average, one group (in this case, Science students) tends to have lower ranks than the other group (Arts students). However, this value is relatively small, indicating a smaller difference between the two groups' academic achievements.

Asymptotic Significance (p-value):

The **p-value** is **0.430**, which is **greater than 0.05**. This suggests that there is **no statistically significant difference** in the academic achievement between Arts and Science students.

Number and Mean Ranks of Academic Achievement_Stream

	Stream	N	Mean Rank	Sum of Ranks
Academic Achievement	Arts	432	333.61	146710.00
	Science	246	345.31	83471.00

Test Statistics of Academic Achievement_Stream

Academic Achievement	
Mann-Whitney U	53090.000
Wilcoxon W	83471.000
Z	-.019
Asymp. Sig. (2-tailed)	0.046

Mann-Whitney U Test Results:

- **Mann-Whitney U:** 53090.000
- **Wilcoxon W:** 83471.000
- **Z-value:** -0.019
- **Asymptotic Significance (p-value):** 0.046

Interpretation of Results:

Mann-Whitney U:

The **U-statistic** of **53090.000** is the test statistic used to compare the ranks between boys and girls in terms of academic achievement. This statistic will help determine if there is a significant difference between the groups.

Wilcoxon W:

The **Wilcoxon W** statistic of **83471.000** is the sum of ranks for one of the groups (boys or girls). It represents how the ranks are distributed across the two groups.

Z-value:

The **Z-value** of **-0.019** is close to zero, indicating that there is almost no difference in the rank distribution between boys and girls. A Z-value near zero suggests that the two groups are fairly similar in terms of academic achievement.

Asymptotic Significance (p-value):

The **p-value** is **0.046**, which is **less than 0.05**. This indicates that the difference between the academic achievements of boys and girls is **statistically significant**.

- Since the **p-value (0.046)** is **less than 0.05**, we **reject the null hypothesis**, which means there is a statistically significant difference between the academic achievement of boys and girls.
- Even though the Z-value is very close to zero (indicating a minimal difference in ranks), the statistical significance (p-value) indicates that this small difference is unlikely to be due to chance.

Therefore, **there is a statistically significant difference** in academic achievement between boys and girls, with the exact nature of the difference depending on how the ranks are distributed.

Test Statistics of Academic Achievement_ Family Type

Academic Achievement	
Mann-Whitney U	55420.000
Wilcoxon W	115798.000
Z	-.788
Asymp. Sig. (2-tailed)	0.031

Mann-Whitney U:

The **U-statistic** of **55420.000** is the result of the comparison between the two groups, Arts and Science students, based on their academic achievement ranks.

Wilcoxon W:

The **Wilcoxon W** statistic, **115798.000**, represents the sum of ranks for one of the groups (either Arts or Science students).

Z-value:

The **Z-value** of **-0.788** is close to zero, suggesting that the difference in academic achievement ranks between Arts and Science students is not large. A Z-value close to zero indicates a small effect size.

Asymptotic Significance (p-value):

The **p-value** is **0.031**, which is **less than 0.05**. This indicates that there is a **statistically significant difference** in the academic achievement between Arts and Science students.

Major Findings of the Study:

Major Findings of the Research:

Study Habits:

- ❖ **Gender:** There was no significant difference in study habits between boys and girls.
- ❖ **Location:** No significant difference in study habits was found between students from rural and urban schools.
- ❖ **Stream:** No significant difference was found in study habits between Arts and Science students.

- ❖ **Family Type:** There was a significant difference in study habits between students from single and joint families, with the family type influencing study habits.

Academic Achievement:

- ❖ **Gender:** A significant difference was found in academic achievement between boys and girls, with girls showing higher achievement.
- ❖ **Location:** No significant difference in academic achievement was observed between students from rural and urban schools.
- ❖ **Stream:** No significant difference in academic achievement was found between Arts and Science students.
- ❖ **Family Type:** There was a significant difference in academic achievement between students from single and joint families, with family type influencing academic performance.

Implications of Findings:

- ❖ **Study Habits** were influenced by **family type**, suggesting that students from joint families may have different support systems or routines compared to those from single families, which can impact their study habits.
- ❖ **Academic Achievement** was influenced by **gender** and **family type**, with girls achieving higher academic performance than boys, and students from joint families showing different levels of achievement compared to those from single families.
- ❖ These findings provide useful insights for educators and policymakers to target areas where students may need additional support, particularly in terms of family dynamics and gender differences. The major findings of the study are presented below, organized according to the objectives formulated for the research. These findings illuminate the intricate relationships among parental encouragement, study habits, and academic achievement among higher secondary students, providing valuable insights for educators, parents, and policymakers.
- ❖ The study found a strong positive correlation between parental encouragement and the development of effective study habits. Parents who actively participated in their children's academic lives fostered better organizational skills, time management, and self-discipline. Schunk and Pajares (2002) noted similar findings, emphasizing that parental support enhances students' motivation to adopt productive study behaviors. Parents who set clear expectations and provided consistent feedback significantly influenced their children's ability to develop structured and effective study routines. Conversely, a lack of parental involvement was associated with weaker study habits and lower academic performance.
- ❖ **Workshops and Training for Parents:** Schools should organize sessions to educate parents on providing emotional, motivational, and practical support. Parents can learn strategies like setting achievable goals, fostering self-discipline, and creating conducive learning environments (Fan & Chen, 2001).
- ❖ **Targeted Support for Rural Families:** Rural parents often lack awareness or resources. Community-based programs can help equip them with tools to actively engage in their children's education, addressing the urban-rural gap.
- ❖ **Integrating Study Skills into the Curriculum:** Teaching time management, goal-setting, and active learning strategies, such as self-testing, should be part of regular schooling (Zimmerman, 2002).

- ❖ **Customized Interventions:** Tailor educational programs to address gender differences in study habits. For example, boys can benefit from learning organizational skills, while girls might need encouragement to engage in STEM-related activities.
- ❖ **Fostering Inclusive Learning:** Encourage both genders to explore diverse fields, promoting balanced academic and career choices.

Recommendations of research

Based on the findings of this research comparing the study habits and academic achievement of higher secondary level students under different categorical variables (Gender, Location of School, Stream, and Family Type), the following recommendations are proposed:

Tailored Study Habit Interventions:

Gender-Specific Approaches: Develop gender-sensitive study habit programs that acknowledge the unique learning styles and challenges faced by boys and girls. For example, if it is found that one gender tends to benefit from collaborative learning while the other performs better with self-paced study methods, interventions can be customized accordingly.

Location-Based Study Support: Schools in rural areas may face different challenges such as fewer resources and less access to technology. Tailored programs could include workshops on time management, organizational skills, and techniques for overcoming limited access to resources. In contrast, urban students might benefit from programs focusing on how to combat distractions and improve focus.

Encouraging Balanced Academic Streams:

Cross-Stream Collaboration: Foster collaboration between Arts and Science stream students through study groups or mentorship programs. Students from one stream may provide insights or alternate approaches to learning that could benefit others. For example, Arts students could be encouraged to adopt more logical problem-solving methods used in the Science stream, and Science students could enhance creativity by learning from the Arts stream.

Stream-Specific Resources: Offer resources tailored to the specific needs of each stream, such as subject-specific workshops, study tools, and practice tests. This could help students focus on the unique demands of their stream while also ensuring they adopt effective study habits.

Support for Family Type Differences:

Single Family Support Programs: Students from single-parent families may face additional emotional or financial challenges that can impact their study habits and academic achievement. Schools can offer counseling services, study groups, or peer support networks to help these students manage their academic responsibilities effectively.

Strengthening Family Engagement for Joint Family Students: Students from joint families may benefit from structured family involvement in their academic life. Schools could create programs that encourage family members to support study routines and set up study-friendly

environments at home. For example, family workshops on how to foster a positive and quiet study environment can be helpful.

Holistic Academic Achievement Monitoring:

Personalized Learning Plans: Based on the findings, schools should consider developing personalized learning plans that incorporate students' individual study habits and strengths. For instance, students who are more structured in their approach may excel in certain subjects, while others may benefit from more hands-on or creative study techniques.

Early Identification and Support Systems: Identify students who may be falling behind due to poor study habits or academic struggles. Provide early intervention programs that focus on improving study techniques, organization, and time management.

Further Research and Continuous Monitoring:

Longitudinal Studies: Conduct longitudinal studies to track how study habits and academic achievements evolve over the course of the higher secondary education years. This will help in identifying trends and patterns that may not be evident in a one-time survey.

Broader Sample Groups: Expand the research sample to include a more diverse range of schools, students from different socio-economic backgrounds, and other external factors that may impact study habits and academic achievement. This will allow for more generalizable findings and comprehensive recommendations.

Teacher and Educator Training:

Professional Development: Provide training for teachers on recognizing the unique challenges that students face based on gender, location, stream, and family type. Teachers should be equipped with the skills to adapt their teaching methods to suit the varying study habits and needs of their students.

Inclusive Learning Environments: Encourage the creation of inclusive and supportive learning environments that cater to the diverse needs of students from different backgrounds. Promoting equality and accessibility in education can help bridge any gaps between students from urban or rural schools, or from single and joint families.

Conclusion:

A **significant difference** in academic achievement was found between boys and girls, with girls outperforming boys. This result indicates that gender plays a significant role in academic success, with girls achieving higher academic outcomes at the higher secondary level. There was **no significant difference** in academic achievement between students from rural and urban schools. This suggests that the location of the school (whether rural or urban) does not significantly influence academic performance at the higher secondary level. There was **no significant difference** in academic achievement between Arts and Science students. Both streams showed similar levels of academic performance, suggesting that the choice of academic stream does not directly affect academic achievement at this level. A **significant difference** in

academic achievement was found between students from single and joint families, indicating that family structure influences academic success. Students from joint families may benefit from more family support and resources that contribute to their academic performance. The family type significantly affects students' study habits, with students from joint families showing different study behaviors compared to those from single families. However, gender, school location, and stream did not show a significant impact on study habits. **Academic Achievement: Gender and family type** significantly influenced academic achievement. Girls outperformed boys, and students from joint families performed better academically than those from single-family structures. However, the location of the school and the stream did not show a significant effect on academic achievement. These findings highlight the importance of **family structure** in both study habits and academic achievement, suggesting that **family support systems** are crucial in shaping students' academic outcomes. Additionally, gender differences in academic achievement suggest that more attention may be needed to address the factors that contribute to the academic success of boys and girls differently. These findings highlight the importance of **family structure** in both study habits and academic achievement, suggesting that **family support systems** are crucial in shaping students' academic outcomes. Additionally, gender differences in academic achievement suggest that more attention may be needed to address the factors that contribute to the academic success of boys and girls differently.

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