

Impact Of Self-Efficacy On Academic Achievement Of Secondary School Students

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KEYWORDS

Self-efficacy
academic
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secondary school
students

ABSTRACT:

Previous studies have highlighted the crucial role of self-efficacy in shaping students' learning outcomes and academic success. Self-efficacy refers to a person's confidence in their capacity to complete a particular task successfully. The goal of this paper is to explore the processes through which self-efficacy develops, its impact on students' academic performance, and how it affects their social interactions with peers. By understanding the development of self-efficacy, we can better comprehend how it shapes students' confidence in their academic abilities, how they approach challenges, and how it affects their relationships with classmates and their overall academic environment. This paper will also consider the role of teachers, feedback, and personal experiences in fostering self-efficacy and supporting students in their academic journeys. The study sample comprised secondary school students enrolled in CBSE schools under the Central Government in the Vijayawada region, Krishna District, Andhra Pradesh. A total of 100 9th-grade students were selected, representing both rural and urban areas within the district. The findings from the entire sample indicate that these students exhibit a constructive learning approach, with their performance falling above the average level.

INTRODUCTION

The secondary stage of education is a pivotal phase in a student's academic journey, as the achievements during this time are often seen as indicative of their potential for future success. Decisions about which academic stream to choose, the subjects to study, and the school to attend are frequently influenced by the performance and outcomes during this stage. Several factors pedagogical, psychological, social, and cognitive play a role in shaping a student's academic achievement at this level. Academic success in secondary school not only reflects the effectiveness of the teaching-learning process but also serves as a barometer for further educational opportunities. Therefore, improving academic achievement remains a key focus, and this necessitates an exploration of the various factors that influence it.

While many of these factors have been studied, one area that remains relatively underexplored is the impact of Positive Psychology on academic performance. Positive Psychology is a relatively new domain that focuses on promoting positive traits and well-being, rather than simply addressing negative behaviors. Given the lack of substantial research in this area, the researcher has chosen to examine the effects of three key positive psychology variables Flow, Self-Efficacy, and their impact on academic achievement at the secondary school level.

Adolescents face numerous challenges during this phase, driven by significant physical, emotional, and social changes. These challenges include body image concerns, parental expectations, peer pressure, and the quest for self-identity, all of which can impact their academic performance and overall well-being. Interventions grounded in empirical research are essential to help mitigate the negative effects of these challenges. By focusing on the development of positive psychological traits such as Flow (a state of deep engagement and focus) and Self-Efficacy (the belief in one's ability to succeed), interventions can enhance students' emotional resilience, academic motivation, and mental well-being.

The secondary school years are especially crucial as student's transition into adolescence, a period marked by profound changes. In this context, Positive Psychology offers a potential solution to nurture the development of balanced personalities, with an emphasis on building strengths and fostering positive traits. While traditional behavioral psychology often centers on reducing negative behaviors,

Positive Psychology shifts the focus toward enhancing positive aspects of the self. This can be particularly beneficial in addressing the emotional and psychological complexities of adolescence. The research aims to investigate how positive traits such as Flow and Self-Efficacy influence academic achievement in both private and government-aided secondary school students. The findings could provide valuable empirical evidence on the role of these traits in academic success, guide the creation of intervention programs for students facing challenges, and explore the feasibility of integrating a positive psychology framework into the Indian education system. By doing so, this study seeks to contribute to the broader field of education and offer insights into fostering both academic success and mental well-being among students.

This research is a step toward filling the gap in understanding how positive psychology variables can enhance academic achievement, especially in the context of Indian education. By focusing on nurturing positive traits, it is possible to not only improve academic outcomes but also contribute to the development of happier, more balanced individuals.

II - Literature Review

Kocak, Goksu, and Goktas (2021) tried to find the factors and establish their impact on academic achievement through a series of papers that included meta-analyses. As discovered by the results, several variables evaluated in the socio demographic, socioeconomic, psychological, and family type, teaching strategies and learning theories and individual characteristics categories were more significant than the number of variables evaluated in the other types.

Brew et al. (2021) conducted a review study on students' academic performance at Senior High Schools and the many elements that influence students' achievement. According to the findings of the findings, students' truancy, parental levels of education and income, textbook availability and accessibility, libraries, practical laboratories, meals, and teachers are all factors that should be monitored and adjusted regularly to meet their needs and aspirations study. As a result, students' academic performance will be significantly improved, allowing them to attain their life goals in the long run.

Rajapakshe (2021) found the link between academic procrastination and student personality qualities, for instance self efficacy and motivation for determining the influence of graduates in non-state universities in Sri Lanka on academic performance. Simple Random Sampling was used to pick data from 381 students from 3 non-state universities in Sri Lanka. In order to establish relationships between autonomy, motivation and academic performance mediating with academic progression, the structural equation model was employed. The results showed that the academic delay mediates between self-efficacy and motivation and has a direct influence on academic success. In addition, the data show that self-efficacy and motivation have no direct effect on academic achievement.

Kogei (2021) explored if self-efficacy and motivation predict and to what extent academic success. The results variable was academic performance and the predictor factors were motivation and self-efficacy. The academic achievement of the students was assessed using exam data collected from schools. In testing interrelationships between variables, The study recommended that all academic stakeholders work together to provide conducive environments for student motivation and self efficiency development and appropriate interventions in schools, in particular for girls to help reduce the existing gender differences with regard to studies.

Bertills, Granlund, and Augustine (2021) notably by students with impairments whose involvement in physical activities is limited outside school. Meaningful learning experiences seem to be generated through encouraging involvement and boosting ability beliefs (PE-specific self-efficacy). The school of resources to encourage socio cognitive abilities of children is likely to lead to overall beneficial outcomes in schools

Bhati and colleagues (2022) discovered that academic self-efficacy significantly influences students' academic performance. Their study found that science students with higher academic self-efficacy tended to achieve better academic results than those who reported lower levels of self-efficacy.

III -RESEARCH METHODOLOGY

Research Questions:

1. Do adolescent students differ in their levels of self-efficacy?
2. Do adolescent students show variations in their academic achievement levels?
3. How do factors such as gender, residential area, type of school management, and parental occupation influence the self-efficacy and academic achievement of secondary school students?

Let me know if you want to further refine this!

TITLE OF THE STUDY

“Impact of Self-Efficacy on Academic achievement of Secondary School Students”.

VARIABLES OF THE STUDY

A. Independent Variables

Self-Efficacy

B. Dependent Variables

Academic achievement

C. Demographical Variables

- | | |
|------------------------|---------------------------------|
| a) Gender | : Boys/Girls |
| b) Residential Area | : Rural/Urban |
| c) Type of Management | : Government/Private |
| d) Parental Occupation | : Professional/Non Professional |

OBJECTIVES OF THE STUDY

1. To study the level of Self - Efficacy of the adolescent students
2. To study the influence of the following demographic variables on the Self - Efficacy of the Secondary School Students.
 - a. Gender : Boys/Girls
 - b. Residential Area : Rural/Urban
 - c. Type of Management : Government/Private
 - d. Parental Occupation : Professional/Non Professional
3. To study the level of Academic achievement of the Secondary School Students.
4. To study the influence of following demographic variables on the Academic achievement of Secondary School Students:
 - a. Gender : Boys/Girls
 - b. Residential Area : Rural/Urban
 - c. Type of Management : Government/Private
 - d. Parental Occupation : Professional/Non Professional
5. To study the relationship between Self-Efficacy and Academic Achievement of Secondary School Students.

HYPOTHESIS OF THE STUDY

1. There would be no significant difference between boys and girls among Secondary School Students in their Self-Efficacy.
2. There would be no significant difference between Secondary School Students from rural and urban areas in their Self-Efficacy.
3. There would be no significant difference between Secondary School Students studying in government and private schools in their Self-Efficacy.
4. There would be no significant difference between professional and non-professional parents in their Self-Efficacy.
5. There would be no significant difference between boys and girls among Secondary School Students in their Academic Achievement.
6. There would be no significant difference between Secondary School Students from rural and urban areas in their Academic Achievement.
7. There would be no significant difference between Secondary School Students studying in government and private schools in their Academic Achievement.

8. There would be no significant difference between professional and non-professional parents in their Academic Achievement.

9. There would be no significant relationship between Self-Efficacy and Academic Achievement among Secondary School Students.

Method of the Study

This method involved administering questionnaires and tests to students, with the collected scores being analyzed for significant differences across various variables. A survey method like this requires meticulous planning, an expert approach to data analysis, and careful interpretation of the findings. Additionally, it necessitates logical, well-structured reporting to effectively communicate the results.

Population of the Study

The study focused on secondary school students enrolled in both government and private schools across rural and urban areas of Vijayawada, Krishna District, Andhra Pradesh. From the overall population, samples of 1,000 students (representing 1.90% of the total population) from the 9th grade were selected for inclusion in the present research.

Sampling Techniques

A stratified random sample of 1,000 9th-grade secondary school students from the Guntur district in Andhra Pradesh was chosen for this study.

Scope of the Study

The study focused on secondary school students enrolled in Central Government-run CBSE schools in Vijayawada, Krishna District, Andhra Pradesh. A representative sample of 1000 students from standard IX was selected from various regions within the district to participate in the research. To ensure diversity and representativeness, the researcher employed a stratified random sampling technique, taking into account factors such as birth order, locality, gender, and the type of school management. This approach was designed to capture a broad spectrum of student characteristics and provide more accurate and generalizable findings.

Statistical Techniques used for the Study

The Investigator collected raw scores after conducting calculations with the assistance of a scoring key. To make sense of the raw data and draw meaningful conclusions, it is essential to organize, summarize, and analyze the data using appropriate statistical methods. The Investigator employed various statistical techniques to interpret the raw scores effectively.

The statistical methods used for data analysis include:

1. Arithmetic Mean
2. Standard Deviation
3. Percentage of Mean
4. t-test and r-value –
5. ANOVA Analysis

III – DATA ANALYSIS

Self-Efficacy - Variable wise Analysis

Hypothesis 1: (Testing of Hypothesis)

Table – 1 Self-Efficacy –Gender wise Analysis

Gender	Sample size	Mean	% of mean	SD	SED	't' Value
Boys	500	68.39	68.39	11.47	0.72	4.80*
Girls	500	71.85	71.85	11.89		

*Significant at

t 0.05 level & Table value 1.96

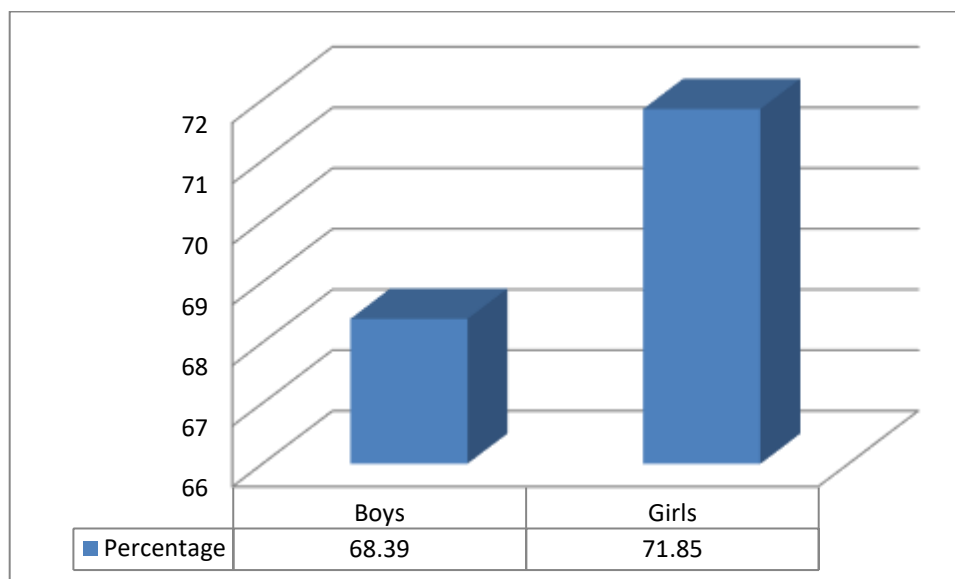


Fig 1. Self-Efficacy –Gender wise analysis

Observation: The data reveals that the total student population consists of 1000 students, split equally between boys and girls (500 each). The mean score for boys is 68.39 with a standard deviation of 11.47, while the mean score for girls is 71.85, with a standard deviation of 11.89. The percentage of the mean for boys is 68.39%, and for girls, it is 71.85%. The standard error of the difference (S.E.D.) is 0.92, and the calculated "t" value is 4.80. Since the obtained "t" value surpasses the critical value of 1.96 at the 0.05 significance level, the difference between boys' and girls' scores is statistically significant.

Interpretation: The "t" value of 4.80 exceeds the critical value of 1.96, indicating that the observed difference between boys and girls in terms of their academic self-efficacy is statistically significant at the 0.05 level. This leads us to reject the null hypothesis. Therefore, the results suggest that girls have higher levels of self-efficacy compared to boys, as evidenced by their higher mean scores.

Discussion: These findings highlight a notable gap in academic self-efficacy between boys and girls, with girls outperforming boys. This suggests a need for targeted interventions to enhance boys' confidence in their academic abilities. Educational strategies that focus on boosting self-efficacy among boys could be essential. For example, teachers can implement specialized training that helps boys recognize and develop their strengths, providing them with the tools and mindset necessary to overcome challenges.

Moreover, creating an inclusive and supportive classroom environment is key to fostering a growth mindset. By ensuring that boys feel valued, capable, and empowered to succeed, teachers can help them build greater resilience in the face of academic difficulties. Encouraging self-reflection, setting achievable goals, and offering positive reinforcement are ways to improve students' self-perceptions and academic engagement. In the long term, this can enhance boys' academic performance and overall motivation, creating a more equitable academic experience across genders.

Hypothesis 2: (Testing of Hypothesis)

Table -2 Self-Efficacy –Residential Area wise analysis

Residential Area	Sample size	Mean	% of mean	SD	SED	't' Value
Rural	500	71.24	71.24	11.03	0.57	1.38 ^{NS}
Urban	500	70.45	70.45	11.32		

NS: Not significant at 0.05 level & Table value 1.96.

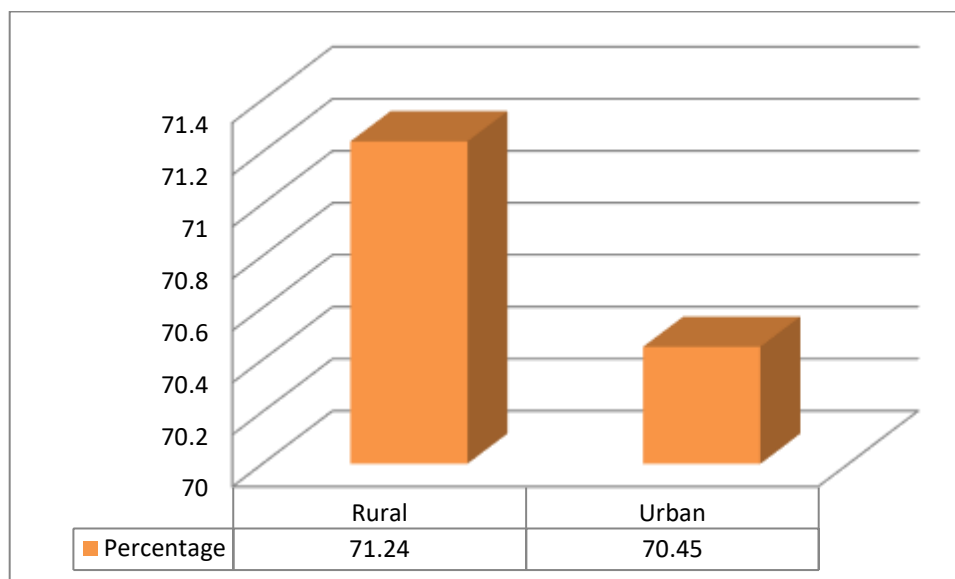


Fig 2. Self-Efficacy –Residential Area wise analysis

Interpretation: The data shows a total of 1,000 students, with an equal split between rural and urban students (500 in each group). Rural students have a mean score of 71.24 and a standard deviation of 11.03, while urban students have a slightly lower mean score of 70.45 and a standard deviation of 11.32. The Standard Error of Difference (SED) is 0.57, and the calculated "t" value is 1.38. Since this value is smaller than the critical value of 1.96 at the 0.05 significance level, the difference between the two groups is not statistically significant.

Findings: The "t" value of 1.38 is below the critical value of 1.96 at the 0.05 significance level, meaning the difference in self-efficacy between rural and urban students is not statistically significant. As a result, we fail to reject the null hypothesis, which indicates that both rural and urban students demonstrate similar levels of self-efficacy. These findings suggest that there is no meaningful difference between the two groups in terms of their self-belief in academic performance.

Discussion: The results suggest that both rural and urban students exhibit similar levels of self-efficacy, challenging the idea that geographical location might influence students' perceptions of their ability to succeed. One key factor contributing to self-efficacy is the belief that educators are supportive and believe in their students' potential. To foster a growth mindset culture, educators can establish clear expectations that abilities develop through effort, responsiveness to feedback, and persistence in learning strategies. Emphasizing this mindset throughout the term helps combat fixed beliefs about abilities, empowering students to enhance their self-efficacy.

Hypothesis 3: (Testing of Hypothesis)

Table -3 Self-Efficacy – Type of Management analysis

Type of Management	Sample size	Mean	% of mean	SD	SED	't' Value
Government	500	69.89	69.89	11.43	0.46	0.34 ^{NS}
Private	500	70.05	70.05	11.37		

NS: Not significant at 0.05 level & Table value 1.96.

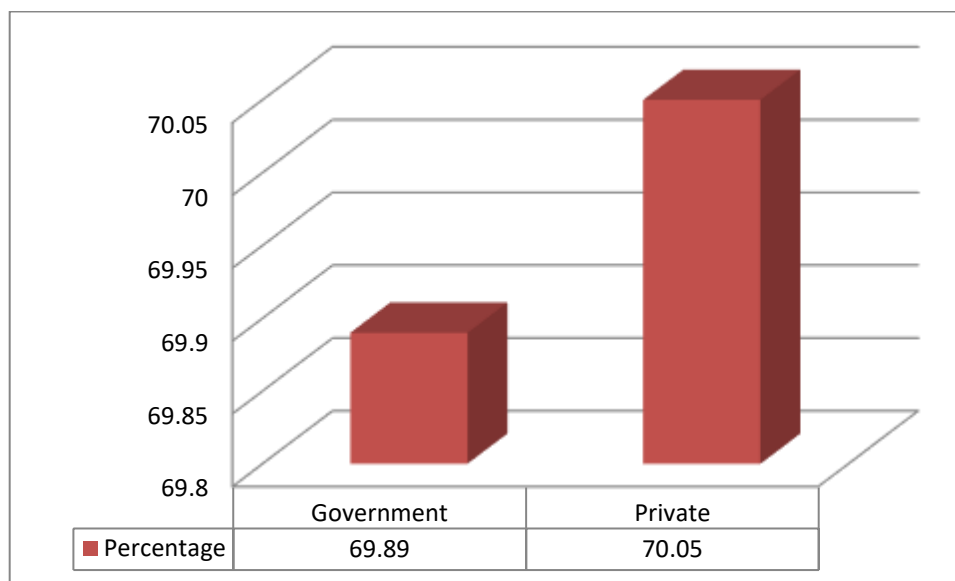


Fig 3: Self-Efficacy –Type of Management wise analysis

Interpretation: The data presented in the table involve 1,000 students, with equal representation from both government (500 students) and private (500 students) schools. The mean self-efficacy score for government school students is 69.89, with a standard deviation of 11.43. In comparison, private school students have a mean self-efficacy score of 70.05 and a standard deviation of 11.37. The Standard Error of Difference (SED) between the two groups is 0.46, and the calculated t-value is 0.34. This t-value is lower than the critical value of 1.96 at the 0.05 significance level, which suggests that the difference between the self-efficacy scores of government and private school students is not statistically significant.

Findings: Given that the obtained t-value (0.34) is smaller than the critical t-value (1.96) at the 0.05 significance level, we conclude that there is no significant difference in self-efficacy between government and private school students. As a result, we fail to reject the null hypothesis, indicating that the self-efficacy levels of both groups are comparable and not meaningfully different.

Discussion:

The results suggest that government and private school students display similar levels of Self-Efficacy. One important factor that can influence students' Self-Efficacy is peer modeling. Peer modeling plays a crucial role in enhancing students' beliefs about their abilities, often being more effective than teacher modeling. This is particularly true when students identify with their peers, especially those who initially struggle or express doubt about their own abilities. These "coping" models, who show resilience in the face of challenges, can provide more relatable examples for students than "mastery" models who perform tasks flawlessly and express high confidence.

Teachers can support students by encouraging the use of coping models, highlighting how these students overcome setbacks and develop their skills over time. By identifying suitable coping models from within the class, teachers can create an environment where students see progress through effort and perseverance rather than perfection. This approach can help build more realistic and attainable Self-Efficacy beliefs, particularly for students who may otherwise doubt their abilities.

In conclusion, while there is no significant difference in Self-Efficacy between government and private school students, the role of peer modeling is an important factor to consider in fostering student confidence and achievement across different school settings.

Hypothesis 6: (Testing of Hypothesis)

Table – 4 Self-Efficacy –Parental occupation wise Analysis

Parental occupation	Sample size	Mean	% of mean	SD	SED	't' Value
Professional	450	71.45	71.45	11.49	0.68	3.72*
Non Professional	550	68.92	68.92	11.38		

**Significant at 0.05 level & Table value 1.96.

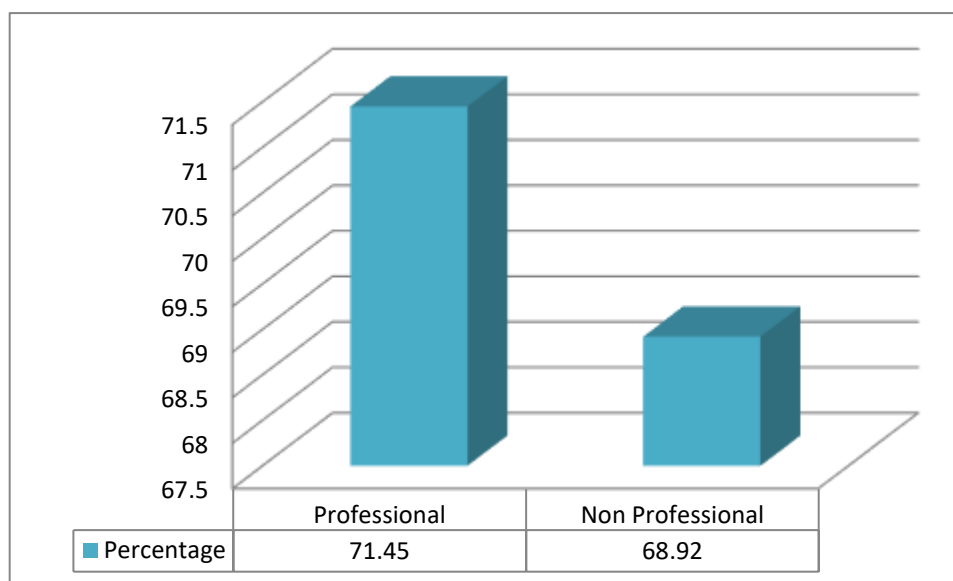


Fig 4: Self-Efficacy –Parental occupation wise Analysis

Interpretation: From the data presented, we can conclude that the total student sample consists of 1,000 individuals, with 450 students having professional parents and 550 students having nonprofessional parents. The average self-efficacy score for students with professional parents is 71.45, with a standard deviation of 11.49, while the average self-efficacy score for students with nonprofessional parents is 68.82, with the same standard deviation of 11.49. The standard error of the difference (S.E.D.) is 0.68, and the t-value is 3.72, which is statistically significant at the 0.05 level.

Finding: The t-value of 3.72 exceeds the critical value of 1.96 at the 0.05 significance level, indicating a statistically significant result. As a result, we reject the null hypothesis regarding "Parental Occupation." This suggests that there is a meaningful difference in self-efficacy between students with professional and nonprofessional parents, with students from professional backgrounds showing higher self-efficacy scores. Thus, the data suggests that parental occupation has a notable effect on students' self-efficacy.

Discussion

The above findings suggest that professional parents tend to have higher levels of self-efficacy. Adolescence is a time of significant change, often leading to shifts in self-esteem and feelings of self-worth. As adolescents begin to assert their growing autonomy in school and extracurricular activities, they are exposed to the broader world beyond the family, where they compare themselves to peers, meet others' expectations, and develop ways of responding to challenges and learning opportunities. During this period, relationships with parents, peers, and teachers are typically more positive, contributing to healthier self-esteem.

For adolescent girls, physical appearance plays a key role in shaping self-esteem (Harter, 2006). Harter's research consistently showed that physical attractiveness is closely linked to overall self-esteem. In society, physical appearance is often seen as a more relevant factor for assessing girls than for boys. Attractive girls are often viewed as more feminine, and they tend to receive better treatment, more help, and more positive evaluations, including in work settings. On the other hand, less attractive girls may experience feelings of loneliness and stigmatization. This suggests that girls, especially those who might not fit traditional beauty standards, benefit from strong parental support to help them navigate challenges such as failure and disappointment. Such support is crucial in fostering resilience, encouraging them to persevere through difficult tasks, and ensuring they are better equipped to cope with setbacks.

Academic achievement - Variable wise Analysis

Objective - 3

To find out the influence of following demographic variables on the Academic achievement of the adolescent students i.e., we can look at the following factors: Gender, Residential Area, Type of

Management, and Parental Occupation. Each of these variables may have distinct impacts on student performance. Here's an outline of how these factors could influence academic outcomes:

Hypothesis 5: (Testing of Hypothesis)

Table -5 Academic achievement –Gender wise Analysis

Gender	Sample size	Mean	% of mean	SD	SED	't' Value
Boys	500	70.34	70.34	13.65	0.98	4.39*
Girl	500	74.65	74.65	14.34		

*Significant at 0.05 level & Table value 1.96.

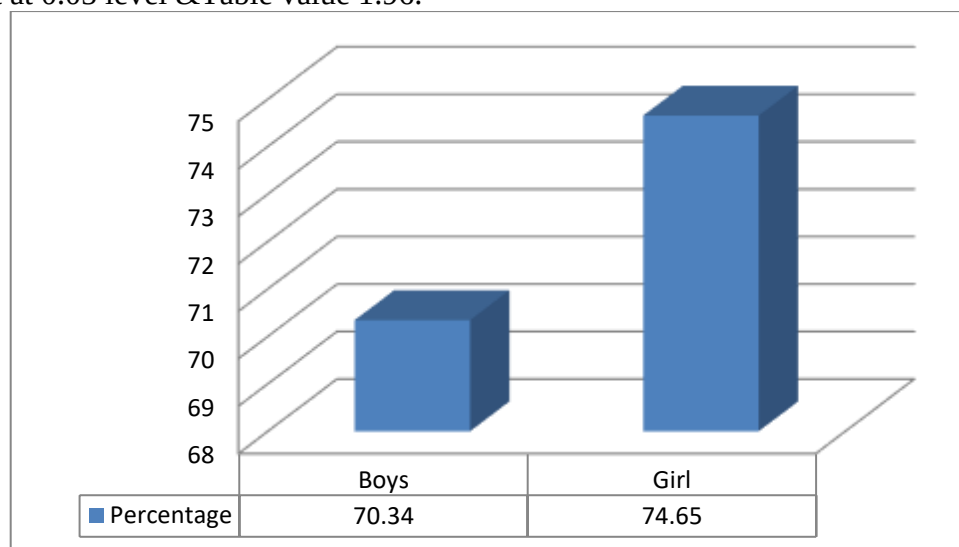


Fig-5: Academic achievement –Gender wise analysis

Observation:

The dataset comprises 1,000 students, equally split between boys and girls (500 each). Boys have an average score of 70.34 with a standard deviation of 13.65, while girls have an average score of 74.65 with a standard deviation of 14.34. The standard error of difference (SED) is 0.98, and the calculated t-value is 4.39, which is significant at the 0.05 level.

Interpretation:

The t-value of 4.39 exceeds the critical value of 1.96 at the 0.05 significance level, indicating a statistically significant difference between the academic performance of boys and girls. Therefore, we reject the null hypothesis, which suggests no difference between the two groups. This result suggests that girls, on average, perform better academically than boys in this sample.

Discussion

The findings indicate that girls tend to have better academic achievements compared to boys. Several factors might contribute to this outcome. One possible reason is that girls often have more positive role models in academic settings, which can inspire them to set higher goals and work towards them. The presence of female role models in schools can foster ambition and motivation in young girls, encouraging them to excel academically.

Moreover, girls are often more meticulous when it comes to schoolwork. They tend to pay closer attention to detail, prioritize the quality of their work, and are generally better at managing their time and meeting deadlines. These traits can lead to better academic performance.

Another factor may be the way boys and girls are perceived and treated by teachers. Girls are often seen as more cooperative, quieter, and diligent in their studies, which might lead to teachers providing them with more positive reinforcement. On the other hand, boys may sometimes be labeled as disruptive or difficult to manage, which could negatively affect their academic outcomes. This can result in a self-fulfilling prophecy, where girls' positive behaviors are reinforced and boys' negative behaviors are emphasized.

Hypothesis 6: (Testing of Hypothesis)

Table -6 Academic achievement – Locality wise Analysis

Locality	Sample size	Mean	% of mean	SD	SED	't' Value
Rural	500	71.91	71.91	11.82	0.67	4.47*
Urban	500	74.48	74.48	10.34		

*Significant at 0.05 level & Table value 1.96.

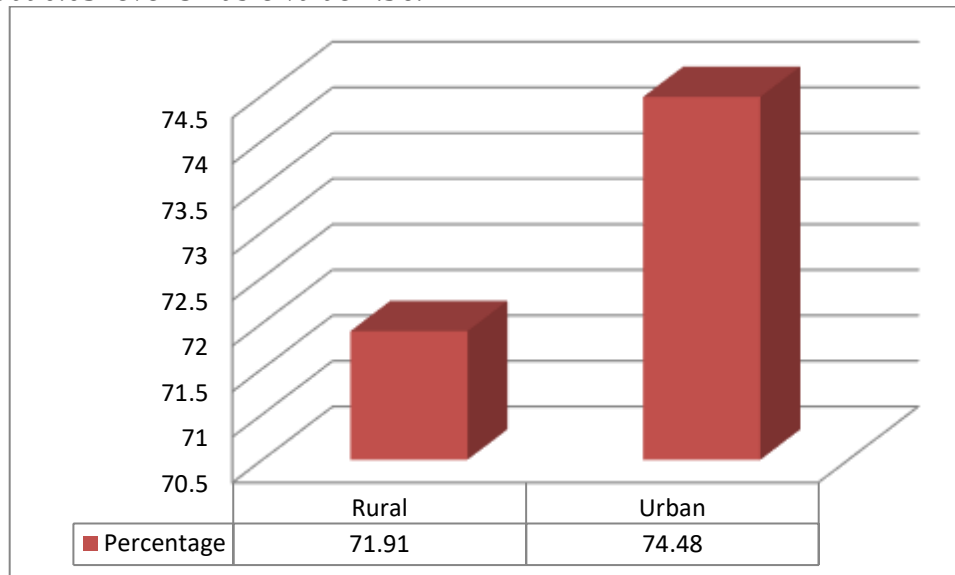


Fig-6: Academic achievement – Locality wise Analysis

Observation: The data reveals a total of 1000 students, split equally between rural and urban secondary schools (500 each). Rural students have a mean academic score of 71.91 with a standard deviation (SD) of 11.82, while urban students have a mean score of 74.48 with an SD of 10.34. The standard error of the mean (S.Ed) is calculated to be 0.67. A t-value of 4.47 was obtained, which is statistically significant, suggesting a noticeable difference in academic performance between rural and urban students.

Interpretation: The t-value of 4.47 exceeds the critical value of 1.96 at the 0.05 significance level, indicating a statistically significant difference in academic performance between rural and urban students. This means that the null hypothesis, which suggests no difference between the two groups, can be rejected. The results indicate that urban students perform better academically than their rural counterparts. This highlights the potential influence of geographic location on educational outcomes, with urban areas providing an environment that supports higher academic achievement.

Discussion: The findings reveal that urban secondary school students have a higher level of academic achievement compared to rural students. However, it is important to note that this difference is not solely due to the rural setting itself. Historically, the "rural deficit model" suggested that rural students were at an inherent disadvantage due to their geographic location. This perception has been increasingly challenged, as it oversimplifies the issue and overlooks the diversity of rural student experiences. Many rural students are now showing strong academic performance, challenging the stereotype that rural education is inferior.

Factors like societal biases, economic challenges, and migration trends have historically painted a bleak picture of rural communities and schools. The economic decline in rural areas has been linked to lower educational resources and fewer opportunities for students. However, educators and researchers are now recognizing that the academic achievements of rural students are not solely determined by their geographical location. Rural students bring unique strengths and perspectives, and there are numerous success stories that defy the traditional rural disadvantage narrative.

The discussion also suggests that the key to improving rural education lies in addressing these broader societal and economic factors, as well as fostering a more nuanced understanding of the challenges

and strengths of rural communities. Future research and educational policies should focus on creating equitable opportunities for all students, regardless of their geographic location.

Hypothesis 7: (Testing of Hypothesis)

Table – 7 Academic achievement – Type of Management wise Analysis

Type of Management	Sample size	Mean	% of mean	SD	SED	't' Value
Government	500	74.23	74.23	16.54	0.74	0.89 ^{NS}
Private	500	74.89	74.89	16.38		

NS: Not significant at 0.05 level & Table value 1.96.

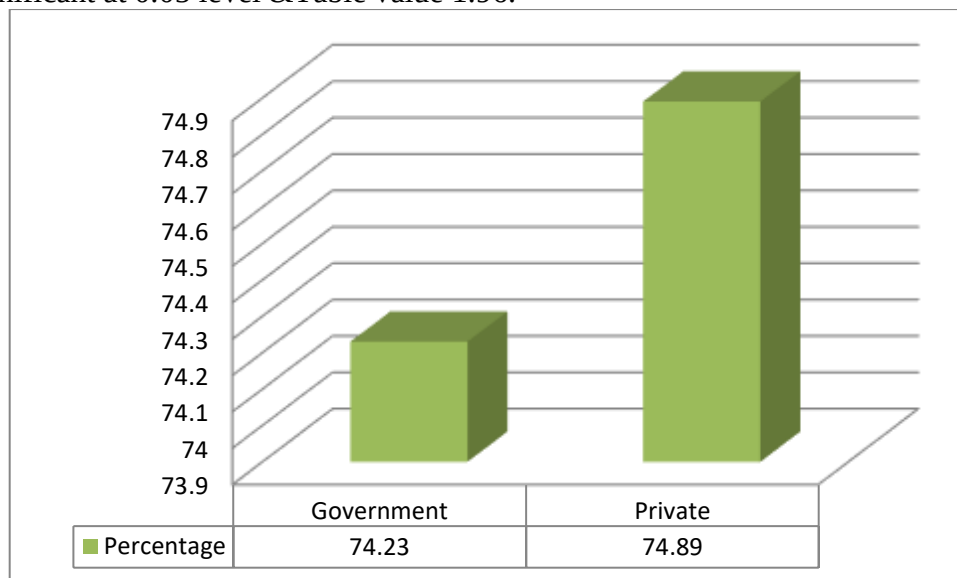


Fig-7: Academic achievement – Type of Management wise Analysis

Observation:

The dataset comprises 1000 students, with an equal split between government and private school students, each group containing 500 students. The mean academic achievement for government school students is 74.23, with a standard deviation of 16.54, whereas private school students have a mean academic achievement of 74.89, with a standard deviation of 16.38. The standard error of the difference between the two means (S.Ed) is 0.74. The calculated t-value is 0.89.

Interpretation:

The computed t-value of 0.89 is less than the critical value of 1.96 at the 0.05 significance level. This indicates that the difference in academic achievement between government and private school students is not statistically significant. Consequently, we fail to reject the null hypothesis, which suggests that there is no significant difference between the academic performance of students from the two types of schools. Therefore, based on this analysis, we conclude that the academic achievements of students from government and private schools are comparable.

Discussion

The absence of a significant difference between the academic achievements of government and private school students suggests that factors beyond school type might influence student outcomes. Government schools, despite potential challenges in resources, often have qualified teachers and access to necessary facilities like libraries and science labs. Additionally, government schools may provide more personalized academic support, such as guidance for students struggling with difficult subjects.

Moreover, extracurricular involvement, like volunteering within communities, can have significant benefits for students' well-being and learning experiences. Students who volunteer can develop a stronger sense of responsibility and can see the direct impact of their academic knowledge in real-world situations. These community-based activities might even foster a deeper interest in academic subjects, offering students a broader perspective of how their studies apply outside the classroom.

In conclusion, while the type of school may not show a statistically significant difference in academic achievement, factors such as teacher quality, infrastructure, and extracurricular opportunities all contribute to the overall academic experience.

Hypothesis 8: (Testing of Hypothesis)

Table -8 Academic achievement –Parental occupation wise Analysis

Parental occupation	Sample size	Mean	% of mean	SD	SED	't' Value
Professional	450	74.22	74.22	15.78	0.56	1.37 ^{NS}
Non Professional	550	73.45	73.45	16.32		

NS: Not significant at 0.05 level & Table value 1.96.

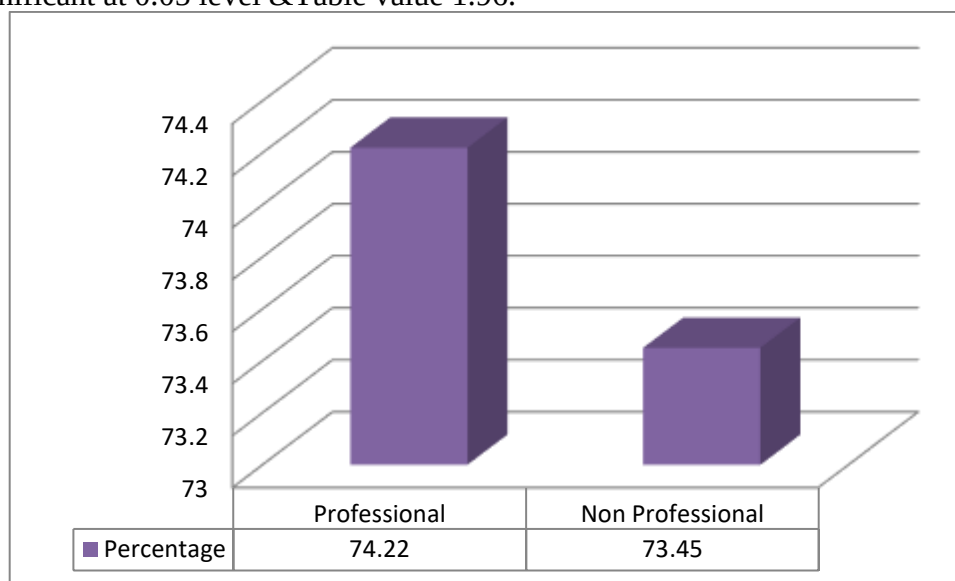


Fig-8: Academic achievement –Parental occupation wise Analysis

Observation: The table reveals the following details: Total number of students: 1000 Students with professional parents: 450, Students with non-professional parents: 550 Mean academic achievement of students with professional parents: 74.22 Standard deviation (SD) for students with professional parents: 15.78, Mean academic achievement of students with non-professional parents: 73.45, Standard deviation (SD) for students with non-professional parents: 16.32, Standard Error of Difference (SED): 0.56, t-value: 1.37

Interpretation: The calculated t-value of 1.37 is less than the critical t-value of 1.96 at a 0.05 significance level. This implies that the difference in academic achievement between students with professional parents and those with non-professional parents is not statistically significant. Therefore, we fail to reject the null hypothesis, suggesting that there is no significant impact of parental occupation on students' academic performance. In conclusion, the data indicates that parental occupation does not play a substantial role in determining academic outcomes for these students.

Discussion:

The findings suggest that the occupation of a student's parents, whether professional or non-professional, does not significantly affect their academic success. This may seem counterintuitive, as one might expect children of professional parents to have higher academic achievement due to factors such as higher socioeconomic status, access to resources, or an environment more conducive to learning. However, the study reveals that, statistically, these factors do not appear to be decisive in this particular case.

It is important to note that parental involvement in a child's education is a more influential factor than the occupation itself. Parents who are actively engaged in their child's academic life whether through helping with homework, attending parent-teacher meetings, or participating in school events tend to have children who perform better academically. Furthermore, the level of education and the values parents place on learning can also play a significant role in shaping a child's academic success.

While parental occupation may offer some indirect benefits, such as access to better educational resources or a stable financial environment, it is the active participation of parents in their children's education that most strongly correlates with academic success. Therefore, rather than focusing solely on parental occupation, efforts should be made to encourage and support parents in taking an active role in their children's education, regardless of their professional background.

SECTION – D (CORRELATION)

In this section, 'the relationship and association between Self-Efficacy and Academic achievement of secondary school students were found through coefficient of correlation (r). In the process of analysis of the section, The data collected were subjected to the statistical treatments by finding 'r-value' and discussions for the objectives 12 to 17. Hypotheses were tested, and the difference of Means was established by the 'r-value at 0.05 levels and tabulated to table 10. The interpretation of the results was presented under each table.

Table –10 Relationship between Self-Efficacy and Academic Achievement

Variable	Variable	N	'r' value
Self-Efficacy	Academic Achievement	2000	0.11*

Table value at $p=0.00$, $DF=998$ is 0.066; ** significant at 0.05 level

Observation:

The sample consists of 2,000 students, with 1,000 students categorized under Academic Achievement and 1,000 under Self-Efficacy. The degrees of freedom (df) value is 998, and the correlation coefficient (r) value is 0.11, indicating a statistically significant relationship between the variables.

Findings

The computed correlation coefficient (r) of 0.35 between self-efficacy and academic achievement, as presented in Table 4.42, indicates a moderate positive relationship between the two variables. While this correlation is statistically significant, it does not meet the threshold for a strong correlation, as the critical r-value at the 0.05 significance level is 0.66. Despite not reaching the level of a "strong" relationship, the positive correlation still suggests that higher self-efficacy is associated with improved academic performance. This supports the hypothesis that students who believe in their academic abilities are more likely to perform well in school.

Conclusion:

The findings underscore the importance of self-efficacy in academic achievement. Self-efficacy the belief in one's capacity to successfully execute tasks—plays a crucial role in motivating students to persist, engage, and utilize effective learning strategies. While the correlation in this study was not extremely high, it still emphasizes the value of fostering self-efficacy within educational settings. By nurturing students' confidence in their abilities, educators can help to boost not only their academic success but also their overall engagement with learning. Encouraging self-efficacy in students, therefore, presents an essential strategy for improving both academic outcomes and students' attitudes toward challenges and growth.

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