

Research Paper

Academic Achievement in Relation to Self-Efficacy: A Study of Secondary School Students

Dr. Sanobar Parveen^{1*}, Prof. Poonam Chauhan²

ABSTRACT

Self-efficacy is the conviction that one can make the efforts required to achieve a particular performance goal. It has been found to be a significant predictor of academic success in various studies. In addition to examining the differences in self-efficacy depending on gender and region, the aim of this study is to ascertain the link between academic performance and self-efficacy. The researcher recruited 469 ninth students from rural and urban schools for this study. The students filled out the self-efficacy scale that was developed by Drs. Shruti Narain and Arun Kumar Singh (2014). With the help of SPSS version 20, the data was assessed using the t-test, Pearson's Product Moment. The results of the study demonstrated a significant positive correlation of self-efficacy with academic achievement, among secondary school students' self-efficacy was unaffected by their gender as well as place of living.

Keywords: *Academic Achievement, Self-Efficacy and Secondary School Students*

Bandura first put forth the idea of generic self-efficacy in his social cognitive theory. A person's self-efficacy can be defined as his belief in his ability to get success in a specific scenario or finish a specific activity (e.g., Bandura, 1977, 1997, 2012). Self-efficacy, has also been defined as a person's appraisal of their own ability to accomplish a goal or amount of self-belief in doing so. For instance, since these kids have a strong feeling of self-efficacy, it may be assumed that they are more driven to learn, which results in higher academic performance. It is commonly known that domain, age, and gender have an impact on one's level of self-efficacy. In a meta-analysis, Huang (2012) found that self-efficacy varies by gender, age, and subject areas such as the social sciences and mathematics.

Theoretically, mastery experiences, seeing others succeed, and social persuasion techniques like direct support can all help to improve self-efficacy. Additionally, it has been proposed that physiological factors impact self-efficacy. For instance, perceptions of pain, weariness, and fear might negatively impact self-efficacy.

Academic achievement is the result of any educational methods or programs. It also shows how well students, teachers, and institutions as a whole perform in the educational process. Student success can take the form of social, emotional, and physical aspects of their lives.

¹Assistant Professor, Aligarh College of Education, Chherat, Aligarh (202122) U.P.

²Professor, Department of Education, Aligarh Muslim University, Aligarh (202002)

*Corresponding Author

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According to Good (1959), it is the level of proficiency or the progression students make toward mastering academic subjects. Academic achievement, according to Stagner (1962), is the level of competency or advancement made by students in the mastery of academic disciplines. According to Crow & Crow (1969), achievement is measured by the extent to which knowledge and skills have been transferred to the student, or, put another way, achievement is shown by the extent to which parents and teachers have a duty to be concerned about the reasons why some children succeed in school while others don't. To achieve a higher level of success, it becomes very crucial for educational institutions to take aggressive action to expand the number of pupils. Any educational system's efficacy can also be determined by how well students perform in cognitive, affective, or psycho-motor domains. Numerous studies have demonstrated that a variety of factors influence students' academic achievement. Some of the issues could make it difficult to achieve high goals, thus they should be seriously taken into account. It is important to use strategies that increase student achievement.

Need and Significance of the study

Numerous studies have shown the connection between academic success and self-efficacy in the classroom. Independent of their age, gender, domains, disciplines, or countries, studies demonstrate that students who have higher levels of self-efficacy perform better academically. **Purzer (2011)** studied to look at how team discourse, self-efficacy, and success are related and found a strong and favorable correlation of self-efficacy with academic success. **Komaraju, M., & Nadler, D. (2013).** investigated how self-efficacy affected predictions of academic success. The findings indicated that students with higher levels of self-efficacy were able to perform better academically. **Akmir, B & L. Ghazanfar (2014)** looked at the relationship between self-efficacy and academic performance and found that there was a favorable correlation between the two variables for university students. **Ochieng, W (2015)** examined the connection between mathematical self-efficacy and academic success among secondary schools. According to the findings from a gender perspective, male students reported stronger self-efficacy than female students. Math performance was higher for students with higher self-efficacy than for those with lower self-efficacy. **Birgani, S.A et. al., (2016)** investigated the relationship between Achievement Motivation and Academic Self-efficacy beliefs with academic performance. The results of regression analysis also showed that such variables as achievement motivation and Academic Self-efficacy beliefs played a major role in predicting Academic Performance. The majority of studies have found significant correlation of self-efficacy with academic achievement and gender differences in self-efficacy levels. Not a single study was found in Aligarh taken these variables together, the researchers therefore chose to conduct a study on “**Academic achievement in relation to self-efficacy: a study of secondary school students**”

Objectives of the Study.

1. To study the level of self-efficacy among secondary school students.
2. To study the relationship of self-efficacy with academic achievement among secondary school students.
3. To study the self-efficacy among secondary school students with regard to gender.
4. To study the self-efficacy among secondary school students with regard to locale.

Hypothesis of the study

- **H_{1.1}**. The secondary school students will differ with regard to their level of self-efficacy
- **H_{0.2}**. There is no significant correlation between self-efficacy & academic achievement among secondary school students.
- **H_{0.3}**. There is no significant difference in self-efficacy among secondary school students with regard to gender.
- **H_{0.4}**. There is no significant difference in self-efficacy among secondary school students with regard to locale.

Delimitations of the study

1. Only 469 secondary school students were taken as a sample for this study.
2. Only Aligarh district of Uttar Pradesh is the sole focus of this study.
3. Only self-efficacy has been taken as an independent variable.
4. Only academic achievement has been taken as dependent variable.
5. Out of many demographic variables on gender and locale has been taken in this study.

METHOD AND PROCEDURE

A sample of 469 secondary school students from the Aligarh district served as the subject of the current investigation. It was selected by using simple random sampling. Out of 469 students, 306 were male and 103 were female students, 303 were from urban areas and remaining 166 were from rural areas. Dr. Shruti Narain and Dr. Arun Kumar Singh's self-efficacy scale was used to assess the self-efficacy of all chosen students in 2014. Self-efficacy was divided into three levels as high moderate and low self-efficacy. Data was analyzed by using SPSS version 20.

Analysis and Interpretation

Objective 1

The hypothesis H_{1.1} was formulated and empirically tested in order to fulfil goal 1, and it is presented as follows:

- H_{1.1} The secondary school students will differ with regard to the level of self-efficacy
- H_{1.1} used two different forms of analysis to calculate the self-efficacy score secondary pupils received on the self-efficacy scale.
 - Percentage analysis has been used to categorize the secondary school students.
 - Graphical representation of the percentage of secondary school students in each category was done.

The percentage of students under different categories of self-efficacy is presented in table 1.

Table 1: Percentage-wise distribution of secondary students on self-efficacy score (total sample).

Scores	Levels of self-efficacy	No. of students	Percentage of students
85 and above	High self-efficacy	106	22.6%
74 to 84	Average self-efficacy	204	43.5%
73 or less	Low self-efficacy	159	33.9%

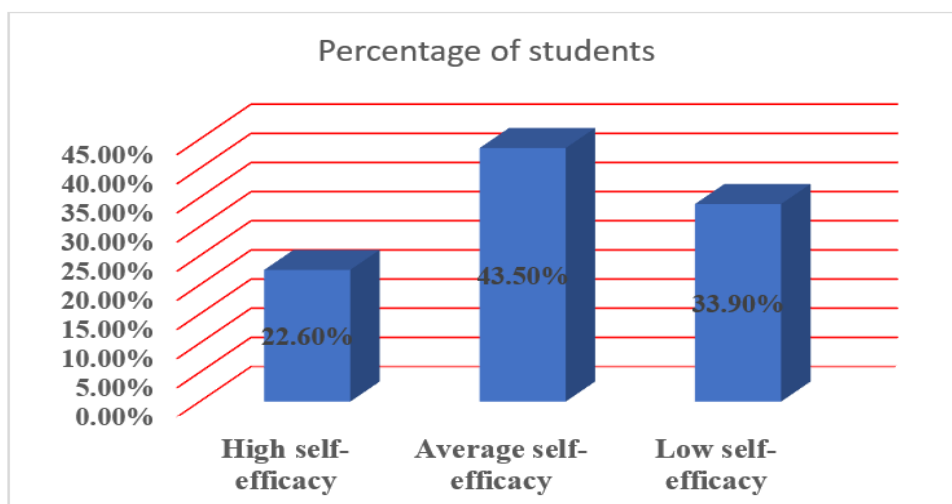


Figure: 1: Graphical representation of the percentage of secondary school students in each category on self-efficacy score.

Interpretation

Table 1 reveals that out of 469 secondary school students, 106 students (22.6%) are classified as having strong self-efficacy, 204 students (43.5%), are classified as having average self-efficacy, and 159 students (33.9%), are classified as having low self-efficacy. Therefore, it can be safely inferred that secondary school students differ with regard to their self-efficacy.

Objective 2

To do this, the null hypothesis Ho.2 is formulated and put to the test using empirical data. The theory proposed that

Ho.2. There is no significant correlation between self-efficacy and academic achievement among secondary school students.

The Pearson correlation has been utilized to confirm Ho.2. The table below provides the correlation coefficient between self-efficacy and academic achievement.

Table 2 demonstrating a link between academic success and self-efficacy.

Variables	Mean	SD	N	Pearson correlation coefficient
Self-efficacy	76.81	10.02	469	.198**
Academic achievement	80.45	9.4		

**significant at .01 level

Interpretation

Table 2 shows a substantial correlation between secondary school students' self-efficacy and academic achievement ($r(469) = .198, p = .01$). According to the correlation coefficient value, the two variables have a statistically significant positive linear association that is significant at the .01 level of significance. As a result, the .01 level of significance was applied to rule out the hypothesis H02, which asserted that among secondary school students, there is no significant relationship between academic achievement and self-efficacy. Accordingly, it is acceptable to draw the conclusion from correlational evidence that self-efficacy affects secondary school students' academic achievement.

Objective 3

To do this, the Ho3 null hypothesis is formulated and put to the test using empirical data.

Ho.3 There is no significant difference in self-efficacy of secondary school students with respect to gender.

In order to verify Ho.3 the t-test has been used. The significance of the difference between means of self-efficacy with respect to gender is represented in table.

Table 3: Showing t-test comparison of self-efficacy score with regard to gender

Variable	Gender	N	Mean	SD	t-value	p. value	Result
self-efficacy	Male	306	76.23	10.35	.251	.127	Not sig.
	Female	163	77.77	9.33			

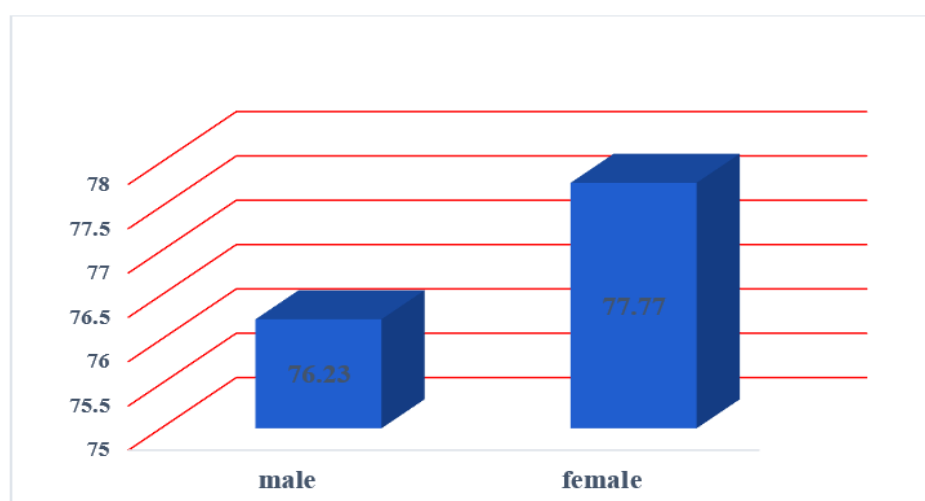


Figure 2: Comparison of self-efficacy score among male and female secondary school students.

Interpretation

Table 3 shows that there is no statistically significant difference between the genders of students in terms of their self-efficacy ($t(467) = .251$, $p = .127$). The average score for male students was 76.23, with a standard deviation of 10.35; the average score for female students was 77.77, with a standard deviation of 9.33. Since there is no statistically significant difference between the genders in secondary school students' levels of self-efficacy, the null hypothesis is accepted at the .05 level. This implies that there are no variations in self-efficacy between students who are male and female.

Objective 4

To do this, the Ho4 null hypothesis is formulated and put to the test using empirical data.

Ho.4 There is no significant difference in self-efficacy of secondary school students with respect to locale.

In order to verify Ho.4 the t-test has been used. The significance of the difference between means of self-efficacy with respect to locale is represented in table

Table 4: Showing t-test comparison of self-efficacy score with respect to locale

Variable	Locale	N	Mean	SD	t-value	p. value	Result
Self-efficacy	Rural	166	76.37	11.00	.020	.492	Not sig.
	Urban	303	77.04	9.4			

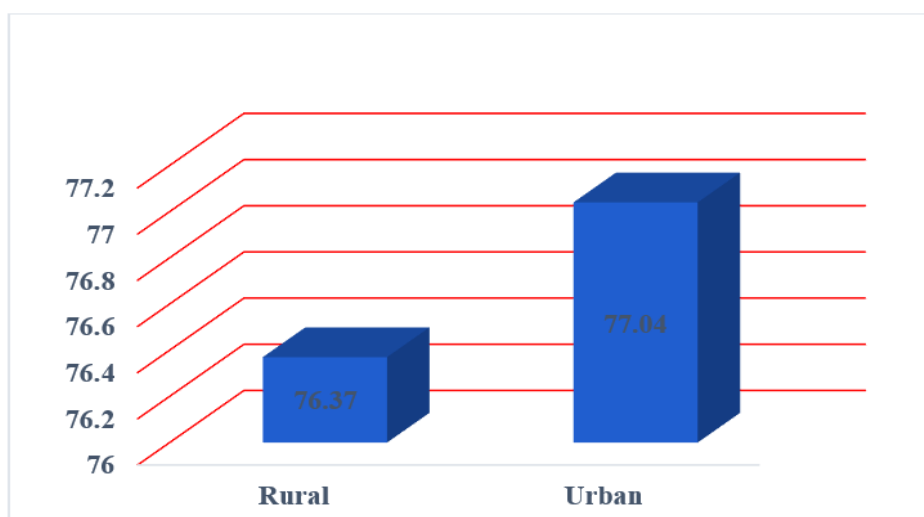


Figure 3 showing comparison of self-efficacy score among rural and urban secondary school students.

Interpretation

Table 4 shows that there is no geographically significant difference in secondary school students ($t(467) = .020, p = .492$) that is statistically significant. The mean score of rural students is significantly similar to the mean of urban students (mean = 77.04 and $SD=9.4$) (mean= 76.37 and $SD=11.00$). The null hypothesis, which states that "There is no significant difference in secondary school pupils' self-efficacy with respect to locale," is thus accepted at the .05 level. This implies that secondary school students from rural and urban settings have similar levels of self-efficacy.

Findings of the study

- The secondary school students' levels of self-efficacy vary. 43.5% of the whole sample of secondary school students have average self-efficacy levels, which represents the majority of students.
- Secondary school students' self-efficacy and academic achievement were shown to be significantly connected, indicating a favorable relationship between the two.
- There was no statistically significant difference in self-efficacy between students who were male and female, showing that both of them share the same level of self-efficacy.
- There was no statistically significant difference in self-efficacy between secondary school students in rural and urban areas, showing that both groups of students are equal in self-efficacy.

Educational implications

- In the classroom, teachers can increase students' self-efficacy by providing them with honest instructions and constructive criticism that will help them complete their work or inspire them to give it their all. As teachers can aid by minimizing stressful conditions and lowering anxiety related to events like tests or presentations, a positive attitude can increase one's belief in their own ability to succeed.
- Parents should instill in their kids the ability to deal with diversity, learn from mistakes, and overcome obstacles. By building on their talents and assisting them in figuring out how to get where they want to go, one can also increase their self-efficacy.

Academic Achievement in Relation to Self-Efficacy: A Study of Secondary School Students

- The school should offer students a productive, healthy environment that fosters competitiveness among them. It is past due for policymakers, administrators, and teachers to get educated on the value of self-efficacy in the classroom.

CONCLUSION

In conclusion, the findings of this study make a significant contribution to the field by examining a complex network of relationships between various predicting variables, establishing the critical importance of self-efficacy and effort regulation in predicting academic achievement, and supporting the central roles of implicit theories of intelligence and achievement goals.

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Conflict of Interest

The author(s) declared no conflict of interest.

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