SELF-EFFICACY IN RELATION TO ACADEMIC ACHIEVEMENT OF HIGHER SECONDARY LEARNERS IN WEST BENGAL

Sourav Kumar Roy
Assistant Professor in Education, Govt. Teachers' Training College, Malda, West Bengal, India, *Email Id: souravkumarroy91@gmail.com*
ORCID: https://orcid.org/0009-0005-7749-6213
Shampa Sarkar
Assistant Professor in Education, Department of Education, Budge Budge College, West Bengal, India, *Email Id: shampasarkar4@gmail.com*

ABSTRACT

Recent emphasis on educational quality and learners' personal development has intensified scholarly interest in the association between self-efficacy and academic achievement. Self-efficacy, defined as an individual's belief in their capability to achieve desired academic outcomes, plays a crucial role in shaping motivation and performance. The present study examined 'the relationship between self-efficacy and academic achievement among higher secondary learners in West Bengal through a descriptive quantitative design employing correlational analysis.' The sample comprised 972 Class XI students (454 boys and 518 girls) selected through simple random sampling. Academic achievement was determined from official school records, while self-efficacy was measured using a standardized scale developed by the researcher. Findings revealed 'a statistically significant positive correlation between self-efficacy and academic achievement' ($r = 0.276$), suggesting that learners with higher self-efficacy tend to perform better academically, irrespective of gender, locale, or academic stream. The results underscore the importance of enhancing self-efficacy beliefs as a means to improve student achievement. These insights hold implications for educational policy and classroom practice, emphasizing the need for teacher training, motivational support systems, and instructional strategies that nurture students' confidence, goal-setting, and perseverance in learning.

Keywords: Self-Efficacy, Gender, Locale, Academic Stream, Academic Achievement, Higher Secondary Learners.

INTRODUCTION

Self-efficacy speaks to self-assurance in one's capacity to plan and carry out the actions required to handle upcoming circumstances. The construct was first introduced by Albert Bandura (1977) within the broader framework of his Social Cognitive Theory, which emphasizes the dynamic interaction among personal factors, behavior, and environment. According to this theory, human functioning is influenced by a continuous reciprocal interaction between cognitive, behavioral, and contextual determinants. Within this framework, self-efficacy operates as a central mechanism through which individuals regulate their motivation, thoughts, and actions to achieve desired outcomes. Hence, Bandura's model provides a theoretical lens to understand how beliefs about personal competence directly influence learning behaviors, persistence, and achievement.

Bandura (1995) identified four potential sources of self-efficacy:

- **Mastery experience:** The capacity to thrive in situations with high demands is known as mastery experience. When a major job is accomplished and effort is put forth over time, self-efficacy usually increases.
- **Vicarious experience:** A student may feel more autonomous if they believe they have similar skills and knowledge after witnessing others demonstrate mastery.
- **Verbal persuasion:** Affirmation and support can increase self-efficacy. Getting the proper answer is not as important for increasing self-efficacy as acknowledging adequate effort and tenacity.
- **Physical and emotional states affect self-efficacy:** One's physical and mental health have an impact on their sense of self-efficacy. An individual who approaches mathematics with anxiety, for instance, will not feel confidence in themselves; conversely, someone who helps someone overcome nervousness would feel more confident.

According to Bandura, 'people may be persuaded that they have the abilities and knowledge required for success.' People can 'overcome self-doubt and focus on giving the work' their best effort when they get vocal encouragement from others (Bandura, 1997). Although people stay little as long as they maintain their *'sense of self-efficacy'* via achievement, they are usually more driven to grow and learn. Our perception of self-efficacy can be greatly impacted by our emotional and individual responses to situations. A person's attitude, mental state, bodily response, and stress level are just a few of the variables that might affect how they see their own abilities in a certain situation. Through their education and experiences, children get a deeper understanding of both themselves and the world around them. Their experiences with different jobs, people, and situations have an impact on their evolving and shifting *'sense of self-efficacy.'* Self-efficacy begins to emerge in very young infants. Self-efficacy, once developed, is not fixed; rather, it is flexible and may change in response to a person's experiences. When children are young, parents' freedom is essential. Around the ages of 12 to 16, teenage friends also begin to play a big part in providing self-efficacy and confidence. Adolescents are shielded from a decline in academic self-efficacy by their association with peer groups. Conversely, those who see their friends succeed have higher levels of educational self-efficacy. In one study, those between the ages of 14 and 18 who were more content with their life five years later were those who had greater levels of social and educational self-efficacy.

Although a substantial body of international research has established a positive relationship between self-efficacy and academic achievement, most existing studies have been conducted in Western cultural settings or have focused narrowly on specific subject areas such as mathematics or science. Consequently, there is limited empirical evidence addressing how self-efficacy operates among higher secondary learners within the Indian context, where sociocultural expectations, examination-driven learning patterns, and resource disparities may exert distinctive influences on students' confidence and academic performance. Furthermore, previous studies have often emphasized statistical correlations without sufficiently integrating Bandura's theoretical propositions or exploring the mediating role of contextual variables in shaping self-efficacy beliefs.

Hence, 'the present study seeks to bridge this theoretical and empirical gap by examining the relationship between self-efficacy and academic achievement among higher secondary learners in India, grounded firmly in Bandura's Social Cognitive Theory.' By situating the investigation within this theoretical framework, the study aims to contribute to a deeper understanding of the psychological determinants of academic success and to provide valuable implications for educators, curriculum designers, and policymakers seeking to foster self-efficacious learners who are motivated, resilient, and capable of lifelong learning.

SIGNIFICANCE OF THE STUDY

- The current study 'might be beneficial in raising awareness of the value of self-efficacy' in educational settings among both instructors and learners.
- Teachers and learners can benefit from this study by learning about several tactics that have a significant influence on improving self-efficacy.
- This research helps teachers better understand learners' self-efficacy levels during classroom instruction, which helps them make complex topics manageable.
- Teachers may find this study useful in learning how self-efficacy positively affects learners' academic progress.
- Administrators would benefit from this study by being aware of how important self-efficacy is to the 'teaching and learning process.'
- In addition to helping instructors execute numerous tactics that may encourage pupils, this study would provide insight into the positive influence of self-efficacy on academic performance.
- In order to boost learners' self-efficacy, this study would help teachers decide when and how to reward, praise, and encourage their pupils in the classroom.
- Teachers, legislators, and other stakeholders will use the study's findings to improve their professional identities and address the subpar academic outcomes caused by psychological factors.

OBJECTIVES OF THE STUDY

1. To assess 'the level of self-efficacy in relative percentage with reference to total sample and selected demographic variables viz., gender (boys & girls), locale (urban & rural) and academic stream (arts & science) of higher secondary learners in West Bengal.'
2. To assess 'the level of academic achievement in relative percentage with reference to total sample and selected demographic variables viz., gender (boys & girls), locale (urban & rural) and academic stream (arts & science) of higher secondary learners in West Bengal.'
3. To investigate how 'self-efficacy and academic achievement' relate to each other among West Bengal higher secondary learners.'
4. To investigate how 'self-efficacy and academic achievement relate to each other among West Bengal higher secondary learners in respect of gender, locale and academic stream.'

HYPOTHESES OF THE STUDY

H_{01} There is no significant relationship in the coefficient of correlation between Self-efficacy and Academic Achievement of higher secondary learners in West Bengal.

H_{02} There is no significant relationship in the coefficient of correlation between Self-efficacy and Academic Achievement of higher secondary level boy learners in West Bengal.

H_{03} There is no significant relationship in the coefficient of correlation between Self-efficacy and Academic Achievement of higher secondary level girl learners in West Bengal.

H_{04} There is no significant relationship in the coefficient of correlation between Self-efficacy and Academic Achievement of higher secondary level urban learners in West Bengal.

H_{05} There is no significant relationship in the coefficient of correlation between Self-efficacy and Academic Achievement of higher secondary level rural learners in West Bengal.

H_{06} There is no significant relationship in the coefficient of correlation between Self-efficacy and Academic Achievement of higher secondary level arts learners in West Bengal.

H_{07} There is no significant relationship in the coefficient of correlation between Self-efficacy and Academic Achievement of higher secondary level science learners in West Bengal.

RESEARCH METHODOLOGY

'A descriptive study design' was employed. West Bengal's higher secondary schools were the subject of an extensive assessment. All quantitative data obtained from the participants were systematically coded and analysed using the SPSS, ensuring precision and reliability in the computation of descriptive and inferential statistics.

Population and Sample

All of the learners registered in higher secondary schools in West Bengal, make up the study's population. The sample consisted of 972 higher secondary learners. It was chosen from 11th grade learners at different higher secondary schools located in both rural and urban areas using a simple random sampling procedure.

Table 1: '*Administrative Division wise Description of the Sample*'

Sl. No.	Name of the Divisions	Name of the Districts	Gender		Locale		Academic Stream		Total Sample
			Boys	Girls	Urban	Rural	Arts	Science	
1.	Presidency	Nadia	59	75	84	50	61	73	134
		South 24 Pgs	47	45	59	33	44	48	92
2.	Medinipur	Purulia	33	28	24	37	37	24	61
		Purba Medinipur	48	35	40	43	36	47	83

3.	Burdwan	Purba Bardhaman	39	73	46	66	70	42	112
		Paschim Bardhaman	38	46	54	30	53	31	84
4.	Malda	Malda	76	88	96	68	73	91	164
		Murshidabad	58	52	50	60	68	42	110
5.	Jalpaiguri	Alipurduar	32	40	46	26	43	29	72
		Jalpaiguri	24	36	28	32	35	25	60
Total Sample			454	518	545	427	520	452	972

TOOL USED IN THE STUDY

The study made use of the researcher's 'Self-Efficacy Scale.' It is made up of four components: self-confidence, optimistic attitude, effectiveness expectation, and result expectation. With construct validity proven at 0.85 and test-retest reliability at 0.82, the self-efficacy measure was demonstrated to be both valid and reliable. The academic success score from the sampled learners' prior class (10th Standard) was considered.

Table 2: *'Dimension-wise Distribution of Items'*

Dimensions	Item Number	Total
Self-confidence	1, 2, 3, 4, 5	**5**
Efficacy Expectation	6, 7, 8, 9, 10	**5**
Positive Attitude	11, 12, 13, 14, 15	**5**
Outcome Expectation	16, 17, 18, 19, 20	**5**
Scale	**1 to 20**	**20**

The present scale is based on the 'Five Point Likert Scale with the five possible responses against each statement: Strongly Agree (SA), Agree (A), Undecided (U), Disagree (D), and Strongly Disagree (SD).' Since the scale has both positive and negative framed statements so the responses were scored according to the scoring table given below –

Table 3: *'Scoring System of Self-efficacy Scale'*

Sr. No	Type of Statement	Strongly Agree (SA)	Agree (A)	Undecided (U)	Disagree (D)	Strongly Disagree (SD)
1.	**Positive**	5	4	3	2	1
2.	**Negative**	1	2	3	4	5

DATA COLLECTION

The researcher visited the schools in person with permission from the headmasters of each school. Before distributing the tool to the learners, the researcher had a brief discussion with them to obtain correct answers. Important instructions on how to mark replies in connection to each tool statement were given to learners.

ANALYSIS AND INTERPRETATION OF DATA

a. Percentage Analysis

Objective 1: '*To assess the level of self-efficacy in relative percentage with reference to total sample and selected demographic variables viz., gender (boys & girls), locale (urban & rural) and academic stream (arts & science) of higher secondary learners in West Bengal.*'

Table-2: '*Percentage of Higher Secondary Learners having different Levels of Self-Efficacy on the basis of Total Sample*'

Levels of Self-Efficacy	Total Number (N=972)	Percentage (%)
High Self-Efficacy	275	28.27
Moderate Self-Efficacy	518	53.34
Low Self-Efficacy	179	18.39

Table 2 shows that, '*out of 972 higher secondary learners, only 275 learners (28.27%) are having High level of Self-efficacy (HSE), 518 learners (53.34%), i.e. majority of higher secondary learners have a Moderate level of Self-efficacy (MSE) and 179 learners (18.39%) are having Low level of Self-efficacy (LSE).*' It also indicates that the scores for self-efficacy are relatively consistent across the sample, as supported by the relatively low standard deviation.
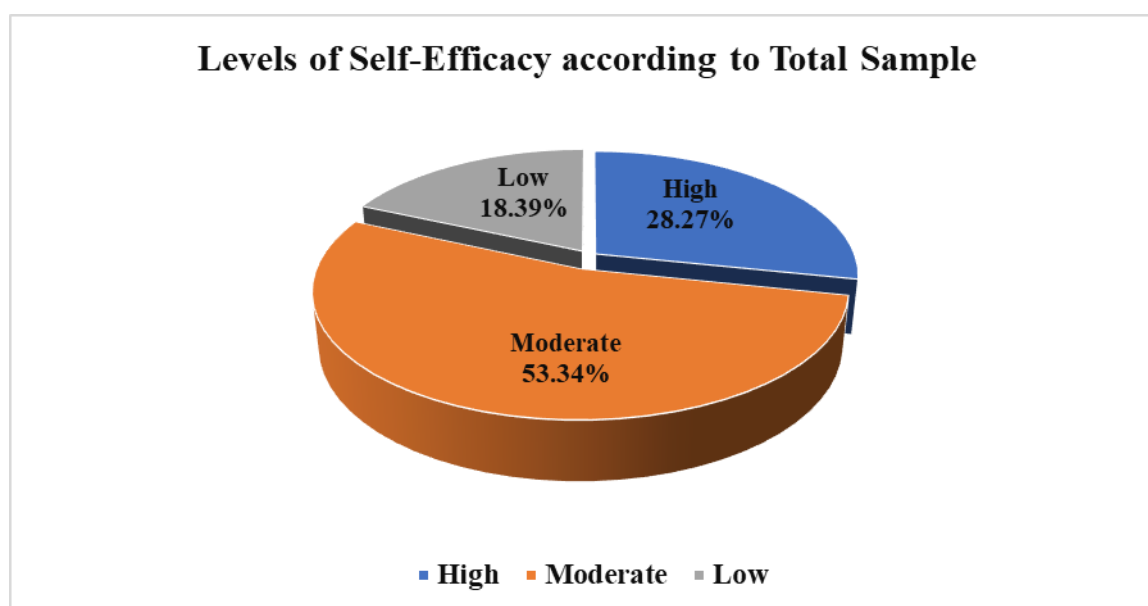

Figure 1: '*Showing Percentage of Learners with reference to the levels of Self-Efficacy of Higher Secondary Learners in West Bengal*'

Table-3: 'Percentage *of Higher Secondary Learners having different Levels of Self-Efficacy with respect to Gender (Boys and Girls)'*

Levels of Self-Efficacy	Gender			
	Boys (N=454)	Percentage (%)	Girls (N=518)	Percentage (%)
High Self-Efficacy	103	22.61	133	25.61
Moderate Self-Efficacy	263	57.91	300	58.02
Low Self-Efficacy	88	19.48	85	16.37

Table 3 depicts that *'22.61% (103) of boy and 25.61% (133) of the girl learners held the High level of Self-efficacy (HSE). 19.48% i.e. 88 boy and 16.37% (85) girl learners had Low level of Self-efficacy (LSE). Similarly, 57.91% (263) boy and 58.02% (300) girl learners fell into the category of learners who were having Moderate level of Self-efficacy (MSE) respectively.'* It can be inferred from the data that most learners in the sample have moderate level of self-efficacy, and relatively fewer learners have high or low level of self-efficacy.
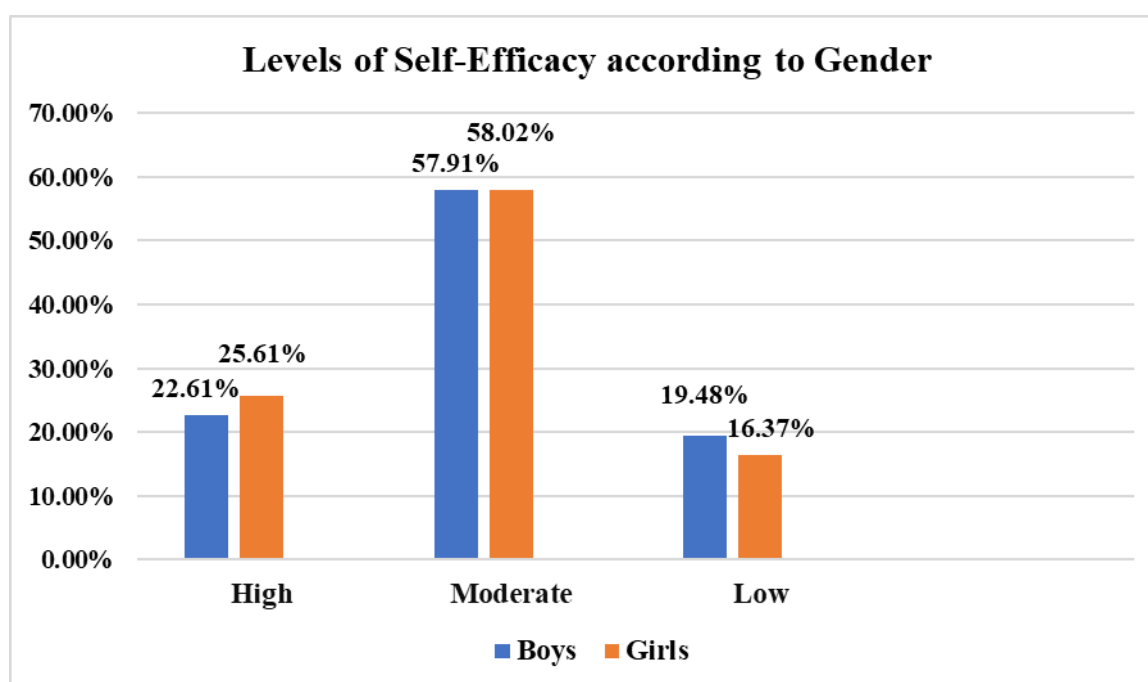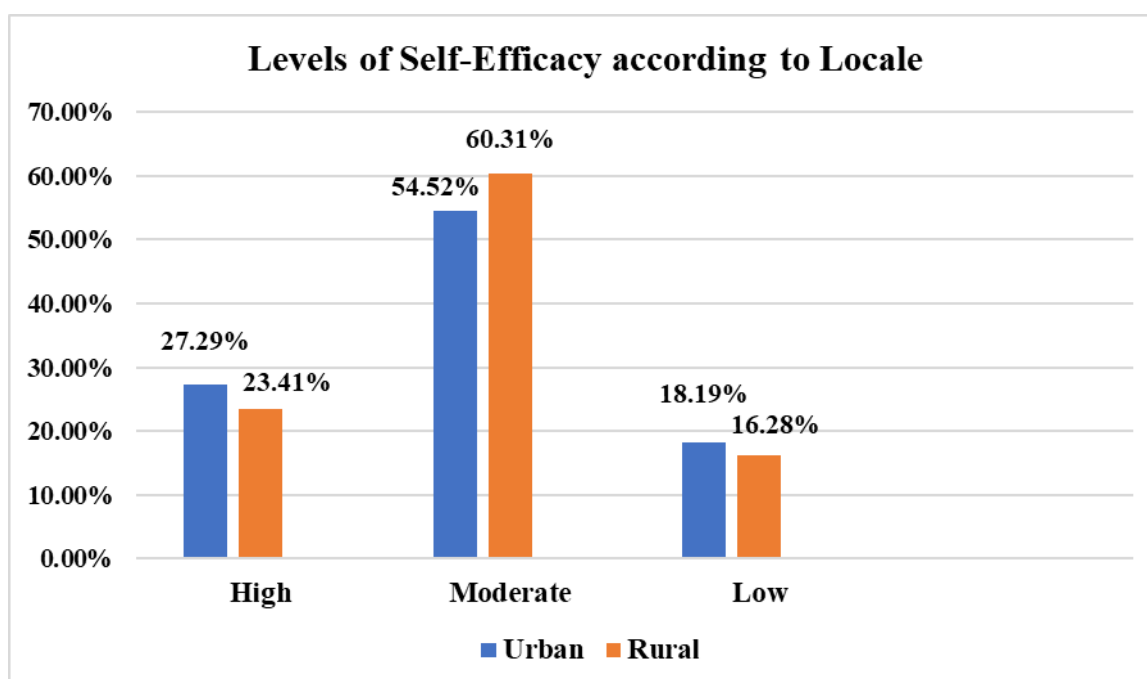

Figure 2: '*Showing Gender wise Percentage of Learners with reference to the levels of Self-Efficacy of Higher Secondary Learners in West Bengal'*

Table-4: '*Percentage of Higher Secondary Learners having different Levels of Self-Efficacy with respect to Locale (Rural and Urban)'*

	Locale

Levels of Self-Efficacy	Urban (N=545)	Percentage (%)	Rural (N=427)	Percentage (%)
High Self-Efficacy	149	27.29	100	23.41
Moderate Self-Efficacy	297	54.52	257	60.31
Low Self-Efficacy	99	18.19	70	16.28

Table 4 depicts that *'27.29% (149) of urban and 23.41% (100) of the rural learners held the High level of Self-efficacy (HSE). 54.52% i.e. 297 and 18.19% (99) learners from the urban background had Moderate level of Self-efficacy (MSE) and Low level of Self-efficacy (LSE). Similarly, 60.31% (257) and 16.28% (70) learners coming from rural background showed Moderate level of Self-efficacy (MSE) and Low level of Self-efficacy (LSE) respectively.'* It can be inferred from the data that most learners in the sample have moderate level of self-efficacy, and relatively fewer learners have high or low level of self-efficacy.
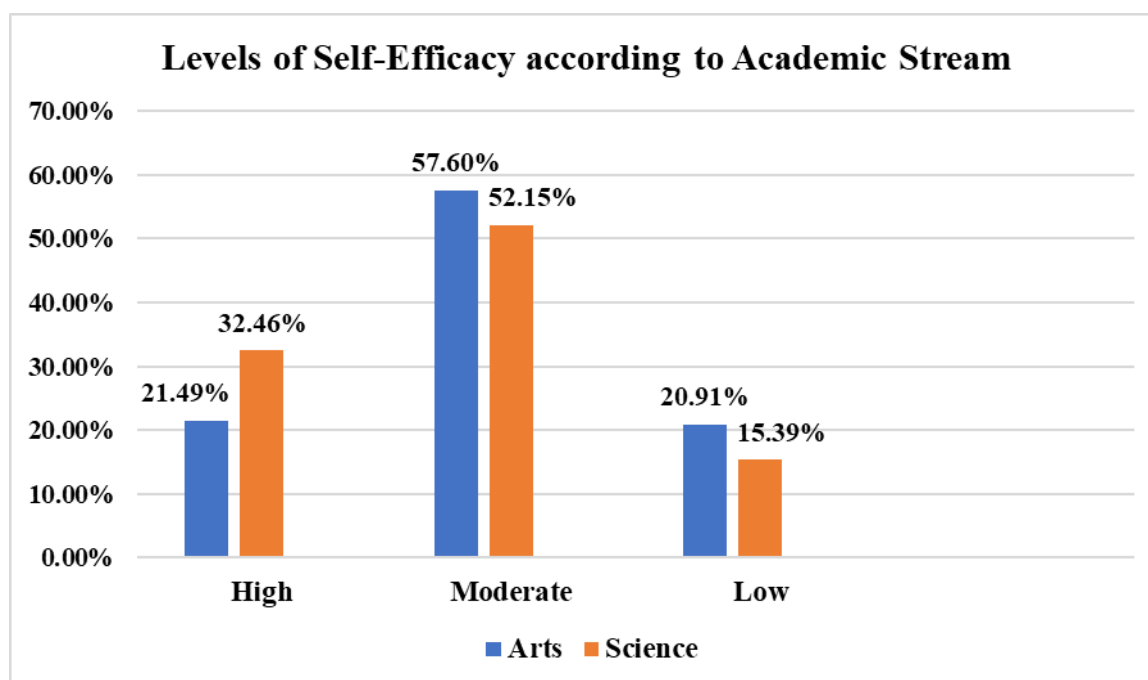

Figure 3: '*Showing Locale wise Percentage of Learners with reference to the levels of Self-Efficacy of Higher Secondary Learners in West Bengal*'

Table-5: '*Percentage of Higher Secondary Learners having different Levels of Self-Efficacy with respect to Academic Stream (Arts and Science)*'

Levels of Self-Efficacy	Academic Stream			
	Arts (N=520)	Percentage (%)	Science (N=452)	Percentage (%)

High Self-Efficacy	112	21.49	147	32.46
Moderate Self-Efficacy	299	57.60	236	52.15
Low Self-Efficacy	109	20.91	69	15.39

Table 5 depicts that *'21.49% (112) of arts and 32.46% (147) of science learners held High level of Self-efficacy (HSE). 57.60% i.e. 299 and 20.91% (109) learners from the arts background had Moderate level of Self-efficacy (MSE) and Low level of Self-efficacy (LSE). Similarly, 52.15% (236) and 15.39% (69) learners coming from science background showed Moderate level of Self-efficacy (MSE) and Low level of Self-efficacy (LSE) respectively.'* It can be inferred from the data that most learners in the sample have moderate level of self-efficacy, and relatively fewer learners have high or low level of self-efficacy.

Figure 4: '*Showing Academic Stream wise Percentage of Learners with reference to the Levels of Self-Efficacy of Higher Secondary Learners in West Bengal*'

Objective 2: '*To assess the level of academic achievement in relative percentage with reference to total sample and selected demographic variables viz., gender (boys & girls), locale (urban & rural) and academic stream (arts & science) of higher secondary learners in West Bengal.*'

Table-6: '*Percentage of Higher Secondary Learners having different Levels of Academic Achievement on the basis of Total Sample*'

Levels of Academic Achievement	Total Number (N=972)	Percentage (%)
High Academic Achievement	304	31.28

Moderate Academic Achievement	448	46.11
Low Academic Achievement	220	22.61

Table 6 shows that, *'out of 972 higher secondary learners, only 304 learners (31.28%) are having High level of Academic Achievement (HAA), 448 learners (46.11%), i.e. majority of higher secondary learners have a Moderate level of Academic Achievement (MAA) and 220 learners (22.61%) are having Low Academic Achievement (LAA).'* It can be inferred from the data that most learners in the sample have moderate level of academic achievement, and relatively fewer learners have h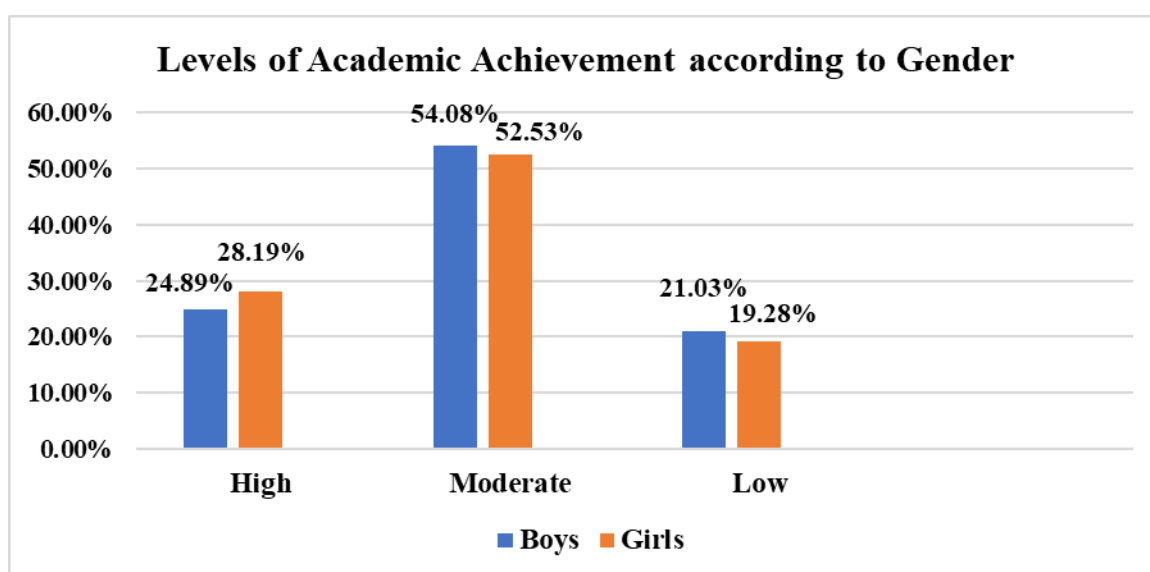igh or low level of academic achievement. It also indicates that the scores for academic achievement are relatively consistent across the sample, as supported by the relatively low standard deviation.

Figure 5: '*Showing Percentage of Learners with reference to the Levels of Academic Achievement of Higher Secondary Learners in West Bengal'*

Table-7: '*Percentage of Higher Secondary Learners having different Levels of Academic Achievement with respect to Gender (Boys and Girls)'*

Levels of Academic Achievement	Gender			
	Boys (N=454)	Percentage (%)	Girls (N=518)	Percentage (%)
High Academic Achievement	113	24.89	146	28.19
Moderate Academic Achievement	246	54.08	272	52.53

Low Academic Achievement	95	21.03	100	19.28

Table 7 depicts that *'24.89% (113) of boy and 28.19% (146) of the girl learners held the High level of Academic Achievement (HAA). 21.03% i.e. 95 boy and 19.28% (100) girl learners had Low level of Academic Achievement (LAA). 54.08% (246) boy and 52.53% (272) girl learners fell into the category of learners who were having Moderate level of Academic Achievement (MAA) respectively.'* It can be inferred from the data that most learners in the sample have moderate level of academic achievement, and relatively fewer learners have high or low level of academic achievement.
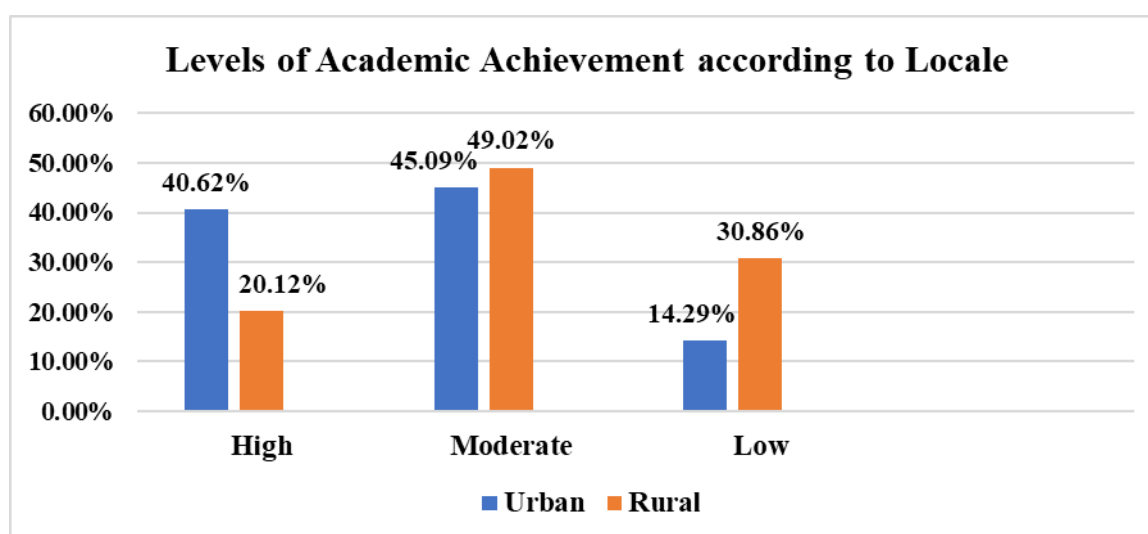

Figure 6: '*Showing Gender wise Percentage of Learners with reference to the levels of Academic Achievement of Higher Secondary Learners in West Bengal*'

Table-8: '*Percentage of Higher Secondary Learners having different Levels of Academic Achievement with respect to Locale (Rural and Urban)*'

Levels of Academic Achievement	Locale			
	Urban (N=545)	Percentage (%)	Rural (N=427)	Percentage (%)
High Academic Achievement	221	40.62	86	20.12
Moderate Academic Achievement	246	45.09	209	49.02
Low Academic Achievement	78	14.29	132	30.86

Table 8 depicts that *'40.62% (149) of urban and 20.12% (86) of the rural learners held the High level of Academic Achievement (HAA). 45.09% i.e. 246 and 14.29% (78) learners from*

the urban background had Moderate level of Academic Achievement (MAA) and Low level of Academic Achievement (LAA). Similarly, 49.02% (209) and 30.86% (132) learners coming from rural background showed Moderate level of Academic Achievement (MAA) and Low level of Academic Achievement (LAA) respectively.' It can be inferred from the data that most learners in the sample have moderate level of academic achievement, and relatively fewer learners have high or low level of academic achievement.

Figure 7: *'Showing Locale wise Percentage of Learners with reference to the Levels of Academic Achievement of Higher Secondary Learners in West Bengal'*

Table-9: *'Percentage of Higher Secondary Learners having different Levels of Academic Achievement with respect to Academic Stream (Arts and Science)'*

Levels of Academic Achievement	Academic Stream			
	Arts (N=520)	Percentage (%)	Science (N=452)	Percentage (%)
High Academic Achievement	102	19.64	181	40.12
Moderate Academic Achievement	244	46.87	197	43.49
Low Academic Achievement	174	33.49	74	16.39

Table 9 depicts that *'19.64% (102) of arts and 40.12% (181) of the science learners held the High level of Academic Achievement (HAA). 46.87% i.e. 244 and 33.49% (174) learners from the arts background had Moderate level of Academic Achievement (MAA) and Low level of Academic Achievement (LAA). Similarly, 43.49% (197) and 16.39% (74) learners coming from science background showed Moderate level of Academic Achievement (MAA) and Low level of Academic Achievement (LAA) respectively.'* It can be inferred from the data that most learners

in the sample have moderate level of academic achievement, and relatively fewer learners have high or low level of academic achievement.
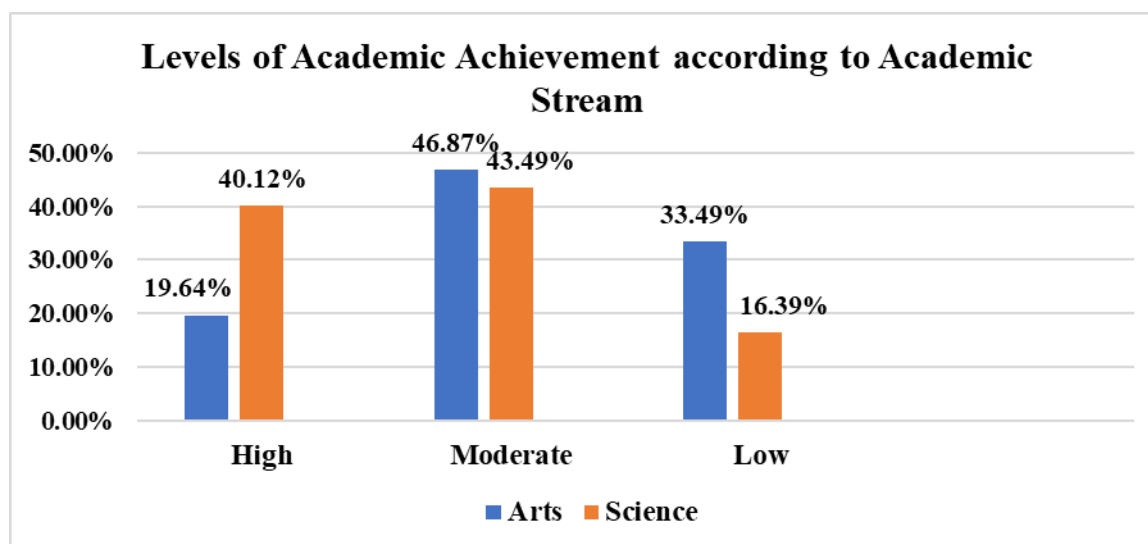

Figure 8: '*Showing Academic Stream wise Percentage of Learners with reference to the Levels of Academic Achievement of Higher Secondary Learners in West Bengal*'

Inferential Statistics

H_{01} 'There is no significant relationship in the coefficient of correlation between Self-efficacy and Academic Achievement of higher secondary learners in West Bengal.'

Table-10: '*Relationship between Self-efficacy and Academic Achievement of Higher Secondary Learners in West Bengal*'

Variables	N (Total Sample)	(r)
Self-Efficacy	972	
Academic Achievement	972	0.276**

Table 10 demonstrates '*the correlation coefficient between self-efficacy and academic achievement is found to be r = 0.276, p<0.01 is significant at 0.01 level of significance for the total sample of higher secondary learners. The graphical representation (figure-3) of the correlation reveals that the line drawn the data points is positive and mostly the data points are clustered along the line of best fit. Moreover, as per the Cohen's (1988) guidelines for the effect size, the value of Pearson correlation coefficient (r = 0.276) indicates a medium strength of correlation between self-efficacy and academic achievement higher secondary learners in West Bengal.*'
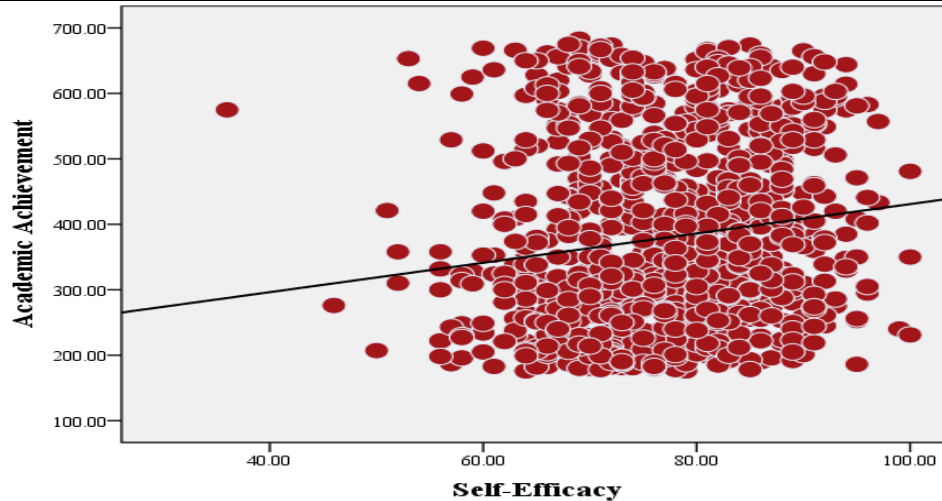
Figure-9: '*The Scatter Plot of Correlation between Self-Efficacy and Academic Achievement of Higher Secondary Learners in West Bengal'*

H₀₂ 'There is no significant relationship in the coefficient of correlation between Self-efficacy and Academic Achievement of higher secondary level boy learners in West Bengal.'

Table-11*: 'Relationship between Self-efficacy and Academic Achievement of Boys Higher Secondary Learners in West Bengal'*

Variables	N (Boys)	(r)
Self-Efficacy	454	
Academic Achievement	454	0.260**

Table 11 demonstrates '*the correlation coefficient between self-efficacy and academic achievement is found to be r = 0.260, p<0.01 is significant at 0.01 level of significance for higher secondary level boy learners. Figure-4 represents the positive correlation; however, the variance between self-efficacy and academic achievement of higher secondary level boy learners is large. The data points in figure-4 are scattered around the line of best fit. Moreover, as per the Cohen's (1988) guidelines for the effect size, the value of Pearson correlation coefficient (r = 0.260) indicates a medium strength of correlation between self-efficacy and academic achievement of boys' higher secondary learners in West Bengal.'*
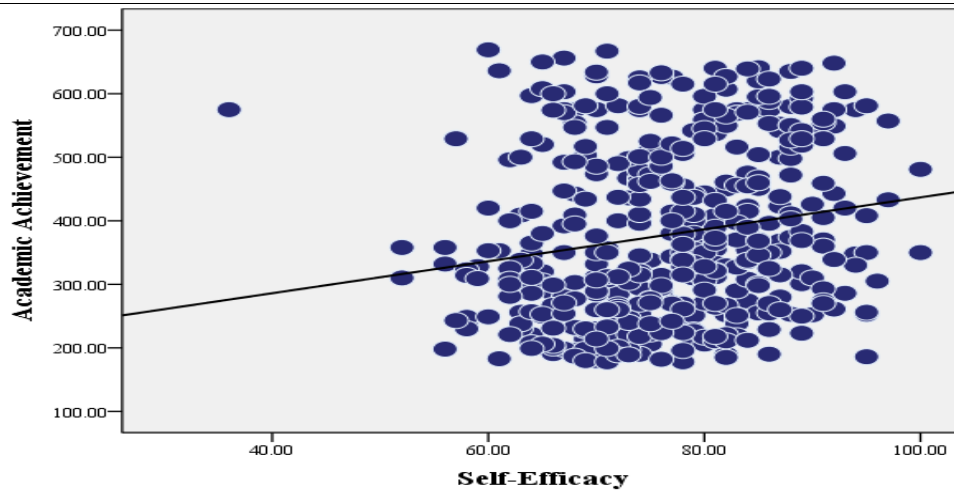
Figure-10: '*The Scatter Plot of Correlation between Self-Efficacy and Academic Achievement of Boys Higher Secondary Learners in West Bengal*'

H_{03} 'There is no significant relationship in the coefficient of correlation between Self-efficacy and Academic Achievement of higher secondary level girl learners in West Bengal.'

Table-12: '*Relationship between Self-efficacy and Academic Achievement of Girls Higher Secondary Learners in West Bengal*'

Variables	N (Girls)	(r)
Self-Efficacy	518	
Academic Achievement	518	0.300**

'*The correlation coefficient between self-efficacy and academic achievement in table-12 is found to be r = 0.300, p<0.01 is significant at 0.01 level of significance for higher secondary level girl learners. The figure-5 represents the positive correlation; data points are scattered around the line of best fit. Moreover, as per the Cohen's (1988) guidelines for the effect size, the value of Pearson correlation coefficient (r = 0.300) indicates a medium strength of correlation between self-efficacy and academic achievement of girls higher secondary learners in West Bengal.*'
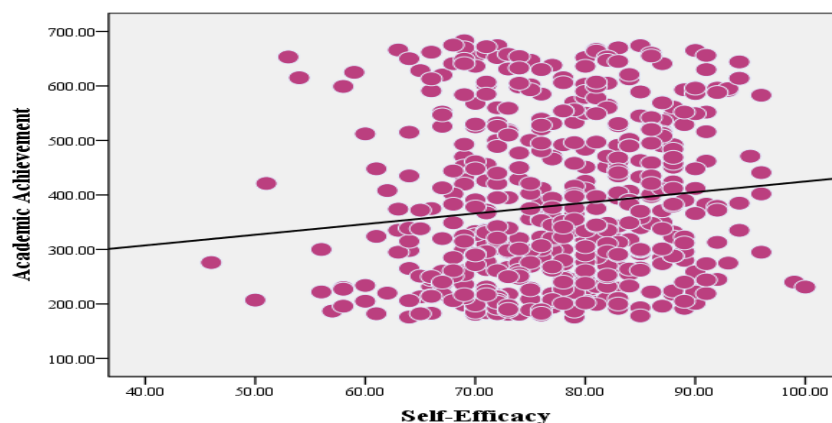
Figure-11: '*The Scatter Plot of Correlation between Self-Efficacy and Academic Achievement of Girls Higher Secondary Learners in West Bengal*'

H$_{04}$ 'There is no significant relationship in the coefficient of correlation between Self-efficacy and Academic Achievement of higher secondary level urban learners in West Bengal.'

Table-13: '*Relationship between Self-efficacy and Academic Achievement of Urban Higher Secondary Learners in West Bengal*'

Variables	N (Urban)	(r)
Self-Efficacy	545	
Academic Achievement	545	0.290**

'The correlation coefficient between self-efficacy and academic achievement of urban higher secondary learners in table-13 is found to be r = 0.290, p<0.01 is significant at 0.01 level of significance for higher secondary learners of urban areas. The figure-6 represents the positive correlation; data points are scattered around the line of best fit. Moreover, as per the Cohen's (1988) guidelines for the effect size, the value of Pearson correlation coefficient (r = 0.290) indicates a medium strength of correlation between self-efficacy and academic achievement of urban higher secondary learners in West Bengal.'
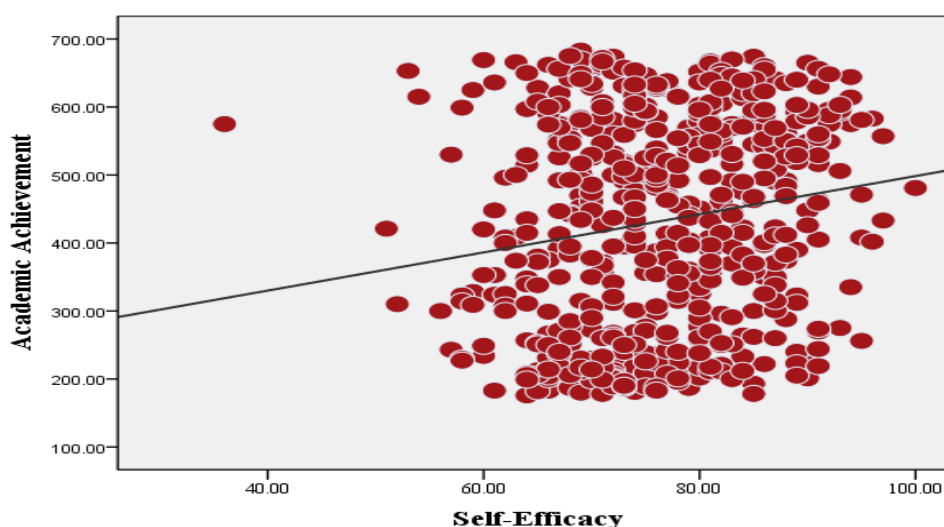

Figure-12: '*The Scatter Plot of Correlation between Self-Efficacy and Academic Achievement of Higher Secondary Learners of Urban Areas in West Bengal*'

H$_{05}$ 'There is no significant relationship in the coefficient of correlation between Self-efficacy and Academic Achievement of higher secondary level rural learners in West Bengal.'

Table-14: '*Relationship between Self-efficacy and Academic Achievement of Rural Higher Secondary Learners in West Bengal*'

Variables	N (Rural)	(r)
Self-Efficacy	427	
Academic Achievement	427	0.234**

'The correlation coefficient between self-efficacy and academic achievement in table-14 is found to be r = 0.234, p<0.01 is significant at 0.01 level of significance for higher secondary learners of rural areas. The figure-7 represents the positive correlation; data points are scattered around the line of best fit.' Moreover, as per the Cohen's (1988) guidelines for the effect size, the value of Pearson correlation coefficient (r = 0.234) indicates a small strength of correlation between self-efficacy and academic achievement of rural higher secondary learners in West Bengal.'
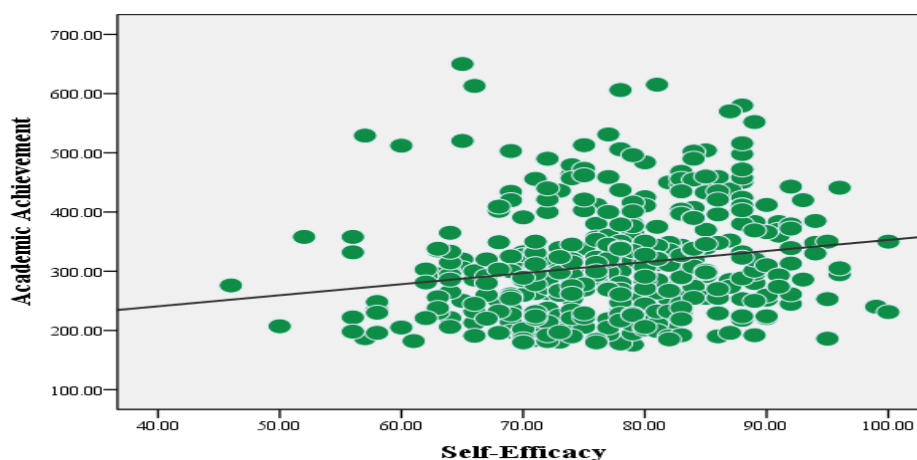

Figure-13: '*The Scatter Plot of Correlation between Self-Efficacy and Academic Achievement of Higher Secondary Learners of Rural Areas in West Bengal*'

H_{06} 'There is no significant relationship in the coefficient of correlation between Self-efficacy and Academic Achievement of higher secondary level arts learners in West Bengal.'

Table-15: '*Relationship between Self-efficacy and Academic Achievement of Arts Higher Secondary Learners in West Bengal*'

Variables	N (Arts)	(r)
Self-Efficacy	520	
Academic Achievement	520	0.228**

'For the higher secondary learners of arts stream, the correlation coefficient between self-efficacy and academic achievement is found to be r = 0.228, p<0.01 is statistically significant at 0.01 level of significance. For the coefficient of correlation (r = 0.228) the Cohen's (1988) guidelines of effect size suggest a small strength of the correlation. Moreover, as per the Cohen's (1988) guidelines for the effect size, the value of Pearson correlation coefficient (r = 0.228) indicates a small strength of correlation between self-efficacy and academic achievement of arts higher secondary learners in West Bengal.'
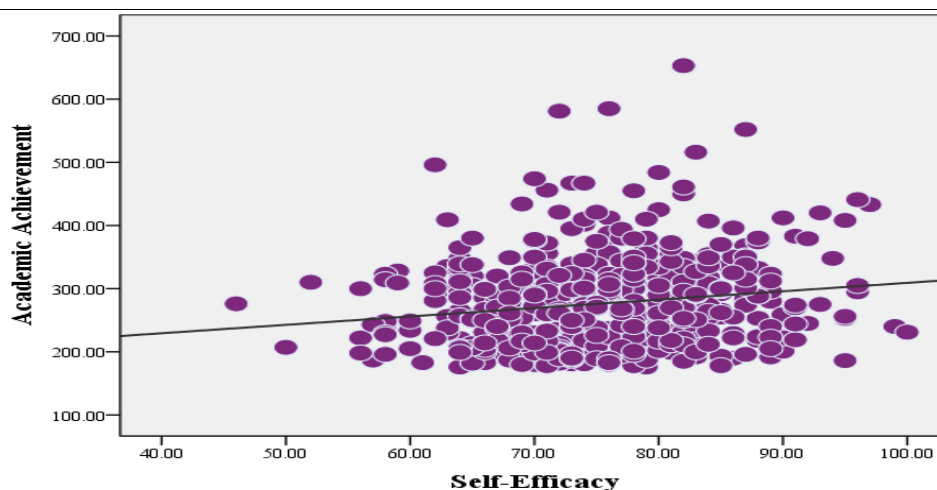
Figure-14: '*The Scatter Plot of Correlation between Self-Efficacy and Academic Achievement of Arts Higher Secondary Learners in West Bengal'*

H_{07} 'There is no significant relationship in the coefficient of correlation between Self-efficacy and Academic Achievement of higher secondary level science learners in West Bengal.'

Table-16: '*Relationship between Self-efficacy and Academic Achievement of Science Higher Secondary Learners in West Bengal'*

Variables	N (Science)	(r)
Self-Efficacy	452	
Academic Achievement	452	0.232**

'The above given table-16 depicts a significant relationship between self-efficacy and academic achievement as r = 0.232, p<0.01 is significant at 0.01 level of significance for the higher secondary learners of science stream. Here for the value of the Pearson correlation coefficient (r = 0.232) the Cohen's (1988) convention of effect size suggests a small strength of the correlation. Moreover, as per the Cohen's (1988) guidelines for the effect size, the value of Pearson correlation coefficient (r = 0.232) indicates a small strength of correlation between self-efficacy and academic achievement of science higher secondary learners in West Bengal.'
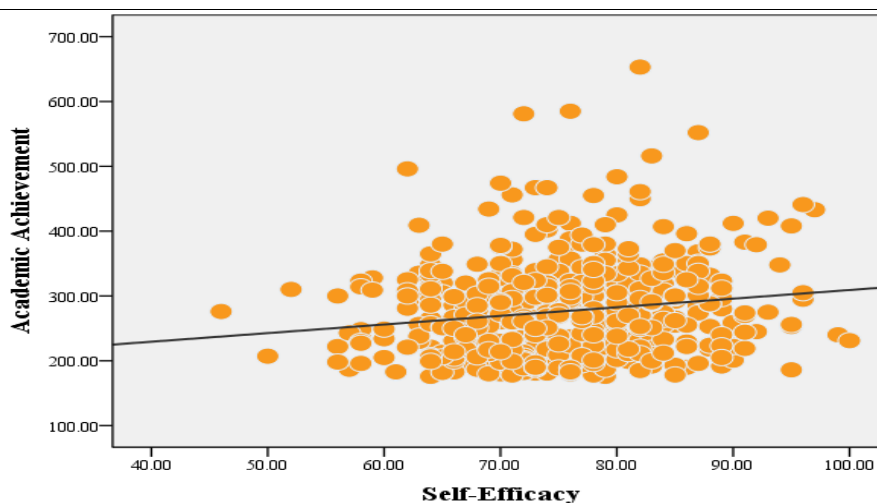
Figure-15: '*The Scatter Plot of Correlation between Self-Efficacy and Academic Achievement of Science Higher Secondary Learners in West Bengal*'

DISCUSSION

The combination of a learner's experiences, personality, and demographic traits determines their academic success. According to the published research of several scholars, self-efficacy is a key factor in determining a learner's degree of academic success. The study's findings demonstrated *'a strong positive relationship between the academic achievement of the higher secondary learners and their degree of self-efficacy.'* Academic achievement was found to be predicted by self-efficacy in a number of research, including Hassan, Alasmari, and Ahmed (2015), Akram and Ghazanfar (2014), Tenaw (2013), Enny and Pujara (2017), Arbabisarjou et al. (2016), Shkullaku (2013), and others. Mustafa Afifi, Amal Shehata, and Enas Mahrous Abdalaziz, 2019; Ahuja, 2016 all reported findings that were comparable to those of our study. Academic achievement was shown to be significantly impacted by gender, locale and academic stream. Similar study findings have been found on the impact of gender on academic achievement.

EDUCATIONAL IMPLICATIONS OF THE STUDY

This study holds paramount importance for various stakeholders in the education system, including teachers, parents, curriculum planners, and policymakers, as it provides valuable insights to enhance learners' academic achievement.

Implications for Teachers

- **Think-Aloud Protocols:** A teacher may encourage learners to use think-aloud protocols while studying or problem-solving. This technique involves verbalising their thoughts and decision-making processes, helping them become more aware of their cognitive strategies.
- **Setting Realistic Goal:** By assisting learners in setting realistic and achievable goals, teachers may motivate them to strive for improvement in academics. Celebrating progress and effort may reinforce the self-efficacy beliefs of learners.

Implications for School Administrators

- **Promoting Learners' Self-Efficacy:** School administration may foster learners' self-efficacy by creating a supportive and encouraging learning environment. Teachers may use positive reinforcement, constructive feedback and recognition of the learners' efforts to build confidence in his ability to excel in sciences.
- **Providing Academic Support for Struggling Learners:** School administration may assist teachers in organizing remedial teaching or study groups for learners facing challenges in understanding fundamental concepts in pertaining to different subjects.

Implications for Curriculum Planners & Policy Makers

- **Cultivating a Growth Mind-Set:** Promoting a growth mind-set may empower learners to see intelligence and abilities as malleable traits that may be developed through effort and practice. This perspective may positively impact both metacognitive awareness and self-efficacy.
- **Creating a Culture of Reflection:** Curriculum planners may encourage integrating reflective practices in the learning context. Regular self-assessment, goal-setting, and feedback sessions may enable learners to become more aware of their learning strategies and boost their self-efficacy.

Implications for Parents

- **Encouraging Open Academic Communication:** Parents may encourage open communication about their children's academic experiences, challenges, and goals. Regular discussions may help to develop planning skills and build their self-efficacy.

- **Recognizing Effort and Progress:** Parents should recognize and celebrate their children's efforts and progress in academics. Positive reinforcement may boost motivation, self-confidence, and self-efficacy.

SUGGESTIONS FOR FURTHER RESEARCH

- In the present study, only gender, locale and academic stream were taken as a demographic variable, so it is suggested that some more demographic variables like type of schools, religion, etc. can also be taken up.
- There are a number of various other factors that directly or indirectly affect academic achievement like academic resilience, spiritual intelligence, socio-economic status, creativity, parents' educational qualification, study habits, etc. can also be employed.
- Replication of the study can be done to produce more information in this area. A different setting for the research, with a different kind of population and with various other data collection methods and techniques may be encouraged in such studies.
- A comparative study of West Bengal with other states can be done with the same variables.

CONCLUSION

The findings demonstrated a high positive correlation between academic achievement and self-efficacy. The results of the analysis were found to be in good agreement with a number of earlier studies. The study's findings suggest that raising self-efficacy is essential for raising academic achievement, particularly for children who have previously reported low academic achievement. Teachers, counsellors, parents, planners, administrators, and education experts may use the study's findings to assist them create and organize curricula in schools that include

relevant activities that boost learners' self-efficacy. It was discovered that demographic traits including gender, locale and academic stream were significant determinants of both academic achievement and self-efficacy. According to the study's findings, all learners from diverse communities—regardless of gender—should receive the support they require to improve their academic achievement and feeling of self-efficacy. The findings have been shown to benefit learners in the areas of motivation, cultivating a positive attitude, assuring readiness laws, skill development, leadership quality moulding, and identifying and maintaining focus on academic difficulties and activities.

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