



# Academic Self-Efficacy and Academic Performance among Undergraduate Students in Relation to Gender and Streams of Education

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#### ABSTRACT

In the study, an attempt has been made to investigate academic self-efficacy and academic performance of undergraduate students in relation to gender and streams of education. The subjects of the study consisted of 120 undergraduate boys and girls enrolled in the Arts, Commerce, and Science streams of education. Primary data were collected using an academic self-efficacy scale. The results revealed a significant positive relationship between the student's academic self-efficacy and academic performance. The results also indicated a significant influence of academic self-efficacy on the academic achievement of students. Further, the results revealed that undergraduate students of the science stream were having high academic self-efficacy were having significantly higher academic performance as compared to others. The results of the study were discussed.

Keywords: Academic Self-Efficacy; Academic Performance; Undergraduate Students; Gender, Streams of Education

#### 1. INTRODUCTION

Due to scientific innovations and technological development, there is rapid progress in the field of industry, transport, communication, health, agriculture. Defence, etc. The educational system does not remain untouched by these advances. Science and technology in the field of education give importance to methods and techniques by which quantitative, as well as qualitative development of the educational system, is possible. In the present educational process, parents are evaluating the quality education of their children concerning the academic performance instead of the all-around development of the child. There are different learning methods, strategies, and techniques based on psychological theories and principles which can be practiced by the teachers for the academic progress of students. Self-efficacy is one of the important factors, which plays a significant role in the academic world of the student. Self-Efficacy motivates the student to adopt specific and appropriate learning strategies to achieve academic goals. The concept of self-efficacy traces its root in the Social Cognitive Learning Theory of Albert Bandura. Self-efficacy, in the words of Bandura (1986), is "the belief of an individual in his/her ability to take action by expectations". Self-efficacy is not related to the question of how much an individual likes himself or herself? It is also not concerned with what abilities or capacities a person possesses? It is related to the question of how an individual holds the belief in his/her ability to perform any course of action or assigned task? According to social cognitive theory, an individual acquires self-knowledge of their efficacy or ability through four sources. Situational self-efficacy has the following four components. Mastery Experience implies that to become a success in any task or to control an environment mastery experience increases self-efficacy. It is related to the experience that helps the individual to perform well in a similarly associated task. Vicarious experience implies observing the action of someone's attainment in a related task. Emotional and psychological states refer to the sensation of emotional and psychological aspects (like depression, tension, anxiety, etc.) which are experienced by a person while performing a particular task. Verbal Persuasion refers to people's faith and feedback to strengthen the belief of an individual in his ability to become a success. It means that the self-efficacy of a person or student is also influenced by discouragement and encouragement from others. Self-efficacy is a multidimensional construct. Therefore, in the educational field, a teacher should consider students' academic self-efficacy instead of general self-efficacy.

Self-efficacy is considered as a key factor contributing to learner academic achievement as it affects the choices and decisions that learners make and the courses of action they pursue (Pajares, 2002). Academic self-efficacy belief refers to student perception that they can complete the given academic tasks at specified levels. Researchers expressed a similar

definition of academic self-efficacy as "students' perceptions of their competence to do their classwork" (Midgley et al., 2000). Students' beliefs in their efficacy in an academic environment, provide the foundation for motivation, and personal achievement. It is because students have little incentive to act or persevere in the face of difficult circumstances unless they believe that their actions will result in the outcomes they deserve. In addition, students with a strong belief in their academic efficacy are more interested in academic activities by setting up challenging goals and working hard to achieve them (Fenollar et al., 2007). It can be shown in the behaviour of the students who have higher efficacy belief that they can demonstrate a high level of enthusiasm while working on the tasks, such as collecting assigned assignments on time, never complaining while an assignment is provided, and always attempting to complete the tasks despite the high level of difficulty. Meanwhile, others with lower academic self-efficacy often seem to choose and perform well on tasks that match their abilities, however, if the tasks are perceived to be too challenging, they avoid and ignore them which creates the problem of academic procrastination (Bandura, 2013). Students get information for evaluating their self-efficacy from their actual performances, vicarious experiences, persuasions from others, and physiological reactions related to the academic environment. It affects their task choice, effort, persistence, resilience, and achievement (Bandura, 1997; Schunk, 1995).

According to research academic commitment, cognitive engagement, analytical thinking, learning strategy use, susceptibility to negative emotions, and achievement are all significantly persistence. correlated with academic self-efficacy. Students' beliefs of their efficacy to regulate their instructive process and outcome, as well as to become proficient in challenging academic content, are likely to have a significant impact on their scholastic impetus, educational interest, and performance in an academic context. Students who are self-assured in their own ability to organise and regulate their task performance at a specified level of competence possess high self-efficacy (Linenbrink and Pintrich, 2003). They can make consistent distinctions in their self-efficacy judgments in relation to different academic domains, which may result in a weak hierarchical multidimensional structure of efficacy belief. It was also identified that academic self-efficacy, which reflects a student's personal belief in his abilities to perform educational duties at expected levels, boosts a student's mental effort in learning (Gore, 2006). Studies on academic self-efficacy which have been conducted by researchers concluded that it is highly important for students to have a high efficacy belief in their ability to begin and continue their studies (Odaci, 2011). This academic efficacy belief was also found to be important for prospective teachers in the field of education and training process. Because it can be expected that student-trainees having high levels of efficacy belief in academic domains tend to have high self-confidence which develops a positive attitude for their future profession.

Many previous research studies related to self-efficacy and academic performance have reported a positive association between student's academic self-efficacy and academic performance (Pearson, 2009; Motlagh et al., 2011; Meral et al., 2012; Shkullaku, 2013; Goulau, 2014; Taylor, 2014; Arbabisarjou et al., 2016; Kolo et al, 2017; Eny and Pujar, 2017; Hasan and Parvej, 2019). Some other studies have reported positive impact of academic self-efficacy on the academic achievement of students (Gota, 2012; Ahmad and Safaria, 2013; Abdelmotaleb and Saha, 2013; Razek and Coyner, 2014; Hasan et al., 2015; Domennech-Betoret et al, 2017; Eny and Pujar, 2017; Bewana, 2018). On the other hand, earlier researches show that marriage and age groups had no impact on self-efficacy as well as on motivation (Maraghi et al, 2018). Few studies also found that the mean score of academic motivation was less than the mean score of students' self-efficacy (Taheri-Kharameh et al., 2018). Research literature had addressed that the sub-factors of self-efficacy i.e., self-evaluation, self-directing, self-regulation were closely associated with the academic achievement of students (Motlagh et al., 2011). Mastery experience which is one of the sources of self-efficacy was found to be the important predictor of academic achievement in mathematics (Looh and Choy, 2013). Some of the literature addressed that educational success also had a significant effect on perceived self-efficacy (Automand and Momani, 2018). There have been relatively few empirical studies on this topic in the Indian context, in which it was found pre-service teacher trainees enrolled in the regular program had a high level of self-efficacy than the pre-service teacher trainees enrolled in the self-supporting program (Nasir and Igbal, 2019). It has been empirically investigated in a few studies that students from rural and urban areas differ in their academic performance in English concerning their self-efficacy (Meera and Jumana, 2015). Several studies illustrate the significant difference in self-efficacy concerning the gender of students (Shkullakh, 2013), while other studies have shown no gender difference in self-efficacy of students (Gota, 2012; Meera and Jumana, 2015; Koseoglu, 2015; Afifi et al., 2016; Sachitra and Bandara, 2017). Different studies conducted on self-efficacy and academic achievement showed that students having high academic self-efficacy possess more academic status than the students having low academic self-efficacy (Ahmad and Safaria, 2013; Pavani and Agrawal, 2015; Hassan et al., 2015; Koseoglu, 2015; Arbabisarjou et al., 2016; Eny and Pujar, 2017).

Based on the research gaps found from the intensive review of related literature, it was found that particularly in the Indian context, fewer numbers of studies have been conducted for studying the influence of interactions between academic self-efficacy, streams of education, and gender on the academic performance of undergraduate students. Although previous kinds of literature reported the positive relationship between self-efficacy and student's academic performance, it is also important to analyse the relationship of self-efficacy with academic performance in terms of student's gender and streams of education. Based on the review of different literature, it appeared that the concept of self-efficacy is a universal as well as a very important component for understanding the academic performance of students as it has different predictive power on different individuals (Strelnieks, 2003). After analysing related literature of last 11 years, it was found that a very smaller number of studies have been conducted on academic self-efficacy and academic performance at the higher stage of education particularly at the undergraduate level A smaller number of studies were carried out earlier to investigate the significant influence of interaction among academic self-efficacy and academic performance at the undergraduate stage of education. Therefore, the present study is undertaken to study the interaction influence of self-efficacy, streams of education. Therefore, the present study is undertaken to study the interaction influence of self-efficacy, streams of education, and gender on academic performance and to study the relationship of self-efficacy with academic performance of self-efficacy, streams of education, and gender on academic performance and to study the relationship of self-efficacy with academic performance of

undergraduate students studying in Arts, Science and Commerce streams of education of Panchayat Degree College, Bargarh. Apart from this, the present study was conducted realizing the implications of studying academic self-efficacy among the students of higher level.

#### **Objectives of the Study**

- 1. To study the level of academic self-efficacy of undergraduate students
- 2. To study the relationship between academic self-efficacy and academic performance of undergraduate students
- 3. To find out the variations in academic self-efficacy of undergraduate students in terms of their gender and streams of education
- 4. To study the influence of academic self-efficacy, streams of education, gender, and their interactions on the academic performance of undergraduate students.

#### Hypotheses of the Study

- 1. There exists no significant relationship between academic self-efficacy and academic performance.
- 2. There exists no significant difference in mean scores of academic self-efficacy of undergraduate students in terms of their gender and streams of education.
- 3. There exists no influence of academic self-efficacy, streams of education, gender, and their interactions on the academic performance of undergraduate students.

## **Delimitations of the Study**

The current study was delimited to 120 undergraduate students of Panchayat Degree College, Bargarh, Odisha, India. The study was also delimited to the academic self-efficacy and academic performance of undergraduate students.

## 2. RESEARCH METHOD

The present study was designed to find out the relationship between academic self-efficacy and academic performance of undergraduate students, to find out the impact of academic self-efficacy on academic performance, to determine the difference between the self-efficacy of undergraduate boys and girls. Taking into consideration these objectives, the present study employed a descriptive survey method following a correlational design. Along with that 2\*3\*2 Factorial design was also used to investigate the influence of interactions. All the undergraduate students enrolled in the three-year undergraduate course during the session 2017-2020 in Panchayat Degree College, Bargarh, Odisha, India was the population under the study. A sample of 120 students was taken through stratified random sampling, in which 60 were boys and 60 were girls. 40 students from each stream of education i.e., Arts, Science, and Commerce were selected as the sample under the study.

For the collection of data on self-efficacy, Academic Self-efficacy Scale developed by Gafoor and Ashraf was used. The scale was developed in 2007 and is based on Social Cognitive Theory developed by Albert Bandura (1977). The scale consists of 40 items of which 20 items are positive and 20 items are negative. All the 40 items of the scale are based on 12 dimensions which are learning process, reading, comprehension, memory, time management, curricular activities, teacher-student relationship, peer relationship, utilization of resources, goal orientation, adjustment, and examination. The split-half reliability of the scale is .90 and content validity of the scale was ensured through expert's judgment on all the dimensions. Data on academic performance was collected from the Academic performance scorecard (GPA) of their previous semester. For data analysis, descriptive as well as inferential statistical methods were employed in the study. Considering the nature of the distribution of the data, parametric statistical techniques were used. In the study, Z-score, t-test, Pearson's Coefficient of Co-relation, and Analysis of Variance (ANOVA) were used.

#### 3. RESULTS AND DISCUSSION

#### 3.1 Descriptive Analysis

The descriptive analysis of the obtained data was done by using Mean, SD, and N with reference to the demographic variables i.e., streams of education and gender. The results of the descriptive analysis are given below.

| Streams of educations | Gender | Mean | SD   | Ν  |
|-----------------------|--------|------|------|----|
| A                     | Boys   | 6.91 | .44  | 20 |
| Arts —                | Girls  | 6.84 | .79  | 20 |
| a :                   | Boys   | 6.79 | .97  | 20 |
| Science —             | Girls  | 6.79 | .96  | 20 |
|                       | Boys   | 6.64 | .85  | 20 |
| Commerce              | Girls  | 6.37 | 1.21 | 20 |
| —                     | Girls  | 6.67 | 1.00 | 60 |



Figure 1. Mean scores of academic self-efficacy in relation to streams of education and gender

The above figure shows mean scores of academic self-efficacy among undergraduate students with reference to gender and streams of education. The figure shows that undergraduate boys of Arts streams of education were having slightly higher means of academic self-efficacy than girls. The figure also shows that undergraduate boys and girls of science streams of education were having similar means of academic self-efficacy. With regard to commerce streams of education, it was found that undergraduate boys were having a higher mean score of academic self-efficacy than girls. By analysing the above figure, it can be said that undergraduate boys of Arts streams of education were having the highest mean score of academic self-efficacy as compared to others in the descriptive sense.

One of the objectives of the study was to investigate the level of academic self-efficacy of undergraduate students. As per the objective of the study, a five-point Self-efficacy scale was administered on the subjects under study, and the response of each subject was evaluated by scoring guidelines. The level of academic self-efficacy among undergraduate students was calculated with the help of a standard score (Z-score). Based on the Z-score, three levels of ASE for undergraduates were determined such as High-Level ASE, Moderate or Average Level ASE, and Low-Level ASE.

| Variable               | Ν   | Minimum | Maximum | Mean   | Std. Deviation |
|------------------------|-----|---------|---------|--------|----------------|
| Academic self-efficacy | 120 | 99.00   | 198.00  | 145.47 | 20.20          |

The table depicts data about the descriptive statistics of the academic self-efficacy scores of undergraduate students. It depicts that the mean of academic self-efficacy was 145.45, the minimum score was 99, the maximum 198, and the standard deviation was 20.20. based on the data set, Z-scores for each raw score were calculated and based on the Z-scores three levels of academic self-efficacy i.e., High academic self-efficacy, moderate academic self-efficacy, and low academic self-efficacy.

Table 3. Level of academic self-efficacy of UG students

| Sl. No. | Specifications                  | No. of Students | Percentage |
|---------|---------------------------------|-----------------|------------|
| 1       | High academic self-efficacy     | 62              | 51.67 %    |
| 2       | Moderate academic self-efficacy | 02              | 1.67 %     |
| 3       | Low academic self-efficacy      | 56              | 46.66 %    |



Figure 2. Percentage of students' Academic Self-efficacy

The above figure revealed that out of 120 (100%) undergraduate students, 02 respondents (2%) were having medium ASE, as their scores of academic self-efficacy fall exact to the mean, 62 undergraduate students (51%) were having high ASE as their scores of academic self-efficacy fall above to the mean scores, apart from these, 56 students (47%) were having low ASE, as their academic self-efficacy scores fall below to the mean scores. Hence, it can be said that more undergraduate students possessed higher academic self-efficacy concerning their academic performance.

# 3.2 Analysis of Relationship between Academic Self-Efficacy and Academic Performance of UG Students

One of the objectives of the study was to examine the relationship between academic self-efficacy and the academic performance of students. As per the objectives of the study, collected data on academic self-efficacy and academic performance were analysed by Pearson Product Moment Correlation.

| <b>Table 4.</b> Co-efficient of correlation between academic performance and academic self-efficacy |                        |     |                                    |  |  |
|---|------------------------|-----|------------------------------------|--|--|
| Variables   |                        | Ν   | Pearson coefficient of correlation |  |  |
| 1   | Academic performance   | 120 | 0.265**                            |  |  |
| 2   | Academic Self-efficacy |     |                                    |  |  |
| 1.01  |                        |     |                                    |  |  |

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\*\*significant at 0.01 level

From the table 4, it is evident that the correlation coefficient between academic self-efficacy and academic achievement is 0.265, which is positive and significant at 0.01 level with df=118. Thus, the null hypothesis that there is no significant relationship between academic self-efficacy and academic performance of college students is rejected. It shows that academic self-efficacy and academic achievement of undergraduate students were positively and significantly correlated.

# 3.3 Analysis of the influence of academic self-efficacy, streams of education, gender, and their interactions on academic performance of UG students

One of the objectives of the study was to examine the influence of academic self-efficacy, streams of education, gender, and their interactions on the academic performance of undergraduate students. As per this objective, there were two levels of academic self-efficacy, namely High ASE and Low ASE, three levels of streams of education, namely Arts, Science, and Commerce, and two levels of gender, namely boys and girls. To investigate this objective, Three-Way ANOVA or 2\*3\*2 Factorial Design ANOVA was used by using SPSS-23.

| Source   | Sum of Squares | df  | Mean Square | $\mathbf{F}$ | Sig.  | Remarks |
|--|----------------|-----|-------------|--------------|-------|---------|
| Academic self-efficacy   | 9.347          | 1   | 9.347       | 12.981       | .000  | P<0.01  |
| Streams of education   | 3.582          | 2   | 1.791       | 2.488        | .088  | ns      |
| Gender   | 1.749E-6       | 1   | 1.749E-6    | .000         | .999  | ns      |
| Level of Academic self-efficacy* Streams of education (2*3)              | 4.552          | 2   | 2.276       | 3.161        | .046* | P<0.05  |
| Level of Academic self-efficacy * Gender<br>(2*2)                        | .041           | 1   | .041        | .056         | .813  | ns      |
| Streams of education* Gender (3*2)                                       | .054           | 2   | .027        | .037         | .963  | ns      |
| Level of Academic self-efficacy* Streams of<br>education* Gender (2*3*2) | 1.064          | 2   | .532        | .739         | .480  | ns      |
| Error  | 77.761         | 108 | .720        |              |       |         |
| Total  | 5523.539       | 120 |             | -            |       |         |
| Corrected Total  | 96.733         | 119 |             |              |       |         |

\* significant at 0.05 level

\*\* significant at 0.01 level

ns: not significant

#### 3.3.1 Influence of Academic self-efficacy on academic performance of students

Analysis of variance revealed that the F-value of 12.98 for academic self-efficacy is significant at 0.01 level with df=1/108. It indicates that the mean scores of academic performances of undergraduate students having high and low academic self-efficacy differ significantly. So, there was a significant influence of academic self-efficacy on the academic performance of undergraduate students. Thus, the null hypothesis that there is no significant influence of academic self-efficacy on the academic performance of students is rejected. Further, the mean score of academic performances of students having high academic self-efficacy is 7.01, which is significantly higher than the students having low academic self-efficacy, whose mean score of academic performances is 6.43. it may, therefore, be said that undergraduate students having higher academic self-efficacy were found to have higher academic performance as compared to the students having low academic self-efficacy so, there was a positive influence of academic self-efficacy on academic performances of the students.

#### 3.3.2 Influence of Streams of education on academic performance of students

The F-value of 2.49 for the streams of education is not significant at 0.05 level with df=2/108. It indicates that the mean scores of academic performances of undergraduate students belonging to the Arts, Science, and Commerce streams of education did not differ significantly. So, there was no significant influence of streams of education on the academic performance of undergraduate students. The null hypothesis is accepted here.

#### 3.3.3 Influence of Gender on academic performance of students

The F-value of 0.00 for the streams of education is not significant at 0.05 level with df=1/108. It indicates that the mean scores of academic performances of undergraduate boys and girls did not differ significantly. So, there was no significant influence of gender on the academic performance of undergraduate students. The null hypothesis is accepted here. 3.3.4 Influence of Interaction between Academic self-efficacy and Streams of education on academic performance of

#### students

| Table 5a. Mean and Std. Error of interaction between academic self-efficacy and streams of education     95% Confidence Interval |          |       |              |                            |             |  |  |
|--|----------|-------|--------------|----------------------------|-------------|--|--|
| Level of academic self-efficacy  | Stream   | Mean  | Std. Error — | 25% Confide<br>Lower Bound | Upper Bound |  |  |
| High   | Arts     | 6.894 | .171         | 6.555                      | 7.233       |  |  |
|  | Science  | 7.123 | .220         | 6.688                      | 7.559       |  |  |
|  | Commerce | 7.016 | .184         | 6.652                      | 7.381       |  |  |
| Low  | Arts     | 6.788 | .224         | 6.345                      | 7.231       |  |  |
|  | Science  | 6.586 | .170         | 6.249                      | 6.923       |  |  |
|  | Commerce | 5.923 | .205         | 5.517                      | 6.330       |  |  |

The F-value of 3.16 for interaction between academic self-efficacy and streams of education is not significant at 0.05 level with df=2/108. It indicates that the mean scores of academic performances of undergraduate students having high and low academic self-efficacy and belonging from the Arts, Science, and Commerce streams of education differ significantly. So, there was a significant influence of interaction between academic self-efficacy and streams of education on the academic performance of undergraduate students. Thus, the null hypothesis that there is no significant influence of interaction between academic self-efficacy and streams of education between academic self-efficacy and streams of education is rejected. Further, the descriptive statistics revealed that undergraduate students of science streams of education and having high academic self-efficacy were having higher academic performance as compared to others.

#### 3.3.5 Influence of Interaction between Academic self-efficacy and gender on academic performance of students

The F-value of 0.056 for interaction between academic self-efficacy and gender is not significant at 0.05 level with df=1/108. It indicates that the mean scores of academic performances of undergraduate boys and girls having high and low academic self-efficacy did not differ significantly. So, there was no significant influence of interaction between academic self-efficacy and gender on the academic performance of undergraduate students. The null hypothesis is accepted here.

#### 3.3.6 Influence of Interaction between Streams of education and gender on academic performance of students

The F-value of 0.037 for interaction between streams of education and gender is not significant at 0.05 level with df=2/108. It indicates that the mean scores of academic performances of undergraduate boys and girls belonging from the Arts, Science, and Commerce streams of education did not differ significantly. So, there was no significant influence of interaction between streams of education and gender on the academic performance of undergraduate students. The null hypothesis is accepted here.

# 3.3.7 Influence of Interaction among Academic self-efficacy, Streams of education and gender on academic performance of students

The F-value of 0.739 for interaction among academic self-efficacy, streams of education, and gender is not significant at 0.05 level with df=2/108. It indicates that the mean scores of academic performances of undergraduate boys and girls having high and low academic self-efficacy and belonging from the Arts, Science, and Commerce streams of education did not differ significantly. So, there was no significant influence of interaction among academic self-efficacy, streams of education, and gender on the academic performance of undergraduate students. The null hypothesis is accepted here.

#### **3.4 Empirical Result**

The present study revealed that nearly 51% of college students were having a high level of academic self-efficacy concerning their academic performance. A significant positive association between academic performance and academic self-efficacy was discovered among undergraduate students. The findings revealed no significant difference in academic

self-efficacy among undergraduate students concerning their gender and stream of education. There was a significant positive influence of academic self-efficacy on the academic performance of undergraduate students in the present study. There was no significant influence of gender and stream of education on the academic performance of undergraduate students. A significant influence of interaction between academic self-efficacy and streams of education on academic performances of undergraduate students was found. No significant influence of interaction between academic self-efficacy and gender on academic performances of undergraduate students was found. No significant influence of interaction between streams of education and gender on academic performances of undergraduate students was found. No significant influence of interaction among academic self-efficacy, streams of education, and gender on the academic performance of undergraduate students was found in the study. After analysis of data, the outcome of the study revealed that most of the undergraduate students were having high ASE. This study came out with a significant positive correlation between self-efficacy and academic achievement of undergraduate students. This finding is matched with the findings of some previous related literature (Pearson, 2009; Shkullaku, 2013; Taylor, 2014; Arbabisarjou et al., 2016; Kolo et al, 2017; Eny and Pujar, 2017; Hasan and Parvej, 2019). The results reported that there was no sex difference in academic self-efficacy among undergraduate boys and girl students as previous research proved the same (Gota, 2012; Meera and Jumana, 2015; Koseoglu, 2015; Afifi et al., 2016; Sachitra and Bandara, 2017). In this study, no significant difference in academic self-efficacy among undergraduate students concerning their streams of education was found, which was not investigated by previous research kinds of literature. This finding implies that students from different educational streams of education such as arts, science, and commerce do not differ in believing their abilities related to their academic field and it must be considered by teachers in the teaching-learning process for dealing with different subject areas. The study also identified a positive impact of self-efficacy on students' academic performance, which indicates the difference in academic achievements of students having high and low self-efficacy. This has again strengthened previous findings concerning self-efficacy as an important factor affecting academic performance positively (Gota, 2012; Ahmad and Safaria, 2013; Abdelmotaleb and Saha, 2013; Razek and Coyner, 2014; Hasan et al., 2015; Domennech-Betoret et al, 2017; Eny and Pujar, 2017; Bewana, 2018), but on the other hand, it was also discovered that gender and streams of education i.e., arts, science, and commerce had no impact on the academic performance of undergraduate students. Many sources, as stated in the literature review reported the impact of self-efficacy but in the present study, the result illustrates the associate effect of self-efficacy, streams of education, and gender on the educational performance of students. The results of ANOVA showed the influence of interaction between academic self-efficacy and streams of education on academic performances but no significant influence of interaction between academic self-efficacy and gender on academic performances was found. At the same time, it was found that there exists no significant influence of interaction between streams of education and gender on academic performance. Based on the above findings, the null hypothesis i.e., no significant influence of interaction among academic self-efficacy, streams of education, and gender on academic performance of undergraduate students was rejected.

#### 4. CONCLUSION

In conclusion, the findings of the study contribute to the field of education by examining the interaction influence of academic self-efficacy, streams of education, and gender on the academic performance of undergraduate students. Considering the outcomes of the study it can be concluded that efforts should be made by the teachers and parents to improve the level of students' self-efficacy. The study also found the positive impact of self-efficacy on students' academic performance based on which it can be concluded that students with high academic self-efficacy led to higher academic performance. On the other hand, guidance for the students having low self-efficacy should be given to face difficulties in various academic tasks. They must have the belief that they are capable of accomplishing academic goals. Lack of self-efficacy on the part of students may lead to shortcomings or difficulties in carrying out academic tasks which were termed as cognitive negativity by Albert Bandura.

#### RECOMMENDATIONS

The present study is based on academic self-efficacy and academic performance of undergraduate students, which revealed a significant positive correlation between these two. So, it is recommended that in educational institutions adequate efforts should be taken by the stakeholders to develop academic self-efficacy among the students to a great extent. For this reason, group discussion and workshops should be conducted in the institutions. Teachers should make the students aware of their self-efficacy and should try to develop a positive attitude on their own self-efficacy as a result of which they can able to accomplish their goals on their academic ground. It may also be the duty of parents to know whether their children have positive confidence in their ability or not, and appropriate steps should be taken because academic self-efficacy of the student plays pivot role to cope up with academic difficulties.

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#### **AUTHOR'S CONTRIBUTIONS**

Author 1: Introduction, Literature review, Material sourcing and data collection. Author 2 & 3: Design of study, Data analysis and interpretation. All authors have contributed to from the start to final manuscript.

# **CONFLICT OF INTEREST**

No potential conflict is reported in this study.

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