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Study Skills and Educational Aspiration among Undergraduate Students from Different Disciplines

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ABSTRACT:

The study aims to discuss the study skills and educational aspiration of undergraduate students from different disciplines. The descriptive survey method is used to collect data on 188 undergraduate students of colleges of Ghaziabad and Gautam Buddha Nagar district. The students of arts, science and commerce discipline were considered for study. The study skill measuring tool was constructed by researcher with reliability 0.90. For educational aspiration, a standardized tool constructed by Sharma and Gupta (2011) was used. ANOVA was used to compare the study skills and educational aspirations of students of B.A., B. Com. and B.Sc. The findings of the study showed that the arts and commerce streams students significantly differ in study skills. Students of science and arts streams differ in educational aspirations.

Keywords: *Study skills, Educational Aspiration, Undergraduate Students.*

1. INTRODUCTION:

Studying is a process that requires the retention of information. It involves external environmental factors, like place of studying, noise levels, distracting activities around etc. It involves allocation of time, setting realistic goals and being organized. ***Vijayabanu and Prasanna*** (2017) defined study skill as strategies or approaches implemented towards learning Studying process is an integration among the various dimensions. Study techniques would enable students to learn more while spending less time studying. It's hard to identify study skills. The term "study skill" has no precise meaning. It is challenging to identify and enumerate particular study abilities due to the vast differences in the approaches and routines that students employ. But to put it simply, "study skills" are "the various aptitudes that can be developed in order to improve a learner's capacity

to learn." It's a learning process. One may become a skilled and successful learner by using their study techniques effectively. Two categories of study skills are frequently distinguished: One kind is being aware of where to find the information needed for inclusive education. Knowing how to learn the materials once they are available is the second kind. To arrange the materials and document the data gathered from diverse sources, particular abilities and tactics are needed. ***Sinde*** (1988) classified study skills into three categories: Skills for gathering information; Skills for storing information; and Skills for retrieving information. Numerous environmental, social, psychological, mental, and physical aspects influence pupils' ability to study. Along with all of these variables, the goals and targets of the persons as well as the variations and challenges in the field of research also have an impact on the study of individuals. Thus, there are variations in how the lesson and learning are perceived. (Pepe, 2012).

Research has consistently demonstrated that study skills play a crucial role in students' academic performance. According to Patidar (2019), effective study skills are fundamental to achieving academic excellence. Students who possess strong study skills have reduced chances of academic failure and are better positioned to maximize educational opportunities. Similarly, Hilawani and Sartawi (1997) found that students with higher grade point averages demonstrated significantly superior performance on study skills and habit assessments compared to their counterparts with lower GPAs.

Study Skills which are helpful in effective and independent learning and which are taken in present research are:

- **Reading a text-** Reading of text includes reading text in form of written notes, printed books or electronic books or other sources. Effective reading comprises outlining, summarizing, synthesizing, contextualizing, explaining the significance of figurative language, reflecting on challenges to our beliefs and value; and evaluating the topic of an argument.
- **Note taking-** Note taking may be described as to make a written record of main points, theme, sub-theme or concepts of an oral presentation or printed document for future use. Notetaking has been documented to produce higher retention of the information learned in better academic performance.
- **Memorizing-** Study skill requires cognitive process to consistently store and recollect information that was learnt, information stored needs to be recollected to be procedure in the times of need.
- **Organizing Information**-Information is organised with help of charts and diagrams for study and construction of knowledge and organizing information. These are called graphic organizers (Jeananada, 2003). With the help of these tools, information is presented in a structural and simple way for understanding. This help learners to develop insight into the topic.
- **Time management**- Time management is simply a way of using time effectively. Managing time is managing oneself. It is more about our priorities and then choose the activities accordingly.
- **Comprehension-** Comprehension is an important dimension of study skills, it leads to better retention and as well as utilization of learned information.

- **Preparation for test**- It is the revision of learned content, optimum usage of time and resources, with coping over anxiety that leads to better performance in test.
- **ICT usage in study-** Information and Communication Technology enables students to learn more in a much shorter period because of virtualization models. So, technology usage is an important dimension of study skills in current scenario as a student has to accomplish several tasks simultaneously.

Aspiration is the expectation of achievement by a student. It is a desire to achieve more than current situations and mainly it is related to status and honor. It gives the goal to person which he is desired to achieve. It directs all his actions. Dwivedi (2012) suggests that people work toward particular targets and outstanding achievement, creating a drive for excellence that possesses an underlying organization called the level of aspiration.

When aspiration is centered to the area of education, it is called Educational aspiration. It is one's educational plan for future and it is the type of education a person would like to have. Educational aspiration is a way, eagerness and inspiration and a desire to achieve the target. It totally depends upon the level of aspiration that one perceives. If the level of aspiration is high, one can reach the goal with full energy, spirit and vice versa. Educational aspiration stands for a wish for some educational targets and it is something which is not yet achieved but can be achieved in future. It becomes the motivational force between ambition and work life. Aspiration widens the educational perspectives. Educational aspiration needs deep realization with a systematic construction of mind to make progress on the path of education. ***Sharma*** and ***Gupta*** (2009) define educational aspiration as an educational hierarchy; it is arranged as orientation towards goal and social prestige. ***Sirin, Diemer, Jackson*** and ***Howell*** (2004) state that aspirations are the future dreams of an individual towards his education and vocation.

2. OBJECTIVES OF STUDY:

1.To study the study skills of undergraduate students.

2. To study disciplinary differences in study skills of UG students of arts, commerce, and science streams.

3. To study the level of educational aspiration of UG students of arts, commerce, and science streams

4.To study disciplinary differences in the level of educational aspiration of UG Students of arts, commerce, and science streams.

3. HYPOTHESES:

H_{01} There will be no significant differences in study skills of UG students of science, arts, and commerce streams.

H_{02} There will be no significant differences in the level of educational aspiration of UG students of science, arts, and commerce streams.

4. METHOD OF STUDY:

Data has been collected using the descriptive survey method. The study group consisted of 188 UG students of 4 colleges from NCR (National Capital Region). 65 students from Faculty of arts, 60 from Faculty of science and 63 from Faculty of commerce were chosen in sample.

DATA COLLECTING INSTRUMENTS

Study Skill Scale (SSS) was developed by the researcher to assess study skills of students. The scale has 60 items having 8 dimensions. It is a five-point Likert scale with reliability

Dimensions of Study Skills

SN	Content of study skill	No. of items
1	Time Management	8
2	Note Taking	8
3	Test Preparation	8
4	Comprehension	9
5	ICT Usage in Study	8
6	Reading a Text	6
7	Organizing and Processing Information	6
8	Memorization	7

Table 1

For Educational Aspiration, an Educational Aspiration Scale EAS developed by Sharma and Gupta (2011) was administered.

5. FINDINGS AND RESULTS:

The descriptive statistical methods as mean, standard deviation and ANOVA were calculated for statistical analysis.

Mean and SD on Study skills of UG students streamwise

Faculty	N	Mean	SD
BA (Arts)	65	228.49	26.26
B.Com (Commerce)	60	213.21	37.43
B.Sc. (Science)	63	224	26.80

Table 2

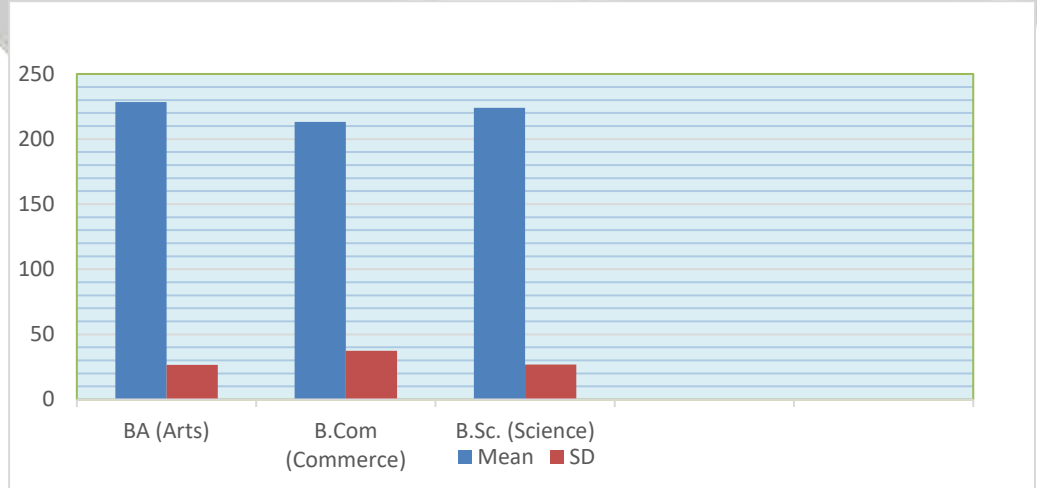

Chart-1

The table indicates that the mean scores of study skills among students from Arts, Commerce, and Science faculties were 228.49, 213.21, and 224.00, respectively. Among the three groups, students from the Arts faculty demonstrated the highest mean score in study skills, while those from the Commerce stream had the lowest. To assess whether the observed differences in mean scores across the three faculties were statistically significant, a One-Way Analysis of Variance (ANOVA) test was conducted.

Summary of ANOVA for Study Skills of UG students streamwise

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F-crit 0.05*	*F-crit 0.01*
Between Groups	7618.225	2	3809.112	4.111	0.018	3.045	4.722
Within Groups	171396.4	185	926.467				
Total	179014.7	187					

Table 3

Table 3 The results of the One-Way ANOVA conducted to assess differences in study skills among undergraduate students from the Arts, Commerce, and Science streams are presented. The analysis revealed a sum of squares between groups of 7618.225 with 2 degrees of freedom (df), and a sum of squares within groups of 171396.4 with 185 df. The corresponding mean square values were 3809.112 for the between-group variance and 926.4672 for the within-group variance.

As outlined by Best and Kahn (2010), the between-group variance reflects the impact of the independent variable—in this case, the students' academic streams—while the within-group variance is attributed to random variation or sampling error.

The computed F-ratio was 4.111, which exceeds the critical F-value of 3.044 at the 5% significance level (df = 2, 185). Since the calculated F-value is higher than the critical threshold, the null hypothesis (H_{01}), which stated that there is no significant difference in study skills among students from the three streams, is rejected at the 0.05 significance level. Moreover, the associated p-value of 0.0179 is also less than 0.05, reinforcing the conclusion that the null hypothesis should be rejected. This indicates a statistically significant difference in mean study skills among students from different academic streams.

To determine the significance of differences between specific pairs of groups, the **Scheffé test** was conducted as a post hoc analysis. While ANOVA reveals whether a significant difference exists among group means, it does not indicate where those differences lie. Therefore, a post hoc analysis is essential for identifying which pairs of means are significantly different. **Scheffé (1957)** developed a conservative method for post hoc comparison that is particularly useful when the sample sizes are unequal or when multiple comparisons are being made. It helps control the Type I error rate, thereby reducing the likelihood of falsely detecting a significant difference (Singh, 2012).

Using the Scheffé's method, the F-ratios for each pairwise comparison among the three faculties—Arts and Commerce, Science and Arts, and Science and Commerce—were calculated to determine whether the

observed differences in mean study skills scores are statistically significant. The results of these calculations are presented in Table 4.

Pairwise Comparison of Study Skills Scores using Scheffé's Test

Pairs	Mean differences	F- values (Scheffe)	Significance
BA vs BCom	15.28	7.86	Significant at 0.05 level
BCom vs BSc	10.79	3.86	Non-significant
BSc vs BA	4.49	0.69	Non-significant

Table 4

To compare the pairwise F-values obtained through Scheffé's post hoc test, the critical F-value from ANOVA, based on degrees of freedom (2; 185) at 5% and 1% significance levels, is adjusted by multiplying it with k−1, where k is the number of groups (Singh, 2012). In this study, the number of groups is 3; thus, k−1=2, and the adjusted critical value at the 5% significance level becomes 3.044 × 2 = 6.088.

The F-value for the comparison between Arts and Commerce students (7.86) is greater than the critical value of 6.088, indicating a statistically significant difference in study skills between these two groups. Based on mean scores, it can also be said that Arts faculty students are better in study skills in comparison to commerce students. In contrast, the F-values for Commerce vs Science (3.86) and Science vs Arts (0.69) are both less than the critical value. This suggests that there is no significant difference in study skills between Commerce and Science students, and likewise, no significant difference between Science and Arts students.

Mean and SD on Educational Aspirations of UG students streamwise

Faculty	N	Mean	SD
B.A. (Arts)	65	22.75	5.108
B.Com. (Commerce)	60	23.88	4.79
B.Sc. (Science)	63	25.04	4.61

Table 5

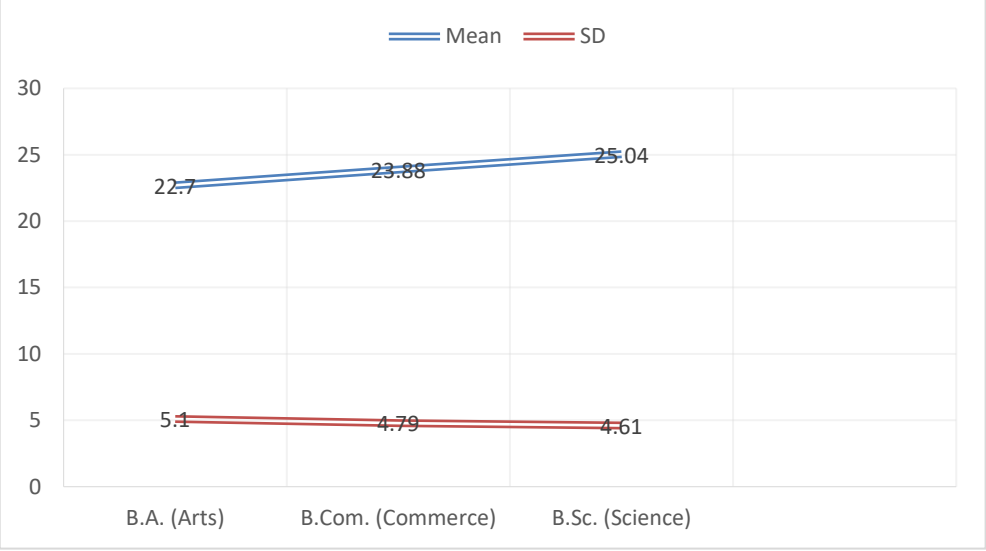

Chart-2

The mean educational aspiration score of students from the Science faculty was found to be the highest among the three faculties, indicating that students in this stream generally have greater academic or career-related ambitions. In contrast, the standard deviation of scores was found to be highest among Arts students, suggesting greater variability in their levels of aspiration.

To determine whether the differences in educational aspirations among UG students of Arts, Commerce, and Science streams are statistically significant, ANOVA was applied to the data.

ANOVA summary for Educational Aspiration of UG students streamwise

Source of Variation	*SS*	*df*	*MS*	*F*	*P-value*	*F crit 0.05*	*F crit 0.01*
Between Groups	168.324	2	84.162	3.580	0.029	3.044	4.722
Within Groups	4349.102	185	23.508				
Total	4517.426	187					

Table 6

According to Table 6, the degree of freedom and sum of squares for the groups are 2 and 168.324 correspondingly. Similarly, the degrees of freedom and sum of squares for within-groups are 185 and 4349.102, respectively. According to mean squares, the variation within groups is 23.508 while the variance across groups is 84.162. In this case, the variance within groups indicates the impact of sampling error, whereas the variance across groups indicates the influence of the independent variable educational streams (Best and Kahn, 2010). The value of F, or 3.58, is the ratio of these two variances. At the significance level of 5% (α =.05), the critical values for df (2,185) are 3.044.

Here, calculated F value is higher than critical value at significance level 5%. Hence, the null hypothesis H_{02} "There will be no significant difference among the Educational Aspirations of UG students of Arts, Commerce and Science streams" is rejected. This results that there is significant difference among the means of Educational Aspirations in UG students of Arts, Commerce and Science.

To find the significance of differences pairwise, Scheffe test was conducted as post hoc analysis.

Description of pairwise F values for Educational Aspirations

Streams	Mean differences	F- values	Significance
B.A. vs B.Com.	1.13	1.695	Non-significant
B.Com. vs B.Sc.	1.16	1.769	Non-significant
B.Sc. vs B.A.	2.29	7.144	Significant at 0.05 level

Table 7

Table 7 shows that the F values for the comparisons between Arts vs. Commerce and Commerce vs. Science are both below the critical value of 6.088 at the 0.05 significance level. This indicates that there is no significant difference in the educational aspirations of students from the arts and commerce faculties, nor between commerce and science faculties.

However, the F value for the comparison between Science and Arts exceeds the critical value, suggesting a significant difference in educational aspirations between these two groups. It can be inferred that science students demonstrate higher educational aspirations compared to their peers in the arts faculty.

6. CONCLUSION:

It can be concluded that there is significant difference among the mean scores on study skills of UG students of Arts, Commerce and Science streams. Further, post hoc analysis revealed that there is a significant difference between the study skills of arts and commerce faculty students and no significant difference between study skills of commerce and science students; and science and arts faculty students. This supports the conclusion that educational stream has a measurable impact on students' study skills.

Additionally, it was shown that the mean educational aspirations of UG students studying science, commerce, and the arts differed significantly. On applying Post Hoc analysis, it was noted that there is no significant difference between the educational aspiration of arts and commerce faculty students; and commerce and science students. While, there is a significant difference between educational aspiration of science and arts faculty students suggesting that students in the Arts stream demonstrate higher study skills compared to those in Commerce. Differences in educational aspiration of Arts and science faculty shows that Science students tend to have higher academic or career-oriented goals compared to their counterparts in the Arts stream. This may be attributed to factors such as subject-related opportunities, societal expectations, or perceived career prospects associated with the science discipline. Pepe (2012) also concluded that the study skills of students studying at different departments: physical education, sports and classroom management are significantly different. Faculty wise analysis showed that large proportion of humanities faculty respondent's selection of present course was due to interest as compared to science faculty (Subba, 2013).

It can be suggested that Commerce students may benefit from targeted interventions such as: Study skills workshops tailored to time management, note-taking, exam preparation, and critical thinking; peer mentoring programs where effective learners from other streams support Commerce students. Also, it can be recommended that a need to nurture and elevate aspiration levels among Arts students, who may have untapped potential but lack direction or encouragement. Institutions can provide career guidance workshops, exposure to diverse career paths, and interactions with successful role models in humanities and social sciences, encourage interdisciplinary opportunities to show Arts students the relevance and applicability of their disciplines in modern contexts.

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