

“Academic Performance Of Male And Female Senior Secondary School Students Of Haryana In Relation To Their Academic Procrastination & Academic Resilience”

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Abstract

The current investigation was done to inspect the academic performance of students with respect to their academic resilience and academic procrastination. Academic performance has taken as dependent variable while academic resilience (High & Low), academic procrastination (High & Low) & gender (male & female) have taken as independent variables. In the current investigation descriptive survey method was employed. 600 sr. sec. school students were chosen via random sampling technique from Rohtak and Rewari districts of Haryana. “For the Academic performance measure, the researcher had to depend upon the school examination record of the respective school of their previous test scores”. ‘Academic Resilience Scale’ by Mallick & Kaur (2015); ‘Academic Procrastination Scale’ by Kalia & Yadav (2015) were applied to gather the data. “The obtained data was analyzed using Three Way ANOVA with 2×2×2 factorial design. Result of the study revealed that the interaction effect of academic resilience, academic procrastination and gender on academic performance of sr. sec. school students was found to be significant”.

Keywords: “Academic Performance, Academic Procrastination, Academic Resilience, Gender, Sr. Sec. School Students”

INTRODUCTION

In today's competitive environment, student development is mostly determined by the quality of their performance. The academic phase is a very significant part of an individual's development. Although it is frequently noticed that kids do not reach their full potential. Academic performance is “the extent to which a student, instructor, or institution has reached their short or long-term educational goals, as assessed by continuous assessment or cumulative grade point average (CGPA)”. The goal of education is not only educating the child, but to make him/her fit for successful life. “Students begin to feel competitive pressure at the pre-primary level, when year-end tests determine who advances to the following grade. At the pre-university stage, the pressure to succeed academically becomes even higher because admission to top universities is dependent on passing the qualifying test with high marks” (Rentala et al., 2019). “Academic achievement & sustained education are dependent on student adjustment, obstacles, and participation in educationally meaningful activities” (Ayala et al., 2018). A resilient learner will never give up fast in the face of unfavourable events. Resilience refers to a person's capacity to cope with adversity and hardship. “Resilience is one of the key psychological factors influencing a person's capacity to adapt to tough conditions. This involves the use of positive reinforcement approaches that promote wellbeing” (Trigueros et al., 2020).

Procrastination is a universal problem that reduces the productivity and possibilities of millions of individuals across a wide range of activities. Procrastination is a common problem in the academic field, prompting students to make major mistakes. According to Steel (2007), around 80 to 95% of students procrastinate on a regular basis. Rothblum, et al. (1986) describe “academic procrastination as a tendency to delay academic work to the point of worry. It is a common problem among students, and many of them must deal with it at practically every step of their education due to the negative implications, which include academic failure and worse well-being”. Today's life is stressful and challenging. People will encounter numerous issues if they do not equip themselves with the appropriate skills. Students now face a multitude of difficulties in both their classrooms and the larger society. Students will feel pressured and stressed if suitable efforts are not taken to address these difficulties. This may result in low academic performance and an increase in dropout rates. Academic procrastination has been linked to worse academic accomplishment among students worldwide (Madhan et al. 2012). The unfavourable and harmful consequences are widespread. It might result in worse academic performance, increased stress, & a poor quality of life. A significant number of investigations revealed that academic procrastination is inversely linked with academic achievement (Balkis, 2013).

Students face intellectual and social hurdles every day in classrooms, institutions, homes, and communities; these challenges and pressures can stymie their development and lead to dropout. Nonetheless, despite adversity and difficult

circumstances, there are kids who can adapt and achieve high levels of academic accomplishment and success because they think that successful learning is the result of effort and commitment, not simply genius. These pupils are known as academically resilient students. Academic resilience is the construct of positive psychology which means students' abilities to compete with one another under challenging circumstances. According to Mallick and Kaur (2016), academic resilience is crucial for overcoming problems in the classroom and boosting students' enthusiasm and achievement. Resilience has been proven to have a strong association with students' accomplishment indexes in various high school settings in America Scales et al. (2006).

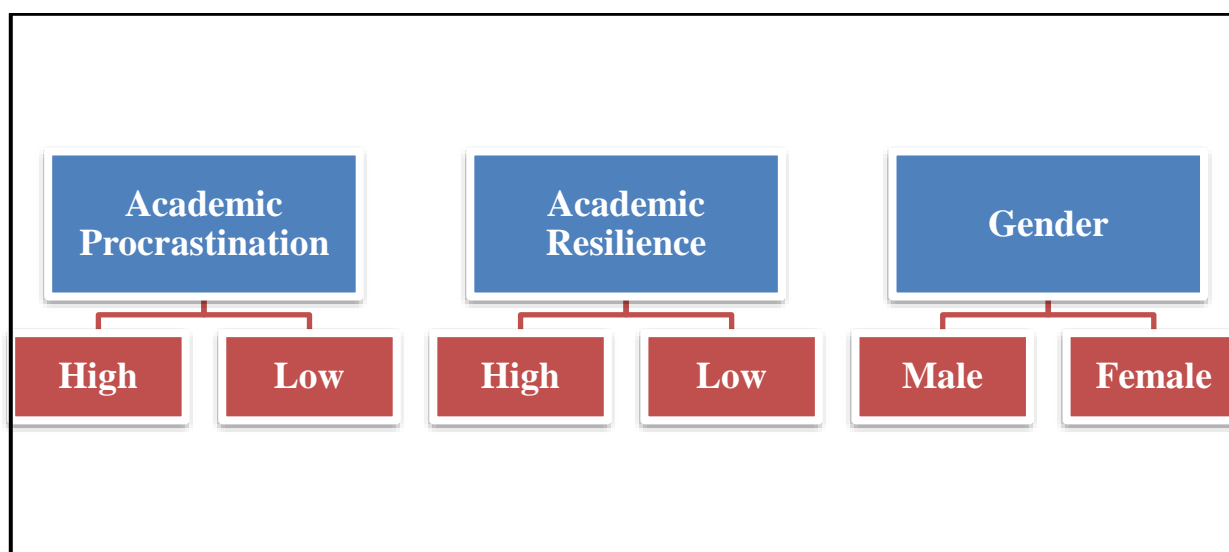
“Academic resilience is one of the elements that might cause a person to suffer failure in the learning process, even leading to dropping out of school” (Frisby et al., 2020). Individuals with lack resilience may see challenges as insurmountable obstacles. This syndrome causes pupils to postpone completing academic responsibilities. These activities cause pupils to feel intimidated and irritated. “Academic resilience refers to a student's capacity to improve academic performance following a negative experience, such as failing an evaluation or course” (Cassidy, 2016). Despite facing academic challenges, kids with strong resilience may remain motivated and perform well.

OBJECTIVE: “To find out the interaction effect of academic procrastination, academic resilience and gender on academic performance of senior secondary school students.”

HYPOTHESIS: “There is no significant interaction effect of academic procrastination, academic resilience and gender on academic performance of senior secondary school students.”

DESIGN AND METHODOLOGY

“In the present study, descriptive survey method was used. The 2×2×2 factorial randomized group design was used to analyze the data. All the independent variables i.e. Academic Procrastination (High & Low), Academic resilience (High & Low) and Gender (Male&Female) were varied at the two levels as given below”.



POPULATION AND SAMPLE

For the current investigation, all the senior secondary school students studying in 11th class of all private sec. schools affiliated to C.B.S.E. constitute the target population. The technique for the selection of 600 students from Rohtak, and Rewari Districts of Haryana State was random sampling technique.

TOOLS USED

- **Academic Performance:** “For the Academic performance measure, the researcher had to rely on the specific school's examination record and past test scores”.
- **Academic Procrastination Scale** by Kalia and Yadav (2015).
- **Academic Resilience Scale** by Mallick and Kaur (2015).

STATISTICAL TECHNIQUES

“The Three-Way Analysis of Variance (ANOVA) with $2 \times 2 \times 2$ Factorial Design was computed to study the interaction effects of the independent variables i.e. Academic procrastination, Academic resilience and Gender on academic performance of secondary school students. Wherever F-value was found significant, ‘t’-test was employed for further investigation”.

DATA ANALYSIS & INTERPRETATION

“The objectives of the current investigation was to examine the interaction effects of academic procrastination, academic resilience and gender on academic performance of sec. school students. For this, the data was subjected to analysis of variance (ANOVA) of a $(2 \times 2 \times 2)$ factorial study with a randomized group design. Academic procrastination, academic resilience and gender were coded as A, B, D respectively & were diverse into two ways as: High (A1) & Low (A2); High (B1) & Low (B2); Male(D1) & Female (D2). The summary of ANOVA ($2 \times 2 \times 2$) has also been presented in Table-1, which is analyzed in terms of main effects and interaction effects”.

Table-1 “Summary of Three Way ANOVA ($2 \times 2 \times 2$ Factorial Design) for Academic Performance of Senior Secondary School Students with respect to Academic Procrastination, Academic Resilience and Gender”

DV: Academic Performance	Df	Sum of Squares (SS)	Mean Sum of Squares (MSS)	F-ratios
Academic Procrastination x Academic Resilience x Gender (A×B×D) Interaction	1	8069.041	8069.041	17.675**
Between Cells	7	46929.242	
Within Cells	442	201783.789	456.524	
Total	549	-----	-----	-----

*** Significant at 0.01 level * Significant at 0.05 level NS= Not Significant”

Above Table exhibits that the ‘F- ratio’ (17.675) for “the interaction of academic procrastination x academic resilience x gender on academic performance of sr. sec. school students is found significant at 0.01. Therefore, the null hypothesis H_{01} stands rejected. Furthermore, t-test was used to determine the significant difference in academic performance of senior secondary school pupils” from different categories as given in Table 2.

Table-2 “t-values for Mean Scores of Academic Performance of Senior secondary school students for Different Groups of Academic Procrastination, Academic Resilience and Gender(AxBxC)”

Sr. No.	Groups	N		Means		S.D.s		t-values
1	A ₁ B ₁ C ₁ vs A ₁ B ₁ C ₂	42	52	53.85	50.38	19.47	19.00	0.869 (NS)
2	A ₂ B ₂ C ₁ vs A ₂ B ₂ C ₂	52	41	85.00	61.41	23.29	25.60	4.59**
3	A ₁ B ₁ C ₁ vs A ₁ B ₂ C ₂	42	62	53.85	65.20	19.47	20.96	2.83**
4	A ₁ B ₁ C ₂ vs A ₁ B ₂ C ₂	52	62	50.38	65.20	19.00	20.96	3.96**
5	A ₁ B ₂ C ₁ vs A ₂ B ₁ C ₂	63	74	65.33	76.45	21.85	19.99	3.08**
6	A ₁ B ₂ C ₂ vs A ₂ B ₂ C ₂	62	41	65.20	61.41	20.96	25.60	0.789 (NS)
7	A ₁ B ₁ C ₁ vs A ₂ B ₂ C ₂	42	41	53.85	61.41	19.47	25.60	1.51 (NS)
8	A ₁ B ₁ C ₂ vs A ₁ B ₂ C ₁	52	63	50.38	65.33	19.00	21.33	3.97**
9	A ₂ B ₁ C ₁ vs A ₂ B ₂ C ₁	64	52	68.85	85.00	21.18	23.29	3.86**
10	A ₁ B ₁ C ₁ vs A ₂ B ₁ C ₁	42	64	53.85	68.85	19.47	21.18	3.74**
11	A ₁ B ₁ C ₂ vs A ₂ B ₁ C ₂	52	74	50.38	76.45	19.00	19.99	7.42**
12	A ₁ B ₂ C ₂ vs A ₂ B ₂ C ₁	41	52	61.41	85.00	25.60	23.29	4.59**
13	A ₁ B ₁ C ₂ vs A ₂ B ₂ C ₂	52	41	50.38	61.41	19.00	25.60	2.30*

14	A ₁ B ₂ C ₁ vs A ₁ B ₂ C ₂	63	62	65.33	65.20	21.85	20.96	0.033(NS)
15	A ₁ B ₁ C ₁ vs A ₂ B ₁ C ₂	42	74	53.85	76.45	19.47	19.99	5.95**
16	A ₁ B ₂ C ₁ vs A ₂ B ₂ C ₁	63	52	65.33	85.00	21.85	23.29	4.63**
17	A ₁ B ₁ C ₂ vs A ₂ B ₁ C ₁	52	64	50.38	68.85	19.00	21.18	4.94**
18	A ₁ B ₂ C ₁ vs A ₂ B ₂ C ₂	63	41	65.33	61.41	21.85	25.60	0.807 (NS)
19	A ₁ B ₂ C ₂ vs A ₂ B ₁ C ₁	62	64	65.20	68.85	20.96	21.18	0.972 (NS)
20	A ₁ B ₁ C ₁ vs A ₂ B ₂ C ₁	42	52	53.85	85.00	19.47	23.29	7.06**
21	A ₁ B ₂ C ₁ vs A ₂ B ₁ C ₁	63	64	65.33	68.85	21.85	21.18	0.921 (NS)
22	A ₁ B ₂ C ₂ vs A ₂ B ₁ C ₂	62	74	65.20	76.45	20.96	19.99	3.18**
23	A ₂ B ₁ C ₁ vs A ₂ B ₁ C ₂	64	74	68.85	76.45	21.18	19.99	2.15*
24	A ₁ B ₁ C ₂ vs A ₂ B ₂ C ₁	52	52	50.38	85.00	19.00	23.29	8.31**
25	A ₂ B ₁ C ₁ vs A ₂ B ₂ C ₂	64	41	68.85	61.41	21.18	25.60	1.55 (NS)
26	A ₂ B ₁ C ₂ vs A ₂ B ₂ C ₁	74	52	76.45	85.00	19.99	23.29	2.14*
27	A ₂ B ₁ C ₂ vs A ₂ B ₂ C ₂	74	41	76.45	61.41	19.99	25.60	3.20**
28	A ₁ B ₁ C ₁ vs A ₁ B ₂ C ₁	42	63	53.85	65.33	19.47	21.85	2.38*

** "Significant at 0.01 level * Significant at 0.05 level NS = Not Significant

A₁B₁C₁: Male Students having High Academic Procrastination & High Academic Resilience

A₂B₂C₂: Female Students having Low Academic Procrastination & Low Academic Resilience

A₁B₁C₂: Female Students having High Academic Procrastination & High Academic Resilience

A₂B₂C₁: Male Students having Low Academic Procrastination & Low Academic Resilience

A₁B₂C₁: Male Students having High Academic Procrastination & Low Academic Resilience

A₂B₁C₁: Male Students having Low Academic Procrastination & High Academic Resilience

A₁B₂C₂: Female Students having High Academic Procrastination & Low Academic Resilience

A₂B₁C₂: Female Students having Low Academic Procrastination & High Academic Resilience

The result of Table-2 depicts that t-values (0.869, 0.789, 1.51, 0.033, 0.807, 0.972, 0.921 and 1.55 for the groups 'A₁B₁C₁ vs A₁B₁C₂'; 'A₁B₂C₂ vs A₂B₂C₂'; 'A₁B₁C₁ vs A₂B₂C₂'; 'A₁B₂C₁ vs A₁B₂C₂'; 'A₁B₂C₁ vs A₂B₂C₂'; 'A₁B₂C₂ vs A₂B₁C₁'; 'A₁B₂C₁ vs A₂B₁C₁' and 'A₂B₁C₁ vs A₂B₂C₂' are not found significant at 0.05 level. This means that pupils related to above groups did not differ significantly with regards to academic performance.

Table-2 indicated that the t-value (4.59) for the group A₂B₂C₁ vs A₂B₂C₂ is significant at 0.01 level. Average scores highlighted that A₂B₂C₁ (male pupils having low academic procrastination & low academic resilience) have higher academic performance (85.00) than (A₂B₂C₂) female students having low academic procrastination & low academic resilience (61.41). Table-2 again indicated that the t-value (2.83) for the group (A₁B₁C₁ vs A₁B₂C₂) is significant at 0.01 level. In Average scores interpreted that A₁B₁C₁ (male pupils having high academic procrastination & high academic resilience) have less academic performance (53.85) as compared to (A₁B₂C₂) female pupils having high academic procrastination & low academic resilience (65.20). Further, the t-value (3.96) for the group (A₁B₁C₂ vs A₁B₂C₂) is significant at 0.01 level. When comparing average scores, it may be understood that A₁B₁C₂ (female pupils having high academic procrastination & high academic resilience) possess less academic performance (50.38) as compared to (A₁B₂C₂) female pupils having high academic procrastination & low academic resilience (65.20). The t-value (3.08) for the group (A₁B₂C₁ vs A₂B₁C₂) is significant at 0.01 level. Average scores cleared that A₁B₂C₁ (male pupils having high academic procrastination & low academic resilience) got less academic performance (65.33) as compared to (A₂B₁C₂) female pupils having low academic procrastination & high academic resilience (76.45).

Table 2 further indicated that the t-value (3.97) for the group (A₁B₁C₂ vs A₁B₂C₁) is significant at 0.01 level. Average scores indicated that A₁B₁C₂ (female pupils having high academic procrastination & high academic resilience) got lower academic performance (50.38) as compared to (A₁B₂C₁) male students having high academic procrastination & low academic resilience (65.33). Similarly, the t-value (3.86) for the group (A₂B₁C₁ vs A₂B₂C₁) is significant at 0.01 level. Comparing of average scores indicated that A₂B₁C₁ (male pupils having low academic procrastination & high academic resilience) have higher academic performance (76.45) than (A₂B₂C₁) female students having low academic procrastination & low academic resilience (85.00).

academic resilience) have less academic performance (68.85) as compared to ($A_2B_2C_1$) male students having low academic procrastination & low academic resilience (85.00).

As inspect from table-2 that the t-value (3.74) for the group ($A_1B_1C_1$ vs $A_2B_1C_1$) is significant at 0.01 level. Average scores indicated that $A_1B_1C_1$ (male pupils having high academic procrastination & high academic resilience) possess less academic performance (53.85) as compared to ($A_2B_1C_1$) male students having low academic procrastination & high academic resilience (68.85). Again the t-value (7.42) for the group ($A_1B_1C_2$ vs $A_2B_1C_2$) is significant at 0.01 level. Average scores exhibited that $A_1B_1C_2$ (female pupils having high academic procrastination & high academic resilience) have less academic performance (50.38) as compared to ($A_2B_1C_2$) female students having low academic procrastination & high academic resilience (76.45). The t-value (4.59) for the group ($A_1B_2C_2$ vs $A_2B_2C_1$) is significant at 0.01 level. Average scores inferred that $A_1B_2C_2$ (female pupils having high academic procrastination & low academic resilience) contain lower academic performance (61.41) than ($A_2B_2C_1$) male students having low academic procrastination & low academic resilience (85.00).

As indicated in table-2 that the t-value (2.30) for the group ($A_1B_1C_2$ vs $A_2B_2C_2$) is significant at 0.05 level. Mean scores concluded that $A_1B_1C_2$ (female students having high academic procrastination & high academic resilience) contain lower academic performance (50.38) than ($A_2B_2C_2$) female students having low academic procrastination & low academic resilience (61.41). Further, the t-value (5.95) for the group ($A_1B_1C_1$ vs $A_2B_1C_1$) is significant at 0.01 level. Average scores indicated that $A_1B_1C_1$ (male pupils having high academic procrastination & high academic resilience) have lower academic performance (53.85) than ($A_2B_1C_2$) female students having low academic procrastination & high academic resilience (76.45). The t-value (4.63) for the group ($A_1B_2C_1$ vs $A_2B_2C_1$) is significant at 0.01 level. Average scores showed that $A_1B_2C_1$ (male pupils having high academic procrastination & low academic resilience) showed lower academic performance (65.33) than ($A_2B_2C_1$) male students having low academic procrastination & low academic resilience (85.00). Again the t-value (4.94) for the group ($A_1B_1C_2$ vs $A_2B_1C_1$) is significant at 0.01 level. Average scores revealed that $A_1B_1C_2$ (female pupils having high academic procrastination & high academic resilience) contain lower academic performance (50.38) than ($A_2B_1C_1$) male students having low academic procrastination & high academic resilience (68.85).

Table 2 again showed that the t-value (7.06) for the group ($A_1B_1C_1$ vs $A_2B_2C_1$) is significant at 0.01 level. Average scores indicated that $A_1B_1C_1$ (male pupils having high academic procrastination & high academic resilience) possess lower academic performance (53.85) than ($A_2B_2C_1$) male students having low academic procrastination & low academic resilience (85.00). It is palpable from table-2 that the t-value (3.18) for the group ($A_1B_2C_2$ vs $A_2B_1C_2$) is significant at 0.01 level. Average scores interpreted that $A_1B_2C_2$ (female students having high academic procrastination & low academic resilience) have lower academic performance (65.20) as compare to ($A_2B_1C_2$) female students having low academic procrastination & high academic resilience (76.45). Similarly, the t-value (2.15) for the group ($A_2B_1C_1$ vs $A_2B_1C_2$) is significant at 0.05 level. Average scores highlighted that $A_2B_1C_1$ (male pupils having low academic procrastination & high academic resilience) possess lower academic performance (53.85) than ($A_2B_1C_2$) female students having low academic procrastination & high academic resilience (76.85). The t-value (8.31) for the group ($A_1B_1C_2$ vs $A_2B_2C_1$) is significant at 0.01 level. Average scores showed that $A_1B_1C_2$ (female pupils having high academic procrastination & high academic resilience) possess lower academic performance (50.38) than ($A_2B_2C_1$) male students having low academic procrastination & low academic resilience (85.00).

Table 2 again indicted that the t-value (2.14) for the group ($A_2B_1C_2$ vs $A_2B_2C_1$) is significant at 0.05 level. Average scores indicated that $A_2B_1C_2$ (female students having low academic procrastination & high academic resilience) possess lower academic performance 76.45) than ($A_2B_2C_1$) male students having low academic procrastination & low academic resilience (85.00). The t-value (3.20) for the group ($A_2B_1C_2$ vs $A_2B_2C_2$) is significant at 0.01 level. Average scores inferred that $A_2B_1C_2$ (female students having low academic procrastination & high academic resilience) got higher academic performance (76.45) than ($A_2B_2C_2$) female students having low academic procrastination & low academic resilience (61.41). Lastly, the t-value (2.38) for the group ($A_1B_1C_1$ vs $A_1B_2C_1$) is significant at 0.05 level. Average scores revealed that $A_1B_1C_1$ (male pupils having high academic procrastination & high academic resilience) possess lower academic performance (53.85) than ($A_1B_2C_1$) male students having high academic procrastination & low academic resilience (65.33).

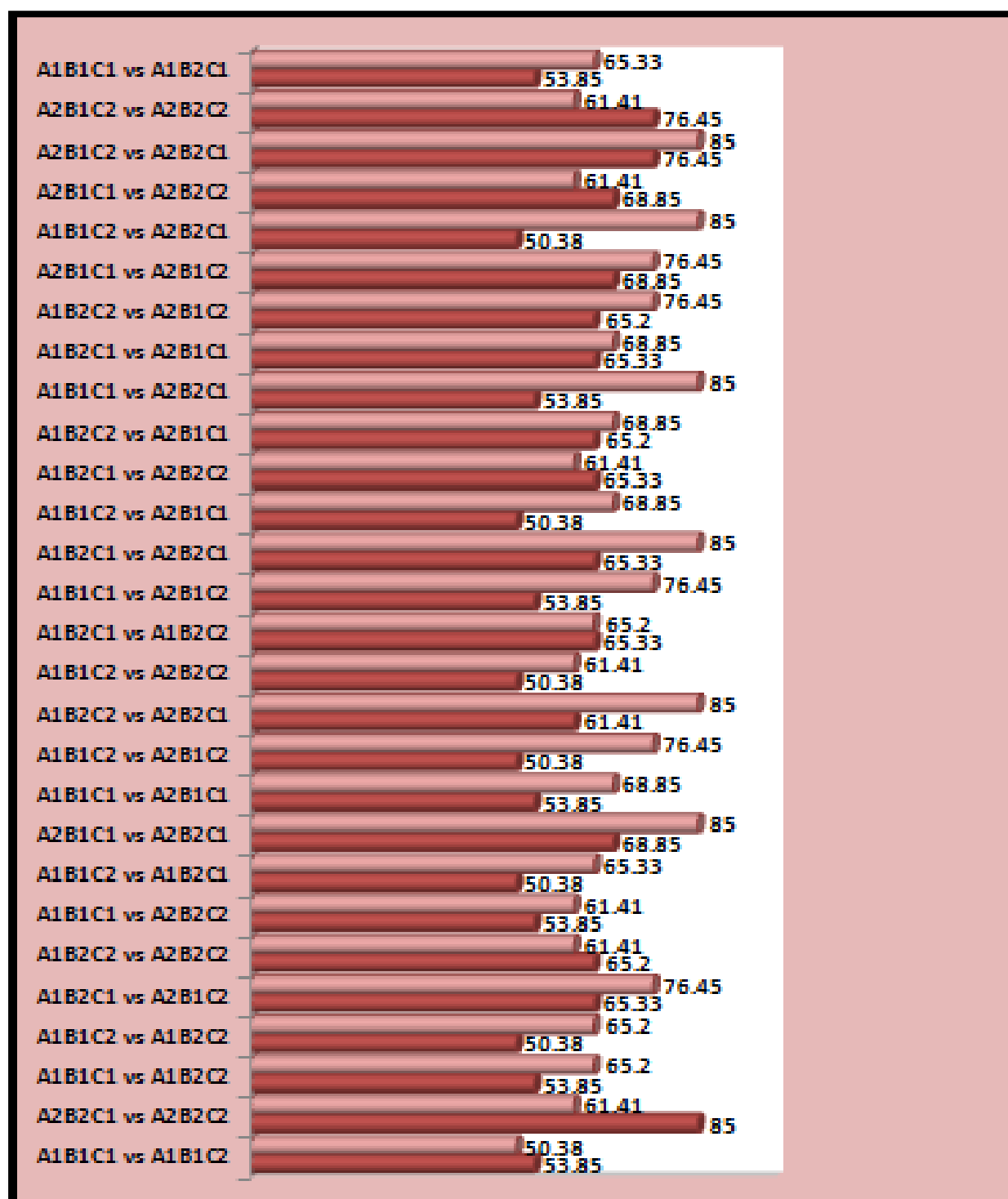


Fig.1: “Mean Scores for Interaction Effect of Academic Procrastination, Academic Resilience and Gender (AxBxC) on Academic Performance of senior secondary school students”

CONCLUSION

The current investigation concluded that academic resilience, academic procrastination and gender had significantly affect the academic performance of students. It was found that male students having low academic procrastination & low academic resilience possess higher academic performance than female students having low academic procrastination & low academic resilience. It is advised that suitable intervention programmes be implemented to

increase student resilience. The govt. should recruit trained educational psychologists & develop an environment & resources conducive to regular cognitive behavioural change programmes for in-school students who may be battling with academic procrastination. Students with a greater resilience rate are less likely to delay on their academic activities. It is feasible to design techniques that boost pupils' resilience. However, such a project would need more study in a more diversified and larger population.

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