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SELF-REGULATED LEARNING AMONG UNDERGRADUATE STUDENTS IN RELATION TO THEIR GENDER AND ACADEMIC ACHIEVEMENT

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ABSTRACT

Self-regulated learning (SRL) is the process through which individuals actively take control of their own learning. It involves self-regulation, planning and goal-setting, self-monitoring, evaluating, and regulating one's cognition, motivation, and behaviour to achieve academic goals. The acquisition of self-regulation in learning is important for students. Those who are self-regulated can articulate both short- and long-term learning goals, create plans in advance to accomplish these goals, self-motivate, and maintain focus on their objectives and progress. The present study explores self-regulated learning among undergraduate students with respect to their gender and academic achievement. A total of 1,187 undergraduate students were selected using a random sampling technique. Data were gathered through the descriptive survey method, utilizing the Self-Regulated Learning Scale developed by Gupta and Mehtani (2017). Descriptive statistics and two-way Analysis of Variance (ANOVA) were employed for data analysis. The findings of the study revealed that female undergraduate students exhibited higher levels of self-regulated learning compared to their male counterparts, particularly in the context of academic achievement. The study concludes with a discussion of its educational implications.

KEYWORDS: Self-regulated Learning, Undergraduate Students, Gender, Academic Achievement.

BACKGROUND OF THE STUDY

The present investigation was undertaken to explore the impact of academic achievement on self regulated learning of undergraduate college students. Learning is basically an activity or process of acquiring knowledge. An effectual learning is only being achievable and conducive when the pupils instil themselves with good quality of learning skills study practice. Good study practices inhibit fundamental point in the learning progression of individual learners. It is maintained that resourceful education exceedingly depends upon the creation and growth of excellent study practices. The failure collapsing of students in their educational paradigms is solitary due to the fact that they do not seize ample kind of learning patters to learn and grow well but not due to the actuality that they have no abilities in them at all (Menzel, 1982).

In recent decades, the concept of self-regulated learning (SRL) has emerged as a foundational construct in educational psychology, emphasizing the active role of learners in managing their own learning processes. SRL encompasses a range of meta-cognitive, motivational, and behavioral strategies that students employ to achieve academic goals (Zimmerman, 2002). These include setting goals, planning, monitoring progress, managing time and resources,

seeking help when needed, and reflecting on outcomes. As higher education becomes increasingly autonomous and less structured, the need for effective self-regulation becomes particularly critical for undergraduate students.

SELF REGULATED LEARNING

Zimmerman, B (2000) expressed that self-regulation deal with the self-generated thoughts, feelings, and behaviours of individuals for the attainment of intended goals. It is the sort of learner who chooses suitable learning behaviours in accordance with the applicable standards and goals and is able to monitor and evaluates his/her own learning pattern.

Self-regulated learners are not only aware of their cognitive processes but are also capable of adjusting their strategies to improve learning outcomes. Previous Researches suggests that self-regulated learning is closely tied to academic achievement, with high-achieving students often demonstrating stronger regulatory behaviours such as perseverance, strategic planning, and self-evaluation (Pintrich, 2004). Gender differences in self-regulated learning have also been widely studied. Several studies report that female students tend to exhibit higher levels of self-regulation compared to their male counterparts, particularly in areas such as time management, goal setting, and help-seeking behaviors (Pajares, 2002; Zimmerman & Martinez-Pons, 1990). These differences may be influenced by varying socialization patterns, educational expectations, and motivational orientations between genders. Understanding how gender shapes self-regulated learning can help educators tailor instructional strategies to meet diverse learning needs.

ACADEMIC ACHIEVEMENT

Academic achievement refers to the grades, abilities, and skills achieved by students within academic settings, as well as the impacts of these achievements on their learning and future development (Macnamara and Burgoyne 2022).

Academic achievement is an important variable that influencing self-regulated learning. High-achieving students generally display more developed self-regulatory skills, while lower-achieving students may struggle with planning, monitoring, and motivation (Nota et al., 2004). Self-regulated learning is both a cause and consequence of academic success, it is critical to examine how it varies across different achievement levels. The findings of the present study help in identifying the patterns of self-regulated learning among students having different academic performance.

College students manage substantial non-academic obligations alongside their challenging academic commitments. While younger students increasingly contend with diverse demands on their time (Won and Yu 2018; Shaunessy-Dedrick et al. 2015), The present study focussed undergraduate students due to their notable significance in exploring self-regulation. As these students transition from secondary school to college or university, they encounter heightened autonomy and responsibility, engaging in more independent learning activities outside the classroom (Banahan and Mullendore 2014). With limited daily interactions with instructors or other guiding figures, they face the challenge of balancing rigorous academic work with increased opportunities and demands for non-academic pursuits.

Given the growing emphasis on learner autonomy in higher education, these findings will be valuable for curriculum planners, instructors, and student support services aiming to enhance students' academic self-efficacy and lifelong learning skills. By gaining insights into how SRL is influenced by gender and academic performance, institutions can implement more inclusive and effective educational practices that foster academic success for all learners.

REVIEW OF RELATED LITERATURE

Parveen and Jan (2023) studied the Self-regulated learning among college students: unravelling gender and locality differences and found that the majority of students exhibited average levels of Self-regulated learning. Female students exhibited higher levels of self-regulatedlearning as compared to their male counterparts.

Malik, Afshan, and Abbasi (2024) investigated the Predictive Role of learning styles and self-regulation in academic achievement: A gender-based analysis among University Students. They found significant positive relationships between self-regulation, and academic achievement. It was found that there was a significant difference between male and female means score of self regulation females have higher self-regulated in comparison to the male counterparts.

Zhong (2025) examined the literature on self-regulated learning in English as foreign language education: a bibliometric analysiswith the help of analysed 649 studies from web of science and scopus databases. The study inferred that there was significant increase in self-regulated learning research within English as foreign language contexts, particularly focusing on writing, motivation, self-efficacy, and metacognition. China emerged as a central hub for self-regulated learning research and international collaborations.

OBJECTIVES OF THE STUDY

1. To study gender-wise differences in self-regulated learning among under graduate students.
2. To study the self-regulated learning of under graduate students in relation to their different levels of academic achievement (i.e. high, average and low).
3. To study the interactional effect of gender and academic achievement on self-regulated learning of undergraduate students.

HYPOTHESES OF THE STUDY

1. There will be no significant gender-wise difference in self-regulated learning among under graduate students.
2. There will be no significant difference in self-regulated learning among under graduate students in relation to their levels of academic achievement (i.e. high, average and low).
3. There will be no significant interactional effect of gender and academic achievement on self-regulated learning of undergraduate students.

METHEDOLOGY

Descriptive survey method was used for the present investigation.

SAMPLING

For the present study a representative sample of 1187 undergraduate students of both genders (403 male and 784 female) were selected from Mandi, Kullu and Bilaspur districts of Himachal Pradesh through random sampling technique.

STATISTICAL TECHNIQUES APPLIED

For achieving the objectives of the present study following statistical techniques were used:

1. Descriptive statistics.

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2. Analysis of Variance (Two-way ANOVA)

ANALYSIS AND INTERPRETATION OF DATA

In order to study the main effects of gender and level of academic achievement on self-regulated learning (dimension-wise and overall) of undergraduate students along with their interactional effect, analysis of variance (2x3 factor design) involving two types of gender i.e. male and female and three levels of academic achievement i.e. high, average and low was applied on weighted mean self-regulated learning scores. The weighted mean self-regulated learning scores of male and female undergraduate students with respect to their level of academic achievement are given in table-1.

Table-1

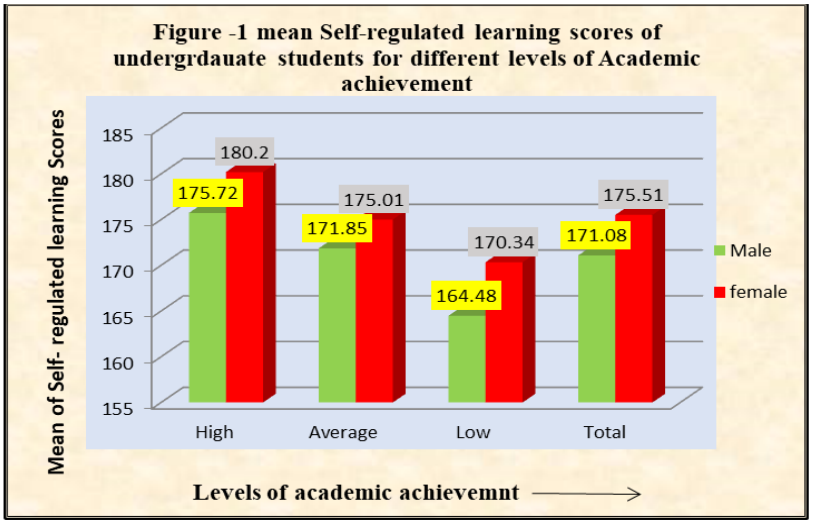
Weighted Mean Self-Regulated Learning Scores Of Male And Female Undergraduate Students With Different Levels Of Academic Achievement

Sr. No.	Gender		Levels of Academic Achievement			
			High	**Average**	**Low**	**Total**
1.	**Male**	Mean	175.7188	171.8517	164.4868	171.0769
		S.D.	22.14632	21.28606	23.06425	21.98737
		N	**64**	**263**	**76**	**403**
2.	**Female**	Mean	180.2069	175.0100	170.3455	175.5089
		S.D.	17.49559	17.20552	17.71975	17.57291
		N	**174**	**500**	**110**	**784**
3.	**Total**	Mean	179.0000	173.9214	167.9516	174.0042
		S.D.	18.91531	18.75905	20.22369	19.29117
		N	**238**	**763**	**186**	**1187**

The difference in overall weighted mean self-regulated learning scores of male and female undergraduate students with different levels of academic achievement were given in figure-1 below:

Figure-1

Overall weighted mean self-regulated learning scores of male and female undergraduate students with different levels of academic achievement



The summary of the results of Analysis of variance (ANOVA) are given in table-2 as under:

Table-2

Overall summary of the results of analysis of variance for self-regulated learning among undergraduate students with respect to gender and academic achievement

Sr. No.	Source of variation	Sum of Squares	df	Mean squares of variance	F- Values
1	Gender(A)	3690.297	1	3690.297	10.269**
2	Academic Achievement (B)	10296.587	2	5148.294	14.326**
3	(AXB)	282.849	2	141.425	0.394NS
4	Error Variance	424405.516	1181	359.361	
5	Total Sum of Squares	441368.979	1186		

**Indicates significant at 0.01 level of significance

NS indicates Not significant

Table value for df 1/1181=3.84 and 2/1181= 2.99 at 0.05 level of significance

Table value for df 1/1181=6.64 and 2/1181= 4.60 at 0.01 level of significance

EFFECT OF GENDER ON SELF-REGULATED LEARNING OF UNDERGRDYATE STUDENTS

The calculated 'F'-value for the main effect of gender on self-regulated learning of undergraduate students, irrespective of their academic achievement, for df 1 and 1181, came out to be 10.269, which is higher than the table value of (6.44) at the 0.01 level of significance. Hence, Hypothesis no. 1 that**, "There will be no significant Gender-wise differences in Self-regulated Learning of undergraduate students,"** was rejected. This indicates that there is a significant difference in self-regulated learning of male and female undergraduate students. Further, the mean table no.1 it is clear that mean scores for female undergraduate students is (175.50) and for the male is 171.076. The higher mean score of female undergraduate students shows that they are higher level of self-regulated leaning as compared to the male counterparts.

EFFECT OF ACADEMIC ACHIEVEMENT ON SELF-REGULATED LEARNING OF UNDERGRDYATE STUDENTS

The computed F-value for the main effect of academic achievement on self-regulated learning scores of undergraduate students, irrespective of their gender, for df 2 and 1181, came out to be 14.326 which is above than the table value (4.60) at the 0.01 level of significance. Hence, Hypothesis no. 2, that **"There will be no significant difference in Self-regulated learning of undergraduate students with respect to their Levels of Academic Achievement,"** was rejected. Thus, it may be inferred that self-regulated learning of undergraduate students differ significantly with respect to their different levels of academic achievement. Further the mean table-1 indicated that the mean score of high academic achievers (179.00) followed by average (173.91) and low academic achiever (167.95)

respectively. This indicates that high academic achiever undergraduate students possess high self-regulated learning in comparison to average and low counterparts.

INTERACTIONAL EFFECTS OF GENDER AND ACADEMIC ACHIEVEMENT ON SELF-REGULATED LEARNING OF UNDERGRDAUATE STUDENTS.

The calculated value of 'F' for the interactional effect of gender and academic achievement on Self-regulated Learning of undergraduate students, for df 2 and 1181 came out to be 0.394 which is much lower than table value (2.99) even at 0.05 level of significance. Hence, Hypothesis no. 3 that **"There will be no significant interactional effect of Gender and Academic Achievement on Self-regulated Learning of undergraduate students."** was accepted. It indicates that there is no significant interactional effect of gender and academic achievement (in combination with each other) on self-regulated learning of undergraduate students.

DISCUSSION OF RESULTS

- The findings of the present study revealed that gender has a significant effect on self-regulated learning of undergraduate students. Further, it can be concluded that female undergraduate students are higher level of self-regulated leaning as compare to male counterparts.
- It may be inferred that self-regulated learning of undergraduate students differ significantly with respect to their different levels of academic achievement. High academic achiever undergraduate students are high self-regulated in their learning in comparison to average and low counterparts.
- There was no significant interactional effect of gender and academic achievement on self-regulated learning of undergraduate students.

EDUCATIONAL IMPLICATIONS

From the findings of the present study following educational implications have been drawn by the investigator;

- The significant independent effect of gender on self-regulated learning-where female undergraduate students exhibited higher level of self-regulation than their male counterparts. To enhance the self- regulated learning among male students' teachers or academician must to develop self regulated learning strategies model.
- Educators and curriculum developers should consider incorporating specific strategies and support mechanisms that bolster self-regulation learning skills among male students. These may include mentoring, structured goal-setting exercises, and time management workshops, helping to close the gender gap in self-regulated learning abilities.
- The significant differences observed in self-regulated learning across levels of academic achievement underscore the importance of nurturing these skills, particularly among low and average achievers. Since high achievers demonstrated greater self-regulation, institutions should integrate training modules, Curricular as well as co-curricular activities that helps in improving meta-cognitive skills, motivation, and learning strategies in students with lower academic performance. Doing so could enhance academic outcomes and overall learner autonomy.
- Teachers can potentially enhance academic success, motivation, and lifelong learning by instructing students in self-regulatory skills. Organising daily classroom

instruction to demonstrate how specific self-regulation skills contribute to learning can better prepare students for demanding future life goals. Teacher must be Incorporate motivational programs, activities, and self-regulated learning instructional strategies beside the curriculum which is essential for fostering self-regulated learning among students.

- Regular conferences, seminars, guest talk , and workshops should be organized by the government and authorities for teachers to train them on effectively implementing self-regulated learning strategies to cultivate Self-regulated learning skills among students.
- The non-significant interaction between gender and academic achievement on self-regulated learning suggests that these two factors operate independently rather than synergistically. This means that while both gender and achievement influence self-regulated learning, their effects do not depend on one another. Educational interventions can, therefore, be designed separately for each factor, allowing for more focused and efficient resource allocation when addressing disparities in self-regulation.

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