Research Guru
Online Journal of Multidisciplinary Subjects (ISSN : 2349-266X)
UGC Approved Journal No. 63726
Impact Factor:3.021 website: www.researchguru.net
Volume-12, Issue-2, September-2018

Self-Regulated Learning Strategies of First year Undergraduate Students of Commerce

Dr. Vijay Kumar Chechi, Associate Professor, Lovely Professional University, Phagwara, Punjab, India

Jyoti Bhalla, Assistant Professor, Lovely Professional University, Phagwara, Punjab, India

Abstract

Self- regulation and self-motivation are useful for the learners to form their behaviour in positive ways and to boost their overall performance. Bandura (1986) delineate self-regulated learning as associate individual's use of three psychological feature processes towards goal attainment: self- monitoring, self-judgment and self-reaction. The present study is aimed to explore the self-regulated learning strategies of first year undergraduate students of Commerce. In order to assess the self-regulated learning strategies of first year students of B.Com, the Motivated Strategies for Learning Questionnaire (MSLQ) was adapted and validated in Indian situation by the investigator. Data was analysed by 2x2 ANOVA factorial research design. The results indicated that female students outperformed male students in the use of self-regulated learning strategies. Female students found to be more self-efficacious as compared to male students. Further, unsuccessful students scored better on effort regulation as compared to another subgroup. Significant interaction effects of gender and successfulness on the self-regulated strategies have been found.

Keywords: Self Regulated Learning Strategies, Undergraduate Students

Introduction

Education is a process of human enlightenment and empowerment through the transmission of knowledge, skills and values. Education is the most significant lever for human, social and economic development. A sound and effectual system of education ends up in the enfoldment of learners' potentialities, enhancement of their competencies and revolution of their interests, attitudes and values. As we tend to step into the globe of twenty first century during which complicated and interconnected changes square measure presenting new challenges for education systems worldwide. Hence, learn to learn has become important for the students in order to become active and efficient learners inside and outside of classroom settings. Furthermore, the availability of the most effective academic setting and conditions that support higher learning and development of student is on the academic reform agenda worldwide (UNESCO, 1998). To add to this, the mission, structure, curriculum, and role of higher education have been changed over time, accompanied by evolving the ways to transform the students to self- directed learners. Every learner ought to have the power to initiate and direct their learning on the far side the formal schoolroom. In

everyday schoolroom settings, the schoolroom instruction is usually restricted to a couple of hours per week thus, in these settings the attainment of a high level of competency is hardly doable until or unless the students effectively regulate their own learning behaviour and take responsibility for their learning outside the schoolroom.

Self- regulation and self-motivation is useful for the learners to form their behaviour in positive ways and to boost their overall performance. Bandura (1986) delineate self-regulated learning as associate individual's use of three psychological feature processes towards goal attainment: self- monitoring, self-judgment and self-reaction. Self-controlled learning is a sparkling, constructive process whereby learner lay down targets for his or her learning and then attempt to monitor, regulate, and manage their cognition, motivation, and behaviour, controlled by their goals and environment (Pintrich, 2000). In self-regulation learning not solely include cognitive, but also motivational, affective factors, social contextual factors as well (Pintrich, 2000). Self-regulated learning is self-geared contemplation, sensations, and acts that are planned and intermittently acclimatized to the accomplishment of individual goals (Zimmerman, 2003).

Positive motivation and adaptive learning strategies not only help the self-regulated learner to succeed academically but enable them to view their futures optimistically. Self-regulation is important in order to achieve the prime aim of education i.e. development of life- long learning skills. What does contemporary research tell us about this desirable but elusive personal quality? Self-regulation of learning encompasses more than comprehensive knowledge of a skill; it involves the self-awareness, self-motivation, and behavioural skill to implement that knowledge correctly. Cleary & Zimmerman (2000) stated that professionals differ from non-professionals in applying their knowledge at crucial situations during learning performances, such as amending specific insufficiencies in technique. Contemporary research tells us that self-regulation of learning is not only a personal trait that individual student either have or lack. Instead, it comprises the careful use of explicit processes that must be personally adapted to each learning task. The component skills include: (a) setting of explicit proximal goals for oneself, (b) advocating powerful strategies for attaining the set goals, (c) monitoring one's performance preferably for signs of progress, (d) reorganizing one's physical and social framework to make it compatible with one's goals, (e) managing one's time resourcefully, (f) self-evaluating one's used strategies, (g) attributing causation to results, and (h) adapting future methods. A student's level of learning has been found to differ based on the presence or absence of these key skills in self-regulatory process (Schunk & Zimmerman, 1994; 1998).

Significance of the problem

Self-regulated learning is a way of forthcoming academic tasks that students learn through experience and self-reflection. Models of self-regulated learning fall out against the conception of intelligence as a characteristic that varies among students

and is unchangeable after a certain point in life. There may be students who are more or less self-regulating over time and across different classes, but all students can learn how to regulate their learning, regardless of age, sexual category, racial background, real capability level, prior knowledge, or motivation. This is a much more hopeful view of learning implying that all students can learn how to become self-regulated learners and teachers can clearly help them to achieve this goal of self-regulation. This study will be helpful for the administrators, policy makers, curriculum planners and teachers to identifying different problems of the students in the process of self-regulation and will help the undergraduate students in using appropriate self-regulated strategies in learning.

Objective of the study

1. To study the significant differences in self-regulated learning strategies of B.Com 2nd semester students w.r.t Gender and successfulness

Hypotheses of the study

1. There is no significant difference in self-regulated learning strategies of B.Com 2nd semester students w.r.t Gender
2. There is no significant difference in Self-Regulated Learning Strategies of B.Com 2nd semester students higher education students w.r.t Successfulness
3. There is no significant interaction effect of gender and successfulness on the self-regulated learning strategies of B.Com 2nd semester students

Method

Sample

A total of 66 students were selected from B.Com 2nd semester by using purposive sampling technique. Data was collected from government, private and government aided colleges of Amritsar and Jalandhar districts of Punjab.

Tool Used

In order to collect data, the Motivated Strategies for Learning Questionnaire (MSLQ) by Pintrich et al. (1991) was adapted and validated by the investigator by using Confirmatory factor Analysis (CFA) in Indian contexts. The results of Confirmatory factor Analysis (CFA) has been presented in the following table 1.

TABLE- 1
MEASURES OF FIT FOR THE MOTIVATION SCALE OF MSLQ

Measure Fit	Value
χ^2/ df	3
Root Mean Square Error of Approximation (RMSEA)	0.07
Goodness of Fit Index (GFI)	0.80
Root Mean Square Residual (RMR)	0.16
Bollen 89 Index, Incremental Fit Index (IFI)	0.79

Comparative Fit Index (CFI)	0.97
Normed Fit Index (NFI)	0.72
Relative Fit Index (RFI)	0.69
Tucker- Lewis Index (TLI)	0.77

The results of current analysis revealed that the hypothesized model of motivation scale was found to provide an excellent fit to the data with χ^2 (419) = 1282.88, p= 0.000, significant, p<.001), χ^2/ df = 3 and Goodness- of fit-index, GFI = 0.80, which is showing good fit to the data. Along with it, statistics of Root Mean Square Error of Approximation (RMSEA) = 0.07 which is also acceptable and advocate good model fit (Browne and Cudeck,1993). Further, statistics viz. Root Mean Square Residual (RMR)= 0.16, Bollen 89 Index, Incremental Fit Index (IFI)= 0.79, Comparative Fit Index (CFI)=0.97, Normed Fit Index (NFI)=0.72, Relative Fit Index (RFI)= 0.69, Tucker- Lewis Index (TLI) =0 .77. Hence, all values are satisfying the threshold criteria and contributing in confirming the model fit.

Reliability

Coefficient Alpha (Cronbach, 1951) was computed to determine the internal consistency of the whole scale and each subscale. Coefficient Alpha of whole scale was 0.90 which was considered as highly reliable score (Cronbach, 1951). Furthermore, internal consistencies for each subscale were as follows: Value Component, 0.87, Intrinsic Goal Orientation, 0.68, Extrinsic Goal Orientation, 0.67, Task Value, 0.82. Further, Expectancy Component, 0.83, Control of Learning Beliefs, 0.61, Self-Efficacy for learning and performance, 0.82, Affective Component with single sub dimension i.e. Test Anxiety, 0.69.

DATA ANALYSIS

As the main aim of the study was to find out the significant differences in self-regulated learning strategies of B.Com students w.r.t Gender and successfulness. 2x2 ANOVA factorial design is employed on the scores of motivation & learning strategies, wherein, successful males, successful females, unsuccessful males and unsuccessful females are studied as independent variables and motivation & learning strategies are studied as dependent variable.

RESULTS

To study the Self-Regulated Learning Strategies of B.Com 2nd semester w.r.t gender and successfulness, means and standard deviations were calculated for different dimensions of Self-Regulated Learning Strategies and presented in the following Table 2. In order to analyse the variance of various dimensions and total score of Self-Regulated Learning Strategies of B. Com 2nd semester w.r.t gender and successfulness, the obtained scores were subjected to two-way ANOVA and the results have been presented in the following Table 3.

MAIN EFFECTS

GENDER

SELF-REGULATED LEARNING STRATEGIES

It has been observed from the Table 3 that F-ratio for 'Test Anxiety' dimension came out 1.09, which is found to be insignificant even at the 0.05 level of confidence. However, F-ratio for 'Intrinsic Goal Orientation', 'Extrinsic Goal Orientation', 'Task Value', 'Control of Learning Beliefs', 'Self-Efficacy for Learning and Performance' dimensions and scores of 'Motivation' came out 4.70, 5.64, 9.24, 5.28, 7.08 and 5.70 respectively, which are found to be significant either at 0.05 or 0.01 level of confidence. This indicates that male and female students differ significantly on the scores of 'Intrinsic Goal Orientation', 'Extrinsic Goal Orientation', 'Task Value', 'Control of Learning Beliefs', 'Self-Efficacy for Learning and Performance' dimensions and scores of 'Motivation'.

The F-ratios for 'Critical Thinking' and 'Time and study environment' came out 3.76 and 3.15 respectively, which are found to be insignificant even at the 0.05 level of confidence. However, F-ratios for 'Rehearsal', 'Elaboration', 'Organisation', the 'Metacognitive Self- Regulation', 'Effort Regulation', 'Peer Learning', 'Help Seeking' dimensions, scores of 'Learning Strategies', 'Self-Regulated Learning Strategies Total' came out 12.39, 8.03, 11.91, 17.12, 8.60, 10.08, 4.86, 13.43 and 10.64 respectively, which are found to be significant either at 0.05 or 0.01 level of confidence. Thus, the Hypothesis (1), "There is no significant difference in Self-Regulated Learning Strategies of B.Com 2nd semester students w.r.t Gender" for B.Com 2nd semester is rejected for 'Intrinsic Goal Orientation', 'Extrinsic Goal Orientation', 'Task Value', 'Control of Learning Beliefs', 'Self-Efficacy for Learning and Performance' dimensions and scores of 'Motivation', 'Rehearsal', 'Elaboration', 'Organisation', the 'Metacognitive Self- Regulation', 'Effort Regulation', 'Peer Learning', 'Help Seeking' dimensions, scores of 'Learning Strategies' and scores of 'Motivation & Learning Strategies'.

From reviewing the corresponding means in the table 2, it is found that female students (5.51) had scored high on 'Intrinsic Goal Orientation' dimension than male students (5.42). This shows that female students are more curious about the content and have strong urge of taking challenging study tasks and getting mastery over the content and possess deep level of understanding of the subject matter as compared to their male student counterpart.

TABLE-2

MEANS AND SDS OF SUB-GROUPS OF ONE WAY ANOVA FOR VARIOUS DIMENSIONS OF SELF-REGULATED LEARNING STRATEGIES W.R.T GENDER AND SUCCESSFULNESS OF B.COM 2ND SEMESTER

Dimension	IGO									EGO								
Gender	female			male			Total			female			male			Total		
Successfulness	US	S	Total	US	S	Total	US	S	Total	US	S	Total	US	S	Total	US	S	Total
M	7	5.42	5.51	4.67	5.6	5.42	5.25	5.5	5.47	7	5.54	5.62	4.9	5.48	5.37	5.43	5.52	5.51
σ	0	1.35	1.36	1.37	0.82	0.99	1.58	1.14	1.19	0	1.03	1.06	1.7	0.93	1.11	1.74	0.98	1.08
N	2	33	35	6	25	31	8	58	66	2	33	35	6	25	31	8	58	66
Dimension	TV									CLB								
M	6.9	5.29	5.39	4.23	5.24	5.04	4.9	5.27	5.22	6.5	5.15	5.22	4.73	4.96	4.91	5.18	5.06	5.08
σ	0.14	1.08	1.11	1.43	0.91	1.08	1.73	1	1.1	0.71	0.95	0.99	1.17	1.01	1.03	1.31	0.97	1.01
Dimension	SELP									TA								
M	6.35	5.43	5.48	4.32	5.36	5.16	4.83	5.4	5.33	3.8	4.47	4.43	4.6	4.66	4.65	4.4	4.55	4.53
σ	0.07	1	0.99	1.12	0.77	0.93	1.34	0.9	0.97	2.26	1.16	1.2	0.82	1.04	0.99	1.16	1.1	1.1
Dimension	Motivation									REH								
M	37.28	31.12	31.47	27.16	30.97	30.23	29.69	31.05	30.89	6.65	5.25	5.33	3.68	5.16	4.88	4.43	5.21	5.12
σ	1.17	5.09	5.15	6.35	4.67	5.15	7.14	4.87	5.15	0.21	1.02	1.05	1.36	0.93	1.16	1.79	0.97	1.12
Dimension	ELAB									ORG								
M	6.6	5.35	5.42	4.18	5.08	4.91	4.79	5.23	5.18	6.65	5.45	5.52	3.73	4.99	4.75	4.46	5.25	5.16
σ	0.14	1.09	1.09	1.32	1.1	1.18	1.58	1.09	1.16	0.21	1.18	1.18	1.4	1.04	1.2	1.8	1.14	1.24
Dimension	CT									MSR								
M	6.1	5.35	5.39	4.83	4.98	4.96	5.15	5.19	5.19	6.35	5.09	5.17	4	4.73	4.59	4.59	4.94	4.89
σ	0.14	0.97	0.96	1.42	0.91	1	1.33	0.95	0.99	0.35	0.86	0.88	0.95	0.58	0.71	1.36	0.77	0.85

Dimension	TSE									ER								
M	4.8	4.59	4.6	4.07	4.34	4.29	4.25	4.48	4.46	6.3	4.56	4.65	4.27	4.25	4.26	4.78	4.42	4.47
σ	0.71	0.7	0.69	0.92	0.46	0.57	0.89	0.62	0.65	0	1.03	1.08	1.01	0.77	0.81	1.27	0.93	0.97
Dimension	PL									HS								
M	6.65	5.19	5.27	3.83	4.96	4.75	4.54	5.09	5.02	5.5	4.91	4.94	4	4.84	4.68	4.38	4.88	4.82
σ	0.5	0.95	0.98	1.18	1.31	1.35	1.65	1.11	1.19	0.71	0.81	0.8	1.27	0.75	0.91	1.3	0.77	0.86
Dimension	Learning Strategies									Motivation & Learning Strategies								
M	55.44	45.58	46.15	36.52	43.12	41.84	41.25	44.52	44.1	92.5	76.73	77.63	63.83	74.08	72.1	71	75.59	75.03
σ	0.69	6.97	7.15	8.43	6.3	7.12	11.29	6.75	7.4	2.12	11.53	11.79	13.7	10.32	11.55	17.6	11.01	11.92

US- Unsuccessful, S- Successful

TABLE- 3
SUMMARY OF TWO WAY ANOVA FOR VARIOUS DIMENSIONS OF SELF-REGULATED LEARNING STRATEGIES IN RELATION TO GENDER AND SUCCESSFULNESS OF B.COM 2ND SEMESTER

Source	Gender																	
Dependent Variable	IGO	EGO	TV	CLB	SELP	TA	Motivation	REH	ELAB	ORG	CT	MSR	TSE	ER	PL	HS	Learning Strategies	Motivation & Learning Strategies
SS	6.32	6.3	10.07	5.19	6.01	1.35	143.15	12.66	9.81	15.48	3.62	10.01	1.3	7.4	12.52	3.34	620.31	1330.53
df	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
MSS	6.32	6.3	10.07	5.19	6.01	1.35	143.15	12.66	9.81	15.48	3.62	10.01	1.3	7.4	12.52	3.34	620.31	1330.53
F	4.7*	5.64*	9.24**	5.28*	7.08**	1.09	5.7*	12.39**	8.03**	11.91**	3.76	17.1**	3.15	8.6**	10.08**	4.86*	13.43**	10.64**
Sig.	0.03	0.02	0.00	0.03	0.01	0.3	0.02	0.00	0.01	0.00	0.06	0.00	0.08	0.01	0.00	0.03	0.00	0.00
Source	Successfulness																	
SS	0.56	1.04	0.49	1.74	0.02	0.72	7.53	0.01	0.17	0	0.49	0.38	0.01	4.2	0.15	0.08	14.29	41.44
df	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
MSS	0.56	1.04	0.49	1.74	0.02	0.72	7.53	0.01	0.17	0	0.49	0.38	0.01	4.2	0.15	0.08	14.29	41.44
F	0.42	0.93	0.45	1.77	0.02	0.58	0.3	0.01	0.14	0	0.5	0.65	0.01	4.88*	0.12	0.12	0.31	0.33

Sig.	0.52	0.34	0.5	0.19	0.88	0.45	0.59	0.93	0.71	0.96	0.48	0.42	0.91	0.03	0.73	0.73	0.58	0.57
Source	Gender * Successfulness																	
SS	8.54	5.67	9.23	3.38	5.23	0.49	134.67	11.25	6.24	8.19	1.1	5.34	0.33	4.07	9.14	2.78	367.58	918.64
df	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1	1
MSS	8.54	5.67	9.23	3.38	5.23	0.49	134.67	11.25	6.24	8.19	1.1	5.34	0.33	4.07	9.14	2.78	367.58	918.64
F	6.35**	5.08*	8.47**	3.43	6.16*	0.4	5.37*	11.01**	5.12*	6.3*	1.14	9.14**	0.79	4.72*	7.36**	4.05	7.96**	7.35**
Sig.	0.01	0.03	0.01	0.07	0.02	0.53	0.02	0.00	0.03	0.02	0.29	0.00	0.38	0.03	0.01	0.05	0.01	0.01
Source	Error																	
SS	83.39	69.27	67.59	60.96	52.6	77.15	1555.85	63.33	75.69	80.55	59.73	36.25	25.47	53.4	76.98	42.59	2864.17	7751.72
df	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62	62
MSS	1.35	1.12	1.09	0.98	0.85	1.24	25.09	1.02	1.22	1.3	0.96	0.59	0.41	0.86	1.24	0.69	46.2	125.03

*significant at 0.05 level, **significant at 0.01 level

IGO- intrinsic goal orientation, EGO- extrinsic goal orientation, TV- Task value, CLB- Control of Learning Beliefs, SELP- self efficacy for learning and performance, TA - Test anxiety, REH- Rehearsal, ELAB- Elaboration, ORG -Organisation, CT- Critical thinking, MSR- Metacognitive self-regulation, TSE- Time and study environment, ER- Effort regulation, PL- Peer learning, HS- Help seeking, LS-Learning Strategies -Total

From reviewing the corresponding means in the table 2, it is found that female students (5.62) had scored high on 'Extrinsic Goal Orientation' dimension than male students (5.37). This shows that female student's main focus is on getting good grades for proving her position in the class, rewards or approval from the peer group, school teachers or parents as compared to male students. This result is in contradiction to the previous findings of Garcia (1993) and Anderman & Anderman (1999), whom reported that male students have high level of extrinsic motivational orientation as compared to girls.

From reviewing the corresponding means in the table 2, it is found that female students (5.39) had scored high on 'Task Value' dimension than male students (5.04). This shows that female students give more value to the importance, usefulness and cost of the task in hand. They possess deep processing learning strategies as compared to their male student counterparts. The results of the present study are consistent with the results of Al-Harthy & Aldhafri (2014) who explored that female students surpassed male students in task value.

From reviewing the corresponding means in the table 2, it is found that female students (5.22) had scored high on 'Control of Learning Beliefs' dimension than male students (4.91). This indicates that female students believe that their efforts will lead to positive and successful outcomes. Such kinds of believes make them to study more strategically and effectively as they know they can control their academic performance. On getting failure they do not blame teacher rather they blame themselves. They consider that they did not get good marks as they did not study hard for comprehending the content.

From reviewing the corresponding means in the table 2, it is found that female students (5.48) had scored high on 'Self-Efficacy for Learning and Performance' dimension than male students (5.16). This shows that female students appraise their own capability and confidence to perform a task, they have firm belief that they will able to learn the difficult material of the course, master the skills and will receive excellent grades in the classroom as compared to male students. The results of the present study are in tune with the results of Mills et al. (2007) who explored that girls showed higher self-efficacy in French language learning as compared to boys. Likewise, Chyung (2007) found that female students of distance education showed significantly high level of self- efficacy as compared to male students. In the same way, Britner (2008) reported that female students scored higher in self- efficacy and performed good in Earth Sciences subject.

From reviewing the corresponding means in the table 2, it is found that female students (31.47) had scored high on total score of 'Motivation' than male students (30.23). This shows that female students more motivated to regulate their learning, have mastery over the content, get good grades in the class. The high level of motivation encourages them to have control over their academic performance, think critically and plan their leaning strategically. The results of the present study enjoy the

support from the results of Ghazvini & Khajehpour (2011), who found that female students scored remarkably high on motivation as compared to male students.

From reviewing the corresponding means in the table 2, it is found that female students (5.33) had scored high on 'Rehearsal' dimension than male students (4.88). This shows that female students are more focussed in leaning the content by practising it again and again. They use this strategy mainly to learn the simple tasks. Female students most likely to retain the things in their working memory and use memorisation more often than male students.

From reviewing the corresponding means in the table 2, it is found that female students (5.42) had scored high on 'Elaboration' dimension than male students (4.91). This shows that female make good use of elaboration strategies like paraphrasing, summarising, creating analogies, making internal connections between the items to be learned and new knowledge with the previous knowledge. They pull the information together from various sources viz. notes, lecture, readings, tutorials and make connections between them. Bidjerano (2005) found that female students surpassed male students in terms of their use of 'Elaboration' strategy

From reviewing the corresponding means in the table 2, it is found that female students (5.52) had scored high on 'Organisation' dimension than male students (4.75). This shows that female students plan their learning strategically and make good use of organisation strategies like summarising and organising the main points from the gathered information, they often make good use of mind mapping technique. The same results have been found by Bidjerano (2005) who reported that female students surpassed male students in terms of their use of 'Organisation' strategy.

From reviewing the corresponding means in the table 2, it is found that female students (5.17) had scored high on 'Metacognitive Self- Regulation' dimension than male students (4.59). This shows that female students plan, monitor and regulate their learning. If the course material is complex then they often change their learning strategy. If in case they get confused then instead of cramming they go back and try to figure out the confusion. They always change their study style according to the requirement of the course and teaching style of the teacher and set goals for themselves in order to direct their activities in each study period. Same results have been reported by Simsek and Balaban (2010) who found that female students outperformed male students in terms of their use of 'Metacognitive Self- Regulation' learning strategies.

From reviewing the corresponding means in the table 2, it is found that female students (4.65) had scored high on 'Effort Regulation' dimension than male students (4.26). This shows that female students have the ability to control their effort and attention in the phase of distraction and monotonous tasks and show their commitment in accomplishing their tasks. They never give up on complexities rather they manage their efforts and attention in order to overcome the interruptions. But Bidjerano (2005) found that female students surpass male students in terms of their use of 'Effort Regulation' strategy.

From reviewing the corresponding means in the table 2, it is found that female students (5.27) had scored high on 'Peer Learning' dimension than male students (4.75). This shows that female students collaborate with their peer group, discuss and debate with them in order to clarify their doubts and reach insights that one cannot attain on one's own. They always keep some time aside for doing discussion in peer group in order to complete the task on time. Bidjerano (2005) found no significant gender differences in Peer Learning.

From reviewing the corresponding means in the table 2, it is found that female students (46.15) had scored high on scores of 'Learning Strategies' dimension than male students (41.84). This shows that overall learning strategies of female students are good as compared to male students. The results of the present study go in consonance with the results of the previous researches that indicated female students scored remarkably high on Learning Strategies as compared to male students (Anderman & Young, 1994; Zimmerman & Martinez, 1990).

From reviewing the corresponding means in the table 2, it is found that female students (77.63) had scored high on 'Self-Regulated Learning Strategies Total' dimension than male students (72.1). This shows that female students are more self-regulated as compared to male students. The results of the present study are consistent with the results of the previous researches, which reported that female students scored high on using self- regulated learning strategies as compared to their male students counterpart (Veloo et al, 2015).

MAIN EFFECT

SUCCESSFULNESS

SELF-REGULATED LEARNING STRATEGIES

Table 3 showed that F-ratios for 'Intrinsic Goal Orientation', 'Extrinsic Goal Orientation', 'Task Value', 'Control of Learning Beliefs', 'Self-Efficacy for Learning and Performance', 'Test Anxiety' dimensions and scores of 'Motivation' came out 0.42, 0.93, 0.45, 1.77, 0.02, 0.58, 0.30 respectively, which are found to be insignificant even at the 0.05 level of confidence. This shows that successful and unsuccessful students do not differ significantly on the scores of 'Intrinsic Goal Orientation', 'Extrinsic Goal Orientation', 'Task Value', 'Control of Learning Beliefs', 'Self-Efficacy for Learning and Performance', 'Test Anxiety' dimensions and total score of 'Motivation'.

The F-ratios for the 'Rehearsal', 'Elaboration', 'Organisation', 'Critical Thinking', 'Metacognitive Self- Regulation', 'Time and Study Environment', 'Peer Learning', 'Help Seeking' dimensions, scores of 'Learning Strategies' and scores of 'Motivation & Learning Strategies' came out 0.01, 0.14, 0.00, 0.50, 0.65, 0.01, 0.12, 0.12, 0.31, 0.33 respectively, which are found to be insignificant even at the 0.05 level of confidence. However, F- ratio for 'Effort Regulation' came out 4.88, which was significant at 0.05 level of confidence. This shows that successful and unsuccessful students differ significantly on the scores of 'Effort Regulation'. Thus, the Hypothesis

(2), "There is no significant difference in self-regulated learning strategies of B.Com 2nd semester students w.r.t Successfulness" for B.Com 2nd Semester is rejected for 'Effort Regulation' dimension. From reviewing the corresponding means in the table 2, it is found that unsuccessful students (4.78) had scored high on 'Effort Regulation' dimension than successful students (4.42). This shows that in spite of the failure, unsuccessful students perceive that they would be able to get success if they could regulate their efforts.

INTERACTION EFFECT
GENDER* SUCCESSFULNESS

SELF-REGULATED LEARNING STRATEGIES

It is clear from the Table 3 that F-ratios for the interaction between gender and successfulness on the scores of 'Control of Learning Beliefs' and 'Test Anxiety' 3.43 and 0.40 respectively, which are found to be insignificant even at the 0.05 level of confidence. However, F-ratios on the scores of 'Intrinsic Goal Orientation', 'Extrinsic Goal Orientation', 'Task Value' and 'Self-Efficacy for Learning and Performance' dimensions and scores of 'Motivation' came out 6.35, 5.08, 8.47, 6.16, 5.37 respectively, which are found to be significant either at the 0.05 or 0.01 level of confidence. It means students of B.Com 2nd semester differ significantly on the scores of 'Intrinsic Goal Orientation', 'Extrinsic Goal Orientation', 'Task Value' and 'Self-Efficacy for Learning and Performance' dimensions and scores of 'Motivation'.

Table 3 shows that the F- ratios for the interaction between gender and successfulness on the scores of 'Rehearsal', 'Elaboration', 'Organisation', 'Metacognitive Self- Regulation', 'Effort Regulation', 'Peer Learning', 'Help Seeking' dimensions, scores of 'Learning Strategies' and scores of 'Motivation & Learning Strategies' came out significant either at 0,01 or 0.05 levels of confidence. It means students of B.Com 2nd semester differ significantly on the scores of 'Rehearsal', 'Elaboration', 'Organisation', 'Metacognitive Self- Regulation', 'Effort Regulation', 'Peer Learning', 'Help Seeking' dimensions, scores of 'Learning Strategies' and scores of 'Motivation & Learning Strategies'. Thus, the Hypothesis (3), "There is no significant interaction effect of gender and successfulness on the self-regulated learning strategies of higher education students" for B.Com 2nd semester is rejected for 'Intrinsic Goal Orientation', 'Extrinsic Goal Orientation', 'Task Value' and 'Self-Efficacy for Learning and Performance' dimensions and scores of 'Motivation', 'Rehearsal', 'Elaboration', 'Organisation', 'Metacognitive Self- Regulation', 'Effort Regulation', 'Peer Learning', 'Help Seeking' dimensions, scores of 'Learning Strategies' and scores of 'Motivation & Learning Strategies'.

To further analyze the significant difference between various groups as a result of interaction between gender and successfulness on t-values for the various sub groups were calculated and the sub groups for which the t value is found significant are presented in the table 4.80 and table 4.81.

TABLE-4
SUMMARY OF 't'-VALUES FOR THE SUB GROUPS IN RESPECT OF DIFFERENT DIMENSIONS OF MOTIVATION OF B.COM 2ND SEMESTER

Group 1	Group 2	IGO	EGO	TV	SELP	Motivation
Unsuccessful Females	Successful Females	6.72**	8.14**	7.58**	5.08**	5.08**
Unsuccessful Females	Unsuccessful Males	4.17**	3.03**	4.51**	4.41**	3.72**
Unsuccessful Females	Successful Males	8.54**	8.17**	8.01**	6.12**	5.06**

TABLE- 4
SUMMARY OF 't'-VALUES FOR THE SUB GROUPS IN RESPECT OF DIFFERENT DIMENSIONS OF LEARNING STRATEGIES OF B.COM 2ND SEMESTER

Group 1	Group 2	REH	ELAB	ORG	MSR	ER	PL	Learning Strategies	Mot & Learning Strategies
Unsuccessful Females	Successful Females	6.05**	5.84**	4.73**	4.36**	9.70**	3.74**	7.54**	6.30**
Unsuccessful Females	Unsuccessful males	5.17**	4.42**	5.45**	5.11**	4.92**	4.72**	5.44**	4.95**
Unsuccessful Females	Successful males	6.26**	6.30**	6.50**	5.93**	13.31**	3.84**	9.12**	7.22**
Successful Females	Unsuccessful males	2.69*	2.05*	3.33**	2.62**	0.64	2.67**	2.48**	2.17*
Unsuccessful males	Successful males	2.53*	1.55	2.56**	1.8	0.05	2.06**	1.8	1.72

***significant at 0.05 level of confidence, **significant at 0.01 level of confidence**

It is clear from the table 4 that the t- values for three subgroups in 'Intrinsic Goal Orientation', 'Extrinsic Goal Orientation', 'Task Value' and total score of 'Motivation' were found to be significant at the 0.01 level of confidence. Further, it has been found that unsuccessful female students have scored more than successful female, unsuccessful male and successful male students on 'Intrinsic Goal Orientation' dimension. Likewise, unsuccessful female students have scored more than successful female, unsuccessful male and successful male students on 'Extrinsic Goal Orientation' dimension. Unsuccessful female students have scored more than successful female, unsuccessful male and successful male students on 'Task Value' dimension. Similarly, unsuccessful female students have scored more than successful female, unsuccessful male and successful male students on 'Self Efficacy for Learning and Performance' dimension. In the same way, it has been found that unsuccessful female students have scored more than successful female, unsuccessful male and successful male students on total score of 'Motivation'.

It is clear from the table 5 that t-values for 5 subgroups came out significant either at the 0.05 or 0.01 level of confidence. It is clear from the mean scores table 2 that unsuccessful female students have scored more than successful female, unsuccessful male and successful male students on 'Rehearsal' dimension. Further, successful female students scored more than unsuccessful male students and successful male students scored more than unsuccessful male students on 'Rehearsal' dimension. It is clear from the mean scores table 4.78 that unsuccessful female students have scored more than successful female, unsuccessful male and successful

male students on 'Elaboration' dimension. Further, successful female students scored more than unsuccessful male students on 'Elaboration' dimension.

It is clear from the mean scores table 2 that unsuccessful female students have scored more than successful female, unsuccessful male and successful male students on 'Organisation' dimension. Further, successful female students scored more than unsuccessful male and successful male students scored more than unsuccessful male students on 'Organisation' dimension. It is clear from the mean scores table 2 that unsuccessful female students have scored more than successful female, unsuccessful male and successful male students on 'Metacognitive Self- Regulation' dimension. Further, successful female students scored more than unsuccessful male students on 'Metacognitive Self- Regulation' dimension.

It is clear from the mean scores table 2 that unsuccessful female students have scored more than successful female, unsuccessful male and successful male students on 'Effort Regulation' dimension. Further, successful female students scored more than unsuccessful male students on 'Effort Regulation' dimension. It is clear from the mean scores table 2 that unsuccessful female students have scored more than successful female, unsuccessful male and successful male students on 'Peer Learning' dimension. Further, successful female students scored more than unsuccessful male students and successful male students scored more than unsuccessful male students on 'Peer Learning' dimension.

It is clear from the mean scores table 2 that unsuccessful female students have scored more than successful female, unsuccessful male and successful male students on total score of 'Learning Strategies'. Further, successful female students scored more than unsuccessful male students on total score of 'Learning Strategies'. It is clear from the mean scores table 2 that unsuccessful female students have scored more than successful female, unsuccessful male and successful male students on total score of 'Self-Regulated Learning Strategies. Further, successful female students scored more than unsuccessful male students on total score of 'Self-Regulated Learning Strategies.

DISCUSSION ON RESULTS

From the results, it has been revealed that both male and female students do not differ on 'Test Anxiety', this indicates that they do not show stress, tension, worry, fear of failure and somatic symptoms such as nausea, upset feeling, fastening of heart beat before or during the exam. On the other side, the motivation of female students is inclined on getting mastery over the content so, female students set mastery-oriented goals, high level of internal goal orientation help them to invest great deal of time in using deep processing strategies like planning, organising and monitoring, along with internal motivation they are also externally motivated in order to get approval or recognition from others, they show highly competitive behaviour as they want to prove their unique existence in the classroom and set performance-oriented goals for them. Further, findings have proved that female students give more importance to the task in hand, along with it they hold optimistic approach of getting success and have firm belief on their efforts. They judge their capabilities and

confidence in performing a task. Consequently, it is confirmed that female students have high motivational beliefs which affects their willingness to approach a task, devote sufficient time and energy to successfully complete that task. A specific goal orientation directs the behaviour of the person while, task value stimulates the strength or intensity of the behaviour (Pintrich & Garcia, 1991; Schunk & Zimmerman, 1989). The high level of motivation is associated with the more frequent and judicious use of learning strategies in order to regulate the learning process.

From the results it has been found that female students are more self-efficacious as compared to male students. They are proactive in their efforts to learn as they are aware of their strengths and limitations and directed by personally set goals and task-related strategies. They monitor their behavior in terms of their set goals and self-reflect on their achieved effectiveness. If they perceive satisfactory goal progress, they feel competent of improving their skills and goal attainment. High self-efficacy of the learners enables them to set new-fangled stimulating goals. more motivated to learn in a self-regulated process, they are able grab and utilize variety of learning strategies and know, at what time, why, and how to use these approaches in an apt circumstance. Their proactive qualities and self-motivating abilities distinguish them from their peers. They voluntarily offer answers to questions in the classroom, seek out additional resources when needed to master the content, they are aware of their strengths and limitations and manipulate their learning environment in order to meet their needs. Positive motivation and good learning strategies not only help the self-regulated learner to succeed academically but enable them to view their futures optimistically. On the contrary, it has been found that male and female students do not differ significantly on the scores of 'Critical Thinking' and 'Time and study environment'. It can be comprehended that both male and female students think critically before accepting any conclusion and assertion and both manage their study time equally. Despite of no statistical significant differences, female students scored more on mean scores of both 'Critical Thinking' and 'Time and study environment'. This shows that female students are better than females in using above said strategies. The probable reason behind this may be that parents, teachers and society is promoting girls in every field and they have numerous educational opportunities which have motivated the female students to compete with men in every walk of the life and to prove their capabilities and capacities. Thinking critically before accepting any assertion and managing time is basic nature of women, which enables women to perform better than men. Further, unsuccessful students scored more on effort regulation dimension than successful students. This indicates that unsuccessful students are hopeful that if they regulate their efforts properly, they will be able to get success.

CONCLUSIONS

- Female students scored more on Task Value', 'Control of Learning Beliefs', 'Self-Efficacy for Learning and Performance' dimensions and scores of 'Motivation', 'Rehearsal', 'Elaboration', 'Organisation', the 'Metacognitive Self- Regulation', 'Effort Regulation', 'Peer Learning', 'Help Seeking'

dimensions, scores of 'Learning Strategies' and 'Motivation & Learning Strategies' as compared to male students.

- Unsuccessful students had scored high on 'Effort Regulation' than successful students. This shows that in spite of the failure, unsuccessful students perceive that they would be able to get success if they could regulate their efforts.
- Significant interaction effect of gender and successfulness on the self-regulated has been found in 'Intrinsic Goal Orientation', 'Extrinsic Goal Orientation', 'Task Value' and 'Self-Efficacy for Learning and Performance' dimensions and scores of 'Motivation', 'Rehearsal', 'Elaboration', 'Organisation', 'Metacognitive Self- Regulation', 'Effort Regulation', 'Peer Learning', 'Help Seeking' dimensions, scores of 'Learning Strategies' and scores of 'Motivation & Learning Strategies'.

REFERENCES

Anderman, L. H., & Anderman, E. M. (1999). Social predictors of changes in students' achievement goal orientations. *Contemporary Educational Psychology*, *24*(1), 21-37.

Bandura, A. (1986). Social foundations of thought and action. *Englewood Cliffs, NJ*, *1986*.

Bidjerano, T. (2005). Gender differences in self-regulated learning. Paper presented at the Annual Meeting of the Northeastern Educational Research Association, October 19-21, Kerhonkson, NY, USA.

Britner, S. L. (2008). Motivation in high school science students: A comparison of gender differences in life, physical, and earth science classes. *Journal of Research in Science Teaching: The Official Journal of the National Association for Research in Science Teaching*, *45*(8), 955-970.

Chyung, S. Y. Y. (2007). Age and gender differences in online behavior, self-efficacy, and academic performance. *Quarterly Review of Distance Education*, *8*(3).

Garcia, T. (1993). Women and Minorities in Science: Motivational and Cognitive Correlates of Achievement.

Ghazvini, S. D., & Khajehpour, M. (2011). Gender differences in factors affecting academic performance of high school students. *Procedia-Social and Behavioral Sciences*, *15*, 1040-1045.

Mills, Pajares and Heron Anthony, G. (2000). Factors influencing first-year students' success in mathematics. *International Journal of Mathematical Education in Science and Technology*, *31*(1), 3-14.

Pintrich, P. R. (2000). The role of goal orientation in self-regulated learning. In *Handbook of self-regulation* (pp. 451-502).

Schunk, D. H., & Zimmerman, B. J. (1994). *Self-regulation of learning and performance: Issues and educational applications*. Lawrence Erlbaum Associates, Inc.

Schunk, D. H., & Zimmerman, B. J. (Eds.). (1998). *Self-regulated learning: From teaching to self-reflective practice*. Guilford Press.

Simsek, A., & Balaban, J. (2010). Learning Strategies of Successful and Unsuccessful University Students. *Online Submission*, *1*(1), 36-45.

Veloo, A., Hong, L. H., & Lee, S. C. (2015). Gender and ethnicity differences manifested in chemistry achievement and self-regulated learning. *International Education Studies*, *8*(8), 1.

Zimmerman, B. J., & Campillo, M. (2003). Motivating self-regulated problem solvers. *The psychology of problem solving*, *233262*.

Zimmerman, B. J., & Martinez-Pons, M. (1990). Student differences in self-regulated learning: Relating grade, sex, and giftedness to self-efficacy and strategy use. *Journal of educational Psychology*, *82*(1), 51.