



## MODIFICATION OF STUDY SKILLS AND STUDY INTERESTS IN PHYSIOTHERAPY STUDENTS

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### **Abstract**

**Background:** Academic skills and study interest are essential for students to perform well in examination which leads to academic achievement. Psychological intervention helps them to enhance study skills and interest in the students.

**Design:** pre-post design was used in the study and study skills assessment and study interest questionnaires were used repeatedly.

**Sample:** The sample consisted of thirty six male and thirty six female students studying in physiotherapy course. The questionnaires were administered at before, after, and follow-up of the study skills intervention. Study skills program was used for 14 sessions, each consisting of 50 minutes for the improvement of study habit and study interests in the students. Demographic variables such as age, religion, father's income, education, and occupation were collected from the students.

**Statistics:** Percentage, and *t*-test were used for analyzing and interpreting the obtained data. Results indicated a significant improvement in the male and female students and better maintained at follow-up. Further the study skills program was significantly more effective in the female students than the male students.

**Conclusion:** The groups of male and female students had significant in all areas of study skills but they maintained continuous improvement in the areas of a). Information processing, b).motivation / attitude, c). Selecting main ideas / self testing / reading, and d). writing in study skills. The male students had a significant improvement in feeling- related valences and the female students had a significant improvement in value- related valences in study interests. The study skills program was significantly more effective in some areas both in study skills and study interest of the students.

**Key Words:** Study Skills Program, Study Skills & Study Interest, and Students.

### **Introduction**

A major reason for students' undeveloped potentialities may be in their lack of learning strategies. It is not an infrequent occurrence that students, who spend inordinate amounts of time memorizing study materials, are still barely "getting by". These students' personal, emotional, and social development may suffer from the pressures created by the use of relatively inefficient learning strategies.

Learning is a complicated process and a single study method may not be appropriate for all the situations. Efficient learning results from interest in subject matter and skilful use of study techniques. Interest in subject matter causes the learner to study further (Seif, 2001). Using innovative study skills and techniques to improve the student learning has been reported worldwide.

The study skills program covers a specific goal, for the students to improve on their academic subjects and a broad goal to develop learning competence. The key assumptions are: (i) inefficient study behavior results from poor study methods, and (ii) application of sound study skills enables more effective and more efficient study behavior. The focus therefore is to teach students more effective methods of study.

Study skills are strategies and methods of purposeful learning, usually centered on reading and writing. Effective study skills are considered essential for students to acquire good grades in school/ college, and are useful in general to improve learning throughout one's life, in support of career and other interests. Some key study skills are removing distractions and improving concentration, maintaining a balance between homework and other activities, reducing stress, such as that caused by test anxiety, strategies for writing essays, speed reading, note taking, subject-specific study strategies, and preparing for examinations.

### **Objectives**

They were i) to use psychological scales to assess study skills / habit and study interests of students studying physiotherapy



course ii) to use appropriate intervention strategy for the study skills and study interest and iii) to assess the qualitative changes in students after the intervention and at follow-up.

**Method:**Design: Pre and post research design was used for the study. The male and female students were studying the graduate course of physiotherapy. The duration of the study skills program was 14 sessions, each for 50 minutes session. Data were collected before, after, and follow-up by using the study skills assessment questionnaire and study interest questionnaire

**Sample:** Thirty six male and thirty six female students studying physiotherapy were selected for the present study. The duration of the study skills program was 14 sessions, each for 50 minutes session. The follow-up were done after two months by using the study skills assessment and study interest questionnaires.

### Measures

1. Study Skills Assessment Questionnaire: The 26 item questionnaire was used to evaluate the study skills of students (UHCL counseling services, 2005)). It covered eight areas like a) Time management, b) Concentration / memory, c) Study aids / note taking, d) Test strategies / test anxiety, e) Information processing, f) Motivation / attitude, h) Selecting main ideas / self testing / reading, and i) Writing. Each items was rated on either a 0-5 spectrum (1-Never, 2. Sometimes. 3. Usually, and 4. Always).

2. Study Interest Questionnaire: The questionnaire developed by Schiefele et al, (1993) comprised an 18 item rating scale used to evaluate the study interest in three areas of feeling- related valences, value- related valences, and intrinsic orientation. Each item was rated on either a 0-3 spectrum (0- not at all true, 3- completely true). The total score of the study interest questionnaire consisted of the sum of the items.

### Intervention

Study skills training focused on these areas - a) time management, b) concentration / memory, c) study aids / notetaking, d) test strategies / test anxiety, e) information processing, f) motivation / attitude, h) selecting main ideas / self testing / reading, and i) writing. Study conditions (Harboe, & Müllen, 2007) were 1. Time management –allotment specific time for every day study 1.b. Motivation and concentration - concentrated on what was doing, found out where could work most efficiently, 2. Planning - began every test/ exam by preparing a study plan, planning required overview, broke tasks down into smaller parts, excerpt of study calendar, planned breaks from the studies as well 3.Reading technique, before read the book, entering the reading process, selected reading technique according to the purpose of reading, and divided the reading into phases, 4. Note-taking technique, class notes, reading notes, mind maps, used your notes again and again, 5. Requirements for essays, source referencing, etc., 6. Writing technique, wrote before read, speed-writing, wrote on a daily basis during your studies, and 7. Job placement in various places.

**Statistical analysis:** SPSS package was used for analyzing the data of the two groups. Percentage and t-test- were done to interpret the scores obtained by these groups.

### Results

**Table 1: shows demographic variables of the male and the female students.**

Variables	Groups	Males		Females	
		N	%	N	%
Age	18-19 Years	24	66.70	30	83.30
	20-21ears	12	33.30	6	16.70
Religion	Hindu	21	58.30	24	66.70
	Christian	9	25.00	9	25.00
	Muslim	6	16.70	3	8.30
Parent's education (father)	< 8th standard	6	16.70	6	16.70
	< 10th standard	9	25.00	6	16.70
	.>10th standard	12	33.30	9	25.00
Income	Graduate	9	25.00	15	41.60
	Rs.>3000	3	8.30	0	0.00
	Rs.>5000	6	16.70	6	16.70
	Rs. >7500	15	41.70	9	25.00
	Rs.>10000	9	25.00	12	33.30
	Rs. > 10000	3	8.30	9	25.00



Majority of the males and the females belonged to the age group of 18-19 years (66.70%) and (83.30%), followed by the age group of 20-21 years (33.30% and 16.70%), respectively and belonged to Hindu religion (58.30%) and (66.70%), followed by Christians (25.00%) and (25.00%) respectively. Majority of the males' parents had the education above 10th standard (33.30%) and the income of Rs.> 7500 (41.70%) and the females' parents had graduate level (41.60%) and the income of Rs.> 10000 (33.30%).

**Table 2: shows mean, standard deviation, and t-value of before, after and follow-up assessments in the study skills assessment questionnaire of the male and the female students.**

Scale		Assessment	Group-male students				Group-female students			
			n	X	SD	t-	n	X	SD	t
SKAQ	TM	Before	36	13.42	1.97		36	14.92	2.15	
		After		15.33	1.96	5.70*		16.92	2.16	7.27*
		Follow-up		15.41	1.44	0.32		16.75	1.55	0.6
	C	Before	36	14.92	2.16		36	13.42	1.98	
		After		24.90	3.76	7.98*		23.33	4.92	6.47*
		Follow-up		23.34	2.84	1.14		25.50	7.31	1.42
	SA	Before	36	16.08	2.31		36	17.33	2.46	
		After		17.50	2.47	3.26*		18.58	2.50	2.80*
		Follow-up		17.92	2.68	0.40		19.08	2.68	2.17**
	TA	Before	36	15.08	2.07		36	13.58	1.93	
		After		17.83	2.29	5.39*		16.42	2.39	5.78*
		Follow-up		16.50	2.58	0.36		18.00	2.55	0.81
	IP	Before	36	15.92	2.57		36	17.58	2.91	
		After		17.08	2.19	2.88*		18.50	2.24	2.03**
		Follow-up		17.67	2.18	2.24**		19.00	2.66	2.17**
	M	Before	36	17.33	2.46		36	16.08	2.31	
		After		19.83	3.13	4.19*		18.17	3.01	3.32*
		Follow-up		19.17	2.86	5.74*		20.75	3.08	6.17*
SM	Before	36	13.42	1.98		36	14.92	2.15		
	After		15.00	1.91	3.97*		16.58	2.19	4.69*	
	Follow-up		16.08	1.78	4.73*		17.59	1.97	4.06*	
W	Before	36	16.08	2.71		36	17.00	2.91		
	After		17.25	2.30	2.18**		19.84	2.33	2.53**	
	Follow-up		18.00	2.45	2.69*		19.75	2.60	3.19*	

Significance: \*p < 0.01; \*\*p < 0.01

SKAQ-study skills assessment questionnaire; TM- Time management, C- concentration / memory, SA- study aids / notetaking, TA- test strategies / test anxiety, IP- information processing, M- motivation / attitude, SMI- selecting main ideas / self testing / reading, and W - writing.

The main analysis of the data is to determine the significance of mean difference between before and after, after and follow-up assessments of each group by using t- test. On comparison of the groups of males and female show a significant difference from the group of female students between before and after in all areas, but the groups of males and females have significant difference between after and follow-up assessments in a) information processing, b) motivation / attitude, c) selecting main ideas / self testing / reading, and d) writing. The group of females has significant difference between after and follow-up assessments in a) information processing, b) motivation / attitude, c) selecting main ideas / self testing / reading, and d) writing. Moreover, the female group differs significantly in study aids / note taking, and test strategies / test anxiety. The groups of male and female students maintained improvement in study skills even after two months in these areas.



**Table 3: shows mean, standard deviation, and t-value of before, after and follow-up assessments in the study interest of the male and the female students.**

Scale	Assessment		Group- males				Group- females			
			n	X	SD	t	N	X	SD	t
Study interests	FRV	B	36	7.73	1.62		36	8.33	1.96	
		A		10.27	1.85	4.53*		10.83	1.99	4.86*
		F		10.09	0.95	6.71*		10.66	1.60	0.27
	VRV	B	36	9.54	1.92		36	10.33	2.06	
		A		11.46	1.86	2.61*		12.00	1.95	6.50*
		F		12.00	2.19	0.33		12.50	2.11	2.17**
	IO	B	36	5.27	1.68		36	5.00	1.81	
		A		5.91	1.51	2.21**		5.92	1.38	3.53*
		F		6.00	1.61	0.56		6.08	1.31	1.48

\*\*p < 0.01; \* p < 0.05;

B-before, A- after, F-follow-up; X-Mean, SD-standard deviation; FRV -feeling- related valences, VRV -value- related valences, and IO -intrinsic orientation

Mean and standard deviation are calculated from the two groups to determine the significance of mean difference between before and after, after and follow-up assessments. On comparison of the group of males and female show a significant difference between before and after in all areas, but in the after and follow-up assessments, the group of males do not have significant difference in value related valences and intrinsic orientation, and the group of females do not have significant difference in feeling- related valences and intrinsic orientation of study interests. Murugadas, (1986); Rajendran, (1987); Kanchana, (1986) have had similar finding on study skills program.

### Conclusion

The groups of male and female students had significant in all areas of study skills but they maintained continuous improvement in the areas of a). information processing, b). motivation / attitude, c). selecting main ideas / self testing / reading, and d). writing in study skills. The male students had a significant improvement in feeling- related valences and the female students had a significant improvement in value- related valences in study interests. The study skills program was significantly more effective in some areas in both sexes in study skills and study interest of the students.

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