

## **Exploring the Changes in Learning Approaches Before and After the Study Skill Training Programme among Medical Students**

<sup>1</sup>Dr.Vidya.Bhagat, <sup>2</sup>Dr.Ramyashilpa.D.Nayak

<sup>1</sup>Dy Director Student Affairs Associate Professor USM-KLE International medical Programme Belgaum

<sup>2</sup>Lecturer USM-KLE International medical Programme Belgaum

**ABSTRACT:** *The present study aims at understanding the learning approaches adapted by the first year Medical students before and after the study skill training programme. The study aims to find out the difference that exists before and after study skill training programme of respondent medical students. It is understood that deep and strategic learning are better approaches for the study programme in the educational setup. It was hypothesized that study skill training programme has an impact on changing learning approach. In the present study a sample of 82 medical students perusing medical course at USM-KLE International Medical Programme Belgaum, Karnataka state, were randomly selected. The learning approaches adapted by the students were found out by using Approaches and Study Skills Inventory for Students (ASSIST), further one week study skill orientation and training programme was conducted for the respondent medical students, and administered the same assessment tool after this training programme. The study results revealed that there is a significant change in the learning approaches of respondent students*

### **I. INTRODUCTION**

Learning is relatively permanent change in behavior due to practice and experience. It has been conceptualized that each individual has his own style and approach in the learning process based on the conceptions of learning by Marton and Saljo (1996) <sup>[9,10]</sup> and extended by Hattie (1996) their study indicate that conception of learning as reproducing knowledge and learning involves personal understanding and development.

The commonly used learning approaches deep, strategic and surface

Deep Approach which usually seeks meaning, relating ideas, use evidence and hold interesting ideas, the strategic learning approach has organized studying type which has a good time management also has alertness to assessment of demands and holds good achievements. Further we have a surface apathetic approach which lack purpose, unrelated memorizing, syllabus boundness and holds fear of failure.

Deep and surface approaches to learning are words that most academics will have heard. In fact the idea that students can and do take a deep or surface approach to their learning is probably one of the most used bits of educational research in higher education. It is a very powerful and useful principle that we should apply most of the time to the way we teach. Deep learning involves the critical analysis of new ideas, linking them to already known concepts and principles, and leads to understanding and long-term retention of concepts so that they can be used for problem solving in unfamiliar contexts. Deep learning promotes understanding and application for life. In contrast, surface learning is the tacit acceptance of information and memorization as isolated and unlinked facts. It leads to superficial retention of material for examinations and does not promote understanding or long-term retention of knowledge and information. Critical to our understanding of this principle is that we should not identify the student with a fixed approach to learning, but it is the design of learning opportunity that encourages students to adopt a particular approach. <sup>[W 1]</sup>

Study skills or study strategies are approaches applied to learning. They are generally critical to success in school, <sup>[2]</sup> considered essential for acquiring good grades, and useful for learning throughout one's life. There are arrays of study skills, which may tackle the process of organizing and taking in new information, retaining information, or dealing with assessments. They include mnemonics, which aid the retention of lists of information, effective reading and concentration techniques, <sup>[1]</sup> as well as efficient note taking. <sup>[w 2]</sup>

The learning approaches used by individuals' more or less steady pattern conceptualizing and understanding the effect of these approaches, encouraging and motivating to adapt fruitful approaches can get changes in these approaches. Therefore study skill training programme becomes useful in the educational setting. Learning is a way of interacting with the world and conceptual change will occur through learning as we begin to see that world differently. Knowledge is created by the learners' learning activities and their approaches to learning. A surface approach arises from low cognitive level engagement yielding fragmented outcomes that do not convey meaning/understanding; typically this happens when a student learns something

'by heart' but does not engage with the meaning of it. A deep approach yields understanding and meaning, at least as the student construes it, and will be contextualized by the learning activities in which the student participates. Deep learning is learning which merges theory and practice in a way which makes a difference to how the learner sees the world and how she responds to that world. A deep approach to learning is essential in people-work so that the learner can change and develop their practice as a result of their learning; it is not much use to the service user/client that the student can list all the elements of attachment theory if they do not understand how that theory can help them to help the service user.<sup>[11]</sup>

## II. METHODOLOGY

### Aim:

To develop the awareness about the learning approaches and adapt a particular learning approach through study skill training programme among the medical students.

### Purpose:

To enhance and strengthen deep and strategic approaches than that of surface learning approach among the respondent medical students through study skill training programme.

### Objectives:

- To find out the learning approaches before and after the study skill training programme for medical students.
- To see the impact of study skill training programme on advancing learning and adapting more productive approaches.
- To find out the gender difference among the students with their learning approaches both before and after study skill training programme.

### Hypothesis:

- Study skill training programme has significant effect on improving and adapting superior learning approaches in medical students.

### Sample:

The sample for the present study has been chosen from USM-KLE International Medical Programme Belgaum, the total number of sample included for the present research is 82 Medical Students among them 27 are Male and 55 are female students perusing their first year Medical Course.

### Assessment Tool:

Entwistle (1996) Tait, Entwistle and McCune (1998) Approaches and Study Skills Inventory for Students (ASSIST) was used to assess the learning approaches of respondent medical students before and after the study skill training programme.<sup>[4,5]</sup>

### Procedure:

In these students were given the assessment tool ASSIST to know their adapted learning approaches continued with study skill training programme through power point presentations, lectures and group discussions were conducted for a period of one week to develop a better understanding into adapted learning approaches. After the training period changes they made in their learning approaches with their new understanding gained by the training programme has been measured.<sup>[12]</sup>

## III. STATISTICAL ANALYSIS AND DISCUSSION

Table No.1 showing the learning style Mead, SD Paired 't' test and Significance of Medical Students [N=82]

Variable	Training	Mean	Std.Dv.	Mean diff	SD diff	% change	Paired t	P-value
Deep	Before	61.77	6.65					
	After	63.84	6.17	-2.07	7.60	-3.36	-2.4694	0.0156*
Strategic	Before	58.99	10.81					
	After	75.90	10.14	-16.91	13.46	-28.67	-11.3805	0.0000***
Surface	Before	72.62	8.98					
	After	47.99	8.81	24.63	12.61	33.92	17.6907	0.0000***

\*p < 0.05 level of significance

\*\*p < 0.01 level of significance

\*\*\*p < 0.001 level of significance

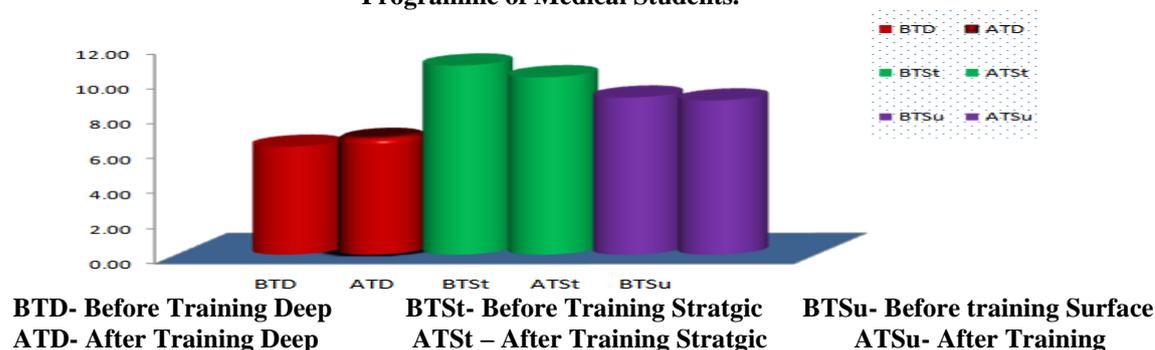
Table no.1 clearly shows that the mean scores obtained by the first year medical students before the study skill training programme for deep learning approaches is 61.77 and after the study skill training it has been significantly increased by an mean score of 63.84, and the obtained paired 't' value for the total number of sample is -2.46 and p value is 0.015 which is significant at 0.05 level of significance. Whereas on the on the

other hand the mean scores for the strategic learning approach before and after training are 58.99 and 75.90 and the obtained 't' value is -11.38 and p value is 0.00 which is highly significant at 0.001 level of significance. And for last third learning approach of surface the mean score is 72.62 and 47.99 before and after the study skill Programme respectively, and the 't' value is 17.69 and the p value is 0.00 which is also highly significant at 0.001 level of significance.

Hence from the above discussion it is proved empirically that study skill training programme has significant effect on the learning approaches adapted by the medical students. Though the learning approaches being integrated personality traits it is difficult to get changes in the type of approaches which students have been using, but also the opportunities and encouragement can bring changes in their adapted learning approaches.

Among the learning approaches the deep and strategic approaches go better with understanding of study material in medical studies. It is said a basic difference between deep learning and surface learning stems from the fact that surface learning focuses on retaining facts and mastering terms, whereas deep learning focuses more on understanding and making connections (Draper, 2009).<sup>[3]</sup> The study skill Programme made an effort to develop an insight among the respondent group and get them well oriented and understanding about study approaches, which has been helped the students bring out the changes in their learning approaches after the skill training programme.

**Graph No.1 showing the learning style average scores before and after the Study Skill Training Programme of Medical Students.**



**Surface**The cylindrical graph diagram shows the effect of study skill training programme and changes in adapted learning approaches found in respondent students before and after the training.

The present study also made an effort to develop high level of thinking through gaining more information on learning approaches thereby getting better changes in their personality with regard to learning approaches which helps them in their medical studies. Nelson Laird, Shoup, Kuh and Schwartz (2008) distinguished deep learning approaches from surface learning approaches, insisting that deep learning approaches result in superior student engagement, satisfaction and understanding. Atherton (2010) also noted that deep learning can often be equated with internal motivation, while surface learning quite often stems from external motivation. Students quite frequently utilize both levels of learning (Altherton, 2010),<sup>[w3]</sup> applying surface-level skills at the foundational level (Fink, 2003; Floyd, Harrington & Santiago 2009),<sup>[7]</sup> where the accumulation of facts and memorization of relevant terms takes place, and relying upon higher order thinking and learning skills as they become more actively involved with information. As instructors encourage students to become more engaged in the learning process and move into the next five levels of the taxonomy (Fink, 2003),<sup>[6]</sup> integration, synthesis, reflection as well as a more personal commitment to the learning process become the critical elements (Nelson Laird, Shoup, Kuh & Schwartz, 2008).<sup>[8]</sup> The more students are encouraged to move beyond surface level learning by being given opportunities to engage in the learning process through a variety of activities and prompts, the more they will gain in terms of increased levels of interest, understanding and motivation (Nelson Laird, Shoup, Kuh & Schwartz, 2008).<sup>[8]</sup>

**Table No.2 showing the learning style Mead, SD Paired't' test and significance of Male and Females Medical Students [N= 27 Male and N= 55Female]**

Learning Styles	Variable	Group	n	Mean	SD	t-value	p-value
Deep	Before	Male	27	62.37	6.24	0.5718	0.5690
		Female	55	61.47	6.88		
	After	Male	27	63.37	6.99	-0.4819	0.6312
		Female	55	64.07	5.79		
Strategic	Before	Male	27	60.70	10.52	1.0072	0.3169
		Female	55	58.15	10.94		
	Gain	Male	27	-1.00	4.45	0.8945	0.3737
		Female	55	-2.60	8.74		

	After	Male	27	73.44	8.96	-1.5510	0.1248
		Female	55	77.11	10.54		
	Gain	Male	27	-12.74	12.77	2.0039	0.0485*
		Female	55	-18.96	13.42		
Surface	Before	Male	27	72.63	8.33	0.0054	0.9957
		Female	55	72.62	9.36		
	After	Male	27	48.33	9.34	0.2473	0.8053
		Female	55	47.82	8.63		
	Gain	Male	27	24.30	11.86	-0.1690	0.8662
		Female	55	24.80	13.06		

\* $p < 0.05$  level of significance

Table no. 2 observational data reveals there is no significant difference in deep and surface approaches between male and female respondent medical students before and after study skill training programme. But on the other hand data reveals that in the strategic approach there is significant difference between male and female respondent medical students as the mean scores for male and female respondent students are -12.74 and -18.96 and the obtained 't' value is 2.00 and the p value is 0.04 which is significant at 0.05 level of significance. The in present research the study skill training programme has shown significant gain in students that they moved out from the surface level of learning approach to the deep and strategic level of learning approaches.

#### IV. CONCLUSION

In conclusion the study result reveals the learning approaches used by respondent medical students. The study skill training programme found fruitful in developing intellectual insights that how the particular learning approaches are rewarding in garbing opportunities in the medical education. It has been concluded that though the learning approaches are the part of personality, the study skill training programme which has been helped the respondent medical students to modify and change their adapted learning approaches significantly. Further study concludes that changes in adapted learning approaches in male and female' have no significant difference.

#### Significance of the Study

Each individual adapt his own learning approach in their study programme and they develop more comforts with their adapted learning approach than other. The present study was conducted to find out the learning approaches used by the medical students and its productiveness in their medical studies. This study also put an effort to see the significance of study skill training programme whereby students can be benefited and modifying and improving their approaches towards their studies. The study results can made use for further improve on PPDP (Professional Personality Development Programme). It is also useful for the educators and teachers in the medical school to have improved teaching programme.

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