

## **"Introduction of Interactive Teaching-Learning (T-L) Method for second year B.A.M.S students in the subject of Dravyaguna."**

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### **ABSTRACT**

**INTRODUCTION:** Didactic method is very common in Teaching-Learning ( T-L). But it is one way communication only. Students listen passively to the lecture delivered. But for different IQ level students it is not so effective for better understanding of the subject/topic. In such scenario, there is need of better Teaching-Learning ( T-L) method for improvement of cognition of the students. So, Interactive Teaching-Learning ( T-L) method is chosen for this educational research project.

**METHODOLOGY:** Includes two phases viz. planning and implementation. In planning phase, all the required documents, IEC permission letter and study material was collected and organized. Students from second year B.A.M.S. were selected randomly to form a small group and their consent was taken before starting the project.

Sensitization of selected students, peer and co-faculty was done.

Execution phase includes implementation of final educational research project. Pre-test was carried out to check the pre-existing knowledge of the students regarding the topic. Handouts, study material, demonstration using A-V aids, group discussions were done. And at the end of the study, activity sheet was distributed. Post-test was taken along with questionnaire in the form of Likert scale. Collected data was then analyzed and compared accordingly.

**RESULT:** Significant increase in individual score was observed of every participant student which indicates that the Interactive Teaching-Learning( T-L) method significantly increases cognitive ability of the student, regarding the topic.

**DISCUSSION:** The Interactive Teaching-Learning ( T-L) method is very

effective in improvement of cognition of students. This method should be practice in every educational institute so as to get deeper understanding of the subject and students can achieve quality learning outcomes. Interactive Teaching-Learning ( T-L) method will be definitely helpful for improving the learning environment too.

**KEYWORDS:** Interactive Teaching-Learning (T-L) method, cognition, Didactic method, Educational research project.

## INTRODUCTION:

There are three broad approaches to the learning i.e. surface, deep and strategic. The learning outcome in the contemporary era is, at best , a memorization of factual information and it is always a superficial level of understanding. On the contrary deep learning approach adopted by students leads them to interpret knowledge and arouse interest in the subject matter. Students adopting the strategic approach towards learning may be seen to use the similar process to both the deep and surface learner. These students are motivated by the need to achieve high marks and to compete with others. In conventional teaching method there is more emphasis on learning for the examination and it has short term perspective while student-centre learning emphasizes on lifelong learning.

The learning outcomes can be broadly described in terms of quantity and quality of learning. Many of our teaching approaches, curriculum structures and particularly our assessment methods may be inhibiting the use of deep approach and supporting as well as rewarding the use of surface or strategic approaches of learning. All of three domain i.e. affective, cognitive and psychomotor are not taken care of during delivering regular classroom

lectures. The general and specific objectives of learning which will include all the three domains can be achieved by gradually increasing the degree of participation of a learner. In the present scenario there is a pressing need of innovative student centered teaching – learning methods which in turn will definitely help for improving the learning environment.<sup>[1]</sup>

## CONTEXT OF THE STUDY:

Interactive Teaching-Learning (T-L) Method can be the most rewarding experience for both teacher and learner. It includes 1) Active participation, 2) Face to face contact and 3) Purposeful activity. Encouraging the active participation of students in the learning process demands responsibility (for facilitator and learner both ), teacher must have some learning skills including self-organising skills, skills in deeper learning strategies such as analysis ,judgement, synthesis and application, locating, retrieving, interpreting, evaluating, etc and in turn Interactive Teaching-Learning fosters an independent approach towards learning.<sup>[2]</sup>

At the same time close interaction with other group members can generate a sense of community within the small group and/ or sense of shared disciplinary identity and quite simply, social interaction can make learning more interactive and fun. This may be particularly important for less confident students who may not participate as much in larger group or for those who for whatever reason seems reluctant to learn. Purposeful activity planned in small group interactive Teaching-Learning (T-L) Method can be helpful to develop high intellectual skills of learner

like analyzing, criticising, decision making and problem solving. Hence Interactive Teaching-Learning (T-L) Method for small group is chosen for this educational research project, perform under the guidance of IMETT ( Institute of Medical Education Technology and Teachers Training) of M.U.H.S. Nashik.

In the past Ayurveda Acharyas were committed to propagate the knowledge and inherit it to deserving disciples in small groups. The commitment of preceding teacher and students is reflected through their pledge in Charak Samhita.<sup>[3]</sup> He followed the method of symposium and answering the questions raised by the disciples. Even they used the method of debate and discussions in curriculum.<sup>[4]</sup> Dravyaguna, one of the subject in Ayurveda that deals with the identification of plants ( approximately 350 for Ayurveda under graduates) on the basis of morphological characteristics, synonyms, ayurvedic pharmacological properties and its therapeutic potentials. In conventional teaching students were unable to remember such large number of information about single dravya. The Ayurvedic drug *manjishta* has been explained in this study.<sup>[5]</sup> So this small group Interactive teaching-learning method was undertaken to study dravya by introducing a different method of teaching.

### HYPOTHESIS:

Null hypothesis [H<sub>0</sub>]- Interactive Teaching-Learning (T-L) Method for small group may not be effective in improvement of cognition of students.

Alternative hypothesis [H<sub>1</sub>]- Interactive Teaching-Learning (T-L) Method for small group is very effective in improvement of cognition of students.

### MATERIAL AND METHODS:

**Material:** Materials used are,

- 1) Reference books of the concern subject
- 2) Consent form
- 3) Student enrollment list
- 4) Pre-test document
- 5) Post-test document
- 6) Questionnaire
- 7) Hand-outs for discussion
- 8) Activity sheet
- 9) Feedback form and
- 10) A-V aids.

**STUDY DESIGN:** Observational.

**SAMPLE SIZE:** 07.

**SAMPLING METHOD:** Random sampling.

**PARAMETERS :** M.C.Q. Score and Likert scale generated score from feedback form.

**DATA PRESENTATION:** Bar diagram.

### METHOD:

**Phase 1 – Planning:** The permission of the Dean of the institute and IEC was taken. Ref No.MUHS/IMETTT, Pune/1298/2016 Dated 15/07/2016 and Ref.No.S.S.T.AYU./407B/2016 Dated 03/08/2016. Literature of the subject was reviewed and the topic was then finalized. The Ayurvedic drug *Manjishta* has been reviewed and studied thoroughly. Sensitization of peer and students were done regarding the execution of the educational research project. Preparation of M.C.Q. for pre-test and post-test, Questionnaire, Collecting study material, hand outs, A.V. aids regarding the topic was done. Validation of the content (Handouts, activity sheet) was done by the peers (two subject experts).<sup>[6],[7],[8]</sup> Seven

randomly selected students were taken and a small group is formed. Consent of students were taken.

**Phase 2 – Execution:** The final project was planned and conducted according to the schedule. It was implemented on 30<sup>th</sup> August 2016. The session was schedule 11 A.M. to 1.30 P.M. The session was started with introduction and ice-breaking which made students relax and familiar with the environment. After that Pre-test was taken to check the existing Knowledge of the topic. The information regarding the topic was shared with the students with the help of audio-visual aids and demonstration regarding that was also conducted. After this the hand-outs was distributed among the group and discussion was conducted on them. Activity sheets was distributed and students were asked to complete it. This activity sheet involves complete participation of every students.

At the end post-test was conducted. The score of the individuals in pre-test and post-test is shown in Table 1. Students were asked to fill up the Questionnaire form. Feedback was also taken from the co-faculty. The session ended with the opinion of the students. After the implementation of the educational research project the data was collected in the form of pre-test and post-test M.C.Q. ( multiple choice questions) score.

## RESULTS:-

The obtained scores are graphically presented . Score was observed and the outcome shows positive increase in the score of the individual students after interactive teaching-learning process which is highly significant.

**DISCUSSION:** Interaction or group discussion plays a valuable role in the all-round education of students, whether problem based learning and team projects or in the more traditional academic scenario of the tutorial or seminar. When it works well, discussion can allow students to negotiate meanings, express themselves in the technical language of subjects and establish closer contact with the academic staff than more formal method permits. Small group discussion can also develop the more instrumental skills of systems all over the world. Small group Interactive teaching- learning methods provide listening, presenting ideas, persuading and working as a part of a team. But perhaps most importantly, it provide students the chance to monitor their own learning and thus gain a degree of self-direction and independence in their studies.<sup>[9]</sup> Transition from a traditional lecture based educational system into a small group, activity based interactive learning is vitally important especially in medical and health educational productive academic environment, strategy for dynamic and collaborative learning both in basic and clinical science. Small group interactive T-L methods have a valuable role to play in undergraduate medical education. It can be said that these techniques are useful to encourage learner's engagement with a topic. <sup>[10]</sup>In the present study it is observed that the post-test scores are highly significant. Small group interactive T-L methods is very effective in improvement of cognition of students. In this project we have focused on the three competencies of cognition;

**1. Knowledge-** The learner should have thorough knowledge of the drug *Manjishtha*.

**2. Comprehension-** The learner should understand and grasp detailed description of the Ayurvedic drug *Manjishtha*.

**3. Application-** The learner will be able to integrate related knowledge in next academic years.

All the discussion and the activities were planned accordingly. With this respect we have achieved the goal of the project. This T-L method should be practiced in every educational institute so as to get deeper understanding of the subject. With the help of this, we can achieve quality learning outcomes. It will definitely be helpful for improving the learning environment.

**CONCLUSION:** Students enjoyed the Small group interactive T-L method session. The experience was very nice. For conducting the session, we need many laborious hours for planning and skill. Involvement of students was also supportive. Such kind of practices in all the systems of education will definitely be useful. It will lead to overall development of the student. Learning will be a fun with knowledge gaining. All the educational objectives like development of higher level intellectual

skills such as reasoning and problem solving, development of attitudes; also the acquisition of interpersonal skills such as listening, speaking, arguing and group leadership will be boosted up by such kind of T-L method.

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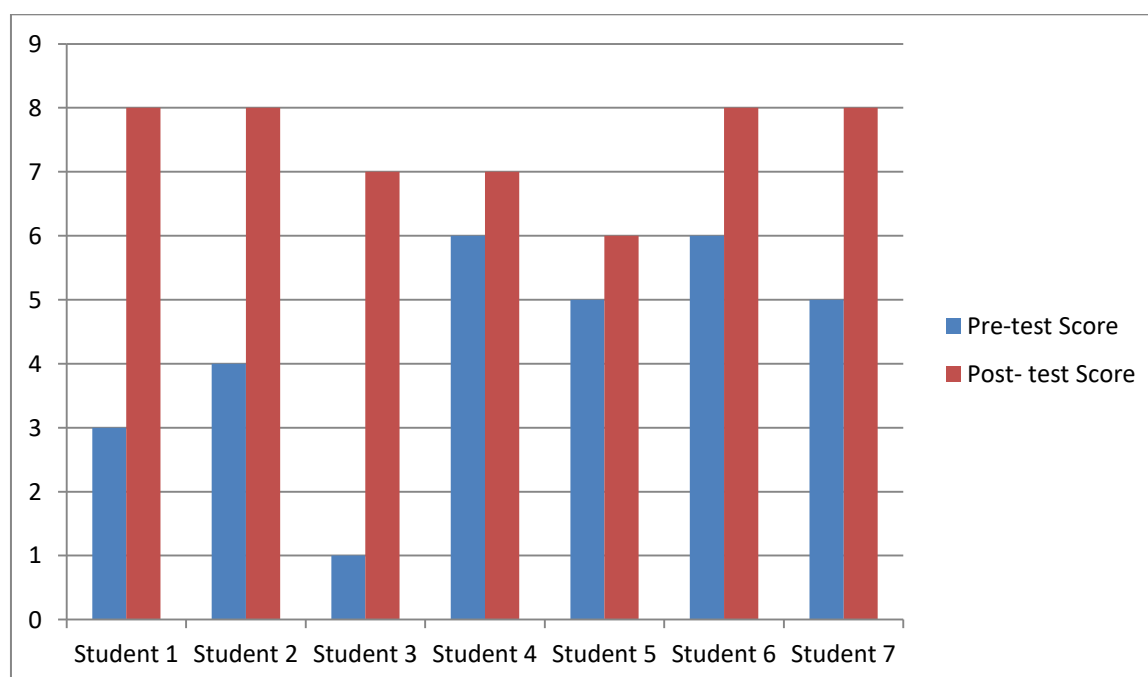
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**Table 1: Showing Pre-test and Post- test Score**

Sr. No.	Student	Pre-test Score	Post- test Score
1.	Student 1	03	08
2.	Student 2	04	08
3.	Student 3	01	07
4.	Student 4	06	07
5.	Student 5	05	06
6.	Student 6	06	08
7.	Student 7	05	08

**Graphical Representation of SCORE.**





1.	The Tutorials were relevant to the aims of the subject.	7	0	0
2.	The Tutorials were well organised.	7	0	0
3.	The number of Students in the small group was appropriate for effective participation.	6	1	0
4.	The tutorials were valuable for my understanding of the subject.	7	0	0
5.	The tutorials stimulated my interest in the subject.	6	1	0
6.	The tutorial work could be completed within the allotted time.	5	1	1
7.	More guidance should have been provided on how to work in a group.	6	1	0
8.	The assessment of tutorial work was fair.	6	1	0
9.	Teacher expectations were made clear	7	0	0
10.	I received adequate feedback on my work	6	1	0
11.	I was able to discuss my progress	5	1	1
12.	The recommended textbook was valuable for my understanding of the subject.	5	2	0
13.	Resource materials were readily available	7	0	0
14.	My involvement in the tutorials was high	6	1	0
15.	I have developed more confidence in myself	7	0	0
16.	I have developed skills needed by professionals in this field.	6	1	0

**Table 2: Analysis of Questionnaire ( Likert scale)**

***Cite this article:***

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