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# EFFECTS OF VARIOUS TEACHINGS METHODS AND ITS IMPACT ON KNOWLEDGE AMONG HEALTH CARE PROFESSIONAL STUDENTS

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Abstract BACKGROUND AND PURPOSE: Effective teaching includes some specific technique with precise knowledge. There are various teaching methods in practice like teacher centered, learner centered, content centered, interactive/ participate method. the present study is focused on which teaching method is effective among the above teachings methods and its impact on knowledge among health care professional students. METHODS: This is an observational study, 120 participants from health care professional students from SBV campus are recruited and allotted into 4 groups, Group A, B, C, and D. Group A follows teacher centered method, Group B follows learner centered method, Group C follows content centered method, Group D follows interactive/participate method. A structured topic is designed for all four groups consist of 1 hour according with their teaching methodology. A multiple choice questionnaire consists of 20 items were distributed to all the groups before and after the teaching hour and interpreted. RESULT: Among the 4 groups the posttest mean value of the Group D is higher when compared to the other 3 groups. CONCLUSION: According to the result the interactive/participate method is found to be an effective method of teaching.

Key Words: Teacher Centered Method, Learner Centered Method, Content Centered Method, Interactive/Participative Method, SBVU, Teaching Methods, Knowledge.

# I. Introduction

"Tell me and I will forget; show me I may remember; involve me I will understand".

-Confucius.

Teaching and learning is a process that includes many variables. These variables interact as learners work towards their goals and incorporate new knowledge, behaviors and skills that add to their range of learning experiences. Teaching is the process of attending to people's needs experience and feelings and intervening so that the learned particular things and go beyond the given. Effective teaching and learning process should maintain the concentration and enthusiasm of the teacher and learner throughout the teaching session in same level. Teaching consist of four phases, discussion – between the teacher and learner, interaction between learner and some aspect of the world defined by teacher, adaptations - of the world by the teacher and action by the learner, reflection- on the learners performance by both teacher and the learner. Concept of learning is about developing a new skill understanding a scientific law changing an attitude. The change is not merely incidental are natural in the way that our appearance changes as we get older learning is a relatively permanent change usually, brought about intentionally. Effective teachers strive to motivate and engage all their students in learning rather than simply accepting that some students cannot be engaged and are destined to do poorly. They believe every students is capable of achieving success at school and they do all they can to find ways of making each students successful. Primary purpose of teaching at any level of education is to bring a fundamental change in the learner (Tebabal and Kahssay 2011). To facilitate the causes of knowledge transmission, teachers should apply appropriate teaching methods that best suit specific objects and level exit outcomes. In traditional approach many teachers widely used teacher - centered methods to impart knowledge to learners comparative to other teachings method. The process of teaching learning aims at transmission of knowledge, imparting skills and formation of attitudes, values and behavior. The old ways of teaching and learning is found to be to rigid and to out dated. But now teaching learning process consist of four basic elements a) assessment b) planning c) implementation d) evaluation. In modern teaching schools using other teaching methods likes of learner centered, content centered and interactive/participative method. But to fix the teaching method among those there are numbers of researches needs to be done.

### II. METHODOLOGY

It is an observational study design .120 samples from health care professional students of Sri Balaji Vidyapeeth were recruited to this study. The sample taken can be treated as random sample using the enumeration on the basis of convenience. Both male and

female were included in this study .Samples age were between 17 to 22 years and were divided into 4 groups. Group A, Group B, Group C, Group D of 30 each. Group A was taught with teacher centered method. Group B was taught with learner centered method. Group C was taught with content centered method. Group D was taught with interactive/participative method. A questionnaire consists of 20 multiple choice was given to all the samples and asked to answer and recorded. All the 4 groups were taught with same lecture topic of 1 hour. After the teaching session a same questionnaire was given to all the samples to evaluate the knowledge they acquired during the lecture and recorded as post values.

# III. RESULT AND DISCUSSION:

The collected data are tabulated and analysed with non parametric Kruskal Wallis test. The p value of the pre-test data of all the 4 groups is 0.49935. It is not significant (>0.05)

#### 3.1 Statistic Analysis

**Tabulation 3.1: Pre-test values** 

1.   5   6   5   7     2.   6   7   7   1     3.   5   5   4   5     4.   4   3   3   3     5.   7   4   7   5     6.   4   2   5   3     7.   7   7   3   1     8.   5   6   6   6   6     9.   6   4   5   7   7     10.   4   3   7   1   1     11.   3   2   4   3   4   1   3   4   1   3   4   1   3   4   1   3   4   3   4   3   4   3   4   3   4   4   3   4   4   4   5   1   4   4   4   5   4   4   5   4   4   5   4   4   5   4   4   5   4   4   5   4   5					
2.   6   7   7   1     3.   5   5   4   5     4.   4   3   3   3     5.   7   4   7   5     6.   4   2   5   3     7.   7   7   3   1     8.   5   6   6   6     9.   6   4   5   7     10.   4   3   7   1     11.   3   2   4   3     12.   4   5   3   4     13.   2   3   7   2     14.   4   2   5   1     15.   5   4   2   5   1     15.   5   4   2   5   1     15.   5   4   2   5   1     16.   3   3   4   5     17.   5   3   7   3   3     18.   3   2	S No	Group A	Group B	Group C	Group D
3.   5   5   4   5     4.   4   3   3   3     5.   7   4   7   5     6.   4   2   5   3     7.   7   7   3   1     8.   5   6   6   6   6     9.   6   4   5   7   7     10.   4   3   7   1   1   1   1   3   4   3   7   1   1   1   1   3   2   4   3   3   4   3   4   3   4   3   4   3   4   3   4   3   4   3   4   3   4   4   4   4   4   4   4   4   5   4   4   4   5   4   4   5   4   4   5   4   5   4   5   4   5   4   5   4   5   4   5   4   5   4   4   5   4 </td <td>1.</td> <td>5</td> <td>6</td> <td>5</td> <td>7</td>	1.	5	6	5	7
4.   4   3   3   3     5.   7   4   7   5     6.   4   2   5   3     7.   7   7   3   1     8.   5   6   6   6   6     9.   6   4   5   7   7     10.   4   3   7   1   1   1   1   3   4   3   4   3   4   3   4   3   4   3   4   3   4   3   4   4   4   4   2   5   1   1   1   1   3   4   4   4   3   4   4   4   4   5   1   4   4   4   5   1   4   4   5   1   4   4   5   1   4   4   5   1   4   4   5   4   5   4   5   4   5   4   5   4   5   4   4   1   8   5   5	2.	6	7	7	1
5.   7   4   7   5     6.   4   2   5   3     7.   7   7   3   1     8.   5   6   6   6     9.   6   4   5   7     10.   4   3   7   1     11.   3   2   4   3     12.   4   5   3   4     13.   2   3   7   2     14.   4   2   5   1     15.   5   4   2   5   1     15.   5   4   2   5   1     16.   3   3   4   5   1     17.   5   3   7   3   3     18.   3   2   5   4   5     20.   5   3   6   7   7     21.   3   4   7   4   4     22.   2   3   5   3   6 <	3.	5	5	4	5
6.   4   2   5   3     7.   7   7   3   1     8.   5   6   6   6     9.   6   4   5   7     10.   4   3   7   1     11.   3   2   4   3     12.   4   5   3   4     13.   2   3   7   2     14.   4   2   5   1     15.   5   4   2   5   1     16.   3   3   4   5   5     16.   3   3   4   5   5   1     18.   3   2   5   4   5   1     19.   2   5   5   5   5   5   2   2   3   6   7   3   3   4   7   4   4   2   2   5   5   5   5   5   5   5   5   3   3   6   7	4.	4	3	3	3
7.   7   7   3   1     8.   5   6   6   6     9.   6   4   5   7     10.   4   3   7   1     11.   3   2   4   3     12.   4   5   3   4     13.   2   3   7   2     14.   4   2   5   1     15.   5   4   2   5   1     16.   3   3   4   5   5   1     17.   5   3   7   3   3   4   5   1   3   4   5   4   5   4   5   4   5   4   5   4   5   4   5   4   5   4   5   4   5   4   7   3   4   7   4   4   2   5   5   5   5   5   5   5   5   5   5   5   5   5   5   5   3 <td>5.</td> <td>7</td> <td>4</td> <td>7</td> <td>5</td>	5.	7	4	7	5
8.   5   6   6   6     9.   6   4   5   7     10.   4   3   7   1     11.   3   2   4   3     12.   4   5   3   4     13.   2   3   7   2     14.   4   2   5   1     15.   5   4   2   5   1     16.   3   3   4   5   5     17.   5   3   7   3   3   4   5   5     18.   3   2   5   4   5   4   5   4   5   4   5   4   7   3   4   7   4   4   22.   2   3   5   5   5   5   5   5   5   5   3   3   6   7   7   21.   3   4   7   4   4   22.   2   3   5   3   3   3   6   7   <	6.	4	2	5	3
9.   6   4   5   7     10.   4   3   7   1     11.   3   2   4   3     12.   4   5   3   4     13.   2   3   7   2     14.   4   2   5   1     15.   5   4   2   5     16.   3   3   4   5     17.   5   3   7   3     18.   3   2   5   4     19.   2   5   5   5     20.   5   3   6   7     21.   3   4   7   4     22.   2   3   5   3     23.   1   2   4   4     24.   3   5   3   6     25.   4   7   3   3     26.   2   4   4   3     27.   3   5   3   3     28	7.	7	7	3	1
10.   4   3   7   1     11.   3   2   4   3     12.   4   5   3   4     13.   2   3   7   2     14.   4   2   5   1     15.   5   4   2   5     16.   3   3   4   5     17.   5   3   7   3     18.   3   2   5   4     19.   2   5   5   5     20.   5   3   6   7     21.   3   4   7   4     22.   2   3   5   3     23.   1   2   4   4     24.   3   5   3   6     25.   4   7   3   3     26.   2   4   4   3     27.   3   5   3   3     28.   4   5   4   6	8.	5	6	6	6
11.   3   2   4   3     12.   4   5   3   4     13.   2   3   7   2     14.   4   2   5   1     15.   5   4   2   5     16.   3   3   4   5     17.   5   3   7   3     18.   3   2   5   4     19.   2   5   5   5     20.   5   3   6   7     21.   3   4   7   4     22.   2   3   5   3     23.   1   2   4   4     24.   3   5   3   6     25.   4   7   3   3     26.   2   4   4   3     27.   3   5   3   3     28.   4   5   4   6	9.	6	4	5	7
12.   4   5   3   4     13.   2   3   7   2     14.   4   2   5   1     15.   5   4   2   5     16.   3   3   4   5     17.   5   3   7   3     18.   3   2   5   4     19.   2   5   5   5     20.   5   3   6   7     21.   3   4   7   4     22.   2   3   5   3     23.   1   2   4   4     24.   3   5   3   6     25.   4   7   3   3     26.   2   4   4   3     27.   3   5   3   3     28.   4   5   4   6	10.	4	3	7	1
13.   2   3   7   2     14.   4   2   5   1     15.   5   4   2   5     16.   3   3   4   5     17.   5   3   7   3     18.   3   2   5   4     19.   2   5   5   5     20.   5   3   6   7     21.   3   4   7   4     22.   2   3   5   3     23.   1   2   4   4     24.   3   5   3   6     25.   4   7   3   3     26.   2   4   4   3     27.   3   5   3   3     28.   4   5   4   6	11.	3	2	4	3
14.   4   2   5   1     15.   5   4   2   5     16.   3   3   4   5     17.   5   3   7   3     18.   3   2   5   4     19.   2   5   5   5     20.   5   3   6   7     21.   3   4   7   4     22.   2   3   5   3     23.   1   2   4   4     24.   3   5   3   6     25.   4   7   3   3     26.   2   4   4   3     27.   3   5   3   3     28.   4   5   4   5     29.   6   4   4   6	12.	4		3	4
15.   5   4   2   5     16.   3   3   4   5     17.   5   3   7   3     18.   3   2   5   4     19.   2   5   5   5     20.   5   3   6   7     21.   3   4   7   4     22.   2   3   5   3     23.   1   2   4   4     24.   3   5   3   6     25.   4   7   3   3     26.   2   4   4   3     27.   3   5   3   3     28.   4   5   4   5     29.   6   4   4   6	13.	2	3	7	2
16.   3   3   4   5     17.   5   3   7   3     18.   3   2   5   4     19.   2   5   5   5     20.   5   3   6   7     21.   3   4   7   4     22.   2   3   5   3     23.   1   2   4   4     24.   3   5   3   6     25.   4   7   3   3     26.   2   4   4   3     27.   3   5   3   3     28.   4   5   4   5     29.   6   4   4   6	14.	4	2	5	1
17.   5   3   7   3     18.   3   2   5   4     19.   2   5   5   5     20.   5   3   6   7     21.   3   4   7   4     22.   2   3   5   3     23.   1   2   4   4     24.   3   5   3   6     25.   4   7   3   3     26.   2   4   4   3     27.   3   5   3   3     28.   4   5   4   5     29.   6   4   4   6	15.	5	4	2	5
18. 3 2 5 4   19. 2 5 5 5   20. 5 3 6 7   21. 3 4 7 4   22. 2 3 5 3   23. 1 2 4 4   24. 3 5 3 6   25. 4 7 3 3   26. 2 4 4 3   27. 3 5 3 3   28. 4 5 4 5   29. 6 4 4 6	16.	3	3	4	5
19. 2 5 5 5   20. 5 3 6 7   21. 3 4 7 4   22. 2 3 5 3   23. 1 2 4 4   24. 3 5 3 6   25. 4 7 3 3   26. 2 4 4 3   27. 3 5 3 3   28. 4 5 4 5   29. 6 4 4 6	17.	5	3	7	3
20.   5   3   6   7     21.   3   4   7   4     22.   2   3   5   3     23.   1   2   4   4     24.   3   5   3   6     25.   4   7   3   3     26.   2   4   4   3     27.   3   5   3   3     28.   4   5   4   5     29.   6   4   4   6	18.	3	2	5	4
21. 3 4 7 4   22. 2 3 5 3   23. 1 2 4 4   24. 3 5 3 6   25. 4 7 3 3   26. 2 4 4 3   27. 3 5 3 3   28. 4 5 4 5   29. 6 4 4 6	19.	2	5	5	5
22. 2   23. 1   24. 3   25. 4   26. 2   27. 3   3 3   26. 2   4 4   3 3   3 3   4 5   4 5   29. 6   4 4   6 6	20.	5	3	6	7
23. 1 2 4 4   24. 3 5 3 6   25. 4 7 3 3   26. 2 4 4 3   27. 3 5 3 3   28. 4 5 4 5   29. 6 4 4 6	21.	3	4	7	4
24. 3 5 3 6   25. 4 7 3 3   26. 2 4 4 3   27. 3 5 3 3   28. 4 5 4 5   29. 6 4 4 6		2	3	5	3
25. 4 7 3 3   26. 2 4 4 3   27. 3 5 3 3   28. 4 5 4 5   29. 6 4 4 6	23.	1		4	4
26. 2 4 4 3   27. 3 5 3 3   28. 4 5 4 5   29. 6 4 4 6		3		3	6
26. 2 4 4 3   27. 3 5 3 3   28. 4 5 4 5   29. 6 4 4 6	25.	4	7	3	
28. 4 5 4 5   29. 6 4 4 6		2	4	4	3
29. 6 4 4 6	27.	3			
	28.	4	5	4	5
	29.	6	4	4	6
30. 7 5 2 4	30.	7	5	2	4

Tabulation 3.2: Post test values .

S No	Group A	Group B	Group C	Group D
1.	09	12	11	09
2.	11	11	13	14
3.	11	09	10	13
4.	12	08	09	16
5.	17	10	14	14
6.	09	08	12	09
7.	12	13	09	14
8.	10	12	12	15
9.	09	09	11	09
10.	08	09	14	17
11.	14	07	09	08
12.	09	11	08	13
13.	11	09	12	13
14.	14	08	10	08
15.	15	10	08	10
16.	12	08	09	11
17.	13	10	12	09
18.	11	08	13	12
19.	10	10	10	13
20.	09	10	11	14
21.	13	11	13	13
22.	08	08	11	14
23.	14	07	09	12
24.	15	11	09	12
25.	11	12	08	09
26.	10	12	10	14
27.	09	13	10	12
28.	08	12	09	13
29.	10	10	10	10
30.	13	11	08	15

The p value of the post test data of all the 4 groups is 0.00297 which is significant(<0.05).

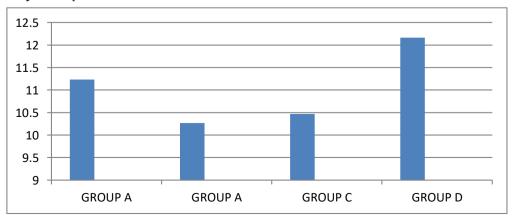
Tabulation 3.3: pre and posttest (p -value)

S No	Pre test p value	Post test p value
1	0.49935	0.00297
2	Not significant	significant

Tabulation 3.4: Mean value of post test data

S No	Group A	Group B	Group C	Group D
1	11.233	10.266	10.466	12.166

Figure 3.1: Analysis of post test



Among the 4 groups the posttest mean value of the Group D is higher when compared to the other 3 groups.

The collected data are statistically analyzed by non-parametric Kruskal Wallis test, the p value of the pre test data showed no significant and the p value of the post test data showed significant. The mean value of the post test values of the 4 groups were compared and it shows that the Group D is better than the other groups. So we concluded that the group which is lectured with interactive/participative method is the effective method than the other methods which we used in this study.

#### IV. RECOMMENDATION

A larger samples in future is required to strengthen this study, by using interactive/ participative method.

#### V. CONCLUSION

According to the study the interactive/participate method is found to be an effective method of teaching.

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