



**ORIGINAL RESEARCH PAPER**

**Physiology**

**STUDENT'S FEEDBACK ON TEACHING LEARNING METHODS IN PHYSIOLOGY.**

**KEY WORDS:** Student's Feedback, Teaching learning methods, Physiology.

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**ABSTRACT**

**BACKGROUND:** Physiology is the foundation in medical sciences which forms the normal baseline for the study of abnormal functions in medicine. To make the lectures more interesting one has to review teaching learning programme at regular intervals. The best way to assess and improve the teaching methodology is through the student's feedback.  
**OBJECTIVE:** To assess different teaching learning methods in Physiology and understand the best method preferred by students.  
**MATERIAL AND METHODS:** The present study was conducted in 100 first year MBBS students belonging to age group 18-21 yrs. A questionnaire was distributed and descriptive statistics was used to analyze data.  
**RESULTS:** The best method of learning preferred by students was Interactive lectures classes having bilateral communication (44%). The best method of teaching was the use of PPT with LCD projector along with blend of conventional chalk and board (73%). Students found clinical examination the most interesting session among practical methods (76%). Hence students wanted experimental practicals to be replaced with clinical practicals (55%).  
**CONCLUSION:** By using teaching learning methods best preferred by students, perception of subject can be made more easy, effective and interesting. We hope during modifications, suggestions will be discussed and considered.

**I. Introduction:**

Medical Education in India principally is based on the transfer of medical knowledge from teacher to student and assisting the students to acquire the necessary skills and attitudes related to practice of medicine<sup>1</sup>. Thus, the medical education encompasses three domains of learning i.e cognitive, psychomotor and the affective. Improvement in the quality of Medical Education can be brought about by many ways. One among them is creativeness of teaching and learning methods so used. It is one of the main factors that can direct education from a static status to a dynamic and high quality one<sup>2</sup>.

Physiology is the first subject, students encounter in basic medical sciences that deals with normal health and explains the functions as well as the control of systems. Physiology also forms the normal baseline for the study of abnormal functions in medicine. To make the lectures of Physiology more interesting and understanding, one has to review the teaching programme at regular intervals. The best way to assess and improve the teaching methodology is through the student's feedback. So the present study was designed to evaluate the teaching and learning methods practiced in Department of Physiology by taking students feedback through questionnaire.

**II. Aims & objectives:**

To assess student's feedback regarding different teaching and learning methods used in department of Physiology.

**III. Material & methods:**

The present study was conducted in Ashwini Rural Medical College and Research centre, Kumbhari, Solapur on 100 first year MBBS students belonging to age group 18-21 yrs. Based on the teaching and learning methods practiced in the department of Physiology, a questionnaire was designed and prevalidated by faculty members. The institutional ethical committee approved the study proposal and ethical considerations were respected by taking the informed consent from all students who voluntarily participated in the study. The objectives were explained to all students and the questionnaire was distributed.

**IV. Statistical analysis:**

Descriptive statistics such as frequency and percentage was used for analysis of data.

**V. Observations and Results:**

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Among 100 students, 55% were female students and 45% were male students.

The most preferred method of learning (Figure-1) was interactive lectures- 44% followed by practicals-35% .Tutorials were learning method of choice for only 19% of students and the least preferred method was demonstrations-2%

Use of PPT with LCD projector during lectures was preferred by only 10% students whereas 14% said that the conventional chalk & board is the better method. However use of PPT with LCD projector along with the blend of traditional chalk and board was appealing for 73% students. Only 3% students were in favor of using OHP. (Figure-2)

76% of students found clinical physiology examination the most interesting practical method followed by hematology practical 17%, while only 7% students found experimental practical interesting. (Figure-3)

Only 7% students found them to be useful and interesting whereas 34% students said practicals to be useful but theoretical. 55% students were of the opinion that experimental practicals should be replaced with clinical practical while 4% students were of the opinion that experimental practicals to be excluded from curriculum (Figure-4)

**VI. Discussion and conclusion:**

Much of the foundation of knowledge in medical science is provided by human physiology. A right approach to understand physiological concepts is the stepping stone to a flourishing medical career<sup>3</sup>. Therefore, it becomes imperative on the part of a teacher to impart the right perceptions of physiology to medical students through the teaching and learning method which students perceive and prefer the most.

In our study we found that the best method of learning was Interactive lectures classes having bilateral communication as it facilitates understanding new topic where different queries are comfortably asked by many students due to which students get additional information and it improves rapport with teachers. Asking queries and making oneself clear their doubts in whole class also builds up confidence of students. Similar result was found in study conducted by Suzanne Maria D'cruz et al 4 Chavda N et al<sup>5</sup>. This enhances the student's involvement in topic which

may affect their performance in examination positively.

The best method of teaching was the use of PPT with LCD projector along with blend of conventional chalk and board wherever necessary. Combined (PPT and chalk board) method would make the topic more interesting & effective due to better visibility, ability to integrate text with pictures and images and chalk board also allows time to understand, register diagrams and increase interactive discussion. Some earlier studies have inferred that the traditional chalk and talk method is superior but the changing and advancing trend in students is demanding use of PPT with chalk and talk method combined method. Our finding is in accordance with study conducted by Mohan L et al<sup>6</sup>, Banerjee I et al<sup>7</sup>, Stella Williams et al<sup>8</sup>. Similar results were found in studies done by Rupali et al<sup>9</sup> and Sayli et al<sup>10</sup>.

Among practical methods maximum students found clinical examination the most interesting session as it is the time they actually learn to examine patient as a doctor followed by hematology practicals where students learn how to collect blood sample and investigate self sample. While experimental is was found to be least interesting session as it contains more of a theory & no practical is done. These findings also go in accordance with studies done by Sayli et al<sup>10</sup> and Hemlata et al<sup>11</sup>.

Experimental physiology practicals were found to be more therotical. Most of the part of it was covered in Didactic lectures. Hence students wanted these praticals to be replaced with clinical practicals where they get to learn and practice on subject much more that time allotted.

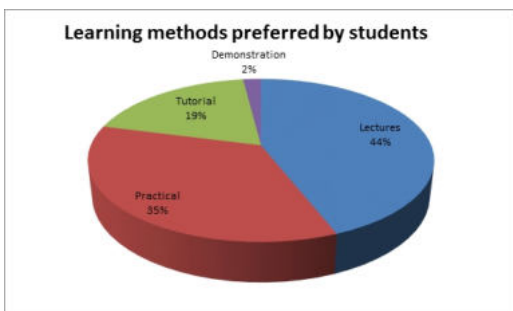
**VII. Suggestions:**

Relevant modifications and updating in the curriculum of physiology as well as other medical subjects are made time to time. We hope during modifications these issues will be discussed and considered. This study is just a small attempt to gather the opinion of students about teaching methods & whether any changes can be made to improve it. This definitely is not a complete picture. Our study does not intend to judge the existing methods.

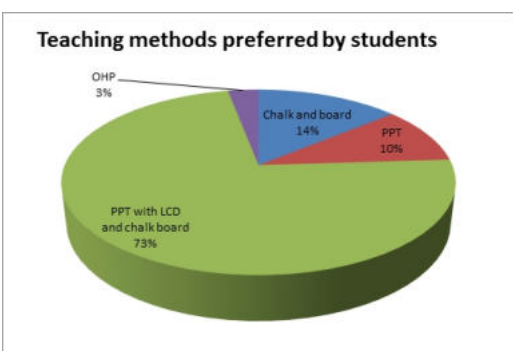
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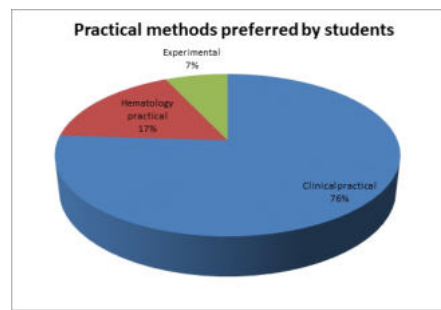
**Figure 1**



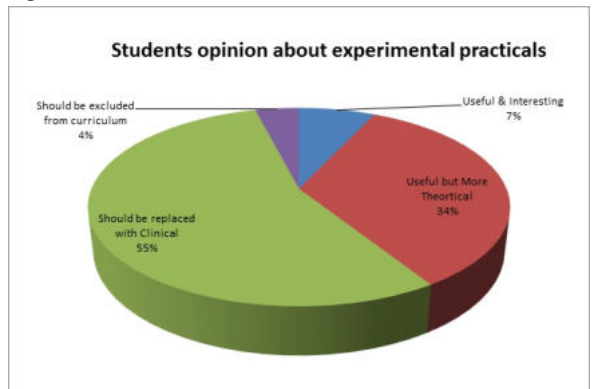
**Figure 2**



**Figure 3**



**Figure 4**



**References**

1. Nishat Ahmed Sheikh, Abhay Subhashrao Nirgude, T. Venkata Ramanaih, Poonam Ramesh Naik ; Medical students perceptions of teachers evaluation in a private medical college of south india ; International Journal of Development Research, August, 2014, Vol. 4, Issue, 8, pp. 1705-1708.
2. Harden R. AMEE Guide 21: curriculum mapping: a tool for transport and authentic teaching and learning. Evaluation the outcome of underground medical education. Medical Education. 2003; 37: 580 -81.
3. Mehnaaz Sameera Arifuddin, Farah Bahmed, M. Anthony David, Mohammed Abdul Hannan Hazari ; Does the teaching performance of faculty in physiology change over the years; Education in Medicine Journal, 2014, Vol. 6, Issue 1, e 56-61.
4. Suzanne Maria D'cruz, Muthukumar S, Navin Rajaratnam, Anandarajan B; Perceptions of medical students in India about the use of role-play as a teaching-learning method in physiology; International Journal of Biomedical and Advance Research, 2013; vol.4(4).
5. NileshChavda, Preeti Yadav, Mayur Chaudhari, N.D.Kantharia ; Second year student's feedback on teaching methodology and evaluation methods in pharmacology; National Journal of Physiology, Pharmacy and Pharmacology. 2011; 1: 23-31
6. Mohan L, Ravi Shankar P, Kamath A, Manish MS, Eesha BR; Students'Attitudes Towards the Use of Audio Visual Aids During Didactic Lectures in Pharmacology; Journal of Clinical and Diagnostic Researc 2010;4:3363-8.
7. Banerjee I, Jauhari AC, Bista D, Johorey AC, Roy B, Sathian ; Medical students view about integrated MBBS course; A questionnaire based cross sectional survey from a medical college of Kathmandu vally. Nepal Journal Of Epidemiology 2011;1(3):95-100.
8. Stella Williams, Bidyadhar Sa, Paula Nunes, Keith Stevenson; Communicating with first year medical students to improve Communication Skills teaching in The University of the West Indies, International Journal of Medical Education. 2010; 1:5-9.
9. R.S.Khane, A.A.Joshi; A Questionnaire Based Survey from First Year M.B.B.S. Students About Teaching Learning Methods of Physiology in Private Medical College; Indian journal of research; Feb 2014, Vol 3, Issue 2, 223-225.
10. RautSayali, PagarAtish, KadamCharulata, .KowaleArun, Bhutada Tara, Aundhkar V; Teaching methods in Physiology: Students' Feedback; IOSR Journal of Research & Method in Education (IOSR-JRME); Jan. 2014, Volume 4, Issue 1; 63-6.
11. Hem Lata, Lily Walia, Vidushi Gupta; Student feedback on teaching and evaluation methodology in physiology; South East Asian Journal of Medical Education; 2008, Vol 2. no. 1, 31-37.