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**INTRODUCTION OF STUDENT-CENTRED LEARNING:
AN EXPERIMENTAL VIEW OF TEACHING HUMAN PHYSIOLOGY**

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ABSTRACT

An experimental study was conducted to compare between the traditional lecture method and student-centred learning of Human Physiology. The study was conducted among the students of Physiology (Hons.). Among these two methods studied, even though the student-centred method has got several advantages over the traditional lecture method, due to the examination system where marks obtained only is the parameter of 'profit of students', lecture method was adopted by most of the students.

[KEYWORD: experimental, lecture, student-centred learning, Physiology]



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INTRODUCTION

Most of the curricula of teaching Human Physiology in the universities of West Bengal are based on faculty-led activities. Since, the modern educationists focus on the student centred learning as it helps to develop multiple skills among the students¹⁻⁶, I introduced this method on an experimental basis among the students of Physiology (Hons.) of part I to Part III when I was a part-time lecturer at Bangabasi evening college, Kolkata, West Bengal, India. The major aim of my study was to compare between the traditional lecture method delivered by lecturers and student-centred learning in which students actively participate to understand the logic and the facts of the subject instead of becoming passive learners.

MATERIALS AND METHODS

A total 33 students of B.Sc Physiology (Hons.) of parts I, II, III under the new regulation of the University of Calcutta Studied at Bangabasi evening college, Kolkata in the year of 2008 were participated in this study. There were 26 males and 7 women (age: 18-20 years). Student-based learning were conducted for 20 days followed by the lecture method for another 20 days. For student-centred learning, students were given certain problems. For example, "the left ventricular wall mass of the human heart is much thicker than right one" justify. In this I acted as a facilitator. Among them a student was selected as team leader. During brain storming, different ideas/options were generated from students and these were arranged systematically.

ACKNOWLEDGEMENT

I express my sincere gratitude to Professor (Dr.) Ajoy Kumar Chatterjee, ex-professor and head, Department of Physiology, University of Calcutta, and Professor (Dr.) Antony Gomes, Professor, department of Physiology, University of Calcutta to whom I got the basic concept "how to develop a student centred learning of Human Physiology".

RESULTS AND DISCUSSION

As per students' opinion, 'the preparation was easy' in lecture method whereas 'understanding the logic' was more effective in student-centred learning. Several advantages of student-centred learning were identified over lecture methods: (1) it gave opportunity for discussion and sharing knowledge/ ideas among students, (2) improved the quality of knowledge, (3) involved almost every student in active participation of learning, (4) developed presentation skills, (5) increased the depth of knowledge and (6) developed analytical mind. Students approved the opportunities of discussion in the student-centred learning method as this was given them for first time. It might help them to acquire better knowledge. Generally it was preferred by most of the educationists that discussion helped them to understand unclear areas in their study⁷⁻¹⁰. In spite of several benefits, student centred learning, the students were dependent solely on lecture method which might develop their analytical mind properly, because, our traditional trend of examination system might adopt them with the so called concept "committed to memory and vomited to the answer script". Most of them thought about the 'profit' of learning in the form of only marks obtained. Thus I think, it is the right time to think about the matter. I hope that we need to realize the incorporation of student-centred learning with lecture method to develop proper scientific skills among the students and also to understand the facts and logics related to Physiological events instead of only memorization of information.

REFERENCES

1. Donner R.S. and Bickley H., Problem based learning an assessment of its feasibility and its cost. *Human Pathol.*, 21:881-885 (1990).
2. Wood D.F., Problem based learning. *Br.Med. J.*, 326 : 328-330 (2003).
3. Gwee M.C., Globalization of problem based-learning (PBL) : Cross-Cultural implications. *Kaohsiung J. Med. Sci.*, 24: S14-S22 (2008).
4. Gwee M and samarasekera D ., Traveling pen: problem-based learning : Maastricht University , School of Health Professions Education, Newsletters, July,2009.
5. Kuhn D., Thinking as argument. *Harvard educ.Rev.*, 62 :155-178 (1992).
6. Van der Valk T., Van Driel J.H.,De Vos W., common Characteristics of model in present-day scientific practice. *Res. Sci. Educ .*, 37 : 469-488 (2007).
7. Hmelo C.E., Holton D.L ., Kolodner J.L ., Design to learn about complex systems . *J.Learn. Sci.*, 9 :247-298 (2000).
8. Di Carlo S.E., The impending revolution in undergraduate science Education. *J. sci. Educ. Technol.*, 14 :253-269 (2005).
9. Luckie D ., Harrison S.H . and May D.E., Model-based reasoning :using visual tools to reveal student learning . *Adv. In Physiol. Edu.*, 35: 5967(2011).
10. Kommalage M and Imbulgoda N., Introduction of Student- led Physiology tutorial classes to traditional curriculum . *Adv .in Physiol.Edu .*, 34:65-69 (2010).