



ATTUNING STUDENTS' ATTENTION THROUGHOUT A LECTURE

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ABSTRACT

The lectures in most of the dental colleges are of one hour duration. The concentration of the students is lost quickly and the attention level of the students is hard to maintain. This study was conducted to find out the opinion of students whether the 'lecture with interactive intervals' helps to keep the concentration levels high throughout the lecture, refocus the attention back and learn better. The study was done on dental students (n=86). Few interactive sessions were incorporated in a one hour lecture. Students' feedbacks were obtained using a structured questionnaire consisting of three questions on a 3 point Likert scale. Statistical analysis was done using SPSS software-15 version. The percentage of students who agree is more than the percentage of students who have no opinion and who disagree on all the three criteria. Students' attention can be refocused and their concentration levels kept high by 'lecture with interactive intervals'.

KEYWORDS: Active learning, attention span, concentration levels, interactive teaching



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INTRODUCTION

The length of time a person can concentrate on a given work before getting distracted is known as Attention span. One cannot concentrate on a particular thing unless he/she pays selective attention to it. Attention span is very important for achieving one's goals. Human attention span is highly variable between individuals. For most people, attention span is estimated to be about 20 minutes. People can extend their attention span if they do something in which they are interested¹. Attention can be restored by taking rest, doing some other activity or intentionally choosing to re-focus on the previous topic. The lecture classes conducted in most of the dental colleges of India are of one hour duration. The lecturer does most of the talking in these classes. Hence these lectures tend to be boring and monotonous. The concentration of the students is lost quickly and the attention level of the students is hard to maintain. There are very few studies conducted on how to refocus the students' attention levels in a lecture class². If attention is refocused periodically, then the concentration levels of the students can be maintained high throughout the lecture which in turn can lead to better learning. Latest theories on learning reinforce that the student has to play an active role in the learning process. Active participation of students in classrooms can help students maintain their attention levels. This can be achieved by interactive teaching where in the students no longer remain passive in the learning process. The lecturer can be aptly called facilitator in these interactive lectures³. This study was carried out with the objectives of finding out the opinion of students as to whether their concentration levels can be kept high throughout the lecture by incorporating interactive intervals throughout the lecture, whether their attention can be refocused to the topic taught by 'interactive intervals' and whether the 'lecture with interactive intervals' can help in better learning.

MATERIALS AND METHODS

The study was conducted at Sri Ramachandra University in the Department of Physiology for the first year undergraduate dental students. The lecture topic 'Conducting system of the heart and origin of cardiac impulse' in cardiovascular system was chosen for the study. The study was done on the entire class consisting of 86 students, both males and females. In the present study, 'lecture with interactive intervals' few interactive sessions were incorporated in a one hour lecture. The interactive sessions were of five minutes duration and were incorporated at the beginning of the lecture and twice thereafter in the course of the lecture. These interactive intervals totaling three in number were spaced fifteen to twenty minutes apart (since the attention span of most adults is twenty minutes). During the 'interactive intervals', a power point slideshow was played without a didactic lecture. The slides were based on the succeeding fifteen minutes lecture segment and listed some questions. The students were allowed to refer text books and / or have interactions with their peers to find answers to the questions. Answers with explanations were provided at the conclusion of the lecture. Students' feedbacks were obtained using a structured questionnaire consisting of three questions on a 3 point Likert scale. The feedbacks obtained from the students were based on three criteria, i.e., the 'lecture with interactive intervals' helped to keep the concentration levels of students high throughout the lecture, helped them to refocus their attention back to the material taught and helped them to learn better. The students were asked to give their opinion on each aspect by the following scoring system: Agree - 1, No opinion - 2, Disagree - 3.

Statistical analysis was done using SPSS software - 15 version. The frequencies were described in percentages.

RESULTS

The response rate was 100%. 91% of the students opined that interactive intervals helped them to keep their concentration levels high throughout the lecture. 87% of the students opined that these interactive intervals

helped them to refocus their attention back to the material taught. 86% of the students felt that the 'interactive intervals' helped them to learn better. The percentage of students who agreed was more than the percentage of students who had no opinion and who disagreed on all the three criteria.

Table 1
Opinion of students on the criteria tested
(Figures within brackets indicate percentage)

Opinion	No. of students		
	Agree	No opinion	Disagree
Helped to keep the concentration levels high	78 (91)	5 (6)	3 (3)
Helped to refocus the attention back to the material taught	75 (87)	7 (8)	4 (5)
Helped to learn better	74 (86)	6 (7)	6 (7)

DISCUSSION

Learning can be facilitated by instruction, but interactions with other human beings significantly help in the learning process. Traditional lectures transfer information from the mouth of a teacher to the notes of the students without passing through the head of both. Instructors can facilitate learning process of students by incorporating active learning strategies in a lecture class. That active learning can be achieved by interactive teaching is shown by many studies⁴. According to Irby⁵ good teachers exhibit a keen interest in students and ask frequent questions. A teacher's essential skill is asking effective questions^{6,7}. Concentration levels of students' are hard to maintain in a one hour lecture class. The question that remains to be answered is, how to 're-focus' students' attention during a one hour college lecture. One possible and easy way is to incorporate some sort of activity which will kindle the students' thinking in between the lecture. Having known that the attention span of students lasts for twenty minutes, a change over activity every fifteen to twenty minutes in a lecture class will be appropriate. If the attention of the students is thus refocused periodically, then the desired concentration level of the students can be maintained throughout the lecture. More attention and

concentration shall lead to better learning. According to Wenzel, in lecture classes, 92% of the time is contributed to lecture, 4% allotted to student questions and 4% is spent in silence. During a lecture, students are attentive only 56%-60% of the time⁸.

The present study shows that the 'lectures with interactive intervals' kept the students' concentration levels high throughout the lecture. Lisa A. Burke and Ruth Ray found that active learning interventions can increase the students' concentration level on study material⁹. Leela¹⁰ found out that in large group teaching, by fine tuning the interventions, better attitude and better performance can be obtained from the students. The social dimension of learning assumes importance because interpersonal interactions are very important in the learning process. Since lecture class are conducted within a social context, interactive lectures are a great way of using the dialogue between teachers and students, and among students, for better learning. Interactive learning can also help in the development of interpersonal skills and self confidence. Many studies have shown that interactive teaching in fact improves students learning which is shown by the increase in scores in assessments¹¹. Other advantages of the lectures with interactive

intervals are: they do not take much time, can be easily administered in both small group teaching and large group teaching, allow students to compare themselves with other students, allow everyone to participate in an active process¹². Also, the strengths of small group teaching can be capitalized for a large group teaching by Interactive lecturing. Interactive lectures needs only minimum teaching aids which will be available in most places and are therefore cost effective. Interactive lectures can be advocated in places where there are not many resources and teachers want to do innovations in teaching without much expenses¹³. It is a simple technique which can yield big results. According to Satheesha B. Nayak¹⁴, interactive lectures are student friendly and the students like interactive lectures more than the regular nonstop lectures of sixty minutes.

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CONCLUSION

The present study shows that the students' attention can be refocused by 'interactive intervals' and these 'lectures with interactive intervals', can keep the concentration levels of students high throughout the lecture. It can be recommended that 'lectures with interactive windows' can be advocated not only in dental course but other courses also. If the concentration levels are maintained, naturally the learning will be better. Further studies can be done to determine whether the 'lectures with interactive intervals' actually lead to improved learning which will be shown as improved scores in assessments.

Conflict of Interest

Conflict of interest declared none.