

Evaluation on the Effectiveness of Large Group Teaching

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Abstract: *Background: Even the best lecturers can lose their audience. Feedback from our students during the presentation and lectures help us to determine if they are actually following and comprehending. We can modify and reform the existing large group teaching methods and ensure effectiveness of medical education where large group teaching is widely followed. Aim and objective: To evaluate the effectiveness of large group teaching in second year MBBS students by feedback method. Materials and Methods: A detailed structured Questionnaire was prepared to analyse the view of students regarding large group teaching and were given to 143 second MBBS students and were asked to fill it. Descriptive statistics were used for analysis of data. Frequency was expressed in percentage. Results and Conclusion: A total of 143 students participated in this study (32% male and 68 % female). The results of our study indicate that students felt the importance of Pharmacology as basis of therapeutics; they want to avoid monotonous lectures and use PowerPoint, brainstorming sessions during lectures and integrate teaching with various departments.*

Keywords: Lecture, large group teaching, PowerPoint, Questionnaires, integrated teaching

1. Introduction

Teaching is an art and a science which requires complex skill to a teacher. It is an art because the method and skill of communication depends on the individual teacher who can effectively communicate to the learner. The method of teaching is dynamic requiring constant updating of teachers' knowledge on the subject and the scientific method of deliverance. A teacher shall have the love to his/her subject, interest to update the latest developments in the subject, eagerness, self discipline, methods and skill of deliverance, use of modern gadgets for effective deliverance and good preparation before the deliverance. Medical education lays emphasis on two way learning-teaching and learning rather than conventional teaching alone.

Considering the dynamic status of medical knowledge and skills, a medical teacher has to be a lifelong learner to keep himself updated and well informed about recent advances in different fields¹

The noun 'lecture' dates from the 14th century latin word 'lectus' and its accompanying verb 'legere' means action of reading that which is read'² (Harper, 2012).

Lectures are one of the significant means of deliverance in the university students' learning system. It is also considered as an efficient means of delivery which is also a cost effective teaching method to transmit information to a large group, but this system is also subjected to criticism. The most common pedagogical concerns in teaching large classes are engagement, assessment and technology. Moore and Gilmartin (2010) described teaching large

classes in the traditional lecture format as 'the intersection of entertainment and crowd control'³

Pharmacology, a para-clinical subject, the basics of therapeutics is to be taught in such a way that the students should understand well and apply their knowledge throughout their medical career. So to make the students learn efficiently, interact large group teaching methods should be modified and made more effective. Hence, in the present study a feedback was collected from the students and analysed to understand the effectiveness of large group teaching in pharmacology education.

2. Aim and Objective

The study was aimed to find out the effectiveness of 'large group teaching' in second year medical students at the end of second year by feedback method.

3. Study Design and Methodology

The design is based on Prospective observational study which was conducted in the Institute of Pharmacology, Madurai Medical College, Madurai during the routine lecture class hours. The participants were second year MBBS students.

Evaluation of student's attitude and perception regarding teaching methods offers an insight into the efficacy of the current teaching and learning methods adapted in the institute. Questionnaires offer an objective means of collecting the information about student's attitude and belief⁴.

A questionnaire was designed to know the opinion regarding the large group teaching. A brief introduction was given about the necessity of the study and after getting consent from the students who were assured that the individual identity will not be revealed. Questioner was distributed to 143 students and were asked to fill it up and respond freely and truthfully. The questionnaire was designed in such a way that all students are asked the same questions in identical format to increase standardisation. Student participants were given half an hour time to complete questioner without any discussion among them. Filled in questioner forms were collected and analysed using SPSS version 16 and the results were presented as descriptive statistics and responses were calculated in percentage.

4. Results

A total of 143 students were involved in the study and all the 143 responded. n=143. 68% were female students and the rest were male.

Table 1: Response of 143 students to the questionnaire in numbers and percentage

Question	Students who agreed		Students who partially agreed		Students who disagreed	
	No	%	No	%	No	%
1	123	86.01	14	9.79	6	4.19
2	59	41.25	65	45.45	19	13.28
3	77	53.84	49	34.26	17	11.88
4	76	53.14	40	27.97	27	18.88
5	54	37.76	53	37.06	36	25.17
6	60	41.95	44	30.76	39	27.27
7	50	34.96	46	32.16	47	32.86
8	86	60.13	35	24.47	22	15.38
9	83	58.04	42	29.37	18	12.58
10	117	81.81	18	12.58	8	5.59

Questions:

1. Pharmacology forms the basis of therapeutics'
2. Didactic lectures are useful and interesting
3. Routine lectures were monotonous and boring
4. Audiovisual aids are good when compared to black board teaching
5. Asking questions in between the lecture makes the students alert
6. Class schedules should be put up earlier so that they will come prepared
7. Frequent seminar by students may be better
8. Is integrated teaching with related departments and include them in the teaching schedule
9. Brain storming sessions to be included during teaching
10. Discussion on clinical cases relevant to topic can be arranged and it will be more useful

As per the table 1 following were observed.

1. 86.01% of students agreed that Pharmacology forms the basis of therapeutics, 9 % partially agreed to this and the rest 4% disagreed to this.

2. 41% of students agreed that didactic lectures are useful and interesting, 45% partially agreed to this and the rest 13% disagreed.
3. 53% of them felt that routine lectures were monotonous and boring, 34% partially agreed to this and the rest 11% disagreed.
4. 53% of them felt that audiovisual aids are good when compared to black board teaching, 27% partially agreed and 18% disagreed to this
5. 37% agreed that asking questions in between the lecture makes the students alert, 37% partially agreed to it and the rest 25% disagreed to it.
6. 41% Students agreed that class schedules should be put up earlier so that they will come prepared 30% partially disagreed and 27% disagreed to this
7. 34% students felt frequent seminar by students may be better but 32% partially disagreed and 32% disagreed to this
8. 60% felt the need of integrated teaching with related departments and to include them in the teaching schedule 24% partially disagreed and 15% disagreed to this
9. 58% agreed that brain storming sessions to be included during teaching, 29% partially agreed and 12% disagreed to this
10. 81% agreed that discussion on clinical cases relevant to topic can be arranged and it will be more useful, 12% partially agreed and 5% disagreed to this

Percentage of students who agreed to the questions is depicted in chart 1

Percentage of students who partially agreed to the questions is depicted in chart 2

Percentage of students who disagreed to the questions is depicted in chart 3

Chart 1: Over all Response of the Students Expressed in Percentage

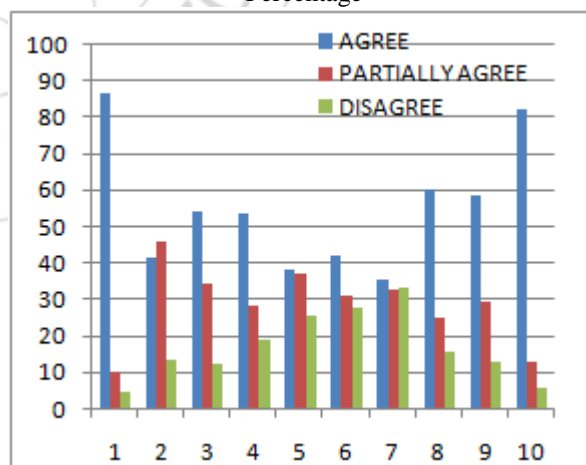


Chart 2: Response of the students who agreed

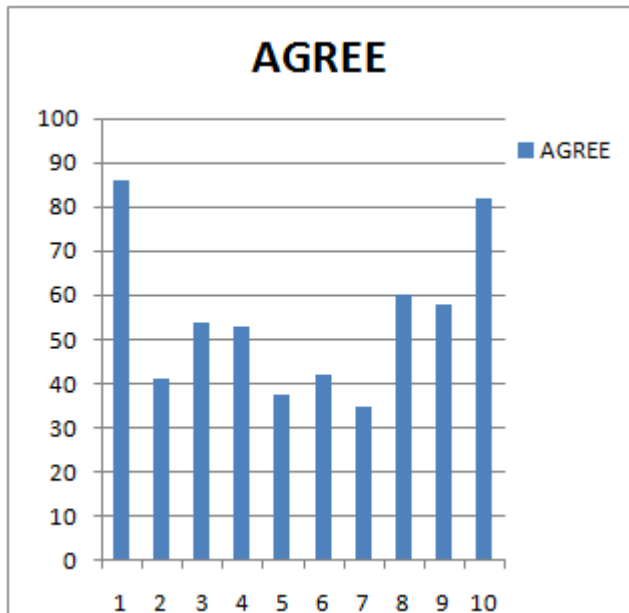


Chart 3: Response of the students who partially agreed

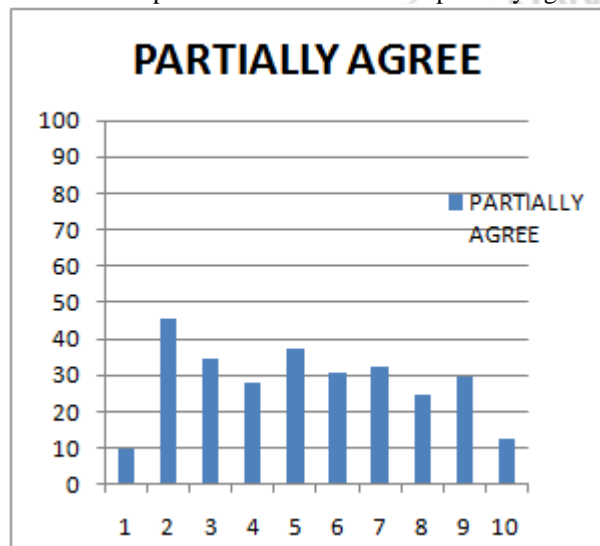
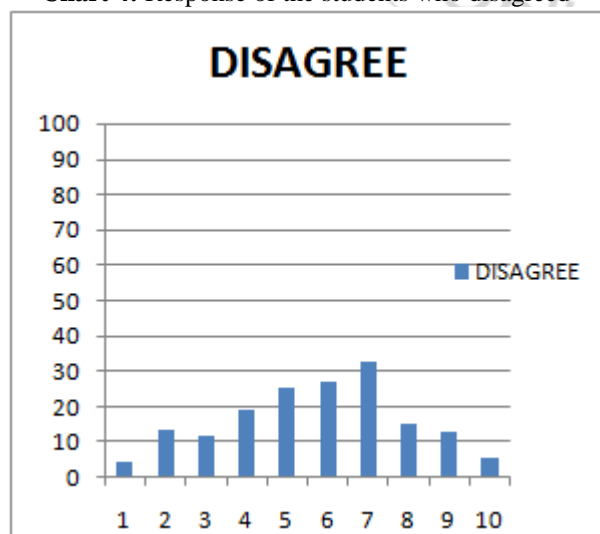


Chart 4: Response of the students who disagreed



5. Discussion

This study helped us to understand the student's views on 'large group teaching'. They agreed that Pharmacology forms the basics of therapeutics and it should be learnt more effectively. Most of the students felt that lectures, though useful, were monotonous. To make the lectures lively and effective interaction is important. The students preferred audio visual learning rather than black board learning.

Lengthy lecture is another negative impact on learning. Since there is a finite capacity to short-term memory, new material just learned can displace material learned just minutes earlier. This combination of reduced attention and interference can potentially create a gap in learning, particularly, in the middle of the lecture. It has been shown that varying the methods of deliverance could restore attention. Further, providing opportunities for rehearsal of short-term memories into long-term learning can effectively combat interference⁵

As per the analysis they prefer prior display of class schedule, integration within related departments, brainstorming session during regular teaching and periodic case discussion along lectures could make large group teaching more effective.

6. Conclusion

Though lectures are one of the significant methods of deliverance in university students' learning process and are one of the efficient means of deliverance, building an effective lecture as a means of motivating and inspiring interest in students while transmitting key concepts and ideas required creativity and planning by teacher. In this study most of the students felt the importance of Pharmacology in therapeutics and prefer Audiovisual aids and interactive sessions.

The advantages of large classes include decreased costs on instruction, efficient use of faculty time and talent, availability of resources and standardization of the learning experience (McLeod, 1998). However, there are significant disadvantages to large classes including strained interpersonal relations between students and the instructor, limited range of teaching methods, discomfort among instructors teaching large classes.

But today, teachers face more complex demands as teaching is no longer a process of simple transmission of information to students for memorizing and storing for future use. Education today focuses on helping students as how to learn and acquire the skills and becomes a two way transfer⁶. To make the lectures more interesting and understanding one has to review the teaching programme at regular intervals⁷

7. Future Scope

Future, research should be conducted to investigate the effectiveness of additional, active and collaborative

teaching methods in the large class environment and should also incorporate measures of learning outcomes in addition to examination scores. Measuring improvement in higher level comprehension, critical thinking and problem solving skills could provide more insight into the value of the teaching methods. Based on enrolment in colleges, large classes are going to become a way of life for most of the faculties. Therefore, further investigation on issues on large class teaching is paramount and should be a combination of various methods of deliverance in large class teaching.

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