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EVALUATION OF LECTURE AS A LARGE GROUP TEACHING METHOD IN UNDERGRADUATE MEDICAL CURRICULUM: STUDENT'S PERSPECTIVE

Gitanjali Kailas Badave¹, Kulkarni Dhananjay²

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ABSTRACT: To evaluate lecture as a large group teaching method from student's perspective.

METHODS: The present study was undertaken in the department of Microbiology, KIMS, Amalapuram. A total of 60 Second year MBBS students were taken as study subjects. A questionnaire was designed and students were asked to fill it and also give suggestions as a part of feedback about the lectures conducted in the department of Microbiology. **RESULTS:** A total of 83.4% students find Chalkboard method + Power point presentation as the best way of delivering a lecture. Nearly 56.6% students opined that ideal duration for class should be 40 - 50 minutes. Long duration of lecture was a major disadvantage according to 66.6% students. 90% students feel that some time period of lecture should be reserved for interactive session. Majority of students also preferred class on e-learning. 70% students feel that tutorials or seminars are needed along with theory class for better understanding of the subject. **CONCLUSION:** Lectures should be efficiently delivered by the instructor giving a conceptual understanding of the subject instead of mere reading the content. Lecture should be supplemented with tutorials and group discussion to improve learning. Duration of class should be restricted to 40-50 minutes as traditional long duration class makes it difficult to hold the attention of the students for an entire class period. Brief interaction with students will promote active learning. E-learning should be encouraged.

KEYWORDS: Lecture, Tutorials, Seminars, Power point presentations, e-learning.

INTRODUCTION: A lecture is an effective, traditional and the most dominant instructional teaching element commonly used in academic institutions or universities for teaching a large group. The concept of lecture is derived from the French word 'lecture', meaning 'reading' process which refers to an oral presentation intended to present information or teach people by an expert in a particular subject. Though lectures are much criticized as a one way teaching method, educators have not yet found practical alternative teaching methods for the large majority of their courses.¹

A lecture can be an immensely effective tool in the classroom, allowing an instructor to provide a theme that organizes material in an interesting way. It is essential to see lectures as means of helping students to learn the key concepts of a particular subject, rather than primarily as a means of transferring facts from instructor to student. The objective of the lecture is not only helping Students to acquire knowledge but also making students think to change their attitude and provide an inspiration to further interest in the subject.²

The modalities of conducting a lecture have changed from traditional chalk-board, transparency and overhead projector (TOHP) to the use of electronic media and web based learning. It is essential to consider views of students regarding the present lecture methodology, to make necessary reforms in the traditional pattern of conducting a lecture followed since years together. Reviewing teaching program will have a better impact on comprehension and learning of students.

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So the present study was undertaken to evaluate lecture as a large group teaching method from student's perspective.

MATERIAL AND METHODS: The present study was undertaken in the department of Microbiology, KIMS, Amalapuram. A total of 60 Second year MBBS students were taken as study subjects. A questionnaire was designed and students were asked to fill it as a part of feedback about the lectures conducted in the department of Microbiology. They were also asked to express any comments or suggestions. Student identity was not revealed.

QUESTIONNAIRE:

1. Which is the best method of delivering a lecture?
2. What should be the ideal duration of a lecture?
3. Should some portion of lecture be reserved for interaction with students?
4. Should there be a class on e-learning?
5. What is the main disadvantage of lecture?
6. Are tutorials, seminars or discussions needed apart from theory class for understanding subject?

OBSERVATION AND RESULTS: In the present study a total of 83.4% students find Chalkboard method + Power point presentation (PPT) as the best way of delivering a lecture than any of the individual methods (Figure 1).

Fig. 1: Lecture delivery Method

Nearly 56.6% students opined that ideal duration for class is 40 -50 minutes while none gave opinion as 50 – 60 minutes which is actually the universal practice currently followed (Figure 2).

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Fig. 2: Ideal duration of Class

In the same sense long duration of lecture was a major disadvantage according to 66.6% students (Figure 3). A total of 90% students feel that some time period of lecture should be reserved for interaction with student as well as there should be a class on e-learning. A total of 70% students feel that tutorials or seminars are needed along with theory class for better understanding of the subject.

Fig. 3: Disadvantage of Lecture

DISCUSSION: Lecturing as a method of large group (more than 30) teaching is an instructor centered method. As students are the beneficiaries of a lecture, their feedback contributes to improve teaching strategy. Analysis of questionnaire in the present study revealed that 83.4% students preferred Chalkboard method + Power point presentation (PPT) over any of the individual methods. Learning with audiovisual aids has a great impact on students over traditional blackboard teaching³ but misuse or overuse of technology degrades the quality of the presentation.⁴ The reason for this being mere reading of transparencies using OHP or PPT slides with a lot of material without explaining the

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concept compromises with the comprehension of the topic. According to students PPT should be used only for outline of topic and diagrams. For efficient explanation of the topic blackboard teaching must be preferred.

Similarly Meo et al reported that when contents such as figures and flow charts were discussed on PowerPoint and then elaborated on chalkboard, the students were more active. This combined teaching with PowerPoint and chalkboard keeps the students engaged, therefore combination of PPT & chalkboard called as “Integrated teaching” is more suitable than any individual lecture delivery method.⁵ David et al reported that PowerPoint serves more as a mean of directing the flow on a topic than presenting the entire material.⁶

In the opinion of 66.6% students, long duration of classes (50-60 min) is a major disadvantage of lecture. Studies on attention span shed light on why students find it difficult to maintain attention in traditional lecture format conducted nearly for one hour which exceeds attention span of an average student. Research studies have demonstrated that level of concentration varies during lecture, high level in the initial phase (30-40 minutes), declines and stays flat for rest of the lecture.^{7,8} Sustained attention varies widely depending upon time of day⁹ motivation and enjoyment¹⁰ and emotion.¹¹ The implication of this finding is that duration of lecture should be limited as well as instructor needs to grab attention of students refreshing them periodically by summarizing or emphasizing an important point, using humor appropriately or building interaction with the students.^{7,8}

Majority of the students in this study preferred student –teacher interaction which can make topic more clear and break didactic nature of lecture. This finding is in accordance with guidelines put forth by MacGregor et al. that interaction with students in the form of buzz group discussion, student generated questions or peer questioning or just a few questions about the topic in the form of short quiz, should be incorporated into lecture segment in order to promote more active learning.¹² Researchers also conclude that deep approaches to learning are enhanced by explanatory ability and communication skills of the instructor. Communication skills include instructor’s way to interact with students to encourage involvement and interest, focusing a shift to student centered learning.¹³

Nowadays most of the teaching methods, including lectures and demonstrations can be translated into an electronic format (e – learning). Computer technologies, including the Internet, supports a wide range of learning activities from dissemination of lectures, access to live or recorded presentations, real-time discussions and self-instruction modules.^{14,15} A positive approach towards e – learning is exhibited in this present study where 90% students support e-learning module.

70% students feel that tutorials or seminars are needed along with theory class for better understanding of the subject. Studies have proved that tutorials or seminars provide an ideal opportunity to clarify the concept, link theory to practice, enhance active learning and improve communication skills.¹⁶

CONCLUSION: Teaching techniques have profound effect on learning. From the results of the present study and opinion of the students, the study concludes that lectures are necessary for introducing basic background of a topic or subject for a comparatively large number of students. It is important that lecture should be efficiently delivered by the instructor giving a conceptual understanding of the subject. The best way of teaching is combining blackboard method with power point presentation.

Although lecture is effective teaching method but learning is restricted to cognitive domain level. So lecture should be supplemented with tutorials and group discussion to improve the levels of

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learning. Traditional pattern of one hour teaching makes it difficult to hold the attention of the students for an entire class period. Hence duration of class should be restricted to 40-50 minutes. Brief interaction with students will promote active learning. E-learning classes should be encouraged.

RECOMMENDED SUGGESTIONS:

1. For lecture combination of Chalkboard + PPT method should be used.
2. Lectures should be of limited duration (40-50 minutes).
3. Theory lectures should be supplemented by discussion, tutorials and seminars for enhanced learning.
4. Replace passivity of students with proper teacher - student interaction.
5. E-learning should be introduced in curriculum.
6. Students also suggested that morning hours are better for theory lecture and the number of classes should not exceed 4/day.
7. Lastly as per student's suggestion, ambient environment like well-ventilated spacious classrooms, proper illumination, better audio/visual aids & proper sitting arrangement plays pivotal role in effective lecture learning.

REFERENCES:

1. Michael Bassey Learning methods in tertiary education. Internal paper Nottingham Regional College of Technology. 1968.
2. Bligh, DA what's the Use of Lectures. Third Edition. 1972, London: Penguin.
3. Novelli ELB, Fernandes AAH. Student's preferred teaching techniques for biochemistry in biomedicine and medicine courses. *Biochem Mol Biol Educ* 2007; 35: 263-6.
4. Collins J. Education techniques for lifelong learning: making a PowerPoint presentation. *Radio graphics* 2004; 24: 1177-83.
5. Meo SA et al. Comparison of impact of power point and chalkboard in undergraduate medical teaching: an evidence based study. *J Coll Physicians Surg Pak*. 2013 Jan; 23(1): 47-50.
6. David DK, James DW. A case for PowerPoint as a faculty authoring system. *Cell Biol Educ* 2004; 3: 155-61.
7. Mckeachie W. Teaching tips: Strategies, Research and Theory for College and University Teachers (11th ed) Boston 2001.
8. Johnstone, AH. Percival F. Attention breaks in lectures. *Education in Chemistry*, 1976; 13, 49-50
9. De Young CG, Hasher L, Djikic M, Criger B. Morning people are stable people: Circadian rhythm and the higher order factors of Big Five. *Personality and Individual differences*. 2007; 43(2): 267-276.
10. Freitas AL, Higgins ET. Enjoying goal directed action: The Role of Regulatory Fit. *Psychological Science*. 2002; 13 (1): 1-6.
11. Reisberg D and Heuer F. Memory and Emotional Events. In D. Reisberg and P Hertel (Eds). *Memory and emotion*. New York, NY US: Oxford University Press. 2004.
12. Mac Gregor J. Appendix to new directions in teaching and learning, 1993; 56: 101-117.
13. Bliss J Ogborn J. (1977). *Student's reactions to Undergraduate Science*. London: Heinemann.
14. Cook D. Web-based learning: pros, cons & controversies. *Clinical Medicine* 2007; 7 (1): 37-42.

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15. Greenhalgh T. Computer assisted learning in undergraduate medical education. BMJ2001; 322: 40-4.
16. Gross Davis B. Cooperative learning: Students working in small group. Stanford University Newsletter on Teaching. 1999; 10 (2): 1-2.

AUTHORS:

1. Gitanjali Kailas Badave
2. Kulkarni Dhananjay

PARTICULARS OF CONTRIBUTORS:

1. Assistant Professor, Department of Microbiology, Konaseema Institute of Medical Science, Amalapuram.
2. Assistant Professor, Department of Pharmacology, Konaseema Institute of Medical Science, Amalapuram.

NAME ADDRESS EMAIL ID OF THE CORRESPONDING AUTHOR:

Dr. Gitanjali Kailas Badave,
Assistant Professor,
Department of Microbiology,
Konaseema Institute of Medical Science,
Amalapuram-533201,
East Godavari, Andhra Pradesh.
Email: badve.gitanjali@gmail.com

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