

Audio Visual Aids – A Boon or A Bane? Perspective of First Year Medical Students.



Medical Science

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ABSTRACT

Communication has a very important place in medical education to help students master the ever growing field of medicine. To enhance communication in a lecture audio visual aids (AV aids) like over head projectors (OHP's) and power point projections (PPT) are being used. But do they cater to the student needs in all lectures is a big question. Our aim was to get students perspective on AV aids as a tool for effective learning.

Objectives: To make a comparative assessment of the role played by AV aids in improving the effectiveness of lecture.

Materials and Methods: A survey was conducted by distributing questionnaires' randomly to 100 students studying first year in SUT Academy of Medical Sciences, Trivandrum, Kerala (Annexure). Students were asked to evaluate the role of AV aids in improving the learning process.

Results and Conclusion: Results showed that students do prefer AV aids to break the monotony of a lecture but scientific knowledge and creativity of the teacher play a role in making a lecture effective (1). Black board teaching is still preferred by most students. PPT ranks the best as it has high visibility and helps in notes taking. Nearly 90% students preferred mixing of audio visual aids to make a topic more interesting.

To improve the effectiveness of a lecture, it is suggested that different AV aids can be used along with the time tested method of black board teaching. The emphasis here is on student learning than on the latest gadget available.

Introduction

Didactic lectures is the traditional method used in teaching. As technology advanced various audio visual gadgets were supplemented along with lectures to make the lecture more student friendly. Audio visual aids refer to power point presentations (PPT), use of transparencies in over head projectors (OHP) and virtual stimulators. These are widely used to demonstrate Amphibian experiments in Physiology and also in anatomy dissections. Illustrations and flow charts can also be represented with clarity. But does it really serve the purpose of educating and imparting knowledge to future doctors of our society. The big question is have lectures become a tool for the lecturers to show their knowhow on latest technological advancement. Can the effectiveness of lecture be compensated by these gadgets. Present study was done to evaluate the mode of teaching which helped in effective recall and learning.

Materials and methods

Pre structured questionnaires were distributed randomly to 100 students pursuing their first year at SUT Academy of Medical Sciences. Class included 68 girls and 32 boys. Questionnaires were distributed when the academic year had ended and students were about to start their study holidays before final exams. No personal identification was asked. Questionnaire was prepared taking into consideration all aspects of an effective lecture from review of literature. Students were asked to compare lectures taken with a blackboard with other audio visual aids. 98 students answered the questionnaire. Data was entered in excel worksheets and filters were used to analyse preference of students.

Result:

Analysis of our results shows that 90% students prefer either OHP or PPT for notes taking, better explanations and continuity of topic. Blackboard is preferred by 38% for understanding difficult concepts. 29% suggested recall is made easier when black board is used as students can draw and write along with the teacher (Table 1). Power point sometimes becomes too technical with no personal interaction was the view expressed by 25% of students. Some lecturers just read from slides without any explanation. No previous preparation was needed as words are already there and teacher is not confident. 80% were of view that notes were just read from prepared slides. They

preferred blackboard where student teacher interaction is good. OHP has its own disadvantage of more material being squeezed in a single slide. Students lose interest in such topics and recall is difficult (2). 45% of students felt OHP as not suitable for a lecture (Table 2).

Discussion

Medical teaching requires the use of audio visual aids to illustrate various clinical conditions. Advancement in technology and internet has made the role of teacher easy. Students being gadget savy it is important that lectures be supplemented with sight and sound (3). Efficiency of a lecture increases with proper use of AV aids. The compulsion is there on the part of the teacher to update their knowledge on the latest gadgets (4). Students do believe that they enjoy teaching through these tools as it totally changes the atmosphere of the class and makes the class more interactive and lively (5). This helps the student to concentrate in the class and makes learning more easier. Medical teachers unlike other college teachers do not undergo any formal training in teaching. Their teachers and seniors are their role models and along with their own subject knowledge train the students (6). Quality of doctors is based to a large extent on the efficiency of teachers.

70% of information can be retained if the lecture is supported with proper explanation using visual media (7). Nearly 75% of students preferred PPT as an effective media. It makes the class lively. Projected written material is more legible than blackboard, and there is continuity of notes. But blackboard is also preferred by 20% for explanation of concepts. 25% preferred black board and PPT as the best combination that can be used for learning. 71% of students felt that effective recall of lectures is easier in PPT and 30% observed that diagrams drawn on blackboard with clarity helps recall much better than seeing projected diagrams on PPT or OHP. Core points of a lecture is easily comprehended by the learner in a blackboard teaching as students have sufficient time to think and write when compared to any AV aid where the focus will be on completion of prepared topic.

OHP is a tool that has its own advantages and flaws. The transparencies for OHP can be easily made and similar to blackboard, diagrams and flow charts can be represented with clarity. But becomes ineffective when teachers tend

to reuse the same transparencies for repeated batches and there is fading of the written material. Handwriting of the teacher and spacing of material in each sheet are some of the issues to be considered when using OHP. Students felt that squeezing of information is more in an OHP and this affects notes taking, visibility and clarity of points. Teachers now are more of facilitators of learning rather than transmitters of information and can keep on improving their skill only by peer evaluation, expert observation and student feedback done on a periodical basis (8). Like any other activity planning a lecture is very crucial. Lesson plan should include audio visual aids and it is not something that can be introduced at the end of a class (9). Good interactive skills which encourages student participation and maintaining eye contact with students also helps in learning process (10).

Conclusion –

Students’ views on the effectiveness of various audio visual aids suggest that the focus should be more on student learning than on using the latest technological knowhow. Gadgets should be used as a tool and not as toy (11). Importance should be given for proper lesson plan. Priority of the teacher should be to create interest in the student for taking down notes, recall and study. Diagrams should be explained with clarity. Blackboard should be used to represent diagrams and flow charts which will allow the student to draw the same on his own (12). Textbook diagrams can be projected on power point only if it can add more power to the point. Optimum mix of blackboard and other audio-visual aids will help the student in his metamorphosis and gives a satisfaction to the teacher for a job well done.

Annexure

Dear Student,

Please give your honest views regarding the effectiveness of Audio visual aids in the various lecture classes you have attended so far.

QUESTIONNAIRE

S.No	Views	Black-board	OHP	PPT	Others (charts,models)
1.	Class made lively				
2.	Note taking possible				
3.	Breaks monotony of lecture				
4.	Continuity of topic maintained				
5.	New terms made legible				
6.	Diagrams made effective				
7.	Understanding much better				
8.	Elaborate explanation possible through				
9.	Helps recall complex points				
10.	More interesting and interactive				
11.	Sleep inducing mode				

12.	Just reading from teaching material seen				
13.	Squeezing too much material				
14.	Combination of which AV aids will you prefer				

Please don't write your name. Tick whichever view you think is appropriate

Table 1. Comparison of AV aids on various aspects of lecture

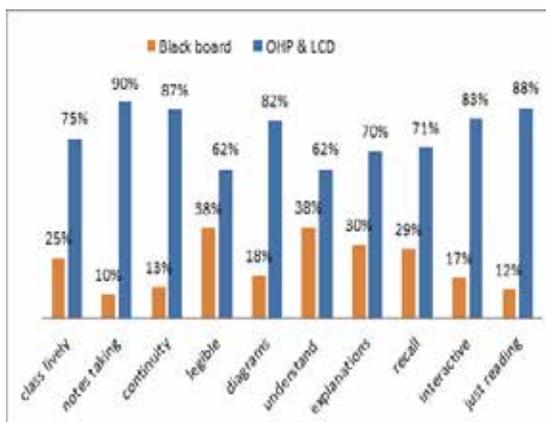
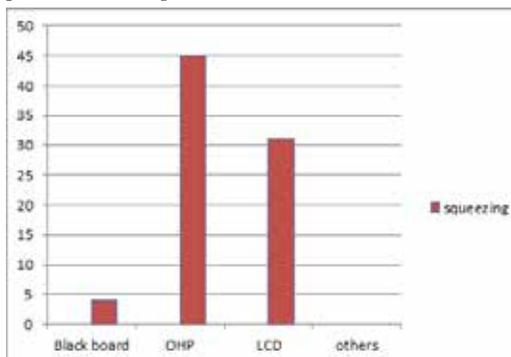


Table 2. Comparison of AV aids regarding the material presented in single slide



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