

Perceptions Of First M.B.B.S Students Regarding Audiovisual Teaching Aids In Physiology

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Abstract: Introduction: Use of teaching aid in didactic lectures plays an important role in the overall impact of the lecture in terms of student interest and learning. It is always recommended, not to get carried away with the use of ever changing technology. Technology always appears fancier, but student preferences and the impact that it makes on learning, should be evaluated before over using it. Aim :- To know I MBBS student preferences regarding use of audio-visual aids in teaching various components of Human Physiology. Methodology: This is an observational study conducted by administering a questionnaire regarding student preferences about various teaching aids used by Physiology faculty during teaching sessions, in SVN. GMC, Yavatmal, from September 2015 to December 2015 on total 181 I(119) & II(62) MBBS students. Results: For teaching aid best suited and understanding of Physiology, 43.10% of the students preferred L.C.D. i.e. 106(58.56%) of the students, opined that traditional Chalk & Board provides maximum interaction with the teacher while 76(41.99%) felt that it induces more sleep than other teaching aids. 118(65.19%) opined that traditional chalk & talk method was best suited for taking down running notes during lectures and 108(59.67%) of the students preferred it to be combined with LCD. Majority of the students in this study preferred LCD for better understanding of diagrams (41.44%) and flowcharts (43.1%). Conclusion: Senior students are more inclined towards conventional mode of learning through the use of Chalk & Board while the junior batch preferred LCD, which appears fancier to them, initially. This study was conducted on one batch size of students. For better interpretation and results that could be applied at university, state or national level, we recommend a wide spread multi-centric study in medical colleges all over the country, having representation from all strata of students, faculty and policy makers. [Shilpa G NJIRM 2016; 7(6): 51-54]

Key Words: Preference, Teaching aids, Chalk & Talk, Over Head Projector, Liquid Crystal Display

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Introduction: Didactic lecture has been an important means of conveying knowledge to students, right from school to university. In absence of other teaching methods, it was only means to deliver information. Gradually with the advancement in technology, the format of lecture has also changed, from traditional chalk board to LCD to virtual simulation and satellite video conferences.

We too, in medical colleges, have shifted from chalk & board to OHP overhead projector to power point presentations. But the question arises, whether we are delivering the information effectively? Are students satisfied with new teaching aids? It is the need of time to have a discussion on merits and demerits of various teaching aids.

Keeping this concept in mind, during learning physiology, opinion of the students about various teaching aids and how teaching and learning can be improved further to suit student needs, was studied.¹

Aim: To know I MBBS student preferences regarding use of audio-visual aids in teaching various components of Human Physiology

Objectives: To find out students feedback about the most suitable and effective teaching aids for better understanding of the subject To analyse student opinion about convenience and effect of various audio-visual aid used to teach the subject

Method: This is a cross sectional descriptive study, conducted at Shri Vasantrao Naik Govt. Medical College, Yavatmal, Maharashtra, on 119 students of M.B.B.S from 2015-16 batch and 62 students from 2014-15 batch, between September 2015 to January 2016. A predesigned questionnaire comprising of student feedback about suitability, convenience, effects of various types of teaching aids like chalk blackboard, overhead projector and powerpoint presentations, used by Physiology faculty during their lectures. All students from both the batches, present on the day of data collection were included in the study. The data thus collected was presented in the form of tables and analysed using percentages and Chi-square test.

Results: The study population comprised of 119 (Boys-53, Girls-66)(65.75%) students of M.B.B.S from 2015-

16 batch and 62(Boys-21, Girls-41)(34.25%)students from 2014-15 batch

Table I: Student Opinion about Teaching Aid best Suited for teaching physiology

Sr. No	Teaching Aid	Batch-wise Preference		Total
		2014	2015	
1	Ch& Board	27(43.54%)	30(25.21%)	57(31.49%)
2	O.H.P	16(25.81%)	30(25.21%)	46(25.41%)
3	L.C.D	19(30.65%)	59(49.58%)	78(43.10%)
Total		62(100%)	119(100%)	181(100%)

$X^2=7.82$, D.F. =2, $p<0.05$

Students when asked about the best teaching aid, suited for teaching Physiology, out of the total 181 students, many i.e. 78(43.10%) preferred L.C.D over O.H.P i.e. 46(25.41%) and traditional teaching using chalk & board i.e. 57(31.49%) students.

27(43.54%) students from 2014(senior) batch however, preferred chalk & board method of teaching while 59(49.58%) junior batch students preferred use of L.C.D for physiology classes. All these differences were found to be significant after application of Chi Square test.

Table II: Student Opinion about the Teaching Aid That Provides Better Understanding of the Subject

Sr. No	Teaching Aid	Batch-wise Preference		Total
		2014	2015	
1	Ch& Board	28(45.16%)	24(20.17%)	52(28.73%)
2	O.H.P	15(24.19%)	31(26.05%)	46(25.41%)
3	L.C.D	19(30.65%)	64(53.78%)	83(45.86%)
Total		62(100%)	119(100%)	181(100%)

$X^2=13.66$, D.F. =2, $p<0.005$

The above table shows student opinion about a teaching aid which is best for understanding physiology. 83(45.86%) students amongst the total 181, preferred L.C.D over other aids. Amongst 2014 batch students, 28(45.16%) preferred traditional Chalk & board over other aids while in 2015 batch, 64(53.78%) students preferred L.C.D as a teaching aid for better understanding of the subject. These differences were found to be significant.

Table III: Student Preferences about the Teaching Aid That Provides better Interaction with Teacher

Sr. No	Teaching Aid	Batch-wise Preference		Total
		2014	2015	
1	Ch& Board	36(58.06%)	70(58.82%)	106(58.56%)
2	O.H.P	11(17.74%)	17(14.28%)	28(15.47%)
3	L.C.D	15(24.19%)	32(26.89%)	47(25.97%)
Total		62(100%)	119(100%)	181(100%)

$X^2=1.64$, D.F. =2, $p>0.05$

Majority of the students, i.e. 106(58.56%) out of the total 181, opined that traditional Chalk & Board method of teaching provides maximum interaction with the teacher. 36(58.06%) of the students from 2014 batch & 70(58.82%) of the students from 2015 batch preferred chalk & talk teaching method for better interaction with the teacher. No significant difference was found between the student preferences.

Table IV: Student Opinion about the Teaching Aid That Induced Sleep Most During Lecture

Sr. No	Teaching Aid	Batch-wise Preference		Total
		2014	2015	
1	Ch& Board	23(37.10%)	53(44.54%)	76(41.99%)
2	O.H.P	20(32.26%)	29(24.37%)	49(27.10%)
3	L.C.D	19(30.65%)	37(31.10%)	56(30.94%)
Total		62(100%)	119(100%)	181(100%)

$X^2=1.48$, D.F. =2, $p>0.05$

Students when asked about the most sleep inducing lecture according to the use of teaching aid, 76(41.99%) students amongst the total 181 respondents, opined that, traditional chalk & talk induces more sleep.23(37.10%) of students from 2014 batch and 53(44.54%) students from 2015 batch also opined that, lectures using chalk & board induced more sleep. However the differences in the opinions were not significant.

Table V: Student Preferences about the Teaching Aid Best Suited for Taking Down Lecture Notes

Sr. No	Teaching Aid	Batch-wise Preference		Total
		2014	2015	
1	Ch& Board	40(64.52%)	78(65.55%)	118(65.19%)
2	O.H.P	11(17.74%)	09(7.56%)	20(11.4%)
3	L.C.D	11(17.74%)	32(26.89%)	43(23.76%)
Total		62(100%)	119(100%)	181(100%)

$X^2=5.26$, D.F. =2, $p>0.05$

The above table shows that majority of the students i.e. 118(65.19%) out of the total 181, opined that traditional chalk & talk method was best suited for taking down running notes during lectures. Amongst the 2014 students, 40(64.52%) and 78(65.55%) amongst 2015 students were inclined towards chalk & talk method for taking running notes.

Table VI: Student Preferences about the Teaching Aid That Provides Better Understanding of Diagrams

Sr. No	Teaching Aid	Batch-wise Preference		Total
		2014	2015	
1	Ch& Board	28(45.16%)	33(27.73%)	61(33.70%)
2	O.H.P	18(29.03%)	27(22.69%)	45(24.86%)
3	L.C.D	16(25.80%)	59(49.58%)	75(41.44%)
Total		62(100%)	119(100%)	181(100%)

$\chi^2=9.96$, D.F. =2, $p<0.01$

The students when asked about the most preferred teaching aid which helps in better understanding of diagrams, 75(41.44%) out of the total 181 respondents preferred LCD over other aids. There was a difference of opinion between the two batches as 28(45.16%) students from 2014 batch preferred Chalk & Board while 59(49.58%) students from 2015 batch preferred LCD as teaching aid, most suited for understanding diagrams. This difference was found to be significant.

Similar opinion was expressed about their preference of teaching aid, best suited for understanding of flow charts. 78(43.1%) students out of the total 181 opined that LCD was best. Amongst the 2014 students, 24(38.71%) respondents preferred traditional Chalk & Board over other teaching aids for this purpose, while 63(52.94%) students from 2015 batch preferred LCD, over other teaching aids.

When asked about the most preferred combination of teaching aids, majority i.e. 108(59.67%) of them from a total of 181 respondents, preferred traditional Chalk & Board combined with LCD. 34(54.84%) students from 2014 batch & 74(62.18%) students from 2015 batch preferred this combination of teaching aids.

Discussion: Students when asked about the best teaching aid suited for teaching and understanding of Physiology, overall, 43.10% of the students preferred L.C.D over O.H.P and chalk & board. While senior (2014) students preferred chalk & board method of

teaching, the junior batch (2015) preferred L.C.D and the differences found were significant after application of Chi Square test. Preference to the use of L.C.D was similar to a study by RoopKulkarniet. al.² and Roopashree Ret.al.³ in which 71.9% and 44.8% of the I MBBS students voted for power point lectures, respectively. Student preference to chalk & board in senior students was similar to the results found in a study conducted by Chaudry R et. al.⁴ and by Mohan L. et. al.⁵ The reason may be due to the fact that during explanation of concepts with chalk and board the teacher-student co-ordination is better. It also indicates that the use of teaching aid is to assist the teacher to avoid the monotony in the lecture and not to replace the teacher.⁵

Majority of the students, i.e. 106(58.56%) out of the total 181, in this study opined that traditional Chalk & Board method of teaching provides maximum interaction with the teacher; a finding similar to a study conducted in MIMS, Karnataka in which 87.4% students opted chalk board as best teaching aid for interaction between students and teacher.⁵

76(41.99%) students in this study opined that use of traditional chalk & board induced more sleep than other teaching aids. This was result was however not similar to findings of studies by Roopashree R. et. al.³ in which 47.9% opined that OHP was most sleep inducing and by Choudhary et.al.⁷, which showed that 51.2% of students found OHP as most sleep inducing.

In this study, majority of the students i.e. 118(65.19%) opined that traditional chalk & talk method was best suited for taking down running notes during lectures. These findings were similar to a study by Mohan L. et. al.⁵ and by N. R. Hemalatha⁶, who found 50.6% students preferring chalk & Board method for taking lecture notes.

However, these findings were different from the findings of a study conducted by Roopashree Ret. al.³, in which more students preferred BBT & LCD as quick note taking was possible.

Majority i.e. 108(59.67%) of the students in this study, preferred traditional Chalk & Board combined with LCD. This finding was similar to the findings of a study by Priyadarshini. K. S et. al. [1], Chaudry R et. al.⁴ and Roopashree R et.al.³, in which 66% ,67% & 61% students preferred this combination, respectively.

Majority of the students in this study preferred LCD for better understanding of diagrams,(41.44%) and flowcharts (43.1%) which concurred with the study findings by Roopashree R et.al.² and Mohan L. et.al.⁵, but contrary to the findings by N. R. Hemalatha⁶ who found 81.65% students preferring chalk & Board method for copying diagrams easily.

Overall, a trend was seen across all the study parameters regarding the choice of teaching aids that, the senior batch (2014) was more inclined towards traditional chalk & Board type of teaching while the junior (2015) batch preferred LCD. This could be because of the rare use of LCD during secondary & higher secondary schooling, which makes PPT, videos, sound clips animations look more attractive to them. But as they settle-in, they tend to realise the advantages of traditional chalk & board teaching, again. This trend concurred with the study findings of Sushama K. Chavanet. al.⁸

Conclusion: From this study it was found that senior students are more inclined towards conventional mode of learning through the use of Chalk & Board while the junior batch preferred LCD, which appears fancier to them, initially. To strike a balance, a combination of traditional and newer teaching aids should be ideally used by teachers.

For better interpretation and results which could be applied at university, state or national level, we recommend a wide spread multi-centric study in medical colleges all over the country, having representation from all strata of students, faculty and policy makers.

Acknowledgements: This study would not have been possible without the help of mycolleague Assistant Professors Dr. Rakesh D. Yeole& Dr Satish N Waghmare in the department of Physiology and my I MBBS students Mr. Manoj R Verma, Miss Shraddha R. Chaudhari, Mr Rishabh S Gupta, Mr. Ashwin A Rathod, Miss Asahi S Khan, who assisted me in data collection, processing and analysis.

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Conflict of interest: None
Funding: None
Cite this Article as: Shilpa G, Ashok K Perceptions Of First M.B.B.S Students Regarding Audiovisual Teaching Aids In Physiology. Natl J Integr Res Med 2016; 7(6): Page no: 51-54