<u>ORIGINAL RESEARCH</u>

# Effectiveness of conducting assessment (Multiple Choice Questions) at the end of Lecture on learning among I<sup>st</sup> phase MBBS students

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**ABSTRACT**
**Introduction:**Didactic lecture is the most common teaching tool. Lecture being teacher centered and students as passive listners, students don't concentrate during lecture and lose interest within few minutes.Conducting assessments at the end of lecture to check whether objectives of the lecture is achieved and knowledge is gained and retained by the students can be done.**Objectives:** To know1. The effectiveness of conducting assessment (MCQ) on learning among I<sup>st</sup> phaseMBBSstudents.2. Perception of students regarding conduct of MCQat the end of lecture. **Materials and Methods:** Study was conducted in the department of physiology M.R.Medical College, after obtaining Ethical committee clearance RPA201955. Written informed consent taken. Two groups-each group containing 50 students. Both groups attended the lecture andat the end of lecture MCQ test was conducted.It was a surprise test for Group Aand for Group B prior information about the MCQ test was given.In the next lecture vice-versa was done. Students were asked to give feedback through 7pointlikert scale to know their perception towards conduct of assessment at end of lecture on learning. **Results:** There was statistically highly significant difference of mean scores of surprise MCQmarks that was Group A and informed MCQ marks that was Group B in Test No. 1 ($p<0.01$).**Conclusion:** It increased the focus of students during lecture. Its outcome will improve the understanding of concepts in depth.**Discussion:** Students learn only if they are assessed. So, to keep students attentive, one of the ways is to conduct assessment at the end of lecture.
**Key words:**Learning, assessment

## INTRODUCTION
Assessment is an important link between teaching and learning[1].As it is known that assessment drives learning,it's very important to conduct assessments to help students learn[2]. Didactic lecture being a most common method of teaching it has its own disadvantage. Lectures are teacher centered and students are passive listeners[3]. Students lose focus and do not listen to lectures effectively mainly after the first 15 minutes[4]. To facilitate learning and improve the performance of students we need to conduct studies like Through assessment we can check whether students engaged in lecture resulted in the intendedlearning[1]. Multiple choice questions (MCQs) are being used nowadays as a tool of assessment[5].

MCQ is more preferred as it takes less time and can assess depth of understanding.

## OBJECTIVE
- To know the impact of MCQ on learning among Ist phase MBBS students.
- Perception of students regarding conduct of MCQ at the end of lecture.

## METHODOLOGY
- Study was conducted in theDepartment of Physiology, MRMC after obtaining Institutional Ethical Clearance.Study Design is Observational Study. Inclusion criteria150 Ist  Phase MBBS students were involved in the study after taking written informed consent. Students were divided

- into two groups by convenientsampling. Exclusion criteria-Students who were absent for the lecture.
- Two Lectures conducted separately in same week.Each lecture-1hr duration (40 mins lect, 15 mins for mcq test, 5 mins for distribution and collectingtest papers.

Group A attended the lecture and at the end oflecture a surprise MCQ test was conducted.Group B prior information about the MCQ test was given at the beginning of the lecture.

- In the next lecture Group A attended the lecture and this time to themprior information about the MCQ test was given at the beginning of the lecture.Group B surpriseMCQ test was conducted.
- Students were asked to give feedback through likert scale to know their perception towards the impact of MCQ on learning.
- Mean scores of MCQ test of both the groupswere analyzed statistically with the help of statistician and the SPSS 16.0 software.

## RESULTS

**Table1: Comparison between the groups**

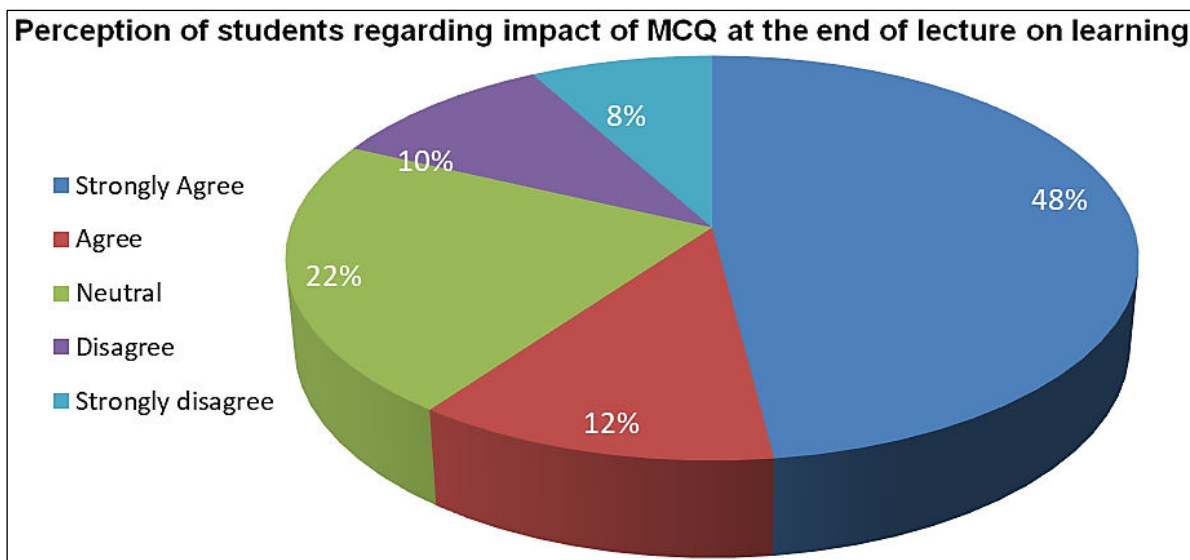| Tests | Groups | Scores Mean ± SD | t-test and P-value Significance |
|---|---|---|---|
| Test No.1 | Group A= A surprise MCQ Marks | 15.71 ± 3.90 | t = 3.693,P= 0.003 Highly Significant |
| | Group B = Informed MCQ Marks | 18.81 ± 4.31 | |
| Test No.2 | Group A= Informed MCQ Marks | 19.06 ± 4.39 | t = 2.276,P= 0.025 Significant |
| | Group B = A surprise MCQ Marks | 16.91 ± 4.83 | |
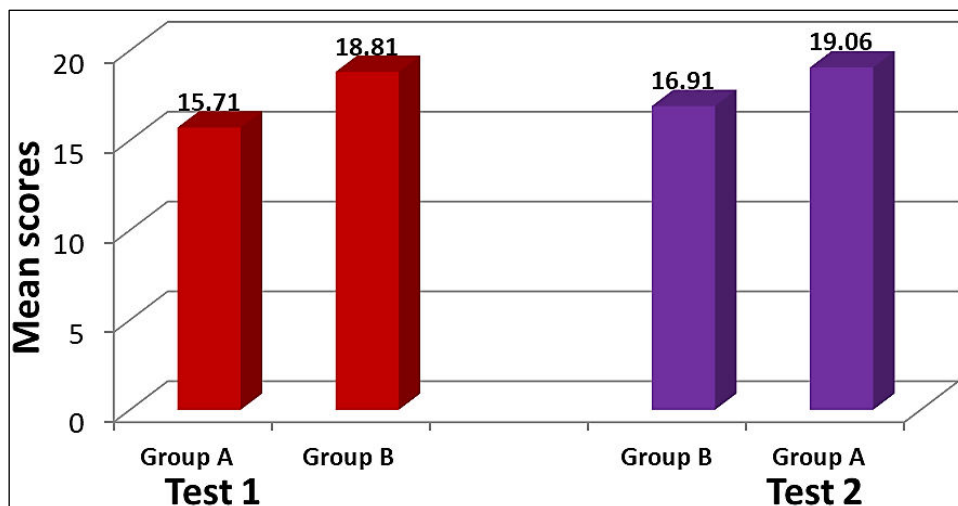


**Graph1:Bar diagram represents comparison of mean scores of group A and group B**

**Table2:Comparison tests**

| Groups | Tests | Scores Mean ± SD | t-test and P-value Significance |
|---|---|---|---|
| Group A | Test 1= A surprise MCQ Marks | 15.71 ± 3.90 | t = 3.952,P= 0.000 Highly Significant |
| | Test 2 = Informed MCQ Marks | 19.06 ± 4.39 | |
| Group B | Test 1= Informed MCQ Marks | 18.81 ± 4.31 | t = 2.028,P= 0.045 Significant |
| | Teat 2 = A surprise MCQ Marks | 16.91 ± 4.83 | |

**Table3: Comparison tests of similar category**

| Groups | Tests | Scores Mean ± SD | t-test and P-value Significance |
|---|---|---|---|
| Group A | Test 1= A surprise MCQ Marks | 15.71 ± 3.90 | t = 1.347,P = 0.181, Not Significant |
| Group B | Test 2 = A surprise MCQ Marks | 16.91 ± 4.83 | |
| Group A | Test 1= Informed MCQ Marks | 18.81 ± 4.31 | t = 0.281,P = 0.779, Not Significant |
| Group B | Teat 2 = Informed MCQ Marks | 19.06 ± 4.39 | |

Perception of students regarding impact of MCQ at the end of lecture on learning

## DISCUSSION

Assessment plays a very important role in effective learning. For large group teaching didactic lectres are still the prefered mode of teaching method. Students being passive listeners, keeping them focusedis a challenge.Like many innovative and interactive teaching methodsis being tried, assessment can also be used as atool for effective learning.Stdents knowledge can be assessed by conducting tests, which also improves longterm memory. Class related information which can be retained by condcting tests is called as testing effect.[3, 6,7] MCQ helps in retention learning in detail. [8]Lectures being a passivemethod shouldbe made more interactive and dynamic by adding MCQ, which results in positive inflence and effective learning.[9]

Comparison of mean scores of MCQ test of both groups showed a statistical significance. Students perception was positive towards conduct of MCQ at end of lecture MCQ assessment at the end of lecture had an impact on learning. It increased the focus of students during lecture. Its outcome will improve the understanding ofconcepts in depth. Considering its long term outcome it will improve the overall performance of the students and make them confident.

## CONCLUSION

To facilitate learning we have to conduct assessment at the end oflecture as students learn only if they are assessed.ASSESSMENT DRIVES LEARNING.We should considerASSESSMENT FOR LEARNING.

**CONFLICT OF INTEREST:** None declared.

**ETHICAL APPROVAL:**The study was approved by the Institutional Ethics Committee.

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