



STUDENT PERCEPTION REGARDING USING OF MCQ'S (MULTIPLE CHOICE QUESTIONS) AS A CLASSROOM ASSESSMENT TECHNIQUE.

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INTRODUCTION

Student's assessment is one of the important concern in medical education. The assessment techniques has been categorized as diagnostic, formative and summative assessment. All forms of assessment are preparing the students to gain the required cognitive skills of a subject that will be useful in their practical applications.¹ An ongoing approach of summative assessment in which students would be assessed at the end of the module does not provide the assurance of a quality of learning as well as the instruction during the module. The student's discipline in the classroom is also a questionable issue throughout the module.

Class room assessment is one of the significant tool directing both the students and the instructor towards maintaining a vigorous learning environment in the class.² The idea of the classroom assessment was first familiarized

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ABSTRACT... Objectives: To find out the students perception on using multiple choice questions as a classroom assessment technique. **Study Design:** Cross sectional Study. **Setting:** University of Hail, Saudi Arabia. **Period:** 6 months from January 2018 to June 2018. **Material & Methods:** At the end of each scheduled class, students are provided with four MCQ's on the same topic which was delivered in the lecture and 3 minutes were given to solve the MCQ's. Data was collected from 4th and 6th year MBBS students. A self-structured questionnaire regarding class assessment techniques was also administered, after completion of Surgery and Clinical Skill module. **Results:** Out of 80 MBBS students, 50% were selected from 4th year and 6th year respectively. Response of most of the students were positive 59 (73.8%) in classroom assessment techniques effects on student discipline. Majority of the student's 70 (87.5%) respond positive effects on student's interest to subject and 64 (80%) reported positive effects on student's assessment. Suggestion about participating classroom assessment technique were found to be positive in 61 (76.2%). Data was analysed by using SPSS version 20. **Conclusion:** Student's perception on using multiple choice questions as a classroom assessment technique was found to be more positive.

Key words: Classroom, Multiple Choice Questions, Student's Perception.

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by Stiggins and Conklin in 1992.³ It appears to be desirable in front of medical educators to enhance the activity of classroom assessment in order to improve the quality of student learning during the whole module specially for the low grade learners.⁴ Many Institutional studies were Addressing the necessity, guidelines and day to day application of using classroom assessment as key to success in student learning process.^{5,6} Practicing CAT in classes of all courses is little bit a challenge because of subject matter and time frame of a class. With this view the study was designed to get the feedback of the medical student regarding the classroom assessment.

Presently most commonly used assessment technique in medical education is multiple choice questions (MCQs).⁷ High level national and international exams are also using MCQs formats instead of using other formats like true false, extended matching questions or short

essay questions.⁸ Ideally a careful construction of the items are required to in these areas to avoid any major impact in the students' performance.⁹ On these basis we always as a part of medical education think about the ease and necessities provide to the students to avoid any difficulties they face regarding their assessment. There were some suggestions regarding the active involvement of the students in their learning.¹⁰ Having this background we design a study to assess the student perception regarding the benefit they get on using of MCQ's as a class assessment technique in regular surgery classes.

MATERIAL & METHODS

It is an observational cross sectional study. The data was collected by a self-design questionnaire as shown in figure. All protocols were approved by the institutional ethical review committee. Full assurance of privacy in the personal feedback.

In this study lectures were delivered in 4th year MBBS students and 6th Year MBBS students on regular scheduled surgical classes. At the end of lecture an assessment was done using MCQ's on the related topic which was delivered in the lecture and 3 minutes were given to solve it. All lectures were taken in the same way. After completion of their module of Surgery and Clinical Skill, a questionnaire was provided to students of same classes consists of twenty Questions. The questionnaire was categorized on the basis of Students perception on the class discipline, their interest to subject, their summative assessment and practicing of the same strategy in other sessions as well. Five dichotomous question were design for each category. Student binary response was recorded in terms of "Yes" and "No". Data was analyzed by using SPSS version 20. Frequency and percentages of all variables were calculated.

CAT effects on student discipline			
Q. No 1	Do you stay more attentive towards lecture?	Y	N
Q. No 2	Do you think majority of students Stay alert during session?	Y	N
Q. No 3	Does it reduce the feelings of isolation?	Y	N
Q. No 4	Does it improve the interaction among the students?	Y	N
Q. No 5	Does it improve the interaction between the students and teacher?	Y	N
CAT effects on student's interest to subject			
Q. No 6	Are you showing your interest in your classroom?	Y	N
Q. No 7	Are you more caring about the success for the course?	Y	N
Q.No.8	Absorption of knowledge is more as Compare to other lectures?	Y	N
Q.No.9	Does it increase ability to think critically about the course content?	Y	N
Q.No.10	Do you retain more knowledge because of this activity?	Y	N
CAT effects on student's Assessment			
Q.No.11	Does It help in developing self-assessment	Y	N
Q. No 12	Is it a good tool for continuous Assessment of a student?	Y	N
Q. No 13	Can it be helpful for exam preparation?	Y	N
Q.No.14	Does it help in quick memorization of the course?	Y	N
Q.No.15	Can it improve your result?	Y	N
Suggestion about practicing CAT			
Q.No.16	Can we use this technique before the class for previous lecture?	Y	N
Q.No.17	Can we use this technique at the end of the class for given lecture?	Y	N
Q.No.18	Do you suggest this idea should be Adopted after each session?	Y	N
Q.No.19	Do we have this practice in labs as well?	Y	N
Q.No.20	Is it easy to response to this assessment technique?	Y	N

RESULTS

A total of 80 students completed the CAT questionnaire with equal distribution of students from forth year and sixth year MBBS students i.e. 40 (50%) each.

Table-I shows the CAT effects on student discipline and on student's interest to subject. Response of most of the students were positive 59 (73.8%) in assessment techniques i.e. does it improve the interaction between the students and teacher, does it improve the interaction among the students 55 (68.8%), does it reduce the feelings of isolation 51 (63.8%), do you stay more attentive towards lecture 47 (58.8%) and do you think majority of students stay alert during session 30 (37.5%) in the domain of student discipline.

Majority of the student's 70 (87.5%) respond positive effect on assessment technique i.e. are you more caring about the success for the course; while other techniques i.e. does it increase ability to think critically about the course content 61 (76.2%), do you retain more knowledge because of this activity 57 (71.2%), absorption of knowledge is more as compare to other lectures 45 (56.2%) and are you showing your interest in your classroom 42 (52.5%) were marked positive in domain of classroom assessment technique

effects on student's interest to subject.

Figure-1 shows the CAT effects on student's assessment. Positive response were reported by students in assessment techniques i.e. does it help in developing self-assessment 64 (80%), can it be helpful for exam preparation 62 (77.5%), can it improve your result 56 (70%), does it help in quick memorization of the course 55(68.8%) and is it a good tool for continuous assessment of a student were shown positive by 45 (56.3%) in domain of CAT effects on student's assessment.

Figure-2 shows the suggestion of students regarding participation in classroom assessment technique.

The frequency of positive suggestion were; is it easy to response to this assessment technique 61 (76.2%), can we use this technique before the class for previous lecture 56 (70%), do we have this practice in labs as well 53 (66.8%), can we use this technique at the end of the class for given lecture 52 (65%) and do you suggest this idea should be adopted after each session were positive in 51 (63.8%).

CAT Effects on Student Discipline	Classroom Assessment Techniques	Yes		No	
		N	%	N	%
CAT Effects on Student Discipline	Do you stay more attentive towards lecture	47	58.8	33	41.2
	Do you think majority of students stay alert during session	30	37.5	50	62.5
	Does it reduce the feelings of isolation	51	63.8	29	36.2
	Does it improve the interaction among the students	55	68.8	25	31.2
	Does it improve the interaction between the students and teacher	59	73.8	21	26.2
CAT Effects on Student's Interest to Subject	Are you showing your interest in your classroom	42	52.5	38	47.5
	Are you more caring about the success for the course	70	87.5	10	12.5
	Absorption of knowledge is more as compare to other lectures	45	56.2	35	43.8
	Does it increase ability to think critically about the course content	61	76.2	19	23.8
	Do you retain more knowledge because of this activity	57	71.2	23	28.8

Table-I. Frequency distribution of classroom assessment technique on student discipline and student's interest to subject

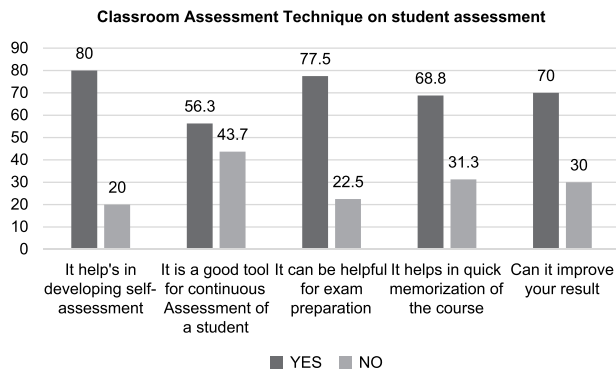


Figure-1. Classroom assessment technique on student assessment.

DISCUSSION

This study was designed to assure the perception among the students of practicing CAT especially by using MCQ's. All assessments formats are prerequisite to achieve the targeted learning goals. Study shows that the various kinds of assessment is one of the contributor in the student learning.⁶ The practice of classroom assessment techniques are more preferable in motivating and focusing the students towards learning process and also provide the directions to the instructors towards conveying the updated required knowledge.

The results of this study highlighted the general perception of the students more positive for the practicing class room assessment as it improves the student discipline, interest to subject and helpful for their final assessment. The results of student perception is similar to one of the study conducted but the difference was the positive response of females more than the male students.¹¹ An Institutional Study revealed the positive student's response in terms of practicing the classroom assessment.¹²

Many standard techniques have been mentioned in the literature to assess the student in the class but our study mention the importance of MCQ's to be used as a classroom assessment technique in the view of present exams scenarios. Student are fond of having practice of those assessment technique which help us in both learning and final assessment process. We could not found any data available in the literature using our technique

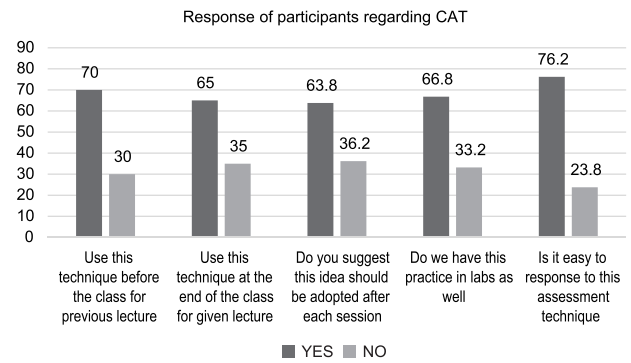


Figure-2. Suggestion of students regarding classroom assessment technique.

as CAT. Although this is the weakness of our study but it might generate a thought among the medical educators.

CONCLUSION

This study revealed the importance of using the classroom assessment as regular tool in the students learning process. Secondly Student's perception was found more positive in terms of using classroom assessment technique.




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REFERENCES

1. Epstein RM. **Assessment in medical education.** N Engl J Med. 2007; 2007(356):387-96.
2. Marzano RJ. **Classroom assessment & grading that work:** ASCD; 2006.
3. Stiggins RJ, Conklin NF. **In teachers' hands: Investigating the practices of classroom assessment:** SUNY Press; 1992.
4. Stiggins R, Chappuis J. **Using student-involved classroom assessment to close achievement gaps.** Theory into practice. 2005; 44(1):11-8.
5. Cheng L, Wu Y, Liu X. **Chinese university students' perceptions of assessment tasks and classroom assessment environment.** Language Testing in Asia. 2015; 5(1):13.
6. Hao S, Johnson RL. **Teachers' classroom assessment practices and fourth-graders' reading literacy achievements: An international study.** Teaching and Teacher Education. 2013; 29:53-63.
7. Moss E. **Multiple choice questions: Their value as an assessment tool.** Current Opinion in Anesthesiology. 2001; 14(6):661-6.

8. Melnick DE, Dillon GF, Swanson DB. **Medical licensing examinations in the United States.** Journal of dental education. 2002; 66(5):595-9.
9. Thompson AR, Kelso RS, Ward PJ, Wines K, Hanna JB. **Assessment driven learning: the use of higher-order and discipline-integrated questions on gross anatomy practical examinations.** Medical Science Educator. 2016; 26(4):587-96.
10. Scouller KM, Prosser M. **Students' experiences in studying for multiple choice question examinations.** Studies in Higher Education. 1994;19(3):267-79.
11. Alkharusi H. **Development and datametric properties of a scale measuring students' perceptions of the classroom assessment environment.** Online Submission. 2011;4(1):105-20.
12. Mussawy SAJ. **Assessment practices: Student's and teachers' perceptions of classroom assessment.** Master's Capstone Projects. 2009;9.

AUTHORSHIP AND CONTRIBUTION DECLARATION

Sr. #	Author(s) Full Name	Contribution to the paper	Author(s) Signature
1	Saeed Ahmed	Concept design, Data collection, Initial Draft.	
2	Nabeel Qamar	Manuscript writing.	
3	Naveed Mansoori	Data analysis	
4	Sajila Bano	Result compilation.	