

# Student Opinion about Structured Essay Question as an Option to Conventional Long Answer Questions in MBBS Exams

Shilpa S. Gupta<sup>1</sup>, Snehal Kulkarni<sup>2</sup>,

Assistant Professor<sup>1</sup>, Associate Professor<sup>2</sup>,  
Department of Physiology,  
GMC, Nagpur<sup>1</sup>, SVNGMC<sup>2</sup>, Yavatmal, Maharashtra

**Abstract: Introduction:** Long answer questions (LAQs) are generally used for assessment of complex learning like writing skills, ability to critically explain and present arguments, and to assess student's understanding of subject. This cannot be assessed properly by other means of assessment. LAQs however, leave room for subjectivity and bias in assessment. On the contrary, structured essay questions (SEQs) tests majority of the aspects that a LAQ does yet minimizes examiner subjectivity and enhances student answer specificity, owing to its format. **Materials & Methods:** This is a prospective Interventional study conducted on second semester, I year MBBS students in Department of Physiology, SVNGMC, Yavatmal. The students were divided into two equal groups using their roll numbers for administering LAQ & SEQ tests. All second semester I MBBS students present on the days of data collection were included in the study and were divided into 2 equal groups; one with all the students having odd roll number and other with even roll numbers. A written tests comprising either 2 SEQs or 2 LAQs per test were allotted to either odd or even roll number group, randomly by use of toss. The control group was administered 2 conventional long answer questions on the same topic in physiology. The time allotted was 40 minutes for administering the questions. This was repeated 3 times by switching the groups. **Observations & Results:** There were 148 who participated in the study. Students scored significantly better when evaluated using SEQs than by LAQs. 19% students felt that SEQs are good for high scoring in exams and 89% opined that SEQs will eventually replace LAQs in university level exams. Almost 40% students agreed that LAQs are better than SEQs, while 32% of them agreed that examiner bias & subjectivity is reduced with SEQs and 80% agreed that SEQs help to increase exam score and 72% of the Students agreed that SEQs assess true knowledge. **Conclusions:** The result of the study is encouraging and points towards future shift towards SEQs. However further wide based studies should be undertaken to confirm the results and to recommend it to universities to replace conventional LAQs with SEQs as it is done in western countries and even some health science universities in India.

**Key words:** LAQ, SEQ, Student opinion

## Introduction:

Medical education has always had challenges with choice and implementation of assessment methods. For testing of higher-order of interpretation skills and thought process, open-ended, descriptive/ essay, structured questions are considered useful. These descriptive questions may be in the form of conventional long essay questions (LEQs), modified essay questions (MEQs) and structured essay questions (SEQs). Long essay questions are unstructured and are used for assessment of complex learning and to assess student's understanding of subject-matter.<sup>1</sup> Essay questions provide a lot of scope for student creativity and individuality in the approach; however, it leaves a room for subjectivity in assessment.<sup>2</sup>

However, subjectivity and inter-examiner variation and bias have been the highlight of most such examinations. There have been attempts to improve and increase the objectivity of written examination by the introduction of structured essay questions (SEQs) by very few institutes.<sup>3</sup>

The scores obtained by the student usually reflect the overall performance of the student in the theory examination as per the perception of evaluator about weightage of subtopics within a SEQ.<sup>4</sup>

It is with this view in mind that educationists have been trying to devise ways by which writing & interpretational skills can be evaluated using an objective tool.<sup>5</sup>

## Aim :

To study student opinion about structured essay question as an option to conventional long answer questions in MBBS exams.

## Objectives:

- To obtain students perception about the advantages of SEQs over LAQs
- Based on study findings, recommend inclusion of SEQs in university exams as a routine, instead of LAQs.

**Materials & Methods:**

Prospective, Interventional study conducted on I year second semester MBBS students in Department of Physiology, SVN GMC, Yavatmal after necessary approvals from institutional ethical committee. The data collection was done in one month time.

Amongst 150 students of I MBBS those present on the days of data collection and willing to participate in the study were included in the study. A written tests comprising either 2 SEQs or 2 LAQs per test were allotted to either odd or even roll number student group, randomly by use of toss. The control group was administered 2 conventional long answer questions on the same topic in physiology. The time allotted was 40 minutes for administering the questions. This process was repeated 3 times with different sets of questions to minimise error in assessment of the answers by switching the groups using cross over design. All the students were assigned feedback forms to know their perception about the formats of questions.

A feedback-form, validated by faculty of SHBER, Sawangi was administered to the students comprising of open and closed ended questions having responses on five point Likert's scale.<sup>6</sup> The responses were grouped according to similarities in responses and were analysed using percentages and presented in tabulated form, pie charts and bar diagrams.

**Observation & Results:**

The students for different tests were different. Therefore the total number of students who participated in the study were 148 out of 150.

Students when asked if SEQs will eventually replace LAQs in university examinations, most of them i.e. 89% opined positively.

Students in this study, when asked if SEQs will eventually replace LAQs in university examinations, most of them i.e. 89% opined positively. In Telanganastudy, the students significantly higher scores in SEQs than the unstructured LAQs, suggests a need for introducing SEQs for better evaluation of students in examinations at all levels.<sup>7</sup>

The students were asked if they feel that conventional LAQs are better than SEQs, 27% remained neutral while 16.7% and 23% agreed strongly and agreed respectively. Almost 33% students disagreed that LAQs are better than SEQs.

In Tamil Nadu study, SEQs was preferred over LAQs by

most of the students as they are enjoyable, less time consuming and is free of evaluator bias. However, LAQ was considered by more than 75.5% (105/139) of students to cover greater spectrum of content against only 24.5% (34/139) of the students, who preferred SEQ. (1) Similar to this study, almost 39% students preferred SEQ over LAQ in a study done In Multan, Pakistan.<sup>3</sup>

Students when asked if SEQs decrease Examiner bias and thus subjectivity, almost 42%(63) disagreed while 25% remained neutral. 32% of them agreed that SEQs examiner bias & subjectivity is reduced by SEQs. The results are in contrast to Tamil Nadu study findings in which, almost 58% (49/86) students preferred SEQ over LAQ<sup>1</sup>. A debate published in BMC Medical Education, the author opines that in un structured questions, the marking will be inherently subjective and we would face the problem of subjectivity and low reliability.<sup>8</sup>

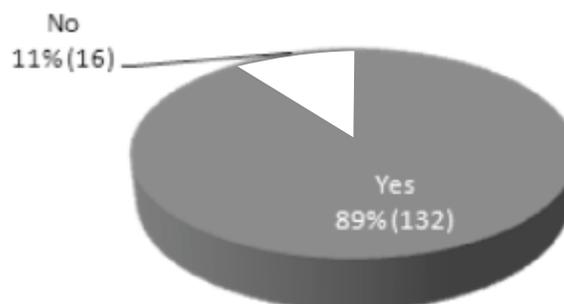
The students when asked if they agree that SEQs help to increase exam score, most of them i.e. almost 80% agreed this result matched with the findings of Tamil Nadu study where almost 80% (78/97) students felt that, they could fetch more marks through SEQs.<sup>1</sup>

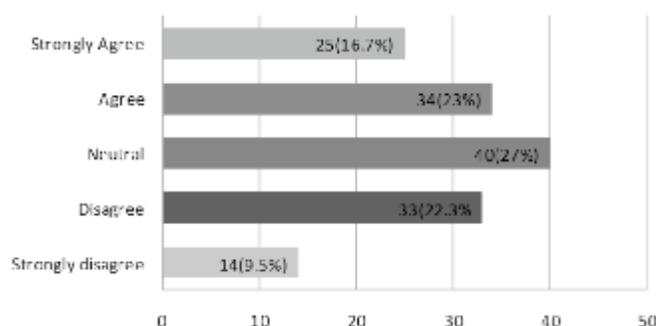
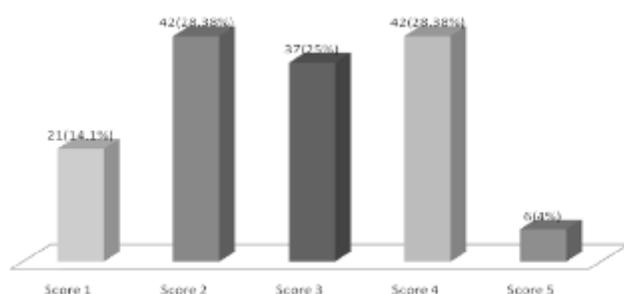
Most i.e. 72% of the Students disagreed that SEQs do not assess true knowledge. 12.84% remained neutral while 15% agreed to this outcome. Similar findings were seen in Telangana study, in which the students administered with structured essay questions were more comfortable in answering structured essay question as they could answer more appropriately than the unstructured question.<sup>7</sup>

**Table No.I: Test-wise Distribution of Present Students**

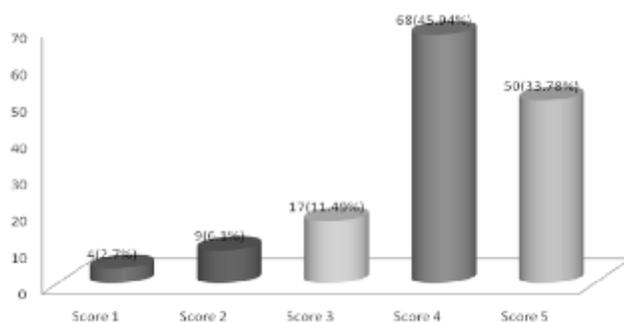
Test No.	Number of Students Present		
	LAQ	SEQ	Total
<b>Test 1(T1)</b>	68	68	136
<b>Test 2 (T2)</b>	71	68	139
<b>Test 3 (T3)</b>	67	71	138

**Graph No. 1: Student Opinion if SEQs will replace LAQs in University Examinations (n=148)**



**Graph No. 2: Student Opinion if Conventional LAQs are better (n=148)****Graph No. 3: Student Opinion That SEQs Decreases Examiner Bias and Subjectivity (n=148)**

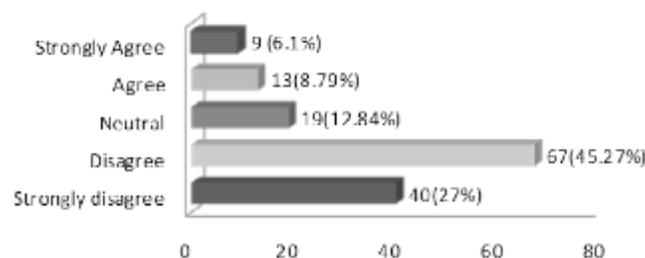
1 = Strongly disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly agree

**Graph No. 4: Student Opinion That SEQs Increases Exam Scores**

1 = Strongly disagree, 2 = Disagree, 3 = Neutral, 4 = Agree, 5 = Strongly agree

**Conclusions:**

According to the test results, the majority students opined that SEQs will eventually replace LAQs in university examinations. However, the students were mostly neutral about advantages of SEQs over LAQs and opined that SEQs increase exam scores and assess true knowledge. Further wide based studies should be undertaken as to

**Graph No. 5: Student Opinion That SEQs do not Assess True Knowledge**

confirm the results and to recommend it to universities to replace conventional LAQs with SEQs as in western countries and even some health science universities in India.

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**Corresponding Author:**

**Dr. Shilpa S. Gupta**

C/o Dr Sagar Chimalwar,  
29, New Amar Nagar,  
Chikhali Layout, New Amar Nagar,  
Nagpur -  
Maharashtra  
Email: drshilpagupta14@gmail.com

