

## IMPORTANCE OF STUDENT FEEDBACK IN MEDICAL EDUCATION: A STUDY USING ONLINE APPLICATION

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### ABSTRACT

**Background:** Student Evaluations of Teaching are the most consistently administered tool to assess teaching performance and effectiveness. The context in which learning takes place is pivotal to a positive learning experience for students. Although numerous studies have established strong links between a positive learning environment and a range of student outcomes, far less research has examined how teachers might establish such an environment. **Aim:** to investigate the significance of student feedback in medical education using an online application. **Materials and Methods:** 150 students studying in MBBS Phase I were included in the study after obtaining written consent. 20 questions were given to the participants using KAHOOT online software. Responses were tabulated and analysed. **Results:** Majority of participants had responded in positive manner to each question. Few participants (26%) chose to opt out of the study. **Conclusion:** The current study concludes that students' responses to feedback are useful, effective, and timely.

## INTRODUCTION

The global quality movement advocates for accountability in all aspects of higher education, with a focus on student-centered learning. As part of their demand for quality education, students require feedback from their assessments. Thus, feedback provided during formative assessment is an important aspect of institutions' 'Quality Accountability,' and it improves student satisfaction and learning in tutorials.<sup>[1]</sup> It enables students to understand "what they have accomplished" and "how far they are from their learning objectives."<sup>[2]</sup> In India, a medical college is an educational institution that provides education and training in all aspects of medical care. Evaluation, which is an essential component of medical education teacher evaluation, has become widely recognized as a valuable input for improving teaching quality.<sup>[3,4]</sup>

These systems for evaluating teaching and course quality in medical education have long been established in the Western world, but they are not widely used in our country. Recently, there has been an increase in interest in this area from a variety of different perspectives, driven both internally by institutions and externally by national quality initiatives.<sup>[5]</sup> Classroom feedback represents the most

common source of input for teaching evaluation. In fact, student ratings are an important source of evidence for teaching effectiveness, and gathering student feedback is a routine trend in most institutions.<sup>[6,7]</sup>

Feedback can be defined as a process that begins with information communication and ends with reactions to that communication. It has been defined as specific information about the difference between a trainee's observed performance and a given standard, with the goal of improving the trainee's performance.<sup>[8,9,10]</sup> Feedback is an essential component of medical education because it encourages and improves learners' knowledge, skills, and professional performance. It aids in the improvement of learners' performance with the primary goal of assisting them in meeting their objectives in addition to the educational objectives.

Feedback provided during formative assessment assists students in closing the gap between their current and desired performance, thereby improving their learning and satisfaction. Feedback must be effective and timely in order to have a positive impact.<sup>[11,12]</sup> The COVID-19 pandemic has disrupted education in a number of institutions. It has put academic institutions to the test in terms of their ability to deal with such a sudden crisis. During the

pandemic, online learning has become the primary method of instruction. As a result, the current study was designed to investigate the significance of student feedback in medical education using an online application.

## MATERIALS AND METHODS

This was an institution based cross sectional study conducted at Anatomy department of Chirayu medical college and hospital Bhopal Madhya Pradesh. The study duration was from January 2021 to June 2021. 150 participants were included in the study.

### Inclusion Criteria

All students of MBBS Phase I, including male and female students, studying in Chirayu Medical College and Hospital, Bhopal, admitted in academic year 2020-2021 were included in the study. Students who agreed to volunteer in the study were included.

### Exclusion Criteria

Students of MBBS Phase I who did not volunteer to be a part of the study.

By using purposive method, total 150 students of MBBS Phase I, were enrolled in the present study. Out of 150, 111(74%) were included in the study and were present on the day of feedback and 39(26%) didn't show up for study. The whole procedure was explained to students and a written consent was obtained from them, both in English and Vernacular. They were asked to bring their mobile phones for

feedback response. The questions were created by investigator and discussed with other staff members before finalising the study procedure. Feedbacks for different topics taught by different faculty in the department of Anatomy were evaluated through these questions.

The 20 questions were typed in KAHOOT Online platform used for the study and all questions were compulsory to answer by study participants. The link for tests was generated and shared to study participants by different social media platforms available. They were provided 60 seconds time to record their response. The data was compiled in MS-excel sheet for statistical analysis.

### Ethical considerations

Necessary approval was obtained from the Research committee and Institutional Human Ethics Committee before proceeding with the research.

## RESULTS

The study included 111 first-year medical students. Twenty questions were typed and uploaded to the online platform KAHOOT and the link was shared to study participants. The responses from the feedback form were converted into an excel spreadsheet for statistical analysis. The findings were presented in frequency distribution format and mean SD as a central tendency measure using the free online Medcalc software.

**Table 1: Average response of the participants for each question**

| S.No | Study Questions   | Disagree (n=111) | Strongly Disagree (n=111) | Agree (n=111) | Strongly Agree (n=111) | Non respondents (n=111) |
|------|---|------------------|---------------------------|---------------|------------------------|-------------------------|
| 1    | The instructor spoke clearly  | 00(0%)           | 02(1.8%)                  | 33(29.7%)     | 73(65.7%)              | 03(2.7%)                |
| 2    | The instructor seemed to be interested in teaching  | 02(1.8%)         | 01(0.9%)                  | 32(28.8%)     | 72(64.8%)              | 04(3.6%)                |
| 3    | The instructor was enthusiastic when presenting the course material                             | 02(1.8%)         | 04(3.6%)                  | 50(45.1%)     | 49(44.1%)              | 06(5.4%)                |
| 4    | The instructor seemed to be concerned with whether the student learned the material             | 00(0%)           | 03(2.7%)                  | 43(38.7%)     | 62(55.8%)              | 03(2.7%)                |
| 5    | The instructor's presentation allowed you to take notes   | 09(8.1%)         | 02(1.8%)                  | 47(42.3%)     | 49(44.1%)              | 04(3.6%)                |
| 6    | The objectives of the course were made clear to you   | 04(3.6%)         | 03(2.7%)                  | 33(29.7%)     | 68(61.2%)              | 03(2.7%)                |
| 7    | The instructor appeared to relate the topic concepts in a systematic manner                     | 01(0.9%)         | 00(0%)                    | 28(25.2%)     | 77(69.3%)              | 05(4.5%)                |
| 8    | The instructor's use of examples or personal observations helped to explain the material        | 14(12.6%)        | 01(0.9%)                  | 44(39.6%)     | 42(37.8%)              | 10(9%)                  |
| 9    | The instructor related the course material sufficiently to a clinical application of principles | 02(1.8%)         | 00(0%)                    | 34(30.6%)     | 71(63.9%)              | 04(3.6%)                |
| 10   | The material was well organised   | 04(3.6%)         | 00(0%)                    | 44(39.6%)     | 61(54.9%)              | 02(1.8%)                |
| 11   | The instructor generally presented the material too rapidly                                     | 42(37.8%)        | 37(33.3%)                 | 18(16.2%)     | 07(6.3%)               | 07(6.3%)                |
| 12   | The instructor attempted to cover too much material   | 55(49.5%)        | 22(19.8%)                 | 19(17.1%)     | 08(7.2%)               | 07(6.3%)                |
| 13   | The instructor asked class questions  | 02(1.8%)         | 00(0%)                    | 33(29.7%)     | 73(65.7%)              | 03(2.7%)                |
| 14   | The instructor answered class questions   | 05(4.5%)         | 00(0%)                    | 42(37.8%)     | 60(54.0%)              | 04(3.6%)                |
| 15   | The answers were clear  | 02(1.8%)         | 03(2.7%)                  | 35(31.5%)     | 63(56.7%)              | 08(7.2%)                |
| 16   | You were interested in learning the course material because of the instructor's enthusiasm      | 13(11.7%)        | 07(6.3%)                  | 48(43.2%)     | 37(33.3%)              | 06(5.4%)                |
| 17   | You were interested in learning course material only because of your own determination to pass  | 13(11.7%)        | 19(17.1%)                 | 23(20.7%)     | 35(31.5%)              | 21(18.9%)               |

|    |   |          |          |           |           |          |
|----|---|----------|----------|-----------|-----------|----------|
| 18 | The instructor appeared receptive to new ideas and other viewpoints | 08(7.2%) | 01(0.9%) | 51(51.3%) | 40(36.0%) | 11(9.9%) |
| 19 | You generally enjoyed the lectures                                  | 10(9%)   | 03(2.7%) | 56(50.4%) | 37(33.3%) | 05(4.5%) |
| 20 | Overall evaluation of this instructor                               | 02(1.8%) | 00(0%)   | 26(23.4%) | 77(69.3%) | 06(5.4%) |

## DISCUSSION

A feedback system that assists students in meeting their learning objectives is an essential component of a student-centered curriculum. Feedback from an outside source is said to play an important role in assisting learners to reflect on their own abilities and motivating them to work on identified deficiencies. Such self-evaluation through reflection serves as the foundation for skill development through training. Thus, feedback has the potential to improve performance by assisting in the acquisition of brilliance in clinical, communication, and other professionally relevant skills.

In the present study 1st professional MBBS students found feedback system to be useful and effective, as they experienced high level of interaction with teachers, got their doubts clarified and felt motivated to improve performance during feedback sessions. In the present study, students perceived feedback to be well in time. Importance of timeliness of feedback to make it relevant has always been stressed.

Timely feedback is beneficial because it allows for the implementation of corrective actions and reinforcement of corrected behaviours during practise. As a result, feedback has a positive effect on performance. Indeed, feedback has long been recognised as having the greatest influence on student achievement. This is most likely why the skill of providing feedback to students' is regarded as a key benchmark in effective teaching and supervision. Students consider feedback to be an important indicator of not only good teaching but also of clerkship quality. The majority of students in the current study reported positive effects from teacher feedback. Several other studies have shown that providing feedback to medical students about their competencies is a powerful motivator, significantly increasing their satisfaction. A large percentage of current students wanted the responsibility of giving feedback to continue in the future.

According to the findings, students value effective and timely feedback because it plays an important role in their learning. The study's strength was that the feedback was provided via an online platform, which was convenient, and they were sensitised before beginning feedback sessions. Students participated actively in feedback sessions. Students found feedback to be so beneficial to their learning that they not only recommended that the process be continued in the anatomy department, but also suggested that other departments follow the lead.

According to the findings, students value effective and timely feedback because it plays an important role in their learning. The study's strength was that the technique for providing feedback was an online platform that was easy to use, and they were

sensitised before beginning feedback sessions. Students actively participated in feedback sessions. Students found feedback to be so beneficial to their learning that they not only wanted the process to be continued in the anatomy department, but also suggested convincing other departments to do the same.

## CONCLUSION

The current study concludes that students' responses to feedback are useful, effective, and timely. Students perceived the feedback to be both corrective and encouraging. One of the most important factors was the timely delivery of feedback. The majority of students wanted the feedback process to continue throughout the session because the effect of feedback was encouraging. The study's limitation is that it was conducted on first-year professional medical students in an Anatomy Department at a single institution. The method of providing feedback and the attitudes of students and teachers toward it may differ from one institution to the next and even from one department to the next within the same institution. As a result, the findings of this study may not be applicable to everyone. So, the results of the present study may not necessarily apply to all the learning environments.

**Conflicts of interest:** None

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