

MEDICAL STUDENTS' FEEDBACK ABOUT FORMATIVE ASSESSMENT PATTERN

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ABSTRACT

BACKGROUND

Pharmacology is the toughest subject in the II MBBS syllabus. Students have to memorise a lot about the drugs' name and classification. We are conducting internal assessment exams after completion of each system. Number of failures will be more than 60% in the internal assessments conducted during first six months of II MBBS course.

AIM

To assess the formative assessment pattern followed in our institution with the students' feedback and modify the pattern according to the students' feedback.

SETTINGS & DESIGN

Prospective Observational Study conducted at Department of Pharmacology, Government Sivagangai Medical College, Sivagangai, Tamil Nadu.

MATERIALS AND METHODS

Questionnaire was prepared and distributed to the 300 students of Government Sivagangai Medical College and feedback was collected. Data collected was analysed in Microsoft Excel 2007 version.

RESULTS

Received feedback from 274 students. Most (80%) of the students wanted to attend the tests in all systems. Monthly assessment test was preferred by 47% of the students. Students who preferred to finish tests before holidays was 57%. Most (56%) of the students preferred tests for 1 hour. Multiple choice question (MCQ) type was preferred by 43%, which is not a routine question pattern. Only 7% preferred viva. Recall type of questions was preferred by 41% of the students.

CONCLUSION

In our institution, internal assessment is conducted as per the students' mind setup. As the feedback has been the generally followed one, we will add MCQs in the forthcoming tests. Application type questions will be asked for more marks than Recall type of questions.

KEYWORDS

Formative Assessment, Application Type, Recall Type.

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INTRODUCTION: Pharmacology is the toughest subject in the II MBBS syllabus. Students have to memorise a lot about the drugs' name and classification. We are conducting internal assessment exams after completion of each system. Number of failures will be more than 60% in the internal assessments in general pharmacology, autonomic nervous system and central nervous system topics. Teaching methodology followed by faculties in our department was analysed. Students feel the standard of teaching is high. Some of them have language problem. We have started doing necessary corrections in teaching methodology.

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Formative assessment is intended primarily to foster learning and to help students develop under conditions that are non-judgmental and non-threatening. It has the potential to support and encourage the student.¹ Formative assessments are designed for the purpose of giving feedback on performance and suggestions for improvement, and are intended to promote students' learning. Formative assessment should also provide opportunities for students to develop familiarity with summative instruments, so that their performance at summative assessment is not adversely affected.²

AIM & OBJECTIVE: To assess the formative assessment pattern followed in Government Sivagangai Medical College with the medical students' feedback and modify the pattern according to the students' feedback.

MATERIALS AND METHODS: This prospective observational study was conducted in Government Sivagangai Medical College from August 2015 to September 2015 after getting willingness from the students for participation in the study. College was started on 2012.

Informed consent and Institutional Ethical Committee approval was got. All the 300 students were included. Routinely, we are conducting tests once in a month, 15 days after completion of every system, for 1 hour.

Pretested and structured questionnaire (each question with tick box format with area for written explanation wherever needed) was distributed to the students. Instructions to fill up was given to all the students. 15 minutes time was given to each student and questionnaire was collected.

Data collected was analysed in Microsoft Excel 2007 version.

RESULTS: Out of three hundred, two hundred and seventy four (91%) students had responded to the questionnaire. Ninety (33%) students of I MBBS, ninety four (34%) students of II MBBS & ninety (33%) students of III MBBS had responded.

Two hundred and nineteen (80%) students wanted to attend the tests in all systems. Fifty two (19%) wanted to skip tough topics.

One hundred and nineteen students (47%) wanted to have a monthly assessment. Very few wanted to have a fortnightly test (Fig -1).

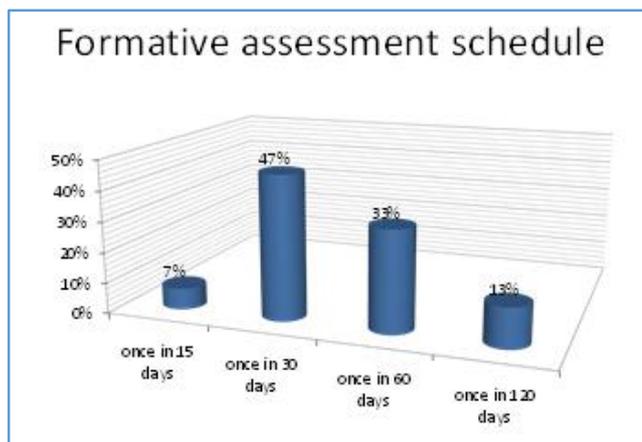


Figure 1

One hundred and fifty six (57%) students preferred to finish tests before holidays. Sixty nine (25%) students preferred to write on Mondays.

Out of two hundred and seventy four students, 153(56%) students preferred tests for 1 hour. Only 27 students (10%) preferred 3 hours test (Fig -2).

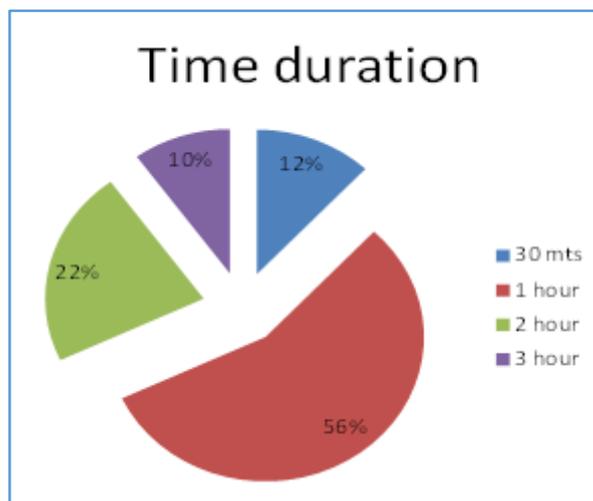


Fig. 2

Multiple Choice Question (MCQ) type was preferred by one hundred and eighteen (43%) students which is not a routine question pattern. Only nineteen students (7%) preferred viva (Fig-3). Most of the students chose more than one option.

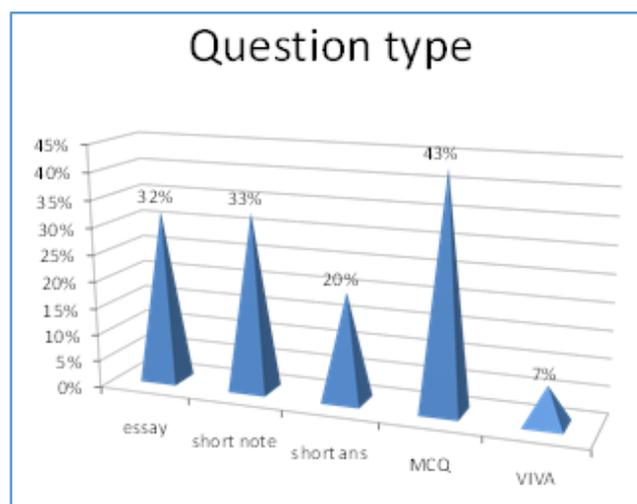


Fig. 3

One hundred and twelve (41%) students preferred Recall type of questions. Ninety (33%) preferred application type, fifty four (20%) preferred comprehension type and sixteen (6%) preferred analysis type of questions.

DISCUSSION: In our institution, formative assessment is being conducted once in a month for 1 hour. Most of the study cohort preferred the existing pattern. MCQs will be included in the forthcoming tests. Application type questions will be asked for more marks than recall type of questions.

Using assessment data for formative purposes may encourage application and integration of knowledge, help students identify performance gaps, foster student development of learning plans and promote student responsibility for learning.³

The study conducted by Carrillo-de-la-Peña MT et al included 548 students from three health science degrees (Medicine, Psychology and Biology) from four Spanish

Universities. The students who carried out mid-term formative assessment got better marks and had higher success rates in final summative assessment than the students who did not participate. In addition, success in formative assessment tests was associated with better summative marks. Interestingly, participation in formative assessment was a better predictor of final outcome than success in formative assessment, a result that supports the key role of feedback in formative assessment. The generalised benefits of formative assessments found here encourage the practice of them in health sciences education.⁴

A well-constructed MCQ is superior to MEQ (Modified Essay Question) in testing the higher cognitive skills of undergraduate medical students in a problem based learning setup.⁵

Palmer EJ⁶ concluded., MCQs are capable of withstanding the intellectual and statistical scrutiny imposed by a high stakes exit examination.

CONCLUSION: From this study, it is concluded that the formative assessment pattern followed in our institution is preferred by the students. The question pattern in the University has no MCQs'. MCQ type will be included in internals as it is superior⁵ in testing the higher cognitive skills. Application type of questions will improve practical and critical thinking as well as creativity of students. So more questions will be set up as application type than Recall type. Formative assessment is done as students are learning. Formative assessment or diagnostic testing as the National Board of Professional Teaching Standards argues, serves to create effective teaching curricula and classroom-specific evaluations.⁷ It typically involves qualitative feedback (rather than scores) for both student and teacher that focuses on details of content and performance.⁸ It is commonly contrasted with summative assessment, which seeks to monitor educational outcomes, often for purposes of external accountability. It is also recognised as one of the most powerful ways to enhance students' motivation.⁹

Students are motivated to learn and take responsibility. They can become users of assessment alongside the teacher. Students learn valuable lifelong skills such as self-evaluation, self-assessment and goal setting. Frequent, ongoing assessment allows both for fine-tuning of instruction and students' focus on progress.¹⁰ Formative assessments help students identify their strengths and weaknesses and target areas that need work. It helps faculty to recognise where students are struggling and address problems immediately. If formative assessment is followed appropriately, Teachers can inform students about their current progress in order to help them set goals for improvement. Formative assessment refocus students on the learning process and its intrinsic value, rather than on grades or extrinsic rewards.¹¹

Students preferred question pattern in University exams have not been included in the questionnaire is one of the limitations of the study. Inclusion of multiple choice questions in University examinations will be recommended to the Board of Studies. This study is different from other studies because lot of studies are available for assessing the teaching methodology than for evaluating formative assessment pattern.

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REFERENCES:

1. Rolfe I, McPherson J. Formative assessment: how am i doing? *Lancet* 1995;345(8953):837-839.
2. Relan A, Uijdehaage S. Web-based assessment for students' testing and self-monitoring. *Acad Med* 2001;76(5):551.
3. Bierer SB, Dannefer EF, Taylor C, et al. Methods to assess students' acquisition, application and integration of basic science knowledge in an innovative competency-based curriculum. *Med Teach* 2008;30(7):171-177.
4. Carrillo-de-la-Peña MT, Baillès E, Caseras X, et al. Formative assessment and academic achievement in pre-graduate students of health sciences. *Adv Health Sci Educ Theory Pract* 2009;14(1):61-67.
5. Khan MU, Aljarallah BM. Evaluation of Modified Essay Questions (MEQ) and Multiple Choice Questions (MCQ) as a tool for Assessing the Cognitive Skills of Undergraduate Medical Students. *Int J Health Sci (Qassim)* 2011;5(1):39-43.
6. Palmer EJ, Devitt PG. Assessment of higher order cognitive skills in undergraduate education. *BMC Med Educ* 2007;7:49.
7. Scot, Tammy pandina, Carolyn M. Callahan and Jill Urguhart. *Roeper Review. A Journal on Gifted Education* 2009;31(1):40-52.
8. Huhta Ari. Diagnostic and formative assessment. In: Spolsky, Bernard and Hult Francis M. *The handbook of educational Linguistics*. Oxford, UK; Blackwell 2010;469-482.
9. Mc Milan JH, Hearn J. Student self-assessment: the key to stronger student motivation and higher achievement. *Educational Horizons* 2007;87(1):40-49.
10. Cauley KM, McMillan, JH. Formative assessment techniques. *The Clearing House* 2010;83(1):1-6.
11. Hidden curriculum. In Abbot S (Ed.). *The glossary of education reform 2014*. retrieved from <http://edglossary.org/hidden-curriculum>.