



Development and validation of Student led question bank as an Active learning strategy

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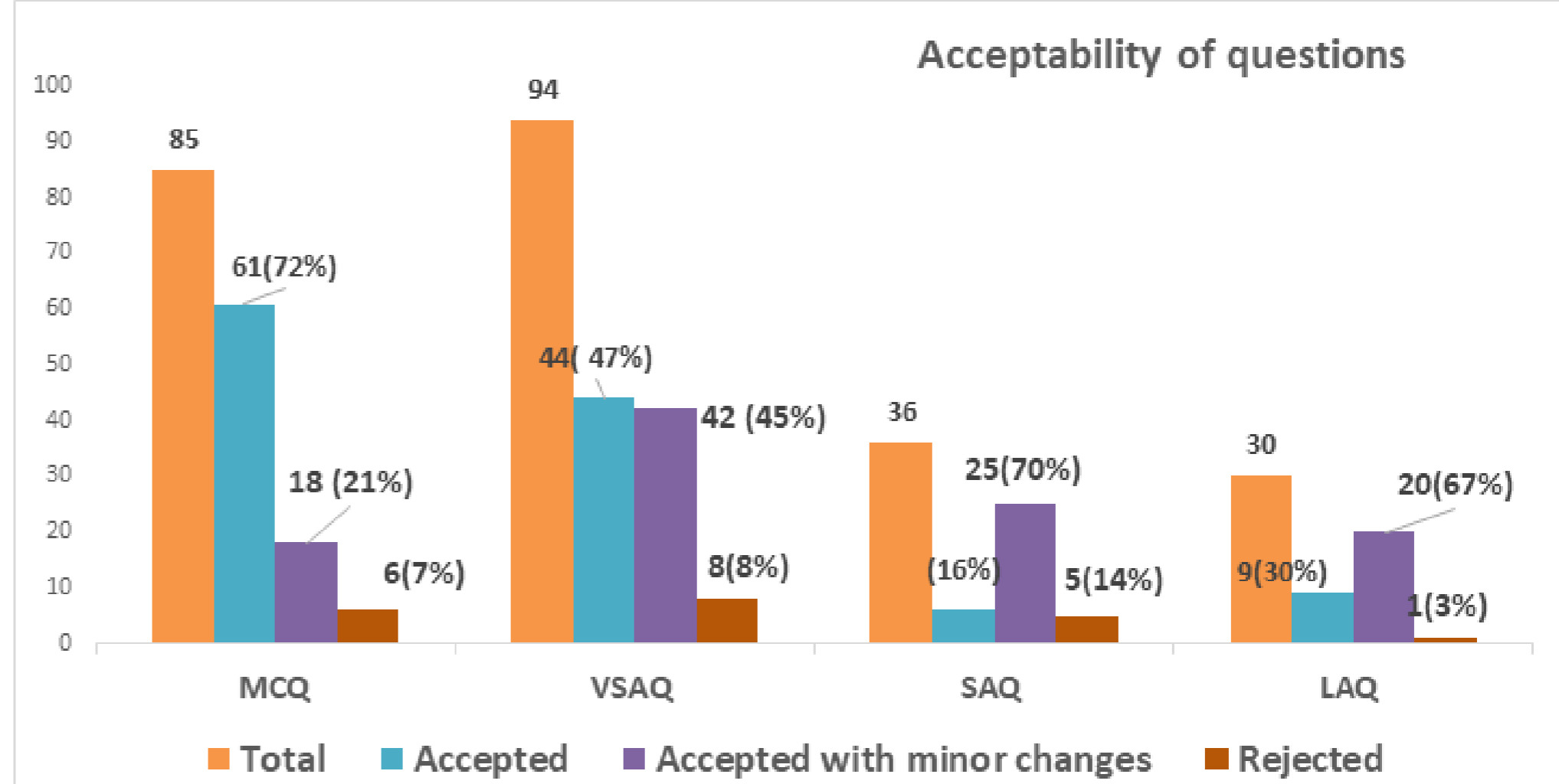


Introduction

Question banks are a widely used educational resource among medical students

Purpose: for learning content, revision, to check whether the students have learnt the content, improving teaching- learning, and evaluation processes.

As teachers, we always look for innovative ways of involving students in the teaching learning process. Hence student led Question bank development can be an active learning strategy.



Aims & Objectives

- To pilot a student led question bank in Biochemistry by Phase I MBBS students.
- To validate the question bank prepared by students.

Methodology

A pilot study conducted in the Dept. of Biochemistry, AVMCH, Pondicherry

Pre-requisites	<ul style="list-style-type: none"> Sensitization of the Dept. faculty Briefing the students on the principles of framing good questions
Topics	<ul style="list-style-type: none"> Carbohydrate metabolism, lipid metabolism & Vitamins
Basis of selection of topics	<ul style="list-style-type: none"> By consensus by the Dept. faculty Already taught by the faculty Have many core competencies Learnt in detail by the students.

Analysis of difficulty level and Bloom level of the questions

Type of questions	Difficulty level			Blooms level	
	easy (%)	medium (%)	difficult (%)	Recall (%)	HOTS (%)
MCQ (n=85)	22	38	40	15	85
VSAQ (n=94)	27	43	30	22	78
SAQ (n=36)	5	58	37	13	87
LAQ (n=30)	8	80	12	25	75

Feedback analysis revealed that 85% of students found the activity interesting, good for deep learning, revision of topics and stimulating their higher order thinking skills.

Faculty were very surprised by the quality of the questions which reflected the student's level of understanding the subject and took it as a good feedback mechanism for the teaching learning process.

Conclusion

- The students being the main stake holders can play a major role in creating effective and valid questions, augmenting the updating of Dept. Question Bank
- A student-generated question bank can act as a potential study resource, provide formative feedback for students and help teachers measure student understanding.
- Ensures the student involvement and motivation and helps the students revisit and revise the topics in depth.
- Encourages critical thinking and HOTS among students

Future: To extend the same work with other topics with the new batch of MBBS students

Results

Total No. of questions framed: 245 questions

92% of the questions were accepted (51% as such and 42% with very minor changes). Acceptability of MCQs (91%) was greater than other types of questions.

Majority of the questions created were of understanding, analysis and interpretation level and NOT mere recall level. Students were found to frame MCQs better than LAQ and SAQ, where the construction of questions was found to require little improvement.

References

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- Josh B Kurtz, Michael A Lourie, Elizabeth E Holman, Karri L Grob and Seetha U Monrad. Creating assessments as an active learning strategy: what are students' perceptions? A mixed methods study. MEDICAL EDUCATION ONLINE 2019, VOL. 24, 1630239