QUIZ AS A TOOL FOR PART COMPLETION EXAM IN ANATOMY

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ABSTRACT

Introduction: Anatomy has always been one of the Basic sciences of Medical sciences. Anatomical knowledge is traditionally tested by means of summative examination, providing information for pass/fail decisions. The present study was aimed to observe effectiveness of anatomy quiz for improvement of academic performance in first MBBS students.

Materials and Methods: After completion of the syllabus for the academic years, students were trained regarding quiz and three quizzes were conducted for students. Participants were requested to give their opinion about the 10 statements pertaining to the Quiz which were conducted in the department of Anatomy.

Results: We have observed positive response from most of the students regarding effectiveness of quiz. Further those who performed quiz very well also performed the same in the university examinations.

Conclusion: Most of the students agreed and supported conduction of quiz in anatomy for better retrieval skills. We recommend further studies in this area to recommend adoption of the quiz in the curriculum.

KEY WORDS: Anatomy quiz, Students feedback, Academic performance.

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INTRODUCTION

Anatomy has always been one of the basic sciences of medical sciences. Anatomical knowledge is traditionally tested by means of summative examination, providing information for pass/fail decisions. Karpicke and Roediger showed that repeated testing produced a large positive effect on long-term retention, while repeated studying had no effect [1]. Quiz is a form of game or mind sport, in which the players (as individuals or in teams) attempt to answer questions correctly. It is a type of formative assessment, the most efficient way to evaluate the students understanding the subject, the content of knowledge gained. Quiz improvises the skills of the students in memo-
rizing, understanding and also allows an individual to self-assess his/her knowledge in the topic or subject taught. It gives an instant feedback for both teacher in teaching the subject, to analyze what student had understood, what he remembered and learnt in the process and student in getting the concept taught and implicating it when required. Thus, repeated quiz would help both the teacher and the student in improvising the teaching and learning abilities.

In simple terms quiz is a brief assessment to measure the growth in knowledge, abilities and skills in interpreting and analyzing the subject. Quiz enhances the learning skills, helps in reinforcing the existing knowledge or perception of new knowledge, improving the behavioral skills and values. Anatomy can be better understood by using web-based learning modules especially in understanding embryonic development [2]. It also emphasized on the fact that it creates a very positive active learning environment for that students when compared to gigantic lectures [3]. In a study conducted by Jessica, showed repeated tests, quizzes in the medical students in regional anatomy and expanded set of questions in anatomy, had shown a robust improvement from 9% to 29% in understanding the subject. The study stated that, quizzes and repeated tests had a positive learning effect and is the most effective strategy learning and retaining the knowledge about human anatomy [4]. The present study was aimed to observe effectiveness of anatomy quiz for improvement of academic performance in first MBBS students.

Quiz questions were prepared by senior faculty in the department under the supervision of HOD. Quiz questions were projected by using LCD and each student was provided answer sheet to fill the answers for projected questions. At the end of the quiz answer sheets were collected for evaluation. At the end of third quiz feedback was taken from the students by using a questionnaire.

**Feedback questionnaire:** Participants were requested to give their opinion about the 10 statements pertaining to the Quiz which were conducted in the department of Anatomy.

Each statement should be ranked on five point scale: 5-strongly agree: 4-somewhat agree: 3-Neither agree nor disagree: 2-somewhat disagree: 1-Strongly disagree.

**Data analysis:** Data was analyzed by SPSS 20.0.

**RESULTS**

Results were presented in figure no 1 to 10. We have observed positive response from most of the students regarding effectiveness of quiz. Further those who performed quiz very well also performed the same in the university examinations.

**Fig. 1:** feedback of the participants (Data presented are in frequencies).

**Fig. 2:** feedback of the participants (Data presented are in frequencies).

**MATERIALS AND METHODS**

**Participants:** A total of 211 willing male and female first MBBS students of 2014-15 and 2015-16 batches were included in the study after obtaining voluntary informed consent. The study was approved by institutional ethical committee of KIMS, Karad.

**Quiz:** After completion of the syllabus for the academic years, students were trained regarding quiz and three quizzes were conducted for students. Each quiz comprises of MCQ questions with negative markings, one line answers and two mark questions. Maximum marks were 50.
Unlocking wonderment in subjects is essential to the mastery of tests and memory retention, where traditional pedagogy is failing to properly engage the young generation of digital natives, interactive formative assessments during the sessions or learning process and summative assessments after the part completion, might just have the answer to both optimized learning and teaching. Anatomy is the basic medical science subject, that introduces medicine to the students and learning anatomy involves acquiring adoption of skills and attitudes [5]. A well-designed curriculum, teaching and learning activities and assessment methods are essential for better academic performance of the students [6-8].

**DISCUSSION**
quizzes along with regular assessment methods has been suggested by earlier studies [9]. Quizzes were reported as best tools to encourage and monitor students [10]. Quizzes provide testing effect that it helps the students to learn and remember the topics for long periods [11-13]. It was proposed that assessment should be voluntary, nonjudgmental and should offer rapid feedback which helps the students for future retrieval of the topics [14-16]. Earlier studies testified that weekly quizzes are more beneficial to improve the academic performance of students [17]. Lucas Stetzik et al., reported that puzzle based learning is more effective than routine teaching methods [18]. Our study agrees with earlier studies as majority of the students participated enthusiastically, and given positive feedback to the quiz and it was reflected in their academic performance as 26 distinctions were obtained in University examinations.

Limitations: Results cannot be generalized as the study was conducted at one institution.

CONCLUSION

Most of the students agreed and supported conduction of quiz in anatomy for better retrieval skills. We recommend further studies in this area to recommend adoption of the quiz in the curriculum.

Conflicts of Interests: None

REFERENCES