

## The Impact of Quizzes on Class Grade Average of Dental Students in Medical Virology Course During Basic Science Training in Tehran University of Medical Sciences

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**Background & Objectives:** In-class quizzing is an effective tool to improve the academic performance of students. Un-announced quizzes have been shown to enhance teaching efficiency by increasing student attendance, and their motivation in focusing on the lecture material. Unfortunately, there is no data regarding the effects of quizzes on academic performance of dental students taking Medical Virology in Iranian medical universities. This study investigates the impact of quizzes among Tehran University of Medical Sciences (TUMS) students' final grade in Medical Virology course. To evaluate the effects of mid-term quizzes on dental student's academic performance as measured by class grade average, and the grade distribution among all students.

**Methods:** This study was a part of the continuous monitoring of academic performance of students, who take the Medical Virology course in their second year of dental school at TUMS. Overall class grade average and the number of failed students were the chief indicators used for performance assessment. Class grade average, the range of grades (Highest vs. lowest), and high grade frequency for 5 academic years starting at 1386 (2007) until 1390 (2011) were compared. Between zero to seven un-announced (pop) quizzes were implemented during the term depending on the academic year. Where employed, the quiz scores were averaged after eliminating the lowest score(s), as indicated. The quiz average score accounted for 20% of the final grade (the final exam comprised 80%). We also compared the total number students who received a failing grade for each academic year.

**Results:** Overall, the class of 1387 showed the best academic performance; with all students passing the course and the highest class average of 15.70. Also, the 1387 class had the best range of grades and the most frequent highest grades (19.0) of all classes in this study. The 1389 class showed the poorest class average performance (12.80) in which 9 (11%) did not pass the Medical Virology course. The overall trend shown by performance of other classes also suggested that pop quizzes improved the class average ranging from 13.5 to 14.6 for during the academic school years 1386 and 1388, respectively.

**Conclusion:** Unannounced quizzes have a positive impact on improving academic performance of dental students taking the Medical Virology course. Implementation of quizzes enhances the overall class grade average and increases the percentage of passing students in basic science training.

**Keywords:** Medical Education; Quiz; Medical Virology