

# Fórum:Testy/Abstract

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## Student Assessment in Medical Education

### Construction and analysis of tests at medical faculties

#### Summary

This book is about the construction and analysis of tests with a specific emphasis on testing needs of medical schools. It should serve as a practical aid and manual for teachers who prepare tests and use them to assess students in an educational setting. This book should also become a guideline for the leadership of medical schools in their high-level decisions about tests for entrance or board exams.

Testing of students' knowledge is a key moment in the educational process. In many cases it determines their future paths such as whether they will be admitted to a study programmes or whether they graduate. Tests are also important for educational institutions themselves and for the society as a whole as they help choose the best candidates for medical study programmes and for medical practice. Appropriately composed tests also play a significant role in individual study courses and the whole educational process as the form and content of a test often determines on which areas students will focus and which skills they will master. Well-designed tests are therefore important tools for good education.

Our book presents a detailed treatment of knowledge assessment methods including possibilities of written and electronic testing. It describes various types of test items, their advantages and their risks. A significant portion of the text is devoted to new question formats that allow the testing of conceptual understanding over isolated facts. The book doesn't deal only with the construction of test questions but describes the whole cycle of test preparation including the setting of teaching goals, test blueprinting, appropriate item construction, item review and test piloting. It looks at item and test quality analysis, standardisation and mapping of test results onto commonly used marking schemes.

The preparation of well-designed questions and tests requires a team of experts and therefore also significant amounts of time and other resources. One way of decreasing the resource-intensiveness of item and test construction is their secure sharing through item banks, which are also discussed including examples of successful networks for test item sharing with relevant organisational and technical solutions. The book also covers available software tools for student knowledge assessment and for test and item quality analysis.

This book will explain when to use written or oral exams, where computer-based testing may be appropriate and how to implement it. It will help you set up a good marking scheme, quantitatively analyse the difficulty and quality of your tests and of individual items and find out if any items or whole tests may have been leaked to students beforehand. Although we focus on knowledge testing in medicine the methods and principles described here are applicable to the broader area of educational and psychological testing.