Academic Partnership for Innovation in Teaching and Learning (API)

Short module programme: Online course *"Hitchhiker's Guide to Test Development"*

Presented by Charles University

Dates: 1 Dec, 8 Dec, 15 Dec, 2021

Lecturers: RNDr. Čestmír Štuka MBA, Ph.D., MUDr. Martin Vejražka, Ph.D.,

This workshop focused on some perspectives on assessment in higher education and especially on written testing or computer-assisted testing. The greater the impact of test results on a student's future or on changes in teaching, the more quality tests are needed - to measure knowledge and skills objectively, fairly and reproducibly. Participants learned techniques that help design such tests and create quality test items for them, including item and test analysis. The course was structured in a way to enable participants to immediately start using most of the techniques in their teaching practice.

The course was composed of three modules:

1. A quality test item

Construction of a quality test items. Types of test items and their use for assessing different levels of knowledge and skills. Knowledge testing vs. testing comprehension and skills. Common flaws of test items and how to avoid them. Formative and summative evaluation.
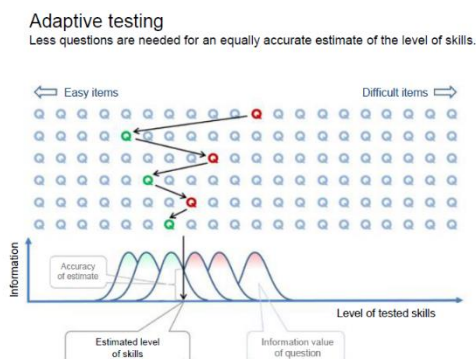
2. Item analysis

Psychometric characteristics of test items and their estimation. Classical test theory and item response theory. Tools for item analysis.

3. Test as a whole

Objective setting of standards and test classification. Blue-printing, specification table. Validity and reliability of a test. Other formats of test tasks, open questions and their use. Proctored testing.

All sessions were delivered fully online via the Zoom platform on December 1st, 8th and 15th, 2021. They were attended by an international group of 13 participants with diverse backgrounds in STEM as well as humanities.

Snippets from course presentations