Degree programme Master of Science in Health Sciences
17 th Module 2 nd Semester (Part B)

Name of module	Instrument Development and Validation
Module responsible	Prof. Dr. Joachim Westenhoefer
Lecturer	Prof. Dr. Joachim Westenhoefer
Semester	Summer Semester (March - August)
Status	Optional (Part B), at least 4 Modules from Part B
Frequency/ Period of time	Yearly/ Within one semester
Credit Points (CP)	3 CP
Workload for Students (h)	Workload 90h: presence 30h, private study 60h
Entry Requirements	Basic knowledge in statistics and empirical social research
Max. Participants	25
Language	English

Objectives

The aim of the lecture is to enable students to construct and evaluate research instruments with regard to appropriate quality criteria.

Development of competencies (Professional, Technical, Methodological)

The student can obtain following competencies:

- Describing and evaluating the quality criteria assessment instruments used in social and health research,
- Constructing assessment instruments for qualitative and quantitative research, and assessing and evaluate their appropriateness,
- Assessing the psychometric properties of assessment instruments,
- Performing calculation of psychometric parameters using appropriate software.

Personal and social skills

The student is able to:

- Apply the acquired knowledge and skills in the context of different disciplines,
- Work in teams and groups,

- · Present results of the own work,
- Write a scientific paper.

Content of module

- · Quality criteria for instruments: objectivity, reliability and validity
- Different types of questions and ratings
- Scales and subscales
- Questionnaire construction
- Interviews: types of interviews (structured, semi-structured) and construction of interview guidelines
- Assessment of reliability and validity; principles of classical testing theory; basics of item response theory
- Planning, conducting and evaluating pilot tests
- Planning, conducting and evaluating validation studies

Related module

-none-

Teaching and Learning Strategies/ Methodology/ Media	Lecture, group work with presentation of result, practical in the application of PC-Software
Assessment(s)	Written assignment
Literature/ Working material	Lord & Novick: Statistical theories of mental test scores. Addison-Wesley, 1974. Materials and articles on the E-learning-Platform
	Literature Recommended to students who read German: Lienert & Raatz: Testaufbau und Testanalyse. Beltz, 1994.