UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Measurement in Psychosocial Sciences

2526-2-E2004P040

Learning area

2: Psychosocial aspects underlying communication.

Learning objectives

Knowledge and understanding

- Research methods in the psycho social field.
- Research instruments: questionnaires, indirect measures.
- Reliability and validity of measurement.
- Simple Statistical techniques for results testing.

Applying knowledge and understanding

- How to develop a research question.
- How to operationalize a psychological construct.
- Construction of a measure.
- Evaluation of a measure.
- Use of statistics within a research project.

Judgement autonomy

- Develop the ability to critically analyze psychosocial measurement tools by evaluating their validity, reliability, and appropriateness for the research question.
- Formulate evidence-based judgments, identifying the theoretical and practical implications of methodological choices.

- Recognize how different ways of presenting data and using measurement strategies can shape knowledge construction and influence beliefs, opinions, and decisions.
- Identify and discuss methodological limitations in a research project, fostering a responsible and reflective use of measurement techniques.

Communication skills

- Clearly, precisely, and coherently communicate the key stages of a research project, with particular attention to methodological decisions and the presentation of results.
- Effectively use various communication channels (oral, written, visual) to explain research aims, tools, and outcomes in psychosocial studies.
- Actively participate in collaborative work settings, demonstrating listening skills, negotiation abilities, and integration of others' contributions.
- Adapt communication style and language to different audiences, making methodological content accessible to non-expert interlocutors.

Learning skills

- Develop autonomy in identifying, selecting, and understanding scientific sources to deepen knowledge on psychosocial measurement methods.
- Integrate theoretical understanding and practical skills to design, develop, and refine research tools independently and thoughtfully.
- Reflect critically on one's own learning processes, recognizing areas for improvement and adopting effective strategies to enhance methodological competencies.
- Effectively prepare for lifelong learning, both in advanced studies and professional contexts, through a reflective and proactive approach to research methodology.

Contents

The course aims at helping students acquire the necessary knowledge to conduct research in the psychosocial field. After a general introduction on measurement in psychology, tools for the investigation of psychosocial constructs (mainly questionnaires and indirect measures) will be examined in detail and the methods of evaluating their psychometric qualities will be discussed.

Numerous examples of scientific research and measuring instruments will be provided. In addition, a research project will be built during the course, with the aim to answer a specific research question. We will discuss what are most appropriate statistical techniques, depending on research demand and design.

Detailed program

- Identifying the research question.
- The design of the research.
- Operationalizing psychological constructs: manipulation and measurement.
- Measurement instruments.
- Questionnaire.
- Measures of implicit and explicit constructs.
- Evaluating the psychometric qualities of a measure.
- Reliability.
- Validity.

- Construction of a measure.
- Analysis of results of a research project.
- Basic notions and applications of simple statistical techniques for testing research questions and hypotheses.

Prerequisites

Nothing specific.

Teaching methods

The course is structured into 28 lessons, approximately 2/3 of which are delivered through traditional teaching methods and 1/3 through interactive teaching. In addition to classroom lectures, part of the teaching is conducted through practical exercises during which students work in small groups on the guided construction of a research project.

Lecture handouts are made available on the course's e-learning site, so that they are accessible to non-attending students as well.

Assessment methods

The assessment consists of a written exam with both open-ended and closed-ended questions.

It is designed to verify (a) the effective acquisition of theoretical knowledge, (b) the ability to design and evaluate measurement instruments, and (c) the ability to answer simple research questions using basic statistical techniques. No midterm exams are scheduled.

Attending students (attendance required: at least 66% of the classes) may develop a group project, which will be presented and discussed in class using slides. Depending on the quality of the work, the project may contribute up to 2 additional points to the written exam grade.

Textbooks and Reading Materials

Detailed information on the Textbooks and reading materials will be published on the page of the e-learning website associated to the course.

Sustainable Development Goals

QUALITY EDUCATION