UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Quantitative Methods for Developmental Psychology

2223-2-F5103P089

Learning area

methodological knowledge and practical application of psychometric instruments

Learning objectives

Theoretical knowledge and comprehension

1 Analysis of variance
2 Factor Analysis
3 Regressione analysis
4 Reliability and validity of tests for the school domain
5 Cluster analysis
Skills required to apply knowledge and comprehension

1 Analyse datasets according to the above analyses
2 Analyse the method followed in recently published articles

Contents

Overview of basic statistics relying on available software (SPSS, JAMOVI, Jasp); introduction to data anlysis techniques for devolping questionnairs in school enviroenmente; Field research with small samples.

Detailed program

One way and twoways Analysis of variance, simple and repeated measures
Least squares and optimal regression
Categorical factor analysis (Correspondence analysis)
Analysis of covariance
Cluster analysis

Prerequisites

Basic knowledge of statistics: factor analysis, regression analysis , one way ANOVA. Z-score; principles of statistical inference; reliability of psychometric measures

Teaching methods

Lectures on theory and examples of current literature. Hands-on exercises with software. Some handouts will be available on the course page.

Assessment methods

Written exam, consisting of multiple-choice questions, software exercises and commentary on one or more articles from current literature. Multiple-choice questions form the basis of the grade. Open-ended questions allow assessment of expository ability. An oral interview on all course topics is provided to students who request it.
In addition, each student must submit, prior to the roll call, a brief definition of about 60 concepts listed in the "GLOSSARY". This method of ascertaining learning ensures that all the topics that are being examined are known to the student and at the same time provides an excellent way of reviewing the entire examination subject. Although mandatory, the Glossary does not contribute to the final evaluation; however, in case of serious expository failures or errors, the teacher may request its revision.

Textbooks and Reading Materials

Detailed information about learning materials will be made availables on the related e-learning course page

Sustainable Development Goals

GOOD HEALTH AND WELL-BEING