# Methodology of Research into Interpersonal Relationships (with workshop)

## Prof. Margherita Lanz

***COURSE AIMS AND INTENDED LEARNING OUTCOMES***

The course will present methodological problem areas connected to research on interpersonal relationships.

In an overview of the research planning stages, emphasis will be placed on the choices that the researcher makes in each stage of research cycle in view of the peculiarities of interpersonal relationships. The issues related to the operationalisation of theoretical constructs and to the idea of cause and effect link will be introduced with a description of the issues currently under scientific debate. Part of the course will focus on illustrating some quantitative data analysis techniques, regression models and factorial analysis. Structural equation models will also be mentioned. Part of the course will deal with the writing of results of statistical analysis.

The techniques of data analysis will be introduced in theory at lectures and will then be implemented during the workshops, through software for data analysis and by using the database suggested by the lecturer and by the workshop tutor. Students will have the opportunity to try their hand at research, starting with the CIMENTARSI NELLA RICERCA project in which they will have to analyse data and write a research report, starting from the research questions and data base provided by the lecturer.

At the end of the course students will recognise the specifics of research into interpersonal relationships, analysis techniques for quantitative data, procedures for carrying them out using software and how to present the analysis results. Therefore, students will know how to design research, choose the right analysis technique and present the results from the statistical analysis. Students attending classes for the project will also be able to write a quantitative report in reference to the Method and Results section.

***COURSE CONTENT***

The course is divided into the following units:

*Unit 1* - The meaning of research into interpersonal relationships

* 1. the passage from individual to dyad
  2. the concept of interdependence

*Unit 2* - The measurement of relational constructs

2.1. Individual, relational and group constructs

2.2 Measurement scales and the construction of indicators

2.3. The psychometric properties of measurement tools

*Unit 3* Describing the data

*Unit 4* Inferential statistics

4.1. Statistical, practical and clinical significance

4.2 Crisis of the null hypothesis paradigm

4.3 Size of the effect

*Unit 5* The association of variables

5.1. Correlation

5.2 Chi square

5.3 Interpretation of outputs

5. 4 How regression results are reported

*Unit 6* - Dimensionality

6.1. Type of factor analysis

6.2 Exploratory factor analysis

6.3 Interpretation of outputs

6.4 How regression results are reported

6.5 Confirmatory factor analysis: introduction to structural equation models and measurement invariance

*Unit 7* - The cause-effect link

7.1 Simple regression

7.2 Multiple regression

7.3 Models of mediation and moderation

7.4 Interpretation of outputs

7.5 How regression results are reported

*Unit 8* - Differences between groups

8.1 Univariate ANOVA

8.2 Factorial ANOVA between subjects

8.3 Factorial ANOVA within subjects

8.4 Mixed factorial ANOVA

8.5 Interpretation of outputs

8.6 How regression results are reported

*Unit 9* - Dealing with relational and group data

9.1 Managing non-independence of data

9.2 Constructing second order indicators

9.3 Analytical techniques for non-independent data

9.4 Models for the study of relationships

***READING LIST***

Lecture notes and slides.

M. Lanz-S. Tagliabue, *Appunti di metodologia per lo studio delle relazioni interpersonali*. Educatt, Milano, 2019.

Further information on the reading list will be published on the lecturers’ webpage.

***TEACHING METHOD***

The course is divided into two different modules:

- 40 hours of lectures;

- 20 workshop hours, divided into 5 modules.

During the frontal lectures, practical exercises will also be carried out on how to read the output of statistical analysis.

The workshops will take place remotely on dates communicated at the beginning of the course. The lectures and workshops are closely connected, so it is recommended attending the workshop only if you are also attending the course continuously. The practical exercises and workshops allow students to experience the contents presented during lectures.

Students may undertake the project “Cimentarsi nella ricerca” ("Try your hand at research") in which they can test themselves with data analysis by answering research questions and working on a dataset provided by the lecturer. Students who decide to undertake this project are required to draw up a research report.

***ASSESSMENT METHOD AND CRITERIA***

The exam consists of three parts: a written test, workshop practice test and an oral exam.

The written test includes;

1. multiple choice questions on the topics covered during the course;

1. writing data analysis output findings.

The two parts are expressed in thirtieths and students are required to pass both parts of the exam.

The multiple-choice questions will help assess students' basic skills and knowledge of data analysis techniques and relational research problems, while the output will help assess their ability to interpret outputs and write up results.

The workshop practice test consists of three research questions. Students shall answer them by choosing the most suitable analysis technique, carry out said analysis and write the results correctly. Students will receive a passing score on the workshop test if they complete two questions out of three correctly.

The oral exam, which follows the written test and the workshop test, will focus on the topics covered during the written test and aims to assess students' re-elaboration and analysis skills.

All tests take place on the same day. The exam cannot be split.

Students attending classes who take part in the CIMENTO project will sit a test composed of 30 multiple-choice questions and the workshop test. The assessment criteria are the same as before. The report on the project will be expressed in thirtieths.

***NOTES AND PREREQUISITES***

Prerequisites for the course include notions of methodology for psychological research (research cycle, variables, measuring, designing research, communicating results) and psychometric statistics (descriptive statistics, inferential)

Further information can be found on the lecturer's webpage at http://docenti.unicatt.it/web/searchByName.do?language=ENG or on the Faculty notice board.