UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

COURSE SYLLABUS

Laboratory 5

2425-3-E1601N084

Learning objectives

The laboratory "Data-driven and Evidence-based Decision-making in Public Administration and Complex Organizations" aims to show students how empirical evidences and data can be utilized in public administration and organizations for decision-making. In doing so, it adopts a dialogic, participatory, and applied approach: students will have the opportunity to listen to testimonials and interact with professionals from the public administration and major companies, delve into case studies, and personally conduct (simple) data analyses using the statistical software R. The laboratory will enable students to put into practice what they have learned in the curriculum modules, with particular reference to the modules "Public Policies - Decision and Implementation" and "Public Policies - Evaluation".

Contents

The main topics of the laboratory are:

- Decision models: to what extent are actors, both public and private, "rational" when making a decision?
- Ex ante evaluation: empirical evidence and data to choose what to do.
- In-process evaluation: empirical evidence and data to understand whether we are moving in the right direction or not.
- Ex post evaluation: empirical evidence and data to learn from successes and failures.
- A small toolbox for conducting team work:
    - Brief introduction to research design.
    - Brief overview of qualitative techniques such as in-depth interviews and focus groups.
    - Focus on basic tools of inferential statistics using R (descriptive statistics, graphs, bivariate linear regression, multivariate linear regression).

Detailed program

The laboratory focuses on decision-making in the context of public administration and complex organizations.

Firstly, it introduces students to decision-making models: what processes - individual and collective - come into play when we have to make a decision? Are we truly "rational," or do we fall victim to habits and limited information? Is using "shortcuts" to make decisions positive or negative?

Next, we will explore to what extent empirical evidence - particularly data - can help us choose between alternative options, understand if the chosen option is proving to be the right one or leading us astray, and ultimately evaluate how things have turned out. Did the chosen course of action produce the desired outcomes or not? We will learn that even a negative answer to this question can be very useful for individual and organizational learning.

Finally, students will engage in team work. The instructor will provide each group with a question to answer by conducting a case study and data analysis using the STATA software. To perform the work effectively, the instructor will provide students with a "toolbox" consisting of:

- Brief introduction to research design;
- Brief overview of qualitative techniques such as in-depth interviews and focus groups;
- Basic tools of inferential statistics using STATA (descriptive statistics, graphs, bivariate linear regression, multivariate linear regression).

Prerequisites

To participate in the laboratory, students must:

- be enrolled in the 3rd year,
- have passed the exams in Mathematics and Statistics,
- have obtained at least 90 ECTS credits,
- have the laboratory included in their study plan,
- be familiar with the contents of the modules Public Policies - Decision and Implementation and Public Policies - Evaluation.

Teaching methods

The laboratory consists of 24 hours, of which approximately 8 hours will be spent on didactic delivery (lectures with the use of slides and audio and video content) and 16 on interactive teaching (classroom exercises and group work).

In particular, the workshop will make use of:

- Frontal, but participatory lectures;
- Testimonials from professionals from the world of PA and major companies;
- Analysis of case studies;
- Exercises on the R software;
- Group work.

Assessment methods

Development of a short project on an empirical case (including a simple data analysis) and presentation of the results in class.
Attendance of at least 75% of the hours is required.

Textbooks and Reading Materials

Materials will be distributed, on each occasion, before the laboratory sessions.

Sustainable Development Goals

QUALITY EDUCATION