UNIVERSITÀ
DEGLI STUDI DI MILANO-BICOCCA

# COURSE SYLLABUS

## Methods in Educational Research - A-L

**2627-3-G8501R041-G8501R066M-AL**

### Course title

Research Methodology in Education

### Topics and course structure

**Course description**
The course explores the relationship between pedagogical and didactic research, the construction of teachers' professional knowledge, and the development of reflective, documentary and transformative practices in school contexts. Its general aim is to help students understand how research methods can support the observation, analysis, evaluation and regulation of teaching-learning processes and professionalization processes.

The course is organized into in-person classes and a research pathway to be carried out in selected school and/or educational institutions indicated by the lecturers, or in the school contexts where students work. The activities combine transmissive teaching, accounting for 30% of the course hours, and interactive teaching, accounting for 70% of the course hours. Transmissive teaching is devoted to the theoretical framing, in-depth study and conceptual reconstruction of the course's foundational concepts, listed below. Interactive teaching supports the analysis of educational documentation and didactic data, moments of dialogue and classroom discussion, self-assessment processes, and work in pairs and small groups.

**Course structure and attendance modes**
Three modes of participation are available:

- In-person attending students: they participate in classes and interactive activities carried out in the classroom; they complete the required assignments and take part in feedback, revision and self-assessment activities.
- Students following the course through e-learning materials during the teaching period: they follow the

materials uploaded weekly to the e-learning page and complete the related activities by the indicated deadlines. These activities correspond to those carried out in class by in-person attending students. They may receive individual and/or collective feedback according to the procedures communicated by the lecturer.

- Non-attending students or students following the course asynchronously: they use the materials available on the e-learning platform, complete the activities carried out in class by in-person attending students, and submit the required assignments according to the instructions published on the course page. They mainly receive feedback at the final stage.
-

Audio/video recordings and e-learning materials support individual study and the participation of students who cannot attend in person, but they do not replace the interactive activities carried out in the classroom.

**Course Structure**
The course is organized into three thematic units, addressed sequentially during the semester:
a) Teacher professionalism, professional competencies, and pedagogical knowledge;
b) Dialogic teaching and dialogic-argumentative skills;
c) The teacher as researcher and the notion of scientific rigor.

Each unit includes both theoretical lectures (expository teaching) and practical activities or exercises (interactive teaching), all of which contribute to the final course grade.

**Key Concepts**
The course fosters critical engagement with the following core concepts, developed through the study of assigned readings and reflection on one's own conceptual change process:

- Teacher professionalism
- Professionalization process
- Pedagogical knowledge
- Reflexivity
- Documentation (Learning journal, Self-assessment rubric)
- Metacognition and metacognitive monitoring processes
- Self-regulation
- Feedback
- Dialogic teaching
- Dialogic-argumentative competence
- Metacognitive routines
- Scientific rigor
- Teacher as researcher
- Conceptual change

## Objectives

The learning objectives do not merely represent the final reference point for assessment, but guide the entire learning pathway. For this reason, they are taken up, monitored and discussed throughout the course through an Assessment and Self-Assessment Rubric, which accompanies the assignments, feedback activities and the oral examination. The rubric enables the lecturer to make the assessment criteria explicit and to justify the feedback provided, while allowing students to analyse their own learning, recognize the progress they have made and regulate their study strategies.

The learning objectives listed below correspond to the five objectives set out in the Degree Programme's Tuning Matrix and represent their specific declination within the course in Methodology of Pedagogical Research. They are

articulated according to the Dublin Descriptors and connect the expected learning outcomes of the course with the educational and professional profile envisaged by the Degree Programme.

**1. Knowledge and understanding**
By the end of the course, students will be able to:

- define and distinguish the main concepts of the course: teacher professionalism, professionalization, professional competence, pedagogical knowledge, belief, reflectivity, documentation, feedback, metacognition, self-regulation, dialogic teaching, scientificity, teacher-as-researcher and conceptual change;
- explain the relationships among these concepts, identifying connections, hierarchies, continuities and differences;
- reconstruct the theoretical framework of the concepts addressed, with reference to the course bibliography;
- understand the relationship between theoretical knowledge, teaching experience, documentation and the construction of teachers' professional knowledge.

**2. Applying knowledge and understanding**
By the end of the course, students will be able to:

- observe, describe and analyse complex didactic phenomena;
- formulate research questions that are circumscribed, feasible and coherent with the observed context;
- identify appropriate data and tools to document teaching-learning processes;
- analyse discursive, textual and documentary data from didactic contexts;
- connect empirical evidence, theoretical references and professional interpretations;
- use self-assessment tools and rubrics to regulate their own learning.
-

**3. Making judgements**
By the end of the course, students will be able to:

- distinguish between description, interpretation, evaluation and professional decision-making;
- critically evaluate teaching practices, dialogic routines, self-assessment devices and forms of documentation;
- justify their interpretations through theoretical references and collected evidence;
- recognize the limits, conditions of validity and possible developments of their analyses;
- argue didactic and professional choices in a grounded and responsible way.

**4. Communication skills**
By the end of the course, students will be able to:

- construct clear, cohesive and logically structured argumentative texts;
- make explicit the premises, logical steps, conclusions and criteria underlying their arguments;
- communicate analyses, interpretations and professional reflections orally and in writing;
- schematically represent concepts, arguments, research processes and learning pathways;
- use appropriate pedagogical and didactic terminology.

**5. Learning skills**
By the end of the course, students will be able to:

- reconstruct their own learning pathway, identifying key moments, obstacles, feedback received and improvement strategies;
- describe and evaluate their own process of conceptual change;
- use documentation, self-assessment and self-regulation tools to support autonomous study;
- connect the learning developed during the course with school placement, future professional practice and the construction of their own teacher identity.

## Methodologies

The course adopts an integrated methodology, combining in-person classes, interactive activities, weekly independent work, analysis of educational documentation, assessed assignments, feedback and self-assessment.

Classes include theoretical input from the lecturer, whole-group discussions, pair or small-group activities, guided analysis of teaching and documentary materials, discussion of data collected in school and educational contexts and, where relevant, contributions from teachers or external experts. These activities support the progressive construction of the course's foundational concepts and their application to the observation and analysis of teaching-learning processes.

A central element of the course is the set of assessed assignments, designed in coherence with the learning objectives and the Assessment and Self-Assessment Rubric. In particular, the course includes group work based on observation, data collection and data analysis in school and/or educational contexts indicated by the lecturers or, for students who work or are undertaking a school placement, in their own professional or placement contexts.

Alongside the assessed assignments, weekly individual or group activities are planned, focusing on the analysis of educational documentation, the production of argumentative or narrative texts, the discussion of cases and the self-assessment of the learning process.

The final oral examination is not limited to a theoretical discussion of the course's foundational concepts. It requires students to reconstruct the conceptual change they have undergone and the professional learning pathway developed during the semester, in continuity with the assignments, the feedback received and the objectives of the Assessment and Self-Assessment Rubric.

## Online and offline teaching materials

The teaching materials provided during the lessons (slides, videos, educational documentation) are fully available on the course's e-learning page and can be consulted online

## Programme and references

Attending students will be offered the possibility to participate to practical exercises, to discuss examples of researches implemented in educational contexts, aimed at learning to reflect and make research on the experience, contexts, practices and relationships, as a key competence of the teaching profession.

References:


- Pastori, G. (2017). In ricerca. Prospettive e strumenti per educatori e insegnanti. Parma: Junior-Spaggiari. Primo Capitolo
- Kohl, H. (2023) [1969]. La scuola aperta. Milano: Babalibri.
- Passalacqua, F. (2023). Per una lettura obbligatoria e clandestina de la scuola aperta un manuale di lotta per brigate di insegnanti-professionisti-combattente. In H. Kohl, La scuola aperta, pp. 108-152.
- Altet, M., Charlier, E., Paquay, L., Perrenoud, P. (1996). Formare insegnanti professionisti. Tre insiemi di

questioni. In M. Altet, E. Charlier, L. Paquay, P. Perrenoud (eds.) Formare gli insegnanti professionisti. Quali strategie? Quali Competenze? Roma: Armando Editore, pp. 17-23.
- Cottini, L. (2006). Didattica Metacognitiva, pp. 1-13.
- Dispensa didattica dialogica

## Assessment methods

For all three modes of participation in the course, assessment consists of the assignments completed during the semester, the assessed group work described above, and a final oral examination. During the oral examination, students will discuss the main theoretical concepts of the course and the process of conceptual change they have developed.

The assessment of activities, particularly the group work or didactic experimentation and the oral examination, is based on the course Assessment and Self-Assessment Rubric. Each assessed activity therefore also includes a self-assessment component, through which students are asked to analyse their own learning, recognize the progress they have made and identify possible improvement strategies.

In order to take the oral examination, students must have completed the assignments by the established deadlines, uploaded them correctly to the appropriate sections of the course e-learning page, and received, for each of them, an assessment or feedback from the lecturers.

Students are strongly encouraged to use Padlet, or another digital tool, as a form of ongoing personal documentation of their own learning pathway.

## Office hours

The professor is available for student office hours by appointment, in person or in his personal Webex room: https://unimib.webex.com/meet/franco.passalacqua

## Programme validity

The exam programs are legally valid for two academic years, as are the exercises completed and evaluated.

It is strongly recommended to contact the professor if you wish to take the exam with an exam program from a previous academic year

## Course tutors and assistants

Ilaria Dui: ilaria.dui@unimib.it

## Sustainable Development Goals

QUALITY EDUCATION