

**Foto**

**NOME E COGNOME** Lucia Maniscalco

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**Education**

Master's Degree in Pedagogical Sciences (LM-85)

**Current Positions**

PhD in Health Promotion and Cognitive Sciences XXXVII cycle

**PhD project title and a short abstract**

Laboratory Teaching and Inquiry-Based Laboratory: Learning for Competencies. Research with Teachers.

The doctoral journey, developed from 2021 to 2025, explores teacher training through laboratory teaching and Inquiry-Based Learning (IBL), promoting a competency-based approach. The research highlights the need for flexible teaching methods that contrast traditional models and accommodate students' diverse learning styles. Through the laboratory as a space for experimentation and reflection, students do not merely follow instructions but analyze and adapt knowledge, transforming it into transferable skills. The study underscores the central role of schools in fostering cognitive development and active student participation and reaffirms the importance of continuous teacher training to ensure high-quality education. The adoption of Inquiry-Based Science Education (IBSE) enables students to develop critical and hypothetical-deductive thinking, enhancing their problem-solving abilities. The research, conducted at the University of Palermo, is based on an experimental study demonstrating how laboratory teaching significantly enhances competency development, redefining learning toward greater autonomy and practical application.

**Supervisor**

Prof. GIUSEPPA CAPPUCCIO

**Link Curriculum Vitae**

[https://drive.google.com/file/d/1FivBz58rnKyQyK4TnutCrhclTVJSx\\_bd/view?usp=sharing](https://drive.google.com/file/d/1FivBz58rnKyQyK4TnutCrhclTVJSx_bd/view?usp=sharing)

**Main research areas of interest**

- laboratory's teaching;
- teacher training;
- sustainability,
- innovative teaching methodologies.

Disciplinary field: Experimental pedagogy (PAED/2B)

**Researcher IDs**

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