

Course Unit	Research Methodology		Field of study	-	
Master in	Environmental Education		School	School of Education	
Academic Year	2023/2024	Year of study	1	Level	2-1
Type	Annual	Semester	-	ECTS credits	8.0
Code			6083-766-1001-00-23		
Workload (hours)	216	Contact hours	T	-	TP
			54	PL	-
			TC	-	S
			E	-	OT
			18	O	72

T - Lectures; TP - Lectures and problem-solving; PL - Problem-solving, project or laboratory; TC - Fieldwork; S - Seminar; E - Placement; OT - Tutorial; O - Other

Name(s) of lecturer(s) Sofia Marisa Alves Bergano

Learning outcomes and competences

At the end of the course unit the learner is expected to be able to:

1. To know the different paradigms of research mobilizing the epistemological and methodological foundations that guide them
2. To understand the importance of the literature review to guide research decisions
3. To formulate problems and research objectives and, from them, select the plans of research, data collection techniques and decide on their treatment
4. To develop academic writing skills

Prerequisites

Before the course unit the learner is expected to be able to:
Not applicable.

Course contents

1. Epistemological questions in research
2. The positivist paradigm of quantitative research
3. From the interpretive paradigm to qualitative research
4. From the social critical paradigm to multi methodological or mixed plans

Course contents (extended version)

1. Epistemological questions in research
 - Paradigms in research: positivist paradigm, interpretive paradigm, social critical paradigm
 - From foundations to the methodological research options: quantitative, qualitative, praxiological
 - Concerns and ethical limits in research
2. The positivist paradigm of quantitative research
 - Research plans
 - The research problem
 - The review of the literature
 - The research hypotheses
 - The definition of variables
 - The sample
 - Data collection
 - Data processing: Descriptive statistics and inferential statistics (SPSS, JAMOVI or equivalent)
 - The internal and external validity of the investigations
 - The presentation and discussion of results
3. From the interpretive paradigm to qualitative research
 - Research plans
 - The emergence of the research problem
 - The review of the literature
 - The definition of research objectives
 - Group of participants
 - Data collection
 - Data analysis procedures (using NVivo or other QAD program)
 - The validation of qualitative research
 - Presentation of data (traditional writing and postmodern writing)
4. From the social critical paradigm to multi methodological or mixed plans
 - Research plans
 - The definition of research problems, oriented for action, for change and for evaluation
 - The review of the literature
 - The participatory dimension of research projects
 - Definition of research objectives committed politically and ideologically
 - Collection and processing of data (mixed approaches)
 - Validation and co construction of research results
 - The quality of critical social research processes

Recommended reading

1. Amado, J. (2017). Manual de investigação qualitativa em educação, (3.ª ed.). Imprensa da Universidade de Coimbra.
2. Bardin, L. (2015). Análise de conteúdo (4.ª Ed.). Edições 70.
3. Coutinho, M. (2011). Metodologia de investigação em ciências sociais e humanas, teoria e prática. Almedina.
4. Creswell, J. (2014). Research design: Qualitative, quantitative, and mixed methods approaches (4th ed.). SAGE Publication Ltd.
5. Pestana, M. , & Gageiro, J. (2014). Análise de dados para ciências sociais. A complementaridade do SPSS. (6.ª ed.). Edições Sílabo.

Teaching and learning methods

Exploration of themes using active learning methodologies, including project-based learning and problem-based learning. Preparation of reports or research papers. Discussion of topics in small or large groups. Individual work or collaborative work. Resolution of consolidation tasks of the topics covered in the course.

Assessment methods

1. Continuous assessment - (Regular, Student Worker) (Final)
 - Intermediate Written Test - 100% (Two summative written tests (individual) on the themes addressed in the Course Unit.)
2. Continuous assessment - (Regular, Student Worker) (Final)
 - Intermediate Written Test - 50% (A summative written test (individual) on the themes covered in the curricular unit.)

Assessment methods

- Development Topics - 50% (Group work involving the development and discussion of a research plan.)

3. Assessment by examination - (Regular, Student Worker) (Supplementary, Special)

- Final Written Exam - 100% (Written test about course contents)

Language of instruction

Portuguese, with additional English support for foreign students.

Electronic validation			
Sofia Marisa Alves Bergano	Maria do Céu Ribeiro	Sofia Marisa Alves Bergano	Carlos Manuel Costa Teixeira
29-12-2023	31-12-2023	02-01-2024	09-02-2024