

EDA053 - Research Methods

Course Title	Research Methodology				
Course Code	EDA053				
Course Type	Compulsory				
Level	Master				
Year / Semester	1 st Semester				
Teacher's Name	Panaoura Rita				
ECTS	10	Lectures / week	13w	Laboratories / week	-
Course Purpose and Objectives	<p>The course aims to enable students to construct a comprehensive understanding of research methods in education in general and in the specific domain of the master in particular. Furthermore, the course aims to facilitate students to develop skills and competencies related to the planning and materialisation of master thesis and other research activities. It focuses on data collection and analysis as means for reaching to justified answers to research questions. The course covers the fundamental methodological approaches to educational research, quantitative and qualitative, as well as mixed methods approaches. The course adopts a critical approach towards research methods, through which it presents students with their advantages, disadvantages, limitations and epistemological differences. The major objectives of the courses could be defined as: (a) to design and implement a research proposal and (b) to evaluate critically studies on the specific domain.</p>				
Learning Outcomes	<p>With the completion of the module, students should be able to:</p> <ul style="list-style-type: none"> ○ Understand the main characteristics, elements, similarities and differences of the quantitative and qualitative research methods. The process of triangulation. ○ Propose a schedule for a research plan (purpose, research questions, rationality) ○ Conduct appropriate literature review by using relevant data bases. ○ Apply the appropriate methodology in order to collect and analyse data by having in mind (and use them as arguments) the main strengths and limitations of each method. ○ Apply appropriate methodological approach for the collection, organisation, encoding, and analysis of 				

	<p>quantitative data, having in mind the advantages and limitations of quantitative research.</p> <ul style="list-style-type: none"> ○ Apply appropriate methodological approach for the collection, organisation, encoding, and analysis of quantitative data, having in mind the advantages and limitations of qualitative research. ○ Select the appropriate sampling method and/or technique, when given a specific research context. ○ Examine the validity and the reliability by different was. ○ Find and construct useful and appropriate research tools (test, questionnaire, interview, observation). ○ Analyze qualitative data. ○ Make use of descriptive statistics indices to present the central tendency and variance of variable measurements and identify statistically significant differences between groups and relations between variables. ○ Evaluate the normality of variable measurements and indentify potential outliers. ○ Apply inferential statistics tests to quantitative data such as t-test, correlation, one-way ANOVA and Exploratory Factor Analysis, regression analysis. ○ Present appropriately the results and prepare a manuscript for publication or for a proposal. ○ Define the limitations and suggest future studies. 		
Prerequisites	-	Required	-
Course Content	<ul style="list-style-type: none"> • The stages for the development of a research proposal. Quantitative and qualitative study. Philosophy and the process of triangulation. • Ethics in data collection and results disseminations. Ethics in conducting research with children. • Reviewing the literature and Literature Review using online databases and search tools. Strategic literature review. Conduct the literature review and construct the theoretical framework. APA style. • Linking research questions with data collection. Identifying variables and planning research • Purpose, research questions and research hypotheses. Variables and scales. • Research tools in quantitative research: test, questionnaire, interview, observation. Validity and reliability. • Research tools in qualitative research: interview, observation, case study, diary etc. Validity and reliability. • Sampling. Standard error. Normal distribution. Representative sample. • Analysis of qualitative data. 		

	<ul style="list-style-type: none"> • Analysis of quantitative data (descriptive statistics, factor analysis, regression analysis, mean comparison) • T-tests, one-way ANOVA, Pearson's correlation, Exploratory Factor Analysis, Regression analysis by using IBM SPSS. • Preparation of a scientific manuscript or a scientific publication. APA style
Teaching Methodology	<p>(power point presentations, narrative presentations, forums for discussion, wikis for group work etc .Their evaluation involves different types of assignments, peer-evaluation methods and self-evaluation methods.</p>
Bibliography	<p>Biesta, G. J. J., & Burbules, N. C. (2002). <i>Pragmatism and educational research</i>. London: Falmer.</p> <p>Cohen, L., & Manion, L., Morrison, K. (2017). <i>Research methods in education</i> (8th ed.). New York: Routledge.¹</p> <p>Creswell, J. W. (2008). <i>Qualitative, quantitative, and mixed method approaches</i>. London, Sage.</p> <p>Denzin, N. K., & Lincoln, Y. S. (Eds.). (2007). <i>Collecting and interpreting qualitative materials</i>. London: Sage Publications, Incorporated.</p> <p>Denzin, N. K., & Lincoln, Y. S. (2011). Handbook of qualitative research (4th ed.). London: Sage Publications.</p> <p>Green, J., Camilli, G., & Elmore, P. (Eds.). (2006). <i>Handbook of complementary methods in education research</i>. New Jersey: Lawrence Erlbaum Associates, Inc., Publishers.</p> <p>Kline, R. B. (2010). <i>Principles and practice of structural equation modelling</i>. New York: Guilford press.</p> <p>Silverman, S. J., Locke, L. F., & Spirduso, W. W. (2007). <i>Proposals that work: A guide for planning dissertations and grant proposals</i>. London: Sage Publications.</p> <p>Silverman, D. (2006). <i>Interpreting qualitative data</i>, (3rd ed.). London: Sage.</p> <p>Silverman, D. (2009). <i>Doing qualitative research: A practical handbook</i>, (3rd ed.). London: Sage.</p> <p>Wellington, J. (2000). <i>Educational research: Contemporary issues and practical approaches</i>. London: Continuum.</p>

	<p>Every week scientific papers are uploaded through the e-learning platform. There are used for references and for discussions.</p> <p>The course's bibliography is regularly updated with recent papers from journals such as:</p> <ul style="list-style-type: none"> - <i>The journal of educational research</i> - <i>International Journal of Educational Research</i> - <i>Educational researcher</i> - <i>Educational Research Review</i> - <i>Theory and research in Education</i>
Assessment	<ul style="list-style-type: none"> • Final written examination (50%) • Participation (10%) • Critical analysis of an article or an assignment about the differences and similarities of qualitative and quantitative methods of research (10%), • Individual project (30%) – research proposal.
Language	Greek