8-HOUR ONLINE COURSE 'PHILOSOPHY OF SCIENCE AND DOCTORAL RESEARCH DESIGN'

Number of contact hours: 8 (four sessions of two hours each through Zoom)

Recommended number of participants: 15 (to ensure that everyone has an equal opportunity to present)

Language: English

Research software: The participants in the course will receive one-year free access to the Idea Puzzle software for research design.

Justification of the course: In this course, Ricardo Morais focuses on the 'Ph' of the PhD (Doctor of Philosophy) by making explicit the philosophical assumptions of a doctoral research design. In particular, the theoretical framing of research (epistemology) as: 1) two keywords in a non-tautological relationship; 2) two opposing streams of thought for critical synthesis; 3) a research gap from previous conclusions; 4) a research question or hypothesis from five levels of knowledge depth; and 5) current answers or results as the state of the science; The methodological framing of research (methodology) as: 6) a meta philosophical stance from a matrix of four; 7) a research strategy from one of three meta toolboxes; 8) complementary data collection techniques; 9) data analysis techniques, including research software; and 10) one of three sets of incommensurable quality criteria; The empirical framing of research (ontology) as: 11) a unit of analysis i.e. entity or process; 12) a level of analysis i.e. scale; 13) nature of data as qualitative or quantitative; 14) origin of data as primary or secondary; and 15) an analytical or statistical sample; The rhetoric framing of research (axiology) as: 16) the study's practical and ethical implications i.e. pathos; 17) quasi-inductive, hypothetic-deductive, or abductive logic i.e. logos; as well as 18) theoretical, methodological, and empirical limitations i.e. ethos; The authorial framing of research (axiology) as: 19) first-hand experience of the empirical phenomenon i.e. wisdom; 20) support network i.e. trust; and 21) economic resources i.e. funding and time.

Preferable year of doctoral studies: The course is primarily directed to first- and second-year PhD candidates, although it welcomes participants from any year of doctoral studies.

Admission criteria: The course accepts PhD candidates from any field of knowledge because Philosophy of Science is transferable to all disciplines.

Skills and learning outcomes: After the course, the participants will be able to: a) acknowledge the relation between epistemology, methodology, ontology, and axiology; b) coherently align the theory, method, data, rhetoric, and authorship of a research proposal, article, or thesis with the Idea Puzzle software; and c) review the strengths and weaknesses of an empirical research project in any field of knowledge.

Methodology: Each session of two hours will include one hour of theoretical presentation of the contents and one hour of practical application to the research design of each participant.

Assessment: Attendance and participation: Participants are required to attend all sessions and actively engage with the lecturer and peers during teamwork and individual presentations. Deliverable: Five business days after the course, participants will deliver the final version of their individual research design created with the Idea Puzzle software in Word format.

Study plan:

Session 1) Theoretical decisions of your research: keywords, streams of thought, research gap, research question or hypothesis, and state of the science.

Session 2) Methodological decisions of your research: philosophical stance, research strategy, data collection, data analysis, and quality criteria.

Session 3) Empirical decisions of your research: unit of analysis, level of analysis, nature of data, origin of data, and sample.

Session 4) Rhetorical decisions of your research: pathos, logos, and ethos. Authorial decisions of your research: wisdom, trust, and time.

Bibliography:

Morais, R. (2010). Scientific method. In A. Mills, G. Durepos, & E. Wiebe (Eds.) *Encyclopedia of case study research* (Vol. 2, pp. 840-842), Thousand Oaks, CA: Sage Publications.

Morais, R., & Brailsford, I. (2019). Knowledge visualisation for research design: The case of the Idea Puzzle software at the University of Auckland. In K.N. Sim (Ed.) *Enhancing the role of ICT in doctoral research processes* (pp. 46-66). Hershey, PA: IGI Global.

Parente, C. & Ferro, L. (2016). Idea Puzzle (www.ideapuzzle.com), created by Ricardo Morais. *Academy of Management Learning & Education*, 15(3), 643-645.

Lecturer:

Ricardo Morais, married and father of three daughters, is Assistant Professor of Management at Católica Porto Business School and Director of Idea Puzzle. Since 2013, he coordinates the seminar 'How to design your PhD' at the European Institute for Advanced Studies in Management (EIASM) in Brussels. He holds a PhD in Strategic Management from the University of Jyväskylä, Finland, having graduated in Management from the Faculty of Economics of the University of Porto. He is also an alumnus of HPI School of Design Thinking in Germany. His research interests are interdisciplinary, including Philosophy of Science, Strategic Management, Design Thinking, and Spirituality in Management. Since 2002, he has published more than 30 academic articles, chapters, and papers about these topics and lectured in 106 universities from 27 countries. He is a member of the Philosophy of Science Association, Strategic Management Society, and Academy of Management.

Preferred contact method: ricardo.morais@ideapuzzle.com

Testimonials:
Hasok Chang, Hans Rausing Professor of History and Philosophy of Science, University of Cambridge, United Kingdom
Your course certainly constitutes an innovation in the teaching of Philosophy of Science.

Daniela Duca, Head of Product Innovation, SAGE Publishing, United Kingdom
We love your approach and how the Idea Puzzle software helps students and early career researchers go through the process of developing their research. It aligns well with some of the areas we have been exploring with our Research Planner.

E. Alana James, SAGE book author and founder of Doctoral Net, United States of America
The Idea Puzzle software is a series of questions that, when taken iteratively, cement your ideas for your proposal. You will come to fully understand the philosophy behind the research you are designing.