

THE EDUCATION UNIVERSITY OF HONG KONG

Course Outline

Part I

Programme Title : Doctor of Education and Research Postgraduate Programmes

Programme QF Level : 7

Course Title : Research Methods I & II

Course Code : EDD8016 and EDD8017

Department : Graduate School

Credit Points : 3 for each of Research Methods I & II

Contact Hours : 39 hours for each of Research Methods I & II

Pre-requisite(s) : N/A

Medium of Instruction : English

Course Level : 8

Part II

The University's Graduate Attributes and seven Generic Intended Learning Outcomes (GILOs) represent the attributes of ideal EdUHK graduates and their expected qualities respectively. Learning outcomes work coherently at the University (GILOs), programme (Programme Intended Learning Outcomes) and course (Course Intended Learning Outcomes) levels to achieve the goal of nurturing students with important graduate attributes.

In gist, the Graduate Attributes for Undergraduate, Taught Postgraduate and Research Postgraduate students consist of the following three domains (i.e. in short "PEER & I"):

- Professional Excellence;
- Ethical Responsibility; &
- Innovation.

The descriptors under these three domains are different for the three groups of students in order to reflect the respective level of Graduate Attributes.

The seven GILOs are:

1. Problem Solving Skills
2. Critical Thinking Skills
3. Creative Thinking Skills
- 4a. Oral Communication Skills
- 4b. Written Communication Skills
5. Social Interaction Skills
6. Ethical Decision Making
7. Global Perspectives

1. Course Synopsis

Research Method Blocks together aim to start building students' foundation knowledge of quantitative and qualitative methods at a doctoral level. Then the Blocks will provide students with a deeper understanding of concepts and principles in quantitative research methods and to advance their mastery of qualitative research skills. Students will develop competence in quantitative and qualitative research through lectures, critical reading, discussions, hands-on practices in study design, data collection and analysis.

The two courses together consist of twelve module blocks: (i) one block of Fundamental of Statistical Concepts; (ii) four blocks of quantitative methods; (iii) three blocks of qualitative methods; (iv) two blocks of methods for humanities; (v) one block of methods for policy research and (vi) one block of methods for laboratory research. The integration of the twelve-module blocks provides solid training and background for doctoral studies in education, social sciences, humanities, policy, and laboratory research. Students can choose and complete a minimum of six out of twelve module blocks after consultation with their supervisors / Programme Director / Area Coordinators.

1.1 Sub-synopsis

Fundamental Concepts of Statistics

This Block is for students with very little or no prior training in statistics and prepares them if they wish to proceed to enroll in the Blocks covering quantitative methods.

Quantitative Research Methods

The 4 Blocks together covers introductory (1 Block) to intermediate (1 Block) to advanced (2 Blocks) methods commonly used in studies employing quantitative or mixed methods. Topics covered include basic inferential statistics, correlation and regression, the concept and analysis of moderation and mediation, as well as path models and structural equation models. The analysis of real world data using statistical packages such as SPSS and R will also be included.

Qualitative Research Methods

The 3 Blocks together serves as an introduction to qualitative research methods, with a core focus on the interactive and iterative nature of qualitative research design consisting of the components of researcher identity, research goals, conceptual frameworks, qualitative research approaches and questions, data collection and

analysis, and questions of quality and validity. Assessment tasks are designed to engage students in continual reflection on and active participation in design, data collection and analysis, and using the results to strengthen research proposals.

Research Methods for Humanities

The 2 Blocks together will acquaint students with approaches, methods, and theories needed to understand and employ in research in the humanities. Students will begin to articulate a plan for completing their own doctoral project. One Block will focus on research approaches and different methods commonly used in the area of linguistics and applied linguistics. It will introduce students to the current trends in linguistics research in various major areas of linguistics. Another Block will focus on preparing students to understand their own work in relation to dominant paradigms and trends in their own field of research, whether it be English or Chinese literatures, English or Chinese literary cultures.

Research Methods for Policy Research

Policy research studies how and why governments enact certain policies, and their effects. Taught by experienced researchers, this block offers practical training for students to plan and execute qualitative and quantitative policy research projects. Students will learn the scope and purposes of policy research, the latest methods to analyze the design and outcomes of public policies, and the best practices for conducting telephone and online surveys. Prior knowledge of quantitative or qualitative data analysis would be helpful but is not required.

Research Methods for Laboratory Research

The Block aims to provide students with a fundamental understanding of the rationales, principles and practices underlying science and laboratory research. Through experiencing simple modules of laboratory and computational research in various science disciplines, students will acquire knowledge of the design and implementation of scientific research, laboratory safety, basic hands-on experimental skills, approaches for data collection and analyses.

2. Course Intended Learning Outcomes (CILOs)

Upon completion of the block(s) provided by Research Methods I & II, students will be able to achieve the following CILO(s) based on their selection of block(s):

- CILO₁ Know the key measures of location and dispersion of a set of data, and recognize the features of the measures; explain probability distributions and their parameters; master the concepts of sampling, sampling

distribution and sample statistics; make inference on the population by observing and analyzing sample data.

- CILO₂ Demonstrate knowledge and understanding of the principles and concepts of quantitative research methods in educational and social research; systematically review and appraise methodological and statistical issues of published reports critically; use different statistical software programs to manage and analyze research data; present numerical and statistical information in a professional manner.
- CILO₃ Discuss the nature of qualitative design, epistemological foundations, and types of research questions of qualitative research; design a conceptual framework and questions, data collection methods for qualitative research methods on their topic of research; analyze qualitative data with the assistance of appropriate qualitative data analysis software; write a short proposal for a qualitative research project.
- CILO₄ Have an overview of possible research topics in language studies and linguistic research; design and carry out independent research in the area of language studies and linguistic research; design common types of questionnaire in language studies and linguistic research; design interview guideline and do qualitative analysis.
- CILO₅ Articulate approaches, methods, and theories used in humanistic Research; define and design a coherent plan for their own doctoral Research; relate their own approach to the range of available options, and defend the value and meaning of their research in terms appropriate to their chosen field.
- CILO₆ Articulate the purpose of policy research, explain the potentials and limitations of key quantitative and qualitative policy research methods, and propose valid and feasible methods to research public policies.
- CILO₇ Demonstrate an understanding of the principles and practices underlying science and laboratory research; acquire knowledge of laboratory safety, basic experimental skills, approaches for data collection and analyses in various science disciplines.

3. Content, CILOs and Teaching & Learning Activities

Fundamental Concepts of Statistics			
One Block	Descriptive Statistics; Probability Distributions; Sampling Distribution; Point and Interval Estimations and Basic Inferential Statistics	<i>CILO₁</i>	Lecturing and Discussion with some online learning materials provided

Quantitative Research Methods			
One Block	Hypothesis Testing; Power and Sample Size Determination	<i>CILO₂</i>	Lecture, Computer lab, Tutorial (SPSS; G*Power; R)
One Block	Correlation and Regression		
One Block	Moderation; Mediation; Path Analysis		
One Block	Structural Equation Modeling (SEM)		

Qualitative Research Methods			
One Block	Foundation of Qualitative Research; Research Design; Conceptual Frameworks and Research Questions for Qualitative Studies	<i>CILO₃</i>	Lecture, small-group & class discussion, interview activity, observation activity, coding activity proposal assignment
One Block	Overview of Data Collection Methods, Participant Observation, Planning Interviews, Conducting Interviews		
One Block	Qualitative Research Approaches; Data Analysis: Coding & Theorizing; Presenting and Proposing Qualitative Research		

Humanities Research Methods			
One Block	Research in Humanities; Emerging Trends in Contemporary Humanities Research; Designing Informed Humanities Research; Field Positioning for Graduate Students	<i>CILO₄</i>	Lecture, classwork, tutorial
One Block	Language Studies and Linguistics: Areas of interest in linguistics; Empirical research design; Questionnaire design; Interview studies	<i>CILO₅</i>	

Research Methods for Policy Research			
One Block	Th purposes and scope of policy research; Quantitative policy research; Qualitative policy research; Telephone and online survey methods	CILO ₆	Lecture, class discussion, case study
Research Methods for Laboratory Research			
One Block	An overview of the principles and practices underlying science and laboratory research, as well as knowledge of laboratory safety, basic experimental skills, data collection and analyses through simple experimental modules.	CILO ₇	Lecture, experiments, discussion, classwork

Remark: The offering of blocks is subject to sufficient enrolment, and the blocks may not be offered every year. The University reserves the right to make final decision on the offering of blocks.

4. Assessment

Assessment Tasks	Weighting (%)	CILO
Block 1: Fundamental Concepts of Statistics		
(a) Online Test(s)	40%	<i>CILO₁</i>
(b) Quiz	60%	
Block 2: Quantitative Research Methods I		
(a) Take-home Exercise	40%	<i>CILO₂</i>
(b) Mini-Research Project	60%	
Block 3: Quantitative Research Methods II		
(a) Take-home Exercise	40%	<i>CILO₂</i>
(b) Mini-Research Project	60%	
Block 5: Quantitative Research Methods III		
(a) Take-home Exercise	40%	<i>CILO₂</i>
(b) Mini-Research Project	60%	
Block 6: Quantitative Research Methods IV		
(a) Take-home Exercise	40%	<i>CILO₂</i>
(b) Mini-Research Project	60%	
Block 4: Qualitative Research Methods I		
Written report explaining a qualitative research question on students' own topic of research (1200-1500 words)	100%	<i>CILO₃</i>

Block 7: Qualitative Research Methods II		
Participant observation/interview exercise memo (1200-1500 words)	100%	CILO ₃
Block 8: Qualitative Research Methods III		
Proposal for a qualitative research projects (>2000 words)	100%	CILO ₃
Block 9: Humanities Research Methods: Research Methods in Language Studies and Linguistics		
A mini research proposal	100%	CILO ₄
Block 10: Humanities Research Methods: Research Methods in Literature and Culture		
Annotated bibliography (1200-1500 words)	100%	CILO ₅
Block 11: Research Methods for Policy Research		
Take-home essay (1200-1500 words)	100%	CILO ₆
Block 12: Research Methods for Laboratory Research		
A mini proposal with an emphasis on the research methodology for a simple science or laboratory research (1000-1200 words)	100%	CILO ₇

5. Required Text(s)

For Blocks in “Fundamental Concepts of Statistics”, “Quantitative Research Methods” and “Fundamentals of Educational and Social Research Methods”

No prescribed text; reading lists will be provided during the lectures.

For Blocks in “Qualitative Research Methods”

Maxwell, J. A. (2013). *Qualitative research design: An interactive approach (3rd Edition)*. Thousand Oaks, CA: Sage Publications.

<http://library.eduhk.hk/record=b2048038~S5>

For the Block in “Research Methods in Language Studies and Linguistics”

Wray, A., & Bloomer, A. (2013). *Projects in Linguistics. A practical guide to researching language*. London, New York: Routledge

For the Block in “Research Methods for Policy Research”

No prescribed text; reading lists will be provided during the lectures.

For the Block in “Research Methods for Laboratory Research”

No prescribed text; reading lists will be provided during the lectures.

6. Recommended Readings

The full list for each Block will be provided in class.

7. Related Web Resources

The full list for each Block will be provided in class.

8. Related Journals

The full list for each Block will be provided in class.

9. Academic Honesty

The University adopts a zero tolerance policy to plagiarism. For the University's policy on plagiarism, please refer to the *Policy on Academic Honesty, Responsibility and Integrity with Specific Reference to the Avoidance of Plagiarism by Students* (<https://www.eduhk.hk/re/modules/downloads/visit.php?cid=9&lid=89>). Students should familiarize themselves with the Policy.

10. Others

Nil

August 2022