

Module Details	
Module Title	Research Methods and Data Analysis
Module Code	RES7016-C
Academic Year	2021/2
Credits	30
School	School of Allied Health Professions and Midwifery
FHEQ Level	FHEQ Level 7

Contact Hours	
Type	Hours
Independent Study	258
Supervised time in studio/workshop	15
Seminars	10
Lectures	15
Tutorials	2

Availability	
Occurrence	Location / Period
BDA	University of Bradford / Semester 1
BDA	University of Bradford / Semester 2

Module Aims
<p>This module aims to develop practical knowledge and critical understanding of the features of quantitative and qualitative research and data-analysis methods used in the area of health and social care. This module is a prerequisite preparation for a research-based dissertation in the form of either a primary study, a work-based study, or a systematic review.</p> <p>The module will enable students to understand that research approaches are underpinned by philosophical frameworks that inform the steps in the primary research process, including research question development, study design, sampling, data-collection methods, data-analysis methods, and dissemination methods. Students will learn the principles of research ethics. Students will learn practical and critical skills in primary data collection, qualitative data-analysis and interpretation, and quantitative data-analysis and interpretation. Students will develop critical appraisal skills for the evaluation and appraisal of published research studies.</p>

## Outline Syllabus

Epistemology, research philosophies and approaches. Evidence-based healthcare. Clinical audit skills. Identification of areas for evidence-based improvement in healthcare. Practical skills in searching scientific literature databases, principles of literature review, critical appraisal of published studies, and identification of evidence-based knowledge gaps. Development of statements of intent, research questions and hypotheses. Sampling methods, sample size requirements, power calculations, theoretical saturation strategies. Bias reduction strategies. Types of data. Methods of data-collection: questionnaire, interviews, focus group discussions, case studies, observation, clinical records. Data management and protection. Research ethics and approval processes. Practical skills in qualitative data-analysis and introduction to the use of qualitative dataanalysis software, such as NVivo. Practical skills in the use of descriptive and inferential statistical analysis and introduction to the use of statistical software, such as SPSS. Dissemination of research.

## Learning Outcomes

Outcome Number	Description
01	Show a critical understanding of epistemology, inductive and deductive research approaches and philosophies.
02	Be able to search the scientific literature databases and select relevant research studies.
03	Be able to critically appraise published research studies.
04	Critically reflect on current professional knowledge and practice, conceptualise a health and social care related problem, and formulate appropriate and viable statements of intent, research questions and hypotheses.
05	Demonstrate a critical understanding of primary research methods, including study design, sampling, data types, data-collection methods, bias reduction strategies.
06	Demonstrate critical understanding and practical skills in qualitative data-analysis, including narrative analysis and thematic analysis, and the use of qualitative data handling software.
07	Demonstrate critical understanding and practical skills in fundamental descriptive and inferential statistical analysis and the use of statistical software.

## Learning, Teaching and Assessment Strategy

This module will be delivered through a combination of keynote lectures, seminars, workshops, team-based learning and tutorials. Keynote lectures will be used to introduce main concepts and philosophies. Workshops will be used to develop practical skills in literature searching and in using various software applications, such as NVivo and SPSS. Seminars will be used to discuss critical appraisals of published research studies. Team-based learning will be used in discussing study design and research methods. Tutorials will be used to support individual coursework.

Coursework in the form of critical appraisals of published studies will allow assessment of philosophical and methodological understanding of research as well the ability to evaluate published studies in the context of the body of knowledge. Report writing of data-analysis using relevant software, will allow for the assessment of practical skills in, and critical understanding of, data-analysis.

Formative assessment will be offered through feedback on submitted draft coursework.

Mode of Assessment			
Type	Method	Description	Weighting
Summative	Coursework - Written	Critical appraisal of a qualitative primary study (1,000 words)	25%
Summative	Coursework - Written	Critical appraisal of quantitative primary study (1,000 words)	25%
Summative	Short-Time Limited Online Examination	Report on analysis of qualitative data (2.5 Hrs)	25%
Summative	Short-Time Limited Online Examination	Report on analysis of quantitative data (2.5Hrs)	25%
Formative	Coursework - Written	Draft critical appraisal of qualitative primary study (500 words)	N/A
Formative	Coursework - Written	Coursework / Draft critical appraisal of primary study (500 words)	N/A
Formative	Short-Time Limited Online Examination	Mock analysis using qualitative data	N/A
Formative	Short-Time Limited Online Examination	Mock analysis using quantitative data	N/A

Reading List
To access the reading list for this module, please visit <a href="https://bradford.rl.talis.com/index.html">https://bradford.rl.talis.com/index.html</a>

*Please note:*

*This module descriptor has been published in advance of the academic year to which it applies. Every effort has been made to ensure that the information is accurate at the time of publication, but minor changes may occur given the interval between publishing and commencement of teaching. Upon commencement of the module, students will receive a handbook with further detail about the module and any changes will be discussed and/or communicated at this point.*

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