Research Methods - 6KNIN611

Level: 6
Credits: 15

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This handbook must be read in conjunction with module information provided on KEATS, the King’s E-Learning And Teaching Service. You will be given access to KEATS on enrolment. Important information relating to assessment and related regulations can be found in the Undergraduate Programme Handbook, available on KEATS and via the Student Services Centre.

This handbook can also be provided in alternative formats (such as large print) upon request to asc@kcl.ac.uk.
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Module overview
This module forms part of the BSc Nursing with Registration as an Adult, Children’s or Mental Health Nurse. The module contributes to your programme of study by building on the transferable study skills you have gained throughout the programme to date. The module will prepare you to undertake your student project/dissertation.

The module can also be taken as a freestanding module.

Module aim
The module aims to introduce students to a range of methodologies used in healthcare research. To enhance students’ awareness of the process and outcomes of health care research and how these relate to health care provision. Students will be exposed to different approaches to research as well as a range of data collection methods and analysis techniques. A beginner introduction to health statistics will enable students to understand and critique statistical data reported in reports and research papers.

The course will assist students to critically evaluate issues related to research utilisation as well as the relative strengths and weaknesses of published research.

Learning outcomes
- To enable the students to develop awareness of research methods and reports in order to assess their significance to practice
- Discuss research as an essential component of midwifery, nursing and evidence-based practice
- Encourage students to develop a questioning approach to their work
- Differentiate between research methods used within qualitative and qualitative approaches
- Critique research articles based on knowledge of the research process and methodology
- To have an awareness of ethical and sensitive issues in midwifery and nursing research
- To understand and critique statistical data reported in reports and research papers.

Teaching arrangements
The majority of the module will be delivered on-line using varieties of web-based materials such as videos, podcasts, online activities, online discussion, and opportunities for reflection. There will also be a range of online quizzes that will test your knowledge as you progress throughout the course. At the end of each session look back at the learning outcomes. Do you feel you have sufficient understanding and competence to be able to say you have achieved them? Open your log book and evaluate your understanding for each learning outcome. Record your reflections in the tables provided and save your log book.
Learning resources

Day 1
(University day)

Session 1 – Welcome and Introduction
1. Welcome to the module, an overview and discussion about the module

Session 2 – Introduction to Critical Thinking
By the end of the session you will be able to:
• Demonstrate critical thinking requires insight into our own ‘world views’ and understanding of how knowledge can be generated •
• Demonstrate an ability to reason systematically from information to draw valid conclusions, and to defend these conclusions •
• Demonstrate that critical thinking is not criticism, cynicism •
• Develop skills in working up and presenting critical, constructive arguments when critiquing research

Indicative Reading


Session 3 – Literature Review
(Directed study)

By the end of the session you will be able to:
• Explain the function of a literature review
• Describe the stages in the literature review process
• Plan a literature review
• Know how to present a literature review
Literature Searching
(Directed study)

By the end of the session you will be able to:
- Design an effective search strategy for a chosen question
- Understand which databases to use and how to apply the search strategy

Indicative reading

Session 4 – Ethics in Healthcare Research
By the end of the session you will be able to:
- Understand ethics as a concept
- Be able to identify key ethical principles
- Understand the influence of history on research ethics
- Understand sensitive issues and research
- Recognise ethical issues researchers need to consider in relation to experiments, questionnaires, interviews and observation

Indicative reading
http://library.kcl.ac.uk:80/F/?func=direct&doc_number=001450473&local_base=KINGS
Session 5 – The Relevance of Evidence for Nursing Policy and Practice

Aims of the session:

- To provoke debate on the role and relevance of evidence in nursing policy and practice
- To present a case study of evidence impacting policy and practice in nursing
- To demonstrate the power of evidence as rhetoric in policy and practice

Indicative reading

Day 2
(Directed study-all day)

Session 6 – Qualitative Research Design
By the end of the session you will be able to:
- Understand the key features of common qualitative research
- Understand common qualitative research methods
- Critically appraise a qualitative research report

Indicative reading

Session 7 – Data Collection Methods/Observation
By the end of the session you will be able to:
- Understand the varying observation techniques used in qualitative and quantitative research
- Understand the value of studying a particular topic/clinical issue/problem in the context in which it is experienced
- Appreciate the potential biases in the data and knowledge generated through observation techniques, including methods of explaining and minimising bias
- Appreciate the ethics of observation techniques and studies, and the responsibilities of the researcher to avoid harm to the study participants.

Indicative reading
Session 8 – Data Collection Methods/ Interviews

By the end of the session you will be able to:

- Gain an understanding of the use of interviews in quantitative and qualitative research
- Explore advantages and disadvantages of interviews
- Differentiate between structured and un-structured interviews
- Address issues of validity and reliability
- Consider strategies to ensure validity and reliability are maintained

Indicative reading


Session 9 – Sampling in Qualitative Research

To gain an understanding of sampling strategies in qualitative research.

Indicative reading

Day 3

Session 10 – Qualitative Data Analysis
(Directed study)

By the end of the session you will be able to:

- Appreciate the task of analysing qualitative data
- Apply information on data analysis by working through the early stages of thematic analysis.

Indicative reading


Session 11 – Trustworthiness and Rigour in Qualitative Research
(Directed study)

- Understand how rigour and trustworthiness can be established in qualitative research.

Indicative reading


Session 12 – Critical Appraisal of Qualitative Research
(University day)

By the end of the session you will be able to:

- Use a structured tool to critically analyse the research methods used in the research papers
- Analyse and discuss the research methods used in the research paper in small groups
- Work in small groups and to share the responsibility for presenting feedback to the whole class.

Indicative reading


Critical Appraisal Sills Programme (CASP): http://www.casp-uk.net/ [accessed 1 Aug 2016].


Session 13 – Exam Debrief
(University day)
Day 4 — Quantitative Research Design
(Directed study-all day)

Session 14 – Experimental Design
By the end of the session you will be able to:

- Understand different experimental and non-experimental research designs
- Describe the basic features of commonly used experimental designs
- Identify strengths, limitations, sources of bias in experiments
- Consider ways in which these can be overcome.

Indicative reading

Session 15 – Survey Research Design
By the end of the session you will be able to:

- Understand the purposes of different survey designs
- Understand the principles of rigorous survey designs.

Indicative reading

Session 16 – Data Collection Methods in Quantitative Research/Questionnaires
By the end of the session you will be able to:

- To understand the value and limitations of questionnaires in clinical research
- To gain a critical understanding of instrument format and design.

Indicative reading
Session 17 – Data Collection Methods in Quantitative Research/Structured Interviews
Please see session 8.

Session 18 – Data Collection Methods in Quantitative Research/Structured Observations
Please see session 7.

Session 19 – Sampling in Quantitative Research
To gain an understanding of sampling strategies in quantitative research.

Session 20 – Reliability and Validity
By the end of the session you will be able to:
- Understand the terms reliability and validity in quantitative research
- Describe how reliability and validity can be assessed in quantitative research

Indicative reading
Chapter 12 rigour and trustworthiness in research.
Day 5

Session 21 – Writing a Research Proposal
(University day)

By the end of the session you will be able to:
- To understand the steps involved in preparing a research proposal
- Understand each stage of the proposal
- Discuss how to prepare and structure a research proposal.

Indicative reading

Session 22 – Tutorial
(University day)

Session 23 – Quantitative Data Analysis
(Directed study)

Working through the Statistics Primer online resource, preparation for quantitative data analysis session (see day 6).
Day 6

Session 24 – Quantitative Data Analysis
(University day)

By the end of the session you will be able to:

- Understand different types of data, and their measurement
- Understand how to report and summarise data
- Recognise and apply different tests for parametric and non-parametric data
- Consider how statistics can assist in measuring differences in numerical data
- Use statistics to explore relationships in numerical data
- Understand and critique statistical data reported in research papers

Indicative reading


Session 25 – Critical Appraisal of Quantitative Research
(University day)

By the end of the session you will be able to:

- To use a structured tool to critically analyse the research methods used in the research papers
- To analyse and discuss the research methods used in the research paper in small groups
- To work in small groups and to share the responsibility for presenting feedback to the whole class.

Indicative reading


Critical Appraisal Skills Programme (CASP): http://www.casp-uk.net/ [accessed 1 Aug 2016].

Day 7

Session 26 – Tutorials
(Optional)
**Dates for examinations**
*Monday 4 December 2017*

**Results and resits for examinations**
Unratified results from exams will be available on your KEATS module site 4 weeks from the date of the examination.

Faculties are required from this academic year 2017/18 to make examination scripts available to any student who makes a request, free of charge. Any requests for examination scripts should still be managed in accordance with the Data Protection Act 1998. Students may request access to their exam paper at any time (after the Assessment Sub Board meeting) during their programme of study. This policy applies to all summative, unseen, written examinations. **MCQs and OSCEs are exempt from this process.**

Re-sit dates will available on your KEATS module site. If you are unsuccessful, it is recommended that you contact the module leader before submitting your second attempt or re-sitting your examination.

**Resubmission date**
TBC
Module evaluation
As part of the university’s Student Voice Strategy, King’s uses an electronic module evaluation system known as EvaSys. This provides an opportunity for you to feedback on different aspects of the module through a series of pre-set questions and qualitative comments. At the end of the module you will receive an automated invitation via your KCL email account to complete your evaluation online.

Please take the time to complete as your feedback is important. It informs ongoing developments to individual modules to ensure that the learning needs and expectations of the Faculty’s student community are met to a high standard.

To strengthen the feedback cycle, a report summarizing the quantitative results for the module as a whole and the module lead’s reflections on your feedback will be sent to you after the online evaluation survey has closed.

Action from previous evaluations
1) The subject is very hard going and intense.

**ACTION:** The sessions will be made simpler, using examples from practice so that students can understand difficult research concepts. The module sessions will be available online prior to the sessions and some days of the module will be guided (directed) independent study.

2) It would have been very useful to have the mock available earlier than the end of the course.

**ACTION:** The purpose of the mock exam at the end of the module is to enable the students to revise for the exam and test their knowledge on all topics discussed in the module. However, the students are provided with online quizzes to check their understanding. There is an exam revision session in which examples of exam questions are discussed with students. There are three tutorials sessions.

3) The teaching sessions were not aimed at people who had never done statistics.

**ACTION:** Statistics session will include more interactive activities and e-learning resource have been included to support student learning.

4) This course would have been more suitable earlier on in the course, we could have used the research method skills we have learnt to develop a better understanding of the research we have been studying in modules such as Evidence Based Practice.

**ACTION:** Teaching research methods is currently under review by the faculty.

5) Did not like only have one week of lectures before leaving for 6 weeks of placement, then coming back and only having a month before the exam.

**ACTION:** To minimise the disruption to the module due to placement, student are asked to undertake activities in practice to link what they learnt in day 1 & 2. These activities will be discussed in a re-cap session. More tutorials sessions are provided. All course materials are available online.
# Timetable: Research methods (6KNIN611) timetable

<table>
<thead>
<tr>
<th>Teaching mode</th>
<th>Date</th>
<th>Type of session</th>
<th>Title</th>
<th>Time</th>
<th>Group</th>
<th>Lecturer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Directed study &amp; university</td>
<td>23 Oct 2017</td>
<td>Directed study</td>
<td>Pre-reading</td>
<td>09:00-10:00</td>
<td>All</td>
<td>Z. Zahran</td>
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<tr>
<td>based study</td>
<td>Monday (Day 1)</td>
<td>Lecture 1</td>
<td>Introduction to the module/Exam</td>
<td>10:00-11:00</td>
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<td>P. Grocott</td>
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<td></td>
<td></td>
<td>Lecture 2</td>
<td>Introduction to critical thinking</td>
<td>11:00-12:00</td>
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<td>S. McAllister</td>
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<td></td>
<td></td>
<td>Directed study</td>
<td>Literature review/literature search</td>
<td>14:00-15:00</td>
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<td></td>
<td>Lecture 3</td>
<td>Ethical issues in healthcare research</td>
<td>15:00-16:00</td>
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<td></td>
<td>Lecture 4</td>
<td>The relevance of evidence for nursing policy and practice</td>
<td>16:00-17:00</td>
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<td>A M Rafferty</td>
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<tr>
<td>Directed study</td>
<td>24 Oct 2017</td>
<td>Directed study</td>
<td>Overview of Qualitative research</td>
<td>09:00-12:00</td>
<td>All</td>
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<td></td>
<td>Tuesday (Day 2)</td>
<td></td>
<td>Data collection in qualitative research</td>
<td>13:00-14:00</td>
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<td>Sampling in qualitative research</td>
<td>14:00-15:00</td>
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<td>Revision time</td>
<td>15:00-16:00</td>
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<td>Check your understanding</td>
<td>16:00-17:00</td>
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<td>Date</td>
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<td><strong>30 Oct 2017</strong></td>
<td><strong>Monday</strong></td>
<td><strong>(Day 3)</strong></td>
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<tr>
<td>Lecture 8</td>
<td>09:00-10:00</td>
<td>Qualitative data analysis</td>
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<td>Lecture 9</td>
<td>10:00-11:00</td>
<td>Trustworthiness and rigour in qualitative research</td>
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<tr>
<td>Directed study</td>
<td>11:00-12:00</td>
<td>Reading qualitative paper</td>
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<td>Directed study</td>
<td>13:00-14:00</td>
<td>Critical appraisal of qualitative paper-group discussion</td>
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<td>AD&amp;PQ (group 1-6a)</td>
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<td>Jo de Souza/S. Sarre</td>
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<td>Adult (group 7-12a)</td>
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<td>J. Cornish/V. Tsianakas</td>
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<td>Adult (group 13-18a)</td>
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<td>J. Bliss/Olga, L. Gillies</td>
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<td>Lynne/Sharron Frood</td>
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<td>MH (1-3m)</td>
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<td>Gemma Trainor/Vasiliki</td>
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<td>16:00-17:00</td>
<td>Q&amp;A</td>
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<td><strong>31 Oct 2017</strong></td>
<td><strong>Tuesday</strong></td>
<td><strong>(Day 4)</strong></td>
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<tr>
<td>Directed study</td>
<td>09:00-12:00</td>
<td>Quantitative research design</td>
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<tr>
<td>Directed study</td>
<td>15:00-16:00</td>
<td>Data collection and sampling in quantitative research</td>
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<tr>
<td>Directed study</td>
<td>16:00-17:00</td>
<td>Validity and reliability</td>
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<td>6 Nov 2017</td>
<td>Directed study &amp; university based study: Writing research proposal</td>
<td>09:00-11:00</td>
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<td>Z. Zahran</td>
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<tr>
<td>Monday</td>
<td>Q&amp;A</td>
<td>11:00-12:00</td>
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<tr>
<td>(Day 5)</td>
<td>Directed study: Quantitative data analysis (stats primer)</td>
<td>15:00-17:00</td>
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<td></td>
<td>Activities for quantitative data analysis</td>
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<td>13 Nov 2017</td>
<td>Directed study: Quantitative data analysis</td>
<td>11:00-13:00</td>
<td>All groups</td>
<td>Ehsan Khan</td>
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<td>Monday</td>
<td>In small groups: Quantitative paper reading (RCT)</td>
<td>14:00-15:00</td>
<td>Small groups</td>
<td>See your assigned</td>
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<tr>
<td>(Day 6)</td>
<td>Directed study: Critical appraisal group discussion</td>
<td>15:00-17:00</td>
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<td>AD&amp;PQ (group 1-6a)</td>
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<td>Jo de Souza/ J. Moore</td>
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<td>Adult (group 7-12a)</td>
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<td>Jocelyn/ C. Patch</td>
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<td>Gemma Trainor</td>
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<tr>
<td>28 Nov 2017</td>
<td>University based study: Q&amp;A</td>
<td>16:00-17:00</td>
<td>All groups</td>
<td>Z. Zahran</td>
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<tr>
<td>Tuesday</td>
<td>(Day 7)</td>
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<tr>
<td>4 Dec 2017</td>
<td>Exam</td>
<td>09:00-15:00</td>
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<td>Ehsan/ Mary/ Zainab</td>
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<tr>
<td>Monday</td>
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