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 Midwifery with Registration as a Midwife. 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.

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
A variety of teaching and learning strategies will be available within the module. The teaching and learning strategies used are a mix of lectures, seminars, e-learning and self-directed study. Full details of each session are available on the university e-learning service KEATS.
Learning resources

Day 1 — Morning

Session 1 & 2 – Welcome and Introduction
- Welcome to the module, an overview and discussion about the module.
- Preparation for critical appraisal session
- Using research in practice

Indicative reading

Day 1 — Afternoon

Session 3 – Introduction to Critical Thinking

By the end of the session you will be able to:
- Demonstrate that critical thinking requires ability to reason systematically from information, to draw valid conclusions, and to defend these conclusions
- Develop skills in working up and presenting critical, constructive arguments when reviewing and critiquing research
- Encourage students to develop a questioning approach to their work

Indicative reading
Session 4 – Ethics in Healthcare Research

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

• Understand sensitive issues and research
• Understand ethics as a concept
• Understand the influence of history on research ethics
• Identify key ethical principles
• Recognise ethical issues researchers need to consider in relation to experiments, questionnaires and interview.

Indicative reading


Literature Searching – (E-learning)

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

• How to design an effective search strategy for a chosen question
• Understand which databases to use and how to apply the search strategy.
Day 2 — Morning

Session 5 – Observation

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

- To understand the varying observation techniques used in qualitative and quantitative research
- To understand the value of studying a particular topic/clinical issue/problem in the context in which it is experienced
- To appreciate the potential biases in the data and knowledge generated through observation techniques, including methods of explaining and minimising bias
- To appreciate the ethics of observation techniques and studies, and the responsibilities of the researcher to avoid harm to the study participants.

Indicative reading


Session 6 – Interviews

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

- To gain an understanding of the use of interviews in quantitative and qualitative research
- To explore advantages and disadvantages of interviews
- To differentiate between structured and un-structured interviews
- To address issues of validity and reliability
- To consider strategies to ensure validity and reliability are maintained.

Indicative reading


Day 2 — Afternoon

Session 7— Qualitative Research Design

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

- An understanding the main features of qualitative research
- An understanding of qualitative methods of data collection.

Indicative reading

Day 3 — Afternoon

Session 8 – Recap
Re-cap and exam briefing.

Session 9 – Literature Review

- 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
- Be able to plan a literature review
- Know how to present a literature review.

Indicative reading


Day 4 — Morning

Session 10 – Survey 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 11 – 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


Day 5 — Morning

Session 12 – 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
- Understand how rigour and trustworthiness can be established in qualitative research.

Indicative reading


Session 13 – Qualitative Data Analysis
(In small groups)

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

Day 6 — Morning

Session 14 – Descriptive Statistics

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

- Understand different types of data, and their measurement
- To understand how to report and summarise data
- To be able to apply correctly a range of common statistical tests
- To understand and critique statistical data reported in articles, reports and research papers
- To be able to appraise research for its clinical significance.

Indicative reading


Session 15 – Experimental Research Design in Practice

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

- An understanding of different experimental and non-experimental research designs
- To describe the basic features of commonly used experimental designs
- A knowledge of strengths, limitations, sources of bias in experiments
- To consider ways in which these can be overcome.

Indicative reading


Day 7 — Morning

E-learning Stats Exercise

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

• Working through the exercise using Statistics Primer online resource
• Utilise descriptive and inferential tests.

Session 16 – Inferential Statistics

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

• To recognise and apply different tests for parametric and non-parametric data
• To consider how statistics can assist in measuring differences in numerical data
• Using statistics to explore relationships in numerical data.

Indicative reading


Day 7 — Afternoon

Session 17 – Critical Appraisal

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 8 — Morning**

**Literature Searching – E-learning**

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

- How to design an effective search strategy for a chosen question
- Understand which databases to use and how to apply the search strategy.

**Session 18 – Writing a Research Proposal**

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**


Day 8 — Afternoon

Session 19 – Critical Appraisal

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 9

Session 20 – Tutorials

Dates for examinations
Thursday 25 May 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.

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
Tuesday 22 August 2017
Module evaluation

At the end of the module you are requested to complete the short online evaluation which will be available on your module KEATS site. Student evaluations are very important to us and are required by Health Education England and the regional London Local Education and Training Boards.

Action from previous evaluations

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.

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 a short quiz and there is an exam revision session in which examples of exam questions are discussed with students. There are two tutorials sessions at the end of the module.

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

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

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.

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 and 2. These activities will be discussed in a re-cap session.
# Timetable

Research methods (6KNIN611) timetable (PRE-REG)

Level 6/15 credits

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<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>
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<tbody>
<tr>
<td></td>
<td></td>
<td></td>
<td><strong>Day 1</strong></td>
<td></td>
<td></td>
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<tr>
<td>University based study</td>
<td>2 Feb 2017</td>
<td>Session 1</td>
<td>Introduction to the module</td>
<td>10:00-11:00</td>
<td>All groups</td>
<td>Elsa Montgomery</td>
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<tr>
<td>University based study</td>
<td>2 Feb 2017</td>
<td>Session 2</td>
<td>Using research in practice</td>
<td>11:30-13:00</td>
<td>All groups</td>
<td>Jenny Carter</td>
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<tr>
<td>University based study</td>
<td>2 Feb 2017</td>
<td>Session 3</td>
<td>Introduction to critical thinking</td>
<td>14:00-15:00</td>
<td>All groups</td>
<td>Kirstie Coxon</td>
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<td>University based study</td>
<td>2 Feb 2017</td>
<td>Session 4</td>
<td>Ethical issues in healthcare research</td>
<td>15:00-16:00</td>
<td>All groups</td>
<td>Elsa Montgomery</td>
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<td><strong>Literature search. E-learning</strong></td>
<td><strong>16:00-17:00</strong></td>
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<td><strong>Day 2</strong></td>
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<td>University based study</td>
<td>7 Feb 2017</td>
<td>Session 5</td>
<td>Observation</td>
<td>11:00-13:00</td>
<td>All groups</td>
<td>Sam Bassett</td>
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<tr>
<td>University based study</td>
<td>7 Feb 2017</td>
<td>Session 6</td>
<td>Interviews</td>
<td>14:00-15:00</td>
<td>All groups</td>
<td>Kirstie Coxon</td>
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<td>University based study</td>
<td>7 Feb 2017</td>
<td>Session 7</td>
<td>Qualitative research design</td>
<td>15:00-16:00</td>
<td>All groups</td>
<td>Elsa Montgomery</td>
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<td><strong>Day 3</strong></td>
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<tr>
<td>University based study</td>
<td>6 March 2017</td>
<td>Session 8</td>
<td>Re-cap and exam briefing</td>
<td>14:00-15:00</td>
<td>All groups</td>
<td>Elsa Montgomery</td>
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<td>University based study</td>
<td>6 March 2017</td>
<td>Session 9</td>
<td>Literature review</td>
<td>15:00-16:00</td>
<td>All groups</td>
<td>Kirstie Coxon</td>
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<td>DAY 4</td>
<td>9 March 2017</td>
<td><strong>Self-directed learning</strong></td>
<td><strong>09:00-10:00</strong></td>
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<tr>
<td>University based study</td>
<td>Session 10</td>
<td>Survey design</td>
<td>10:00-11:00</td>
<td>TBC</td>
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<tr>
<td></td>
<td>Session 11</td>
<td>Questionnaires</td>
<td>11:30-13:00</td>
<td>Kim Watts</td>
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<th>DAY 5</th>
<th>13 March 2017</th>
<th><strong>e-learning: statistics on line study</strong></th>
<th><strong>09:30-10:30</strong></th>
<th>All groups</th>
<th>Sam Bassett</th>
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<tbody>
<tr>
<td>University based study</td>
<td>Session 12</td>
<td>Reliability and validity</td>
<td>11:00-13:00</td>
<td>Group 1</td>
<td>Elsa Montgomery</td>
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<td>Session 13</td>
<td>Qualitative data analysis</td>
<td>11:00-13:00</td>
<td>Group 2</td>
<td>Rebecca Daley</td>
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<td>11:00-13:00</td>
<td>Group 3</td>
<td>James Harris</td>
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<td>11:00-13:00</td>
<td>Group 6 (post-qual)</td>
<td>Yan-Shing Chang</td>
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<tr>
<th>DAY 6</th>
<th>16 March 2017</th>
<th><strong>e-learning statistics on line study: Descriptive statistics</strong></th>
<th><strong>E-learning</strong></th>
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<td>Session 14</td>
<td>Descriptive statistics</td>
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<td>Session 15</td>
<td>Experimental design</td>
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### DAY 7

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<tr>
<td>e-learning statistics on line study: Inferential statistics</td>
<td>10:00-11:30 All groups</td>
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<td>Session 16</td>
<td>Inferential statistics</td>
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<td>Session 17</td>
<td>Critical appraisal</td>
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<td>14:00-16:00</td>
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<td>14:00-16:00</td>
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**Literature search E learning**

E-learning

### DAY 8

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<td>Tutorial/optional drop in session</td>
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<td>Session 18</td>
<td>Writing a research proposal</td>
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<td>Session 19</td>
<td>Critical Appraisal</td>
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<td>14:00-16:00</td>
<td>Group 1</td>
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<td>Group 5</td>
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### DAY 9

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<tbody>
<tr>
<td>Session 20</td>
<td>Revision/tutorials</td>
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### EXAM

<table>
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Rooms are confirmed on the module KEATS page.