

# HLTH 2021 RESEARCH METHODS (QUANTITATIVE AND QUALITATIVE)

**Credit Points** 10

**Legacy Code** 400864

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**Description** This subject further explores research methods used to acquire knowledge in healthcare. This includes research designs, international standards, key statistics, and interpretation of results. The range of health research methods will be presented, and studies about treatment effectiveness (clinical trials and systematic reviews), diagnostic effectiveness and qualitative approaches will be explored in detail. Pathways for early-career research are also introduced.

**School** Health Sciences

**Discipline** Health, Not Elsewhere Classified.

**Student Contribution Band** HECS Band 2 10cp

Check your fees via the Fees ([https://www.westernsydney.edu.au/currentstudents/current\\_students/fees/](https://www.westernsydney.edu.au/currentstudents/current_students/fees/)) page.

**Level** Undergraduate Level 2 subject

**Pre-requisite(s)** HLTH 1001

## Learning Outcomes

On successful completion of this subject, students should be able to:

1. Identify the main questions, types and levels of evidence
2. Interpret the STARD statement, including statistical results, for tests of diagnostic effectiveness
3. Interpret the CONSORT statement, including statistical results, for clinical trials
4. Interpret the PRISMA statement, including statistical results, for systematic reviews
5. Describe designs and key issues for conducting other quantitative research
6. Describe designs and key issues for conducting qualitative research
7. Identify strategies for presenting and describing data from qualitative research
8. Specify pathways, processes and resources for conducting beginner research
9. Specify requirements and resources for research proposal and ethics submission
10. Identify the main methodologies, research questions, types and levels of evidence for quantitative and qualitative research.
11. Describe structured approaches and methods for assessing quality of evidence.
12. Interpret the CONSORT statement for assessing reporting quality of clinical trials.
13. Interpret results in quantitative and qualitative research reports.
14. Specify requirements for research proposals and conducting ethical research.

15. Identify pathways and processes for commencing a career in research.

## Subject Content

1. Quantitative Research
  - i. Overview of questions, types and levels for evidence.
  - ii. Randomised controlled trials
    - \*RCT design and the CONSORT statement
    - \*RCT statistical testing for continuous and categorical data
  - iii. Studies of diagnostic effectiveness
    - \*Diagnostic study design and the STARD statement
    - \*Statistical testing for diagnostic studies
  - iv. Cohort, case-control and other epidemiological studies
  - v. Systematic reviews
    - \*SR design and the PRISMA statement
    - \*Meta-analysis for continuous and categorical data
2. Qualitative research
  - i. Overview of qualitative paradigms, methodologies, research questions and study designs
  - ii. Strategies for presenting and describing qualitative data
  - iii. Applications, strengths and limitation of qualitative and quantitative research compared.
  - iv. Integrating or mixed methods
3. Beginning research
  - i. Formal study options
  - ii. Workplace research: action research, audits and quality assurance
  - iii. Research preparation, protocol writing and ethical approval

## Assessment

The following table summarises the standard assessment tasks for this subject. Please note this is a guide only. Assessment tasks are regularly updated, where there is a difference your Learning Guide takes precedence.

| Type                                | Length   | Percent | Threshold | Individual/ Group Task | Mandatory |
|-------------------------------------|--|---------|-----------|------------------------|-----------|
| Quiz                                | 30 minutes   | 10      | N         | Individual             |           |
| Short-answer questions about an RCT | 600 words total document text as counted by Turnitin   | 10      | N         | Individual             |           |
| CONSORT appraisal of an RCT         | 1,200 words total document text as counted by Turnitin | 20      | N         | Individual             |           |
| Final Examination                   | 2 hours  | 50      | N         | Individual             |           |
| Participation in class activities   | Weeks 3-14   | 10      | N         | Individual             |           |

### Prescribed Texts

- Hoffman, T., Bennett, S., & Del Mar, C. (2017). Evidence-based practice across the health professions. Chatswood, NSW, Australia: Elsevier.
- Greenhalgh, T. M., Bidewell, J., Crisp, E., Lambros, A., & Warland, J. (2017). Understanding research methods for evidence-based practice in health. Milton, QLD Australia: Wiley.