

Unit 22: Research Methodology for Health and Social Care

Unit code:	K/600/8977
QCF Level 3:	BTEC Nationals
Credit value:	15
Guided learning hours:	90

● Aim and purpose

This unit aims to develop learners' understanding of the purpose of research in the health and social care sectors and the implications and ethical issues relating to this research. Learners will be able to explore different research methodologies, enable them to plan and conduct their own research relating to a health or social care issue and evaluate the success of the outcomes.

● Unit introduction

Much of the work in health and social care is grounded in evidence-based practice. It is advantageous, for those seeking a career in the sectors, to have a clear understanding of research methodology in order to work ethically and effectively when carrying out their research. The choice of topic may be informed by a particular interest or career intentions. This unit will provide a good foundation for learners wishing to progress to higher education or within their chosen career.

Initially, learners will need to consider the importance and function of research in the health and social care sectors, for example the role that research plays in policy development. Learners will explore research methodology appropriate to the sectors. Learners must demonstrate an understanding of ethical principles and gain approval for their plans before starting their project. In the final part of the unit, learners will have the opportunity to research their selected topic, present their findings and evaluate the success of the project.

This unit has particular links with *Unit 46: Academic Literacy in the Health and Social Care Sectors* and *Unit 6: Personal and Professional Development in Health and Social Care*. The unit will also support learners in broadening their knowledge and understanding of particular areas of study offered through the specialist units within this qualification, for example, *Unit 23: Complementary Therapies for Health and Social Care* or *Unit 38: Environmental Health*. To achieve this unit, learners will need to show initiative, take responsibility and manage their time effectively, providing excellent opportunities for the assessment of personal, learning and thinking skills.

● Learning outcomes

On completion of this unit a learner should:

- 1 Understand the function of research in health and social care
- 2 Understand ethical issues relating to research in health and social care
- 3 Understand research methodologies relevant to health and social care
- 4 Be able to plan for a research project
- 5 Be able to conduct research relevant to a health and social care context
- 6 Be able to interpret research findings.

Unit content

1 Understand the function of research in health and social care

Function: identify need; highlight gaps in provision; plan provision; inform policy or practice; extend knowledge and understanding; improve practice; aid reflection; allow progress to be monitored; examine topics of contemporary importance

2 Understand ethical issues relating to research in health and social care

Ethical principles: protection from harm (do no harm); informed consent (voluntary); confidentiality; obtaining ethical approval

Ethical issues: human rights; role of the media; use and misuse of data; vulnerability of client groups

Implications: of ethics, eg who commissions research, authenticity, validity, reliability, impact of key reports on services and people who use services, consequences/benefits of findings, effect/influence of publications, access to information

Legislation and policy: Human Rights Act; Data Protection Act; sector codes of practice; policies and procedures

3 Understand research methodologies relevant to health and social care

Types of research: quantitative; qualitative; primary; secondary

Primary sources: questionnaires; structured and unstructured interviews; scientific experiment; formal and informal observation; measurements

Secondary sources: information literacy, eg website, journals, media, books, e-resources; literature review, eg extract information, interpret, analyse, synthesis; data, eg graphs, tables, statistics

4 Be able to plan for a research project

Planning: action plan, timescales; methodology; target group; consent

5 Be able to conduct research relevant to a health and social care context

Topic: selection, eg subject, question, hypothesis, rationale; relevance to sector, achievable, realistic

Conduct research: secondary sources; data collection; monitoring, modification

6 Be able to interpret research findings

Analysis: methods of eg use of IT software for processing statistical information; compiling data, presentation of data, triangulation, graphical representation

Data: representation and interpretation, eg tables, graphs, bar charts, histograms, pie charts, mean, median, mode

Evaluation: drawing conclusions, compare with aims, ethical considerations, bias, error, relationship of results to current research, limitations of research, strengths and weaknesses, potential areas for further development, implications for the sector, recommendations

Assessment and grading criteria

In order to pass this unit, the evidence that the learner presents for assessment needs to demonstrate that they can meet all the learning outcomes for the unit. The assessment criteria for a pass grade describe the level of achievement required to pass this unit.

Assessment and grading criteria		
To achieve a pass grade the evidence must show that the learner is able to:	To achieve a merit grade the evidence must show that, in addition to the pass criteria, the learner is able to:	To achieve a distinction grade the evidence must show that, in addition to the pass and merit criteria, the learner is able to:
P1 explain the function of research in health and social care [IE6]	M1 discuss the function of research in a chosen area of interest	D1 assess research methodologies with regard to ensuring validity of findings
P2 discuss ethical issues relating to research in the health and social care sectors [IE3; EP1]		
P3 compare different research methodologies for health and social care [IE6; CT2]	M2 justify the research methodologies chosen for the project	
P4 plan a research project [IE1; IE2; IE3; CT2; CT5; RL2; RL3; SM3; EP1; EP3]		
P5 carry out the planned research project	M3 assess strengths and weaknesses of the research project in meeting the aims or hypothesis	D2 evaluate how the research project could have been improved.
P6 report findings and conclusions from the research project. [EP2]	M4 assess findings of the research project in relation to the original hypothesis.	

PLTS: This summary references where applicable, in the square brackets, the elements of the personal, learning and thinking skills which are embedded in the assessment of this unit. By achieving the criteria, learners will have demonstrated effective application of the referenced elements of the skills.

Key	IE – independent enquirers CT – creative thinkers	RL – reflective learners TW – team workers	SM – self-managers EP – effective participators
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Essential guidance for tutors

Delivery

It is likely that class and small-group activity will be the main delivery methods in the initial stages of this unit and later, as work on individual research projects progresses, the tutor will provide a monitoring role to support and provide feedback. It is essential that sufficient time is given to exploring the issues relating to research in the health and social care sectors as learners must have a good grasp of the purpose, methodologies and ethics of the sectors before starting their own research.

Initially, whole-class teaching could be used in order to ensure that learners fully understand the terminology and issues involved in conducting research. Guest speakers, who have conducted research, could be invited to discuss their findings and the implications for the sectors, enabling learners to gain insight into the research process and place it in context. Examples of research will stimulate discussion around its role and benefits for the sectors, people who use services and professionals.

Ethical issues should be raised at this stage. Small-group discussion could be used to initiate ideas and assess learners' understanding of the principles, rules and standards of conduct, and possible misuse of research data. This could be followed by developing agreed, whole group 'rules and standards' for research. Learners must understand that their topic and planned methodology must be agreed before research begins. The issue of plagiarism should also be explored ensuring that learners know accepted ways to reference their work.

Learners must explore both primary research methods and secondary sources, understanding the role and advantages of each. Classroom activities which involve reading and synthesising information from a selected text will enable learners to develop their skills. A visit to the library, and where available ICT centre, led by library staff may be necessary to consolidate learners' knowledge of effective ways to search for secondary information sources, for example books, shelf or electronic catalogue search, periodicals or journals (including e-journals) newspapers and websites. Learners could be given opportunities to search for relevant secondary sources by identifying questions about issues in the sectors and selecting valid sources of information to find answers. Learners should be given opportunities to interrogate and present relevant data using different methods.

Primary sources and research methods should be explored within class time to develop learner understanding of the appropriateness of different methodologies and how to apply them to their research. For example, learners could work in small groups to design a questionnaire, and then pilot its use with other members of the group. Role-play scenarios could also be used as a tool for interviewing and observation.

Learners should have opportunities to practise handling research results before reporting and analysing the results of their research project. A short 'mini-project' would allow learners to practise using primary research methods, present and analyse their results, and consider any ethical issues in relation to their research.

Constructive feedback from the tutor and peers can also be taken into consideration when learners evaluate their skills and reflect on the implications of their work for the sector.

Learners may need guidance in choosing the topic for their research project. A whole-class session could generate a range of ideas that learners can choose from if they wish. Learners should be encouraged to think about specific interests or topics which, if explored, will support their intended career path. However, they need to be aware that their choice of topic should enable them to meet the requirements of the assessment criteria.

Outline learning plan

The outline learning plan has been included in this unit as guidance and can be used in conjunction with the programme of suggested assignments.

The outline learning plan demonstrates one way in planning the delivery and assessment of this unit.

Topic and suggested assignments/activities and/assessment
Unit introduction.
Learning outcome 1 Group discussion: function of research in health and social care. Guest speakers: researchers discussing their work.
Learning outcome 2 Tutor input: principles of ethics. Tutor input: legislation, codes and policy. Group activity: exploring issues/possible bias and implications.
Assignment 1: Preparing for research (P1, P2, M1)
Learning outcome 3 Tutor input: introduction to primary and secondary resources. Practical class activity: visit to library to explore secondary resources. Tutor input: introduction to qualitative, quantitative data. Practical class activity: use data to produce tables and graphs. Tutor input: introduction to methods of primary research. Practical class activity: conduct questionnaire and interviews.
Assignment 2: Understanding research methodology (P3, D1)
Learning outcome 4 Tutor input: presenting possible areas to research. Individual activity: explore ideas for own research. Practical class activity: produce a plan. Individual activity: discuss and agree plans with tutor and review. Tutor input: how to conduct research. Tutor input: monitoring and reviewing work. Practical class activity: evaluating the work of peers.
Assignment 3: Planning your research project (P4)
Assignment 4: Carrying out your research project (P5, P6, M2, M3, M4)
Present findings to group.
Assignment 5: Reviewing your research project (D2)
Unit review and assessment.

Assessment

Assessment of this unit will be in two parts. The first part will assess learners' knowledge and understanding of issues, methodology and skills required to undertake research and the second will assess learners' ability to conduct their own research.

The first part of the assessment may be split into two assignments. To achieve P1 and P2 learners could generate evidence through a written assignment. Learners must demonstrate a clear understanding of the purpose of research in health and social care. Learners must also explain issues such as validity and bias, including the key ethical principles.

A second assignment would relate to the methodologies used in research. Although some methods may not be appropriate to learners' own choice of topic, they should show that they know the different methods for P3 and are able to assess the appropriateness and value of each method for different types of research. Learners should reflect on the range of research methodologies, not only those which they intend to use in their planning, explaining each and the appropriateness of each in different contexts.

Learners then need to conduct their own research to meet the remaining assessment criteria.

Learners are likely to need guidance when selecting their topic to ensure that it is realistic and manageable in the time allocated. It should, however, give learners the opportunity to use a range of primary and secondary sources and different methods of data collection. Plans must be detailed and coherent.

To achieve P4, plans should include:

- a question or hypothesis for study
- research aims and objectives
- rationale
- proposed methods of data collection
- proposed secondary resources
- people involved
- breakdown/timing
- other considerations for example ethical issues, potential problems or risks.

Monitoring and formative feedback will be essential for the success of learners' research projects. Learners should include a record of their progress and investigations with their completed study, could be in the form of a log. Learners must carry out their research to achieve P5 and, at all times, consider the ethical issues related to their area of interest. There should be ample opportunity for learners to access existing research projects so that they can see how they need to be presented before attempting P6.

At merit grade learners will build on their evidence for P1 to achieve M1, providing pertinent examples and discussing their understanding of the function of research in the context of their area of interest. Learners must include evidence that plans have been discussed and agreed before they start their project and that, for M2, they can justify their choice of research methodology.

A higher level of synthesis will be required to achieve M3 and M4. Learners will show that they are able follow their plans and collect, assess and synthesise information from different sources. Learners may adapt original plans with justifications. The conclusion should be communicated clearly and logically and should have clear links to their original aims and intentions. Specifically, learners will examine the strengths and weaknesses of their project in meeting the hypothesis or aim. Having carried this out, learners will be well placed to attempt D2.

At distinction grade learners will work with autonomy. Assessment of research methodologies will have clear links to particular ethical issues and how validity can be assured (D1). Learners will demonstrate that they are able to think critically about their research when evaluating how their project could have been improved, to achieve D2. Learners will take into consideration the views of others and feedback when evaluating their project. They should take into account all aspects of their work, for example the success of their project in relation to their intended aims, the appropriateness of methodology, reference to and recognition of possible bias, and its value in the context of the health and social care sectors.

Programme of suggested assignments

The table below shows a programme of suggested assignments that cover the pass, merit and distinction criteria in the grading grid. This is for guidance and it is recommended that centres either write their own assignments or adapt any Edexcel assignments to meet local needs and resources.

Criteria covered	Assignment title	Scenario	Assessment method
P1, P2, M1	Preparing for research	Preparation for work in the health and social care sectors.	A written assignment including: <ul style="list-style-type: none"> a) information on the function of research in health and social care b) examples of research to support information c) ethical considerations and the skills professionals need to carry out ethical research.
P3, D1	Understanding research methodology		Report on b) methodology appropriate for research in health and social care.
P4	Planning your research project	The role of the researcher in health and social care.	Planning document, with justification, for selected research topic including title, aims and objectives, proposed methods and sources of information.
P5,P6, M2, M3, M4	Carrying out your research project		Report on research.
D2	Reviewing your research project		

Links to National Occupational Standards (NOS), other BTEC units, other BTEC qualifications and other relevant units and qualifications

This unit forms part of the BTEC Health and Social Care sector suite (see *Appendix A*) and has links with units from other qualifications in that suite. See *Appendix E* for NOS links and *Appendix G* for a mapping of the NHS Knowledge and Skills Framework against particular units in this qualification.

Essential resources

The following are essential for delivery of this unit:

- ICT access
- library resources
- copies of codes of practice, policies and procedures from familiar health or social care environments
- examples of research from health and social care.

Employer engagement and vocational contexts

Visits from guest speakers, such as researchers working in the health and social care sectors, would greatly enhance the learning experience and give learners an opportunity to prepare and ask questions.

This unit also lends itself to work placements or visits to relevant work environments.

Indicative reading for learners

Textbooks

Bell J – *Doing Your Research Project – A guide for first time researchers in health, social care and early years* (Open University Press, 2005) ISBN 9780335215041

Bowling A – *Research Methods in Health: Investigating Health and Health Services* (Open University Press, 2002) ISBN 9780335206439

Denscombe M – *Small-scale Social Research Projects* (Open University Press, 2006) ISBN 9780335198054

Michie V, Baker L, Boys D, McLeavy J – *BTEC National Health and Social Care Book 2* (Nelson Thornes, 2008) ISBN 9780748781720

Silverman D – *Interpreting Qualitative Data Third Edition* (Sage Publications, 2006) ISBN 9781412922456

Stretch B, Whitehouse M – *BTEC National Health and Social Care Book 1* (Heinemann, 2007) ISBN 9780435499150

Stretch B and Whitehouse M – *BTEC Level 3 Nationals in Health and Social Care Student Book 1* (Pearson, 2010) ISBN 9781846907663

Stretch B and Whitehouse M – *BTEC Level 3 Nationals in Health and Social Care Student Book 2* (Pearson, 2010) ISBN 9781846907470

Walsh M – *Research Made Real: A Guide for Students* (Nelson Thornes, 2001) ISBN 9780748758418

Journals and magazines

Care and Health

Community Care

Nursing Times

Websites

www.bma.org.uk

www.bmj.bmjournals.com

www.dh.org.uk

www.dfes.gov.uk/research

www.jrf.org.uk

www.kingsfund.org.uk

www.nhs.uk

www.scie.org.uk

www.statistics.gov.uk

www.skillsforcare.org.uk

British Medical Association

British Medical Journal

Department of Health

DCFS research resource

Joseph Rowntree Foundation

The King's Fund

National Health Service

Social Care Institute for Excellence

Social trends

Sector Skills Council for Care and Development

Delivery of personal, learning and thinking skills

The following table identifies the opportunities for personal, learning and thinking skills (PLTS) that have been included within the pass assessment criteria of this unit.

Skill	When learners are ...
Independent enquirers	[IE1] identifying a question or hypotheses relating to a health or social care issue to explore [IE2] planning and carrying out research and appreciating the consequences in relation to choice of project and methodology [IE3] exploring issues relating to ethics from the perspective of the sectors; exploring ideas for their topic from the perspective of the service delivery and people using services [IE6] drawing conclusions from their research and reporting on findings
Creative thinkers	[CT2] asking questions to find out about research methodologies and how they may be used effectively; asking questions relating to their topic [CT5] trying out methods of research and, where necessary, finding solutions to problems encountered
Reflective learners	[RL2] setting goals when planning to carry out a research project [RL3] discussing and agreeing plans with tutor and responding to formative feedback
Self-managers	[SM3] organising their time and resources and prioritising work to plan and complete a research project
Effective participators	[EP1] discussing issues relating to ethical concerns to seek resolution before planning and undertaking research [EP2] reporting on the outcomes of the research relevant to health and social care [EP3] planning the research project and setting realistic targets.

● Functional Skills – Level 2

Skill	When learners are ...
ICT – Find and select information	
Select and use a variety of sources of information independently for a complex task	using websites to select information and making judgements on its value to inform their research project
ICT – Develop, present and communicate information	
Enter, develop and format information independently to suit its meaning and purpose including: <ul style="list-style-type: none"> • text and tables • images • numbers • records 	using ICT to present data through tables and graphs
Bring together information to suit content and purpose	using ICT to record and organise information
Present information in ways that are fit for purpose and audience	presenting research findings in an appropriate format for health and social care
English	
Speaking and listening – make a range of contributions to discussions and make effective presentations in a wide range of contexts	conducting questionnaires, observations, interviews presenting findings to others
Reading – compare, select, read and understand texts and use them to gather information, ideas, arguments and opinions	selecting resources, gathering information and synthesising information and using it to inform research
Writing – write documents, including extended writing pieces, communicating information, ideas and opinions, effectively and persuasively	producing documents relating to the function of research, ethical issues and methodology producing plans for research and the results from their research.