Next Generation Higher National Unit Specification

Research Skills (SCQF level 7)

Unit code: J82R 47

SCQF level: 7 (8 SCQF credit points)

Valid from: session 2024 to 25

Prototype unit specification for use in pilot delivery only (version 1.0) February 2024

This unit specification provides detailed information about the unit to ensure consistent and transparent assessment year on year.

This unit specification is for teachers and lecturers and contains all the mandatory information required to deliver and assess the unit.

This edition: February 2024 (version 1.0)

Unit purpose

This unit is designed to develop skills in investigating, analysing, evaluating and presenting complex information from a variety of primary and secondary sources. Learners produce a written or oral report on the results of a research investigation on a topic of interest.

The unit is aimed at learners who have a general interest in research skills, as well as those who want to use it as the basis for further study.

Entry to the unit is at your centre's discretion. However, we recommend that learners have one or more of the following:

♦ good communication skills
♦ knowledge, skills and experience relevant to the unit

Learners can study the unit on a stand-alone basis or as part of other coursework that requires them to investigate and report on an issue or topic.

Unit outcomes

Learners who complete this unit can:

1 plan a research investigation
2 apply research techniques to complex data from a range of primary and secondary sources
3 report on a research investigation

Evidence requirements

The unit is assessed by an open-book assessment providing written or oral evidence. You should give learners the assessment task at an appropriate point of delivery of the unit.

Outcomes 1 and 2

Learners can produce the required information in various ways, such as tables, lists, logs, outlines, and timelines. You should use your professional judgement to determine sufficiency.

Outcome 3

Learners must produce a written report of between 1,000 and 1,500 words, or an oral presentation of 10 to 12 minutes duration. Learners must agree their topic with you.

Learners' responses must include:

♦ a definition of their research purpose and objectives
♦ identification of primary and secondary sources
♦ an outline of research methods to be used
♦ production of a research timeline
♦ implementation of an effective research plan
♦ a selection of data relevant to research objectives from a range of primary and secondary sources
♦ analysis and evaluation of data relevant to research objectives
♦ a referenced record of research activities
♦ a presentation of findings and conclusions based on accurate analysis, interpretation and evaluation of data

Learners must fully reference their assessment, using reliable sources appropriate for SCQF level 7. They must list all sources in a bibliography or reference list, in a recognised standard format. You should ensure the authenticity of the learner's work.

The standard of evidence should be consistent with the SCQF level of this unit.

Learners should:

♦ contribute information that is complex, accurate and relevant to its purpose and audience
♦ present ideas clearly and coherently, adapting language and style to the needs of the audience
♦ use a structure that is appropriate to the research purpose, where ideas are structured for impact
♦ produce effective support materials, with evidence or references to support their points

If learners produce an oral presentation, they should:

♦ ensure effective use of non-verbal communication
♦ use appropriate pace and tone
♦ demonstrate confident use of audio-visual support
♦ provide confident and accurate responses to in-depth questioning

Knowledge and skills

The following table shows the knowledge and skills covered by the unit outcomes:

Knowledge	Skills
Outcome 1 Learners should understand: ♦ how to write a research purpose and objectives ♦ how to identify and access resources useful to research investigations (information-retrieval skills) ♦ research methods, including interview skills and survey methods ♦ primary and secondary sources of information ♦ legal, regulatory, ethical and social considerations with carrying out research ♦ methods to contact participants for a research investigation ♦ how to create key research questions ♦ timescales for a research investigation	**Outcome 1** Learners can: ♦ define purpose and objectives for a research investigation ♦ apply planning skills to a research investigation, including: — identifying available resources — research method or methods to be used — sources of information — ethical considerations — key research questions ♦ produce a timeline for a research investigation
Outcome 2 Learners should understand: ♦ research techniques ♦ how to access and retrieve online, digital and other data ♦ questioning tools and techniques ♦ statistical concepts relevant to collection of data for the research investigation ♦ qualitative and quantitative data, and how to collect these effectively ♦ sampling techniques ♦ how to analyse and evaluate data relevant to the research investigation ♦ management of data	**Outcome 2** Learners can: ♦ use information-retrieval skills to find information related to an agreed topic or issue ♦ apply a suitable research method or methods to an investigation of an agreed topic or issue ♦ analyse and evaluate data collected for the investigation of an agreed topic or issue ♦ record data and store it to meet current regulations

Knowledge	Skills
Outcome 3	**Outcome 3**
Learners should understand:	Learners can:
♦ how to analyse and evaluate information collated from research ♦ conventions of research reporting ♦ presentation skills	♦ select relevant information from research on an agreed topic or issue ♦ analyse and evaluate information collated from research ♦ report on findings from research and draw conclusions ♦ use language effectively in terms of appropriate register and style

Knowledge	Skills
Outcome 3	**Outcome 3**

Meta-skills

Throughout the unit, learners develop meta-skills to enhance their employability in their chosen sector.

Your delivery and assessment of the unit contributes to learners' natural development of the meta-skills of self-management, social intelligence and innovation. You should encourage learners to develop a minimum of one area in each of these three categories, but they do not need to cover all suggested subsections. The following suggestions may help shape your delivery and assessment, and will vary depending on the chosen topic and assessment method.

Self-management

This meta-skill includes:

♦ focusing:
— showing good time management when completing the research investigation
— completing the assessment to clear deadlines
♦ integrity:
— acting in an ethical way to complete the research investigation
— developing good working relationships with peers
— including citations and referencing for the research investigation
— considering plagiarism and intellectual property
♦ adapting:
— acquiring new ideas and knowledge about topics
— using different digital technologies to complete assessments
— reflecting on own performance to improve learner's approach to their investigation
♦ initiative:
— developing own ideas and areas of enquiry
— making informed decisions on which aspects to study
— gathering information using library facilities

Social intelligence

This meta-skill includes:

♦ communicating:
— explaining ideas; producing suitable, understandable assessment responses
— sharing ideas and opinions on issues or topics related to the research investigation
♦ collaborating:
— working together on formative presentations
— taking account of others in planning and carrying out tasks
— building relationships with peers

Innovation

This meta-skill includes:

- ♦ curiosity:
  - — gathering and sourcing information independently
  - — using online tools in library research time
  - — taking part in class discussion
  - — questioning information and research evidence
- ♦ sense-making:
  - — gaining an understanding of an issue or a topic
  - — synthesising and evaluating a range of ideas and evidence
- ♦ critical thinking:
  - — making logical connections and reasoned judgements
  - — drawing conclusions based on evidence
  - — reviewing and evaluating research evidence

Learners may develop other meta-skills throughout the unit, depending on the learning and teaching activities you carry out. These include:

- ♦ social intelligence:
  - — feeling
  - — leading
- ♦ innovation:
  - — creativity

Learning for Sustainability

Learning for Sustainability aims to build values, attitudes, knowledge, skills and the confidence needed to develop practices and take decisions that are compatible with a sustainable and equitable society. In this unit, there are opportunities to develop knowledge and understanding of sustainability while studying topics that may have links to the UN Sustainable Development Goals.

Delivery of unit

This unit is a stand-alone unit that can be taught as part of a group award.

The amount of time you allocate to each outcome is at your discretion; however, you should consider all outcomes together when you deliver the unit. The overall unit delivery time is a notional 40 hours of contact time for delivery and assessment. We expect learners to commit a further 40 hours of self-directed study.

Additional guidance

The guidance in this section is not mandatory.

Content and context for this unit

The unit provides learners with the ability to carry out research of a topic of interest to them.

You should introduce learners to the essential skills of research:

♦ defining tasks
♦ locating and selecting sources
♦ evaluating the reliability of data gathered
♦ organising and presenting conclusions

The unit is suitable for a wide range of learners who need to develop skills in researching, evaluating and presenting complex information as part of their course of study or as professional development. There may be opportunities for integration with other units involving investigation and analysis. If you deliver the unit as part of a group award, the research investigation topic should link to, or extend, other course unit work. If you deliver the unit on a stand-alone basis, learners should choose a topic that is complex enough for an SCQF level 7 research investigation.

You should encourage learners to generate original ideas through research as they analyse and evaluate the relevance of their findings to their aims and objectives. The content, format, medium, reporting and referencing systems of the research should be recognised by the type of investigation and the vocational discipline. These may vary considerably, depending on the area of study. Learners must comply with any relevant industry standard.

The unit provides underpinning knowledge to prepare learners for carrying out more complex, in-depth research. This could include assignments learners carry out for units of an HN award or preparation for progression to degree courses.

Approaches to delivery

You should structure the teaching programme to allow time for learners to develop research skills. You should also allow for research within the notional hours suggested.

At the start of delivery, you should make learners aware of the definition of, and penalties for, plagiarism, and advise on ways to avoid it.

You can structure delivery outcome by outcome, as that allows you to give feedback at each stage of development. You should encourage learners to think critically as they analyse and evaluate the reliability and credibility of data gathered.

You can provide headings or pro forma to support planning as the research brief and realistic objectives are negotiated. You should highlight the importance of timescales and encourage learners to work independently, self-managing their research investigation.

It would be beneficial to take a varied and active learning approach, where learners engage in supported, independent and collaborative learning. You should encourage learners to take a participative and practical approach. Delivery methods you could use include:

♦ exposition
♦ tutorial question-and-answer sessions
♦ individual and group research tasks
♦ presenting findings
♦ a virtual learning environment
♦ digital tools and social media

You can deliver knowledge and skills to a whole class, although it may be appropriate to use a less structured approach as the unit develops. You could use one-to-one tutorials to discuss and authenticate work carried out.

Plan a research investigation (outcome 1)

Learners should understand the need to set objectives in negotiating a written or oral research proposal. You should stress the importance of proper time allocation and working to deadlines.

You should give learners a clear definition of primary and secondary sources, appropriate to the area of research. Primary sources could include, for example, focus groups, meetings, interviews, surveys, fieldwork, and personal observation. You should emphasise learning the techniques for original research. Make learners familiar with a range of survey and interview types and methods, adapting those relevant to their particular investigative research. Give learners advice on note-taking, questionnaire design, sampling methods and procedures and interview skills.

The investigation could be on a small scale. Learners could practise designing interview questions and questionnaires, working in small focus groups that could also be used to provide primary sources of information. Peer discussion could evaluate relevance to purpose and practicability.

You could arrange for learners to have a library tour that could provide an overview of classifications and cataloguing. It is important that learners know how to use library resources. Online access to a range of current secondary sources is essential, particularly when secondary sources are used to support analysis. Provide learners with evaluation criteria to check the reliability, authority and purpose of information accessed.

Apply research techniques to complex data from a range of primary and secondary sources (outcome 2)

Sources of information are likely to include:

♦ primary information, which may be generated through the use of a survey, observation, interviews, or experiment results
♦ secondary information, such as books, magazines, research reports, and information accessed electronically (for example internet, newspaper archives)

You can introduce learners to different types of sampling, including random, quota, stratified and systematic. You should show learners ways of producing graphic materials to summarise results, and to enhance their presentation in outcome 3.

You can introduce learners to efficient systems of recording and referencing sources during data gathering related to the selected medium and vocational area. You can provide outlines and structures to support the management of the investigation. You should outline the criteria to evaluate information, such as currency, authority, accuracy, and balance. Learners should retain data from qualitative and quantitative methods, with details of the analytical and evaluation processes they used. You should show learners efficient systems of recording, coding and storing information for ease of reference, such as logbooks, diaries, folders or computerised records.

Report on a research investigation (outcome 3)

Learners should present results in a format that supports the recipient's understanding of data and sources. Where appropriate, they should use tables or diagrams to summarise results and present numerical data effectively. Learners should have access to models of format and style, including appropriate software, suitable for the needs of the vocational area and selected medium. The context and conduct of written or oral reporting must be to the accepted professional standards. You can give feedback on formative and draft work, as that is good practice.

Approaches to assessment

You can generate evidence using different types of assessment. The following are suggestions only. There may be other methods that would be more suitable for learners.

You should assess this unit in open-book conditions. Learners can choose whether they produce a written report or an oral presentation, as long as it addresses each element of the evidence requirements.

Although the evidence requirements for all three outcomes are likely to be integrated in a single investigation, we recommend that tasks are carried out outcome by outcome, to allow for feedback at each stage of planning and implementing the research investigation. If you integrate assessment with investigative reporting for another part of a group award, you should ensure that the requirements for all units are evidenced clearly.

For outcome 1, assessment is evidenced by a detailed plan. Timescales, objectives, sources, resources and methods to be used should be specified as appropriate. You could provide structured headings as a framework for the task that may be completed orally or in writing.

For outcome 2, you should ensure learners are familiar with the practicalities of carrying out the research to meet the stated objectives and of collating and analysing all relevant data. Learners can provide evidence of research activities in a range of formats that should reflect industry practice. Records could include, for example, notebooks, reflective logs, meetings records, transcripts or recordings.

For outcome 3, learners must produce a written report of between 1,000 and 1,500 words or an oral presentation of 10 to 12 minutes in duration. You should provide structured headings and subheadings to make clear to learners the anticipated content and detail required. Such a short report would not require an abstract or summary. Headings could include:

♦ Title page
♦ Contents
♦ Aims and purpose of the research investigation
♦ Literature review
♦ Method of data collection
♦ Statement of results (includes tables and graphs or charts)
♦ Analysis and discussion
♦ Conclusions
♦ Bibliography or references
♦ Appendices

If learners present research results orally, the presentation should last for at least 10 minutes and be in line with industry practice. You should retain a detailed observation checklist, learner notes (including reference sources), and a recording of the performance as evidence.

An oral presentation of relevant information from the research investigation must include similar information to that in a written response, such as an analysis and evaluation of information resulting from the research investigation and a summary of findings with accurate conclusions drawn. Learners should also show effective use of:

♦ non-verbal communication
♦ appropriate pace and tone
♦ appropriate use of audio-visual support
♦ accurate responses to in-depth questioning

Questions should take place at the end of learners' oral presentations, and enable them to fill in any gaps timeously. This could reduce the need for reassessment.

You should ensure the authenticity of learners' work. It would be helpful to collect notes and draft work, or visual presentation materials from learners to indicate progress and support quality assurance. You should monitor learners' progress throughout to authenticate submitted work. Where possible, you should use plagiarism detection software.

Providing formal, detailed feedback to learners is good practice and is particularly valuable to learners who need to be reassessed on any outcome. You should relate precise, supportive comments clearly to the evidence requirements. They can also support authentication of a learner's work.

Referencing should be to a recognised system or in a specified house style. Learners must fully reference their assessment, listing all sources in a bibliography or reference list, in a recognised standard format. There is a wide range of suitable styles available, such as Harvard, American Psychological Association (APA), and Modern Languages Association

(MLA). This list is not exhaustive. You should guide learners to choose one relevant to their subject area.

It is important that the language used in the assessment instruments reflects SCQF level 7 in each type of task.

Opportunities for e-assessment

Assessment that is supported by information and communication technology (ICT), such as e-testing or the use of e-portfolios or social software, may be appropriate for some assessments in this unit.

If you want to use e-assessment, you must ensure that you apply the national standard to all evidence and that conditions of assessment (as specified in the evidence requirements) are met, regardless of the mode of gathering evidence.

Equality and inclusion

This unit is designed to be as fair and as accessible as possible with no unnecessary barriers to learning or assessment.

You should take into account the needs of individual learners when planning learning experiences, selecting assessment methods or considering alternative evidence.

Guidance on assessment arrangements for disabled learners and/or those with additional support needs is available on the [assessment arrangements](#) web page.

Information for learners

Research Skills (SCQF level 7)

This information explains:

♦ what the unit is about

♦ what you should know or be able to do before you start

♦ what you need to do during the unit

♦ opportunities for further learning and employment

Unit information

This unit develops the skills you need to plan, carry out and report on a research investigation. You look at how to access, analyse and evaluate data from primary sources, such as interviews, surveys and personal observation, and secondary sources, such as websites, books, and professional journals. You set objectives and then plan, carry out and report on the results of your research.

Before you start the unit, you should have good communication skills and an interest in research skills. It would also be helpful to have some basic digital skills.

On completion of the unit, you can:

1 plan a research investigation

2 apply research techniques to complex data from a range of primary and secondary sources

3 report on a research investigation

You are assessed by open-book assessment covering all unit outcomes. This means that you have access to materials, such as textbooks, notes and electronic resources. You can produce the information required for outcomes 1 and 2 in various ways, such as tables, lists, logs, outlines, and timelines. If your assessment response for outcome 3 is written, it must be between 1,000 and 1,500 words, and if it is oral, it must be 10 to 12 minutes in duration.

You may be able to study an HND or a degree programme in a related subject if you study this unit as part of an HNC Group Award. Developing research skills is useful for future study or employment in many subject areas.

Meta-skills

Throughout the unit, you develop meta-skills to enhance your employability within your chosen subject area.

Meta-skills include self-management, social intelligence and innovation.

You develop these naturally as you take part in the range of learning and teaching activities and produce assessment responses. Improving meta-skills, such as organising your time (self-management) and communicating ideas clearly (social intelligence), will be useful for future study and employment, as well as during the unit.

Administrative information

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Superclass: KB

History of changes

Version	Description of change	Date

Note: please check [SQA's website](#) to ensure you are using the most up-to-date version of this document.