



Australian Government

AURFA006 Conduct research and present technical reports

Release: 1

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Modification History

Release	Comment
Release 1	New unit of competency.

Application

This unit describes the performance outcomes required to research technical subject matter, and prepare and present a technical report of findings. It involves identifying and analysing research requirements, planning and conducting the research, evaluating findings, and developing and presenting the technical report.

It applies to those working in the automotive service and repair industry at a specialist technician or manager level.

No licensing, legislative, regulatory or certification requirements apply to this unit at the time of publication.

Competency Field

Common

Unit Sector

Foundation Skills

Elements and Performance Criteria

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold and italicised text is used, further information is detailed in the range of conditions section.
1. Determine research requirements	1.1 Problem requiring research is identified and clarified 1.2 Research purpose, objectives and limits, and timeframe are identified, clearly defined, and confirmed 1.3 Research outline is prepared and confirmed with key stakeholders

Elements	Performance Criteria
Elements describe the essential outcomes.	Performance criteria describe the performance needed to demonstrate achievement of the element. Where bold and italicised text is used, further information is detailed in the range of conditions section.
2. Plan research	2.1 Systematic methodology for information collection is developed 2.2 Appropriate sources of research information are identified, reviewed and assessed 2.3 Research design is developed according to research requirements 2.4 Resources that support research requirements are identified and sourced 2.5 Pilot study is conducted to identify variations or additions to proposed research plan
3. Conduct research	3.1 Research is carried out according to established purpose, process and objectives 3.2 Research data is collected, manipulated as required, and stored for future reference
4. Analyse research information	4.1 Research data is prepared for analysis 4.2 Data is analysed using appropriate methods according to workplace procedures 4.3 Conclusions, findings and recommendations are drawn from data analysis and documented according to workplace procedures
5. Prepare and present research report	5.1 Technical report, and as required associated presentation materials, are prepared according to report requirements and workplace standards 5.2 Report is presented according to workplace procedures 5.3 Information management and report storage requirements are followed according to workplace procedures

Foundation Skills

This section describes those language, literacy, numeracy and employment skills that are essential to performance and are not explicit in the performance criteria.

Skills	Description
Learning skills to:	- locate and analyse a range of technical information and documents relevant to work activities - develop strategies to research and write technical reports.
Reading skills to:	- interpret technical information, instructions and requirements - interpret graphical illustrations, technical information and terminology in manuals and textbooks.

Skills	Description
Writing skills to:	- communicate ideas and information using relevant automotive terminology - prepare and present textual and numerical information in technical reports.
Oral communication skills to:	clarify and confirm report requirements, including target audience.
Technology skills to:	use workplace technology to access technical documents, including computerised technology.

Range of Conditions

This section specifies work environments and conditions that may affect performance.

Essential operating conditions that may be present (depending on the work situation, needs of the candidate, accessibility of the item, and local industry and regional contexts) are included. Bold italicised wording, if used in the performance criteria, is detailed below.

<i>Research outline</i> must include:	- information entry, including hard and soft copy - data storage and version control - print output.
<i>Research</i> must include one of the following:	- desk-based research - experiments - tests.
<i>Research design</i> must include:	- research methodology - data gathering methods - data analysis methods.
<i>Report requirements</i> must satisfy:	- purpose - objectives - timeframe - planned process - reporting, including findings and proposed actions or recommendations.
<i>Workplace standards</i> must include:	- agreed quality standards - suitability for intended audience and purpose - use of specialist or management summaries - compliance with protocols, conventions and legal requirements relating to acknowledgements and intellectual property.

Unit Mapping Information

Equivalent to AURAF006 Prepare technical reports

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=b4278d82-d487-4070-a8c4-78045ec695b1>

Assessment Requirements for AURFA006 Conduct research and present technical reports

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Performance Evidence

Before competency can be determined, individuals must demonstrate they can perform the following according to the standards defined in this unit's elements, performance criteria, range of conditions and foundation skills:

- research and prepare two different technical reports, in which the work must involve:
 - accessing and interpreting relevant automotive technical information
 - developing a research outline
 - undertaking detailed research of the subject area
 - analysing data
 - developing conclusions, findings and recommendations
 - presenting reports to intended target audience.

Knowledge Evidence

Individuals must be able to demonstrate knowledge of:

- research methods, including:
 - qualitative, including:
 - participant observations
 - interviews
 - focus groups
 - quantitative, including:
 - questionnaires
 - laboratory experiments
- procedures for undertaking research, including:
 - planning the research, including:
 - identifying the problem

- defining purpose and limits of the research
- developing a research outline
- sourcing information
- designing the research, including:
 - methodology
 - data gathering
 - data analysis
 - conducting pilot studies
- conducting the research, including data gathering, including common testing procedures
- data analysis, including calculating mean, mode, median and percentages
- drawing conclusions from data analysis
- preparing and presenting a technical report, including:
 - writing for a specific audience
 - using pictures and diagrams
 - using style guides
 - storing data and documents.

Assessment Conditions

Assessors must satisfy NVR/AQTF assessor requirements.

Competency is to be assessed in the workplace or a simulated environment that accurately reflects performance in a real workplace setting.

Assessment must include direct observation of tasks.

Where assessment of competency includes third-party evidence, individuals must provide evidence that links them to researching, preparing and presenting technical reports in the automotive workplace, e.g. technical reports and presentation notes.

Assessment must verify performance evidence through questioning on skills and knowledge to ensure correct interpretation and application.

The following resources must be made available:

- situations requiring research activities and technical report writing
- range of reference materials relevant to technical research activities
- commercially realistic number of co-workers to which the technical report may be presented.

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