



Australian Government

ICTSUS806 Lead applied research in ICT sustainability

Release: 1

ICTSUS806 Lead applied research in ICT sustainability

Modification History

Release	Comments
Release 1	This version first released with ICT Information and Communications Technology Training Package Version 2.0.

Application

This unit describes the skills and knowledge required to plan, conduct and report on applied research to influence strategic practices on information and communications technology (ICT) sustainability and outcomes within an organisational context. The unit also covers constructing an applied research strategy, using a range of applied research techniques, and analysing and presenting findings.

It applies to individuals who are in a leadership capacity and excellent innovators and communicators, with a very high level of technical management skills and knowledge of telecommunications networks and systems. In this role, individuals must be able to undertake detailed research, analysis and evaluation. Outcomes and solutions must be presented with clarity.

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

Unit Sector

Telecommunications – sustainability

Elements and Performance Criteria

Elements	Performance Criteria
<i>Elements describe the essential outcomes</i>	<i>Performance criteria describe the performance needed to demonstrate achievement of the element.</i>
1. Provide direction for development of applied research strategy for ICT	1.1 Provide vision for applied research strategy to meet sustainability requirements of identified research purpose 1.2 Clarify and confirm applied research purpose and needs of target group

sustainability	1.3 Facilitate development of policies and procedures in relation to conducting applied research for enterprise 1.4 Guide development of mechanisms for collecting and maintaining data in systematic manner 1.5 Review factors affecting reliability and validity of data 1.6 Review relevant research ethics and codes of conduct
2. Control use of range of applied research techniques and resources	2.1 Review and evaluate range of applied research methods and theories, and data collection techniques 2.2 Guide selection of appropriate methods to gather and analyse data on sustainability relevant to research project 2.3 Authorise access to appropriate sources of information relevant to research project 2.4 Select sustainable management principles that will have most sustainable impact on project 2.5 Ensure relevance of research through integrity of data collected and analysis tools used
3. Promote findings	3.1 Ensure accuracy of data and research details, and adherence to any legal requirements 3.2 Evaluate relevance of collated and analysed data against original applied research strategy 3.3 Evaluate impact of findings 3.4 Recommend implementation strategies 3.5 Ensure documentation and presentation of research findings is in clear and logical manner consistent with audience needs 3.6 Identify need for and appropriate approach to further research 3.7 Promote research findings and approach to further research

Foundation Skills

This section describes language, literacy, numeracy and employment skills incorporated in the performance criteria that are required for competent performance.

Skill	Performance	Description
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	Criteria	
Reading	1.1, 1.5, 1.6, 2.1-2.3, 2.5, 3.1-3.3	Identifies, analyses and evaluates complex information and formal documentation, including legislative frameworks and technical solutions
Writing	1.2, 2.3, 3.4, 3.5, 3.7	Produces complex, detailed and well-structured reports, procedures and related technical documentation using specific language and specialised terminology to convey an understanding of outcomes
Oral Communication	1.2, 2.3, 3.4, 3.5, 3.7	- Articulates clearly and creatively, using specific language suitable for clients and stakeholder audiences to convey requirements - Uses listening and questioning techniques to confirm understanding
Numeracy	1.4, 1.5, 2.2, 3.2	- Uses mathematical formulae to determine CO₂ emissions and carbon footprint - Performs complex statistical analysis
Navigate the world of work	1.6, 3.1	- Recognises and responds to both explicit and implicit organisational procedures and protocols - Monitors adherence to legal and regulatory rights and responsibilities for self and possibly for others
Get the work done	1.1-1.5, 2.1, 2.2, 2.4, 2.5, 3.1-3.5	- Develops flexible plans for complex, high impact activities with strategic implications that involve a diverse range of stakeholders with potentially competing demands - Takes responsibility for defining key aspects of own workload, balancing own needs and priorities with those of the work group - Systematically gathers and analyses all relevant information and evaluates options to make high-impact and informed decisions - Considers the strategic and operational potential of digital trends to achieve work goals, enhance work processes, create opportunities and reduce risks - Uses a broad range of strategies to store, access and organise virtual information, recognising that design choices will influence what information is retrieved and how it may be interpreted and used

Unit Mapping Information

Code and title current version	Code and title previous version	Comments	Equivalence status
ICTSUS806 Lead applied research in ICT sustainability	ICTSUS8237A Lead applied research in ICT sustainability	Updated to meet Standards for Training Packages	Equivalent unit

Links

Companion Volume implementation guides are found in VETNet -

<https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=a53af4e4-b400-484e-b778-71c9e9d6aff2>

Assessment Requirements for ICTSUS806 Lead applied research in ICT sustainability

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Performance Evidence

Evidence of the ability to:

- direct the formulation of a research proposal or plan that includes:
 - specific research questions on sustainability
 - valid population or sample size
 - description of the geographical, cultural, social or institutional context within which the research will be carried out
 - a full description of the data collection methods
 - analysis of the limitations to research design
- manage the design of an applied research project using appropriate tools and techniques
- design a research report with analysis of data, and valid and reliable findings
- evaluate relevance of the research results
- conduct research using recognised research techniques.

Note: If a specific volume or frequency is not stated, then evidence must be provided at least once.

Knowledge Evidence

To complete the unit requirements safely and effectively, the individual must:

- summarise environmental and sustainability legislation, regulations and codes of practice applicable to the industry and organisation
- explain audit methodology on information and communications technology (ICT) energy, waste, product life cycles and CO² emissions
- discuss principles, practices and available tools and techniques of sustainability management relevant to the telecommunications industry
- describe communication processes and methods
- explain data collection methods

- summarise legislation, regulations, policies, procedures and guidelines relating to handling or storing data, including privacy and freedom of information
- describe presentation techniques
- outline reporting methods
- discuss research ethics and codes of conduct
- summarise research tools and methods
- discuss selection of appropriate applied research techniques
- outline leadership strategies relevant to a research environment.

Assessment Conditions

Gather evidence to demonstrate consistent performance in conditions that are safe and replicate the workplace. Noise levels, production flow, interruptions and time variances must be typical of those experienced in the telecommunications – sustainability field of work and include access to:

- a research activity that relates to an actual workplace or simulated context and topic
- a range of tools and techniques appropriate to the given situations and research topic.

Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

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