Modification history

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| Release | Comments |
| Release 1 | This version released with AHC Agriculture, Horticulture, Conservation and Land Management Training Package Version XX. |

| AHCPER5X2 | Plan and conduct field research |
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| Application | This unit of competency describes the skills and knowledge required to plan, develop methodology and implement field research. It requires the ability to determine research questions, design technical and/or social field research, prepare, conduct, assess and report on field research outcomes for a specific industry sector.  The unit applies to individuals who analyse information and exercise judgement to complete a range of advanced skilled activities and demonstrate deep knowledge in a specific technical area. They have accountability for the work of others and analyse, design and communicate solutions to a range of complex problems.  No occupational licensing, legislative or certification requirements are known to apply to this unit at the time of publication. |
| Prerequisite Unit | Nil |
| Unit Sector | Permaculture (PER) |

| Elements | Performance Criteria |
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| Elements describe the essential outcomes. | Performance criteria describe the performance needed to demonstrate achievement of the element. |
| 1. Scope field research | 1.1 Identify challenges and opportunities to formulate research questions  1.2 Identify and justify the purpose of field research  1.3 Define and justify field research topic, question or hypothesis  1.4 Assess suitability of field research subject in relation to industry sector outcomes |
| 2. Design field research methodology | 2.1 Develop field research plan  2.2 Identify relevant information sources and review relevant and credible literature related to the research topic  2.3 Determine research methods for data collection  2.4 Identify reference groups for field research according to research plan  2.5 Locate field research sites according to design requirements  2.6 Identify and incorporate site factors impacting research  2.7 Create a budget for field research plan  2.8 Identify and obtain approvals and permits required |
| 3. Prepare to conduct field research | 3.1 Identify work health and safety hazards associated with the implementation of field research  3.2 Identify and document social and environmental implications associated with field research  3.3 Identify resource requirements implementing field research  3.4 Confirm cost and availability of resources with suppliers, contractors and stakeholders  3.5 Establish and prepare field work sites for implementation of research according to research plan  3.5 Organise access to field research subjects at times and places suitable for data collection |
| 4. Conduct field research | 4.1 Undertake data collection during field research according to research design and chosen methodologies  4.2 Monitor field research for accuracy and compliance to research plan  4.3 Record all research data accurately using the specifications of the research plan |
| 5. Assess practical application of research outcomes | 5.1 Analyse research data according to research plan outcomes  5.2 Create quantitative and qualitative records of research data analysis  5.3 Synthesise research findings and draw conclusions based on evidence and reasoned arguments  5.4 Assess meaning of research outcomes for practical application, based on conclusions drawn |
| 6. Report field research findings | 6.1 Determine desired actions from field research  6.2 Determine target audience for field research reporting  6.3 Draft research report and obtain feedback  6.4 Publish and circulate field research report |

| Foundation Skills  This section describes those language, literacy, numeracy and employment skills that are essential for performance in this unit of competency but are not explicit in the performance criteria. | |
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| Skill | Description |
| Reading | * Analyse documents and data to extract relevant information for research development and design |
| Writing | * Collate and organise results of research and compile into formal reports for specific stakeholders |
| Numeracy | * Conduct statistical analysis of results of research to formulate reasoned outcomes |
| Oral communication | * Use communication tools and procedures appropriate to the target group to elicit information required during field research |

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| Unit Mapping Information | | | |
| Code and title current version | Code and title previous version | Comments | Equivalence status |
| AHCPER5X2 Plan and conduct field research | AHCPER510 Carry out permaculture field research | Redesigned unit to reflect skills for other industry sectors  Amended Application, minor changes to Elements and Performance Criteria for brevity and clarity | Equivalent |

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| Links | Companion Volumes, including Implementation Guides, are available at VETNet: https://vetnet.gov.au/Pages/TrainingDocs.aspx?q=c6399549-9c62-4a5e-bf1a-524b2322cf72 |

| TITLE | Assessment requirements for AHCPER5X2 Plan and conduct field research |
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| Performance Evidence | |
| An individual demonstrating competency must satisfy all of the elements and performance criteria in this  unit.  There must be evidence that the individual has on at least one occasion planned and conducted field research relevant to a specific industry sector and has:   * formulated and justified research questions * designed a field research plan * conducted research and evaluated information * entered, analysed and organised data quantitatively and qualitatively which must include, charts, tables and graphs according to research plan * produced written reports on research outcomes and provided conclusions based on evidence and reasoned argument for stakeholders. | |

| Knowledge Evidence |
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| The candidate must demonstrate knowledge of:   * potential research opportunities for the specific industry sector * field research data collection techniques, including: * interviews for individuals and groups * use of historical records, data * conducting observations, surveys and questionnaires * research methodologies, including: * qualitative, quantitative and mixed methodologies * action research * needs studies * case studies * statistical sampling * technologies for communications * field research plan design * beneficiaries of the research for specific industry sector * research ethical standards * scientific and mathematical research approaches, data collection, processing and analytical techniques and procedures * auditing and reporting procedures * research planning and budgeting * field research health and safety procedures * research report writing and presentation. |

| Assessment Conditions |
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| Assessment of the skills in this unit of competency must take place under the following conditions:   * physical conditions: * skills must be demonstrated in the field specific to the industry sector or an environment that accurately represents workplace conditions * resources, equipment and materials: * use of industry specific research materials and data * specifications: * use of workplace policies, procedures and processes * access to research ethical standards * relationships: * stakeholders   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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