Qualification Reform

Jobs and Skills Council Demonstration Project

Final Report – Due 27 September 2024

Jobs and Skills Council	Future Skills Organisation
Contact information	
Demonstration project title	Testing a new approach to qualification design to build digital capability

Demonstration projects are a mechanism for Jobs and Skills Councils to trial and refine the proposed purpose-led approach to develop new qualification models that will codify learning in a way that is best suited to their sectors. Outcomes and learnings from Demonstration Projects will be used to inform the Qualification Reform Design Group thinking on what may be required to support a high performing qualifications system. For further details on the purpose-led model, Qualification Development Quality Principles, and demonstration projects - please refer to the *Qualification Reform guidance for Jobs and Skills Councils*.

The **final report** is expected to highlight an issue identified through recent Jobs and Skills Council workforce planning, industry intelligence and data, and the outline of a new qualification model to address through the application of the *purpose-driven model* and *Qualification Development Quality Principles* to the existing Training Package Organising Templates (for example the Unit of Competency template). The report should also indicate any considerations to amend the current system where it presents a limitation in developing the new model.
The final report is due to the department by **27 September 2024,** with developed examples of the new qualification to support.

Template
Part A – Final assessment of purpose and principles model
Part B – Outcomes from testing the purposes and principals' model, including agreed deliverables (to be attached to this report).

Executive Summary

Testing a new approach to qualification design to build digital capability

Introduction

The Qualification Reform Design Group (QRDG) proposed that Cross-Sectoral or Foundation Skills should be classified as Purpose 3 qualifications, applicable across job roles and industries and/or providing pathways for further education.

The FSO was tasked to develop a set of Purpose 3 units of competency focused on the development of general digital capability skills. The FSO engaged 2 different providers (an established RTO and a Design Thinking consultancy) to develop different approaches to creating new units of competency and assessment approaches that would enable digital capability uplift across all industry areas.

These new units of competency focus on the principles guiding the Qualification Reform which include:

- Increased Flexibility: Greater adaptability to industry changes, ensuring that training remains relevant and responsive to evolving needs.
- Improved Clarity: Reduced ambiguity in language, making it more accessible for both educators and learners, and enhancing content application.
- Enhanced Skill Integration: Enabling a stronger focus on integrating foundational skills and critical thinking, equipping learners with essential competencies for the modern workforce.
- Balanced Knowledge and Skills: balancing theoretical knowledge with practical skills, preparing learners for real-world applications.

This Final Report provides an overview of the key findings from the FSO's work and proposes a way to take forward this work into training product design and testing.

Background

FSO has considered the Qualifications Reform principles, and has interpreted them as follows:

- The need to ensure the system is responsive and relevant to the needs of Industry.
- Training aligns with current and emerging workforce needs, and to also be adaptable to technological changes.
- The need to adopt a learner-centric approach which emphasises clear pathways, scaffolded learning, and assessments that build skills progressively.
- Qualifications should be simplified and made more accessible
- Transferable skills across sectors are valued, and
- Digital capabilities are prioritised to prepare learners for modern workplaces.

This Demonstration Project was identified due to the FSO's remit across Finance, Tech and Business and the identified need for digital capability. The development of Generalist 'Purpose 3' skills are integral to the BSB and ICT Training Packages and are recognised in the FSO Workforce Plan 2024 as a major need. The Australian Digital Capability Framework (ADCF) was used to provide a consistent language to develop the digital capability UoC and the related assessment requirements for this project.

The developed units have the ability to be utilised in skills sets or micro credentials, allowing learners to upskill or reskill efficiently and flexibly in line with industry demands.

This Final Report confirms the principles, stated above, are feasible and effective in designing new training products. Consistent quality, sustainability, and ongoing collaboration with stakeholders are essential to maintain the system's relevance and future-proof its impact.

What was done

As part of this project the FSO has:

- developed and refined a methodology to identify which existing Units of Competency (UoC) within the ICT, FNS, and BSB training packages deliver similar digital capabilities and could be replaced by the new training products.
- recommended changes to the product template. This is both in the layout as well as the content. The suggested approach to developing new UoCs marks a significant shift from traditional models, emphasising flexibility, adaptability, and the enhancement of transferable skills[1],[2,].
- used the ADCF to describe digital capabilities and proficiency levels in a way which helps to create practical and impactful training products.
- designed UoCs that will enable a student's testamur or statement of attainment to reflect capabilities and enable employers and other stakeholders to more easily recognise prior learning and skills attainment.
- proposed a methodology to identify which industry-specific digital capability units exist across other training packages that potentially duplicate the Australian Digital Capability Framework (ADCF) units[3],[4].
- engaged stakeholders to help identify potential solutions and identify barriers towards transitioning to any new framework[5],[6].
- identified opportunities or barriers for the new training products developed
- developed 3 to 4 example assessment approaches to support training providers to understand the differences in performance at different proficiency level.
- developed up to three hypothetical examples demonstrating how the new units can support improved Recognition of Prior Learning (RPL).

Key Challenges

Whilst the quality principles guiding the development of these training products were accepted, the workshops undertaken revealed certain challenges, particularly around flexibility and consistency across training providers. Key points identified include:

- Impact on National Standards: Stakeholders expressed concerns about how changes might affect national standards. Currently, the VET system provides a consistent expectation across Australia, with clearly defined outcomes for students.
- Implementation Challenges: Concerns were raised about the implementation of a new structure and the impact of increased flexibility which might be too difficult to implement. The current structure is familiar and readable, and elective UoCs allow for selections aligned

[1] Appendix 1.1 UoC and Assessments
[2] Appendix 1.2 Implementation Guide
[3] Appendix 6.1_Data Analysis Report Methodology
[4] Appendix 6.2_Data Analysis Report
[5] Appendix 2 Consultation Strategy
[6] Appendix 3 Consultation Log

with industry needs. However, limiting the number of units could potentially limit the options available to stakeholders.

- Maintaining Transparency: There was also concern about how the transparency of outcomes would be maintained. Currently, industry, students, and educators can clearly see educational outcomes in a transcript. There was also concern about the recording and reporting of completions and how this would be maintained.

The primary risks are in the implementation phase, particularly in how Registered Training Organisations (RTOs) will deliver and assess the training in a way that is flexible, agile, and applicable across industry sectors.

Successful implementation will require careful consideration. Any next phase should involve co-developing the training products with key stakeholders to identify challenges, devise solutions, and make necessary adjustments. Additionally, a pilot phase is proposed post the co-development to test the products in real-world settings, allowing for feedback and refinement before full-scale rollout.

Next Steps

- Update the ADCF as an enabling framework to ensure it is fit for purpose for future use.
- Co-development Phase: Evolve the project from co-design to co-develop, focusing on a new form of multi-level units and skill sets across various proficiency levels. This will enable valuable insights into the application of a multi-level unit approach e.g. building skills sets that include multi-levels of proficiency across multiple focus areas. This will need to be tested with RTOs. This will include testing administration processes to manage enrolments and credentialing.
- Following the co-development phase, undertake a pilot which will inform the development of the ICT and BSB training packages to address the need to upskill by providing training products that can be delivered at scale.
- Further considerations will also be given to a range of supporting mechanisms which may include:
    - A Digital Skills Assessment Tool to support the consistent assessment of digital skills and enable the assessment of digital skills at course entry and exit points, as well as streamlining RPL.
    - A range of digital capability personas to identify required digital skills by occupation, aiding employers, learners, and providers in navigating digital skill development; and
    - A mapping of the Digital Skills frameworks to align the various digital skills frameworks and guide implementation of the proposed unit of competency. Initial research has been undertaken to identify relevant frameworks which are detailed in Literature review and glossary for Digital Skills[7],[8].

[7] Appendix 4 References
[8] Appendix 5 Glossary

Final Report – Demonstration Projects
Part A

Note: interim and final reports use the same template, JSCs are asked to update and refine previous responses based on progression of their projects.

Final assessment

1. Refinements to the purpose led and principles-based model.

a) Do the *three purposes* enable greater flexibility in training product design?

- Are the descriptions/characteristics of the purposes sufficiently clear? Is clarification needed to assist with aligning products to each purpose?
- Do the purposes enable enough flexibility to design the product as desired?
- Do the descriptions of the purposes, and characteristics of the subsequent qualifications assist when considering the design and intent of qualifications/units of competency?

Are the descriptions/characteristics of the purposes sufficiently clear? Is clarification needed to assist with aligning products to each purpose?

This demonstration project focused exclusively on testing Purpose 3 qualifications and their characteristics, without assessing those under Purpose 1 or Purpose 2.

Purpose 3 Description:

Qualifications that develop cross-sectoral or foundation skills and knowledge, applicable across industries or leading to tertiary education and training pathways. These qualifications may provide a range of vocational and learning outcomes not necessarily tied to a specific job role. Built around general or cross-sectoral skills and knowledge, they offer versatility across multiple sectors. This project specifically tested this definition using Digital Skills.

Comment

- The description provides a solid foundation for developing training products.
- The work undertaken for this project has focused on the development of Units of Competency (UoCs) which can be incorporated into skill sets, or microcredentials. These UoCs could be packaged as entry-level skill sets, either horizontally or vertically, or used for Recognition of Prior Learning (RPL). Additionally, the UoCs could be integrated into existing qualifications and embedded into training products developed by Jobs and Skills Councils (JSCs).
- By prioritising adaptable and transferable skills over rigid, job-specific training, this model encourages a more versatile and agile approach to training product design.
- The work undertaken as part of FSO's response to the Qualifications Categorisation project indicates that the description of Purpose 3 qualifications is fit for purpose.

Key Findings

Rapid technological advancements present a challenging for keeping training products up to date. Adopting a generic approach enhances adaptability, reduces duplication, and lessens the need for frequent updates, ensuring training products remain relevant over time.

Do the purposes enable enough flexibility to design the product as desired?

Flexibility in Product Design: The Purpose 3 definition provides greater flexibility in the design of training products by allowing for adaptability. This approach ensures that training content remains relevant, as it avoids the prescriptive nature of the current model. As a result, it will reduce the need for frequent updates, which are often necessary when training is tied to specific tools and technologies that change with market developments. By focusing on broader skills, this model supports a wider range of learning contexts and pathways.

Comment:

The Purpose 3 definition will support the flexible design of training product by allowing for:

- **Diverse Learners:** It accommodates learners with different needs, backgrounds, ensuring that the training remains relevant and accessible to a broader audience.
- **Customisation for Specific Needs:** It allows training providers and employers to tailor programs to the specific skills required by industries or individual organisations, enhancing the relevance of the training.
- **Sustainability of Content**: A flexible design reduces the need for constant updates by focusing on core, transferable skills that remain relevant over time, even as specific tools, or technologies change.
- **Lifelong Learning:** Flexibility encourages a learning culture where individuals can easily update or enhance their skills, enabling them to keep pace with industry demands without needing to restart their learning journey.
- **Efficiency in Delivery and Assessment:** Flexible training products streamline the learning process, reducing unnecessary content and allowing for more efficient delivery and assessment practices.

Key findings:

This project has developed UoCs by leveraging the flexible design principles of Purpose 3, which facilitate integrated learning. The flexibility in product design has allowed each unit to incorporate scaffolded learning and assessment by structuring the content into progressive stages of complexity. Learners start with foundational concepts and gradually advance to more complex tasks, ensuring that each step builds upon the previous one. This approach also enables tailored assessments that align with learners' current proficiency levels, ensuring a cohesive and integrated pathway for skill development that is adaptable to different industries and roles.

Do the descriptions of the purposes, and characteristics of the subsequent qualifications assist when considering the design and intent of qualifications/units of competency?

Clarity and Practicality of Purpose Descriptions:

Yes, the description of the purpose and characteristic of Purpose 3 qualifications plays a crucial role in guiding the design and intent of the training products.

Comment

- **Clarity of Purpose**: Defines the overarching goal to developing cross-sectoral or foundational skills, or skills applicable to a broad range of industries. This clarity helps ensure that the design of qualifications or UoCs aligns with the intended outcomes, such as flexibility and adaptability across various sectors.

- **Design Alignment**: The description provides a framework to guide the development of training products, ensuring they meet the needs of learners and industries. For example, Purpose 3 qualifications focus on transferable, general skills, which informs the design of UoCs to be less job-specific and more adaptable to changing technologies or industry needs.
- **Intent for Flexibility**: By understanding the characteristics, training product developers can focus on building flexibility into UoCs. This ensures that learners gain skills that remain relevant, reducing the need for frequent updates and helping industries respond to rapid technological advancements
- **Guiding Simplification and Streamlining**: The focus on characteristics such as reducing duplication and ensuring relevance aids in designing qualifications or UoCs that are streamlined and efficient. This is particularly important for Purpose 3 qualifications, where the emphasis is on broad applicability and foundational skills rather than specific job roles.

Key Findings:

In summary, clear descriptions of qualification purposes and their characteristics are crucial for shaping the design and intent of both qualifications and UoCs, ensuring they remain adaptable, relevant, and aligned with industry needs. The purpose descriptions offer valuable insights for exploring various possibilities. While the characteristics of these purposes are clear, ongoing evaluation and feedback from stakeholders will be essential to maintain alignment and clarity as the model evolves.

b) Do the *Qualification Development Quality Principles* effectively guide the development of training products to meet industry and student needs?

- Were any of the principles more difficult to achieve?
- Did the principles assist or inhibit stakeholder buy-in to the project?

Do the *Qualification Development Quality Principles* effectively guide the development of training products to meet industry and student needs?

This demonstration project aimed to apply and test the Qualification Design Quality Principles (QDQP) to ensure that resulting training products effectively met industry and learner needs. Below is an evaluation of each principle and its potential impact:

- **Ensure Learners' Needs and Aspirations Inform Qualification Design**: Adopting a learner-centered approach ensures qualifications remain relevant, enhancing employability and industry mobility. This was seen as an essential component by stakeholders.
- **Place Equal Importance on Skills, Knowledge, and Application**: It was identified by stakeholders that across qualifications; skills, knowledge, and application can vary dependent on the industry area. Therefore, it is recommended that there be a flexible application of this principle, especially for Purpose 3, which demands greater agility and adaptability to facilitate skill transferability.
- **Allow Flexible Training and Assessment in High-Quality Training Environments**: This principle supports diverse delivery and assessment approaches and has been tested in this project with a proposal for a new type of assessment called 'Smart Clustering'. In this example smart clusters would comprehensively cover the full learning outcomes of a digital capability unit (at a specified proficiency level) within the assessment tasks of other

units in a qualification or skill set. Unlike traditional clusters, they disperse and integrate the learning outcomes across as many other units as necessary, according to best fit. This will require further investigation and testing.

- **Avoid Duplication with Other Training Products Where Industry Context Does Not Require It**: Reducing duplication streamlines qualifications by eliminating low-use products, encouraging broader applications essential for Purpose 3 qualifications. There will be a requirement for industry contextualisation by the training provider for the learning and assessment resources to developing the skills required by industry.
- **Reduce Specificity Except Where a Higher Level of Detail Is Required**: Minimising specificity enhances the longevity and applicability of training products across various contexts. References to narrow organisational or industry requirements may be removed to increase flexibility.
- **Consider and Integrate Foundation Skills, General Capabilities, and Knowledge Progression**: This principle is key for Purpose 3 qualifications, focusing on foundational and generalist skills. Clear definitions and criteria will ensure these skills are understood and applied across industries.

In summary:

FSO broadly supports these Quality Principles, which have been tested and applied throughout this demonstration project.

- Were any of the principles more difficult to achieve?

Workshop feedback was overwhelmingly supportive of the critical importance of aligning training products with industry and learner needs. One participant highlighted, “Learners don't care; they just want a job outcome, and employers want skilled employees.” Participants agreed with the comment, but it was also agreed this was fundamental for the VET sector to *ensure learners' needs and aspirations inform qualification design.* The challenge identified is to meet both learners and industry expectations across all qualifications to ensure consistent outcomes.

Direct engagement with learners will ensure their needs are incorporated into the design process. Developing journey maps for various personas is recommended as a tool to illustrate different scenarios, including learner journeys, industry applications, and RPL.

- Did the principles assist or inhibit stakeholder buy-in to the project?

Incorporating flexibility into training products is essential, but it must be approached with careful consideration of the risks. Feedback from workshop participants highlighted the need for a balanced approach that ensures flexibility while maintaining consistency, transparency, and alignment with national standards. Continued refinement and consultation are crucial to achieving these goals and ensuring that the training products meet the evolving needs of both industry and learners.

Key Findings

Overall, there was clear and enthusiastic buy-in from stakeholders, including both training providers and industry representatives who participated in the workshops. The principles and outcomes of the reform were well-received, reflecting a shared commitment to change that will enhance the quality, relevance, and effectiveness of training in the VET sector.

2. Requirements to successfully implement the proposed model within your industry.
    a) Any changes to product templates (Qualification, UoC) or certifications to facilitate the new approach? (including any possible updates to the *Training Package Organising Framework*)
    - What is the best way for a student's testamur/statement of attainment to reflect their knowledge and skills to promote recognition across sectors?

Any changes to product templates (Qualification, UoC) or certifications to facilitate the new approach (including any possible updates to the Training Package Organising Framework)?

This demonstration project has recommended changes to the product template. This is both in the layout as well as the content. Our approach to developing new UoCs marks a significant shift from traditional models, emphasising flexibility, adaptability, and the enhancement of transferable skills. The key points of difference in the new UoC product template include:

- **Simplified Structure:** We have shifted from the traditional components of Elements, Performance Criteria, Knowledge Evidence, and Performance Evidence, towards a focus on broader learning outcomes that emphasise the development of transferable skills and capabilities. These units are designed to be easily contextualised across diverse training packages, qualifications, industries, and roles, ensuring their relevance and applicability in various settings.
- **Progressive Learning:** Multi-level unit outcomes offer scaffolded entry and exit points, supporting the progressive development of capabilities and recognition at various stages of the learning journey. It also establishes a link to lifelong learning as learners can build on skills already developed and establish the pathway for new skills to be developed.
- **Streamlined Requirements:** The UoC template now identifies simplified requirements with fewer prescribed conditions and specifications. This reduction in complexity benefits both learners and training providers, fostering a more focused and effective learning experience.
- **Integrated Learning:** Each unit incorporates scaffolded learning and assessment approach ensuring a cohesive and integrated approach to skill development. This structure supports learners in effectively achieving their educational and professional goals.
- The updated templates are available for review[1]

Any changes to product templates (Qualification, UoC) or certifications to facilitate the new approach? (including any possible updates to the *Training Package Organising Framework*)

To enhance agility and responsiveness in the development of training products, it will be essential to implement a more streamlined Training Product Development (TPD) process. Adjustments to Training Package Organising Framework (TPOF) will be necessary to accelerate the process, reducing the time from development to deployment without compromising the quality or rigor of the training products.

A process will need to be established to enable the development of UoCs and Skill Sets that exist outside of traditional qualifications. This approach will allow for the creation of targeted training products that address specific industry needs without being confined to broader qualifications.

Recommendation

In the FSO's Qualification Categorisation Final Report, we have suggested a range of updates for the TPOF to align with the purposes. It is proposed that the Purpose 3 TPD Process would require a

reduced level of detail for greater flexibility and agility in implementation. The process could include the following steps:

- Evidence of the need from Work Force Plan (WFP), change of legislation/regulations.
- Draft training products
- Public and government engagement period be retained - 4 weeks Government and public consultation / Senior Responsible Officer (SRO) approval consultation and SRO approval
- Technical Committee oversight
- Finalisation and submission to Assurance Body
- Assurance Body approval
- Upload to National Training Register (NTR)

What is the best way for a student's testamur/statement of attainment to reflect their knowledge and skills to promote recognition across sectors?

To ensure a student's testamur or statement of attainment effectively reflects their knowledge and skills and promotes recognition across sectors, the following details are recommended:

- **Detailed competency breakdown:** List specific learning outcomes of the UoCs including descriptions of the knowledge and skills attained. Indicating the proficiency level achieved in each competency, where applicable would demonstrate the depth of expertise.
- **Alignment with industry standards:** Ensure the competencies are aligned with recognised industry standards or frameworks, such as the Australian Qualifications Framework (AQF) or relevant digital capability frameworks like the ADCF. It is recommended to use language and terminology that are easily understood across different sectors, ensuring that the skills are recognised outside the specific training context.
- **Inclusion of Digital Badges or Microcredentials:** Incorporation of digital badges or microcredentials that represent specific skills or achievements. These can be shared online, making them easily verifiable and recognised across sectors. This could be extended to QR codes on the testamur or statement of attainment that link to detailed records of the student's achievements.
- **Verification and Authenticity:** Include features that verify the authenticity of the document, such as digital signatures, or blockchain verification, to enhance credibility. Where possible, include endorsements or recognition from industry bodies or employers that attest to the relevance and quality of the training.

In summary

By implementing these strategies, a student's testamur or statement of attainment can more effectively communicate their capabilities, making it easier for employers and other stakeholders to recognise and value their skills across various sectors.

b) What supports would be needed to enable expansion of this approach across Jobs and Skills Councils? (development of resources and guidance etc)

- Are additional measures necessary to support/encourage cross-JSC collaboration to remove duplicative products from the system and replace them with transferable products?
- Are there barriers to implementation not identified above? Do they require additional rule changes or is education/engagement more appropriate?

What supports would be needed to enable expansion of this approach across Jobs and Skills Councils (development of resources and guidance etc)?

To foster collaboration and innovation, it is recommended to establish Best Practice Networks or Communities of Practice across the JSCs. These networks can facilitate regular exchanges of experiences, challenges, and solutions related to ongoing work. Activities may include organising webinars, workshops, and forums to discuss progress and collectively innovate. Potential resources for development or refinement may include guidelines, templates, best practice examples, and case studies. This will be a planned approach within the co-development stage commencing with JSCs that are more aligned to service orientated industry areas, with consideration given to the traditional trade areas in due course.

Are additional measures necessary to support/encourage cross-JSC collaboration to remove duplicative products from the system and replace them with transferable products?

To foster and support cross-JSC collaboration to eliminate duplicative products and replace them with transferable ones, several additional measures are proposed. First, it is essential to establish a shared understanding of the underlying principles of Purpose 3 qualifications. This should focus on the feasibility of using an integrated learning approach for UoC development and implementation and the applicability of scaffolded learning and assessment approaches. It will also be useful to identify associated implementation challenges across industry areas.

Building on this foundation, discussions could explore how Purpose 3 units can be leveraged to streamline training packages by identifying applicable units and determining how they can be embedded, bolted on, or used as entry-level requirements. From this an agreed process for systematically removing duplicative products and replacing them with transferable ones could be developed.

To advance digital skills upskilling across JSCs the following is proposed:

- test the developed UoCs with a small number of JSCs to identify variances and consider how they can be accommodated.
- review the Australian Digital Capabilities Framework (ADCF) for its use across various industry sectors, developing standardised terminology to be used across JSCs.
- The co-development phase to test, refine, and build confidence in new processes to ensure successful integration.

Digital skill capability development will continue to be an issue if it is not managed to ensure strategies are scalable and sustainable. This coordinated approach across JSCs needs support and identification as a priority. This is a real opportunity for cross-JSC agreement on Digital Capability which is supported in the recently released National Skills Plan where the following is noted as a

priority - **Ensuring Australia's Digital and Technology Capability:** Equipping Australians with essential digital skills and addressing the technology skills gap.

Are there barriers to implementation not identified above? Do they require additional rule changes or is education/engagement more appropriate?

The implementation of Purpose 3 training products may face several potential barriers:

- Securing support for a new unit of competency template that deviates from the established paradigm. This will involve addressing training and assessment implementation challenges for training providers as well as training product development by JSCs.
- Introducing units specific to digital capability might conflict with the current approach of embedding digital skills as a foundational component within existing units.
- Aligning the specific terminology of the ADCF with the established language used in VET and AQF frameworks.
- The presence of multiple skills frameworks can lead to confusion among stakeholders.
- The ability of RTOs to adapt their legacy systems to support multi-level units, such as concurrent enrolments and exit points for UoCs and/ or skillsets.
- Cross JSC support for Purpose 3 qualifications across all areas will be a challenge to the specific requirements of stakeholders and their industry areas.
- Specific regulatory barriers that hinder the implementation of revised training products and proposed necessary rule changes may need to be addressed. This might include adjustments in accreditation requirements, funding arrangements, or assessment criteria.
- Engagement strategies will need to be developed to educate all stakeholders about the benefits and processes involved in implementing and applying reformed training products. This would include information sessions, detailed explanatory materials, and proactive communication efforts to ensure clarity and buy-in. These strategies would need to focus on addressing stakeholder concerns and providing continuous support throughout the implementation phase.
- The need to gather continuous feedback to ensure monitoring of the implementation challenges and to identify area of improvement.

In Summary

To address these barriers, it is proposed that further discussions and consultations with stakeholders are necessary. Engaging in comprehensive dialogue will help identify potential solutions and ensure a smoother transition to a new framework. Overcoming these challenges is crucial for the successful implementation of Purpose 3 Training Products. By proactively addressing these issues through stakeholder engagement, obstacles can be mitigated to create a more effective and coherent approach to integrating digital capabilities into training products.

3. Are there any potential blockers to implement the proposed model more broadly and what could be the potential solutions?

This section will be used to inform the implementation plan for the model – consider any areas of concern or resistance from within your JSC or related stakeholders, and what could be done to address them?

Potential blockers to implementing the proposed model broadly and potential solutions:

Potential Blockers	**Potential Solutions**
Resistance to Change	
Some stakeholders may be resistant to change in qualification design due to comfort with existing processes. The uncertainty of the new model will may require significant adjustments in current practices.	• Implement a change management approach that includes clear communication about the benefits of the new model, training, and support systems to assist transition. • Introduce changes gradually, allowing stakeholders to adapt over time and reducing the perceived burden of transitioning to the new model. • Continually refine the training product prototype and extend the consultations more broadly including employers and learners. Adjust as required. • Pilot the new training products to demonstrate benefits and strategies for addressing risk.
JSCs and other stakeholders may operate in silos, hindering effective collaboration and knowledge sharing. There may be competitive dynamics among JSCs that discourage collaboration on shared goals and resources.	• Create incentives for collaboration, such as funding for joint projects, shared recognition programs, and collaborative funding. • Organise facilitated workshops, networking events, and forums to encourage collaboration and knowledge sharing among JSCs.
Regulatory and Policy Barriers	
Existing accreditation and regulatory standards may not accommodate the flexibility needed for the new qualification design principles. e.g. ASQA.	• Consult with regulatory bodies on the prototype and develop solutions / strategies to address implementation issues.
Current funding models may not support the innovative approaches proposed, potentially limiting the adoption of new qualifications e.g. State and Territory funding agreements.	• Consult with STAs and SROs on the prototype and develop solutions / strategies to address implementation issues.

Stakeholder Engagement	
Stakeholders may not fully understand the benefits and processes involved in the new model, leading to reluctance in participating.	• Develop a communication strategy that clearly articulates the benefits of the new model and addresses stakeholder concerns through information sessions, detailed guides, and continuous engagement.
Stakeholders may have conflicting interests and priorities, making it challenging to achieve consensus.	• Involve a diverse range of stakeholders in the decision-making process to ensure their interests are considered and to foster a sense of ownership and commitment to the new model.

Final Report – Demonstration Projects

Part B Outcomes from testing the purpose and principles model.

Broad summary of project and outcome

- What did you do?
- Who did you consult with?
- What are your key findings?

What Did You Do?

Extensive planning was undertaken, resulting in the completion of several key tasks:

- **Consultants were engaged** to conduct co-design workshops with key stakeholders and to develop Units of Competency (UoCs) and assessment approaches[1], and Recognition of Prior Learning (RPL) examples[Error! Bookmark not defined.].
- **The consultation strategy was implemented**, and its outputs have been documented[5,] **Error! Bookmark not defined.**.
- **Analysis of the QRDG's Differentiated Qualification Design Principles (QDQP) and the Australian Digital Capability Framework (ADCF)** was completed, including a literature review to identify relevant supporting documentation and supplementary frameworks[7,Error! Bookmark not defined.].
- **A methodology was researched and developed** based on the findings presented in the initial Qualification Reform Initial Report. This was to identify industry-specific digital capability units across training packages that could be replaced by the new training products[3,Error! Bookmark not defined.].

Who Did you Consult With?

The consultation process involved a diverse group of stakeholders, who were FSO collaborators with digital skills as a priority skill development area. This included:

- **Training Providers**: TAFE institutions, private RTOs, community-based managers, learning designers, assessment designers, and educational experts.
- **Subject Matter Experts (SMEs)**: Industry experts specialising in digital skills.

What are your key findings?

The feedback received during workshops further supported the need for reform in the VET system. Key points raised by participants included:

- **Inflexibility and Outdated Content:** Participants noted that the rigidity and outdated nature of the current content hinder the delivery of high-quality training.
- **Structural Issues:** Concerns were raised about the inconsistent relationships between UoCs that cover similar skills at various levels, as well as an over emphasis on minute details that do not add value to the learning experience.
- **Content and Assessment Challenges:** There were widespread concerns regarding excessive or unnecessary knowledge requirements and over-assessment, which complicate the learning process.
- **Lack of Clarity and Relevance:** Participants observed that skills are not always clearly articulated in the purpose or performance criteria of UoCs, leading to confusion and irrelevance.
- **Implementation Difficulties:** There was feedback on the challenges associated with unclear assessment requirements and contexts, making it difficult for RTOs to implement training effectively.
- **Quality Concerns:** Issues of duplication within and across units were highlighted as a significant quality concern.

The consultation distilled several key findings:

- **Transferable Skills:** Emphasised the importance of skills that can be adapted to various contexts. As one participant noted, *'Being really clear about the difference between the underlying skill and a tool is crucial. Many organisations struggle because they focus on tools—'How do I use this tool?'—rather than on applying skills to achieve business outcomes.'*
- **Job Alignment:** The need for training to be aligned with job outcomes was highlighted. One industry representative stated, *'Industry won't necessarily say they want to be aligned with the ADCF. They'll simply articulate the outcomes they require.'* This underscores the necessity of utilising diverse frameworks to map and build relevant training.
- **Speed of Change:** The challenge of keeping pace with rapid technological advancements was also discussed. The importance of maintaining a generic approach at the curriculum level to ensure adaptability was emphasised, with one participant noting, *'Descriptiveness and assessment conditions need to be streamlined. Otherwise, we'll constantly revise training every six months as new technology emerges.'*
- **Unit of Competency Reform:** There was support for generic UoCs with simplified learning and assessment outcomes and conditions. One workshop participant shared, *'So much time is spent interpreting and implementing UoCs rather than on actual learning. Streamlining content is essential to reduce duplication and irrelevance.'*
- The **ADCF has been pivotal,** providing clear descriptions of digital capabilities and proficiency levels. This framework assists educators in translating theoretical constructs into meaningful training products. As one participant stated, "It's great from an educator's perspective as to how we can turn this framework into something meaningful for industry and learners."

While the principles guiding the development of these training products were accepted, the workshops also revealed certain challenges, particularly around flexibility and consistency across training providers. Key points identified include:

- **Impact on National Standards:** Stakeholders expressed concerns about how changes might affect national standards. Currently, the VET system, through UoCs, provides a consistent expectation across Australia, with clearly defined tasks and knowledge outcomes for students.
- **Implementation Challenges:** Questions were raised about whether the new structure and flexibility might be too difficult to implement. The current structure is familiar and readable, and unit lists allow for selections aligned with industry needs. However, limiting the number of units could potentially limit the options available to stakeholders.
- **Maintaining Transparency:** There was also concern about how the transparency of outcomes would be maintained. Currently, industry, students, and educators can clearly see educational outcomes in a transcript.

In addition to the above key findings, it was established that training product could be co-designed to meet objectives set out by the QRDG. The re-imagined multi-level UoC introduces a more generic and flexible framework. The key features of this framework include:

- **Versatile Application:** The UoC is designed to be seamlessly integrated into various VET qualifications. It can also serve as a foundational basis for skill sets, microcredentials, or microlearning programs that are developed and delivered by RTOs.
- **Alignment with ADCF Focus Areas**: Each UoC is grounded in and named after one of the ADCF Focus Areas. This ensures that the units maintain relevance and focus within the digital capability domain.
- **Structured Digital Capabilities:** Every UoC/Focus Area encompasses from beginner to high-level digital capabilities. These capabilities are applied across proficiency levels, reflecting the degree of autonomy and task complexity that a student can achieve upon successful completion of the unit. The levels are scaffolded to support progressive learning.
- **Multi-Level UoC :** Each proficiency level serves as a potential entry and exit point, providing flexibility and adaptability to diverse learning pathways.
- **Capability Descriptors:** The proficiency level descriptors from the ADCF, known as Capability Descriptors, are applied, and scaffolded across each level. These descriptors define the learning outcomes for each UoC/Level.
- **Customisation by RTOs:** RTOs have the flexibility to determine the appropriate level, based on the digital capabilities of their student cohort. and exit level required for the qualification.

The project's innovative approach to UoC design using the ADCF aims to address the evolving digital skills needs across the economy. By developing a prototype and testing its application, we seek to create a more relevant and adaptable qualification framework. Ongoing engagement with stakeholders and responsive adjustments will be key to overcoming challenges and achieving successful reform.

The insights gathered from this consultation reaffirm the necessity of QRDG's differentiated approach to qualification design. By focusing on adaptable, transferable skills and reducing the emphasis on rigid, job-specific training, this model promotes a more versatile and future-oriented workforce. The feedback highlights the importance of simplicity, flexibility, and alignment with real-world job outcomes, all of which are central to the successful implementation of this new system. As the qualification reform moves forward, these principles will guide the continued refinement and development of qualifications that meet the evolving needs of industries and learners alike.

The following were identified as possible mechanisms to support implementation:

- **Templates** that enable implementation of the multi-level unit approach, but further investigation is required to ensure that the approach can be implemented. For example: building skills sets that include multi-levels of proficiency across multiple focus areas.
- **A Digital Skills Assessment Tool** would assist training providers assessing learners' digital skills at course entry and exit points, as well as streamlining RPL. The tool would enable consistency in application of levels of digital proficiency for learning and assessment.
- **A range of digital capability personas** to identify required digital skills by occupation, aiding employers, learners, and providers in navigating digital skill development. It is believed that approach will be especially valuable for educators

in translating the framework into meaningful training products for industry and learners.

A mapping of the Digital Skills frameworks to align the various digital skills frameworks and guide implementation of the proposed unit of competency. Mapping to other Digital Frameworks such as SFIA will promote use and application of the units. Initial research has been undertaken to identify relevant frameworks which are detailed in Literature review and glossary for Digital Skills[7,8].

Conclusion

Through engaging key stakeholders, developing UoCs, and applying the QRDP and the ADCF, the project has made significant steps to test the potential reform in the VET system. Key findings from the consultation underscored the importance of flexibility, simplicity, and alignment with job outcomes in future training products. Challenges such as outdated content, rigid structures, and assessment difficulties were identified, leading to a focus on generic, multi-level UoCs that cater to various proficiency levels.

The innovative design approach, grounded in the ADCF, offers a more adaptable framework that can be integrated into multiple training pathways, supporting lifelong learning and industry relevance. Moving forward, addressing implementation concerns, such as ensuring transparency and maintaining national standards, will be crucial to the success of the reform.

Building on insights from this consultation, the next stage of co-development will focus on the opportunity to create a prototype that, when effectively implemented, aims to equip the workforce with the skills necessary to thrive in a rapidly evolving digital landscape. This will minimise the implementation risks by addressing the challenges proactively and pave the way for a pilot.

Project Deliverables

- FSO_Appendix 1.1_UoC and Assessments_JSC QR Demonstration Project
- FSO_Appendix 1.2_Implementation Guide_ JSC QR Demonstration Project
- FSO_Appendix 2_Consultation Strategy_ JSC QR Demonstration Project
- FSO_Appendix 3_Consultation Log_ JSC QR Demonstration Project
- FSO_Appendix 4_References_ JSC QR Demonstration Project
- FSO_Appendix 5_Glossary_ JSC QR Demonstration Project
- FSO_Appendix 6.1_Data Analysis Report Methodology_ JSC QR Demonstration Project
- FSO_Appendix 6.2_Data Analysis Report_ JSC QR Demonstration Project

FUTURE SKILLS ORGANISATION
Finance Technology Business

JSC Jobs and Skills Council
Finance, Technology and Business
An Australian Government Initiative

EGR_ANN_2324_004

Testing a new approach to qualification design to build digital capability

Appendix 1.1 Units of Competency and Assessment

Jobs and Skills Council

Qualification Reform Demonstration Project

Two contractors were engaged to develop units of competency and corresponding assessment approaches, offering a comparison between a Registered Training Organisation (RTO) and an independent non-VET sector company. As a result, two distinct versions are available for review.

1. Information and Data Literacy
2. Communication and Collaboration
3. Digital Content Creation
4. Protection and Safety
5. Technical Proficiency and Problem Solving

The 5 new units of competency (UoC) offer training at multiple levels and have scaffolded entry and exit points to allow progressive development of skills and knowledge. The assessment that links to each UoC offers multi-level proficiencies.

This document contains reference to **FSO Appendix 1.2 Implementation Guide JSC QR Demonstration Project.**

Contents

Contractor 1 Example Units of Competency and Assessment

Information and Data Literacy Unit of Competency and Assessment

Unit code	XXXX
Unit title	ADCF Information and Data Literacy – Levels 1-6
Application	This unit describes digital capability aligned to the Australian Digital Capability Framework (ADCF) Focus Area 1: Information and Data Literacy. The unit delivers the underlying digital capability required to support the development of Information and Data Literacy skills and knowledge in varied contexts. This unit applies to individuals who carry out a range of procedural and operational tasks that require basic, intermediate or advanced information and data literacy capability. The Digital Capabilities covered in this unit are: 1.1 Search, browse and filter information 1.2 Verify information and data 1.3 Manage data and information These capabilities are described by Learning Descriptors in the ADCF Proficiency Levels, which represent the Learning Outcomes for each Level of this unit. *No licensing, legislative or certification requirements apply to this unit at the time of publication.*
Contextualisation	The Learning Outcomes of this unit are intentionally non-specific and flexible in nature to allow implementation across a wide range of Training Packages, Qualifications and Skill Sets. Learning content and assessments will require sufficient industry or subject area contextualisation for the relevant Qualification, Skill Set or Accredited Course prior to delivery. This unit covers ADCF Levels 1-6 as aligned to VET qualifications. ADCF Levels 7-8 (Specialised) are not included. For more detail on contextualisation requirements see **FSO Appendix 1.2 Implementation Guide JSC QR Demonstration Project.**

Exit Points	This unit contains exit points at the following ADCF proficiency levels: • Foundation Level 1 • Foundation Level 2 • Intermediate Level 3 • Intermediate Level 4 • Advanced Level 5 • Advanced Level 6 Check Qualification or Skill Set details for their required Exit Point level.
Entry Requirements	Candidates must not attempt an Exit Point more than 2 levels higher than their current ADCF Proficiency Level in this Focus area for Foundation and Intermediate Exit points; or more than 1 level higher for Advanced Exit Points.
Determining entry and exit points	Current ADCF Proficiency Level can be evidenced by prior achievement of competency in this unit at the specific Exit Point, or successful completion of the **Digital Skills Proficiency Assessment Tool (under development)** in this Focus Area. For more detail on determining entry and exit points without these tools see the: **Section 1: Unit of competency. Implementation Guide (Appendix 1.2)**
Learning Outcomes Learning outcomes for each Level are based on the Capability Descriptors for each ADCF Proficiency Level.	
Level 1: Perform at a basic level with guidance	On achievement of ADCF Level 1 capability, candidates will be able to: 1. Understand the purpose of the search 2. Understand the required content for the search 3. Search for information in a digital environment 4. Access and navigate between digital resources 5. Select and maintain search strategies 6. Verify resource relevance to search purpose 7. Verify resource credibility 8. Fact checks information 9. Organise, store, and retrieve digital information 10. Organise, store, and retrieve information in a structured digital environment e.g. relational databases and spreadsheets

Level 2: Perform at a basic level with autonomy and some guidance	On achievement of ADCF Level 2 capability, candidates will be able to: 1. Understand the purpose of the search 2. Understand the required content for the search 3. Search for information in a digital environment 4. Access and navigate between digital resources 5. Create and maintain search strategies 6. Verify resource relevance to search purpose 7. Verify resource credibility 8. Fact checks information 9. Routinely organise, store, and retrieve digital information 10. Routinely organise, store, and retrieve information in a structured digital environment e.g. relational databases and spreadsheets
Level 3: Autonomously solve simple problems	On achievement of ADCF Level 3 capability, candidates will be able to: 1. Explain the purpose of the search to others 2. Perform well-defined and routine searches in a digital environment 3. Explain access and navigation strategies to others 4. Explain well-defined and routine search strategies to others 5. Verify resource relevance to search purpose through analysis 6. Verify resource credibility through analysis 7. Verify information credibility through analysis 8. Routinely organise, store, and retrieve digital information 9. Routinely organise, store, and retrieve information in a structured and secure digital environment for accessibility for as long as it is needed. e.g. relational databases and spreadsheets
Level 4: Autonomously solve intermediate problems	On achievement of ADCF Level 4 capability, candidates will be able to: 1. Explain search requirements to others 2. Organise searches in a digital environment 3. Explain access and navigation strategies to others 4. Organise digital search strategies 5. Verify resource relevance to search purpose through analysis and metadata 6. Verify resource credibility through analysis 7. Verify information credibility through analysis 8. Routinely organise, store, and retrieve digital information

	9. Routinely organise, store, and retrieve information in a structured and secure digital environment for accessibility for as long as it is needed. e.g. relational databases and spreadsheets
Level 5: Autonomously solve advanced problems and guide others	On achievement of ADCF Level 5 capability, candidates will be able to: 1. Apply and assess original search strategies for information in a digital environment 2. Explain access and navigation strategies to others 3. Propose original search strategies 4. Compare resource relevance through analysis of several resources 5. Verify resource credibility through analysis of several resources 6. Verify information credibility through analysis of varied data 7. Manage information in a digital environment 8. Manage information in a structured and secure digital environment for accessibility for as long as it is needed. e.g. relational databases and spreadsheets
Level 6: Autonomously solve complex problems and guide others	On achievement of ADCF Level 6 capability, candidates will be able to: 9. Determine the purpose and required content of the search 10. Refine search strategy to improve relevancy of results 11. Explain to others how to improve relevancy of search results 12. Compare resource relevance through analysis of several resources 13. Verify resource credibility through critical assessment of several resources 14. Verify information credibility through critical assessment of varied data 15. Manage information to organise, store, and retrieve it more efficiently in a digital environment 16. Manage information to organise, store, and retrieve it more efficiently in a structured and secure digital environment for accessibility for as long as it is needed. e.g. relational databases and spreadsheets
Unit mapping information *Mandatory field*	Specifies code and title of any equivalent unit of competency. If no equivalent insert: *No equivalent unit.*
Assessment	Assessment Requirements for [insert Unit of Competency Code] ADCF Information and Data Literacy – ADCF Levels 1-6.

Assessment strategy	Assessment for this unit must be contextualised to conditions and requirements reflecting the relevant industry or industry cluster. Assessment should be substantially based on real world tasks – whether in the workplace or a simulated organisation – that are strongly aligned with and representative of the learning outcomes at the required proficiency level. It is recommended that unit assessment primarily take the form of portfolio and project assessments that build evidence of developing capability as tasks are completed. This assessment strategy drives efficient elevation of capability that: • is immediately relevant to the qualification industry • is transferable to skills and tasks in similar industries • enables progression to higher ADCF proficiency levels. Assessments can also be scaffolded to enable achievement of a higher ADCF proficiency level than required for the qualification, at the option of both the candidate and assessor.
Scaffolded assessment	Each exit point has associated assessment. Where the learning outcomes for 2 levels are similar, assessment will have minor differences and may reuse content. However, there needs to be a clear differentiation between levels as indicated by additional questions and more rigorous marking criteria at higher levels. At higher levels, assessment will become more single level specific. Assessment will be developed to meet the learning outcomes of the predetermined exit level. If more than one exit level is to be offered, there must be separate assessment events for each level. Students only complete the assessments for their exit point.
Assessment conditions	Skills in this unit must be demonstrated in a workplace or simulated environment where the conditions are typical of those in a working environment in the selected industry. This includes access to: • industry applications/platforms • relevant organisational policies and procedures • relevant workplace documentation and resources. **Assessor Requirements** Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.

Links (Further information)	Link to: **Section 1: Unit of competency. Implementation Guide (Appendix 1.2)**

Digital Communication and Collaboration Unit of Competency and Assessment

Unit code	XXX
Unit title	ADCF Digital Communication and Collaboration – Levels 1-6
Application	This unit describes digital capability aligned to the Australian Digital Capability Framework (ADCF) Focus Area 2: Communication and Collaboration. The unit delivers the underlying digital capability required to support the development of Information and Data Literacy skills and knowledge in varied contexts. This unit applies to individuals who carry out a range of procedural and operational tasks that require basic, intermediate or advanced information and data literacy capability. The Digital Capabilities covered in this unit are: 2.1 Digital communication 2.2 Digital sharing 2.3 Digital engagement 2.4 Digital collaboration 2.5 Digital conduct 2.6 Digital identity These capabilities are described by Learning Descriptors in the ADCF Proficiency Levels, which represent the Learning Outcomes for each Level of this unit. *No licensing, legislative or certification requirements apply to this unit at the time of publication.*
Contextualisation	The Learning Outcomes of this unit are intentionally non-specific and flexible in nature to allow implementation across a wide range of Training Packages, Qualifications and Skill Sets. Learning content and assessments will require sufficient industry or subject area contextualisation for the relevant Qualification, Skill Set or Accredited Course prior to delivery. This unit covers ADCF Levels 1-6 as aligned to VET qualifications. ADCF Levels 7-8 (Specialised) are not included. For more detail on contextualisation requirements see **FSO Appendix 1.2 Implementation Guide JSC QR Demonstration Project.**

Exit Points	This unit contains exit points at the following ADCF proficiency levels: • Foundation Level 1 • Foundation Level 2 • Intermediate Level 3 • Intermediate Level 4 • Advanced Level 5 • Advanced Level 6 Check Qualification or Skill Set details for their required Exit Point level.
Entry Requirements	Candidates must not attempt an Exit Point more than two (2) levels higher than their current ADCF Proficiency Level in this Focus area for Foundation and Intermediate Exit points; or more than one (1) level higher for Advanced Exit Points.
Determining entry and exit points	Current ADCF Proficiency Level can be evidenced by prior achievement of competency in this unit at the specific Exit Point, or successful completion of the **Digital Skills Proficiency Assessment Tool under development)** in this Focus Area. For more detail on determining entry and exit points without these tools see the: **Section 1: Unit of competency. Implementation Guide (Appendix 1.2)**
Learning Outcomes Learning Outcomes for each Level are based on the Capability Descriptors for each ADCF Proficiency Level.	
Level 1: Perform at a basic level with guidance	On achievement of ADCF Level 1 capability, candidates will be able to: 1. Identify, select and use a digital communication platform 2. Identify, select and use a communication method from the platform 3. Identify, select and use a digital information sharing platform 4. Identify simple content referencing and attribution practices 5. Identify and select simple digital services to participate in education, workplace or society 6. Identify how to use simple digital services for self-empowerment and engagement with education, workplace or society 7. Identify, select and use simple digital technologies to collaborate with others 8. Understand appropriate behaviour while using digital technologies

	9. Understand appropriate communication practice for a specific digital audience 10. Understand how cultural, generational and societal differences impact digital behaviour 11. Understand the concept of digital identity 12. Understand the need to protect digital identity and reputation 13. Understand the nature of information produced and stored in a digital environment
Level 2: Perform at a basic level with autonomy and some guidance	On achievement of ADCF Level 2 capability, candidates will be able to: 1. Identify, select and use a digital communication platform 2. Identify, select and use a communication method from the platform 3. Identify, select and use a digital information sharing platform 4. Identify simple content referencing and attribution practices 5. Identify and select simple digital services to participate in education, workplace or society 6. Identify how to use simple digital services for self- empowerment and engagement with education, workplace or society 7. Identify, select and use simple digital technologies to collaborate with others 8. Engage in appropriate behaviour while using digital technologies 9. Adapt communication practice for a specific digital audience 10. Identify specific cultural, generational and societal differences which may impact digital behaviour 11. Engage in appropriate behaviour while using digital technologies 12. Identify ways to protect personal digital identity and reputation 13. Identify personal information produced and stored in a digital environment
Level 3: Autonomously solve simple problems	On achievement of ADCF Level 3 capability, candidates will be able to: 14. Perform specific, routine interactions using a selected digital communication platform 15. Perform specific, routine communication using the selected method from the platform 16. Select and use a digital information platform for sharing of information

	17. Select and use content referencing and attribution practices for sharing of information 18. Identify and use best practice for acting as an intermediary for sharing of information 19. Identify and select a specific digital service to routinely participate in education, workplace or society 20. Routinely use a specific digital service for self-empowerment and engagement with education, workplace or society 21. Select and use specific digital technologies to collaborate with others 22. Identify and routinely engage in specific behaviour appropriate for digital audiences 23. Identify communication practices to routinely apply to specific digital audiences 24. Identify specific cultural, generational and societal differences to routinely consider for diverse digital audiences 25. Identify routinely used or created digital identities 26. Identify routine ways to protect digital identity and reputation 27. Identify personal information routinely produced and stored in a digital environment
Level 4: Autonomously solve intermediate problems	On achievement of ADCF Level 4 capability, candidates will be able to: 1. Select and use a variety of digital communication platforms 2. Select and use a variety of communication methods from the platforms 3. Use multiple features of a digital information platform for routine sharing of information 4. Guide others in content referencing and attribution practices for routine sharing of information 5. Guide others to use best practice for acting as an intermediary for routine sharing of information 6. Identify and select a specific digital service to routinely participate in education, workplace or society 7. Guide others to routinely use digital services for self-empowerment and engagement with education, workplace or society

	8. Select and use specific digital technologies to routinely collaborate with others 9. Discuss appropriate behaviour while using digital technologies 10. Discuss appropriate communication practice for a specific digital audience 11. Discuss cultural, generational and societal differences that impact digital behaviour 12. Identify routinely used or created digital identities 13. Discuss routine ways to protect digital identity and reputation 14. Manage personal information routinely produced and stored in a digital environment
Level 5: Autonomously solve advanced problems and guide others	On achievement of ADCF Level 5 capability, candidates will be able to: 1. Select and use a variety of digital communication platforms 2. Select and use a variety of communication methods from the platforms 3. Guide others to use digital communication platforms 4. Guide others to use communication methods from the platforms 5. Use a variety of digital information platforms and tools for routine sharing of information 6. Use a variety of content referencing and attribution practices for routine sharing of information 7. Guide others in acting as an intermediary for routine sharing of information 8. Propose alternative digital services to routinely participate in education, workplace or society 9. Routinely use a digital service for self-empowerment and engagement with education, workplace or society 10. Propose alternative digital technologies to routinely collaborate with others 11. Apply alternative behaviour practices while using digital technologies 12. Apply alternative communication practices for a specific digital audience 13. Apply knowledge of how cultural, generational and societal differences impact digital audiences

	14. Routinely use a variety of digital identities 15. Apply routine ways to protect digital identity and reputation 16. Apply routine ways to protect and manage personal information produced and stored in a digital environment
Level 6: Autonomously solve complex problems and guide others	On achievement of ADCF Level 6 capability, candidates will be able to: 1. Select and configure a variety of digital communication platforms for specific needs from existing software resources 2. Adapt a variety of communication methods from the platforms for specific needs from existing software resources 3. Identify optimal digital information platforms and tools for routine sharing of information 4. Identify optimal content referencing and attribution practices for routine sharing of information 5. Adapt practices for acting as an intermediary for routine sharing of information 6. Routinely use a variety of digital services to participate in education, workplace or society 7. Routinely use a variety of digital services for self-empowerment and engagement with education, workplace or society 8. Routinely use a variety of digital technologies to collaborate with others 9. Identify, select and use a specific digital technology to routinely collaborate with others 10. Identify and apply best behaviour practices while using digital technologies 11. Identify and apply best communication practices for specific digital audiences 12. Identify and apply best practice knowledge of how cultural, generational and societal differences impact digital audiences 13. Routinely use a variety of digital identities 14. Propose routine ways to protect digital identity and reputation 15. Propose routine ways to protect and manage personal information produced and stored in a digital environment

Unit mapping information *Mandatory field*	Specifies code and title of any equivalent unit of competency. If no equivalent insert: *No equivalent unit.*
Assessment	Assessment Requirements for [insert Unit of Competency Code] ADCF Digital Communication and Collaboration – ADCF Levels 1-6
Assessment strategy	Assessment for this unit must be contextualised to conditions and requirements reflecting the relevant industry or industry cluster. Assessment should be substantially based on real world tasks – whether in the workplace or a simulated organisation – that are strongly aligned with and representative of the learning outcomes at the required proficiency level. It is recommended that unit assessment primarily take the form of portfolio and project assessments that build evidence of developing capability as tasks are completed. This assessment strategy drives efficient elevation of capability that: • is immediately relevant to the qualification industry • is transferable to skills and tasks in similar industries • enables progression to higher ADCF proficiency levels. Assessments can also be scaffolded to enable achievement of a higher ADCF proficiency level than required for the qualification, at the option of both the candidate and assessor.
Scaffolded assessment	Each exit point has associated assessment. Where the learning outcomes for 2 levels are similar, assessment will have minor differences and may reuse content. However, there needs to be a clear differentiation between levels as indicated by additional questions and more rigorous marking criteria at higher levels. At higher levels, assessment will become more single level specific. Assessment will be developed to meet the learning outcomes of the predetermined exit level. If more than one exit level is to be offered, there must be separate assessment events for each level. Students only complete the assessments for their exit point.
Assessment conditions	Skills in this unit must be demonstrated in a workplace or simulated environment where the conditions are typical of those in a working environment in the selected industry. This includes access to: • industry applications/platforms • relevant organisational policies and procedures

	relevant workplace documentation and resources. **Assessor Requirements** Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.
Links (Further information)	Link to: **Section 1: Unit of competency. Implementation Guide (Appendix 1.2)**

Digital Content Creation Unit of Competency and Assessment

Unit code	XXX
Unit title	ADCF Digital Content Creation – Levels 1-6
Application	This unit describes digital capability aligned to the Australian Digital Capability Framework (ADCF) Focus Area 1: Information and Data Literacy. The unit delivers the underlying digital capability required to support the development of Information and Data Literacy skills and knowledge in varied contexts. This unit applies to individuals who carry out a range of procedural and operational tasks that require basic, intermediate or advanced information and data literacy capability. The Digital Capabilities covered in this unit are: 3.1 Develop digital content 3.2 Integrate and modify digital content 3.3 Digital copyright and licences 3.4 Create instructions for computers These capabilities are described by Learning Descriptors in the ADCF Proficiency Levels, which represent the Learning Outcomes for each Level of this unit. *No licensing, legislative or certification requirements apply to this unit at the time of publication.*
Contextualisation	The Learning Outcomes of this unit are intentionally non-specific and flexible in nature to allow implementation across a wide range of Training Packages, Qualifications and Skill Sets. Learning content and assessments will require sufficient industry or subject area contextualisation for the relevant Qualification, Skill Set or Accredited Course prior to delivery. This unit covers ADCF Levels 1-6 as aligned to VET qualifications. ADCF Levels 7-8 (Specialised) are not included. For more detail on contextualisation requirements see **FSO Appendix 1.2 Implementation Guide JSC QR Demonstration Project.**
Exit Points	This unit contains exit points at the following ADCF proficiency levels: • Foundation Level 1 • Foundation Level 2 • Intermediate Level 3

	• Intermediate Level 4 • Advanced Level 5 • Advanced Level 6 Check Qualification or Skill Set details for their required Exit Point level.
Entry Requirements	Candidates must not attempt an Exit Point more than 2 levels higher than their current ADCF Proficiency Level in this Focus area for Foundation and Intermediate Exit points; or more than 1 level higher for Advanced Exit Points.
Determining entry and exit points	For individuals: Current ADCF Proficiency Level can be evidenced by prior achievement of competency in this unit at the specific Exit Point, or successful completion of the **Digital Skills Proficiency Assessment Tool** (under development) in this Focus Area. For more detail on determining entry and exit points without these tools see the: **Section 1: Unit of competency. Implementation Guide (Appendix 1.2)**
Learning Outcomes Learning Outcomes for each Level are based on the Capability Descriptors for each ADCF Proficiency Level.	
Level 1: Perform at a basic level with guidance	On achievement of ADCF Level 1 capability, candidates will be able to: 1. Identify tools to create and edit digital content 2. Identify the type and style of digital content to create 3. Create some basic level content 4. Identify tools and practices to modify existing and integrate new digital content 5. Be aware of rules about copyright and licenses that protect digital information 6. Record, in a few steps, simple computing instructions to solve a simple problem, complete a simple process, or perform a simple task
Level 2: Perform at a basic level with autonomy and some guidance	On achievement of ADCF Level 2 capability, candidates will be able to: 1. Select specific tools to create and edit digital content 2. Select the type and style of digital content to create 3. Create some content of the type and style selected, using the tools selected 4. Select and use tools and practices to modify existing and integrate new digital content at a basic level

	5. Capture/copy content from one source and use it in another context (e.g., take an image from a webpage and place it in a document) 6. Identify rules and preferred practice about copyright and licenses that protect digital information 7. Record, in a few steps, simple computing instructions to solve a simple problem, complete a simple process, or perform a simple task 8. Formulate a set of instructions in a logical way
Level 3: Autonomously solve simple problems	On achievement of ADCF Level 3 capability, candidates will be able to: 1. Select specific tools to routinely create and edit appropriate digital content 2. Routinely create digital content to a specific type and style 3. Discuss the use of tools and best practices to modify existing and integrate new digital content 4. Select and use tools and practices to modify existing and integrate new digital content 5. Combine content from multiple sources in multiple formats to create new content 6. Identify rules and best practice about copyright and licenses that routinely protect digital information 7. Record and edit detailed computing instructions to solve a routine problem, complete a routine process, or perform a routine task 8. Create a sequence of instructions using the features within a software tool, such as mail rules or macros
Level 4: Autonomously solve intermediate problems	On achievement of ADCF Level 4 capability, candidates will be able to: 1. Use a variety of tools to routinely create and edit digital content 2. Select the appropriate type and style of digital content to routinely create 3. Guide others in the use of tools and best practices to modify existing and integrate new digital content 4. Discuss rules, legislation, and best practice about copyright and licenses that routinely protect digital information 5. Be aware of the difference between different forms of usage rights (public domain, Creative Commons, copyright and licensing)

	6. Record and edit detailed computing instructions to solve a specified problem, complete a specified process, or perform a specified task 7. Understand and apply simple coding concepts
Level 5: Autonomously solve advanced problems and guide others	On achievement of ADCF Level 5 capability, candidates will be able to: 1. Identify alternative tools to routinely create and edit appropriate digital content 2. Identify appropriate alternative types and styles to create digital content 3. Use digital tools to modify content such as adding captions or text to videos 4. Identify alternative tools and practices to modify existing and integrate new digital content 5. Apply specific rules, legislation, and best practice about copyright and licenses that routinely protect digital information 6. Plan and develop computing instructions to solve a routine problem, complete a routine process, or perform a routine task 7. Apply computing instructions to solve a routine problem, complete a routine process, or perform a routine task 8. Use one or more scripting languages
Level 6: Autonomously solve complex problems and guide others	On achievement of ADCF Level 6 capability, candidates will be able to: 1. Propose tools to routinely create and edit appropriate digital content 2. Use a variety of types and styles to create appropriate digital content 3. Propose tools and practices to modify existing and integrate new digital content 4. Apply specific rules, legislation, and best practice about copyright and licenses that routinely protect digital information 5. Identify best practice computing instructions to solve a specified problem, complete a specified process, or perform a specified task 6. Plan, develop, and apply computing instructions to solve a specified problem, complete a specified process, or perform specified task

Unit mapping information *Mandatory field*	Specifies code and title of any equivalent unit of competency. If no equivalent insert: *No equivalent unit*.
Assessment	Assessment Requirements for [insert Unit of Competency Code] ADCF Digital Content Creation – ADCF Levels 1-6
Assessment strategy	Assessment for this unit must be contextualised to conditions and requirements reflecting the relevant industry or industry cluster. Assessment should be substantially based on real world tasks – whether in the workplace or a simulated organisation – that are strongly aligned with and representative of the learning outcomes at the required proficiency level. It is recommended that unit assessment primarily take the form of portfolio and project assessments that build evidence of developing capability as tasks are completed. This assessment strategy drives efficient elevation of capability that: • is immediately relevant to the qualification industry • is transferable to skills and tasks in similar industries • enables progression to higher ADCF proficiency levels. Assessments can also be scaffolded to enable achievement of a higher ADCF proficiency level than required for the qualification, at the option of both the candidate and assessor.
Scaffolded assessment	Each exit point has associated assessment. Where the learning outcomes for 2 levels are similar, assessment will have minor differences and may reuse content. However, there needs to be a clear differentiation between levels as indicated by additional questions and more rigorous marking criteria at higher levels. At higher levels, assessment will become more single level specific. Assessment will be developed to meet the learning outcomes of the predetermined exit level. If more than one exit level is to be offered, there must be separate assessment events for each level. Students only complete the assessments for their exit point.
Assessment conditions	Skills in this unit must be demonstrated in a workplace or simulated environment where the conditions are typical of those in a working environment in the target industry. This includes access to: • industry applications/platforms • relevant organisational policies and procedures

	relevant workplace documentation and resources. **Assessor Requirements** Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.
Links (Further information)	Link to: **Section 1: Unit of competency. Implementation Guide (Appendix 1.2)**

Digital Protection and Safety Unit of Competency and Assessment

Unit code	XXX
Unit title	ADCF Digital Protection and Safety – Levels 1-6
Application	This unit describes digital capability aligned to the Australian Digital Capability Framework (ADCF) Focus Area 1: Information and Data Literacy. The unit delivers the underlying digital capability required to support the development of Information and Data Literacy skills and knowledge in varied contexts. This unit applies to individuals who carry out a range of procedural and operational tasks that require basic, intermediate or advanced information and data literacy capability. The Digital Capabilities covered in this unit are: 4.1 Protect devices 4.2 Protect information and privacy 4.3 Protect health and well-being 4.4 Protect the environment These capabilities are described by Learning Descriptors in the ADCF Proficiency Levels, which represent the Learning Outcomes for each Level of this unit. *No licensing, legislative or certification requirements apply to this unit at the time of publication.*
Contextualisation	The Learning Outcomes of this unit are intentionally non-specific and flexible in nature to allow implementation across a wide range of Training Packages, Qualifications and Skill Sets. Learning content and assessments will require sufficient industry or subject area contextualisation for the relevant Qualification, Skill Set or Accredited Course prior to delivery. This unit covers ADCF Levels 1-6 as aligned to VET qualifications. ADCF Levels 7-8 (Specialised) are not included. For more detail on contextualisation requirements see the **Section 1: Unit of competency. Implementation Guide (Appendix 1.2).**
Exit Points	This unit contains exit points at the following ADCF proficiency levels: • Foundation Level 1 • Foundation Level 2 • Intermediate Level 3

	• Intermediate Level 4 • Advanced Level 5 • Advanced Level 6 Check Qualification or Skill Set details for their required Exit Point level.
Entry Requirements	Candidates must not attempt an Exit Point more than 2 levels higher than their current ADCF Proficiency Level in this Focus area for Foundation and Intermediate Exit points; or more than 1 level higher for Advanced Exit Points.
Determining entry and exit points	Current ADCF Proficiency Level can be evidenced by prior achievement of competency in this unit at the specific Exit Point, or successful completion of the **Digital Skills Proficiency Assessment Tool** (under development) in this Focus Area. For more detail on determining entry and exit points without these tools see **FSO Appendix 1.2 Implementation Guide JSC QR Demonstration Project.**
Learning Outcomes Learning Outcomes for each Level are based on the Capability Descriptors for each ADCF Proficiency Level.	
Level 1: Perform at a basic level with guidance	On achievement of ADCF Level 1 capability, candidates will be able to: 1. Identify basic risks in a digital environment 2. Identify, select and apply basic protection for digital devices 3. Identify basic protection measures for personal/workplace information and privacy/confidentiality in a digital environment 4. Identify how to safely share and use this information in a digital environment 5. Identify privacy and confidentiality statements of how personal and confidential information is used in a digital environment 6. Identify when to apply basic information protections and apply them 7. Identify mental and physical health risks while using a digital environment 8. Identify and apply basic protection mechanisms against mental and physical health risks while using a digital environment 9. Identify tools and technologies for social well-being and inclusion while using a digital environment

	10. Identify basic environmental impacts of digital technology and its use
Level 2: Perform at a basic level with autonomy and some guidance	On achievement of ADCF Level 2 capability, candidates will be able to: 1. Identify a variety of specific risks for digital devices 2. Apply and maintain basic protections for digital devices 3. Apply basic protection measures for personal/workplace information and privacy/confidentiality in a digital environment 4. Apply practices to safely share and use this information in a digital environment 5. Identify privacy and confidentiality statements, and how personal and confidential information is used in a digital environment 6. Identify when to apply basic information protections and apply them 7. Identify simple ways to avoid mental and physical health risks while using a digital environment 8. Apply simple strategies to avoid mental and physical health risks while using a digital environment 9. Select tools and technologies for social well-being and inclusion while using a digital environment 10. Identify basic environmental impacts of digital technology and its use
Level 3: Autonomously solve simple problems	On achievement of ADCF Level 3 capability, candidates will be able to: 1. Identify specific routine risks for digital devices 2. Identify, apply and maintain comprehensive protection for digital devices 3. Explain routine protection measures for personal/ workplace information and privacy/confidentiality in a digital environment 4. Explain routine practices to safely share and use this information in a digital environment 5. Identify privacy/confidentiality statements and explain how this information is used in a digital environment 6. Discuss routine ways to avoid mental and physical health risks while using a digital environment 7. Discuss routine strategies to avoid mental and physical health risks while using a digital environment

	8. Discuss routine tools and technologies for social wellbeing and inclusion while using a digital environment 9. Identify specific routine environmental impacts of digital technology and its use 10. Identify and utilise opportunities for re-cycling electronic waste.
Level 4: Autonomously solve intermediate problems	On achievement of ADCF Level 4 capability, candidates will be able to: 1. Identify specific routine risks for digital devices 2. Identify, apply and maintain comprehensive protection for digital devices 3. Discuss protection measures for personal information and privacy in a digital environment 4. Discuss practices to safely share and use personal information in a digital environment 5. Identify privacy statements and discuss how personal information is used in a digital environment 6. Explain routine ways to avoid mental and physical health risks while using a digital environment 7. Explain routine strategies to avoid mental and physical health risks while using a digital environment 8. Explain routine tools and technologies for social wellbeing and inclusion while using a digital environment 9. Discuss strategies to protect the environment against impacts of digital technology and its use
Level 5: Autonomously solve advanced problems and guide others	On achievement of ADCF Level 5 capability, candidates will be able to: 1. Identify additional risks for digital devices 2. Identify alternative protection measures for digital devices 3. Apply alternative protection measures for personal information and privacy in a digital environment 4. Apply alternative practices to safely share and use personal information in a digital environment 5. Explain privacy statements and how personal information is used in a digital environment 6. Apply alternative ways to avoid mental and physical health risks while using a digital environment

	7. Apply alternative strategies to avoid mental and physical health risks while using a digital environment 8. Apply alternative tools and technologies for social wellbeing and inclusion while using a digital environment 9. Discuss alternative strategies to protect the environment against impacts of digital technology and its use
Level 6: Autonomously solve complex problems and guide others	On achievement of ADCF Level 6 capability, candidates will be able to: 1. Identify additional risks for digital devices 2. Apply best practice protection measures for digital devices 3. Apply best practice protection measures for personal information and privacy in a digital environment 4. Apply best practice protocols to safely share and use personal information in a digital environment 5. Analyse privacy statements and evaluate how personal information is used in a digital environment 6. Apply best practice ways to avoid mental and physical health risks while using a digital environment 7. Apply best practice strategies to avoid mental and physical health risks while using a digital environment 8. Apply best practice tools and technologies for social wellbeing and inclusion while using a digital environment 9. Apply best practice strategies to protect the environment against impacts of digital technology and its use
Unit mapping information *Mandatory field*	Specifies code and title of any equivalent unit of competency. If no equivalent insert: *No equivalent unit*.
Assessment	Assessment Requirements for [insert Unit of Competency Code] ADCF Digital Protection and Safety – ADCF Levels 1-6
Assessment strategy	Assessment for this unit must be contextualised to conditions and requirements reflecting the relevant industry or industry cluster. Assessment should be substantially based on real world tasks – whether in the workplace or a simulated organisation – that are strongly aligned with and representative of the learning outcomes at the required proficiency level.

	It is recommended that unit assessment primarily take the form of portfolio and project assessments that build evidence of developing capability as tasks are completed. This assessment strategy drives efficient elevation of capability that: • is immediately relevant to the qualification industry • is transferable to skills and tasks in similar industries • enables progression to higher ADCF proficiency levels. Assessments can also be scaffolded to enable achievement of a higher ADCF proficiency level than required for the qualification, at the option of both the candidate and assessor.
Scaffolded assessment	Each exit point has associated assessment. Where the learning outcomes for 2 levels are similar, assessment will have minor differences and may reuse content. However, there needs to be a clear differentiation between levels as indicated by additional questions and more rigorous marking criteria at higher levels. At higher levels, assessment will become more single level specific. Assessment will be developed to meet the learning outcomes of the predetermined exit level. If more than one exit level is to be offered, there must be separate assessment events for each level. Students only complete the assessments for their exit point.
Assessment conditions	Skills in this unit must be demonstrated in a workplace or simulated environment where the conditions are typical of those in a working environment in the selected industry. This includes access to: • industry applications/platforms • relevant organisational policies and procedures • relevant workplace documentation and resources. **Assessor Requirements** Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.
Links (Further information)	Link to: **Section 1: Unit of competency. Implementation Guide (Appendix 1.2)**

Technical Proficiency and Problem Solving Unit of Competency and Assessment

Unit code	XXX
Unit title	ADCF Technical Proficiency and Problem Solving – Levels 1-6
Application	This unit describes digital capability aligned to the Australian Digital Capability Framework (ADCF) Focus Area 1: Information and Data Literacy. The unit delivers the underlying digital capability required to support the development of Information and Data Literacy skills and knowledge in varied contexts. This unit applies to individuals who carry out a range of procedural and operational tasks that require basic, intermediate or advanced information and data literacy capability. The Digital Capabilities covered in this unit are: 5.1 Manage devices and resolve problems 5.2 Operate digital devices and tools 5.3 Innovate with digital tools 5.4 Learning and self-development These capabilities are described by Learning Descriptors in the ADCF Proficiency Levels, which represent the Learning Outcomes for each Level of this unit. *No licensing, legislative or certification requirements apply to this unit at the time of publication.*
Contextualisation	The Learning Outcomes of this unit are intentionally non-specific and flexible in nature to allow implementation across a wide range of Training Packages, Qualifications and Skill Sets. Learning content and assessments will require sufficient industry or subject area contextualisation for the relevant Qualification, Skill Set or Accredited Course prior to delivery. This unit covers ADCF Levels 1-6 as aligned to VET qualifications. ADCF Levels 7-8 (Specialised) are not included as they align more closely with Higher Education qualifications. For more detail on contextualisation requirements see the **Section 1: Unit of competency. Implementation Guide (Appendix 1.2)**
Exit Points	This unit contains exit points at the following ADCF proficiency levels: • Foundation Level 1 • Foundation Level 2

	• Intermediate Level 3 • Intermediate Level 4 • Advanced Level 5 • Advanced Level 6 Check Qualification or Skill Set details for their required Exit Point level.
Entry Requirements	Candidates must not attempt an Exit Point more than 2 levels higher than their current ADCF Proficiency Level in this Focus area for Foundation and Intermediate Exit points; or more than 1 level higher for Advanced Exit Points.
Determining entry and exit points	Current ADCF Proficiency Level can be evidenced by prior achievement of competency in this unit at the specific Exit Point, or successful completion of the **Digital Skills Proficiency Assessment Tool** (under development) in this Focus Area. For more detail on determining entry and exit points without these tools see the: **Section 1: Unit of competency. Implementation Guide (Appendix 1.2)**
Learning Outcomes Learning Outcomes for each Level are based on the Capability Descriptors for each ADCF Proficiency Level.	
Level 1: Perform at a basic level with guidance	On achievement of ADCF Level 1 capability, candidates will be able to: 1. Identify basic technical problems with digital devices and environments 2. Identify and apply basic solutions for technical problems with digital devices and environments 3. Understand the common types of connections (e.g. wired, Wi-Fi, Bluetooth) and the basics of how they work 4. Identify technological needs and the basic tools and responses to solve them 5. Respond to basic technological needs by customising a digital environment 6. Use basic digital tools to control or operate machinery 7. Identify basic digital technologies for creating original digital content, processes and products 8. Collaborate with others to resolve challenges within a digital environment 9. Identify personal digital capability gaps

	10. Identify and action some learning and development opportunities to close personal digital capability gaps
Level 2: Perform at a basic level with autonomy and some guidance	On achievement of ADCF Level 2 capability, candidates will be able to: 1. Identify basic technical problems with digital devices and environments 2. Identify and apply basic solutions for technical problems with digital devices and environments 3. Connect devices to services when supplied with credentials 4. Identify technological needs and the basic tools and responses to solve them 5. Respond to basic technological needs by customising a digital environment 6. Use basic digital tools to control or operate machinery 7. Identify and download desktop apps, apps on smart devices and logging into online services 8. Identify basic digital technologies for creating original digital content, processes and products 9. Collaborate with others to resolve challenges within a digital environment 10. Identify personal digital capability gaps 11. Identify and action some relevant learning and development opportunities to close personal digital capability gaps
Level 3: Autonomously solve simple problems	On achievement of ADCF Level 3 capability, candidates will be able to: 1. Identify routine technical problems with digital devices and environments 2. Identify and apply routine solutions for technical problems with digital devices and environments 3. Identify settings that affect connections and make adjustments 4. Identify routine technological needs and responses to solve them 5. Respond to technological needs by customising a digital environment 6. Use complex digital tools to control or operate machinery 7. Use software, apps and services to achieve business outcomes 8. Identify specific digital technologies for routinely creating original digital content, processes and products

	9. Autonomously resolve routine challenges within a digital environment 10. Collaborate with others to resolve routine challenges within a digital environment 11. Explain routine personal digital capability gaps 12. Explain how to identify learning and development opportunities to close routine personal digital capability gaps 13. Action appropriate learning and development opportunities to close personal digital capability gaps
Level 4: Autonomously solve intermediate problems	On achievement of ADCF Level 4 capability, candidates will be able to: 1. Identify additional technical problems with digital devices and environments 2. Select and apply solutions for technical problems with digital devices and environments 3. Identify the difference between problems likely caused by connection issues, data issues, faulty software or faulty hardware and take appropriate action (e.g. report it to the most appropriate support people) 4. Explain technological needs and the tools and responses to solve them 5. Select and apply specific solutions for technological needs by customising a digital environment 6. Use complex digital tools to control or operate machinery adjusting settings to use, setting up the tool or operating the tool for different types of tasks 7. Import and export data from apps and services 8. Configure settings in apps 9. Identify alternative digital technologies for creating original digital content, processes and products 10. Autonomously resolve challenges within a digital environment 11. Collaborate with others to resolve challenges within a digital environment 12. Discuss how to close personal digital capability gaps 13. Identify ways of guiding others to close digital capability gaps

	14. Explain where to find learning and development opportunities to close digital capability gaps
Level 5: Autonomously solve advanced problems and guide others	On achievement of ADCF Level 5 capability, candidates will be able to: 1. Analyse technical problems with digital devices and environments 2. Select and apply alternative solutions for technical problems with digital devices and environments 3. Diagnose and remedy common connection problems and assist others in getting connected 4. Analyse technological needs and apply alternative tools and responses to solve them 5. Select and apply alternative solutions for technological needs by customising a digital environment 6. Investigate systems to minimise risks and potential problems to common issues 7. Select and apply specific digital technologies for creating original digital content, processes and products 8. Autonomously resolve challenges within a digital environment 9. Collaborate with others to resolve challenges within a digital environment 10. Select and appropriately address specific personal digital capability gaps 11. Discuss different ways of guiding others to close digital capability gaps 12. Propose known opportunities for learning and development to close digital capability gaps
Level 6: Autonomously solve complex problems and guide others	On achievement of ADCF Level 6 capability, candidates will be able to: 1. Evaluate technical problems with digital devices and environments 2. Select and apply best practice solutions for technical problems with digital devices and environments 3. Apply best practice solutions for identifying and responding to technological needs 4. Apply best practice solutions for responding to technological needs by customising a digital environment 5. Investigate systems in order to minimise risks and potential problems to complex issues

	6. Select and apply best practice digital technologies for creating original digital content, processes and products 7. Autonomously resolve challenges within a digital environment 8. Collaborate with others to resolve challenges within a digital environment 9. Select and apply best practice solutions to improve personal digital capability 10. Assess the digital capability development of others 11. Select optimum opportunities for learning and development to close personal digital capability gaps
Unit mapping information *Mandatory field*	Specifies code and title of any equivalent unit of competency. If no equivalent insert: *No equivalent unit*.
Assessment	Assessment Requirements for [insert Unit of Competency Code] ADCF Technical Proficiency and Problem Solving – ADCF Levels 1-6
Assessment strategy	Assessment for this unit must be contextualised to conditions and requirements reflecting the relevant industry or industry cluster. Assessment should be substantially based on real world tasks – whether in the workplace or a simulated organisation – that are strongly aligned with and representative of the learning outcomes at the required proficiency level. It is recommended that unit assessment primarily take the form of portfolio and project assessments that build evidence of developing capability as tasks are completed. This assessment strategy drives efficient elevation of capability that: • is immediately relevant to the qualification industry • is transferable to skills and tasks in similar industries • enables progression to higher ADCF proficiency levels. Assessments can also be scaffolded to enable achievement of a higher ADCF proficiency level than required for the qualification, at the option of both the candidate and assessor.
Scaffolded assessment	Each exit point has associated assessment. Where the learning outcomes for 2 levels are similar, assessment will have minor differences and may reuse content. However, there needs to be a clear differentiation between levels as indicated by additional questions and more rigorous marking criteria at higher levels. At higher levels, assessment will become more single level specific.

	Assessment will be developed to meet the learning outcomes of the predetermined exit level. If more than one exit level is to be offered, there must be separate assessment events for each level. Students only complete the assessments for their exit point.
Assessment conditions	Skills in this unit must be demonstrated in a workplace or simulated environment where the conditions are typical of those in a working environment in the selected industry. This includes access to: • industry applications/platforms • relevant organisational policies and procedures • relevant workplace documentation and resources. **Assessor Requirements** Assessors of this unit must satisfy the requirements for assessors in applicable vocational education and training legislation, frameworks and/or standards.
Links (Further information)	Link to: Section 1: Unit of competency. Implementation Guide (Appendix 1.2)

Contractor 2 Example Units of Competency and Assessment

ADCFIDI101 Information and Data Literacy

Application

This unit describes the skills and knowledge required to effectively search for, evaluate, and manage digital information and data. It covers understanding what information is required, locating and retrieving digital data, information and content, judging the relevance of the source and its content, and storing, managing, and organising digital data, information and content. It applies to individuals across various proficiency levels who need to use digital technologies to find, verify, and organise information in various personal, educational, and workplace contexts.

Elements and Performance Criteria

Element 1: Search, browse, and filter information

Performance Criteria:

1.1 Identify the purpose and required content for digital information searches

1.2 Select and use appropriate digital search tools and platforms

1.3 Develop, apply, and maintain effective search strategies to locate relevant digital information

1.4 Access and navigate between various digital resources efficiently

Element 2: Verify information and data

Performance Criteria:

2.1 Analyse, compare and critically evaluate the credibility and reliability of digital information sources

2.2 Assess the relevance of digital information to the search purpose

2.3 Verify the accuracy and validity of digital information and data through analysis and interpretation

2.4 Apply fact-checking techniques to ensure information integrity

Element 3: Manage data and information

Performance Criteria:

3.1 Organise, store, and retrieve digital information and data in structured digital environments

3.2 Implement effective systems for managing digital information accessibility and security

3.3 Apply appropriate data management practices to ensure long-term information availability

3.4 Continuously review and improve digital information organisation systems

Foundation Skills

- Reading: Interprets complex digital information from various sources
- Writing: Records and organises digital information in structured formats
- Oral Communication: Explains digital information search strategies and findings
- Numeracy: Interprets and analyses data found in digital sources
- Digital Literacy: Utilises a range of digital tools for information searching, verification, and management
- Problem Solving: Develops strategies to deal with digital information challenges
- Self-Management: Takes responsibility for own digital information literacy development
- Learning: Continuously updates digital information management skills

Performance Evidence

The candidate must show evidence of the ability to complete tasks outlined in elements and performance criteria of this unit, including:

- Conducting at least three different digital information searches, demonstrating progression from basic to advanced search techniques
- Evaluating the credibility, reliability, and relevance of at least five different digital information sources, providing a detailed analysis for each
- Creating and maintaining a structured digital information management system, demonstrating effective organisation, storage, and retrieval of various types of digital content
- Producing a report that critically analyses and synthesises information gathered from multiple digital sources
- Demonstrating the ability to fact-check and verify the accuracy of digital information using appropriate methods

Underpinning theory

The candidate must grasp the underpinning theory to complete the tasks outlined in this unit's elements, performance criteria and foundation skills. The underpinning theory for this is:

- Key features and functions of various digital search tools and platforms
- Advanced search techniques and strategies for efficient information retrieval
- Criteria for evaluating the credibility, reliability, and relevance of digital information sources
- Methods for verifying the accuracy and validity of digital information and data
- Principles and best practices of digital data and information management
- Digital storage options and their appropriate uses
- Structured digital environments for organising information (e.g., relational databases and spreadsheets)

- Importance of information security and privacy in digital environments
- Fact-checking techniques and their application in digital contexts
- Strategies for continuous improvement of digital information management skills

Assessment Conditions

Skills in this unit must be demonstrated in a workplace or simulated environment where the conditions are typical of those in a working environment in this industry. This includes access to:

- Devices with internet capability
- Various digital search tools and platforms
- Digital storage and information management systems, including structured environments like databases and spreadsheets
- Fact-checking tools and resources
- Scenarios that allow demonstration of skills across different proficiency levels

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

ADCFCC201 Communication and Collaboration

Application

This unit describes the skills and knowledge required to interact, communicate, and collaborate effectively through digital technologies. It covers the ability to use various digital platforms for communication, share digital content, engage in online communities, collaborate on digital projects, maintain appropriate digital conduct, and manage digital identities. This unit applies to individuals who need to use digital technologies for personal, educational, or professional communication and collaboration in various contexts.

Elements and Performance Criteria

Element 1: Use digital communication tools

Performance Criteria:

1.1 Select and use appropriate digital communication platforms for specific contexts

1.2 Apply various communication methods within digital platforms

1.3 Adapt communication strategies to suit different digital audiences

Element 2: Share digital information

Performance Criteria:

2.1 Use digital platforms to share data, information, and content

2.2 Apply appropriate content referencing and attribution practices

2.3 Act as an intermediary for sharing digital information

Element 3: Engage in digital communities

Performance Criteria:

3.1 Participate in online communities using digital services

3.2 Utilise digital services for self-empowerment and contribution to society

3.3 Identify opportunities for engagement through digital platforms

Element 4: Collaborate using digital technologies

Performance Criteria:

4.1 Use digital tools and technologies for collaborative processes

4.2 Contribute to the co-construction and co-creation of resources and knowledge

4.3 Adapt collaboration strategies for different digital environments

Element 5: Maintain digital etiquette

Performance Criteria:

5.1 Demonstrate appropriate behaviour while using digital technologies

5.2 Adapt communication strategies for specific digital audiences

5.3 Consider cultural and generational diversity in digital interactions

Element 6: Manage digital identities

Performance Criteria:

6.1 Create and manage one or multiple digital identities

6.2 Protect and maintain digital reputations

6.3 Handle personal data securely in digital environments

Foundation Skills

- Reading: Interprets information from various digital sources
- Writing: Produces clear, concise digital content for different audiences
- Oral Communication: Participates in verbal exchanges using digital platforms
- Digital Literacy: Utilises a range of digital tools for communication and collaboration
- Problem Solving: Addresses issues arising in digital communication contexts
- Self-Management: Regulates own behaviour in digital environments
- Learning: Stays updated with evolving digital communication trends

Performance Evidence

The candidate must show evidence of the ability to complete tasks outlined in elements and performance criteria of this unit, including:

- Using at least three different digital communication platforms for varied purposes
- Sharing digital content with appropriate attribution in at least two different contexts
- Participating actively in an online community, demonstrating engagement and contribution
- Collaborating on a digital project using at least two different collaboration tools
- Demonstrating appropriate digital etiquette across various platforms and audiences
- Creating and managing at least two distinct digital identities for different purposes

Underpinning theory

The candidate must grasp the underpinning theory to complete the tasks outlined in this unit's elements, performance criteria and foundation skills. The underpinning theory for this is:

- Key features of various digital communication platforms
- Best practices for sharing digital information and content
- Strategies for effective online community engagement
- Digital collaboration tools and their applications
- Principles of digital etiquette and online behaviour
- Concepts of digital identity and reputation management
- Data privacy and security considerations in digital environments

Assessment Conditions

Skills in this unit must be demonstrated in a workplace or simulated environment where the conditions are typical of those in a working environment in this industry. This includes access to:

- Devices with internet capability
- Various digital communication and collaboration platforms
- Online communities or forums
- Digital identity management tools

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

ADCFDCC301 Digital Content Creation

Application

This unit describes the skills and knowledge required to create, edit, and manage digital content. It covers the ability to develop original digital content, integrate and modify existing content, understand and apply copyright and licensing, and create basic instructions for computer systems. This unit applies to individuals who need to create and manage digital content in various personal, educational, or professional contexts.

Elements and Performance Criteria

Element 1: Develop digital content

Performance Criteria:

1.1 Create original digital content in different formats

1.2 Edit digital content to meet specific requirements

1.3 Express oneself through digital means

Element 2: Integrate and modify digital content

Performance Criteria:

2.1 Modify and refine existing digital content

2.2 Combine different pieces of digital content to create new content

2.3 Improve digital content to enhance its relevance and usability

Element 3: Apply copyright and licensing to digital content

Performance Criteria:

3.1 Identify copyright and licensing rules applicable to digital content

3.2 Apply appropriate copyright and licensing to created digital content

3.3 Respect copyright and licensing when using others' digital content

Element 4: Create basic computer instructions

Performance Criteria:

4.1 Understand basic principles of computer programming

4.2 Plan simple sequences of instructions for digital systems

4.3 Implement basic coding to solve simple problems or perform specific tasks

Foundation Skills

- Reading: Interprets information related to digital content creation and copyright
- Writing: Produces clear and effective digital content
- Numeracy: Applies basic mathematical concepts in digital content and coding
- Digital Literacy: Uses digital tools and platforms for content creation and management
- Problem Solving: Addresses issues in digital content creation and basic coding
- Self-Management: Takes responsibility for compliance with copyright and licensing
- Learning: Keeps up to date with digital content creation trends and technologies

Performance Evidence

The candidate must show evidence of the ability to complete tasks outlined in elements and performance criteria of this unit, including:

- Creating at least three pieces of original digital content in different formats
- Modifying and combining existing digital content to create new content in at least two instances
- Correctly applying copyright and licensing to at least three pieces of digital content
- Writing a simple sequence of instructions to perform a basic task in a digital system

Underpinning theory

The candidate must grasp the underpinning theory to complete the tasks outlined in this unit's elements, performance criteria and foundation skills. The underpinning theory for this is:

- Different formats of digital content and their appropriate uses
- Techniques for creating, editing, and refining digital content
- Principles of integrating and modifying digital content
- Copyright and licensing rules applicable to digital content
- Basic concepts of computer programming and coding

Digital tools and platforms commonly used for content creation

Assessment Conditions

Skills in this unit must be demonstrated in a workplace or simulated environment where the conditions are typical of those in a working environment in this industry. This includes access to:

- Devices capable of digital content creation
- Various digital content creation tools and platforms
- Resources on copyright and licensing for digital content
- Basic coding platforms or environments

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

ADCFPS401 Protection and Safety

Application

This unit describes the skills and knowledge required to protect devices, content, personal data, and privacy in digital environments. It covers the ability to protect physical and psychological health, and to be aware of digital technologies for social well-being and inclusion. It also addresses the environmental impact of digital technologies and their use. This unit applies to individuals who need to ensure safety and security in various digital contexts.

Elements and Performance Criteria

Element 1: Protect devices

Performance Criteria:

1.1 Identify risks and threats in digital environments

1.2 Apply safety and security measures to protect digital devices

1.3 Ensure reliability and privacy of digital systems

Element 2: Protect personal data and privacy

Performance Criteria:

2.1 Protect personal and organisational data in digital environments

2.2 Understand privacy policies and use personal information securely

2.3 Apply practices to protect oneself and others from harm in digital environments

Element 3: Protect health and well-being

Performance Criteria:

3.1 Identify and avoid health risks related to digital technology use

3.2 Protect against threats to physical and psychological well-being in digital environments

3.3 Use digital technologies to support social well-being and inclusion

Element 4: Protect the environment

Performance Criteria:

4.1 Recognise the environmental impact of digital technologies

4.2 Choose environmentally friendly digital practices

4.3 Promote sustainable use of digital technologies

Foundation Skills

- Reading: Interprets complex information related to digital safety and security
- Writing: Documents safety procedures and policies
- Oral Communication: Explains digital safety concepts and practices
- Numeracy: Interprets data related to digital security and environmental impact
- Digital Literacy: Uses digital tools to enhance safety and security
- Problem Solving: Addresses issues related to digital risks and threats
- Self-Management: Takes responsibility for personal and organisational digital safety
- Learning: Keeps up-to-date with digital safety trends and best practices

Performance Evidence

The candidate must show evidence of the ability to complete tasks outlined in elements and performance criteria of this unit, including:

- Implementing safety and security measures on at least two different digital devices
- Developing a personal data protection plan for digital environments
- Identifying and mitigating at least three health risks associated with digital technology use
- Creating a plan to reduce the environmental impact of personal digital technology use

Underpinning theory

The candidate must grasp the underpinning theory to complete the tasks outlined in this unit's elements, performance criteria and foundation skills. The underpinning theory for this is::

- Common risks and threats in digital environments
- Safety and security measures for digital devices
- Principles of data protection and privacy in digital contexts
- Health risks associated with digital technology use
- Digital technologies for social well-being and inclusion
- Environmental impacts of digital technologies
- Sustainable practices in digital technology use

Assessment Conditions

Skills in this unit must be demonstrated in a workplace or simulated environment where the conditions are typical of those in a working environment in this industry. This includes access to:

- Digital devices and systems with security features
- Current information on digital safety and security best practices

- Resources on health and well-being in digital contexts
- Information on the environmental impact of digital technologies

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

ADCFTPPS501 Technical Proficiency and Problem Solving

Application

This unit describes the skills and knowledge required to identify and resolve technical problems in digital environments, operate digital devices and tools, use digital technologies for innovation, and engage in continuous learning and self-development in the digital domain. It applies to individuals who need to demonstrate technical proficiency and problem-solving skills in various personal, educational, and professional digital contexts.

Elements and Performance Criteria

Element 1: Manage devices and resolve problems

Performance Criteria:

1.1 Identify technical problems when operating devices and using digital environments

1.2 Apply solutions to resolve technical problems

1.3 Use troubleshooting techniques to address complex digital issues

Element 2: Operate digital devices and tools

Performance Criteria:

2.1 Select and use appropriate digital systems for specific tasks

2.2 Configure digital environments to suit task requirements

2.3 Adjust digital tools for optimal performance and accessibility

Element 3: Innovate with digital tools

Performance Criteria:

3.1 Use digital tools and technologies to create knowledge and innovative processes

3.2 Engage in individual and collective cognitive processing to understand and resolve conceptual problems

3.3 Apply digital solutions to improve products and processes

Element 4: Engage in learning and self-development

Performance Criteria:

4.1 Identify personal digital capability gaps

4.2 Seek and utilise learning opportunities to enhance digital skills

4.3 Support others in their digital capability development

Foundation Skills

- Reading: Interprets complex technical information
- Writing: Documents technical solutions and processes
- Oral Communication: Explains technical concepts and solutions
- Numeracy: Interprets and applies numerical data in digital contexts
- Digital Literacy: Uses a wide range of digital tools and platforms
- Problem Solving: Addresses complex technical issues in digital environments
- Self-Management: Takes responsibility for own digital learning and development
- Learning: Actively seeks opportunities to enhance digital capabilities

Performance Evidence

The candidate must show evidence of the ability to complete tasks outlined in elements and performance criteria of this unit, including:

- Resolving at least three different technical problems in digital environments
- Configuring and optimising at least two different digital systems for specific tasks
- Using digital tools to create an innovative solution for a workplace process
- Developing and implementing a personal digital skill development plan

Underpinning theory

The candidate must grasp the underpinning theory to complete the tasks outlined in this unit's elements, performance criteria and foundation skills. The underpinning theory for this is:

- Common technical problems in digital environments and their solutions
- Principles of digital system configuration and optimisation
- Digital tools and technologies for innovation and knowledge creation
- Strategies for identifying and closing personal digital capability gaps
- Methods for supporting others in digital capability development

Assessment Conditions

Skills in this unit must be demonstrated in a workplace or simulated environment where the conditions are typical of those in a working environment in this industry. This includes access to:

- A range of digital devices and systems
- Technical documentation and resources
- Scenarios presenting complex digital problems
- Opportunities for digital innovation and creativity

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

Assessment Approaches

The following are assessment approaches for each proficiency level—Foundation, Intermediate, Advanced, and Specialised—in the Australian Digital Capability Framework (ADCF) new UoCs.

Each approach assesses learners' abilities across the five focus areas:

1. Information and Data Literacy
2. Communication and Collaboration
3. Digital Content Creation
4. Protection and Safety
5. Technical Proficiency and Problem Solving.

1. Foundation Proficiency Level

Assessment Purpose and Scope

The assessment will determine whether learners can perform basic digital tasks with guidance across the five focus areas.

Assessment Methods

1. **Observation**: Assessors observe learners as they perform simple digital tasks in a controlled environment.
2. **Questioning**: Oral or written questioning to confirm understanding of basic digital concepts.
3. **Portfolio Review**: Learners compile evidence of their digital activities, such as screenshots or short videos of tasks performed.

Evidence Requirements

1. Direct Evidence: Performance evidence observed directly by the assessor during task completion.
2. Indirect Evidence: Supplementary materials provided by the learner, such as portfolios or answers to knowledge questions.

Assessment Conditions

1. Environment: Assessments will take place in a familiar digital environment.
2. Support: Basic guidance will be available to learners.
3. Tools: Learners will use common digital tools relevant to their context.

Feedback Mechanisms

Continuous feedback will be provided throughout the assessment process, with a focus on encouraging learners to gain autonomy in performing digital tasks.

Review and Moderation

1. Internal Moderation: Regular reviews of the assessment process and tools.
2. Industry Consultation: Engage with industry stakeholders to confirm alignment with industry standards.

2. Intermediate Proficiency Level

Assessment Purpose and Scope

This assessment aims to evaluate whether learners can autonomously solve simple digital problems and perform routine tasks across the five focus areas.

Assessment Methods

1. Scenario-Based Assessments: Present learners with realistic scenarios requiring the application of digital skills.
2. Project-Based Assessments: Learners complete a digital project over a set period.
3. Self-Reflection and Peer Review: Learners assess their performance and provide feedback on their peers' work.

Evidence Requirements

1. Performance Evidence: Documented evidence of learners autonomously solving digital problems.
2. Knowledge Evidence: Responses to questions or reflections that demonstrate understanding of digital skills.

Assessment Conditions

1. Environment: Assessments should take place in environments that reflect real-world digital settings.
2. Tools and Resources: Learners should have access to digital tools and resources relevant to their field.

Feedback Mechanisms

1. Formative Feedback: Continuous, constructive feedback during the assessment process.
2. Summative Feedback: Detailed feedback after the completion of assessments.

Review and Moderation

1. Internal and External Moderation: Regular review and moderation of assessment tools and learner evidence.
2. Industry Consultation: Engage with industry professionals to ensure alignment with current workplace expectations.

3. Advanced Proficiency Level

Assessment Purpose and Scope

This assessment aims to evaluate whether learners can autonomously solve advanced digital problems and guide others across the five focus areas.

Assessment Methods

1. Complex Problem-Solving Scenarios: Present learners with complex, real-world digital challenges requiring advanced problem-solving skills.
2. Advanced Project-Based Assessments: Learners complete an advanced digital project, integrating multiple skills.
3. Mentorship and Peer Leadership Assessments: Assess learners on their ability to mentor and guide peers in digital tasks.

Evidence Requirements

1. Performance Evidence: Documented examples of learners solving complex digital problems and guiding others.
2. Knowledge Evidence: Written reflections, case studies, or interviews where learners explain their decision-making process.

Assessment Conditions

1. Environment: Assessments should simulate or reflect real-world conditions, requiring learners to demonstrate advanced digital competencies.
2. Tools and Resources: Learners should have access to advanced digital tools and resources relevant to their field.

Feedback Mechanisms

1. Peer and Assessor Feedback: Continuous feedback from peers and assessors throughout the assessment process.
2. Detailed Summative Feedback: Comprehensive feedback after the completion of assessments.

Review and Moderation

1. Internal and External Moderation: Engage industry professionals in the review and moderation of assessment outcomes.
2. Industry Engagement: Regularly update the assessment criteria and methods based on the latest industry developments.

4. Specialised Proficiency Level

Assessment Purpose and Scope

This assessment is designed to evaluate whether learners can autonomously solve highly complex digital problems, perform highly specialised tasks, and guide others across the five focus areas.

Assessment Methods

1. Capstone Projects: Learners undertake a capstone project that requires the application of specialised digital skills to solve highly complex problems.
2. Advanced Case Studies: Learners analyse and solve advanced case studies that reflect the complexities of digital environments in industry.
3. Professional Practice Assessments: Learners are assessed on their ability to integrate and apply specialised digital knowledge in a professional context.

Evidence Requirements

1. Performance Evidence: Detailed documentation of the learner's involvement in solving highly complex digital problems.
2. Knowledge Evidence: Reflective essays, professional portfolios, or interviews where learners discuss their specialised approaches.

Assessment Conditions

1. Environment: Assessments should be conducted in environments that mirror the complexity and demands of professional digital environments.
2. Autonomy and Leadership: Learners must demonstrate a high level of autonomy and the ability to lead and mentor others.

Feedback Mechanisms

1. Peer and Expert Review: Assessments should include feedback from peers and industry experts.
2. In-Depth Summative Feedback: Provide detailed feedback recognising the learner's specialised skills and contributions.

Review and Moderation

3. Expert Moderation: Engage industry professionals and subject matter experts in the review and moderation of assessment outcomes.
4. Continuous Industry Engagement: Regularly update the assessment criteria and methods to remain aligned with the latest industry needs.

Examples of Current Units of Competency Mapped to ADCF

AHCBUS406 - Administer finance, insurance and legal requirements

Application

This unit of competency describes the skills and knowledge required to administer finance, insurance and legal requirements of a business.

This unit applies to individuals who work as part of a business management team, who provide and communicate solutions to a range of predictable and sometimes unpredictable problems.

All work must be carried out to comply with organisational requirements, work health and safety legislation and codes, sustainability practices and in consultation with the management team.

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

Elements and performance criteria

Elements ***Elements describe the essential outcomes.***	**Performance Criteria** ***Performance criteria describe the performance needed to demonstrate achievement of the element.***	**ADCF digital capabilities mapping**
1. Administer the legal requirements of the business	1.1 Identify, implement and monitor legislative requirements to ensure business processes comply	1.1 Search, browse, and filter information (Intermediate - Level 3) 1.3 Manage data and information (Intermediate - Level 4)
	1.2 Identify, maintain and store legal documents	1.3 Manage data and information (Intermediate - Level 4) 4.2 Protect information and privacy (Intermediate - Level 3)
	1.3 Review legislative requirements regularly	1.1 Search, browse, and filter information (Intermediate - Level 3) 1.2 Verify information and data (Intermediate - Level 3)
2. Process and maintain the insurance requirements for the business	2.1 Identify and assess insurance requirements	1.1 Search, browse, and filter information (Intermediate - Level 3) 1.2 Verify information and data (Intermediate - Level 3)
	2.2 Identify suitable insurers or brokers and obtain quotations	1.1 Search, browse, and filter information (Intermediate - Level 3)

		1.2 Verify information and data (Intermediate - Level 3)
	2.3 Acquire adequate insurance policies and cover	2.1 Digital communication (Intermediate - Level 3)
	2.4 Review legislative requirements and insurance cover	1.1 Search, browse, and filter information (Intermediate - Level 3) 1.2 Verify information and data (Intermediate - Level 3)
	2.5 File documents to ensure security and accessibility	1.3 Manage data and information (Intermediate - Level 4) 4.2 Protect information and privacy (Intermediate - Level 3)
3. Identify sources, types and cost of finance	3.1 Conduct research on the types of finance available to businesses	1.1 Search, browse, and filter information (Advanced - Level 5) 1.2 Verify information and data (Advanced - Level 5)
	3.2 Determine costs associated with different forms of finance	1.2 Verify information and data (Advanced - Level 5)
	3.3 Assess repayment structures for finance options in consultation with management team	1.2 Verify information and data (Advanced - Level 5) 2.4 Digital collaboration (Intermediate - Level 4)
4. Develop an application for finance or investment	4.1 Prepare an application for finance or investment, based on business and financial data	3.1 Develop digital content (Advanced - Level 5) 1.3 Manage data and information (Advanced - Level 5)
	4.2 Refer the finance application to management team for checking prior to submitting to the relevant body	2.2 Digital sharing (Intermediate - Level 4) 2.4 Digital collaboration (Intermediate - Level 4)
	4.3 Maintain and store documentation	1.3 Manage data and information (Intermediate - Level 4) 4.2 Protect information and privacy (Intermediate - Level 3)

Foundation skills

Skill	Description	ADCF digital capabilities mapping
Reading	Access and interpret legislative requirements	1.1 Search, browse, and filter information (Advanced - Level 5) 1.2 Verify information and data (Advanced - Level 5)

Assessment requirements

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 administered the finance, insurance and legal requirements of a business covering a period of at least six months, including:

- interpreted financial reports and business data
- maintained accounts
- administered the legal requirements of the business
- processed and maintained the insurance requirements for the business
- identified sources, types and cost of finance
- prepared and processed the application for finance or investment.

Performance Evidence	**ADCF digital capabilities mapping**
Interpreted financial reports and business data	1.2 Verify information and data (Advanced - Level 5)
Maintained accounts	1.3 Manage data and information (Advanced - Level 5) 5.2 Operate digital devices and tools (Advanced - Level 5)
Administered the legal requirements of the business	1.1 Search, browse, and filter information (Advanced - Level 5) 4.2 Protect information and privacy (Advanced - Level 5)
Processed and maintained the insurance requirements for the business	1.3 Manage data and information (Advanced - Level 5) 2.1 Digital communication (Intermediate - Level 4)
Identified sources, types and cost of finance	1.1 Search, browse, and filter information (Advanced - Level 5) 1.2 Verify information and data (Advanced - Level 5)
Prepared and processed the application for finance or investment	3.1 Develop digital content (Advanced - Level 5) 2.2 Digital sharing (Advanced - Level 5)

Assessment requirements

Knowledge Evidence

The candidate must demonstrate knowledge of:

- Obligations imposed by the choice of the business structure

- Award and enterprise agreements
- Insurance requirements, including:
    - Workers' compensation
    - Public liability
    - Superannuation
    - Life
    - Personal accident and sickness
    - Buildings
    - Plant
- Sources of finance, including:
    - Banks
    - Merchant banks
    - Building societies
    - Credit unions
    - Co-operatives
    - Finance companies
    - Solicitors
    - Accountants
    - Private treaty
- Business and financial data, including:
    - Balance sheets
    - Profit and loss statements
    - Production yields
    - Sales
    - Income
    - Security
    - Assets and liabilities
    - Cash flow performance
    - Taxation and account keeping requirements

Assessment requirements

Assessment Conditions

Assessment of skills must take place under the following conditions

Assessment conditions	ADCF digital capabilities mapping
Physical conditions: skills must be demonstrated in a workplace or an environment that accurately represents workplace conditions	5.2 Operate digital devices and tools (Advanced - Level 5)
Resources, equipment and materials: Financial, insurance and legal business records covering a period of at least six months	1.3 Manage data and information (Advanced - Level 5) 4.2 Protect information and privacy (Advanced - Level 5)
Access to legislation and information relevant to insurance and finance	1.1 Search, browse, and filter information (Advanced - Level 5)
Office equipment and resources.	5.2 Operate digital devices and tools (Advanced - Level 5) 5.1 Manage devices and resolve problems (Intermediate - Level 4)

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

Example assessment approach one: administering legal requirements

Overview

This assessment approach evaluates learners' proficiency in administering the legal requirements of a business, focusing on digital capabilities related to information management and privacy protection. It aligns with Element 1 of the AHCBUS406 unit and covers ADCF levels from Foundation to Specialised.

Assessment Method

A progressive, scenario-based assessment involving a simulated business environment.

Scenario

Learners are tasked with managing the legal requirements for a small agricultural business over a simulated six-month period.

Stage 1: Foundation Level

- Task: Identify and list basic legislative requirements for the business using provided digital resources.
- Deliverable: A simple digital document (e.g., Word or Google Doc) listing key legislative requirements.
- Evaluation Criteria:
    - Basic use of digital tools to access and record information
    - Identification of fundamental legal requirements

Stage 2: Intermediate Level

Task: Research and organise detailed legislative requirements, and create a digital system for storing legal documents.

Deliverable:

1. A spreadsheet or database cataloguing legislative requirements with links to relevant documents.
2. An organised digital folder structure for storing legal documents.

Evaluation Criteria:

- Effective use of digital tools to research and organise information
- Implementation of basic data management and protection measures

Stage 3: Advanced Level

Task: Develop a digital compliance monitoring system and conduct a comprehensive review of legislative requirements.

Deliverable:

1. A digital compliance tracking tool (e.g., using advanced spreadsheet features or a simple database).
2. A detailed report on current compliance status and recommendations for improvements.

Evaluation Criteria:

- Creation of sophisticated digital content for compliance management
- Advanced data analysis and information verification
- Implementation of robust data protection measures

Stage 4: Specialised Level

Task: Design and implement an integrated digital system for managing all aspects of the business's legal requirements, including automatic updates and alerts.

Deliverable:

1. A comprehensive digital legal management system (e.g., using advanced database software or a custom-built application).
2. A strategy document outlining the system's features, implementation plan, and staff training program.

Evaluation Criteria:

- Innovation in digital solutions for legal requirement management
- Integration of advanced data protection and privacy measures
- Demonstration of high-level problem-solving in digital environments

Differentiation Across Levels

- Foundation: Focus on basic digital literacy and simple information gathering.
- Intermediate: Emphasis on effective use of common digital tools and basic data management.
- Advanced: Requirement for creating sophisticated digital solutions and conducting in-depth analysis.
- Specialised: Expectation of developing innovative, comprehensive digital systems that address complex challenges in legal requirement management.

Scoring

Use a rubric that aligns with both the ADCF proficiency level descriptors and the performance criteria of AHCBUS406. Evaluate learners based on their highest level of consistent performance across the stages, considering both their digital capabilities and their understanding of legal requirements in the business context.

Proficiency Levels

Rationale for incorporating Bloom's Taxonomy

The integration of Bloom's Taxonomy into the Australian Digital Capability Framework (ADCF) matrix offers several key benefits for the Australian Vocational Education and Training (VET) sector:

- **Improved Curriculum Design**: Provides a clearer progression of cognitive skills across proficiency levels, enabling more targeted learning outcomes and logical skill development pathways.
- **Enhanced Assessment Planning**: Facilitates the creation of more precise and varied competency-based assessments using specific action verbs.
- **Increased Clarity**: Offers clearer expectations for learners and employers regarding skill progression at each level.
- **Support for Recognition of Prior Learning (RPL)**: Aids in more accurate assessment of existing capabilities.
- **Facilitation of Micro-credentialing**: Supports the development of flexible, targeted skill development programs.

Bloom's Taxonomy Breakdown

This capability matrix reflects a progression in cognitive complexity as outlined in Bloom's Taxonomy.

- Foundation level focuses on basic knowledge acquisition and comprehension, forming the basis for further learning.
- Intermediate level requires learners to apply their knowledge, demonstrating practical skills.
- Advanced level involves more complex cognitive processes, where learners analyse information critically and make informed judgments.
- Specialist level represents the pinnacle of cognitive skills, where individuals can create novel solutions or ideas based on their deep understanding and critical evaluation of the subject matter.

By using these action verbs in a capability matrix, educators and trainers can clearly articulate the expected cognitive skills and outcomes at each proficiency level, ensuring a comprehensive and progressive approach to skill development.

The ADCF matrix incorporates Bloom's Taxonomy across four proficiency levels:

1. Foundation (Remember, Understand) Action verbs:
    - Remember: Define, List, Recall, Recognise, Identify, Name, State
    - Understand: Describe, Explain, Summarise, Interpret, Classify, Compare, Contrast, Discuss
        - These verbs reflect basic cognitive skills of recalling information and demonstrating comprehension of concepts.

2. Intermediate (Apply) Action verbs:
    - Apply: Implement, Execute, Use, Perform, Solve, Demonstrate, Illustrate, Operate

        These verbs indicate the ability to use learned information in new situations or to solve problems.

3. Advanced (Analyse, Evaluate) Action verbs:
    - Analyse: Differentiate, Organise, Attribute, Compare, Outline, Deconstruct, Integrate, Distinguish
    - Evaluate: Check, Critique, Judge, Assess, Appraise, Justify, Argue, Defend

        These verbs represent higher-order thinking skills, involving breaking information into parts and making judgments based on criteria.

4. Specialist (Create) Action verbs:
    - Create: Design, Construct, Plan, Produce, Invent, Devise, Compose, Develop

        These verbs denote the highest level of cognitive skill, involving the ability to generate new ideas, products, or ways of viewing things.

Summary of Changes

The revision of the ADCF matrix involved the following key changes:

- Incorporation of Bloom's Taxonomy verbs across all proficiency levels.
- Adjustment of language to reflect appropriate cognitive levels while maintaining the essence of original content.
- Addition of new bullet points where necessary to capture the full range of expected skills and knowledge.
- Maintenance of the practical, industry-focused nature of tasks, especially at specialised levels.

Challenges encountered and solutions:

- Some original descriptions already aligned well with Bloom's Taxonomy, requiring minimal changes.
- In cases where the original content described complex actions at lower proficiency levels, we maintained the essence of the task while adjusting the verb to match the appropriate cognitive level.
- For specialised levels, we ensured that the verbs reflected the highest order of thinking while maintaining the practical, industry-focused nature of the tasks.

RPL Matrix

Focus Area 1: Information and Data Literacy

Capability	Foundation 1	Foundation 2	Intermediate 3	Intermediate 4	Advanced 5	Advanced 6	Specialised 7	Specialised 8
1.1 Search, browse, and filter information	• Define basic search purposes and content requirements. • Perform basic searches in digital environments with guidance. • Identify digital resources. • Recall how to access digital resources.	• Describe basic search purposes and content requirements. • Execute basic searches autonomously. • Navigate between digital resources. • Access and navigate between digital resources.	• Apply and maintain search strategies. • Apply search strategies to access and navigate between digital resources. • Explain search purposes and strategies to others. • Organise and maintain search strategies.	• Implement well-defined routine searches autonomously. • Explain well-defined and routine search strategies to others. • Organise searches in digital environments. • Explain access and navigation strategies to others.	• Analyse digital search strategies. • Assess and propose new strategies. • Analyse access and navigation strategies. • Explain access and navigation strategies to others.	• Evaluate and refine original search strategies. • Evaluate improvements to search strategies. • Determine search purposes and refine strategies to improve relevancy of results. • Explain improvements to others.	• Design new search strategies. • Integrate strategies into professional practice. • Solve complex search problems. • Explain knowledge and professional practice strategies to others.	• Create original search strategies and processes within a digital environment. • Propose innovative approaches to complex search problems. • Solve highly complex search problems. • Propose original search strategies and processes within a digital environment.
1.2 Verify information and data	• Identify basic resource relevance and credibility. • Perform simple fact-checking.	• Verify resource relevance and credibility autonomously. • Execute routine fact-checking.	• Apply verification techniques to assess resource relevance to search purpose.	• Analyse resource relevance to search purpose through analysis and metadata.	• Compare resource relevance through analysis of several resources.	• Evaluate resource credibility through critical assessment of several resources.	• Design complex analysis strategies for verification. • Integrate verification	• Create original verification strategies and processes within a digital environment.

	• Recall basic verification methods.	• Describe verification processes.	• Analyse resource and information credibility. • Apply analysis techniques to verify information.	• Verify resource and information credibility through analysis. • Implement comprehensive verification processes.	• Verify resource credibility through analysis of several resources. • Analyse credibility using multiple sources.	• Assess information credibility through critical evaluation of varied data. • Evaluate and compare multiple resources and data sets.	strategies into professional practice. • Solve complex analysis problems.	• Propose innovative approaches to highly complex analysis problems. • Develop original frameworks for information verification.
1.3 Manage data and information	• Identify ways to organise, store, and retrieve digital information with guidance. • Recognise structured digital environments (e.g., relational databases and spreadsheets). • Recall basic data management concepts.	• Describe methods to routinely organise, store, and retrieve digital information autonomously. • Use structured digital environments (e.g., relational databases and spreadsheets). • Describe data organisation principles.	• Apply organisation techniques in a structured and secure digital environment. • Explain the importance of accessibility and longevity of stored information. • Apply data management techniques for routine tasks.	• Implement retrieval strategies in a structured and secure digital environment. • Demonstrate effective use of relational databases and spreadsheets. • Implement comprehensive data management strategies.	• Analyse information management strategies for improved organisation and retrieval. • Assess strategies for long-term information accessibility. • Analyse complex data structures and relationships.	• Evaluate and refine information management strategies. • Develop strategies for efficient organisation and retrieval in secure digital environments. • Evaluate and optimise data management systems.	• Design complex lifecycle information management solutions. • Integrate advanced information management strategies into professional practice. • Solve complex lifecycle information management problems.	• Create original information management strategies and processes. • Propose innovative solutions to highly complex lifecycle information management problems. • Design original frameworks for advanced data and information management.

Focus Area 2: Communication and Collaboration

Capability	Foundation 1	Foundation 2	Intermediate 3	Intermediate 4	Advanced 5	Advanced 6	Specialised 7	Specialised 8
2.1 Digital communication	• Identify digital communication platforms. • Recognise communication methods with guidance. • Recall basic platform features.	• Describe digital communication platforms. • Select appropriate communication methods from the platform. • Use a digital communication platform autonomously.	• Apply specific communication methods for routine interactions. • Perform routine communication using selected methods. • Apply specific, routine interactions using a selected digital communication platform.	• Implement a variety of digital communication platforms. • Explain the use of various communication methods to others. • Select and use a variety of digital communication platforms.	• Analyse and select optimal digital communication platforms. • Analyse communication methods for specific needs. • Guide others to use digital communication platforms.	• Evaluate and configure digital communication platforms for specific needs. • Evaluate and adapt communication methods using existing software resources. • Configure a variety of digital communication platforms for specific needs.	• Design complex solutions for digital communication challenges. • Integrate advanced communication strategies into professional practice. • Solve complex problems with digital communication platforms and methods through software modifications.	• Create original concepts for digital communication platforms and methods. • Propose innovative solutions to highly complex communication problems. • Develop original software solutions for digital communication platforms and methods.
2.2 Digital sharing	• Identify digital information sharing platforms. • Recognise simple content referencing	• Select digital information sharing platforms. • Describe content referencing	• Apply digital information platforms for sharing of information. • Use content referencing	• Implement multiple features of a digital information platform for routine sharing.	• Analyse a variety of digital information platforms and tools for routine sharing.	• Evaluate optimal digital information platforms and tools for routine sharing.	• Design complex solutions for digital information sharing	• Create original concepts for digital information sharing platforms and tools.

	and attribution practices. • Recall basic sharing functionalities.	and attribution practices. • Use a digital information sharing platform.	and attribution practices for sharing information. • Explain best practices for acting as an intermediary for sharing information.	• Demonstrate content referencing and attribution practices to others. • Guide others in acting as an intermediary for routine sharing of information.	• Apply a variety of content referencing and attribution practices. • Analyse practices for acting as an intermediary for routine sharing of information.	• Evaluate optimal content referencing and attribution practices. • Evaluate and adapt practices for acting as an intermediary for routine sharing.	platforms and tools. • Integrate knowledge of digital information sharing into professional practice. • Solve complex problems related to digital information sharing.	• Propose innovative approaches to digital information sharing and attribution. • Develop original frameworks for digital information sharing and collaboration.
2.3 Digital engagement	• Identify simple digital services for participation in education, workplace or society. • Recognise how to use simple digital services for self-empowerment and engagement. • Recall basic engagement methods.	• Select simple digital services for participation in education, workplace or society. • Describe how to use simple digital services for self-empowerment and engagement. • Use simple digital services.	• Apply specific digital services to routinely participate in education, workplace or society. • Use a specific digital service for self-empowerment and engagement. • Apply routine digital engagement techniques.	• Implement specific digital services to routinely participate in education, workplace or society. • Demonstrate to others how to use digital services for self-empowerment and engagement. • Guide others in routine use of digital services.	• Analyse alternative digital services for routine participation. • Analyse digital services for self-empowerment and engagement. • Analyse the effectiveness of various digital engagement methods.	• Evaluate and select best practice digital services for participation. • Evaluate and apply a variety of digital services for self-empowerment and engagement. • Evaluate and optimise digital engagement strategies.	• Design complex strategies for digital engagement in education, workplace or society. • Integrate knowledge of digital services for self-empowerment into professional practice. • Solve complex problems	• Create original concepts for digital services enhancing participation in education, workplace or society. • Propose innovative approaches to digital self-empowerment and engagement. • Develop original frameworks for

							related to digital engagement.	digital engagement and empowerment.
2.4 Digital collaboration	• Identify simple digital technologies for collaboration. • Recognise basic collaborative features. • Recall fundamental collaboration principles.	• Select simple digital technologies for collaboration. • Use simple digital technologies to collaborate with others. • Describe digital collaboration methods.	• Apply specific digital technologies to collaborate with others. • Perform collaborative tasks using digital technologies. • Apply routine digital collaboration techniques.	• Implement specific digital technologies to routinely collaborate with others. • Demonstrate effective use of digital technologies for collaboration. • Guide others in routine use of collaborative technologies.	• Analyse alternative digital technologies for routine collaboration. • Analyse the effectiveness of various collaborative technologies. • Assess complex collaborative digital environments.	• Evaluate and select best practice digital technologies for collaboration. • Evaluate and optimise digital collaboration strategies. • Develop strategies for effective digital collaboration.	• Design complex collaborative solutions using digital technologies. • Integrate advanced collaborative technologies into professional practice. • Solve complex problems related to digital collaboration.	• Create original concepts for digital technologies to enhance collaboration. • Propose innovative approaches to digital collaboration. • Design original frameworks for advanced digital collaboration.
2.5 Digital conduct	• Recognise appropriate behaviour while using digital technologies. • Identify appropriate communicatio n practice for a	• Describe appropriate behaviour while using digital technologies. • Explain appropriate communicatio n practice for a	• Apply appropriate behaviour for specific digital audiences. • Implement communicatio n practices for specific digital audiences.	• Demonstrate appropriate behaviour while using digital technologies. • Demonstrate appropriate communicatio n practices for	• Analyse alternative behaviour practices in digital environments. • Analyse alternative communicatio n practices for	• Evaluate and apply best behaviour practices in digital environments. • Evaluate and apply best communicatio n practices for	• Design complex strategies for appropriate digital conduct. • Integrate knowledge of digital conduct into professional practice.	• Create original concepts for promoting appropriate digital behaviour. • Propose innovative approaches to digital

	specific digital audience. • Recognise cultural, generational and societal differences in digital behaviour.	specific digital audience. • Describe how cultural, generational and societal differences impact digital behaviour.	• Apply knowledge of cultural, generational and societal differences to digital audiences.	specific digital audiences. • Explain cultural, generational and societal differences that impact digital behaviour.	digital audiences. • Analyse how cultural, generational and societal differences impact digital audiences.	specific digital audiences. • Evaluate best practices for addressing cultural, generational and societal differences in digital audiences.	• Solve complex problems relating to cultural, generational and societal differences in digital audiences.	communicatio n and conduct. • Develop original frameworks for understanding and addressing cultural, generational and societal differences in digital environments.
2.6 Digital identity	• Define the concept of digital identity. • Recognise the need to protect digital identity and reputation. • Identify the nature of information produced and stored in a digital environment.	• Describe personal digital identity. • Identify ways to protect personal digital identity and reputation. • Describe personal information produced and stored in a digital environment.	• Apply routinely used or created digital identities. • Apply routine ways to protect digital identity and reputation. • Manage personal information routinely produced and stored in a digital environment.	• Implement a variety of digital identities. • Demonstrate routine ways to protect digital identity and reputation. • Implement strategies to protect and manage personal information in digital environments.	• Analyse the use of various digital identities. • Analyse methods to protect digital identity and reputation. • Analyse methods to protect and manage personal information in digital environments.	• Evaluate and optimise the use of digital identities. • Evaluate and propose advanced methods to protect digital identity and reputation. • Evaluate and develop advanced strategies to protect and manage personal digital information.	• Design complex strategies for managing multiple digital identities. • Integrate knowledge of digital identity protection into professional practice. • Solve complex problems relating to protection and management of personal digital information.	• Create original concepts for digital identity management and protection. • Propose innovative solutions for digital identity and reputation protection. • Design original frameworks for comprehensive digital identity and information management.

Focus Area 3: Digital Content Creation

Capability	Foundation 1	Foundation 2	Intermediate 3	Intermediate 4	Advanced 5	Advanced 6	Specialised 7	Specialised 8
3.1 Develop digital content	• Identify tools to create and edit digital content. • Recognise the type and style of digital content to create. • Recall basic content creation steps.	• Select specific tools to create and edit digital content. • Describe the type and style of digital content to create. • Create some content of the type and style selected, using the tools selected.	• Apply specific tools to routinely create and edit appropriate digital content. • Apply routinely created digital content to a specific type and style. • Explain the use of tools and best practices to create and edit digital content.	• Implement a variety of tools to routinely create and edit digital content. • Demonstrate the appropriate type and style of digital content to routinely create. • Guide others in the use of tools to create and edit digital content.	• Analyse alternative tools to routinely create and edit appropriate digital content. • Analyse appropriate alternative types and styles to create digital content. • Analyse digital tools to modify content such as adding captions or text to videos.	• Evaluate and propose tools to routinely create and edit appropriate digital content. • Evaluate and use a variety of types and styles to create appropriate digital content. • Evaluate and optimise digital content creation processes.	• Design complex strategies for digital content creation and editing. • Integrate knowledge of digital content creation into professional practice. • Solve complex problems with digital content creation and editing.	• Create original concepts for digital content creation and editing tools. • Propose innovative approaches to digital content creation and styling. • Develop original frameworks for advanced digital content creation and editing.
3.2 Integrate and modify digital content	• Identify tools and practices to modify existing and integrate new digital content. • Recognise methods to capture/copy content from	• Select and use tools and practices to modify existing and integrate new digital content at a basic level. • Describe how to capture/copy	• Apply tools and practices to modify existing and integrate new digital content. • Apply methods to combine content from multiple	• Implement tools and practices to modify existing and integrate new digital content. • Demonstrate effective integration of	• Analyse alternative tools and practices to modify existing and integrate new digital content. • Analyse complex	• Evaluate and propose tools and practices to modify existing and integrate new digital content. • Evaluate and optimise content	• Design complex solutions for modifying and integrating digital content. • Integrate advanced content modification	• Create original concepts for modifying existing and integrating new digital content. • Propose innovative approaches to

	one source to another. • Recall basic content modification principles.	content from one source and use it in another context. • Explain simple content integration techniques.	sources in multiple formats to create new content. • Apply routine content modification and integration practices.	content from multiple sources and formats. • Guide others in content modification and integration techniques.	content integration scenarios. • Analyse the effectiveness of various content modification methods.	modification and integration strategies. • Evaluate and develop advanced content integration strategies.	techniques into professional practice. • Solve complex problems related to content modification and integration.	digital content integration and modification. • Design original frameworks for seamless digital content integration and modification.
3.3 Digital copyright and licenses	• Recognise rules about copyright and licenses that protect digital information. • Recall basic copyright concepts. • Identify simple licensing types.	• Identify rules and preferred practice about copyright and licenses that protect digital information. • Describe different forms of usage rights (public domain, Creative Commons, copyright and licensing). • Explain basic copyright protection methods.	• Apply rules and best practice about copyright and licenses that routinely protect digital information. • Apply knowledge of different usage rights in routine scenarios. • Apply routine copyright and licensing practices.	• Implement rules, legislation, and best practice about copyright and licenses that routinely protect digital information. • Demonstrate understanding of complex copyright and licensing scenarios. • Implement comprehensive copyright and licensing strategies.	• Analyse specific rules, legislation, and best practice about copyright and licenses that routinely protect digital information. • Analyse best practices for applying copyright and licensing rules in complex scenarios. • Analyse complex copyright and licensing issues.	• Evaluate and apply specific rules, legislation, and best practice about copyright and licenses that routinely protect digital information. • Evaluate and develop strategies for copyright compliance in various digital contexts. • Evaluate and optimise organisational copyright and	• Design complex strategies for applying copyright and licensing rules. • Integrate advanced knowledge of copyright and licensing into professional practice. • Solve complex problems related to digital copyright and licensing.	• Create original concepts on copyright and licenses that protect digital information. • Propose innovative approaches to digital copyright and licensing challenges. • Design original frameworks for managing digital rights and licenses.

						licensing practices.		
3.4 Create instructions for computers	• Record, in a few steps, simple computing instructions to solve a simple problem, complete a simple process, or perform a simple task. • Identify basic programming concepts. • Recall simple logical operations.	• Formulate a set of instructions in a logical way. • Describe a sequence of instructions using features within a software tool, such as mail rules or macros. • Explain basic algorithmic thinking.	• Apply and edit detailed computing instructions to solve a routine problem, complete a routine process, or perform a routine task. • Apply computing instructions to solve a specified problem, complete a specified process, or perform a specified task. • Apply routine programming techniques.	• Implement and explain basic coding concepts. • Demonstrate the use of one or more scripting languages. • Implement basic algorithms to solve specified problems.	• Analyse and develop computing instructions to solve a routine problem, complete a routine process, or perform a routine task. • Analyse the efficiency of various computing instructions. • Analyse complex computational problems.	• Evaluate and apply best practice computing instructions to solve a specified problem, complete a specified process, or perform a specified task. • Evaluate and optimise complex computing instructions. • Evaluate and develop advanced algorithms.	• Design complex strategies for creating efficient computing instructions. • Integrate advanced programming concepts into professional practice. • Solve complex problems related to computing instructions and algorithms.	• Create original concepts for advanced computer instruction creation and optimisation. • Propose innovative approaches to computer instruction creation and problem-solving. • Design original frameworks for creating sophisticated computing instructions and algorithms.

Focus Area 4: Protection and Safety

Capability	Foundation 1	Foundation 2	Intermediate 3	Intermediate 4	Advanced 5	Advanced 6	Specialised 7	Specialised 8
4.1 Protect devices	• Identify basic risks in a digital environment. • Recognise basic protection methods for digital devices. • Recall simple security measures.	• Describe a variety of specific risks for digital devices. • Apply and maintain basic protections for digital devices. • Describe basic device protection techniques.	• Apply comprehensive protection for digital devices. • Implement comprehensive protection for digital devices. • Apply routine device protection practices.	• Explain specific routine risks for digital devices. • Demonstrate understanding of common connection types (e.g., wired, WiFi, Bluetooth) and their basic functions. • Implement adjustments to settings that affect connections.	• Analyse additional risks for digital devices. • Analyse alternative protection measures for digital devices. • Analyse complex security scenarios for digital devices.	• Evaluate best practice protection measures for digital devices. • Evaluate the difference between problems likely caused by connection issues, data issues, faulty software or faulty hardware and take appropriate action. • Evaluate and optimise organisational device protection strategies.	• Design complex strategies for protecting digital devices. • Integrate advanced protection strategies into professional practice. • Solve complex problems with protection of digital devices.	• Create original concepts for digital device protection. • Propose innovative approaches to digital device security. • Design original frameworks for comprehensive digital device security.
4.2 Protect information and privacy	• Identify basic protection measures for personal/workplace	• Apply basic protection measures for personal/workplace	• Explain routine protection measures for personal/workplace	• Demonstrate protection measures for personal information	• Analyse alternative protection measures for personal	• Evaluate and apply best practice protection measures for	• Design complex strategies for protecting personal	• Create original concepts for information protection and privacy in

	information and privacy/confidentiality in a digital environment. • Recognise how to safely share and use information in a digital environment. • Identify privacy and confidentiality statements of how personal and confidential information is used in a digital environment.	information and privacy/confidentiality in a digital environment. • Apply practices to safely share and use information in a digital environment. • Describe privacy and confidentiality statements, and how personal and confidential information is used in a digital environment.	information and privacy/confidentiality in a digital environment. • Implement routine practices to safely share and use information in a digital environment. • Explain privacy/confidentiality statements and how this information is used in a digital environment.	and privacy in a digital environment. • Demonstrate practices to safely share and use personal information in a digital environment. • Analyse privacy statements and how personal information is used in a digital environment.	information and privacy in a digital environment. • Analyse alternative practices to safely share and use personal information in a digital environment. • Evaluate privacy statements and how personal information is used in a digital environment.	personal information and privacy in a digital environment. • Evaluate and apply best practice protocols to safely share and use personal information in a digital environment. • Assess privacy statements and evaluate how personal information is used in a digital environment.	information and privacy in digital environments. • Integrate advanced information sharing and protection strategies into professional practice. • Solve complex problems with protection and safe use of personal information and privacy in a digital environment.	digital environments. • Propose innovative approaches to safe information sharing in digital environments. • Design original frameworks for managing privacy and confidentiality in digital environments.
4.3 Protect health and well-being	• Identify mental and physical health risks while using a digital environment. • Recognise basic protection mechanisms against mental	• Describe simple ways to avoid mental and physical health risks while using a digital environment. • Apply simple strategies to avoid mental	• Explain routine ways to avoid mental and physical health risks while using a digital environment. • Implement routine strategies to avoid mental	• Demonstrate routine ways to avoid mental and physical health risks while using a digital environment. • Explain routine strategies to avoid mental	• Analyse alternative ways to avoid mental and physical health risks while using a digital environment. • Analyse alternative strategies to	• Evaluate and apply best practice ways to avoid mental and physical health risks while using a digital environment. • Evaluate and apply best	• Design complex strategies for mitigating health risks in digital environments. • Integrate advanced health protection	• Create original concepts for promoting health and well-being in digital contexts. • Propose innovative approaches to maintaining health and

	and physical health risks while using a digital environment. • Identify tools and technologies for social well-being and inclusion while using a digital environment.	and physical health risks while using a digital environment. • Select tools and technologies for social well-being and inclusion while using a digital environment.	and physical health risks while using a digital environment. • Explain routine tools and technologies for social well-being and inclusion while using a digital environment.	and physical health risks while using a digital environment. • Demonstrate routine tools and technologies for social well-being and inclusion while using a digital environment.	avoid mental and physical health risks while using a digital environment. • Analyse alternative tools and technologies for social well-being and inclusion while using a digital environment.	practice strategies to avoid mental and physical health risks while using a digital environment. • Evaluate and apply best practice tools and technologies for social well-being and inclusion while using a digital environment.	strategies into professional digital practices. • Solve complex problems related to social well-being and inclusion in digital environments.	well-being in digital environments. • Design original frameworks for promoting social well-being and inclusion in digital contexts.
4.4 Protect the environment	• Identify basic environmental impacts of digital technology and its use. • Recognise the importance of recycling electronic waste. • Recall basic eco-friendly digital practices.	• Describe basic environmental impacts of digital technology and its use. • Identify and utilise opportunities for recycling electronic waste. • Describe simple methods to	• Explain specific routine environmental impacts of digital technology and its use. • Implement routine practices for recycling electronic waste. • Apply routine environmentall	• Demonstrate strategies to protect the environment against impacts of digital technology and its use. • Explain comprehensive strategies for managing electronic waste.	• Analyse alternative strategies to protect the environment against impacts of digital technology and its use. • Analyse advanced methods for reducing environmental	• Evaluate and apply best practice strategies to protect the environment against impacts of digital technology and its use. • Evaluate and develop organisational policies for	• Design complex strategies for environmental protection in relation to digital technology use. • Integrate advanced environmental protection strategies into professional	• Create original concepts for minimising environmental impact of digital technologies. • Propose innovative approaches to sustainable digital technology use. • Design original frameworks for

		reduce digital carbon footprint.	y conscious digital behaviours.	• Implement comprehensive environmental protection strategies in digital contexts.	impact of digital technology. • Analyse complex environmental issues related to digital technology use.	environmentally responsible technology use. • Evaluate and optimise organisational environmental protection strategies in digital contexts.	digital practices. • Solve complex problems related to environmental protection in digital environments.	sustainable digital technology ecosystems.

Focus Area 5: Technical Proficiency and Problem Solving

Capability	Foundation 1	Foundation 2	Intermediate 3	Intermediate 4	Advanced 5	Advanced 6	Specialised 7	Specialised 8
5.1 Manage devices and resolve problems	• Identify basic technical problems with digital devices and environments. • Recognise basic solutions for technical problems with digital devices and environments. • Recall simple troubleshooting steps.	• Describe basic technical problems with digital devices and environments. • Apply basic solutions for technical problems with digital devices and environments. • Describe how to connect devices to services when supplied with credentials.	• Apply routine solutions for technical problems with digital devices and environments. • Implement routine solutions for technical problems with digital devices and environments. • Apply knowledge of common connection types (e.g. wired, WiFi, Bluetooth) and their basic functions.	• Implement solutions for technical problems with digital devices and environments. • Demonstrate the ability to select and apply solutions for technical problems with digital devices and environments. • Explain the difference between problems likely caused by connection issues, data issues, faulty software or faulty hardware and takes appropriate action.	• Analyse technical problems with digital devices and environments. • Analyse and select alternative solutions for technical problems with digital devices and environments. • Analyse complex technical issues and develop targeted solutions.	• Evaluate technical problems with digital devices and environments. • Evaluate and apply best practice solutions for technical problems with digital devices and environments. • Evaluate and optimise organisational approaches to device management and problem resolution.	• Design complex strategies for resolving technical problems with digital devices and environments. • Integrate advanced problem-solving techniques into professional practice. • Solve complex technical problems with digital devices and environments.	• Create original concepts for managing devices and resolving complex technical issues. • Propose innovative approaches to device management and problem resolution. • Design original frameworks for comprehensive device management and problem-solving.

5.2 Operate digital devices and tools	• Identify technological needs and the basic tools and responses to solve them. • Recognise basic methods to customise a digital environment. • Identify basic digital tools to control or operate machinery.	• Describe technological needs and the basic tools and responses to solve them. • Respond to basic technological needs by customising a digital environment. • Use basic digital tools to control or operate machinery.	• Apply routine technological needs and responses to solve them. • Implement solutions for technological needs by customising a digital environment. • Apply complex digital tools to control or operate machinery.	• Explain technological needs and the tools and responses to solve them. • Demonstrate specific solutions for technological needs by customising a digital environment. • Implement complex digital tools to control or operate machinery, adjusting settings for different types of tasks.	• Analyse technological needs and apply alternative tools and responses to solve them. • Analyse alternative solutions for technological needs by customising a digital environment. • Analyse systems to minimise risks and potential problems to common issues.	• Evaluate and apply best practice solutions for identifying and responding to technological needs. • Evaluate and apply best practice solutions for responding to technological needs by customising a digital environment. • Evaluate and optimise systems to minimise risks and potential problems to complex issues.	• Design complex strategies for operating and optimising digital devices and tools. • Integrate advanced customisation techniques into professional digital practices. • Solve complex problems related to digital tool operation and machinery control.	• Create original concepts for advanced digital device and tool operation. • Propose innovative approaches to digital environment customisation. • Design original frameworks for integrating and operating advanced digital tools and machinery.
5.3 Innovate with digital tools	• Identify basic digital technologies for creating original digital content, processes and products.	• Describe basic digital technologies for creating original digital content, processes and products.	• Apply specific digital technologies for routinely creating original digital content,	• Implement alternative digital technologies for creating original digital content,	• Analyse and select specific digital technologies for creating original digital content,	• Evaluate and apply best practice digital technologies for creating original digital content,	• Design complex strategies for innovating with digital tools. • Integrate advanced innovation	• Create original concepts for pushing the boundaries of digital tool innovation. • Propose groundbreakin

	• Recognise methods to collaborate with others to resolve challenges within a digital environment. • Recall basic digital innovation concepts.	• Collaborate with others to resolve challenges within a digital environment. • Describe simple digital innovation processes.	processes and products. • Apply collaborative methods to resolve routine challenges within a digital environment. • Implement routine digital innovation practices.	processes and products. • Demonstrate autonomous resolution of challenges within a digital environment. • Explain advanced digital innovation techniques.	processes and products. • Analyse complex challenges within digital environments and develop collaborative solutions. • Analyse complex digital innovation scenarios.	processes and products. • Evaluate and optimise collaborative approaches to resolving digital challenges. • Evaluate and develop organisational strategies for digital innovation.	strategies into professional digital practices. • Solve complex problems related to digital innovation and tool utilisation.	g approaches to digital innovation and collaboration. • Design original frameworks for fostering digital innovation across organisations.
5.4 Learning and self-development	• Identify personal digital capability gaps. • Recognise some learning and development opportunities to close personal digital capability gaps. • Recall basic self-development techniques.	• Describe personal digital capability gaps. • Identify and action some relevant learning and development opportunities to close personal digital capability gaps. • Describe simple methods for digital skill improvement.	• Explain routine personal digital capability gaps. • Apply learning strategies to close routine personal digital capability gaps. • Implement routine practices for personal digital skill development.	• Demonstrate understanding of how to close personal digital capability gaps. • Implement ways of guiding others to close digital capability gaps. • Explain where to find learning and development opportunities to close digital capability gaps.	• Analyse specific personal digital capability gaps. • Analyse different approaches to guide others in closing digital capability gaps. • Analyse complex learning needs in digital environments.	• Evaluate and apply best practice solutions to improve personal digital capability. • Evaluate the digital capability development of others and select optimum opportunities for learning and development.	• Design complex strategies for continuous digital learning and self-development. • Integrate advanced learning and development strategies into professional digital practices. • Solve complex problems related to	• Create original concepts for advancing digital capability and self-development. • Propose innovative approaches to digital capability development and lifelong learning. • Design original frameworks for fostering a

						• Evaluate and optimise organisational approaches to digital capability development.	digital learning and self-development.	culture of continuous digital learning and development.

EGR_ANN_2324_004

Testing a new approach to qualification design to build digital capability

Appendix 1.2

Implementation Guide

Jobs and Skills Council

Qualification Reform Demonstration Project

Table of Contents

Section 1: Unit of competency

Cross-sector digital capability training and educational reform

The Qualification Reform Design Group (QRDG)'s Unlocking the Potential of VET (2024) proposed reforms to the design of units of competency (UoC) to reduce the high levels of specification and place a stronger focus on industry-relevant transferable skills and knowledge.

This suite, composed of five new UoCs based on the Australian Digital Capability Framework (ADCF), has been devised to test a new approach to unit design in response to the following QRDG advice:

- The current UoC design focuses on performing discrete tasks rather than developing broader conceptual and knowledge understanding.
- New models could explore ways to foreground knowledge at all qualification levels, alongside skills and application, to produce more adaptable graduates ready for non-routine tasks.
- New models could also help develop foundation skills, either within or as distinct qualifications.
- As new qualification approaches are developed, this in turn may inform any changes to the UoC or qualification templates necessary to fully realise the benefits of reform.

(QRDG, pp. 12-13).

Overview of the new units

Each of the five new UoCs is based on one of the five Focus Areas of the ADCF:

- Focus Area 1: Information and Data Literacy
- Focus Area 2: Communication and Collaboration
- Focus Area 3: Digital Content Creation
- Focus Area 4: Protection and Safety
- Focus Area 5: Technical Proficiency and Problem Solving

These units are designed to take advantage of the non-industry specific nature of the ADCF and be used across various training packages as applicable. RTOs will add relevant industry contextualisation as they develop learning experiences and assessments to deliver the units. Contextualisation requirements are further outlined in the RTO Contextualisation section.

Additionally, each unit uses the scaffolded Proficiency Levels and Capability Descriptors of the ADCF to offer multiple entry and exit points for students, reflective of spiral curriculum and vertical stacking concepts.

Key points of difference from traditional UoCs include:

- removal of **Elements, Performance Criteria, Knowledge Evidence** and **Performance Evidence** in favour of learning outcomes that are less specific and more focused on transferable skills and capabilities
- **contextualisable** for different training packages, qualifications, industries and roles
- **multi-level unit outcomes** with scaffolded entry and exit points to allow progressive development of capability and recognition
- simplified requirements with **fewer prescribed conditions and specifications** for both students and educators
- scaffolded learning and assessment within each unit.

Multi-level functionality

Each of the five units is designed to cover ADCF Proficiency Levels 1 to 6 within each Focus Area. These Proficiency Levels reflect the level that a student can perform at once they have successfully completed the unit.

The learning outcomes at each level of the unit align with the ADCF Capability Descriptors. They are scaffolded across the 6 Levels to enable progressive development of skills and knowledge within the Focus Area.

Each of the 6 Levels can be an entry or exit point for the unit, depending on the capability needs of the qualification, skill set or occupation-based training.

In line with the intent of both the ADCF and QRDG recommendations, the units and their Proficiency Levels are AQF agnostic: ADCF levels are not directly aligned with AQF levels. The units can be implemented into qualifications at various levels, according to the digital capability requirements of the target qualification.

For example, due to their different subject matter, a Horticulture qualification at AQF 5 might have similar Protection and Safety capability requirements to an IT qualification at AQF 3. In this case both qualifications may require completion of the Protection and Safety Unit at Level 3.

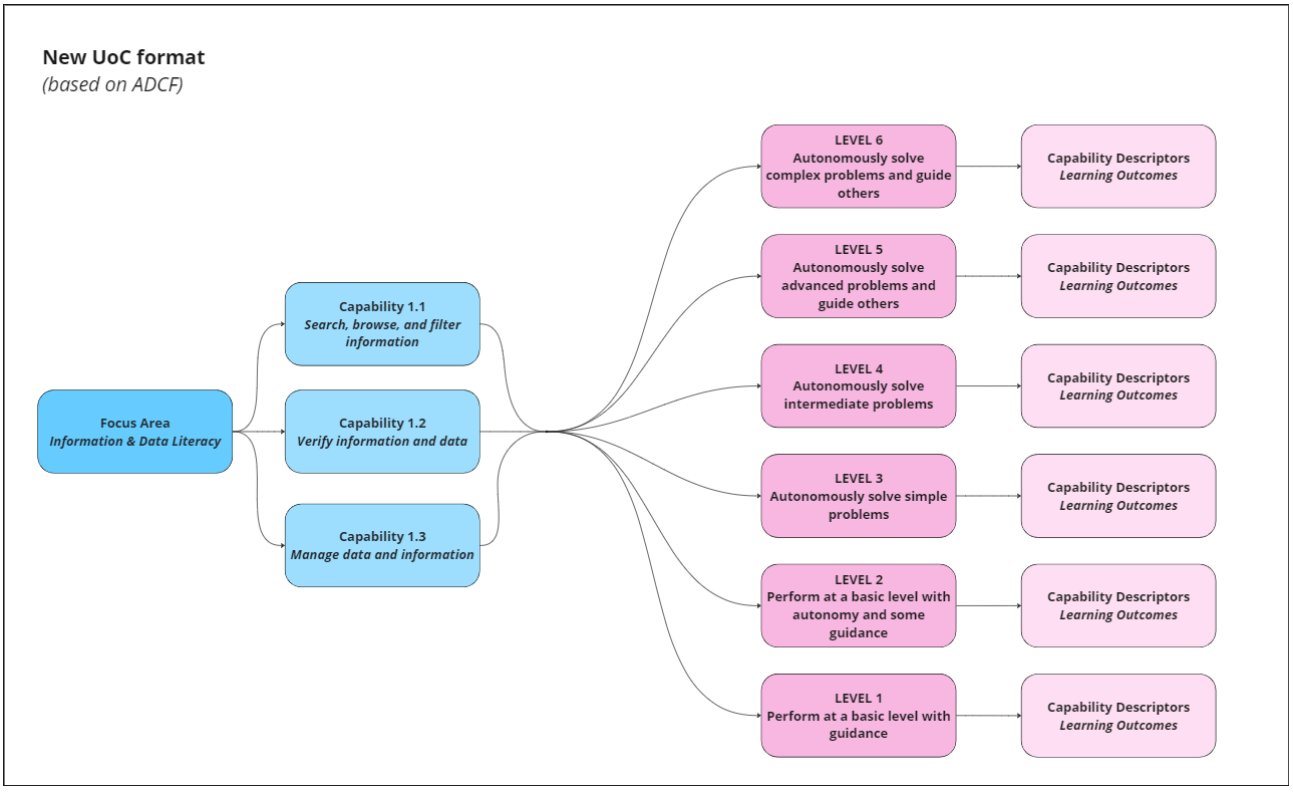


Figure 1: Illustrating how components of the ADCF are aligned into learning outcomes for the new units.

Determining entry and exit points

Registered Training Organisations (RTOs) will need to:

- understand the exit level required for the delivery context.
- determine the appropriate entry point, based on the student cohort.

Exit points

For accredited training, Jobs and Skills Councils (JSCs) responsible for training packages will determine the unit exit point for each qualification or skill set as applicable. This reflects the minimum capability level required by all graduates of that qualification or skill set.

For non-training package courses, RTOs will need to determine the necessary exit point for each of the units they intend to deliver based on the digital capability requirements of the target student, industry or occupation. RTOs can streamline this process, as well as determine the digital capability outcomes of existing training, using the ADCF Course Evaluation Tool.

JSCs and RTOs can utilise the ADCF Occupation Mapping templates to determine the digital capability requirements of courses based on their target occupations.

Entry points

Entry points are determined by RTOs based on the existing digital capability level of the student cohort. RTOs must plan to deliver the volume of learning, assessment and support that is required to progress students from their existing capability to that required by the relevant exit point.

Each ADCF Level builds on the previous with the steps being smaller between the lower levels and increasing exponentially at the higher levels. As such, it is recommended that students do not attempt an exit point more than two levels higher than their current Proficiency Level in the unit for exit points at Levels 1 to 4, or more than one level higher for exit points at Levels 5 and 6.

Students' current Proficiency Level for a unit can be determined by prior completion of the unit at a specific exit point or by undertaking the ADCF Proficiency Assessment Tool for the relevant Focus Area.

RTO contextualisation

The flexibility of these UoCs allows RTOs to contextualise the content to the workplace, industry, job roles, and student cohort.

The ADCF-based learning outcomes are broad and unspecified. Rather than focusing on specific industry skills, tasks or tools, they are transferrable competencies that can applied across a wide range of contexts.

As the digital capabilities are applicable across all industry and subject contexts, credit for a UoCs can be given across all relevant qualifications and skill sets.

RTOs are responsible for applying the required industry context to learning materials and assessments, including:

- case studies
- use of relevant tools and processes
- use of relevant software
- workplace scenarios.

Use cases

These new UoCs can be applied to a variety of use cases.

Use Case 1 – Implementation into a qualification

The responsible JSC for the Training Package has specified that one of the new units – at a specific Proficiency Level – is to be inserted into one of their qualifications. This could be as either a core or elective unit.

In this example, students need to achieve competency in Information and Data Literacy - Level 3.

The RTO locates the unit from the National Register of Vocational Education and Training (TGA) and develops teaching and learning resources, applying relevant industry and subject context based on the qualification and target cohort.

Industry-relevant assessments and learning experiences are developed based on the unit's learning outcomes at the specified exit point before being implemented into delivery plan for offering. The unit is offered as part of the qualification and ready for enrolment.

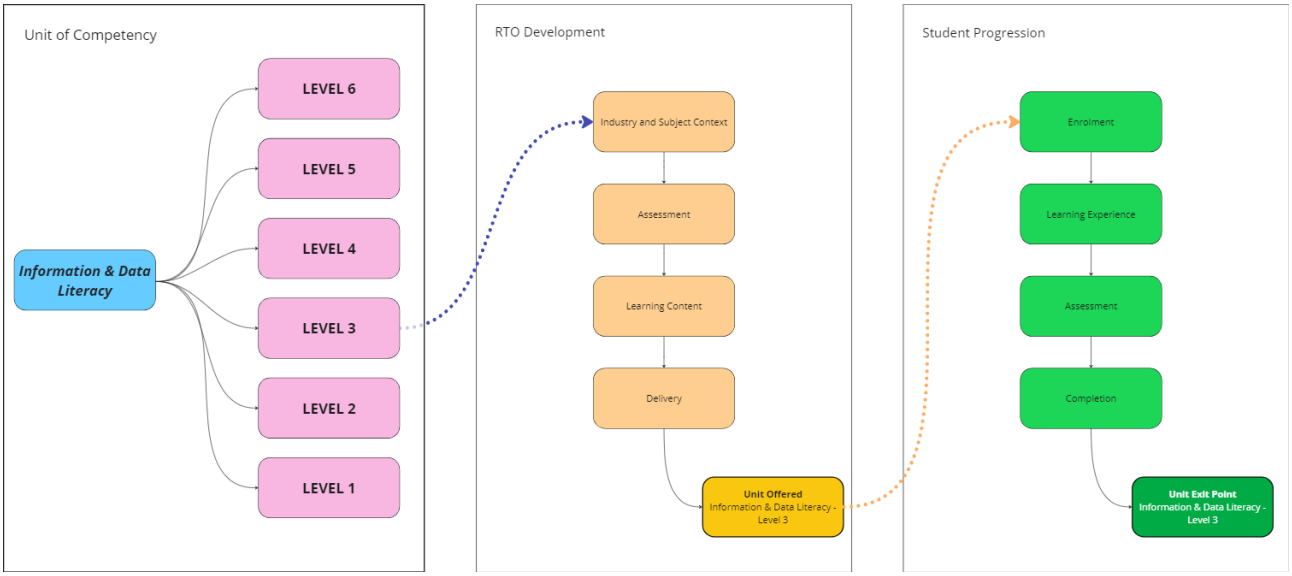


Figure 2: Illustrating an example of how an ADCF unit can be contextualised and implemented into a TGA qualification.

A student undertaking the qualification is enrolled in the unit Information and Data Literacy - Level 3. They complete the learning and assessment as per the delivery plan and on successful completion they are marked competent. The student is awarded the unit at Level 3 on their transcript, alongside the traditional units in their qualification.

Use Case 2 - Microlearning: Vertical stacking

Vertical stacking enables multiple ADCF levels within a single Focus Area to be scaffolded and stacked within a skill set or microlearning course.

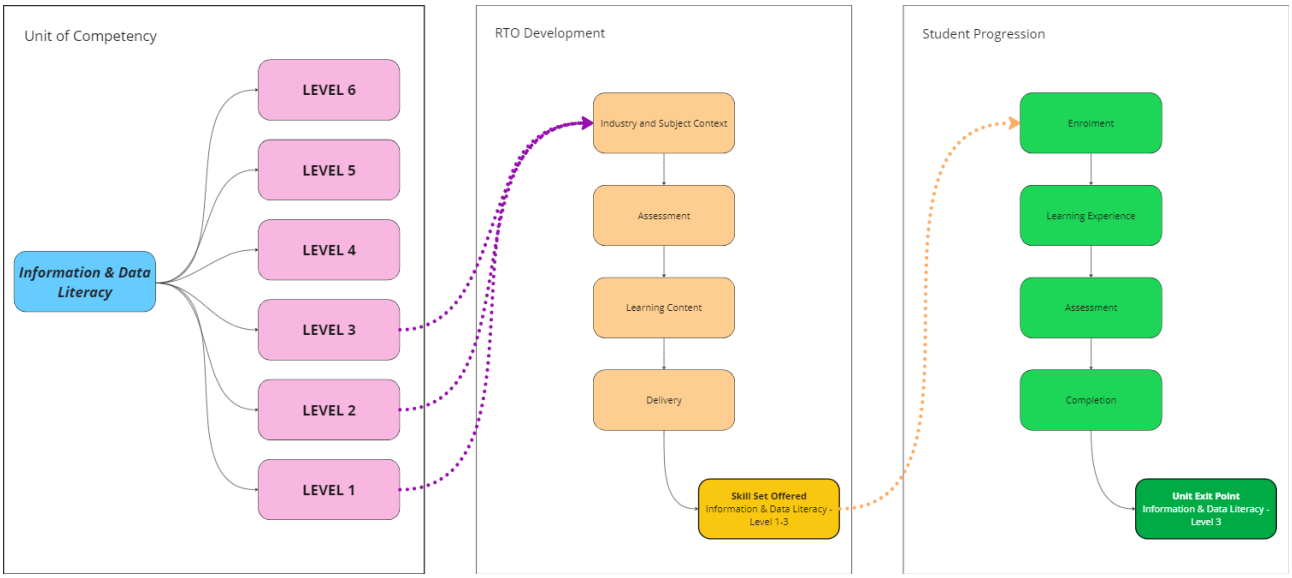


Figure 3: Illustrating an example of combining multiple levels of an ADCF unit to form a vertically stacked skillset.

In this example, the first three levels of the ADCF Focus Area 1 are stacked together. The learning outcomes and assessment are consolidated and scaffolded across the 3 Levels to deliver efficient upskilling and optimal student experience.

If learning and assessment is completed according to accredited requirements, the student can be awarded the unit at Level 3 as a skill set and be eligible for credit transfer.

This form of training could also be particularly valuable to leaners needing to reach a specific level as an entry point into a qualification, per Use Case 1.

Use Case 3 - Microlearning: Horizontal stacking

Horizontal stacking combines learning across 2 or more of the ADCF Focus Areas to develop a breadth of digital capabilities.

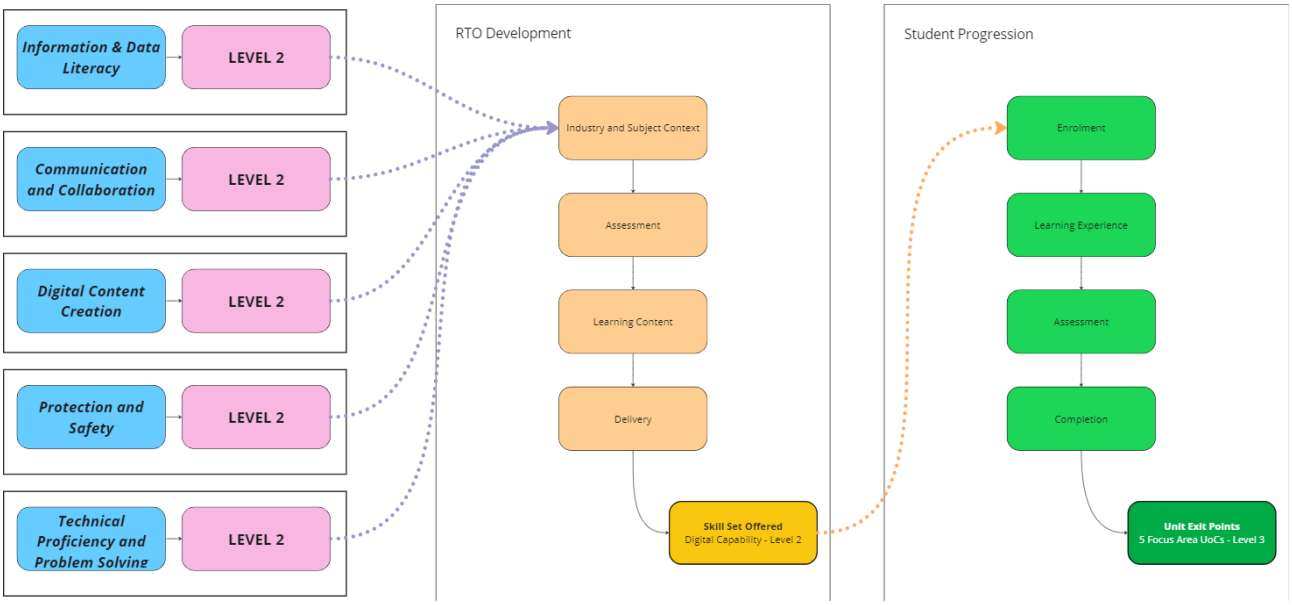


Figure 4: Illustrating an example of combining ADCF units and levels to form a horizontally stacked skillset.

In this example, units from all 5 Focus Areas are developed and delivered at Level 2.

Combined, these units deliver broad digital capability uplift and prepare the student for work opportunities or further training.

If learning and assessment is completed according to accredited requirements, the student could be awarded the five units at Level 2 as a skill set and be eligible for credit transfer.

Use Case 4 - Microlearning: Occupation mapping

The adaptable suite of units can be combined in unique and flexible ways to meet the needs of various job roles.

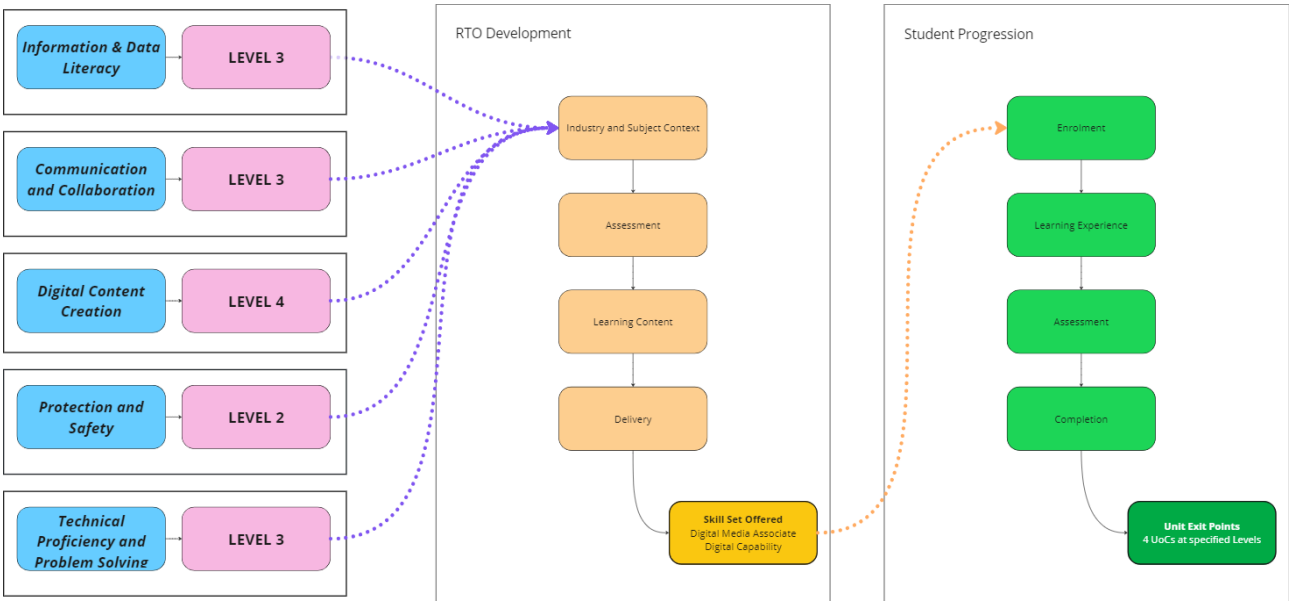


Figure 5: Illustrating an example of combining ADCF units and levels to form an Occupation Mapping skillset.

In this example, an RTO has used the Occupation Mapping templates from the ADCF to develop a course intended to meet the digital capability requirements of a specific job role. The mapping process revealed that the role requires different levels of digital capability across the five Focus Areas, so the relevant units and levels have been built into a skill set.

The skill set could be attractive to both aspiring candidates and businesses looking to upskill their existing employees. Alternatively, digital capability units could be combined with other training package units on scope to create flexible, modular microlearning opportunities.

Section 2: Assessment

As these new units differ from traditional UoCs in important ways, RTOs will need to alter their existing practices for developing, administering and grading assessments to ensure the key principles of assessment are upheld.

Multi-level

The scaffolded entry and exit points of each unit require expanded assessment suites that demonstrate capability at the different Proficiency Levels. However, the scaffolding also offers the opportunity for individual assessment tasks to reuse content across levels where there is overlap of learning outcomes and capability requirements.

Contextualisable

Rather than specific knowledge and performance evidence requirements, these units require students to demonstrate they have achieved the learning outcomes. RTOs have the freedom and responsibility to contextualise assessments to meet the needs of the target qualification, industry or student cohort; while also ensuring the learning outcomes are met and students have attained the required capability and ADCF Proficiency Level.

RTOs could use a range of approaches to capitalise on these factors and maximise the efficiency and effectiveness of assessments for both students and educators.

Types of assessment

'Assessment for learning', 'Assessment as learning', and 'Assessment of learning' are approaches that enable educators to gather evidence and make judgements about student achievement.

- **Assessment for learning** (diagnostic) gathers evidence of what students know and can do prior to commencing study (can also be ongoing during study). For example, using a tool to assess a student's digital capability prior to commencing the course. Along with the ADCF level determined for the qualification, this assessment assesses the student cohort as individuals to determine their starting ADCF level. This information enables the RTO to develop one or more UoCs to meet the needs of the student cohort and the qualification. This may include offering more than one exit point.
- **Assessment as learning** (formative) is embedded in, and occurs throughout the learning. This may take the form of activities to consolidate and reinforce learning. At higher ADCF levels where students are expected to display greater autonomy, assessment tasks could include:
    - peer assessment, and
    - reflecting or reporting on their learning, e.g. in a journal.

  Assessment could also include parts of a summative assessment that are completed and submitted for feedback before final submission. For example, a portfolio or project assessment comprised of multiple parts.

- **Assessment of learning** (summative) gathers evidence of student competence against learning outcomes either at the end of and/or during (cumulative) learning. This assessment is used to determine the learning achieved at a given point in time and to assign level of competence. In digital capability UoCs, portfolio assessments give students the opportunity to demonstrate their progression of learning and competence if they are built up across the unit, allowing students to apply their knowledge and skills as they are acquired. A project assessment allows students to apply their knowledge and skills in a workplace scenario and demonstrate greater autonomy and independent problem solving.

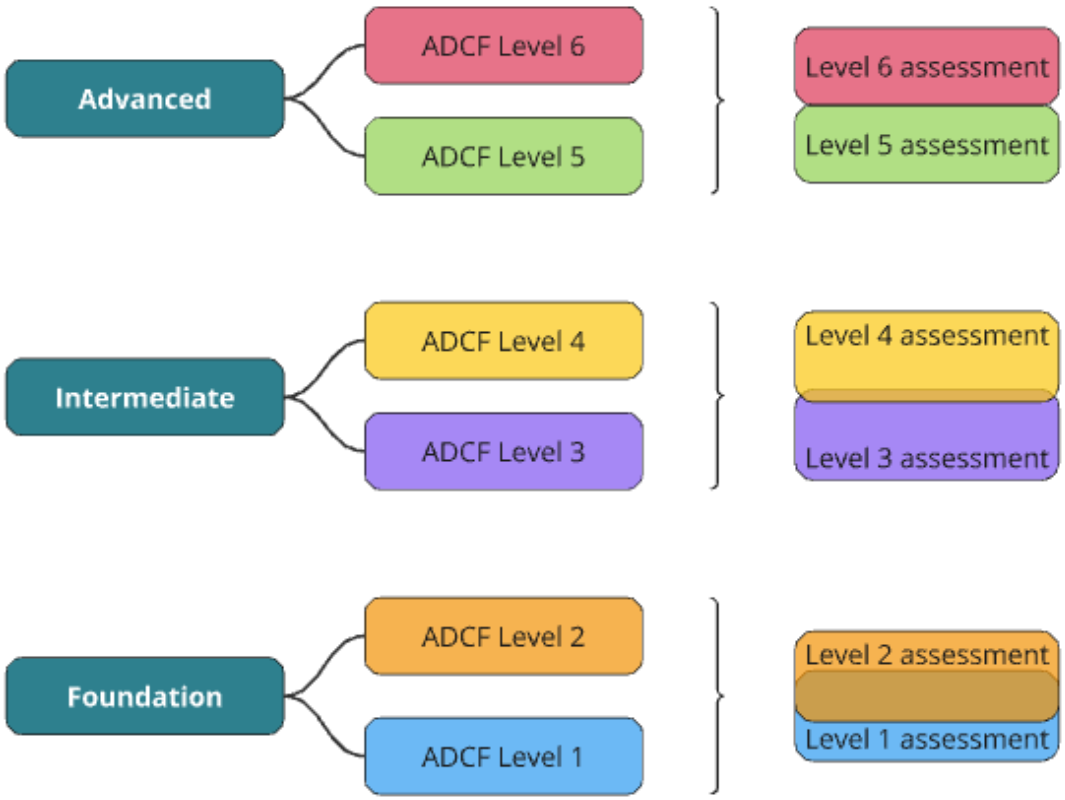
Scaffolded assessment

Learning outcomes are based on the ADCF capability descriptors and are inherently scaffolded across the ADCF levels.

Where an RTO wishes to offer more than one exit point, assessments can re-use or build upon the preceding level's assessment.

The differences between levels are initially quite small but become exponentially more differentiated at the higher levels. So, at the lower levels, an additional question or task may be sufficient to cover the next level, at higher levels more substantial tasks or separate assessments may be needed.

Figure 6: Illustration of the scaffolding of assessment across the ADCF Proficiency Levels.



Combined assessment

Broader assessment requirements in the new units increases opportunities for innovative approaches to combined assessment of these units, both with each other and with traditional industry-based units of competency, commonly known as clustering.

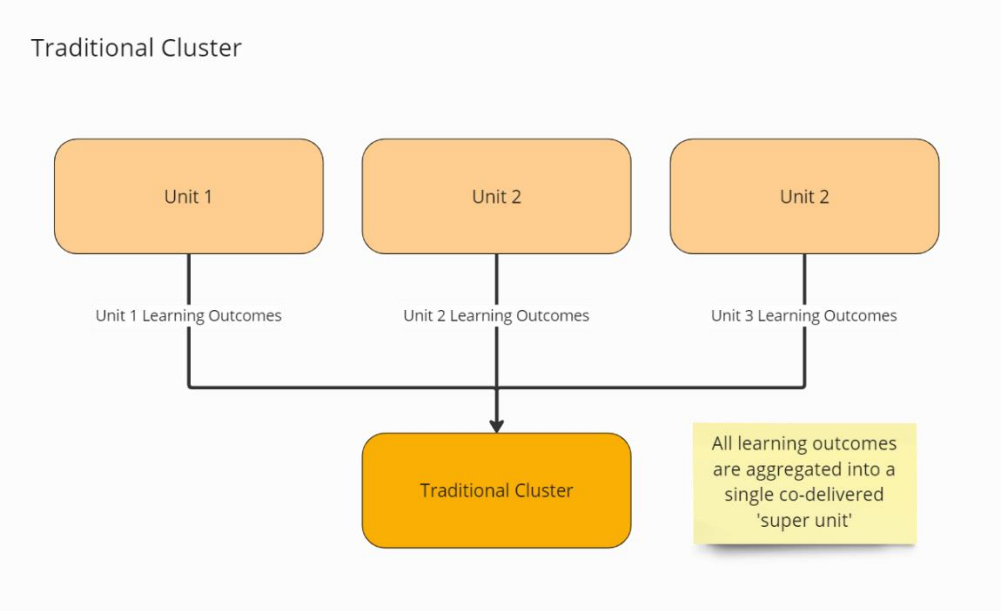


Figure 7: Illustrating the aggregation of learning outcomes in traditional clusters.

Learning developers and educators can map learning outcomes across units to identify opportunities for clustering existing UoCs with ADCF units. Within these clusters they can develop digitally focused, realistic portfolio and project assessment tasks that simultaneously meet the specific conditions of the existing units while also allowing students to demonstrate the required digital capabilities of the ADCF unit(s).

Smart Clusters

The flexibility of these units enables a new way of assessing called **Smart Clustering**. Smart clusters comprehensively cover the full learning outcomes of an ADCF unit (at a specified Proficiency Level) within the assessment tasks of other units in the qualification or skill set.

Where traditional clusters offer the co-delivery and combined assessment of a discrete, limited number of units, smart clusters differ by dispersing and integrating the ADCF learning outcomes across as many other units in the qualification as necessary, according to best fit.

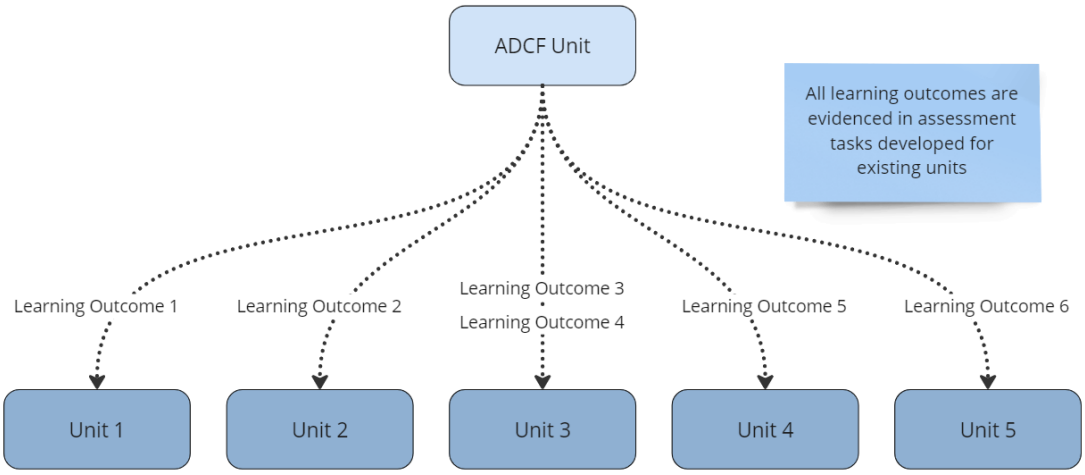


Figure 8: Illustrating the distribution of ADCF learning outcomes across traditional unit assessments in smart clustering.

For example, if the Information and Data Literacy unit at ADCF Level 3 was embedded into the Certificate III in Screen and Media qualification, then the learning outcome information credibility can be verified through analysis, and could be covered by assessment tasks developed for the existing core unit BSBCRT311 *Apply critical thinking skills in a team environment*. This possibility would need to be confirmed through formal mapping and evidence processes as part of assessment design.

Smart clustering is most effective where ADCF units are embedded into qualifications. JSCs map the digital capability requirements of the qualification, and the units are identified accordingly. RTOs can then embed the required digital capabilities within the assessments for traditional units. Students will then complete the ADCF units while completing other units in the qualification, rather than as a separate unit.

It is likely that across all the units of a full qualification, existing assessments that are well-designed and industry-relevant will already allow students to demonstrate the required learning outcomes for ADCF units.

Smart clustering can also be used by RTOs when developing their own skill sets or microlearning using the same principles to embed digital capability learning outcomes into industry-based tasks. However, the ratio of traditional units to ADCF units is much less than in a full qualification. So, it may not be possible or desirable to embed all the digital capabilities in traditional units so it may better meet students' needs to offer the ADCF unit separately.

ADCF Level-based approaches

Combining the assessment approaches with scaffolded learning leads to recommended educational approaches for each ADCF Proficiency Level.

Foundation (ADCF Levels 1 and 2)

The foundation levels of the ADCF cover basic digital capability skills. Students entering at these levels would benefit from face-to-face teacher guided learning with significant hands-on support provided.

Connecting the learning to how it would benefit the students in the real world by drawing on their experiences and what has led them to want to improve their digital capability, can evolve into the students identifying simple projects to meet their learning needs, making the assessment tasks relevant to their learning needs or workplace and providing motivation.

Scaffolding

The differences between the learning outcomes at Levels 1 and 2 are relatively minor and can be accommodated through additional questions, tasks and requirements in the assessment tasks. The assessment marking criteria or rubric can lay out any differing expectations in the submitted work, to allow grading to meet either Level 1 or Level 2 capabilities.

Contextualisation

Learning outcomes at foundational levels are quite basic; RTOs can develop Standard Assessments with minimal contextualisation that can be reused across various qualifications or industries. Students can bring their own context to projects and portfolios through their own professional, educational and personal experiences.

Example

Ben works in a physically active job engaging with customers face-to-face and via the phone. He has sustained a workplace injury, which means he must spend a couple of months in the office. Ben's digital capabilities are basic and not at a level required for the office work. To develop his digital capabilities, Ben enrols in a Foundation ADCF unit or skill set aiming to acquire ADCF Level 2 capability.

Intermediate (ADCF Levels 3 and 4)

The intermediate levels of the ADCF build on the foundation levels. Intermediate units could be developed to stack with foundation units to progress digital capabilities further (vertical stacking). Students entering at these levels already possess basic skills and knowledge and are capable of greater self-direction. Using elements of cognitive, constructivist and social constructivist learning theories, students can learn more autonomously and construct learning relevant to their needs and workplaces or industry.

Under the guidance and mentoring of the teachers, students can explore relevant scenarios or case studies, identify problems, and form solutions. The teacher can provide, or guide towards, any frameworks or models used in that industry.

Students can share their work and lead discussions to further refine their understanding, in class or virtually. This gives them a taste of working on a real-world project and presenting their work in progress or final findings or solution.

To deepen learning, students can keep an iterative record of their own progress and learning, allowing them to identify their own processes, effective strategies or approaches, and challenges. This self-reflection enhances their ongoing learning and reinforces the transferability of their new skills and knowledge.

Scaffolding

The differences between the learning outcomes at Levels 3 and 4 are more significant and will need to be reviewed to assess whether the difference can be accommodated by additional questions, tasks and requirements within the same assessment or whether an extension assessment can be offered. The assessment marking criteria or rubric can lay out any differing expectations in the submitted work, to allow grading to meet either Level 3 or Level 4 capabilities.

Contextualisation

RTOs can develop customisable assessments, which are predominantly generic and uncontextualized, but include fillable spaces in the template for educators or course developers to add their own context for the industry or qualification. This insertable context might include qualification-relevant case studies, or specific industry processes, frameworks or tools. When developing, customising and delivering customisable assessments it is important to ensure that they remain focused on developing broader digital capabilities, rather than teaching specific tasks.

Example

Jess wants to apply for a new role at her organisation that requires evidence of digital capabilities at a higher level. To improve her chances of gaining the role, she enrols in an Intermediate ADCF unit with the goal of achieving ADCF Level 4.

Advanced (ADCF Levels 5 and 6)

The advanced levels of the ADCF require students to demonstrate the ability to transfer knowledge to others as well as solve more complex problems. The fundamental elements of cognitive, constructivist, social constructivist and andragogy learning theories can be built upon to leverage the life and work experiences of students to tailor their learning experiences.

With the teacher providing guidance and mentoring, students can apply research strategies to identify relevant issues in their industry. Working with the teachers, students can select a specific issue that has relevance for their professional life, define a problem, formulate a potential solution, construct a project or portfolio assessment to explore and test the solution, and communicate their findings to the group.

If there are students in the same industry who have similar or the same problems to solve, students could form project teams. This adds the real-world dimension of teamwork, team roles, division of responsibilities and tasks, and collaboration.

Students can keep a record of their learning journey, including what has worked well and what could be better to deepen and consolidate the learnings (as per Levels 3 and 4). Developing self-awareness about how they learn enhances the transferability of what has been learnt to other contexts and situations.

Scaffolding

The differences between the learning outcomes at Levels 5 and 6 are distinct enough to warrant separate assessment tasks, although a review of the differences may allow a scaffolded assessment in some focus areas.

Contextualisation

For advanced level ADCF units, smart clustering becomes an especially valuable option for both students and educators. Smart clustering enables ADCF units to be assessed without adding additional assessments to qualifications. This is especially valuable for qualifications at higher AQF levels or those with complex technical content.

In skill sets, where there may be a smaller proportion of traditional units to ADCF units, traditional clustering may be a better approach to ensure the ADCF learning outcomes are addressed.

Example

Casey is studying a qualification that requires ADCF Level 5. However, to gain an edge over other graduates in the job market, Casey takes the option to exit with ADCF Level 6.

Section 3: Recognition of Prior Learning

Recognition of prior learning (RPL) is a powerful tool to encourage people to enter the learning environment. It can also boost student motivation and confidence by acknowledging the skills and knowledge they already have. Application of RPL means students only complete the learning they need, not the learning they have.

RPL is highly relevant to these new ADCF-based units for a number of reasons:

- The broader learning outcomes and assessment conditions of the new units make demonstrating competence less cumbersome in traditional RPL processes. The more flexible requirements mean there is less need for students to provide evidence of highly specific tasks, or to perform them under specific conditions.
- Given the minimum entry level requirements of ADCF units, effective RPL processes will be extremely valuable in ensuring students have the baseline capability to attempt units at their desired exit point.

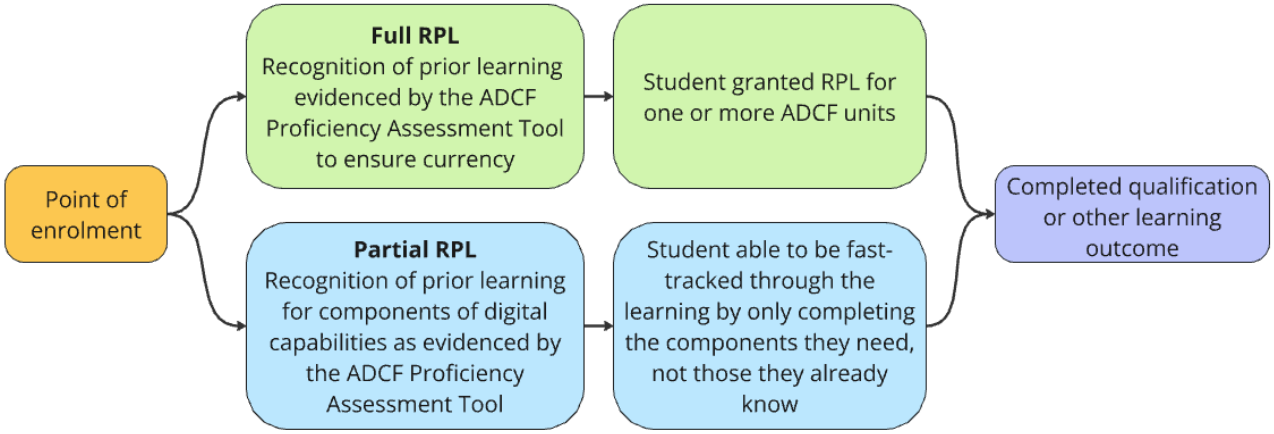


Figure 9: Illustrating the different paths for full and partial RPL.

Automated tools

To determine students' current digital capabilities, two automated ADCF companion tools are recommended for development at national level:

- **ADCF Proficiency Assessment Tool** is an online self-assessment tool for individuals that aligns with principles of assessment and allows individuals to determine their current digital capability, per the ADCF Focus Areas and Proficiency Levels. This tool is envisioned to be a more robust, substantial iteration of the European Unions' Test Your Digital Skills tool, based on their Dig Comp 2.2 framework. There is potential for this tool to align with the student's USI or a Skills Passport system in future.
- **ADCF Course Evaluation Tool** is an online, portal-based tool that will enable RTOs to determine the specific ADCF capabilities and levels inherent in a course or qualification - hence the implied capabilities of the course graduates. It is important to note that currency and completion dates would need to be considered for this tool to be effective.

Full RPL - For one or more ADCF units

The ADCF Proficiency Assessment Tool determines the current capability level of individuals. Students who demonstrate the required ADCF level(s) can be granted RPL for the corresponding ADCF units that are part of a course they are undertaking.

RPL may also be granted for previous studies and experience where students have demonstrated capability at required ADCF levels, however, it will be imperative to consider currency due to the rapid changes occurring in the digital space. The ADCF Course Evaluation Tool can help RTOs determine the achieved digital capabilities of students via prior studies.

Partial RPL – Accelerated Learning or Progression

The ADCF Proficiency Assessment Tool can also identify specific gaps in students' digital capabilities, or where their existing capability level is not high enough for the course they want to enrol in.

In this case they can be directed to complete the relevant sections of learning in the required ADCF Proficiency Levels and Focus Areas to cover the gaps without needing to repeat what they already know or can do. This form of RPL is known as 'accelerated learning or progression', where RPL occurs during the learning rather than prior to it. It means that students can be fast tracked and not need to repeat existing current knowledge and skills.

Personalised pathways

Where a student has some digital capabilities but needs to further develop them to meet course requirements, and the course has been fully mapped to the ADCF, machine learning could be used to devise a personalised pathway where the student only needs to complete new learning to fulfil the digital capability requirements of the course. In this situation, the known ADCF learning outcomes of the course could be automatically marked as complete.

Machine learning could potentially be used to personalise assessment tasks, creating an individualised pathway through the whole course. This could enable experienced students looking for validation and

certification of their knowledge and skills to achieve the outcomes and capabilities of a course in a minimal timeframe.

Employers and industry would benefit as workers could be qualified or upskilled more rapidly and efficiently than if they were required to complete the entire course.

Digital capability speed of change

Some caution will need to be exercised in granting RPL for digital capabilities due to the rapid evolution of knowledge and skills in this space, - particularly at the higher ADCF Proficiency Levels.

Due to the speed and depth of change in industry expectations, even recently acquired skills and abilities may not remain current with accepted practice beyond the short term. Evaluations of students' capabilities at the time of enrolment are crucial to ensuring validity and relevance.

References and attributions

References

Australian Skills Quality Authority. https://www.asqa.gov.au/

Department of Employment and Workplace Relations. (2022). Australian Digital Capability Framework. https://www.dewr.gov.au/skills-and-training/resources/australian-digital-capability-framework

Department of Employment and Workplace Relations. (2022). Australian Digital Capability Framework: User Guide. https://www.industryskillsaustralia.org.au/workforce-projects/

Department of Employment and Workplace Relations. (2022). Digital Capability for Workforce Skills - Final Report. https://www.dewr.gov.au/skills-and-training/resources/digital-capability-workforce-skills-final-report-2022

Hargreaves, J. (2006). Recognition of prior learning: At a glance. National Centre for Vocational Education Research (NCVER). https://www.ncver.edu.au/research-and-statistics/publications/all-publications/recognition-of-prior-learning-at-a-glance

NSW Department of Education. (2022). Approaches to assessment. https://education.nsw.gov.au/teaching-and-learning/professional-learning/teacher-quality-and-accreditation/strong-start-great-teachers/refining-practice/aspects-of-assessment/approaches-to-assessment

Osborne, K. & Serich, C. (2020). Exploring the recognition of prior learning in Australian VET. National Centre for Vocational Education Research (NCVER). Exploring the recognition of prior learning in Australian VET (ncver.edu.au)

Qualification Reform Design Group. (2024). Unlocking the Potential of VET: Improving the relevance and transferability of Vocational Education and Training qualifications. Department of Employment and Workplace Relations. https://www.dewr.gov.au/skills-reform/resources/qualification-reform-design-group-initial-advice-skills-ministers

FUTURE SKILLS ORGANISATION
Finance Technology Business

JSC Jobs and Skills Council
Finance, Technology and Business
An Australian Government Initiative

EGR_ANN_2324_004

Testing a new approach to qualification design to build digital capability

Appendix 4: References

Jobs and Skills Council

Qualification Reform Demonstration Project

This reference guide provides citations and links to key articles, tools, frameworks, and resources referenced in the final report, offering further reading and context.

Articles and Reports

- Gekara, V, Snell, D, Molla, A, Karanasios, S & Thomas, A 2019, *Skilling the Australian workforce for the digital economy*, NCVER, Adelaide. (Accessed June 2024). Available at: https://www.ncver.edu.au/research-and-statistics/publications/all-publications/skilling-the-australian-workforce-for-the-digital-economy

- Gekara, V, Molla, A, Snell, D, Karanasios, S & Thomas, A 2017, *Developing appropriate workforce skills for Australia's emerging digital economy: working paper*, NCVER, Adelaide. Available at: https://www.ncver.edu.au/research-and-statistics/publications/all-publications/developing-appropriate-workforce-skills-for-australias-emerging-digital-economy-working-paper

- Wibrow, B, Circelli, M & Korbel, P 2020, *VET's response to Industry 4.0 and the digital economy: what works*, NCVER, Adelaide. Available at*:* https://www.ncver.edu.au/__data/assets/pdf_file/0034/9660436/VETs-response-to-Industry-4.0.pdf

- NCVER, 2020. *Good Practice Guide. Teaching Digital Skills: Implications for VET Educators.* Available at: https://www.ncver.edu.au/__data/assets/pdf_file/0032/9660443/GPG_VET_educator_workforce.pdf

- Gekara, V, Snell, D, Molla, A, Karanasios, S & Thomas, A 2019, *Skilling the Australian workforce for the digital economy: support document 1 – a review of digital skills frameworks literature*, NCVER, Adelaide. Available at: https://www.ncver.edu.au/__data/assets/pdf_file/0039/5744397/Support-document-1-a-review-of-digital-skills-frameworks-literature.pdf

- Gekara, V, Snell, D, Molla, A, Karanasios, S & Thomas, A 2019, *Skilling the Australian workforce for the digital economy: support document 2 – case studies and survey findings*, NCVER, Adelaide. Available at: https://www.ncver.edu.au/__data/assets/pdf_file/0027/5744403/Support-document-2-case-studies-and-survey-findings.pdf

- Australian Industry Standards Limited, 2022, *Digital Capability for Workforce Skills Final Report 2022*. © Australian Industry Standards Limited. Available at: https://www.dewr.gov.au/skills-and-training/resources/digital-capability-workforce-skills-final-report-2022

Tools & Frameworks

- Commonwealth of Australia 2022, *Australian Digital Capability Framework*. © Commonwealth of Australia 2022. Available at: https://www.dewr.gov.au/skills-and-training/resources/australian-digital-capability-framework

- Department of Education, Skills and Employment, 2021. *Digital Literacy Skills Framework – 2020*. © Commonwealth of Australia 2020. Available at: https://www.dewr.gov.au/foundation-skills-your-future-program/resources/digital-literacy-skills-framework

- Australian Public Service Commission, 2022. *APS Data Capability Framework.* Available at: https://www.apsc.gov.au/publication/aps-data-capability-framework.

Websites

- ADC Forum, n.d. Focus areas. [Online] Available at: https://adcf.au/focus-areas (Accessed: 6 September 2024).

- SFIA Foundation, 2024. *SFIA 8 responsibilities.* Available at: https://sfia-online.org/en/sfia-8/responsibilities (Accessed: 6 September 2024).

Alignment of the ADCF to other Capability Frameworks

Source: Digital Capability for Workforce Skills - Final Report 2022

Digital Capability Frameworks				
DEWR ADCF	**DEWR** Digital Literacy Skills Framework	**JSA** Australian Skills Classification	**APSC** Data Capability Framework	**SFIA** Skills Framework for the Information Age
A **Foundation**	**Pre-level 1** **Levels 1-3**	**Core Competency** (Digital Engagement) **Levels 1 to 2**	**Foundation** Level 1	
B **Intermediate**		**Core Competency** (Digital Engagement) **Levels 3 to 8**	**Intermediate** Level 2	
C **Advanced**				
D **Specialised**		**Core Competency** (Digital Engagement) **Levels 9 to 10**	**Advanced** Level 3	**Levels 1 to 7**

Australian Digital Capability Framework (ADCF) - DEWR

Proficiency Levels		Description, Complexity, Autonomy
A Foundation	A1	**Description**: Perform at a basic level with guidance **Complexity:** Simple tasks **Autonomy:** With guidance
	A2	**Description:** Perform at a basic level with autonomy and some guidance **Complexity:** Simple tasks **Autonomy:** Autonomously, with some guidance
B Intermediate	B3	**Description:** Autonomously solve simple problems **Complexity:** Routine tasks, simple problems **Autonomy:** Autonomously
	B4	**Description:** Autonomously solve intermediate problems **Complexity:** Routine tasks, intermediate problems **Autonomy:** Autonomously
C Advanced	C5	**Description:** Autonomously solve advanced problems and guide others **Complexity:** Advanced tasks **Autonomy:** Autonomously, may guide others
	C6	**Description:** Autonomously solve complex problems and guide others **Complexity:** Advanced tasks, advanced problems **Autonomy:** Autonomously, may guide others
D Specialised	D7	**Description:** Autonomously solve highly complex problems and guide others **Complexity:** Complex tasks, complex problems **Autonomy:** Contribute knowledge
	D8	**Description:** Perform highly specialised activity and guide others **Complexity:** Highly specialised tasks, highly complex problems **Autonomy:** Contribute knowledge

Digital Literacy Skills Framework (DLSF) - DEWR

Source: https://www.dewr.gov.au/foundation-skills-your-future-program/resources/digital-literacy-skills-framework

Level	Indicator	Indicator Description
PL1	.12	Demonstrates extremely limited awareness of self as a digital user
PL1	.13	Demonstrates an extremely limited knowledge and use of digital devices
1	.12	Demonstrates some awareness and understanding of self as a digital user in highly familiar contexts
1	.13	Begins to expand knowledge of and use digital devices and software in highly familiar contexts
2	.12	Demonstrates an understanding of self as a digital user in familiar contexts
2	.13	Applies a limited range of strategies to manage digital devices and software in familiar contexts

Australian Skills Classification – JSA

Source: https://www.jobsandskills.gov.au/australian-skills-classification?page=home

Core Competency		**DIGITAL ENGAGEMENT**
Core Competency Description		Identifying and using technology (including hardware and software) confidently, creatively and critically.
Score	**Proficiency Level**	**Anchor Value**
1	Basic	Name and identify the purpose of familiar digital devices (e.g. mobile phone, computer, tablet)
2	Basic	Send a short and simple reply to an email communication using a digital device
3	Basic	Enter information into a database
4	Intermediate	Recognise different ways to connect to the internet (e.g. Bluetooth, Wi-Fi, hotspot)
5	Intermediate	Build and maintain an effective online profile for career management
6	Intermediate	Use software on a portable device to document a building inspection by recording measurements, checking compliance and uploading photos
7	Intermediate	Write software for keeping track of items in an inventory
8	High	Use Enterprise Resource Planning software to monitor transactional data from multiple sources including accounting, procurement and human resources and visualise this data for a company's strategic plan
9	High	Set up a new computer system for a large multinational company
10	High	Develop new ways of guaranteeing the trustworthiness of transactions on decentralised, cloud based, distributed transactional systems

Data Capability Framework – APSA

Source: https://www.apsc.gov.au/publication/aps-data-capability-framework

Proficiency Level Definitions	
Level 1 -Foundation	• Basic awareness of concepts and techniques • Follows guidance, complies with established procedures, seeks advice
Level 2 -Intermediate	• Demonstrates a broad understanding of concepts and techniques with experience in applying these • Demonstrates the skill/knowledge with minimal guidance in routine situations • Influences, upholds, shares advice, consults
Level 3 - Advanced	• Demonstrates an extensive understanding and application of concepts and techniques • Guides on precedents and/or industry standards; shapes the organisation's approach in the application of this skill/knowledge area • Sets, leads, designs, innovates, implements, monitors, regulates, develops others

Skill Clusters

Source: https://www.jobsandskills.gov.au/australian-skills-classification?page=skills&skill

Skills clusters

Skills clusters show clusters of similar specialist tasks. These tasks are broadly transferable – if you can do one task in the cluster you can likely do the others.

Skills clusters illustrate a new way of looking at the labour market at a deeper level than occupational classifications or qualifications. This view shows how skills are related and connected to one another without consideration of the occupations they are connected to. By doing so it provides a new way to explore skills transferability.

While these tasks are broadly transferable this should not be taken as a measure of overall similarity or direct transferability between occupations that utilise these skills. Skills clusters do not take into account qualifications, registration or licencing required to undertake certain tasks.

Cluster families

- Agriculture and animals
- Archiving, recording, and translating
- Art and entertainment
- Business operations and financial activities
- Cleaning and maintenance
- Communication and collaboration
- Construction
- Customer service
- Data, analytics, and databases
- **Digital technologies and electronics**
- Environmental management
- Fashion, grooming, and cosmetics
- Food services
- Health and care
- Human resources
- Legal matters
- Material transportation
- Operating procedures and processes
- Performance evaluation and efficiency improvement
- Production processes and machinery
- Quality control and inspections
- Records, documentation, reports and research
- Recreation and sporting events
- Safety and hazard management
- Sales and marketing
- Science and mathematics
- Security and emergency services
- Teaching and education
- Vehicle operation
- Work activities preparation

Skill clusters:

The **Digital technologies and electronics** cluster family contains these skill clusters:

- Design, make or install electrical systems and equipment
- Develop websites or software
- ICT support, design and management
- Install and maintain computer equipment or software
- Operate and maintain computers
- Resolve computer application or systems issues
- Test computer or software performance

Specialist tasks

Specialist tasks describe day-to-day work within an occupation. While specialist tasks can be transferable across occupations and sectors unlike core competencies, they are not universal. Specialist tasks are useful for differentiating occupations.

The classification can show where another occupation utilises the same specialist task however this should not be taken as a measure of overall similarity or direct transferability between those roles. For further information about similarity between occupations please explore the Skills Transitions dataset.

CLUSTER FAMILY	Digital technologies and electronics	
Specialist Cluster	**Specialist Task**	**Skill Statement**
Design, make or install electrical systems and equipment	Assemble electrical components, subsystems or systems	Arrange and join and put together electrical components, subsystems or systems that supply, transfer, and use electrical power. This may involve undertaking tasks such as fabrication, installation, connection, assembly, fixing, securing, mounting, joining, and repair of equipment, components, controls, wiring, or cables. Determine safety requirements and adhere to relevant standards including entry to classified hazardous areas, and use appropriate safety equipment, apparatus, and wiring systems. Use drawings, diagrams, schedules, standards, codes, and specifications to plan work, and use diagnostic tools to perform tests and locate and rectify faults, defects, or anomalies.
	Assemble electrical or electronic equipment	Use tools or equipment to assemble parts or components of electric or electronic equipment or products such as household appliances and audio-visual equipment. This may involve undertaking tasks such as mechanical or thermal cutting; welding, manual soldering, or brazing; installing, terminating, and connecting electrical wiring or specialist cables; and performing electrical or electronic measurement. Determine safety requirements and adhere to relevant standards including the use of appropriate safety equipment, apparatus, and wiring systems. Use drawings, diagrams, schedules, standards, codes, and specifications to plan work, and use diagnostic tools to perform tests and locate and rectify faults, defects, or anomalies.
	Connect electrical components or equipment	Connect electrical components or equipment to systems or power supplies. Follow industry standards and safety regulations to undertake tasks such as laying cable or wiring and hooking up electrical connections; inserting plugs into receptacles; bolting or screwing leads to terminals; repairing, establishing, or integrating circuits and wiring; routing and connecting cables and lines to switches, switchboard equipment and distributing frames; and connecting components such as voltage regulators, control panels, and junction boxes.
	Connect vehicle, trailer, equipment, or material handling cables or electrical lines	Safely connect vehicles, trailers, material handling or other equipment to power sources, loads, or relevant components using cables or electrical lines. This may involve calculating load weight and carrying out operational tests or checks. Adhere to safety standards and regulations and follow operational procedures.
	Control electrical power supply connections	Control the supply of power to connected equipment, facilities, circuits, or systems. This may involve turning meters on or off or opening and closing switches. This may be done to facilitate work such as connecting and disconnecting utilities at specific locations, isolating or identifying defects, or facilitating safe repair or maintenance activities. Adhere to work safety practices and standards and wear appropriate protective equipment.
	Design electrical equipment or systems	Design, develop or improve electrical equipment or systems. Utilise electrical engineering principles and review specifications and job requirements in order to ensure the design of the equipment or systems will function efficiently and safely. Conduct design tests in order to

		determine if the design meets specifications, safety and regulatory requirements. Rectify faults and retest to ensure effective operation of design.
	Design telecommunications infrastructure, devices, networks and systems	Design telecommunications infrastructure, devices, networks and systems to control and manage the exchange of information over distances. Analyse process requirements, goals, or constraints to help guide the design process and select features such as layouts, components, processes, equipment specifications, or control strategies. Conduct design tests to ensure the system meets specifications, safety, and regulatory requirements, and adjust as necessary.
	Install audio or communications equipment	Position and install audio or communications equipment in accordance with job requirements, manufacturer specifications, diagrams, blueprints, or other instructions. Select appropriate tools, techniques, and fasteners, and adhere to safety procedures. This may involve positioning, aligning, and securing equipment, components, or modules; or connecting electrical, mechanical, and other systems. Setup or configure settings for use or function, complete testing post-installation and adjust any faults as required to ensure proper installation, functionality, and safety.
	Install electrical components, equipment or systems	Position and install electrical components, equipment, or systems in accordance with job requirements, manufacturer specifications, diagrams, blueprints, or other instructions. Select appropriate tools, techniques, and fasteners, and adhere to safety procedures. This may involve positioning, aligning, and securing equipment, components, or modules; or connecting electrical, mechanical, and other systems. Setup or configure settings for use or function, complete testing post-installation and adjust any faults as required to ensure proper installation, functionality, and safety.
	Install instrumentation or electronic equipment or systems	Position and install instrumentation or electronic equipment or systems in accordance with job requirements, manufacturer specifications, diagrams, blueprints, or other instructions. Select appropriate tools, techniques, and fasteners, and adhere to safety procedures. This may involve positioning, aligning, and securing equipment, components, or modules; or connecting electrical, mechanical, and other systems. Setup or configure settings for use or function, complete testing post-installation and adjust any faults as required to ensure proper installation, functionality, and safety.
	Lay or run cables or wires for electrical purposes	Safely lay or run cables or wires in trenches, racks, troughs, or through structures for electrical purposes. Interpret work requirements or plans, and follow safety regulations, industry standards, and workplace procedures to undertake tasks such as cable pulling, sealing, and using supporting plant. Utilise relevant personal protective equipment.
	Rewire electrical or electronic systems	Remove and remake connections to change, fix, or otherwise alter circuits and connections in electrical or electronic systems. This may include locating, identifying, and replacing defective wires, components, or connections, or integrating new components, equipment, or connections, and following schematics or other work instructions. Follow safety procedures, industry standards, and wear appropriate personal protective equipment. Conduct continuity and insulation tests and check wire and cable terminations to ensure tightness and continuity.
	Thread wire or cable through conduits	Thread electrical wire or cable through durable tubes, pipes or enclosures designed to protect, organise, and route wires as part of the installation process. This may involve the use of tools and equipment such as conduit benders, wire pulling rope, fish tape, wire lubricant, wire cutters, conduit locknuts and bushings. Adhere to safety standards and relevant building codes including for the selection of appropriate conduit material and relevant personal protective equipment.
Develop websites or software	Create computer-generated graphics or animation	Use computer-generated graphics or animation software in order to simulate, sequence and render the behaviours, movements, textures and consistency of people, animals, objects or environments. Apply principles of graphic design, colour theory, drawing algorithms, matrix transformations, lighting, and other programming techniques to ensure computer-generated graphics or animation align with desired moods, themes, tones and styles.
	Design computer modelling or simulation programs	Use computers to perform mathematical modelling in order to provide predictions of the behaviour of, or outcomes of, real world or physical systems - or run these programs to create

		simulations. Define system and user requirements, determine data inputs including from sensors or other physical devices, determine data structures, system type, and relevant equations or algorithms. Determine appropriate visualisation techniques for simulations, balancing user understanding with technical data and information.
	Design extended reality solutions	Develop concepts and software programs to build immersive environments using augmented reality (AR), virtual reality (VR) or mixed reality (MR) solutions to enable human interactions with virtual objects in physical spaces. It includes analysing existing system architecture and programming requirements, creating extended reality designs, configuring extended reality prototypes, and confirming it meets organisational requirements, and deploying extended reality solutions across required organisational processes.
	Design websites or web applications	Design websites or web applications that are visually appealing, intuitive to users, functional and relevant to organisational requirements or objectives. This may involve considering formats of design (such as HTML, XML, CSS or jQuery), discussing design priorities, features, user experience, and functions with developers and stakeholders, optimising architecture for anticipated traffic volume, creating searchable indexes, and undertake experimentation or tests to ensure functionality, usability and intuitiveness, and prevent crashes, security breaches or malfunctions.
	Develop applications using agile methods	Organise and lead the prototyping and development of an adaptive software application which emphasises general planning models by analysing and adopting agile methods. This involves determining application development requirements, designing, and creating applications, collaborating with experts and users, conducting quality assurance, and delivering applications.
	Develop digital user interfaces	Plan and design user interfaces for a wide range of devices and interactive multimedia in digital environments. It includes identifying usability and accessibility requirements, developing user interface prototypes by sketching and wireframing, testing user interfaces and refining designs in response to user experience evaluations.
	Develop software applications	Design, create and test software applications for mobile devices, computers, and computer-controlled equipment, and ensure they align with user requirements, organisational specifications, and industry standards. This may involve identifying the needs and skillsets of users, selecting appropriate features, functions, and development techniques, defining scope, testing limits and development timelines, using code or programs (such as Java, Python or C++) to create applications' architectural design and front-end components, and testing for functionality, reliability, bugs and optimisation requirements. Following thorough testing and refining, determine steps for deployment and maintenance and ensure software meets functionality, usability, and best practice requirements.
	Develop software or applications for scientific or technical use	Design and develop software or applications that are specialised for scientific or technical purposes. This may involve gathering information about gaps in scientific or technical technologies, discussing needs and desired outcomes with stakeholders, testing software or applications (in either a controlled or field setting) to identify bugs, monitoring and optimising software, considering, and selecting appropriate features to include (such as cloud hosting, computation, digitisation, or statistical and mathematical capabilities). Use programming languages, software development frameworks and scientific computing libraries to ensure developments are efficient, robust, and up to date with practice standards and security requirements. For example, develop software for statistical analysis use in the social sciences by creating a platform that extracts and codes continuous, discrete, ordinal, and nominal variables, highlights outliers, produces graphs and summarises descriptive or inferential findings.
	Develop specifications or procedures for website development or maintenance	Develop specifications or procedures for website development or maintenance by defining project goals, objectives, and the tactics or actions required to achieve success. This may include outlining constraints such as budget or other resource availability, deadlines, or technical constraints. It may also include project details such as stakeholders or technical teams, and information such as required website features, or processes such as for content management, update, and maintenance.

	Write computer programming code	Write and develop computer programming code that provides a set of instructions, procedures, or system of rules for computers to follow in order to perform tasks. Understand project objectives, which may involve collaborating with software engineers or architects to develop holistic solutions, and utilise programming languages, coding principles and industry best practices to create efficient, sustainable, scalable, and compatible code. Test and troubleshoot code to resolve issues, and test functionality of programs.
ICT support, design and management	Analyse design requirements for computer or electronics systems	Analyse design requirements for computer or electronics systems in order to understand functionality, performance, and user needs or determine work requirements. This may include using understanding to recommend appropriate products or techniques, or to determine the required materials, resources, equipment, tools, machinery, timeframes, dependencies, procedures, processes, sequences, or methods to deliver the required outcome.
	Anticipate the organisational implications of machine learning models	Analyse and evaluate the potential implications of machine learning models on organisational processes, policies, stakeholders, and decision-making. Use specialist or technical knowledge, research, data analysis and other analytical techniques to determine whether impacts of machine learning models will result in benefit (by managing risks, facilitating stakeholder engagement, improving capabilities, and implementing delivery on strategies, projects or products) or disadvantage (by weakening market share, increasing operational costs or making services and products redundant) to an organisation. Determine whether there are ethical, data privacy or legal concerns issues to consider, compile all evidence and predictions, and provide recommendations on the integration, implementation, evaluation, and governance of machine learning modules.
	Apply information technology to solve business or other applied problems	Select and utilise information technology equipment, software, networks, tools, and techniques to analyse and resolve complex organisational or industry problems. Utilise specialist or technical knowledge or research to identify opportunities for process automation, system integration, disaster recovery or contingency plans, security or privacy protections, and other methods of addressing operational challenges. Select solutions based on factors such as cost-effectiveness, installation, or resolution implications (such as operational down-time), resource or schedule requirements, and implement according to organisational procedures and policies.
	Apply robotic desktop automation to work tasks and systems	Program and implement automated single server processes, activities, transactions and tasks through hybrid robotic processing and human intervention strategies. It includes reviewing automation parameters to configure robotic desktop automation in organisations, programming system activities using computer programming code and developing and deploying applications or packages to support organisational requirements.
	Automate work tasks using machine learning	Use machine learning principles and techniques to support the automation of procedural tasks and improve organisational productivity. This includes evaluating organisational requirements, designing, and implementing machine learning architectures and systems, and evaluating the outcomes and performance of machine learning systems.
	Coordinate software or hardware installation	Coordinate and manage the installation of software, hardware, or computer systems to improve the productivity, efficiency, and quality of work activities and outcomes within an organisation. This may involve creating plans for installation, allocating resources to teams, undertaking scheduling, delegating tasks to staff, and collaborating with customers (to determine impacts of installation such as work down-time) and suppliers (to order appropriate equipment, licensing, or tools).
	Create schematic drawings for electronics	Design schematic drawings or diagrams for electronic systems, circuits, products, or components in order to support the development, production, or troubleshooting of safe, functional and effective electronics. Identify functions, purposes, and details of electronics and utilise electrical engineering principles, drawing techniques and computer-aided design (CAD) software to create accurate and detailed schematics that support work processes.
	Design electronic or computer equipment or instrumentation	Design, develop, or improve electronic or computer equipment or instrumentation. Utilise engineering principles, technical specifications, user requirements and industry standards to

		design effective solutions to operational needs. Select appropriate materials or design aspects, conduct prototype testing and validation to ensure designs meet performance, reliability and usability objectives or standards.
	Design integrated computer systems	Design integrated computer systems that combine different functions together to work as one entity. Analyse user requirements, current system architecture, software, hardware, and network infrastructure to develop a system that meets specifications, data flow requirements and security measures. This may involve modifying existing software and integrating with existing hardware or infrastructure.
	Develop computer or information security policies or procedures	Develop comprehensive computer or information security policies or procedures in order to build organisational awareness of the risks relating to utilising, computer hardware, software and networks or handling information, and required procedures or actions when doing so. Policies or procedures may outline factors such as governance requirements, password management, access control, multi-factor authentication, regular backups, application and network controls, incident response and recovery protocols, information, or data storage requirements, mitigating risks, and training required to effectively understand and implement these policies or procedures.
	Develop computer or information systems	Design, develop and plan the implementation of computer or information systems that aligns with organisational requirements, specifications, and objectives as well as industry standards. Utilise programming languages, software development methodologies, best practice techniques, and information about organisational needs to develop systems that facilitate or improve work activities or processes. This may involve researching project management, emerging technologies, IT strategy and governance and security or service provision to select and develop systems that will function best for specific industries or projects.
	Develop specifications for computer network operation	Develop detailed specifications that define computer network operations, including network architecture, hardware components, protocols, and security measures. Ensure networks are efficient, functional, and align with organisational requirements, performance objectives and industry standards. This may involve determining specific requirements, defining parameters for installation or testing, collaborating with network engineers or organisational stakeholders, giving guidance on network recommendations, and preparing diagrams, charts, or equipment configurations.
	Evaluate utility of software or hardware technologies	Evaluate utility, suitability and efficiency of software or hardware for specific organisational or operational needs. Use cost-benefit analyses, risk assessments, feasibility studies, data on frequency and complexity of current usage, setup of existing computer systems, and other relevant information in order to determine usability of software or hardware technologies, make informed recommendations for improvements or provide guidance to clients on selecting and implementing the most appropriate software or hardware.
	Manage cloud identity and access	Securely authenticate and maintain cloud-based identity and access management systems in organisations. This includes developing, implementing, and evaluating secure cloud computing solutions, creating and securing new users, configuring machine resource permissions, and reviewing access configurations.
	Manage cloud threat detection systems	Configure, detect, and investigate unexpected or unwanted behaviour and changes in cloud-based systems that may threaten organisational security. This includes configuring data sources, data collection methods, resource policies and intrusion detection controls, analytics dashboards, and alerts for security events.
	Manage information technology projects or system activities	Supervise and manage information technology projects or system activities. This may include providing specialist or technical knowledge and guidance, designing implementation methods or procedures, or undertaking general project management tasks to ensure project goals, timelines and budgets are met - such as managing staff and resource allocation; providing supervision, guidance, and direction; and ensuring legislative or regulatory requirements are adhered to.

	Protect cloud infrastructure and data	Take precautionary actions to protect networks and resources, and compute both at rest and in transit data in cloud environments. This involves reviewing cloud usage and risks, implementing encryptions and data controls, and recommending updates to policies and procedures.
	Provide technical information technology assistance to clients or users	Provide technical advice, support, demonstrations or resources to clients or users about software, hardware, or system-related issues. This may involve responding to inquiries, running tests to identify errors or evaluate performance, documenting or reporting outcomes, guiding users through diagnostic or troubleshooting steps, escalating complex issues to specialised technicians or engineers and generally providing advice or solutions in a timely, respectful, and cost-effective manner.
	Recommend changes to improve computer or information systems	Use specialist or technical knowledge or research to evaluate existing computer or information systems, processes and procedures, identify areas for improvement, and make recommendations to improve quality, security, efficiency and functionality. Provide all relevant information about recommendations, including expenses, installation timelines, cost-benefit analyses, feasibility assessments and any other details which address the implications of changing systems for organisations. Recommendations for changes may be to keep organisations' systems in line with technological developments, reduce cyber security risks, comply with industry standards and policies, or improve usability and functionality.
	Respond to cloud security incidents	Respond to a range of security incidents in cloud-based environments by defining response objectives and simulating security incidents. This includes preparing for an incident response, detecting and analysing a cloud security incident, containing and recovering a cloud security incident, and providing recommendations on changes to procedures and policies following an incident.
Install and maintain computer equipment or software	Install computer hardware	Install computer hardware and accessories (such as processors, storage devices, expansion cards, webcams, or cabling). This may involve configuring motherboard jumpers or DIP switches, enabling, or disabling integrated components, connecting cables, assisting with aligning software setups and following manufacturer instructions, technical specifications and customer requests. Ensure connections and configurations have been installed properly and are compatible with computer systems, test hardware functionality and troubleshoot any installation issues.
	Install programs or software onto computers or computer-controlled equipment	Install programs or software onto computer systems or computer-controlled equipment in order to facilitate tasks, ensure security, or to upgrade, automate, or adjust configurations, machinery or systems. Select software that aligns with the budget, objectives, staff skillsets and security requirements of an organisation, and provide support or demonstrations to computer users to ensure effective use of software. Configure settings to ensure compatibility with systems and perform necessary testing to ensure functionality.
	Maintain computer hardware or equipment	Perform regular maintenance on computer hardware or equipment (such as hard drives, monitors, printers or cabling) in order to ensure safe use of equipment, minimise risk of electrocution or damage, and guarantee optimal performance and longevity. This may involve coordinating maintenance tasks or staff, cleaning components, ensuring cables and connections are stable, inspecting hardware for damage or wear, running diagnostic tests, and replacing faulty parts when necessary.
	Maintain computer software	Provide regular or ongoing maintenance of computer software in order to ensure security, performance, compatibility and functionality still meet operational needs, standards, and regulatory requirements. This may involve installing software updates or upgrades, conducting regular system checks, monitoring logs, troubleshooting errors and issues, running diagnostic tests, escalating complex technical issues to technicians or engineers, and generally providing user support to prevent issues and ensure proper functioning of software between maintenance activities.
	Maintain electromechanical equipment	Maintain electromechanical equipment or attachments (such as motors, actuators, sensors, or control systems) in order to ensure they are in good working order and do not pose as a hazard to staff. This may involve checking for and attending to defects or issues, minor repairs, or service

		needs, undertaking basic cleaning to preserve and ensure proper function, ensuring equipment functions in line with safety standards or regulations.
	Operate office equipment	Safely and effectively operate office equipment (such as printers, scanners, copiers, or telephones) in order to complete work activities and support a functional office environment. Follow operational procedures and guidelines, perform routine maintenance, troubleshoot minor issues, customise equipment features and settings to optimise productivity, and ensure supplies or materials for equipment are maintained and replenished as often as necessary.
	Program robotic equipment	Develop and implement programming and code (with programs such as Python or C++) in order to control and operate robotic equipment by identifying necessary language types, safety features and industry standards, and ensuring programming outcomes incorporate appropriate accuracy, sensitivity and stability. Integrate sensors and motion or precision control, interpret technical specifications, enter, and adjust programmable controller operational parameters, test and debug faults, and ensure safe operation of equipment that aligns with health, safety and other legislative requirements for robotic equipment.
Operate and maintain computers	Configure computer networks	Assign computer network settings, policies, flows, and controls in order to support the flow of traffic, support or enhance network security, and improve network stability. This may involve the use of a centralised network configuration manager or configuration tools to reduce manual workload and enable tracking, reporting, and troubleshooting including network roll backs.
	Maintain computer networks to enhance performance and user access	Undertake regular maintenance of computer networks in order to ensure that systems, equipment, and applications continue to operate effectively and securely. This may involve tasks such as undertaking device inventory, performing data and configuration backups, troubleshooting problems, updating malware and ransomware protection, applying security patches, running network monitoring scans, updating operating systems and software, configuring software and devices, undertaking power or hardware checks, undertaking repair or pre-emptive repair activities, planning for future network growth, and making compliance checks against applicable laws, regulations and policies.
	Monitor the performance of computer networks	Measure and monitor the quality of service of a computer network in order to measure performance and identify potential issues or risks. This may involve the use of network performance monitoring tools to collect data or metrics from servers and linked devices, and analyse data to find security issues, detrimental network and application activities, capacity issues, bottlenecks, or congestion points. Isolate and analyse issues based on tool outputs, and record or report findings according to organisational procedures and processes.
	Operate computers, computer systems, or computerised equipment	Operate computers, computer systems, or computerised equipment in order to input, store, process, retrieve, and/or output information to assist with work tasks. Align with workplace operating procedures, processes, and polices, including for controlled access and the security of data and information. Select appropriate equipment, programs, software, or applications according to work or task requirements and apply relevant knowledge and understanding to complete tasks. Identify and report machine or software malfunctions according to work processes.
	Review computer information systems, procedures and networks	Review computer information systems, procedures, and networks in order to detect issues; ensure compliance with relevant standards, regulations, or legislation; recommend improvements; or ensure effectiveness, functionality, and security. This may involve tasks such as undertaking testing, reviewing documentation or data, inspecting components or equipment, and analysing findings utilising specialist or technical expertise or against research.
Resolve computer application or systems issues	Provide technical support for computer network issues	Provide technical support for computer network issues to users by providing guidance, recommendations, or resources to ensure customer networks are configured and operating at optimal performance. This may involve actively listening to concerns and issues, talking users through step-by-step troubleshooting stages, documenting, or reporting technical support activities and outcomes, escalating complex issues to specialised technicians or engineers, or monitoring network infrastructure remotely to detect issues.

	Provide technical support for software maintenance or use	Provide technical advice, training, demonstrations, resources or other support to users or clients regarding the maintenance, installation, or operation of software. This may involve responding to enquiries, diagnosing software issues, scheduling software maintenance, or troubleshooting, as well as documenting, tracking and reporting support cases and escalating complex issues to specialised technicians or engineers. Communicate effectively by using active listening to understand maintenance needs, providing high quality customer service, and explaining steps for maintenance or use of software in a respectful and accessible manner.
	Resolve computer network problems	Identify, diagnose, and fix computer network problems (such as connectivity issues, network congestion or security breaches) in order to prevent, detect or resolve ongoing network issues. This may involve determining the root cause of problems (such as issues with computers, modems, routers or cabling connections), analysing security breaches, conducting network performance or speed tests, documenting network monitoring, issues and resolution steps according to organisational reporting requirements, establishing fault hierarchies using data from previous resolution attempts, and using specialised methods, equipment or tools to isolate and resolve faults in line with technical specifications, organisational needs or industry standards. Where necessary, update firmware, replace components and provide guidance or training to users.
	Resolve issues with computer applications, software, or systems	Identify, diagnose, and resolve issues with computer applications, software, or systems in order to fix issues, support effective use of computer software, and minimise operational down-time. Use best practice technical or procedural techniques and tools to identify root causes, restore functionality, remove bugs, replace defective components, or otherwise troubleshoot problems. This may involve analysing error messages, logs, user reports or test results, ensuring safety procedures are adhered to, conferring with others to gather information about faults or issues, escalating issues to other technicians or engineers, and providing support or maintenance advice to users to prevent future problems.
Test computer or software performance	Create and test cloud-based serverless applications	Develop, test, deploy and update scalable applications and functions that do not require the management of servers. It includes applying continuous integration and continuous delivery automation processes, setting up serverless functions, testing serverless functions and applications, updating applications and finalising application documentation.
	Test computer hardware performance	Run tests that evaluate computer hardware performance metrics and diagnose issues with efficiency, reliability, compatibility, or overall function. Tests (such as benchmarking, stress testing or performance analytics) should be used to assess hardware components and accessories and compare against industry standards, configuration designs and safety procedures for use of computer equipment. This may involve communicating information about diagnoses and testing outcomes to clients, technicians or engineers or providing recommendations for repairs and resolutions for hardware problems or damage.
	Test computer system operations to ensure proper functioning	Conduct comprehensive tests of computer system operations in order to evaluate, improve or verify functionality, performance, compatibility or reliability. Tests may be generalised to determine overall system performance, or they may be specialised to analyse the performance of data processing, security measures, network connectivity, or system integration outcomes. Examine test results to identify and resolve issues or bugs and verify that systems meet appropriate performance standards.
	Test software performance	Test software performance by using standard or specialised diagnostic and performance testing equipment and procedures to determine software responsiveness and performance metrics, identify bugs or program deviation, enhance user experience, and mitigate risks of software failure. This may involve running data analyses, reporting test results, ensuring scalability, planning disaster recovery, and using specialised programs or tools to run tests on various performance components, such as baseline, load, stress, and identify optimisation needs or bottlenecks.

Technology tools

Technology tools are technology such as hardware and software used within an occupation. Understanding the technology used within an occupation can help us to gain a more fulsome understanding of the skills required to undertake a job beyond day-to-day tasks.

The classification describes software, hardware and equipment types or categories used within occupations rather than specific packages or products.

Common technology tools such as search engines and email are featured across most occupations. The remaining technology tools are highly specialised and occupation-specific such as computer-aided design and carbon monoxide analysing equipment.

Example

Technology Tool	Technology Tool Example
Video creation and editing software	Adobe Premiere Pro
Video creation and editing software	YouTube
Instant messaging software	WhatsApp
Instant messaging software	Microsoft Teams
Business intelligence and decision support software	Microsoft Power BI
Business intelligence and decision support software	SAP Crystal Reports
Financial analysis software	Oracle Hyperion Planning
Accounting and financial management systems	MYOB Business Essentials
Accounting and financial management systems	Intuit QuickBooks
Student and learning management systems	Moodle

Common Technology Tools

- Spreadsheet software
- Word processing software
- Presentation software
- Email and calendar software
- Other Office suite software
- Operating system software
- Desktop publishing software
- Search engine and information retrieval software
- Virtual team and collaboration software
- PDF viewing and editing software
- Internet browsers
- Personal computers, laptops and accessories
- Smart phones and other mobile devices

SFIA Levels of Responsibility

Source: https://sfia-online.org/en/sfia-8/responsibilities

	Autonomy	Influence	Complexity	Business skills	Knowledge
1	Works under close direction. Uses little discretion in attending to enquiries. Is expected to seek guidance in unexpected situations.	Minimal influence. May work alone or interact with immediate colleagues.	Performs routine activities in a structured environment. Requires assistance in resolving unexpected problems. Participates in the generation of new ideas.	Has sufficient oral and written communication skills for effective engagement with immediate colleagues. Uses basic systems and tools, applications and processes. Demonstrates an organised approach to work. Has basic digital skills to learn and use applications and tools for their role. Learning and professional development — contributes to identifying own development opportunities. Security, privacy and ethics — understands and complies with organisational standards.	Has a basic generic knowledge appropriate to area of work. Applies newly acquired knowledge to develop new skills.
2	Works under routine direction. Uses limited discretion in resolving issues or enquiries. Determines when to seek guidance in unexpected situations. Plans own work within short time horizons.	Interacts with and may influence immediate colleagues. May have some external contact with customers, suppliers and partners. Aware of need to collaborate with team and represent users/customer needs.	Performs a range of work activities in varied environments. May contribute to routine issue resolution. May apply creative thinking or suggest new ways to approach a task.	Has sufficient oral and written communication skills for effective engagement with colleagues and internal users/customers. Understands and uses appropriate methods, tools, applications and processes. Demonstrates a rational and organised approach to work. Has sufficient digital skills for their role. Learning and professional development — identifies and negotiates own development opportunities. Security, privacy and ethics — is fully aware of organisational standards. Uses appropriate working practices in own work.	Has gained a basic domain knowledge. Demonstrates application of essential generic knowledge typically found in industry bodies of knowledge. Absorbs new information when it is presented systematically and applies it effectively.
3	Works under general direction. Receives specific direction, accepts guidance and has work reviewed at agreed milestones. Uses discretion in identifying and responding to complex issues related to own assignments. Determines when issues should be escalated to a higher level. Plans and monitors own work (and that of others where applicable) competently within limited deadlines.	Interacts with and influences colleagues. May oversee others or make decisions which impact routine work assigned to individuals or stages of projects. Has working level contact with customers, suppliers and partners. Understands and collaborates on the analysis of user/customer needs and represents this in their work. Contributes fully to the work of teams by appreciating how own role relates to other roles.	Performs a range of work, sometimes complex and non-routine, in a variety of environments. Applies a methodical approach to routine and moderately complex issue definition and resolution. Applies and contributes to creative thinking or finds new ways to complete tasks.	Demonstrates effective oral and written communication skills when engaging on issues with colleagues, users/customers, suppliers and partners. Understands and effectively applies appropriate methods, tools, applications and processes. Demonstrates judgement and a systematic approach to work. Effectively applies digital skills and explores these capabilities for their role. Learning and professional development — takes the initiative to develop own knowledge and skills by identifying and negotiating appropriate development opportunities. Security, privacy and ethics — demonstrates appropriate working practices and knowledge in non-routine work. Appreciates how own role and others support appropriate working practices.	Has sound generic, domain and specialist knowledge necessary to perform effectively in the organisation typically gained from recognised bodies of knowledge and organisational information. Has an appreciation of the wider business context. Demonstrates effective application and the ability to impart knowledge found in industry bodies of knowledge. Absorbs new information and applies it effectively.

4	Works under general direction within a clear framework of accountability. Exercises substantial personal responsibility and autonomy. Uses substantial discretion in identifying and responding to complex issues and assignments as they relate to the deliverable/scope of work. Escalates when issues fall outside their framework of accountability. Plans, schedules and monitors work to meet given objectives and processes to time and quality targets.	Influences customers, suppliers and partners at account level. Makes decisions which influence the success of projects and team objectives. May have some responsibility for the work of others and for the allocation of resources. Engages with and contributes to the work of cross-functional teams to ensure that customers and user needs are being met throughout the deliverable/scope of work. Facilitates collaboration between stakeholders who share common objectives. Participates in external activities related to own specialism.	Work includes a broad range of complex technical or professional activities, in a variety of contexts. Investigates, defines and resolves complex issues. Applies, facilitates and develops creative thinking concepts or finds innovative ways to approach a deliverable.	Communicates fluently, orally and in writing, and can present complex information to both technical and non-technical audiences when engaging with colleagues, users/customers, suppliers and partners. Selects appropriately from, and assesses the impact of change to applicable standards, methods, tools, applications and processes relevant to own specialism. Demonstrates an awareness of risk and takes an analytical approach to work. Maximises the capabilities of applications for their role and evaluates and supports the use of new technologies and digital tools. Contributes specialist expertise to requirements definition in support of proposals. Shares knowledge and experience in own specialism to help others. Learning and professional development — maintains an awareness of developing practices and their application and takes responsibility for driving own development. Takes the initiative in identifying and negotiating their own and supporting team members' appropriate development opportunities. Contributes to the development of others. Security, privacy and ethics — fully understands the importance and application to own work and the operation of the organisation. Engages or works with specialists as necessary.	Has a thorough understanding of recognised generic industry bodies of knowledge and specialist bodies of knowledge as necessary. Has gained a thorough knowledge of the domain of the organisation. Is able to apply the knowledge effectively in unfamiliar situations and actively maintains own knowledge and shares with others. Rapidly absorbs and critically assesses new information and applies it effectively.
5 -	Works under broad direction. Work is often self-initiated. Is fully responsible for meeting allocated technical and/or group objectives. Analyses, designs, plans, executes and evaluates work to time, cost and quality targets. Establishes milestones and has a significant role in the assignment of tasks and/or responsibilities.	Influences organisation, customers, suppliers, partners and peers on the contribution of own specialism. Makes decisions which impact the success of assigned work, i.e. results, deadlines and budget. Has significant influence over the allocation and management of resources appropriate to given assignments. Leads on user/customer and group collaboration throughout all stages of work. Ensures users' needs are met consistently through each work stage. Builds appropriate and effective business relationships across the organisation and with customers, suppliers and partners. Creates and supports collaborative ways of working across group/area of responsibility. Facilitates	Implements and executes policies aligned to strategic plans. Performs an extensive range and variety of complex technical and/or professional work activities. Undertakes work which requires the application of fundamental principles in a wide and often unpredictable range of contexts. Engages and coordinates with subject matter experts to resolve complex issues as they relate to customer/organisational requirements. Understands the relationships between own specialism and customer/organisational requirements.	Demonstrates leadership in operational management. Analyses requirements and advises on scope and options for continual operational improvement. Assesses and evaluates risk. Takes all requirements into account when making proposals. Shares own knowledge and experience and encourages learning and growth. Advises on available standards, methods, tools, applications and processes relevant to group specialism(s) and can make appropriate choices from alternatives. Understands and evaluates the organisational impact of new technologies and digital services. Creatively applies innovative thinking and design practices in identifying solutions that will deliver value for the benefit of the customer/stakeholder. Clearly demonstrates impactful communication skills (oral, written and presentation) in both formal and informal settings, articulating complex ideas to broad audiences. Learning and professional development — takes initiative to advance own skills and identify and manage development opportunities in area of responsibility. Security, privacy and ethics — proactively contributes to the implementation of appropriate working practices and culture.	Is fully familiar with recognised industry bodies of knowledge both generic and specific, and knowledge of the business, suppliers, partners, competitors and clients. Develops a wider breadth of knowledge across the industry or business. Applies knowledge to help to define the standards which others will apply.

		collaboration between stakeholders who have diverse objectives.			
6	Has defined authority and accountability for actions and decisions within a significant area of work, including technical, financial and quality aspects. Establishes organisational objectives and assigns responsibilities.	Influences policy and strategy formation. Initiates influential relationships with internal and external customers, suppliers and partners at senior management level, including industry leaders. Leads on collaboration with a diverse range of stakeholders across competing objectives within the organisation. Makes decisions which impact the achievement of organisational objectives and financial performance.	Contributes to the development and implementation of policy and strategy. Performs highly complex work activities covering technical, financial and quality aspects. Has deep expertise in own specialism(s) and an understanding of its impact on the broader business and wider customer/organisation.	Demonstrates leadership in organisational management. Understands and communicates industry developments, and the role and impact of technology. Manages and mitigates organisational risk. Balances the requirements of proposals with the broader needs of the organisation. Promotes a learning and growth culture in their area of accountability. Leads on compliance with relevant legislation and the need for services, products and working practices to provide equal access and equal opportunity to people with diverse abilities. Identifies and endorses opportunities to adopt new technologies and digital services. Creatively applies a wide range of innovative and/or management principles to realise business benefits aligned to the organisational strategy. Communicates authoritatively at all levels across the organisation to both technical and non-technical audiences articulating business objectives. Learning and professional development — takes the initiative to advance own skills and leads the development of skills required in their area of accountability. Security, privacy and ethics — takes a leading role in promoting and ensuring appropriate working practices and culture throughout own area of accountability and collectively in the organisation.	Has developed business knowledge of the activities and practices of own organisation and those of suppliers, partners, competitors and clients. Promotes the application of generic and specific bodies of knowledge in own organisation. Develops executive leadership skills and broadens and deepens their industry or business knowledge.
7	At the highest organisational level, has authority over all aspects of a significant area of work, including policy formation and application. Is fully accountable for actions taken and decisions made, both by self and others to whom responsibilities have been assigned.	Inspires the organisation, and influences developments within the industry at the highest levels. Makes decisions critical to organisational success. Develops long-term strategic relationships with customers, partners, industry leaders and government. Collaborates with leadership stakeholders ensuring alignment to corporate vision and strategy.	Applies the highest level of leadership to the formulation and implementation of strategy. Performs extensive strategic leadership in delivering business value through vision, governance and executive management. Has a deep understanding of the industry and the implications of emerging technologies for the wider business environment.	Has a full range of strategic management and leadership skills. Communicates the potential impact of emerging practices and technologies on organisations and individuals and assesses the risks of using or not using such practices and technologies. Establishes governance to address business risk. Ensures proposals align with the strategic direction of the organisation. Fosters a learning and growth culture across the organisation. Assess the impact of legislation and actively promotes compliance and inclusivity. Advances the knowledge and/or exploitation of technology within one or more organisations. Champions creativity and innovation in driving strategy development to enable business opportunities. Communicates persuasively and convincingly across own organisation, industry and government to audiences at all levels. Learning and professional development — ensures that the organisation develops and mobilises the full range of required skills and capabilities. Security, privacy and ethics — provides clear direction and strategic leadership for the implementation of working practices and culture throughout the organisation.	Has established a broad and deep business knowledge including the activities and practices of own organisation and a broad knowledge of those of suppliers, partners, competitors and clients. Fosters a culture to encourage the strategic application of generic and specific bodies of knowledge within their own area of influence.

FUTURE SKILLS ORGANISATION
Finance Technology Business

JSC Jobs and Skills Council
Finance, Technology and Business
An Australian Government Initiative

EGR_ANN_2324_004

Testing a new approach to qualification design to build digital capability

Appendix 5: Glossary

Jobs and Skills Council

Qualification Reform Demonstration Project

This glossary serves as a quick reference to help understand specialised language and concepts critical to the Final Report.

Glossary of Acronyms

Acronym / Abbreviation	Explanation / Definition
ADCF	Australian Digital Capability Framework
ANZSCO	Australian and New Zealand Standard Classification of Occupations
APS	Australian Public Service
ASC	Australian Skill Classification
BSB	Refers to the Business Services Training Package
DEWR	Department of Employment and Workplace Relations
FNS	Refers to the Financial Services Training Package
FSO	Future Skills Organisation
FTB	Finance, Technology, and Business
GAI	Generative Artificial Intelligence
ICT	Refers to the Information and Communications Technology Training Package.
JSC	Job Skills Council
NCVER	National Centre for Vocational and Education Research
QRDG	Qualification Reform Design Group
RPL	Recognition of Prior Learning
RTO	Registered Training Organisation
SFIA	Skills Framework for the Information Age
TGA	Training.gov.au
TPOF	Training Package Organising Framework
UoC	Unit of Competency
VET	Vocational Education and Training

Glossary of Terminology

Terminology	Explanation / Definition
Action Learning Methodology	A methodology implemented to road-test the approach and apply it to training product development.
ADCF Proficiency Assessment Tool	A tool used to evaluate and measure an individual's proficiency or competence within the context of the Australian Digital Competency Framework (ADCF), aligning skills with specific digital literacy standards and benchmarks.
ANZSCO	ANZSCO is a classification system used to categorize and describe occupations within Australia and New Zealand. Developed jointly by the Australian Bureau of Statistics (ABS) and Statistics New Zealand, ANZSCO provides a standardised framework for the collection, analysis, and reporting of labour market information. It assigns a unique code to each occupation, based on its job duties, tasks, and skill requirements. ANZSCO helps in understanding employment patterns, facilitating workforce planning, and informing policy decisions.
Australian Digital Capability Framework (ADCF)	A framework providing a common language for digital skills and allowing for greater flexibility in qualification design. The ADCF is divided into 5 distinct focus areas: Information and Data Literacy, Communication and Collaboration, Digital Content Creation, Protection and Safety, and Technical Proficiency and Problem Solving.
Australian Public Service (APS) Data Capability Framework	The APS Data Capability Framework defines the specific knowledge, skills and behaviours required when working with data in the APS.
Australian Skills Classification	The Australian Skills Classification (the Classification) sets out the key core competencies, specialist tasks and technology tools required for occupations in Australia. The Classification offers a common language of skills, enabling stakeholders to identify and articulate skills using a comprehensive and universal taxonomy.
Cross-Sectoral or Foundational Skills Qualifications	Qualifications that develop broad foundational skills applicable across industries or provide pathways to further education and training.
DEWR Skills Similarity Dashboard	A tool used to identify and categorise specialist tasks associated with each UoC.
Digital Capability Skills	These skills are a subset of generalist employability skills that focus on the ability to use digital tools and technologies effectively. They include digital literacy, information management, online communication, and cybersecurity awareness.
Digital Competency	Digital competency typically focuses on technical skills, such as how to retrieve information and computer mediated tasks (e.g. online

	communication) in a range of settings (e.g. work, socialising). It also refers to knowledge, attitude and motivation to engage the digital society. For instance, Ilomäki and colleagues (2011, p.8) define it as "digital competence consists of technical skills to use digital technologies, abilities to use digital technologies in a meaningful way for working, studying and for everyday life in general in various activities, and abilities to critically evaluate the digital technologies, and motivation to participate in the digital culture". [Source: NCVER, https://www.ncver.edu.au/__data/assets/pdf_file/0039/5744397/Support-document-1-a-review-of-digital-skills-frameworks-literature.pdf]
Digital Skills Taxonomy	• **Digital Expert** - Require specific digital skills as their core functional competencies, accounted for 7% of the workforce in 2021. This category encompasses professionals such as ICT network and support specialists, as well as business and systems analysts, along with programmers. • **Digitally Enabled** - Constituting 43% of the 2021 workforce, utilise digital skills to enhance their functional abilities. This category encompasses professions like engineering, legal, sales, marketing, clerical, machine operations, and accountants. • **Digitally Informed** - Rely on digital literacy and enterprise skills rather than specific digital expertise. In 2021, this group included occupations such as real estate agents, midwifery nursing professionals, and plumbers.
Digital Literacy	Digital Literacy typically focuses on the knowledge required to use technology in a meaningful way for work and social activity and includes operational, cognitive, cultural and critical dimensions of literacy. For instance, Eshet-Alkalai (2004, p.93) defines "digital literacy [as involving] more than the mere ability to use software or operate a digital device; it includes a large variety of complex cognitive, motor, sociological, and emotional skills, which users need in order to function effectively in digital environments". [Source: NCVER, https://www.ncver.edu.au/__data/assets/pdf_file/0039/5744397/Support-document-1-a-review-of-digital-skills-frameworks-literature.pdf]
Digital Skills	Digital skills typically focus on the practical and measurable application of digital technologies and the ethical and responsible use of technology. For instance, Iordache and colleagues (2017, p.47) define such skills as "the more practical and measurable application of certain knowledge and aptitudes in digital usage". [Source: NCVER, https://www.ncver.edu.au/__data/assets/pdf_file/0039/5744397/Support-document-1-a-review-of-digital-skills-frameworks-literature.pdf]
Emerging Skills	Emerging skills are trending skills that are new to certain occupations. Unlike 'trending skills', they have appeared in these occupations within the last five years, where they were not previously identified in job advertisements.
Foundational Skills	The basic skills necessary for learning and work. They include literacy, numeracy, digital literacy, communication, and problem-solving.
FSO Workforce Plan 2024	The FSO Workforce Plan 2024 outlines strategies and actions to develop, support, and manage the workforce in alignment with Future Skills Organisation's goals and priorities for 2024.
Generalist Skills	Common core skills and knowledge that have transferable application across a broad range of industries and occupations. Generalist skill examples are critical thinking, communication, digital capability and teamwork etc.
Proficiency Levels	Levels identified by the ADCF to assess digital skills

Qualification Reform Design Group (QRDG)	Provides recommendations to improve the design and relevance of vocational qualifications in Australia.
Qualification Design Quality Principles	Principles applied to the development of digital skills across all industry areas.
Recognition of Prior Learning (RPL)	RPL is a process in vocational education and training that assesses an individual's existing skills and knowledge, gained through work or life experience, against the requirements of a formal qualification to recognise and credit their prior learning.
Registered Training Organisation (RTO)	A Registered Training Organization (RTO) is an institution accredited by a regulatory body to deliver vocational education and training (VET) services in Australia. RTOs are authorised to provide nationally recognized training and qualifications, including certificates and diplomas, under the Australian Qualifications Framework (AQF).
Skills clusters	Skills clusters group similar specialist tasks to illustrate how skills are related and transferable, independent of specific occupations. This view helps explore skills transferability, though it does not account for qualifications or licensing requirements. [Source: Jobs and Skills Australia, https://www.jobsandskills.gov.au/data/australian-skills-classification]
Specialist Skills	Specific technical abilities and knowledge required for specific occupations or industries. These skills are often developed through targeted training programs and are essential for performing specialised tasks. These include technical proficiency, industry-specific knowledge, advanced problem-solving, and practical skills.
Technical Committee	A group of subject matter experts convened to review, assess, and provide guidance on proposed changes to VET qualifications. Their role is to ensure that updates align with industry standards, meet workforce needs, and reflect current best practices.
Technology Tools	Hardware and software used in a profession that provide insight into the skills required for a job, beyond everyday tasks.
Training Package	A Training Package is a set of nationally endorsed standards and qualifications for assessing and recognising skills in a specific industry or sector.
Trending Skills	Trending skills are defined as skills that have grown in demand over the past 5years (2016 to 2021) in a particular occupation. They are not necessarily new skills, but skills that are increasing in demand as a proportion in all jobs advertised for that occupation over a 5-year period.
Training Package Organising Framework (TPOF)	The Training Package Organising Framework (TPOF) is a structured approach used to organise and present the components of a training package, including qualifications, units of competency, and skill sets, to ensure clarity and coherence in vocational education and training.
Unit of competency	A defined module of learning in VET that specifies the skills and knowledge required to perform a particular task or job role effectively.