



ALIA CPD

Continuing Professional Development Scheme Data Specialisation Skills Audit

Welcome to the ALIA CPD Scheme Data Specialisation Skills Audit. The skills audit will help you identify gaps in your knowledge and provide guidance for choosing your most appropriate continuing professional development activities.

The audit supports the key competencies for data. These competencies were identified as required for library and information science professionals in Australia. Each competency has associated guiding skills listed.

When marking the tables, consider how well you think you can apply the skill:

- **Really well** - means that you are very proficient, and have an advanced level of knowledge or skills
- **Well** - means that you are more than just proficient, but you could still learn more about the skill
- **I can do this** - means you are proficient and have a basic level of knowledge or skills
- **More practice** - means that you are not quite proficient, and need to learn more about this skill or knowledge
- **Learn this** - means that you need to learn this skill or knowledge
- **No interest** - means that this skill or knowledge has no interest to you or the career path you are pursuing. It could also be something you may wish to learn later in your career.



Data

1. Awareness of the role and importance of research data and relevant recent trends such as 'big data' and open data

	Really well	Well	I can do this	More practice	Learn this	No interest
(a) I have an understanding of the scholarly research lifecycle and current scholarly communication practices						
(b) I appreciate the role and importance of research data and research data management						
(c) I keep up to date with recent developments related to Open Access, Open Data and Open Government						
(d) I have knowledge of broad trends related to research data (e.g. e-Research and 'big data')						
(e) I understand changing practices around data publication, sharing and reuse (eg data citation, data publications, funding mandates etc.)						
(f) I am familiar with the role and services provided by the Australian National Data Service (ANDS)						



2. Understand principles and practices of research data management, including data preservation, storage, retention and disposal, data management planning and sustainability

	Really well	Well	I can do this	More practice	Learn this	No interest
(a) I have knowledge of the principles of research data management and continue to develop my awareness of related issues and trends						
(b) I am aware of the role and importance of research data governance						
(c) I understand how to create a research data management plan						
(d) I am able to acquire, use and evaluate information technologies to collect, manage and store data						
(e) I am aware of a range of national, international and disciplinary data archives (e.g., Australian Data Archive, the Aboriginal & Torres Strait Islander Data Archive)						
(f) I am aware of principles, practices and tools for digital data preservation						
(g) I have knowledge of best-practice standards related to data archiving.						



3. Appreciation of the legal and policy framework surrounding research data, including copyright, licensing, intellectual property and international standards

	Really well	Well	I can do this	More practice	Learn this	No interest
(a) I am aware of the legal and policy framework in the area of research data, including how copyright, intellectual property and FOI apply to data						
(b) I operate within the policy framework of my organisation and relevant national standards at all times						
(c) I ensure that policies and procedures are designed and implemented according to relevant copyright, privacy and ethical standards						
(d) I have knowledge of Creative Commons and the AusGOAL Suite of Licences						



4. Understand ethics and privacy as it relates to research data, including the management of sensitive data

	Really well	Well	I can do this	More practice	Learn this	No interest
(a) I am aware of the principles associated with the ethical conduct of research (e.g. ethics committees, informed consent etc.)						
(b) I understand the importance of research governance and adhere to the <i>Australian Code for the Responsible Conduct of Research</i>						
(c) I understand obligations for dealing with personal information and adhere to the <i>Privacy Act</i>						
(d) I understand best-practice for managing and sharing sensitive data						
(e) I have awareness of Aboriginal and Torres Strait Islander cultures and I am aware of the <i>AIATSIS Code of Ethics for Aboriginal and Torres Strait Islander Research</i> (The AIATSIS Code) and can apply this understanding to the use, access and preservation of information relating to Aboriginal and Torres Strait Islander people.						



5. Understand the organisational or institutional context for research data management

	Really well	Well	I can do this	More practice	Learn this	No interest
(a) I understand and adhere to the data management policies and guidelines that apply within my organisation						
(b) I am aware of my organisation's capacity and ability to sustain the collection, including data, in both physical and digital forms, and plan accordingly						
(c) I am aware of the policies regarding intellectual property (IP) at my organisation						
(d) I am familiar with the range of e-Research services and systems at my organisation, for example for data storage and archiving						
(e) I have knowledge of the relevant retention periods for research data in my jurisdiction and/or organisation						
(f) I am aware of internal and external stakeholders and partners involved in data management (e.g. Research Office, IT, ANDS etc.)						



6. Understanding best-practice metadata for research data

	Really well	Well	I can do this	More practice	Learn this	No interest
(a) I understand the role of metadata in improving the accessibility, retrieval, use and reuse of research data						
(b) I have knowledge of a range of metadata schemas and vocabularies used for research data (e.g. RIF-CS and relevant discipline-specific data documentation standards)						
(c) I can find information on the changing trends in the curation, formatting, generation, and publication of data						
(d) I am aware of best-practice use of identifiers for research data and related entities (e.g. DOI, ORCID etc.)						



7. Appreciation of data collection, processing and analysis, for example knowledge of common tools and techniques for statistical analysis and data visualisation

	Really well	Well	I can do this	More practice	Learn this	No interest
(a) I can demonstrate my understanding of the common tools and techniques for data collection, processing and analysis						
(b) I have knowledge of a range of e-Research tools and their role in supporting research						
(c) I can demonstrate general knowledge regarding research methods and statistical analysis						
(d) I am aware of the role of data visualisation and common tools						
(e) I am conscious of best-practice with respect to file formats (e.g. open versus proprietary; lossy versus lossless etc.)						
(f) I can demonstrate knowledge of geographic information systems and are comfortable using geospatial tools.						



8. Understand the principles and practices involved in data reuse and sharing, including finding data and data citation

	Really well	Well	I can do this	More practice	Learn this	No interest
a) I am familiar with the principles and practice associated with data reuse and sharing						
b) I am aware of scholarly communication practices around data sharing and reuse, as well as how this differs between different research disciplines						
c) I can develop a data search strategy and have knowledge of different data discovery portals (e.g. Research Data Australia, re3data and data.gov.au)						
d) I appreciate the principles and practice of data citation (e.g. DOIs, Data Cite citation standard)						
e) I am aware of the use of metrics (including altmetrics) for tracking the research impact of open data						



9. Manage professional relationships with various stakeholders, including researchers, data custodians, users and other stakeholders

	Really well	Well	I can do this	More practice	Learn this	No interest
(a) I have the ability to work collaboratively with researchers, data custodians, and support staff, as well as external organisations						
(b) I am aware of the importance of accountability and transparency in decision making and document my process as necessary						
(c) I am able to write and verbalise clear and concise policies, procedures and correspondence to communicate to a diverse range of users and stakeholders						
(d) I have good general knowledge regarding academic workflows and practices (e.g. grant writing, scholarly publication)						



10. Maintain currency of professional knowledge and practice

	Really well	Well	I can do this	More practice	Learn this	No interest
(a) I participate in lifelong education and professional development opportunities from a variety of sources						
(b) I am able to design and implement a plan for continuing professional development						
(c) I actively participate in professional organisations relevant to, data and research including attendance at conferences and workshops						
(d) I contribute to publishing and research (for example editing or writing articles for professional newsletters, journals or conferences, conducting research for reports or projects)						
(e) I participate in informal and formal learning activities within the workplace						