

TSC Category	Learning Analytics and Data Management					
TSC	Research Data Analysis					
TSC Description	Analyse research data, interpret results generated and link them to the research question or related findings in scientific literature to derive new insights					
TSC Proficiency Description	Level 1	Level 2	Level 3	Level 4	Level 5	Level 6
			TAE-DAT-3013-1.1	TAE-DAT-4013-1.1	TAE-DAT-5013-1.1	
			Apply statistical and analytics techniques to analyse research data and interpret the results generated	Guide professionals in the preparation and analysis of research data and interpret the results generated	Drive the analysis of research data and the interpretation of the results generated	
Knowledge			<ul style="list-style-type: none"> Qualitative and quantitative research methods Data preparation Functionalities and limitations of different statistical, data analytics and qualitative software Functionalities and limitations of different data visualisation tools Statistical and data analytics software Techniques for quantitative and qualitative data analysis Techniques for handling missing or erroneous data 	<ul style="list-style-type: none"> Methods for integrating and analysing different types of data Techniques and algorithms available for data analytics Strengths and weaknesses of different types of analytical methods 	<ul style="list-style-type: none"> Features and limitations of different types of data Features and limitations of different types of data preparation Strengths and limitations of different statistical techniques Strengths and limitations of different quantitative and qualitative data analysis techniques Secondary data pools available in research studies or programmes across organisations, sectors or international partners 	

<p>Abilities</p>			<ul style="list-style-type: none"> • Prepare data for analysis • Summarise and visualise data • Apply appropriate statistical and analytics techniques to analyse quantitative and qualitative data • Interpret obtained results • Identify relevance of findings with respect to research hypotheses / questions • Articulate implications of research findings, and how it adds to current knowledge, in relevant areas of the professional field of research • Identify the links between results from different research studies • Identify next steps to further investigate areas of interest based on obtained results 	<ul style="list-style-type: none"> • Determine how data should be prepared to facilitate intended analysis • Guide data preparation • Guide summarisation and visualisation of data • Guide analyses of quantitative and qualitative data • Guide interpretation of obtained results • Review analyses and interpretations of the data to ensure credibility 	<ul style="list-style-type: none"> • Identify opportunities for synergies in data analyses across research studies in the organisation • Provide the main thrust for analysis of the research • Evaluate the adequacy of obtained results in answering the study's research hypotheses or research questions • Integrate the various interpretations of the findings • Develop strategic plans to further investigate areas of interest based on the results 	
-------------------------	--	--	---	--	---	--