

**SKILLS FRAMEWORK FOR SOCIAL SERVICE
TECHNICAL SKILLS & COMPETENCIES (TSC) REFERENCE DOCUMENT**

TSC Category	Research Practice					
TSC	Research Data Analysis					
TSC Description	Analyse research data, interpret results generated and link them to the research questions 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
			SSC-DAT-3013-1.1	SSC-DAT-4013-1.1	SSC-DAT-5013-1.1	SSC-DAT-6013-1.1
			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	Review the analysis of research data and the interpretation of the results generated	Drive synergies in the analysis of research data across research studies to derive new insights
Knowledge			<ul style="list-style-type: none"> Qualitative and quantitative research methods Research 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 research 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 	<ul style="list-style-type: none"> Best practices or guidelines for ensuring quality of data analyses Related and/or similar research studies and data across the organisation, sector, nationally or internationally Current capabilities and/or work of other professionals for data analyses
Abilities			<ul style="list-style-type: none"> Prepare research data for analysis Summarise and visualise data Apply appropriate statistical and analytics techniques to analyse quantitative and qualitative data Interpret results generated Identify relevance of findings with respect to 	<ul style="list-style-type: none"> Determine how data should be prepared to facilitate intended analysis Guide research data preparation Guide summarisation and visualisation of data Guide analyses of quantitative and qualitative data Guide interpretation of results generated 	<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 results generated in answering the study's research hypotheses or research questions 	<ul style="list-style-type: none"> Drive consistency and quality in analyses of research data across the organisation Identify opportunities for synergies in data analyses across research studies across organisations, sectors, nationally or internationally Synthesise findings across multiple research studies to derive new

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			<p>research hypotheses/questions</p> <ul style="list-style-type: none"> • 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 -follow-up actions to further investigate areas of interest based on results generated 	<ul style="list-style-type: none"> • Review analyses and interpretations of the research data to ensure credibility 	<ul style="list-style-type: none"> • Integrate the various interpretations of the findings • Develop strategic plans to further investigate areas of interest based on the results generated 	<p>insights into topics or areas in professional field of research or to the areas of interest to the organisation or funding agencies</p> <ul style="list-style-type: none"> • Articulate implications of results generated in relation to areas of interest to the organisation, funding agencies and policy makers
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