

# Role Description

## Principal Digital Solutions Developer

Cluster	Education
Agency	NSW Department of Education
Division/Branch/Unit	SINSW/Service Planning/Data Insights and Planning Analytics
Role number	195755, 234886
Classification/Grade/Band	Clerk Grade 11/12
ANZSCO Code	139999
PCAT Code	2221192
Date of Approval	15 April 2024
Agency Website	<a href="http://education.nsw.gov.au">education.nsw.gov.au</a> <a href="http://schoolinfrastructure.nsw.gov.au">schoolinfrastructure.nsw.gov.au</a>

### Agency overview

At the NSW Department of Education, we educate and inspire lifelong learners – from early childhood, through schooling to vocational education and training.

We ensure young children get the best start in life by supporting and regulating the early childhood education and care sector. We unlock excellence and unleash the potential of two-thirds of school children in NSW. We're proudly public and the largest education system in Australia. We nurture opportunities for every learner to develop the skills needed for their chosen career path, helping shape the industries of tomorrow.

We respect and value Aboriginal and Torres Strait Islander peoples as First Peoples of Australia.

School Infrastructure NSW (SINSW) is delivering new school buildings, major upgrades and maintenance strategies to ensure every school-aged child has access to high quality education facilities at their local public school. This encompasses the largest investment in public education infrastructure in the history of NSW.

### Primary purpose of the role

Lead the planning, development and implementation of innovative, data-driven digital solutions to optimise efficiencies and ensure the provision of robust digital analytics and insights for current and future school infrastructure. This involves building robust back-end solutions and engaging and interactive front-end user interfaces, which incorporate data visualisations, geospatial/mapping, and other capabilities derived from internal and external APIs.

### Key accountabilities

- Lead the back-end integration of planning data and systems, and the design, development and implementation of engaging digital solutions using innovative technologies and approaches, to achieve efficiencies and enhancements in planning analysis and improve business performance.

- Provide expert professional advice, recommendations and digital solutions for interrogating, transforming, and presenting complex information and data, such as statistics, geospatial information and analysis, to enable the accessibility and availability of information for internal and external customers.
- Lead the development and coordination of digital projects, involving interactive maps, data visualisation, and self-service analytical tools, to ensure the successful delivery of strategic planning initiatives and digital projects.
- Manage the application of best practice methodologies, processes and systems to ensure compliance with relevant legislative requirements, departmental policies and industry standards.
- Engage and collaborate with internal and external stakeholders to develop innovative approaches to view, interact with, and visualise data and analytics to enable customers to derive meaningful insights from a range of information sources.
- Participate in key forums, committees, working groups and meetings to effectively represent SINSW views and interests across digital planning and asset solutions.
- Research and investigate new sources of information and technologies, and develop and provide technical recommendations that would benefit SINSW stakeholders to build innovation and expertise across planning solutions.
- Prepare high-quality briefings, reports and other correspondence for the Director and other senior stakeholders to support informed communications and decision making..

## Key challenges

- Engaging and consulting with a range of stakeholders, often with diverse needs and interests, to deliver customised digital planning data analysis and solutions which enhance the provision of school infrastructure.
- Maintaining technical expertise of best practice digital analytics, systems and reporting and applying this knowledge within a dynamic, complex school infrastructure environment to achieve desired outcomes.
- Ensuring high-quality, consistent and timely project delivery, given limited resources and tight deadlines, in accordance with agreed project management methodologies..

## Key relationships

Who	Why
<b>Internal</b>	
Director	<ul style="list-style-type: none"> <li>• Receive direction, advice, guidance and performance feedback.</li> <li>• Provide expert recommendations, specialist advice and information to support service planning strategy and directions.</li> <li>• Provide regular briefings and status reports and discuss future directions.</li> <li>• Identify emerging issues/risks, their implications and propose solutions.</li> </ul>
Direct reports (if applicable)	<ul style="list-style-type: none"> <li>• Coach, mentor, guide and support to build professional expertise and capabilities, achieve agreed priorities and deliver customer-focused outcomes.</li> <li>• Set performance expectations and manage performance and development.</li> </ul>
Work team	<ul style="list-style-type: none"> <li>• Work collaboratively to support the team in achieving business outcomes.</li> </ul>

Who	Why
Senior Quality and Standards Officer, SINSW	<ul style="list-style-type: none"> <li>Participate in meetings, share information and provide input on issues.</li> <li>Ensure consistency of application and compliance with standards.</li> </ul>
Customers/Stakeholders, including Infrastructure Planning, SINSW	<ul style="list-style-type: none"> <li>Build and maintain collaborative working relationships.</li> <li>Provide technical advice and subject matter expertise.</li> <li>Provide consistent and detailed planning analytics data and solutions, which meet the requirements for infrastructure investment decisions.</li> <li>Resolve and provide solutions to complex issues.</li> </ul>
External	
NSW Government agencies, including the NSW Department of Planning, Industry and Environment (DPIE); Transport for NSW.	<ul style="list-style-type: none"> <li>Establish professional networks and relationships across NSW Government agencies.</li> <li>Share and exchange information regarding trends, common issues and innovations.</li> </ul>
Contractors, external suppliers and vendors	<ul style="list-style-type: none"> <li>Communicate priorities, expectations, standards and project scope.</li> <li>Monitor service delivery in accordance with agreed standards.</li> <li>Negotiate and resolve issues where required.</li> </ul>

## Role dimensions

### Decision making

The role acts independently in performing its core work functions and applies specialised knowledge, skills and professional judgment to achieve outcomes. The role is fully accountable for the delivery of work assignments on time and to expectations in terms of quality, deliverables and outcomes. Is accountable for the formulation, integrity and reliability of advice, recommendations and solutions provided to stakeholders.

Consults with the Director, Data Insights and Planning Analytics on matters that are high risk, sensitive or business critical.

### Reporting line

Director, Data Insights and Planning Analytics

### Direct reports

Nil

### Budget/Expenditure

Financial delegation – in accordance with the Department’s policy as prescribed for a Clerk Grade 11/12.

### Key knowledge and experience

- Extensive experience in developing innovative digital solutions using relational databases and front-end languages with JavaScript/TypeScript frameworks.
- Extensive experience developing robust back-end solutions with server-side languages, their corresponding frameworks with supporting technologies, API integration and building APIs supported by a micro-services architecture.

- Experience with data visualisation frameworks, Geographic Information Systems (GIS) technologies, and leveraging RESTful APIs to deliver strategic outcomes and data transformation (ETL), cloud deployment (Microsoft Azure/AWS)
- Knowledge of, and commitment to implementing the Department's [Aboriginal Education Policy](#) and upholding the [Department's Partnership Agreement with the NSW AECG](#) and to ensure quality outcomes for Aboriginal people.

## Essential requirements

- Relevant tertiary qualifications (e.g. software engineering, computer science) and/or equivalent professional experience in developing and implementing data-driven digital solutions and designing efficient and robust data transformations.
- Demonstrated understanding of, and commitment to, the value of public education.

## Capabilities for the role

The [NSW public sector capability framework](#) describes the capabilities (knowledge, skills and abilities) needed to perform a role. There are four main groups of capabilities: personal attributes, relationships, results and business enablers, with a fifth people management group of capabilities for roles with managerial responsibilities. These groups, combined with capabilities drawn from occupation-specific capability sets where relevant, work together to provide an understanding of the capabilities needed for the role.

The capabilities are separated into **focus capabilities** and **complementary capabilities**.

## Focus capabilities

*Focus capabilities* are the capabilities considered the most important for effective performance of the role. These capabilities will be assessed at recruitment.

The focus capabilities for this role are shown below with a brief explanation of what each capability covers and the indicators describing the types of behaviours expected at each level.

FOCUS CAPABILITIES			
Capability group/sets	Capability name	Behavioural indicators	Level
	<b>Act with Integrity</b> Be ethical and professional, and uphold and promote the public sector values	<ul style="list-style-type: none"> <li>• Represent the organisation in an honest, ethical and professional way and encourage others to do so</li> <li>• Act professionally and support a culture of integrity</li> <li>• Identify and explain ethical issues and set an example for others to follow</li> <li>• Ensure that others are aware of and understand the legislation and policy framework within which they operate</li> <li>• Act to prevent and report misconduct and illegal and inappropriate behaviour</li> </ul>	Adept

## FOCUS CAPABILITIES

Capability group/sets	Capability name	Behavioural indicators	Level
 <p>Relationships</p>	<p><b>Communicate Effectively</b> Communicate clearly, actively listen to others, and respond with understanding and respect</p>	<ul style="list-style-type: none"> <li>• Present with credibility, engage diverse audiences and test levels of understanding</li> <li>• Translate technical and complex information clearly and concisely for diverse audiences</li> <li>• Create opportunities for others to contribute to discussion and debate</li> <li>• Contribute to and promote information sharing across the organisation</li> <li>• Manage complex communications that involve understanding and responding to multiple and divergent viewpoints</li> <li>• Explore creative ways to engage diverse audiences and communicate information</li> <li>• Adjust style and approach to optimise outcomes</li> <li>• Write fluently and persuasively in plain English and in a range of styles and formats</li> </ul>	Advanced
	<p><b>Commit to Customer Service</b> Provide customer-focused services in line with public sector and organisational objectives</p>	<ul style="list-style-type: none"> <li>• Take responsibility for delivering high-quality, customer-focused services</li> <li>• Design processes and policies based on the customer's point of view and needs</li> <li>• Understand and measure what is important to customers</li> <li>• Use data and information to monitor and improve customer service delivery</li> <li>• Find opportunities to cooperate with internal and external stakeholders to improve outcomes for customers</li> <li>• Maintain relationships with key customers in area of expertise</li> <li>• Connect and collaborate with relevant customers within the community</li> </ul>	Adept
 <p>Results</p>	<p><b>Deliver Results</b> Achieve results through the efficient use of resources and a commitment to quality outcomes</p>	<ul style="list-style-type: none"> <li>• Seek and apply the expertise of key individuals to achieve organisational outcomes</li> <li>• Drive a culture of achievement and acknowledge input from others</li> <li>• Determine how outcomes will be measured and guide others on evaluation methods</li> <li>• Investigate and create opportunities to enhance the achievement of organisational objectives</li> <li>• Make sure others understand that on-time and on-budget results are required and how overall success is defined</li> <li>• Control business unit output to ensure government outcomes are achieved within budgets</li> </ul>	Advanced

## FOCUS CAPABILITIES

Capability group/sets	Capability name	Behavioural indicators	Level
		<ul style="list-style-type: none"> <li>Progress organisational priorities and ensure that resources are acquired and used effectively</li> </ul>	
	<p><b>Think and Solve Problems</b></p> <p>Think, analyse and consider the broader context to develop practical solutions</p>	<ul style="list-style-type: none"> <li>Undertake objective, critical analysis to draw accurate conclusions that recognise and manage contextual issues</li> <li>Work through issues, weigh up alternatives and identify the most effective solutions in collaboration with others</li> <li>Take account of the wider business context when considering options to resolve issues</li> <li>Explore a range of possibilities and creative alternatives to contribute to system, process and business improvements</li> <li>Implement systems and processes that are underpinned by high-quality research and analysis</li> <li>Look for opportunities to design innovative solutions to meet user needs and service demands</li> <li>Evaluate the performance and effectiveness of services, policies and programs against clear criteria</li> </ul>	Advanced
 <p><b>Business Enablers</b></p>	<p><b>Technology</b></p> <p>Understand and use available technologies to maximise efficiencies and effectiveness</p>	<ul style="list-style-type: none"> <li>Champion the use of innovative technologies in the workplace</li> <li>Actively manage risk to ensure compliance with cyber security and acceptable use of technology policies</li> <li>Keep up to date with emerging technologies and technology trends to understand how their application can support business outcomes</li> <li>Seek advice from appropriate subject-matter experts on using technologies to achieve business strategies and outcomes</li> <li>Actively manage risk of breaches to appropriate records, information and knowledge management systems, protocols and policies</li> </ul>	Advanced
	<p><b>Project Management</b></p> <p>Understand and apply effective project planning, coordination and control methods</p>	<ul style="list-style-type: none"> <li>Understand all components of the project management process, including the need to consider change management to realise business benefits</li> <li>Prepare clear project proposals and accurate estimates of required costs and resources</li> <li>Establish performance outcomes and measures for key project goals, and define monitoring, reporting and communication requirements</li> </ul>	Adept

## FOCUS CAPABILITIES

Capability group/sets	Capability name	Behavioural indicators	Level
		<ul style="list-style-type: none"> <li>Identify and evaluate risks associated with the project and develop mitigation strategies</li> <li>Identify and consult stakeholders to inform the project strategy</li> <li>Communicate the project's objectives and its expected benefits</li> <li>Monitor the completion of project milestones against goals and take necessary action</li> <li>Evaluate progress and identify improvements to inform future projects</li> </ul>	
	<b>Manage and Develop People</b> Engage and motivate staff, and develop capability and potential in others	<ul style="list-style-type: none"> <li>Define and clearly communicate roles, responsibilities and performance standards to achieve team outcomes</li> <li>Adjust performance development processes to meet the diverse abilities and needs of individuals and teams</li> <li>Develop work plans that consider capability, strengths and opportunities for development</li> <li>Be aware of the influences of bias when managing team members</li> <li>Seek feedback on own management capabilities and develop strategies to address any gaps</li> <li>Address and resolve team and individual performance issues, including unsatisfactory performance, in a timely and effective way</li> <li>Monitor and report on team performance in line with established performance development frameworks</li> </ul>	Adept

## Complementary capabilities

*Complementary capabilities* are also identified from the Capability Framework and relevant occupation-specific capability sets. They are important to identifying performance required for the role and development opportunities.

Note: capabilities listed as 'not essential' for this role are not relevant for recruitment purposes however may be relevant for future career development.

## COMPLEMENTARY CAPABILITIES

Capability group/sets	Capability name	Description	Level
	Display Resilience and Courage	Be open and honest, prepared to express your views, and willing to accept and commit to change	Adept

## COMPLEMENTARY CAPABILITIES

Capability group/sets	Capability name	Description	Level
 Personal Attributes	Manage Self	Show drive and motivation, an ability to self-reflect and a commitment to learning	Adept
	Value Diversity and Inclusion	Demonstrate inclusive behaviour and show respect for diverse backgrounds, experiences and perspectives	Adept
 Relationships	Work Collaboratively	Collaborate with others and value their contribution	Adept
	Influence and Negotiate	Gain consensus and commitment from others, and resolve issues and conflicts	Adept
 Results	Plan and Prioritise	Plan to achieve priority outcomes and respond flexibly to changing circumstances	Adept
	Demonstrate Accountability	Be proactive and responsible for own actions, and adhere to legislation, policy and guidelines	Adept
 Business Enablers	Finance	Understand and apply financial processes to achieve value for money and minimise financial risk	Adept
	Procurement and Contract Management	Understand and apply procurement processes to ensure effective purchasing and contract performance	Intermediate
 People Management	Inspire Direction and Purpose	Communicate goals, priorities and vision, and recognise achievements	Adept
	Optimise Business Outcomes	Manage people and resources effectively to achieve public value	Adept
	Manage Reform and Change	Support, promote and champion change, and assist others to engage with change	Intermediate