

# Role Description

## Senior Quality Assurance Engineer

Cluster	Separate Agency
Department/Agency	NSW Education Standards Authority
Division/Branch/Unit	Information & Communications Technology Directorate
Location	117 Clarence Street Sydney
Classification/Grade/Band	Clerk Grade 9/10
Role number	B1133
ANZSCO Code	263299
PCAT Code	1226492
Date of Approval	July 2022
Agency Website	<a href="http://www.educationstandards.nsw.edu.au">www.educationstandards.nsw.edu.au</a>

### Agency overview

The NSW Education Standards Authority (NESA) is an independent statutory authority responsible for the curriculum, assessment, teacher accreditation and regulatory standards in NSW schools, and accreditation of early childhood educators. NESA is responsible for developing policies and initiatives for evaluating and improving quality teaching and student learning across all schools and school sectors. NESA was formally established on 1 January 2017, in response to the need to adopt a more strategic and outward-looking focus, greater clarity of regulatory roles and responsibilities, and streamlined processes and systems.

### Primary purpose of the role

The Sr. Quality Assurance Engineer provides technical consulting/subject matter expertise in the design, execution, analysis and reporting of test plans and strategies for enterprise systems/sub-systems under development and the application of quality assurance processes in order to safeguard the quality, reliability and completeness of NESA ICT applications. They perform hands-on quality checks and provide technical support to internal and external users while mentoring and guiding other team members and assisting product owners in formulating the overall test strategy.

### Key accountabilities

- Undertake enterprise system and/or sub-system testing and quality assurance projects in collaboration with key stakeholders, vendor representatives and other IT teams/experts
- Provide technical consulting and subject matter expertise to support the development and implementation of testing strategies, plans and scripts
- Interpret, execute and document complex functional / non-functional test scripts using agreed methods and standards
- Analyze and review test results, modify tests where necessary and provide reports on progress, anomalies, risks and issues and recommendations for improvement while ensuring accurate record maintenance in line with the organization's policies.
- Work collaboratively to discuss test results and ensure that issues, problems, and defects that

arise during testing are resolved efficiently

- Lead and manage technical and non-technical testing of highly complicated IT systems by producing relevant test artefacts
- Develop, execute and maintain highly effective test automation strategies, frameworks, plans and scenarios and oversee their effective development of automation suites with vendors
- Lead and manage the application support activities, ensuring all the customer/stakeholders' queries/issues are resolved within the defined SLAs.
- Proactively drive operational excellence and continuous improvement for the customer support portfolio with regular review, while fostering collaborative and results-driven team environments.

## Key challenges

- Undertaking testing and quality assurance activities for multiple application systems and frequent releases
- Undertaking the assessments to ensure that ICT Applications and platforms are scalable
- Delivering effective testing outcomes; whilst ensuring consistent, high quality and timely project delivery in accordance with the IT Directorate's endorsed project management methodology
- Keeping up to date with emerging techniques in functional and non-functional quality processes and implementing innovation within the team.
- Continuous process improvements in tandem with business needs to add excellence to customer support function.

## Key relationships

Internal	
Manager/Principal/Product Owner	<ul style="list-style-type: none"><li>• Escalate issues, keep informed, advise, receive guidance and instructions</li><li>• Participate in meetings and discussions to share information and provide input and feedback</li></ul>
Work Team	<ul style="list-style-type: none"><li>• Participate in discussions and decisions</li><li>• Participate in meetings to share information and provide input on issues</li><li>• Support team members to work collaboratively to achieve the team's business outcomes</li><li>• Support the work team during peak high-volume periods</li></ul>
Customers/Stakeholders	<ul style="list-style-type: none"><li>• Contributes to the flow of information, seek clarification, and provide customer-focused advice and responses to ensure prompt resolution of issues</li><li>• Negotiate time frames</li></ul>
External	
Customers/Stakeholders	<ul style="list-style-type: none"><li>• Develop and maintain effective working relationships and open channels of communication to establish the quality needs of the clients</li><li>• Respond to enquiries and discuss and negotiate on the quality reporting requirements</li></ul>

## Role dimensions

### Decision making

This role has autonomy and makes decisions under their direct control and refers to the Manager/Product Owner's decisions that require significant change to outcomes or timeframes; are likely to escalate or require submission to a higher level of management. This role is accountable for the delivery of work assignments on time and to expectations in terms of quality, deliverables and outcomes. Senior Quality Assurance Engineer:

- Is expected to exercise judgement and initiative in prioritizing and resolving day-to-day issues in accordance with organization policies, procedures, and operational guidelines.
- Contributes to planning activities and the development/modification of standards, procedures, and technical documentation
- Is required to collect and analyze complex data / technical information to make recommendations regarding technological solutions.
- Shares accountability for the quality and accuracy of outputs, analyses, briefings, and other forms of advice in final form, though the role supervisor may review prior to release/implementation.

### Reporting line

Manager/Principal/Product Owner

### Direct reports

This role may have direct reporting of testing/support officers and/or assistants.

### Key knowledge and experience

- Exceptional demonstrated experience in working with complex IT systems delivering quality assurance results to assist with decision-making for deployment into live platforms
- Experience in analysis, design and development of technical solutions using the latest tools and techniques
- Proven knowledge in implementing industry-standard quality testing approaches and processes.

### Essential requirements

- Appropriate tertiary qualifications or demonstrated relevant, equivalent professional experience.
- A solid understanding of the various software testing methodologies, types, and test case design techniques in functional and non-functional testing
- Experience in designing and executing technical test strategies including security and accessibility while producing technical test artefacts for decision making
- Strong knowledge of current technologies underpinning complex IT systems at an enterprise level including different operating systems, the latest development languages, database types including open-source technologies
- Experience in the use of industry-level test management tools, testing tools and techniques
- Experience in designing and developing automated testing strategies and building automated testing frameworks
- NSW working with children check

### Desirable requirements

- Understanding of the various software testing methodologies, types, and test case design techniques for non-functional testing
- Hands-on experience in any of the programming languages or scripting languages
- Experience working on applications hosted on cloud platforms
- Experience in a customer-focused application support team

### 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 the 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 behaviors expected at each level.

## Focus capabilities

Capability group/sets	Capability name	Behavioural indicators	Level
 Personal Attributes	<b>Manage Self</b> Show drive and motivation, an ability to self-reflect and a commitment to learning	<ul style="list-style-type: none"> <li>Keep up to date with relevant contemporary knowledge and practices</li> <li>Look for and take advantage of opportunities to learn new skills and develop strengths</li> <li>Show commitment to achieving challenging goals</li> <li>Examine and reflect on own performance</li> <li>Seek and respond positively to constructive feedback and guidance</li> <li>Demonstrate and maintain a high level of personal motivation</li> </ul>	Adept
 Relationships	<b>Commit to Customer Service</b> Provide customer-focused services in line with public sector and organisational objectives	<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
 Relationships	<b>Work Collaboratively</b> Collaborate with others and value their contribution	<ul style="list-style-type: none"> <li>Encourage a culture that recognises the value of collaboration</li> <li>Build cooperation and overcome barriers to information sharing and communication across teams and units</li> <li>Share lessons learned across teams and units</li> <li>Identify opportunities to leverage the strengths of others to solve issues and develop better processes and approaches to work</li> <li>Actively use collaboration tools, including digital technologies, to engage diverse audiences in solving problems and improving services</li> </ul>	Adept



### Think and Solve Problems

Think, analyse and consider the broader context to develop practical solutions

- Undertake objective, critical analysis to draw accurate conclusions that recognise and manage contextual issues
- Work through issues, weigh up alternatives and identify the most effective solutions in collaboration with others
- Take account of the wider business context when considering options to resolve issues
- Explore a range of possibilities and creative alternatives to contribute to system, process and business improvements
- Implement systems and processes that are underpinned by high-quality research and analysis
- Look for opportunities to design innovative solutions to meet user needs and service demands
- Evaluate the performance and effectiveness of services, policies and programs against clear criteria

Advanced



### Technology

Understand and use available technologies to maximise efficiencies and effectiveness

- Identify opportunities to use a broad range of technologies to collaborate
- Monitor compliance with cyber security and the use of technology policies
- Identify ways to maximise the value of available technology to achieve business strategies and outcomes
- Monitor compliance with the organisation's records, information and knowledge management requirements

Adept




### Manage and Develop People

Engage and motivate staff, and develop capability and potential in others

- Collaborate to set clear performance standards and deadlines in line with established performance development frameworks
- Look for ways to develop team capability and recognise and develop individual potential
- Be constructive and build on strengths by giving timely and actionable feedback
- Identify and act on opportunities to provide coaching and mentoring
- Recognise performance issues that need to be addressed and work towards resolving issues
- Effectively support and manage team members who are working flexibly and in various locations
- Create a safe environment where team members' diverse backgrounds and cultures are considered and respected
- Consider feedback on own management style and reflect on potential areas to improve

Intermediate












Occupation / Profession-specific capabilities			
Capability Set	Category, Sub-category and Skill	Level	Code
			
Development and Implementation, Systems Development - Testing	Investigating products, systems and services to assess behavior and whether this meets specified or unspecified requirements and characteristics.	<ul style="list-style-type: none"> <li>Plans and drives testing activities across all stages and iterations of product, systems and service development.</li> <li>Provides authoritative advice and guidance on any aspect of test planning and execution. Adopts and adapts appropriate testing methods, automated tools and techniques to solve problems in tools and testing approaches.</li> <li>Measures and monitors applications of standards for testing. Assesses risks and takes preventative action.</li> <li>Identifies improvements and contributes to the development of organizational policies, standards, and guidelines for testing.</li> </ul>	Level 5- TEST
Skills and Quality - Quality and Conformance - Quality Assurance-	Assuring, through ongoing and periodic assessments and reviews, that the organization's quality objectives are being met	<ul style="list-style-type: none"> <li>Plans, organizes and conducts assessment activity and determines whether appropriate quality control has been applied.</li> <li>Conducts formal assessments or reviews for given domain areas, suppliers, or parts of the supply chain. Collates collects and examines records, analyses the evidence and drafts all or part of formal compliance reports.</li> <li>Determines the risks associated with findings and non-compliance and proposes corrective actions.</li> <li>Provides advice and guidance in the use of organizational standards.</li> </ul>	Level 4 – QUAS

## 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.

Capability group/sets	Capability name	Description	Level
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	Display Resilience and Courage	Be open and honest, prepared to express your views, and willing to accept and commit to change	Adept
	Act with Integrity	Be ethical and professional, and uphold and promote the public sector values	Intermediate
	Value Diversity and Inclusion	Demonstrate inclusive behaviour and show respect for diverse backgrounds, experiences and perspectives	Intermediate
	Communicate Effectively	Communicate clearly, actively listen to others, and respond with understanding and respect	Adept
	Influence and Negotiate	Gain consensus and commitment from others, and resolve issues and conflicts	Intermediate
	Deliver Results	Achieve results through the efficient use of resources and a commitment to quality outcomes	Intermediate
	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	Intermediate
	Finance	Understand and apply financial processes to achieve value for money and minimise financial risk	Intermediate
	Procurement and Contract Management	Understand and apply procurement processes to ensure effective purchasing and contract performance	Intermediate
	Project Management	Understand and apply effective planning, coordination and control methods	Adept



	Inspire Direction and Purpose	Communicate goals, priorities and vision, and recognise achievements	Intermediate
	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	Adept

**End of Document**