

How NZQA confidently passes exams every year with QA & testing



The results publication is the biggest day of the year for students and the New Zealand Qualifications Authority (NZQA). When exam results are published on the organisation's website, web traffic spikes in a matter of minutes. Thanks to NZQA's lengthy association with Assurity Consulting and its Quality Assurance and Testing services, results have been published on time for over a decade without fail. Taking this engagement a step further, Assurity is helping NZQA build internal testing capacity and maturity to create a brighter digital future.

Results ✨

Accelerated the process of evaluating complex intertwined systems.

Developed innovative approaches to comprehensive testing.

Provided real-time, immediate insights on how results and other essential metrics are tracking on public screens.

About

Organisation

New Zealand Qualifications Authority (NZQA)

Industry

Public Sector

Solutions

Quality Assurance & Testing

NZQA makes sure New Zealand qualifications are recognised and respected, here and overseas, and that qualifications and credentials meet the needs of learners in the changing world.

NZQA's services span the secondary and tertiary education sectors. The organisation administers the National Certificates of Educational Achievement (NCEA) for secondary school students and is responsible for the quality assurance of non-university tertiary training providers.

Challenge

“What most people don't know is that running secondary exams from the start to the day we publish the results is an 18-month cycle which touches so many people that we can say we have an impact on the lives of just about every New Zealander,” says Sinziana Ciubotaru, Senior Project Manager, Information Services, NZQA.

The biggest day of the year for students across New Zealand and NZQA is the publication of the results. When exam results are published on the organisation's website, web traffic spikes in a matter of minutes.

At this moment of truth, NZQA knows if it has done the job right...or not, and there is a lot at stake. “It is a massive undertaking, and from the moment the exams are created to the point at which the results are delivered, all systems must be in place and work as expected. There can be no negative impact, despite the fact that in each cycle, hundreds of changes and updates are made,” continues Ciubotaru.

Prior to the engagement of Assurity and the provision of its comprehensive testing services, website and other system issues could result in people being unable to connect and unable to view their results immediately.

In today's climate, where social media has dramatically increased scrutiny on the one hand and the load on NZQA systems on the other owing to amplification, the stakes have only gotten higher.

“Over the years, Assurity has proven they understand systems very well, at a level where minute details matter. They demonstrate due diligence, ask questions, and with all tests and actions, they do their homework and then produce documentation, so we don't have to go over the same things more than once.”



— Sinziana Ciubotaru
Senior Project Manager, Information Services, NZQA.

Solution

Assurity has been instrumental in NZQA's success and has been for ten years, says Ciubotaru. "Together, we do quite a bit of testing to ensure that our systems work as expected before they go into production."

In practice, Assurity provides performance testing across all NZQA systems with a particular focus on results publication day. This is a significant event for the organisation (and the country at large) in which the equivalent of months' worth of logins and user activity 'hit' in the minutes and hours when exam results go live.

It may sound simple – just test the maximum number of concurrent users, right? – but nothing could be further from the truth, Ciubotaru points out. "Complexity and change are our biggest challenges. Our systems aren't constant, and every exam cycle is different. The number of systems we have interacting is so substantial that getting someone up to speed on all the dependencies and intricacies can take months or even years. At the same time, there is a major push towards digital transformation; these changes are like changing the engines of a jet in flight."

A further area in which Assurity provides thought and delivery leadership is Targeted Exploratory Testing. This addresses the volume of work necessary for continual quality assurance and is considered a key component of the NZQA delivery model.

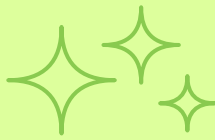
"Exploratory testing has accelerated the process of evaluating complex intertwined systems with innovative approaches to testing," says Ciubotaru.

Explaining that Assurity has demonstrated an ability to think outside the box and think big picture, she says examples include planned 'Just in Time' testing where team members log in as users and use systems just ahead of go-live, with a consistent ability to identify and resolve issues before they have real-world impacts. "With the nature of exams, this is crucial – testing well in advance isn't enough because come exam day, those tests just aren't relevant any longer."

Assurity has also created a dashboarding system which replaces previous disparate reports and spreadsheets tracking performance. By creating a consolidated visual system, NZQA personnel enjoy immediate insight into how exams, results and other essential metrics are tracked. The system is so successful that it is published on public screens within the company today, attesting to the confidence NZQA enjoys that its systems can be relied upon.



Results



The sheer duration of the engagement NZQA has maintained with Assurity is a demonstration of the consistent and dependable value delivered; Ciubotaru says the testing services are the Authority's guarantee that it delivers a quality product which protects the integrity of the qualifications it administers. "Stability is essential for our organisation, and that's what Assurity provides. This isn't an easy ask, as we have convoluted systems with a challenging number of touchpoints and dependencies."

As the organisation migrates to the cloud along with a major middleware upgrade, Ciubotaru says testing has proven crucial to business as usual and maintaining operations with zero impact. "It's gone smoothly, a testament to the comprehensive approach to testing. Nothing is left to chance, which means we have no surprises – not on results day, and not when making substantial changes to our systems and infrastructure."

Praising the work ethic and diligence built into the testing services, she says the Assurity team is comprised of 'curious people who contribute to our journey, constantly challenging and looking to add value'. NZQA CIO Shane Gaskin notes Assurity's mature approach to customer engagement.

Finally, Gaskin says, "At a time where NZQA is re-thinking its testing and automation approach and looking for more added value in other areas of continuous improvement, Assurity is working closely with us to ensure we are focused on business outcomes beyond just testing".



"We're building internal testing capability, including introducing an automated performance testing environment. The fact that Assurity is willing to share their knowledge and help us create a strong team of testers says a lot about their view on creating and exchanging lasting value."



— Shane Gaskin
CIO, NZQA

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