

Qualification Title: New Zealand Diploma in Software Development (Level 6)

Qualification number: 2604

Date of review: 18 June 2019

This report refers to graduates awarded this qualification prior to: **31 December 2018**

Final decision on consistency of the qualification: National consistency is confirmed

Threshold:

The threshold to determine sufficiency with the graduate profile was determined as evidence of the graduate being capable of analysing, designing and implementing software solutions at an entry-level, both as part of a team and under broad supervision while applying professional and ethical standards.

Graduates will be able to :

Technical skills

- Analyse requirements, design and document software solutions for a range of problems in an organisational context.
- Write and maintain programs using design patterns, data structures and algorithms to meet specifications.
- Apply a range of software quality assurance techniques to verify correctness of systems.
- Apply data management and storage technologies to support the software application and the development process.
- Establish application security by integrating security principles throughout software development to ensure system integrity.
- Choose, justify and apply architecture, technologies, and tools, to implement the software solution.
- Apply IT technical support concepts and practice to manage hardware and software resources to meet organisational requirements in a software development context.

Core Skills

- Apply project management tools and techniques to an IT-related project, to analyse and solve problems.
- Behave with integrity as a responsible Information Technology professional to contribute positively to society.
- Apply communication, information design, personal and interpersonal skills clearly and professionally to enhance working effectiveness, efficiency, and quality outcomes in an organisational environment.

Education Organisations with sufficient evidence

The following education organisations have been found to have sufficient evidence.

Education Organisation	Final rating
Toi Ohomai	Sufficient
ATC New Zealand	Sufficient
Techtorium New Zealand Institute of Information Technology	Sufficient

Introduction

The New Zealand Diploma in Software Development (Level 6) is a 240 credit qualification. The purpose of the qualification is to prepare people for employment in an entry-level developer or tester role in a range of organisational contexts or to proceed to further study. International students must have an appropriate level of English proficiency for the level of study.

There were four education organisations with graduates in the reporting period, for this qualification. Providers reported a total of 80 domestic and international graduates, 73 of whom graduated in 2018. Full time and part-time programme options were available.

NZQA is the qualification developer and a NZQA representative, who was involved in the development of this qualification, attended the meeting. Feedback from the providers to the qualification developer was of value, as a review of this qualification is planned for 2019.

Evidence

The education organisations provided a range of evidence to demonstrate that their graduates met the graduate profile outcomes.

The criteria used to judge the evaluation question were:

- The nature, quality and integrity of the evidence presented by the education organisation
- How well the organisation has analysed, interpreted and validated the evidence, and used the understanding gained to achieve actual or improved consistency
- The extent to which the education organisation can reasonably justify and validate claims and statements relating to the consistency of graduate outcomes, including in relation to other providers of programmes leading to the qualification.

Examples of evidence presented (at the review and in some cases, after the review meeting) included :

- Mapping of graduate programme outcomes against programme assessments and learning outcomes.
- Graduate destination data.
- Moderation samples (internal and external) showing evidence of improvement from feedback, moderation plans.
- Graduate and pathway feedback, including some from employers.
- Capstone project samples.
- Stakeholder feedback.

How well does the evidence provided by the education organisation demonstrate that its graduates match the graduate outcomes at the appropriate threshold?

The four providers offered a range of evidence to support their self-assessment. There was variability in the quality of the self-assessment reports; two of the four providers presented self-assessments that held well thought out evaluative judgements outlining areas for continued improvement. Evidence to support their evaluative judgements was clearly marked and mostly offered triangulated information. The two other providers resubmitted their self-assessment document after the review meeting, which provided a clearer picture of how the two organisations evaluated their performance in helping their graduates to achieve the 10 graduate profile outcomes (GPOs) at the threshold. Self-reflections received after the review meetings specified gaps or areas for improvement and actions to be implemented.

Programme information was generally good across most of the providers, some managing to capture in the programme information, the purpose, scope and complexity of assessments for each of the programme learning components. All of the providers were able to provide evidence of real-world application of assessments and their relevance to the GPOs. Some providers were able to assist with internship, which provided real-world experience.

Moderation was variable across the providers. There was evidence of internal moderation practice from all the providers, however, external moderation was only evident in two organisations. There were some good samples supplied that evidenced a change in assessment process from pre- to post-assessment moderation and some of the providers supplied good evaluative comment of the learnings gained from the moderation process and subsequent improved delivery.

At the review meeting, the quality of evidence from graduates around outcomes was strong from two of the providers with a third providing solid evidence after the review. Good evidence was provided from these organisations through both quantitative and qualitative feedback rating capability against the GPOs. Generally, more could have been done with the feedback gained on GPOs to inform programme review. Employer and pathway feedback showed that most of the providers were graduating students that added value to their employers and were capable of transitioning successfully to higher or same level programmes. A poor response rate and uptake of graduates into related employment impacted negatively on one provider's submission.

Overall, the self-assessment and supporting evidence supplied by those organisations found sufficient, demonstrates that their graduates meet the graduate outcomes at the determined threshold.

Examples of good practice

Generally, the organisations that were able to provide a strong self-assessment had good outcomes. These providers were able to illustrate and corroborate how the process of self-assessment had led to improved practice. Examples of areas with less favourable results had been analysed and evaluative comment passed.

In programme evidence, strong submissions acknowledged the importance of capability in GPO's with high credit value and gave examples of real-world learnings gained and in the increase in complexity of assessments.

Employer and graduate feedback that provided sound quantitative and qualitative responses aided the reviewer in understanding graduate capability.

Issues and concerns

The qualification had both domestic and international graduates. The disproportionate number of international graduates that had either failed to respond to a survey or were in unrelated fields of employment highlights an extra layer of complexity for providers. The reviewer suggests that providers with international students enrolled in this programme look at how the capability in the core skills could be improved for international graduates. Internship or related work experience could also help build capability. Strengthening connections with employers and with graduates to ensure ongoing feedback will also provide confidence in graduates of the qualification.

Recommendations to Qualification Developer

None.