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External Evaluation and Review Report

Developers Institute Limited

Date of report: 15 March 2023

About Developers Institute Limited

Developers Institute prepares learners for a professional career in the software development industry. Learners are trained in an environment that simulates a technology sector workplace.

Type of organisation:	Private training establishment (PTE)
Location:	Level 1, 59 Bank Street, Whangarei, Northland
Code of Practice signatory:	Yes
Number of students:	Domestic: 121 (58 equivalent full-time students in 2021); Māori 16 (13 per cent), Pasifika two (2 per cent) International: nil
Number of staff:	Nine full-time equivalents
TEO profile:	<u>Developers Institute Ltd</u> Delivery began in January 2020.
Last EER outcome:	This is the first external evaluation and review (EER) of this organisation.
Scope of evaluation:	<ul style="list-style-type: none">• New Zealand Diploma in Web Development and Design (Level 5) ID 125443 (hereafter ‘the Level 5 Diploma’)• New Zealand Diploma in Software Development (Level 6) ID 126519 (hereafter ‘the Level 6 Diploma’)
MoE number:	9191
NZQA reference:	C46930
Dates of EER visit:	1-3 December 2021

Summary of results

Developers Institute has met the majority of the important needs of its students and industry. However, some key contributing processes were flawed. Inconsistent assessment and moderation practices partly undermine the reported academic results. A Tertiary Education Commission (TEC) audit identified significant issues. While, self-assessment processes led to some improvements, it varied in its quality and coverage of the priority areas.

Not Yet Confident in educational performance

- Developers Institute graduates have acquired key technical and soft knowledge, skills and attributes that industry demand. However, flawed assessment and moderation practices partly undermine the reported academic results. Many graduates progressed onto related training or gained related entry-level work (at this early stage, mostly with the PTE and a related start-up).

Not Yet Confident in capability in self-assessment

- Tutors ('tech leads') are ex-software developers who teach concepts and demonstrate appropriate practice. Industry stakeholders affirm that the applied approach, the content and the hardware and software tools closely simulate the workplace environment. Students find the hands-on, scaffolded, mentoring approach engaging and effective for learning. However, some staff capacity and capability issues impacted on the student experience.
- Self-assessment has contributed to some significant improvements, including establishing and recruiting for new roles (teaching assistants, head of teaching and a student wellbeing advisor) and increased Level 6 Diploma work-based learning.
- However, the management of some key compliance accountabilities has been ineffective: the NZQA criterion for assessment and moderation was not met; NZQA had not approved significant programme changes; and the TEC found major issues with some systems, processes, and practices in place.¹

¹ Many of these issues have subsequently been addressed.

Key evaluation question findings²

1.1 How well do students achieve?

Performance:	Marginal
Self-assessment:	Good
Findings and supporting evidence:	<p>Developers Institute students learn online how to develop software and websites through two NZQA-approved education programmes. Most students complete their courses and the level 5 qualification, with completions comparable to sector averages.³ Level 5 Māori student completions in 2020 were lower but comparable to sector averages; course completions significantly improved in the 2021 year to date.⁴ However, there are reservations about the validity of these results due to negative external moderation findings.⁵</p> <p>Despite these findings, there is reasonable evidence that students are learning technical and important ‘soft’ skills⁶ and knowledge that relate directly to industry roles. Industry stakeholders support what the students are learning in a simulated workplace environment. The tech leads are themselves software developers.</p> <p>Staff systematically monitor individual student participation in learning sessions, assessment, their results, and completions. The knowledge and analysis of achievement information is sound. Completions are benchmarked against previous rates but not with relevant sector averages and comparable delivery.</p>
Conclusion:	The evidence of student achievement was mixed. Self-assessment of student achievement is sound. However,

² The findings in this report are derived using a standard process and are based on a targeted sample of the organisation’s activities.

³ Refer to Appendix 1 for further details. There was no level 6 graduate cohort at time of the EER.

⁴ The enrolled Pasifika numbers were small and are not reported to maintain anonymity.

⁵ Refer to 1.3 for further details.

⁶ Such as ethics, cultural awareness, communication skills

	contributing assessment and moderation processes had flaws, which undermined somewhat the validity of the results. ⁷
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1.2 What is the value of the outcomes for key stakeholders, including students?

Performance:	Good
Self-assessment:	Good
Findings and supporting evidence:	<p>After close to two years of operation, Developers Institute has produced level 5 graduates with capabilities that industry demands, particularly for the Northland region. Nearly all of these graduates gained work in technical roles and/or progressed to the Level 6 Diploma.⁸ At this early stage, many of these graduates (and/or students) gained work at the PTE or in the industry (including employment at its software start-up, Parasol). A partnership with a major electricity company provides an evolving pathway for young Northland graduates. Also, seven students withdrew from the Level 6 Diploma to gain industry-related work, and two others are paid interns. These early outcomes indicate promise for students, industry and the region.⁹</p> <p>Developers Institute's strong industry linkages contribute to the PTE being a responsive trainer. As an industry employer, partnering with industry, and having key PTE staff employed from industry, there are some sound feedback loops on the capabilities that developers require. The graduates are applying their practical foundation-level technical skills and demonstrating their ability to learn quickly in the workplace. They are also displaying some of the core soft skills including collaboration, teamwork, problem-solving skills, and attitudes that the industry values. There is some evidence that graduates have developed as people and that their lives are often being positively impacted.</p>

⁷ See the impact on self-assessment ratings in 1.3, 1.5 and 1.6.

⁸ See Appendix 1, Table 4 for details. There were no Level 6 Graduates at the time of the EER enquiry.

⁹ The PTE has received funding from the Provincial Growth Fund to place 85 graduates into work by 2023.

	There are some opportunities for more systematic analysis of destination outcomes and gaining clearer feedback on graduate capabilities in the workplace.
Conclusion:	At this early stage, Developers Institute is producing graduates with capabilities that industry requires. There is a rich understanding of what industry values and graduates need. The self-assessment gaps are not significant.

1.3 How well do programme design and delivery, including learning and assessment activities, match the needs of students and other relevant stakeholders?

Performance:	Marginal
Self-assessment:	Marginal
Findings and supporting evidence:	<p>Developers Institute is embedded in the industry through its multiple linkages, including an industry advisory group. The programme delivery simulates workplace practice with the tech leads (tutors) providing on-job coaching to students. Leads teach concepts and demonstrate practice to the students, who then develop code that the tech leads review, offering feedback and then formal assessment. All tech leads are professional software developers with industry experience. The PTE uses industry-level hardware and software.</p> <p>Industry stakeholders affirm that the personnel, the approach, content and tools reflect the evolving workplace environment. The students interviewed found the applied learning, clear scaffolding of learning, and the flipped classroom approach highly engaging and effective in developing the required capabilities. Nearly all described the learning experience as superior to their previous tertiary learning experiences.</p> <p>The PTE has clear expectations that students will follow industry practice and meet industry standards. Assessment is internally moderated. An independent moderator identified some process gaps, which the PTE addressed. However, external NZQA monitoring (August 2022) subsequently found significant issues including the design of all the materials sampled, which had significant flaws contributing to only 42 per cent of the assessor judgments being confirmed. Assessments tasks were however at the correct level (5). The overall findings partly undermine the</p>

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	reported educational results. ¹⁰ The PTE did, however, gain NZQA approval to modify the Level 6 Diploma to include more work-based options and move delivery fully online after the Covid-19 lockdown. ‘Retrospective’ reviews (using interactive digital whiteboards) were effective in identifying some key successes and problems and developing solutions, such as instituting ‘runbooks’ to support more consistent delivery that meets industry expectations.
Conclusion:	Developers Institute has designed two programmes to match the needs of industry and its students. But multiple flaws undermined confidence in delivery, assessment and moderation practices. The management and review of delivery was inconsistent, which had some significant impacts.

1.4 How effectively are students supported and involved in their learning?

Performance:	Good
Self-assessment:	Good
Findings and supporting evidence:	<p>Developers Institute has a clear commitment to care for and support students in their learning. This has manifested in many ways, some more effective than others.</p> <p>The PTE has significantly invested in providing standardised industry-level laptops, hardware and software tools to all students. Another success was two students who were supported to gain external industry scholarships.</p> <p>The PTE has hired tech leads who were industry-experienced developers who want to mentor people entering the industry – some have experience of on-job training of staff. The tech leads and other student support roles belatedly completed a level 4 entry-level adult education qualification. Staff capability and capacity gaps have impacted on the students. Sometimes this meant preparation time for delivery was limited. Feedback on assessments is mostly regular, useful and timely. In instances where it was not, the PTE took significant remedial action.</p> <p>Learner agreements are used to support students who are not meeting key achievement milestones.</p>

¹⁰ The PTE has subsequently addressed these programme-related matters.

	<p>The PTE has progressively established teaching assistant roles to provide more student support (nearly all are Developers Institute graduates). Online student communities are important to the participants, with teaching assistants added to the daily ‘accountability groups’ in response to student feedback. The students value these supports. A wellbeing associate role was recently established, and another graduate was engaged in this role. Intakes have been modified to support closer alignment of the programme entries and exits, though initially this caused disruption. After analysing non-completions, the student selection criteria were revised.</p> <p>Developers Institute’s 2020 self-review of the interim domestic Code of Practice¹¹ identified that all practices were ‘compliant’ and that all relevant outcomes were ‘well implemented’. The establishment and recruitment of a wellbeing role was one positive outcome. However, it is not evident that staff and students were involved in the 2020 Code’s self-review. Also, some actions arising from the review were not well integrated with other core interactive and robust self-assessment practices such as ‘retrospective’ and ‘Miro’ boards.</p> <p>Developers Institute has received Provincial Growth Fund funding to support its students to transition to the industry workforce. An employment coach role has been recently established. Students and the PTE see this intervention as being at an early stage of development.</p>
Conclusion:	Developers Institute is generally effective in supporting students to stay involved and complete their studies. Some gaps impacted students, but most were effectively managed. Self-assessment is generally strong. Some initiatives are recent, and it is too early to assess their impact.

¹¹ [Now finalised as the Tertiary and International Code of Practice.](#)

1.5 How effective are governance and management in supporting educational achievement?

Performance:	Marginal
Self-assessment:	Marginal
Findings and supporting evidence:	<p>Developers Institute is a new PTE with a clear purpose and direction, informing its planning and activities. The two executive directors have complementary capabilities, while the board also brings a mix of capabilities, though recently not in tertiary education leadership. The leadership has enabled two new programmes to be developed and delivered to meet the important needs of the students and industry, despite the challenging Covid-19 operating environment of 2020-21.</p> <p>However, as noted in other sections of this report, the leadership did not effectively identify and sufficiently address some weaknesses in academic quality and manage some key regulatory requirements.¹²</p> <p>The leadership has recruited staff for the tech lead roles who have industry experience, bringing with them valuable technical, training and mentoring capabilities.¹³ The academic leader (head of compliance) has a level 5 adult education certificate, but the overall formal adult education capability across the PTE is moderate.¹⁴ The PTE has invested in a range of new staff positions. The new head of teaching role is key for ensuring educational quality. The individual recruited has the required attributes but needs to attain higher-level adult education certification. Capability gaps have directly contributed to two recent external report findings that some academic and regulatory requirements have not met minimum expectations.</p> <p>There is some authentic and robust self-review, often drawing on software development industry practices, which informs decision-making and some improvements. However, some reviews were not robust, and the coverage of key activities was not comprehensive.</p>

¹² See 1.3 and 1.6 for further details. The leadership has subsequently made changes to address these matters.

¹³ In recruiting tech leads, the PTE competes with the high-level remuneration offered in the sector.

¹⁴ See 1.4 and 1.3 for further details.

Conclusion:	Governance and management have not been consistently effective in supporting educational performance. Self-assessment practice has been variable: making a range of important and necessary improvements, yet also not identifying and addressing some significant performance gaps.
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1.6 How effectively are important compliance accountabilities managed?

Performance:	Poor
Self-assessment:	Poor
Findings and supporting evidence:	<p>There is clear evidence of ineffective management of some key regulatory requirements. The main points are:</p> <ul style="list-style-type: none"> • The NZQA validation visit (December 2020) found the organisation met the requirements of NZQA's PTE rules. • The TEC audit report (26 August 2022) overall finding was: '<i>Systems, processes and practices have some major issues that could impact on student outcomes and put Crown funding at risk. Immediate actions will be required to retain TEC funding,</i>' and '<i>There were significant findings related to the quality of data and documentation submitted</i>'. Five of 10 focus areas did not comply with requirements, three required improvement and just two did comply. The most serious was a 'perceived inducement', with three shareholders enrolled as funded students; funding was recovered.¹⁵ One of these shareholders had academic responsibilities and so a potential conflict of interest. Developers Institute has taken action to address these matters. • The NZQA Moderation Summary Report: NZ Diploma in Web Development and Design (Level 5) Prog. Ref: 125443, NZQF Ref: 2598-1 (12 August 2022) found that <i>Programme Approval and Accreditation Rules: 6.1 Criterion 1 Assessment and moderation</i> had not been met. NZQA had serious concerns about Developers Institute's assessment practice and unapproved changes made to the

¹⁵ See also 1.3 finding.

	<p>programme.¹⁶ Developers Institute has taken action to address these matters.</p> <ul style="list-style-type: none"> • The 2020 self-review of the then interim domestic Code of Practice identified that all practices were ‘compliant’ and that all relevant outcomes were ‘well implemented’. However as noted in 1.4, there were aspects of the review that required attention. • Teaching staff are industry-experienced with relevant technical developer certification. However, only recently have they completed entry-level adult education qualifications.¹⁷ Given the serious assessment and moderation gaps, this was belated professional development. • There is some evidence of systems and procedures being used to methodically identify and resolve compliance issues. However, this new PTE had insufficient knowledge of some key regulatory requirements and their implications.
Conclusion:	The management of some key compliance accountabilities has been ineffective. Minimum assessment and moderation expectations and TEC requirements were not met. The self-review of compliance requirements did not effectively identify and address these serious gaps. Subsequent action has addressed many of these gaps.

¹⁶ Developers Institute, in late 2022, received NZQA approval for Type-2 changes to the Level 5 and 6 diploma programmes.

¹⁷ See 1.4 and 1.5 for details.

Focus area

2.1 Focus area: New Zealand Diploma in Web Development and Design (Level 5); and New Zealand Diploma in Software Development (Level 6)

Performance:	Marginal
Self-assessment:	Marginal

Recommendations

Recommendations are not compulsory but their implementation may improve the quality and effectiveness of the training and education provided by the tertiary education organisation (TEO). They may be referred to in subsequent external evaluation and reviews (EERs) to gauge the effectiveness of the TEO's quality improvements over time.

NZQA recommends that Developers Institute Limited:

- More systematically analyse the achievements and range of outcomes for both programmes (including identifying the outcomes for Māori and Northland graduates).
- Strengthen academic quality practices, including assessment and moderation processes.
- Develop and invest in solutions to effectively manage staff capacity and capability requirements to maintain a consistent and high quality of delivery and support.
- Evaluate the effectiveness of the newly established or revised roles (including head of teaching, teaching assistants, learning wellbeing associate and employment coach).
- Consider the benefits of reappointing a board representative(s) with a tertiary education background.
- Strengthen and integrate the review of Code practices and outcomes into the broader business-as-usual self-assessment systems.

Requirements

Requirements relate to the TEO's statutory obligations under legislation that governs their operation. This include NZQA Rules and relevant regulations promulgated by other agencies.

There are no requirements directly arising from this report.

Appendix 1

Note that the reliability and validity of the data in the tables below, based on data provided by Developers Institute, are in doubt and need to be verified.

Table 1. New Zealand Diploma in Web Development and Design (Level 5) course and qualification completion rates 2020-2021 (private training establishment level 4-7 median completion rates)

Years	2020		2021 (to August)	
Completion rates	Course	Qualification	Course	Qualification
All students	73 (76)	NA (59)	67 (-)	70 (-)
Māori	65 (67)	57 (60)	88 (-)	66 (-)
Pasifika ¹⁸	- (68)	- (56)	- (-)	-
Non-Māori and Pasifika	79 (81)	100 (60)	59 (-)	71 (-)

Sources: Tertiary Education Commission and Developers Institute data

Table 2. New Zealand Diploma in Software Development (Level 6) course completion rates 2021¹⁹ (private training establishment level 4-7 median completion rates)

Year	2021 (to August)
Completion rates	Course completion
All students	77 (-)
Māori	83 (-)
Pasifika ²	- (-)
Non-Māori and Pasifika	89 (-)

Source: Developers Institute data

Table 3. Participation rates by ethnicity (percentage of total enrolments)

Years	2020		2021	
Programme	Level 5	Level 6	Level 5	Level 6
Māori	36	-	21	20
Pasifika	4	-	6	3
Non-Māori and Pasifika	60	-	73	77

Sources: Tertiary Education Commission and Developers Institute data

¹⁸ Pasifika enrolments are very small and not presented to maintain anonymity.

¹⁹ The first cohort has not yet completed the Level 6 Diploma programme.

Table 4. Level 5 diploma destination outcomes

Years	2020	2021
Enrolments	50	55
Total graduates	19	19
Education	10	10
Employment	8	9
Positive outcomes of total enrolled students.	36% (18/50)	35% (19/55)
Positive outcomes of total graduates	95% (18/19)	100% (19/19)

Source: Developers Institute data

Appendix 2

Conduct of external evaluation and review

All external evaluation and reviews are conducted in accordance with NZQA's published rules. The methodology used is described in the web document <https://www.nzqa.govt.nz/providers-partners/external-evaluation-and-review/>. The TEO has an opportunity to comment on the accuracy of this report, and any submissions received are fully considered by NZQA before finalising the report.

Disclaimer

The findings in this report have been reached by means of a standard evaluative process. They are based on a representative selection of focus areas, and a sample of supporting information provided by the TEO under review or independently accessed by NZQA. As such, the report's findings offer a guide to the relative quality of the TEO at the time of the EER, in the light of the known evidence, and the likelihood that this level of quality will continue.

For the same reason, these findings are always limited in scope. They are derived from selections and samples evaluated at a point in time. The supporting methodology is not designed to:

- *Identify organisational fraud²⁰*
- *Provide comprehensive coverage of all programmes within a TEO, or of all relevant evidence sources*
- *Predict the outcome of other reviews of the same TEO which, by posing different questions or examining different information, could reasonably arrive at different conclusions.*

²⁰ NZQA and the Tertiary Education Commission (TEC) comprehensively monitor risk in the tertiary education sector through a range of other mechanisms. When fraud, or any other serious risk factor, has been confirmed, corrective action is taken as a matter of urgency.

Regulatory basis for external evaluation and review

External evaluation and review is conducted under the Quality Assurance (including External Evaluation and Review (EER)) Rules 2021, which are made by NZQA under section 253(1)(pa) of the Education and Training Act 1989 and approved by the NZQA Board and the Minister authorised as responsible for Part 20 of the Education Act.

Self-assessment and participation and cooperation in external evaluation and review are requirements for:

- *maintaining accreditation to provide an approved programme for all TEOs other than universities, and*
- *maintaining consent to assess against standards on the Directory of Assessment Standards for all TEOs including TITOs but excluding universities, and*
- *maintaining training scheme approval for all TEOs other than universities.*

The requirements for participation and cooperation are set through the Programme Approval and Accreditation Rules 2021, the Consent to Assess Against Standards Rules 2021 and the Training Scheme Rules 2021 respectively. These rules were also made by NZQA under section 253 of the Education Act 1989 and approved by the NZQA Board and the Minister.

In addition, the Private Training Establishment Registration Rules 2021 require registered private training establishments to undertake self-assessment and participate in external evaluation and review as a condition of maintaining registration.

NZQA is responsible for ensuring non-university TEOs continue to comply with the rules after the initial granting of approval and accreditation of programmes, training schemes and consents to assess and registration. The New Zealand Vice-Chancellors' Committee (NZVCC) has statutory responsibility for compliance by universities.

This report reflects the findings and conclusions of the external evaluation and review process, conducted according to the Quality Assurance (including External Evaluation and Review (EER)) Rules 2021. The report identifies strengths and areas for improvement in terms of the organisation's educational performance and capability in self-assessment.

External evaluation and review reports are one contributing piece of information in determining future funding decisions where the organisation is a funded TEO subject to an investment plan agreed with the Tertiary Education Commission.

External evaluation and review reports are public information and are available from the NZQA website (www.nzqa.govt.nz). All rules cited above are available at <https://www.nzqa.govt.nz/about-us/our-role/legislation/nzqa-rules/>, while information about the conduct and methodology for external evaluation and review can be found at <https://www.nzqa.govt.nz/providers-partners/external-evaluation-and-review/>.

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