

Report of External Evaluation and Review

Techtorium New Zealand Institute of
Information Technology

Highly Confident in educational performance

Confident in capability in self-assessment

Date of report: 3 November 2011

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Purpose of this Report

The purpose of this external evaluation and review report is to provide a public statement about the Tertiary Education Organisation's (TEO) educational performance and capability in self-assessment. It forms part of the accountability process required by Government to inform investors, the public, students, prospective students, communities, employers, and other interested parties. It is also intended to be used by the TEO itself for quality improvement purposes.

Introduction

1. Techtorium in context

Location:	Level 3, 182 Broadway, Newmarket, Auckland
Type:	Private training establishment (PTE)
First registered:	2004
Number of students:	Domestic: 52 International: one
Number of staff:	Five
Scope of active accreditation:	<ul style="list-style-type: none">• Certificate in Computer Engineering (Networking) (Level 4)• Certificate in Computer Engineering (Hardware and Software) (Level 5)• Diploma in Personal Computer Support (Level 5)
Sites:	One site as above
Distinctive characteristics:	Techtorium is a small training company offering computer support training. The primary objective is to train young people in personal computer and network support to enable them to gain employment at entry level. Techtorium currently offers one programme, the Diploma in PC Support, which leads to the award of the qualification, Diploma in PC Support (Level 5). This is offered to domestic and international students.
Recent significant changes:	Techtorium has recently moved to its new site in Newmarket which is adjacent to the Newmarket train station and thus very convenient for students

using public transport. The organisation has restructured from what was essentially a one-instructor organisation to a more formally structured small enterprise.

Previous quality assurance history: At audit in May 2009, Techtorium met all but four requirements of the then standard, QA Standard One. The requirements not met related to governance and management, assessment and moderation, and notification and reporting.

2. Scope of external evaluation and review

The focus areas selected for this EER were:

- Governance, management, and strategy
- Diploma in Personal Computer Support (Level 5).

Governance, management, and strategy is a mandatory focus area. As Techtorium has only one international student enrolled, support for international students is examined under the key evaluation question 1.4. The Diploma of PC Support is Techtorium's major programme for full-time students.

3. Conduct of external evaluation and review

All external evaluation and reviews are conducted in accordance with NZQA's published policies and procedures. The methodology used is described fully in the web document Policy and Guidelines for the Conduct of External Evaluation and Review available at: <http://www.nzqa.govt.nz/providers-partners/registration-and-accreditation/external-evaluation-and-review/policy-and-guidelines-eer/introduction/>

The EER team comprised an NZQA lead evaluator and an external evaluator. The team visited the Newmarket campus for two days. Over these days the team met with the principal, who is also a director of the board of advisors, another member of that board, the operations manager, the two tutors, the student administrator, and 14 students. The team also reviewed a range of the organisation's documents and records, including the quality management system, meeting minutes, student destination data, comparative data for other Auckland providers of training in information and communications technology (ICT), work experience information, and the student handbook.

Summary of Results

Statement of confidence on educational performance

NZQA is **Highly Confident** in the educational performance of **Techtorium New Zealand Institute of Information Technology**.

Techtorium performs strongly in enabling learners to complete formal qualifications. Tertiary Education Commission (TEC) figures show that:

- 79 per cent of students completed a qualification in 2010. The PTE sector median was 74 per cent
- 89 per cent of students completed courses (sector median 80 per cent)
- 72 per cent of students were retained in study (sector median 69 per cent).

The 2009 results were 67, 83, and 42 per cent respectively, so the 2010 indicators represent a positive improvement and a very good achievement.

The key features of Techtorium's capability in educational performance are:

- The programmes have a strong practical emphasis, aiming to make all learners capable of fixing PCs and constructing networks of PCs.
- Comparison tables compiled by Techtorium from public data show very good achievement by its learners compared with those of nine other providers of similar courses in the Auckland area.
- Techtorium has records which show that of the 82 students who graduated between December 2009 and July 2011, 62 per cent have obtained employment and 17 per cent have gone on to further education.
- Learners interviewed by the evaluation team were confident about gaining jobs, and management had many examples of work experience leading to part-time employment and some full-time jobs.
- There are clear pathways to further study.
- The course equips learners with the skills they need for gaining and keeping employment.
- Techtorium has identified its stakeholders in the industry and has strong relationships with them.

Techtorium is meeting the most important needs of its learners and stakeholders and has effective processes that contribute to learning and securing employment for graduates. These outcomes benefit the learners and their families and also contribute to growing a New Zealand-trained ICT community.

Statement of confidence on capability in self-assessment

NZQA is **Confident** in the capability in self-assessment of **Techtorium New Zealand Institute of Information Technology**.

Techtorium collects high quality self-assessment data and information on learner achievement, weekly progress, student evaluations, employment outcomes, learners progressing to higher education, staff performance, adequacy of resources, assessment, moderation, and stakeholder and industry feedback.

Techtorium has analysed this data and on reflection has introduced changes such as:

- Making 40 hours' work experience a course requirement
- Modifying the tutors' teaching practice to match the needs of school leavers
- Delivering Gateway programmes on behalf of schools
- Targeting secondary schools with high percentages of Māori and Pasifika students
- Introducing a "student for a day" programme
- Raising the attendance requirement to 90 per cent.

These improvements have been validated by trials and feedback from evaluations.

There are some areas, such as tracking graduates, where the quality of information could be improved, while some of the changes made as a result of self-assessment to meet students' needs are yet to be shown as meriting a rating of excellence in self-assessment.

TEO response

Techtorium New Zealand Institute of Information Technology has confirmed the factual accuracy of this report.

Findings¹

1.1 How well do learners achieve?

The rating for performance in relation to this key evaluation question is **Good**.

The rating for capability in self-assessment for this key evaluation question is **Excellent**.

Techtorium performs strongly in enabling learners to complete formal qualifications. TEC figures show that 79 per cent of students completed a qualification in 2010 compared with the PTE sector median of 74 per cent. Similarly, the statistics for percentage of courses completed (89 per cent) and retained in study (72 per cent) are also above the sector medians of 80 and 69 per cent respectively. The 2009 results were 67, 83, and 42 per cent respectively, so the 2010 indicators represent positive improvement and very good achievement.

Learners acquire useful skills and knowledge at Techtorium. The programmes have a strong practical emphasis, aiming to make all learners capable of fixing PCs and constructing networks of PCs. Staff and students interviewed by the evaluation team gave examples of students gaining confidence to carry out these tasks through the knowledge and skills they developed at Techtorium. These are positive and important outcomes.

Techtorium has also compared its performance against the 2009 TEC statistics for nine other providers of similar courses in the Auckland area. In these comparison tables, Techtorium ranks second in course completion percentages and fifth on qualification achievement. These tables are typical of the high quality data that Techtorium generates to inform its self-assessment. Techtorium intends compiling similar comparisons from the 2010 figures and will be interested to see how its improvements compare with others. The tables also show good achievement by Techtorium learners.

Techtorium has a wealth of high quality data measuring learner achievement. On the basis of information from employers, the organisation has introduced improvements such as making 40 hours' work experience a course requirement. Performance data and student evaluations confirm the merits of insisting on an early start for classes and raising the attendance requirement to 90 per cent. These improvements have been validated by trials and feedback from student evaluations.

¹ The findings in this report are derived using a standard process and are based on a targeted sample of the organisation's activities.

1.2 What is the value of the outcomes for key stakeholders, including learners?

The rating for performance in relation to this key evaluation question is **Excellent**.

The rating for capability in self-assessment for this key evaluation question is **Good**.

A high percentage of graduates of Techtorium gain employment or engage with further study. Techtorium has clear data to show that of the 82 students who graduated between December 2009 and July 2011, 62 per cent have obtained employment and 17 per cent have gone on to further education. Students interviewed by the evaluation team were confident about getting jobs, and management had many examples of work experience leading to part-time employment and full-time jobs. Techtorium has a strong relationship with Auckland University of Technology (AUT) and Techtorium's unit standards-based qualifications provide a clear pathway to further study at AUT. These longer-term outcomes benefit the learners, their families, and ultimately society.

Techtorium has established educational pathways for graduates who want to further their studies. Techtorium has a memorandum of understanding with Unitec Institute of Technology for acceptance of its graduates onto Unitec's level 7 Diploma in Advanced Computer Systems Engineering course. This is in addition to the valuable pathway already used by some graduates to study at AUT. Techtorium keeps in contact with these graduates and with the staff of these institutes and has evidence that their graduates do very well in higher study.

Learners at Techtorium improve their well-being and enhance their abilities and attributes. There was evidence of these improvements from students and staff as well as in case histories from management. The organisation has a clear focus on improving the skills and knowledge of entry-level job seekers entering the ICT industry. Graduates are clear that the practical job they start with can be the foundation of a career. Staff had many success stories of graduates moving on to more demanding jobs and supervisory positions. Techtorium staff help students with job application skills as part of a comprehensive programme of equipping learners with the skills they need for gaining and keeping employment. This comprehensive approach encourages and enables improvement.

Techtorium works to develop the community of ICT practitioners. The owner has first-hand experience of the difficulties ICT firms have in attracting enough entry-level employees. Graduates of Techtorium are partially filling this need and Techtorium has taken this further by developing relationships with secondary schools. Techtorium delivers Gateway programmes on behalf of schools and a "student for a day" programme. The organisation has had considerable success in attracting Pasifika and Māori to ICT which is evidenced by the enrolments of these students being above the median. Also, 70 per cent of the 2009 students were under 25 years of age which is further evidence of the success of Techtorium's collaboration with secondary schools. These are important contributions to growing the ICT community.

Techtorium holds an annual graduation ceremony which enables families and friends to celebrate the learners' success. ICT business leaders and an advisory group of industry people attend these ceremonies and this develops Techtorium's position in the ICT community.

Again, Techtorium has some good self-assessment data in this area, including surveys of graduating students asking for destination data and feedback on their experience at Techtorium. Techtorium has also begun to survey graduates online. Further development of this could provide the evidence needed for an excellent rating in self-assessment in this area.

1.3 How well do programmes and activities match the needs of learners and other stakeholders?

The rating for performance in relation to this key evaluation question is **Excellent**.

The rating for capability in self-assessment for this key evaluation question is **Good**.

The learning environment at Techtorium is inclusive. The year's programme is divided into four modules and students can start their year at the commencement of any module. Not having to start in January with module one matches the needs of career changers and those secondary school students who realise during their senior year that they need the sort of training Techtorium offers. Techtorium uses a programme to help learners identify their learning style, and tutors deliver the training using a variety of approaches to cater for the different learning styles. This programme flexibility enhances learner achievement.

Programme planning at Techtorium is informed by ongoing needs analysis. The principal recently conducted research into the changing entry-level requirements for computer engineers, interviewing service managers in the industry using a range of questions to determine the essential skills that an entry-level engineer needs to get a start in industry. The results of this research will feed into course content. The service managers confirm the need for further training which Techtorium reinforces in its contacts with graduates. Techtorium also provides a testing centre for proprietary qualifications such as Microsoft qualifications. These processes match the needs of employers and ensure that the course keeps up with the constantly changing ICT environment.

Techtorium has identified its stakeholders in the industry and has strong relationships with them. More formally, it consults its industry advisory group of ICT senior industry people. The minutes of their regular meetings show that a wide range of issues – such as course content and the opportunities arising from new computer architecture and hardware and software – are discussed with the broad aim of increasing the job marketability of graduating students. This sharing of perspectives and information between Techtorium and its stakeholders is mutually beneficial.

Again, Techtorium has well-recorded information from learning style tests, student evaluations, the principal's research, and advisory committee minutes to enable effective self-assessment. Changes have been made to meet these needs but some of the results of the changes are yet to be shown as meriting a rating of excellence in this area.

1.4 How effective is the teaching?

The rating for performance in relation to this key evaluation question is **Excellent**.

The rating for capability in self-assessment for this key evaluation question is **Excellent**.

Staff and learners relate effectively to one another at Techtorium. There was good evidence of this from student evaluations and from the staff and students interviewed. Techtorium has high quality data which is enabling the organisation to monitor the transition from the principal being the sole instructor to the sharing of instruction between three tutors and supporting the new tutors in their roles. Having two or three staff in the computer room for practical sessions enables a great deal of one-to-one instruction. Staff also facilitate students helping each other by careful selection of the pairs of students to work together on practical activities. This positive relationship between staff and learners and among learners encourages engagement with learning.

Learning activities and the resources at Techtorium are effective in engaging learners. Techtorium has a large classroom which can accommodate up to 50 students for theory sessions which usually involve group activities. There are two large computer rooms where learners can develop their practical skills in problem-solving, building networks, and developing web pages. There was clear evidence from student evaluations that this balance between theory and practice engaged them in learning.

Assessment provides learners and staff with useful feedback on progress. Formative assessment sessions are run every Friday covering written and practical work to measure progress. Techtorium has developed excellent electronic assessments and this technology enables staff to give learners immediate feedback on their understanding and what they need to work on. This information also helps staff to assess their effectiveness and improve their teaching.

Assessment is valid, fair, and transparent. There was evidence from student evaluations and from students and staff interviewed that assessment was rigorous yet fair. Techtorium staff have developed innovative computer assessments with appropriate security, which are completed by learners at their computer terminal. Learners sign their work electronically and moderation scripts are generated as PDF files. This integration of assessment with the subject matter is engaging for the learners and gives good evidence of achievement.

Techtorium engages with NZQA external moderation and has now achieved good results.

Student evaluations are conducted independently of the tutors by the operations manager. Each teaching module is compared with the same module for the previous year as well as with all other modules. The results of these evaluations are discussed with both the staff and the students. From analysis of student evaluation forms, staff identified undesirable behaviours, such as “off-task” conversations by younger class members during group activities, and developed tactics to address these. The high quality data enables staff and management to compare learners’ results in each module year-on-year and drive improvements in educational achievement.

1.5 How well are learners guided and supported?

The rating for performance in relation to this key evaluation question is **Excellent**.

The rating for capability in self-assessment for this key evaluation question is **Good**.

Techtorium provides comprehensive and timely study information and advice. The organisation has an attractive and informative website, complete with encouraging testimonials, and also publishes informative leaflets and newsletters. Learners interviewed agreed that they had full information before starting their course and that Techtorium had delivered on its promises. This timely and accurate information and advice has enabled learners to make good study decisions and start their careers.

Techtorium responds proactively to the well-being and developmental needs of learners by creating a family atmosphere. Actions include:

- Increasing the number of student representatives to three to make it easier for learners to contact their representatives
- Encouraging students to stay on the premises beyond programmed times. There was clear evidence from students that staff were available and willing to assist them after hours
- Holding a supply of petty cash for those needing help with transport fares
- Establishing a student welfare team led by the principal with a clear role for the student administrator
- Changing the student pairs every module in the light of observation to maximise mutual assistance
- Raising the attendance requirement to 90 per cent to stop the “one day off a week” syndrome
- Setting aside a phone for text messages from students regarding absence from a session

- Monitoring lateness and attendance rigorously and contacting learners and/or their parents immediately by telephone to drive good attendance
- Continued support in directing learners to job opportunities
- Devoting the last week of each module to coaching, including advice on presentation for job interviews.

Techtorium holds full information showing that it fulfils the requirements of the Code of Practice for the Pastoral Care of International Students for the sole international student currently studying. The student handbook is comprehensive and well set out and includes clear information on complaints and disciplinary procedures, and lists crisis and support contacts.

There is good self-assessment information in this area. The student evaluation form includes a question on student support and there is evidence, as listed above, of self-assessment being used to make changes leading to worthwhile improvements. There could be more assistance and encouragement for learners to set and review formal goals, and assessment of these by the learners and the organisation could provide some rich information to drive improvements.

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

The rating for performance in relation to this key evaluation question is **Excellent**.

The rating for capability in self-assessment for this key evaluation question is **Excellent**.

Techtorium has a clear purpose and direction. The purpose has always been to give learners the knowledge, skills, and attributes needed to gain an entry-level position in the ICT industry. The current statement of this was developed with full staff involvement at a recent staff day. Staff days are held each quarter to ensure that clear purpose is maintained, staff and management are mutually well informed, and leadership is shared throughout the organisation. There was clear evidence of good teamwork at Techtorium. Having a clear purpose and direction focuses decision-making and improves Techtorium's effectiveness.

Resources are allocated to support learning, teaching, and research. Techtorium's new premises are bright and spacious and well equipped. In response to self-assessment the organisation changed from a system of leasing computers to buying some new computers every month. Staff had a good understanding of resourcing decisions and constraints and they and the learners were happy that well-substantiated needs were met promptly. Staff have time allocated for professional development and research. The innovative assessment processes and the development of a multipoint system to enable one computer to drive several workstations are products of practical staff research. Improved outcomes and achievements have accompanied this clear targeting of facilities and resources.

Governance and management anticipate and respond to change and balance innovation and continuity. Techtorium is taking a measured approach to marketing its training internationally. New courses have been developed, although they have been put on hold pending NZQA's Targeted Review of Qualifications. Innovative practices such as home automation are kept in review as possible employment opportunities for graduates. The involvement of all staff in self-assessment of these innovations enhances Techtorium's credibility.

Techtorium has very good information and data for informing governance and management decisions. The organisation has good information about its competitors, including their performance, course prices, and modules delivered which is good evidence for making their case with the funding agency. The increasing range of self-assessment information ensures that the transition of Techtorium from a "one-man-band" to an organisation of teams is taking place with minimal disruption. Techtorium is increasingly making self-assessment the primary means of improving its educational performance.

Focus Areas

This section reports significant findings in each focus area, not already covered in Part 1.

2.1 Focus area: Governance, management, and strategy

The rating in this focus area for educational performance is **Excellent**.

The rating for capability in self-assessment for this focus area is **Excellent**.

2.2 Focus area: Diploma in PC Support (Level 5)

The rating in this focus area for educational performance is **Excellent**.

The rating for capability in self-assessment for this focus area is **Good**.

Recommendations

In addition to those recommendations implied or expressed within the report, NZQA recommends that Techtorium reviews the data it collects for self-assessment in areas such as tracking graduates and evaluating the effects of changes that have been made to programmes and delivery. Techtorium could also investigate giving more assistance and encouragement for learners to set and review formal goals, perhaps using computer-aided systems. Assessment of these by the learners and the organisation could provide some rich information to drive improvements.

Appendix

Regulatory basis for external evaluation and review

Self-assessment and external evaluation and review are requirements of course approval and accreditation (under sections 258 and 259 of the Education Act 1989) for all TEOs that are entitled to apply. The requirements are set through the course approval and accreditation criteria and policies established by NZQA under section 253(1)(d) and (e) of the Act.

In addition, for registered private training establishments, the criteria and policies for their registration require self-assessment and external evaluation and review at an organisational level in addition to the individual courses they own or provide. These criteria and policies are set by NZQA under section 253(1)(ca) of the Act.

NZQA is responsible for ensuring non-university TEOs continue to comply with the policies and criteria after the initial granting of approval and accreditation of courses and/or 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 policies and criteria approved by the NZQA Board.

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).

*Information relevant to the external evaluation and review process, including the publication *Policy and Guidelines for the Conduct of External Evaluation and Review*, is available at: <http://www.nzqa.govt.nz/providers-partners/registration-and-accreditation/external-evaluation-and-review/policy-and-guidelines-eeer/introduction/>*

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