

Factors that drive RTO performance: an overview

Josie Misko

National Centre for Vocational Education Research

Publisher's note

The views and opinions expressed in this document are those of NCVER and do not necessarily reflect the views of the Australian Government, or state and territory governments. Any interpretation of data is the responsibility of the author/project team.

© Commonwealth of Australia, 2017



With the exception of the Commonwealth Coat of Arms, the Department's logo, any material protected by a trade mark and where otherwise noted all material presented in this document is provided under a Creative Commons Attribution 3.0 Australia <<http://creativecommons.org/licenses/by/3.0/au>> licence.

The details of the relevant licence conditions are available on the Creative Commons website (accessible using the links provided) as is the full legal code for the CC BY 3.0 AU licence <<http://creativecommons.org/licenses/by/3.0/legalcode>>.

The Creative Commons licence conditions do not apply to all logos, graphic design, artwork and photographs. Requests and enquiries concerning other reproduction and rights should be directed to the National Centre for Vocational Education Research (NCVER).

This document should be attributed as Misko, J 2017, *Factors that drive RTO performance: an overview*, NCVER, Adelaide.

This work has been produced by NCVER on behalf of the Australian Government and state and territory governments, with funding provided through the Australian Government Department of Education and Training.

COVER IMAGE: GETTY IMAGES/iStock

Published by NCVER, ABN 87 007 967 311

Level 5, 60 Light Square, Adelaide SA 5000

PO Box 8288 Station Arcade, Adelaide SA 5000, Australia

Phone +61 8 8230 8400 Email ncver@ncver.edu.au

Web <<https://www.ncver.edu.au>> <<http://www.isay.edu.au>>

Follow us:  <<https://twitter.com/ncver>>  <<https://www.linkedin.com/company/ncver>>

Contents

Factors that drive RTO performance: an overview	5
Why are we interested in drivers of RTO performance?	5
High performance organisations and frameworks	5
Effectiveness and efficiency: indicators of performance	6
International approaches	11
Implications for further research	18
References	19
Appendix A: The United Kingdom Common Inspection Framework	21

Factors that drive RTO performance: an overview

In this paper we provide an overview of recent research on the factors that drive the performance of registered training organisations (RTOs), with a view to identifying areas for future research.

This is a companion piece to another National Centre for Vocational Education Research (NCVER) report, *Are we all speaking the same language? Understanding 'quality' in the VET sector*, written by Tabatha Griffin.

Initially we explore the drivers of RTO performance; then we discuss findings from available literature from Australia and from overseas. Finally we suggest some implications for further research.

We structure our discussion under the organising themes of:

- high performance organisations and frameworks
- effectiveness and efficiency indicators of performance
- trials of RTO performance indicators
- international approaches (including for United State of America, United Kingdom, European Union, Germany, and New Zealand)
- concluding remarks.

Why are we interested in drivers of RTO performance?

There are four main incentives for investigating drivers of RTO performance:

- Governments want to be assured that RTOs understand and actively apply national and jurisdictional vocational education and training (VET) policies and regulatory frameworks, meet funding accountability requirements and deliver quality training and assessment. They also want to ensure that the reputation of the Australian VET brand is protected and promoted at home and internationally, and that the system is well placed to contribute to national productivity.
- Industry sectors and occupational groups want to be confident that RTOs can deliver training that meets current and future skills demands.
- Students want to ensure that the training they purchase or acquire and the RTO they choose will provide them with the skills and knowledge they will need for their current and future jobs.
- RTOs themselves want to ensure that they are able to maintain their share in an increasingly contestable market, as well as benchmark their performance against that of others.

High performance organisations and frameworks

Over the last two decades a large body of knowledge has emerged that deals with the question of what drives efficient and effective performance in organisations. Financial performance, rates of productivity, employee commitment, labour turnover and indicators of employee wellbeing are examples of the measures that have been used to indicate success. Recent examples of the adoption of these concepts at a governmental level can be found in the 'high performance frameworks' developed by the South Australian and New South Wales governments.

These high performance frameworks in part have been based on what is commonly agreed to represent the attributes of successful (that is, high-performance) organisations. By linking people, strategy and performance, high-performance organisations achieve success. They recruit talented workers, develop their skills and capacities, and create or design jobs which will provide them with challenge, responsibility and control (Appelbaum & Batt 1994; Lawler, Mohrman & Ledford 1998; Appelbaum et al. 2000; Becker, Huselid & Ulrich 2001; Doehringer, Evans-Klock & Terkla 2002; Boxall 2003; Sung & Ashton 2005; Guest 2006; Mavromaras, McGuinness & Fok 2009; Stirpe, Zarraga & Rigby 2009; SQW Consulting 2010).

The South Australian Government's *high performance framework*¹ has been developed for its public service sectors. Its role is to act as a 'whole of government mechanism to measure, improve and monitor performance' (South Australian Government 2012, p.1). In New South Wales a similar framework has been established for the state's Institute of Sport.² The role of the Institute of Sport's high performance framework is to identify, develop, manage and ensure the progression of highly capable, talented performing athletes, coaches and staff (New South Wales Institute of Sport 2016).

The positive outcomes associated with high-performance organisations, such as increased productivity and profitability and reduced labour turnover and worker commitment have to be assessed against the negative outcomes, such as increased workloads, stress and loss of individual autonomy (Sparham & Sung 2009). Nevertheless, it is becoming increasingly clear that 'bundles' of such practices have the best chance of raising organisational performance (Appelbaum & Batt 1994; Lawler, Mohrman & Ledford 1998; Doehringer, Evans-Klock & Terkla 2002; Stirpe, Zarraga & Rigby 2009).

Effectiveness and efficiency: indicators of performance

In Australia and overseas strong interest has been shown in the concept of performance indicators to measure the performance of RTOs and other educational institutions, the aim being to determine their effectiveness and efficiency.³ These studies have used both administrative and survey data, collected at jurisdictional and national levels, and/or undertaken more intensive consultations with RTOs themselves (Carrington, Coelli and Rao, 2005, Misko and Halliday-Wynes 2009, Fieger, Karmel and Stanwick 2010).

Quality and environmental factors were used to evaluate the effectiveness and efficiency of higher education institutes by Carrington, Coelli and Rao (2005). This study examined the impact of federal government policies and changes in student numbers on the productivity growth and quality of outcomes for 35 universities, between the years of 1996 and 2000. Student satisfaction rates, the proportion of students who were in full-time employment following study, and average graduate starting salary were the factors used to determine quality, while the proportion of students who were from Indigenous, low socioeconomic status, and rural and remote backgrounds represented the environmental factors.

Misko and Halliday-Wynes (2009) investigated how TAFE institutes measured their effectiveness and efficiency.⁴ The results of their interviews show that the key drivers of effective and efficient performance are multifaceted. Accordingly understanding them must take into account the various

1 <<http://www.hpf.sa.gov.au/>>.

2 <<https://www.nswis.com.au/wp-content/uploads/2016/08/17-20-HP-framework-2017-V04.pdf>>.

3 Some studies and papers that have dealt with the issue of performance indicators can be found in VOCEDplus here.

4 Interviews with, and information collected from, RTO personnel: nine TAFE directors and 59 senior and middle managers in metropolitan and rural TAFE institutes across South Australia, Victoria, Queensland and New South Wales.

operations that enable RTOs to deliver training outcomes, while maintaining relevance, financial and market viability, accountability and quality. The quest for effectiveness and efficiency is also driven by the organisational commitment, energy and capacity of the leadership group as a whole and managers of teaching and non-teaching faculties. Misko and Halliday-Wynes (2009) summarised the key drivers as follows:

- *Meeting student and industry needs:* the key purpose of RTOs is to provide students with relevant education and training experiences, that is, those that help them to complete desired or required courses or qualifications and to acquire skills to move into work, progress through work, or transition to further studies. Providing relevant training requires RTOs to understand what industry needs. This is the primary driver of RTO performance. However, to achieve this objective RTOs must ensure that they have the resources necessary to carry out their operations.
- *Negotiating, reviewing and accounting for budgets and resources:* other drivers of performance are connected to funding, budgeting and accountability. They included negotiating the 'purchase agreement'⁵ with the relevant government department (when planning to provide government-funded training), and subsequently customising the resulting agreement to local needs. Once the resources had been acquired there was a need to understand how the business was progressing. In this sense the budget became an important driver of RTO performance. RTOs had developed their own approaches to regular monitoring and review of the ways in which different departments were keeping on track with meeting budget requirements.
- *Meeting regulatory requirements and quality assuring the business:* meeting their responsibilities for implementing government regulations, acquiring and maintaining professional accreditations, and ensuring compliance with the Australian Quality Training Framework (AQTF) standards (applying to all jurisdictions in 2009) were found to be other key drivers of performance.
- *Expanding the business:* it was not enough for institutes to depend on government funding, however, and there was a need for the RTO to increase the size of the business by complementing government funds with commercial training activity.

Other drivers of performance included the establishment of good information management systems, the sharing of good practice with other institutes or between faculties, and the need to maintain viability in an increasingly contestable market. The study by Misko and Halliday-Wynes (2009) illustrates the importance of looking at performance indicators that cover the breadth of RTO operations, while recognising the impact made by individuals in key positions and leadership roles.

Fieger, Karmel and Stanwick (2010) compared the effectiveness and efficiency of 58 TAFE (technical and further education) institutes by using state and territory administrative data on inputs (comprising expenditures on salaries and related expenses and other costs, excluding capital costs) and outputs (comprising successful full-year training equivalents for trade/technician and non-trade/technician courses adjusted for load pass rates).

This research found that the drivers of efficiency were significantly affected by environmental factors (location, institutional size and student mix), which, by their nature, are partly outside institute

5 The 'purchase agreement' is the funding agreement negotiated between the state and territory department responsible for education and training and the provider. In this agreement the government department agrees to purchase a specific number of training hours and set of services from providers.

control in the short term.⁶ Their research also found that the more remote institutes had higher costs of delivery, as well as a higher number of Indigenous students. The least efficient were remote institutes and those with a high number of students with a disability. The size of the institution was also key, with very small and very large institutes demonstrating lower levels of efficiency; the very small institutes were the least efficient.⁷ These findings supported those of Carrington, Coelli and Rao (op cit) that efficiency was lower for institutions with higher proportions of Indigenous students and students in rural and remote locations.

In Fieger, Karmel and Stanwick's study (2010), effectiveness referred to the quality of the training, as measured by the achievement of students and whether or not they would recommend the institution to others.⁸ These indicators were measured by: percentage of students who achieved their main goal; load pass rates; and the percentage who would recommend the institution. Fieger, Karmel and Stanwick (2010) concluded upon this basis that the more efficient institutes, on average, produced better-quality training. The researchers claimed that the study's impact lay in its ability to assist in benchmarking between institutes and therefore inform government planning decisions; that is, that there was potentially an optimal institution size, one that predicted efficiency and effectiveness.

RTO performance indicator trials

In more recent years, the Australian Government has driven projects investigating the application of performance indicators to evaluate the success of the VET system. Desktop evaluations conducted by the various state governments assessed the adequacy – strengths, weaknesses and gaps – of a trial set of performance indicators (Standing Council on Tertiary Education, Skills and Employment [SCOTESE] Data and Performance Measurement Principal Committee 2014). In Victoria and Western Australia the desktop evaluation comprised the collation of readily accessible data on performance indicators for a sample of RTOs and compared these with the perceptions of RTO contract managers and managers from TAFE governance areas (in Victoria) and contract managers and VET regulator representatives (in Western Australia). The trial list of performance indicators used in the desktop evaluations is shown in table 1.

6 Institutes can be considered to have some control over factors such as size and location of delivery over time. For example, they can decide to scale down their face-to-face delivery by increasing their use of online and other distance learning delivery arrangements, or decide that they may no longer deliver certain programs.

7 To calculate the technical and scale-efficiency estimates they used the following benchmarks: technical efficiency 1.0 = efficient; a 0.8 = 80% efficiency relative to the peers; scale efficiency: 0.50 = institutes operating at a very inefficient size; .95 = institutes operating at a near optimal size.

8 These were used as proxies for the effort that teachers put into their delivery.

Table 1 Trialled performance indicators

	Victoria	Western Australia
Improved employment status for those who have completed training	✓	✓
Salary of full-time workers after training	✓	✓
Proportion of training completed [†]	✓	
VET graduates have improved foundation skills following training completion [†]	✓	
Rate or proportion of VET graduates going onto further study	✓	✓
VET graduates acquire skills relevant to the labour market	✓	✓
Clients of the VET system are satisfied with the quality of teaching [†]	✓	
Learners are engaged in the training process	✓	✓
Students have a positive perception of their learning experience	✓	✓
Clients of the VET system would recommend the institute	✓	✓
Students have a positive perception of the assessment process	✓	✓
Employers with direct relationships with RTOs are satisfied with interactions with RTO staff and the training provided by the RTO.	✓	✓

[†] Due to a lack of data availability, the Western Australian desktop evaluation did not assess these performance indicators.

The findings from the desktop evaluations showed general agreement on the value of having a set of performance indicators by which to benchmark performance, although there were a number of issues with the indicators as they currently stood. These related to:

- *A low comparability between performance indicator data and manager perceptions of RTO performance:* the performance indicators helped to provide some direct information on student outcomes and provider quality, but they were unable to help system managers measure compliance with actual contractual requirements or regulated standards.
- *A lack of clarity for end-users:* the trial found that it might be difficult for end-users to comprehend the indicators, especially if they do not understand that the performance data published needed to be understood in terms of student mix (characteristics). This issue suggests the need to compare 'like with like', that is, RTOs with similar student characteristics. It was also important to take into account differences by qualification type and level, and industry sector.
- *A need for clear guidelines for interpretation:* acknowledging that jurisdictions may adopt diverse locally relevant options for presenting results of RTO performance, it was nevertheless important that clear guidelines for interpretation be made available.
- *Low variation in levels of positive reactions:* there was limited variation between RTOs in the levels of positive student perceptions of teachers and assessment experiences, and the recommendations of the RTO by students to others. This potentially reduces the meaningfulness of results.
- *Jurisdictional inconsistency in indicator effect:* there were differences in how the physical location of the RTO affects performance indicators, with Victoria showing no effect and Western Australia finding that it is critical.

The Western Australian evaluation raised some other issues; namely, that the data on the various performance indicators did not accord with the indicators that the contract managers who were consulted used in their various areas. Furthermore, they were not convinced that the performance indicators flagged quality training, identified risks or demonstrated the usefulness of the training. The

participants in the Western Australian evaluation had a particular view that quality outcomes needed to emphasise contract and AQTF compliance. A number of additional issues were identified by the participating managers in the Western Australian evaluation. These related to the following:

- The various characteristics of the learner (for example, geographical location, English proficiency level, highest qualification level below Year 11 or equivalent) were not taken into account in the performance indicator trial.
- Employers providing feedback may not have had a direct relationship with the RTO because 83% of students were not in apprenticeships.
- The level of trainer qualifications required by the performance indicator was higher than that required by the AQTF standards.
- The lack of feedback from consumers made it difficult to know how they would interpret the performance indicator data when choosing an RTO.
- NCVER's National Student Outcomes Survey's sampling errors, low response rates, use of aggregated results, and lack of data on private training organisations.
- Effective ways to present the data to aid interpretation and meaning were required (for example, the end-user may not understand standard deviations).

On the basis of these desktop evaluations the performance indicators were refined and implemented in the field trial, which took place in 2014. This trial was also evaluated and the final report affirmed the application of the methodology to measure performance across states and territories, the regions and RTOs (Victoria University Centre for International Research on Education Systems 2015). The report made the following suggestions:

- Data on module completers and non-completers should be added to data on course completion because it would help to support risk assessment and quality assurance processes for training departments and regulators.
- The sampling framework used to collect data on employer views could be applied across jurisdictions and regions and could be used to obtain information at the RTO level.
- Benchmarks should also take account of student pre-course intentions to ensure a meaningful indication of training experiences and outcomes (for example, getting a job or going on to further training). The evaluation found that the performance indicators as they stood did not take into account the characteristics of RTO student populations, thus enabling 'fair comparisons' across RTOs.
- Information on the current state of the labour market should be included when presenting employment-related outcomes.
- Slightly adapted box and whisker charts⁹ could be used to present an RTO's own data as a point with an overlay of that of all other RTOs as the Box and Whisker set. Benchmarks would use base-year results to compare performance over time, and progression could be measured in terms of percentage change from the previous year. Recommendations were made for ensuring that data are presented with explanations to enable clear and meaningful interpretations.

9 Box and whisker charts are graphs which present the shape of a distribution in quartiles. They highlight the means and outliers.

International approaches

Ensuring that the performance of training providers is efficient and effective is a common concern of VET systems internationally. Increasingly, this performance is driven by the need to be relevant to employer needs and to produce good outcomes for students, and is measured by some clear indicators of performance. A brief description of performance indicator or accountability frameworks being applied in other countries and the European Union follows.

United States of America

The Voluntary Framework of Accountability (VFA) is a tool established by the American Community Colleges Association (American Association of Community Colleges 2014) to help community colleges to evaluate and make more transparent their performance on specific measures. These measures cover student progress and outcomes, along with workforce, economic and community development factors. The framework, which provides colleges with an approach for assessing learning outcomes, also takes into account the special groups and purposes that community colleges serve. In doing so it helps colleges to understand how well they are doing in meeting student needs and the extent of their progress in the implementation of education and training policy. The framework also helps colleges to report their success to the community and to policy-makers in terms of student progress and achievement, implementation of career and technical education programs (credit and non-credit), and transparency of reporting outcomes.

The applicability of the Voluntary Framework of Accountability for making institutional comparisons has been questioned however (Lopez 2014). As also demonstrated in the Australian performance indicator trials, Lopez found there is a need to ensure that 'like with like' student-body comparisons are made. He suggests the establishment of discrete groups for comparisons (including all large urban, public two-year institutions), noting that performance will also be affected by student mix (students' socioeconomic status, prior work experience and college readiness), which will have an impact on student achievement. In addition, the influence of student transfer from other institutions should also be taken into account when attempting to isolate the performance attributable to specific institutions. Other considerations are school size and differing college goals and purposes. Focusing on the need for accountability may also limit an institute's ability to showcase its other positive achievements. Lopez suggests the use of longitudinal data to identify best practices for improving retention.

United Kingdom

In the United Kingdom the Post-16 Skills Plan 2016 (UK Department of Business Innovation & Skills & Department of Education 2016) provides a framework for reforming the education system and sets out some expectations for the performance of colleges and providers delivering further education. It provides another example of how policy and government expectations drive the performance of RTOs.

The plan aims to provide young people and adults with opportunities to develop or progress to the higher-level technical and specialist skills required and valued by employers and necessary for the future. It plans on achieving this objective by giving students two educational pathway options, with the opportunity to move easily between them. The first option is to follow a new technical education pathway (to be developed to world-class standards); the second is to retain the traditional academic pathway (historically considered to be world-class).

The technical education option (including apprenticeship programs) comprises 15 routes to skilled employment. Students who are not yet ready to enter the technical route will be provided with customised support for a year. The plan was to expand apprenticeships and establish a new Institute of Apprenticeships, designed to regulate the quality of apprenticeship provision. The implementation of such a plan and other related reforms would require providers to be 'resilient and financially sustainable, led and governed effectively, and focused on local needs' (Department of Business Innovation & Skills & Department of Education 2016, p. 8). Providers will also be expected to participate in a 'strong network of colleges' (p.8).

Earlier in 2015 the UK Government also announced the implementation of a national program of area-based reviews, which would look at both the educational and the financial performance of sixth form and further education colleges. These reviews were partly driven by the declining numbers of 16 to 19-year-olds in the general population, potentially affecting the financial viability of some providers. In addition, the government reported that the Further Education and Sixth Form College Commissioners had identified more room for fiscal improvements and efficiencies. The announcement foreshadowed the need to 'move faster to fewer, often larger and more resilient and more efficient providers'. Such institutions were expected to be 'genuine centres of expertise, able to support progression up to a high level of professional and technical disciplines while supporting institutions that achieve excellence in essential basic skills – English and Mathematics' (United Kingdom Her Majesty's Government 2015, p.3). The reviews would focus on current and future learner needs and employers, taking into consideration relevant demographic shifts and implications for funding and financing.

The reviews would take into account:

- local economic environments and agreements (including labour market needs and outcome agreements in place)
- implementation of national government policies related to apprenticeships, post-16 reforms, creation of centres of excellence, and high-quality basic skills provision (English and mathematics)
- student access to quality provision, especially for 16 to 19-year-olds and students with special education needs and disabilities
- providers' ability to operate with efficiency in a tight financial environment
- provision of effective support for unemployed groups to return to work
- providers' ability to meet legal responsibilities under relevant legislation.

We can learn more about the performance expectations for further education and sixth form colleges in the United Kingdom from the Common Inspection Framework,¹⁰ which is used to evaluate their performance. Endorsed for use from September 2015 onwards this framework applies to training provision that is supported in part by government funding agencies (Skills Funding Agency or Education Funding Agency). The aim of the Common Inspection Framework was to provide guidelines for the types of issues inspectors will look for when examining and assessing provider effectiveness and their efficiency of provision. The handbook used by inspectors provides additional information on what is to be covered in inspections.¹¹

10 <<https://www.gov.uk/government/publications/common-inspection-framework-education-skills-and-early-years-from-september-2015>>

11 <<https://www.gov.uk/government/publications/school-inspection-handbook-from-september-2015>>

There are three key areas for assessment, called the *key aspect judgments*. The key aspect judgments are focused on learner outcomes, the quality of teaching, learning and assessment, and the effectiveness of leadership and management. In Appendix A we list some of the details of the criteria used to make judgements on these three aspects. We do this to indicate that such a framework can be used by providers to guide and drive their performance.

In 2014, Ofsted released a report based on its visits to 20 providers judged to be 'outstanding'. They found that the key characteristics of outstanding performance were related to 'sharply focussed leadership, unequivocal and well-informed direction' (Ofsted 2014a, p.6) and consistent application of soundly based teaching strategies, with all teachers and staff having high expectations of student performance. Inspectors also reported that outstanding practice in the teaching of English and mathematics was 'consistently not wide spread' (ibid p.7) and that expertise available in teacher education departments was not being used or shared in whole-of-college staff development programs. There was also insufficient skilling of teachers to support work-based learning.

European Union

The European Union approach to measuring the effectiveness of its VET systems is based on aligning a set of statistical indicators with the range of VET and lifelong learning areas (Cedefop 2017). These indicators have been developed to support the Europe 2020 Strategy (European Commission 2010), which relates to skill development for 'smart, sustainable and inclusive growth'. Indicators for member states are reported in terms of an index number, where 100 is the EU average. These indicators provide some 'headline figures' for summary overviews of country progress and performance, and are aligned with key policy priorities in the Europe 2020 Strategy. Although the unit of comparison is at the member state level, the indicators themselves can be used by systems as targets, which in turn can be used to drive RTO performance within the state.

The European Union indicators comprise a combination of statistics on participation and outcomes, and have been grouped under three themes:

- *Access, attractiveness and flexibility*: in the main, this set of indicators represents measures of participation rather than outcomes from the system. They include levels of participation in:
 - initial VET (IVET) by upper secondary students, with a separate indicator referring to the participation of girls
 - continuing vocational training (CVT) for all employees, and those in small enterprises
 - non-formal education and training that relates to jobs and lifelong learning (by adults who are older, lowly educated or unemployed)
 - the percentage of enterprises providing training, young graduates who have gone into further education, and people who have wanted to participate in VET but did not do so.
- *Financial costs*: these indicators refer to the level of public expenditures on initial VET, including the per-pupil cost, as well as enterprise expenditures on Continuing Vocational Training courses.
- *Skill development, labour market relevance and efficiency*: these indicators are mainly training and education and employment outcomes and comprise measures of the:
 - average number of foreign languages learnt, the proportion of initial VET graduates from upper secondary school with STEM (science, technology, engineering, mathematics) qualifications, and the proportion of first-time tertiary education graduates who are graduates from short-cycle VET

- employment rates from initial VET programs for 20 to 34-year-olds, and employment gains for initial VET graduates, compared with graduates from the general stream, along with gains for the lowly educated
- the proportion of workers who have been helped by training to raise their skill levels, as well as the proportion of workers whose skills match their job roles.
- *Overall transitions and labour market trends:* these indicators are generally concerned with education and employment outcomes for different groups, and disengagement, and include indicators such as rates of:
 - early exits from education and training, and adults with lower educational attainment levels
 - attainment of tertiary qualifications for 30 to 34-year-olds
 - employment for recent graduates and 20 to 64-year-olds in general, as well as those with low levels of educational attainment
 - unemployment for 20 to 24-year-olds and 20 to 34-year-olds
 - 18 to 24-year-olds who are not in employment, education and training
 - employment for those who have medium or high qualifications.

Germany

The German Dual System and other continental dual system approaches to level 3 apprenticeships (similar to Australia's traditional apprenticeship pathways) are regarded as credible models for effective vocational education and training. The dual system offers a pathway to highly skilled jobs for those individuals who have selected not to transition to tertiary pathways.

These systems enable close connection between employers and trainees, a connection that continues for three or four years. They aim to increase the school-to-work transition rates for vocational students. In this regard they are generally effective. Following the completion of their programs, 66% of graduates from the apprenticeship programs remain employed with their training firms. Firm size is a large driver of this performance, with apprentices more likely to be retained in industry sectors with larger firms. The system experiences some challenges relating to competition for training places, such that in many instances lower-achieving youth are less likely to obtain a training place in the dual system. This group is also more vulnerable to both unemployment and long-term unemployment, and even if they have a job it is more likely to be of lower skill and status level, and lower paid. Because they have not been part of the dual system they are less likely to have the occupation-specific skills required in the German labour market and are discriminated against by employers because of their low skills (Solga et al. 2014).

New Zealand

New Zealand has a range of tertiary education organisations (TEOs), including universities, polytechnics, *wānanga*,¹² private training establishments, industry training organisations and a range of other providers. All of these institutions, with the exception of universities, deliver vocational education, which encompasses applied research and the skills required by industry.

¹² The New Zealand Qualifications Authority states: *A wānanga is characterised by teaching and research that maintains, advances, and disseminates knowledge and develops intellectual independence, and assists the application of knowledge regarding ahuatanga Maori (Maori tradition) according to tikanga Maori (Maori custom).*

New Zealand's Tertiary Education Strategy for 2014–2019 (New Zealand Qualifications Authority 2014) sets out the New Zealand Government's current vision for its tertiary education sector. It was preceded by the Tertiary Education Strategies of 2010–2015 and 2007–2012.

The vision of the current strategy is for New Zealand to have a tertiary system that compares well with the best in the world and is more 'flexible and strategic' than previously. The sector is expected not only to perform well in its own area but also perform well for the economy as a whole, responding rapidly to changing technologies, 'patterns of demand' and skill needs. The skills and knowledge that individuals acquire in training are expected to be relevant to the available labour market opportunities (New Zealand Qualifications Authority 2014, p.6).

The three areas of performance that TEOs delivering vocational education and training are expected to improve are:

- access, by maintaining and raising existing levels of participation, especially for some groups of learners
- achievement, by improving rates of qualification attainment, the numbers progressing to further study, and quality of TEO provision
- outcomes, by ensuring that a larger proportion of the population gains economic, social and cultural benefits from their tertiary studies.

The government is also focused on meeting its treaty obligations by supporting education through the Māori language, Tikanga Māori, and Mātauranga Māori and revitalising the Māori language itself. Six strategic priorities form part of this strategy and set out the areas in which the government expects to see improvement over the life of the strategy.

The indicators of success in each of these areas can be used to identify what TEOs are expected to demonstrate to show improvement. Underpinning these strategies are some fundamental assumptions, including that 'performance is driven by how teaching and research is delivered, who is taught and what is taught and researched' (New Zealand Qualifications Authority 2014, p.21).

Table 2 New Zealand Tertiary Education Strategy 2014–2019: strategic priorities and indicators of success relating to TEO performance

Strategy	Indicators of success for TEOs
1. Delivering skills for Industry	Industry and TEOs invest time and money and expertise in developing skills, transferable skills, and specific qualifications matched to the labour market.
2. Getting at risk people into a career	TEOs, schools and government and industry work together to ensure these young people have appropriate access and incentives to gain relevant qualifications and core skills for sustainable employment.
3. Boosting achievement of Māori and Pasifika people	TEOs set and achieve appropriate learning targets for Māori/Pasifika learners. TEOs set appropriate performance targets for number of Māori/Pasifika teachers in their organisations. Opportunities in TEOs for Māori/ Pasifika learners to participate in study and research that will engage them as Māori/Pasifika within tertiary education. TEOs engage Pasifika communities in the mentoring and pastoral care of Pasifika learners.
4. Strengthening research-based institutions	TEOs, industry, and research organisations collaborate more to share expertise, transfer knowledge, and progress joint research programmes to deliver greater impact. TEOs develop strategies and monitoring systems to measure their progress in contributing to innovative activity.
5. Growing international links	TEOs increase the economic value of onshore enrolments at both undergraduate and postgraduate level. TEOs increase the economic value derived from the provision of education products and services delivered offshore. TEOs develop and maintain research and education delivery partnerships with overseas institutions that create enduring economic, social and cultural benefits, with a focus on identifying and developing opportunities for growing existing key markets and emerging markets. There is increased movement of people and ideas between TEOs and overseas institutions, particularly those of our key trading partners in Asia, including strong research connections, greater recruitment of international students, and more New Zealand students being supported to study abroad.

Source: New Zealand Qualifications Authority (2014).

We can also get an idea of the contract design factors that will drive the performance of TEOs when we examine the New Zealand Tertiary Education Commission's Performance-Linked Funding expectations for TEOs that receive public funding (New Zealand Tertiary Education Commission 2016). The performance of TEOs on the Student Achievement Component (that is, the educational achievement component) of their funding is monitored by taking into account their achievement on groups of qualifications of the New Zealand Qualifications Framework. If TEOs perform over the 50th percentile in the grouped qualifications, they will receive all of the funding due to them. Up to 5% of the funding will also be based on the TEO's performance in the previous years. The educational performance indicators taken into account are rates of:

- course completions: measures of the successful completions of courses as a proportion of all enrolments for a given year
- qualification completions: measures of successful completions of qualifications as a proportion of course enrolments for a given year
- retention (completion/continuation): measures of the proportion of students in a given year who complete a qualification, or re-enrol with the same organisation in the following year
- progression: measures of the proportion of students who progress to a higher level of study after completing the qualification in the previous year. These metrics can be used to compare performance over time. For example, between 2010 and 2012 there were more New Zealanders completing qualifications than 'ever before', with 23% completing bachelor's degrees.

- When the performance of institutions does not meet expectations it triggers a range of responses from the Commission. TEOs will be subject to more frequent and intense visits or engagements with the Commission. They may be asked to pay back the funds allocated, or have to abide by new funding conditions. They could also have funding suspended, revoked and have any funding allocations for the future made conditional on their past performance.

Implications for further research

As highlighted in this overview, there has been and continues to be substantial work undertaken on performance indicators and drivers of RTO performance both in Australia and overseas. Based on our review of this work we are of the view that at this stage any avenues for further research could focus more closely on how:

- requirements for accountability and efficiency accommodate the training needs of students from different equity groups, including from regional and remote locations
- the quality of teaching and learning that occurs within institutions drives the achievement of effective outcomes
- systems can ensure that benchmarking of RTO performance is based on *like with like* student-body comparisons. Here there may be opportunity to undertake a quantitative analysis, applying the performance indicators used in the Australian indicator trials to data from the Total VET Activity Collection maintained by NCVET. This can enable us to look at the performance of all RTOs, including private RTOs.

This is not to say that other approaches to ensuring that accountability and efficiencies are not important for VET systems but that research could now concentrate more on the quality and outcomes of training.

References

- American Association of Community Colleges, *Voluntary Framework of Accountability*, viewed October 2017, <<https://vfa.aacc.nche.edu/Documents/VFAOutcomesReportWebFINAL.pdf>>.
- Appelbaum, E, Bailey, T, Berg, P & Kalleberg, AL 2000, *Manufacturing advantage: why high performance work systems pay off*, Cornell University Press, Ithaca, NY.
- Appelbaum, E & Batt, R 1994, *The new American workplace: transforming work systems in the United States*, ILR Press, Ithaca, NY.
- Becker, BE, Huselid, MA & Ulrich, D 2001, *The HR scorecard: linking people, strategy and performance*, Harvard Business School Press, Boston, MA.
- Carrington, R, Coelli T, & Rao P, 2005, 'The performance of Australian universities, conceptual issues and preliminary results', *Economic Papers*, vol.24, no.2, pp.145–63.
- Boxall, P 2003, 'HR strategy and competitive advantage', *Human Resource Management Journal*, vol.13, no.3, pp.5–20.
- Cedefop 2017, *On the way to 2020: data for vocational education and training policies: country statistical overviews – 2016 update*, Cedefop research paper no.61, Publications Office, Luxembourg, viewed August 2017, <<http://dx.doi.org/10.2801/414017>>.
- Doehringer, PB, Evans-Klock, C, Terkla DG 2002, *Start-up factories: high performance management, job quality, and regional advantage*, Oxford University Press and WE Upjohn Institute for Employment Research, New York.
- European Commission 2010, 'Europe 2020 Strategy', EU, viewed October 2017, <https://ec.europa.eu/info/strategy/european-semester/framework/europe-2020-strategy_en>.
- Fieger, P, Karmel, T & Stanwick, J 2010, *An investigation of TAFE efficiency*, NCVET, Adelaide.
- Guest, D 2006, 'Smarter ways of working: the benefits of and barriers to adoption of high performance working', SSDA catalyst research paper, issue no.3, Sector Skills Development Agency, Wath upon Dearne, England.
- Lawler, E III, Mohrman, SA & Ledford, GE Jnr 1998, *Strategies for high performance organisations – the CEO report: employee involvement, TQM, and re-engineering in Fortune 1000 corporations*, Jossey Bass, San Francisco.
- Lopez, OS 2014, 'Beyond Community College accountability: using data to investigate best practices for institutional improvement', *Community College Journal of Research and Practice*, vol.38, issue 1.
- Mavromaros, K, McGuinness, S & Fok, YK 2009, *The incidence and wage effects of overskilling among employed VET graduates*, Monograph series, 03/2009, NCVET, Adelaide.
- Misko J, & Halliday-Wynes S 2009, *Tracking our success: how TAFEs measure their effectiveness and efficiency*, NCVET, Adelaide.
- New South Wales Institute of Sport 2016, *High Performance Framework 2017–2020*, <viewed September 2017, <<https://www.nswis.com.au/wp-content/uploads/2016/08/17-20-HP-framework-2017-V04.pdf>>.
- New Zealand Qualifications Authority 2014, *Tertiary Education Strategy 2014–2019*, Wellington, viewed September 2017, <<https://education.govt.nz/assets/Documents/Further-education/Tertiary-Education-Strategy.pdf>>.
- New Zealand Tertiary Education Commission 2016, 'Performance-linked funding', Wellington, viewed September 2017, <<http://www.tec.govt.nz/funding/funding-and-performance/funding/performance-linked/>>.
- New Zealand Tertiary Education Commission, 2016, Performance consequences framework, viewed October 2017, <<http://www.tec.govt.nz/funding/funding-and-performance/monitoring-tertiary-education-sector/performance-consequences-framework/>>
- Ofsted 2012, *Handbook for the inspection of further education and skills*, viewed January 2015, <https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/393485/Handbook_for_the_inspection_of_further_education_and_skills.pdf>.
- 2014a, *Teaching, learning and assessment in further education and skills – what works and why*, viewed September 2017, <https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/379156/Teaching_2C_201_earning_20and_20assessment_20in_20further_20education_20and_20skills_20_E2_80_93_20what_20works_20and_20why.pdf>.
- 2014b, New way of inspecting good and outstanding schools, <https://www.gov.uk/government/news/new-way-of-inspecting-good-and-outstanding-schools-proposed>, viewed January 2015
- Solga, H, Protsch, P, Ebner, C & Brzinsky-Fay, C 2014, *The German vocational education and training system: its institutional configuration, strengths, and challenges*, Berlin, viewed August 2017, <<https://bibliothek.wzb.eu/pdf/2014/i14-502.pdf>>.

- South Australian Government 2012, *Overview of the High Performance Framework*, viewed September 2017, <<http://hpf.sa.gov.au/overview/why-do-we-need-the-hpf/index.html>>.
- Sparham, E & Sung, J 2009, '*High performance work practices: work intensification or "win" and win*', Working paper no.50, Centre for Labour Market Studies, University of Leicester, Leicester.
- SQW Consulting 2010, '*Best strategies in skills utilisation*', Skills Development Scotland, viewed October 2017, <http://www.scottish-enterprise.com/~media/SE/Resources/Documents/ABC/Best-strategies-In-skills-utilisation-full.ashx>>.
- Standing Council on Tertiary Education, Skills and Employment (SCOTESE), Data and Performance Measurement Principal Committee 2014, '*Out of Session Meeting 28th January 2014, Paper 14 (including Attachment A comprising: Report of Victoria's desktop evaluation of RTO performance indicators and measures and Report of Western Australia's desktop evaluation of a trial set of RTO quality performance indicators – December 2013)*', Canberra.
- Stirpe, L, Zarraga & Rigby, M 2009, '*High performance work systems and company performance in small firms*', paper presented at the London South Bank University Collaborative Partners Conference, Faculty of Business, Computing and Information Management, London South Bank University, 2–3 February 2009, viewed October 2017, <<http://bus.lsbu.ac.uk/resources/Main/files/collaborative-partners-conference-2009/Rigby.doc>>.
- Sung, J & Ashton, D 2005, *High performance work practices: linking strategy and skills to performance outcomes*, Department of Trade and Industry and Chartered Institute of Personnel and Development (CIPD), United Kingdom.
- United Kingdom Department for Business, Innovation & Skills & Department for Education 2016, *Post-16 Skills Plan*, Stationery Office, London, viewed October 2017, <<https://www.gov.uk/government/publications/post-16-skills-plan-and-independent-report-on-technical-education>>.
- United Kingdom Her Majesty's Government 2015, *Reviewing post-16 education and training institutions*, viewed October 2017, <https://www.gov.uk/government/uploads/system/uploads/attachment_data/file/446516/BIS-15-433-reviewing-post-16-education-policy.pdf>.
- Victoria University Centre for International Research into Education Systems 2015, *RTO Performance Indicators Project: extract of final evaluation report*, prepared for Higher Education and Skills Group, Victorian Department of Education and Training, viewed August 2017, <<http://www.education.vic.gov.au/Documents/training/providers/rto/RTOPITrialCIRESSEvalSum.pdf>>.

Appendix A: The United Kingdom Common Inspection Framework

The key aspect judgments of the Common Inspection Framework are focused on learner outcomes, the quality of teaching, learning and assessment, and the effectiveness of leadership and management. Here we provide some of the key components of these judgements.

- *Learner outcomes*: providers must produce evidence of success and progress rates (relative to learner 'starting points and learning goals'), retention, development of personal, social and employability skills, and progression to courses that lead to higher qualifications or sustainable employment in jobs that 'meet local and national needs'.

Information from students will also be obtained on the extent to which they have enjoyed their courses and whether the courses met their needs. Inspectors will also want to see evidence that the 'achievement gaps are narrowing' between different groups.

- *The quality of teaching, learning and assessment*: inspectors will expect to find evidence on the extent to which learners benefit from high expectations, engagement, caring and supportive environments and motivated staff. Teachers will be expected to be skilful in identifying learner starting points; planning for, delivering and monitoring student progress; and setting 'challenging tasks that extend learning for all learners'.

Inspectors will also want to be assured that students know how to improve their outcomes from teacher feedback on assessments, which is expected to be timely, specific and accurate.

Inspectors will also want to see evidence of learners developing the English and mathematics skills that will help them to achieve their learning goals and career aspirations, as well as evidence of advice and guidance supporting their learning. The extent to which equality, diversity and safety for students are promoted will also be assessed, as will the use of technology in delivery and assessment.

- *The effectiveness of leadership and management*: leaders, managers and governors (if applicable) are expected to demonstrate high expectations for learners and attain high standards of quality and performance themselves. They will also need to provide evidence of 'rigorous' performance management systems, which align professional development requirements to performance and include strategies to address 'under-performance'. Inspectors will also look for the extent to which providers can 'successfully plan, develop and manage the curriculum to meet the needs and interests of learners, employers and local and national community'.

Information about institutional processes for actively promoting equality and diversity, addressing bullying and discrimination, and reducing achievement gaps is also required. Providers must have strong internal processes for monitoring and evaluating their own performance, taking into account 'user' views and putting in place measures for improvement. It is important that information on how 'leaders and managers safeguard' all learners is also made available to inspectors. From September 2014 inspectors were to provide a rating of effectiveness for safety.

- *The self-report*: this report documents the results of a provider's self-assessment process. There is no obligation on providers to complete a formal self-assessment report but a provider must show evidence of having undergone a self-assessment process. This self-assessment, irrespective of format, will help inspectors to analyse how the organisation has used self-assessment results to improve its performance. The self-assessment process the college has undergone will also provide

inspectors with information enabling them to assess the effectiveness of leadership and management. Providers must also show that they have shared this information with the governing body, if applicable.

- *The grading of institutional performance:* a grading schema is also applied to the performance of providers across these three aspect judgments (grade 1: outstanding; grade 2: good; grade 3: requires improvement; and grade 4: inadequate). If any of the components of the three aspects attracts a grade of 'inadequate', then the grading for the whole aspect is judged as 'inadequate'. Inspectors will also award a grade for overall effectiveness and will take into account how the provider has met the needs of learners of different characteristics, especially those with learning difficulties and disabilities. They will also take into account the judgments made about the other three aspects (that is, learner outcomes; the quality of teaching, learning and assessment; and effectiveness of leadership and management).

An overall effectiveness rating, of 'outstanding', 'good', 'requires improvement' or 'inadequate', is then applied. Typically, this judgment has been used to identify the nature and frequency of further reviews. In October 2014 Ofsted launched a consultation strategy designed to identify potential improvements in the system. It noted that 'the oversight that we have between our inspections is not as effective as it should be. At the moment, it can be five years or even more between inspections for a good school or college. This is too long' (Ofsted 2014b, p.4). The proposal was for 'good' schools to receive a short inspection every three years (unless there had been a dramatic decline in performance). Annual summaries of school performance information would be available on the Ofsted website. Some shorter inspection pilots have been established.



National Centre for Vocational Education Research

Level 5, 60 Light Square, Adelaide, SA 5000
PO Box 8288 Station Arcade, Adelaide SA 5000, Australia

Phone +61 8 8230 8400 **Email** ncver@ncver.edu.au **Web** <<https://www.ncver.edu.au>>

Follow us:  <<https://twitter.com/ncver>>  <<https://www.linkedin.com/company/ncver>>

