

INDUSTRY TRAINING SKILLS LEADERSHIP:

THE ROLE OF INDUSTRY TRAINING ORGANISATIONS IN SHAPING SKILLS
IN THE NEW ZEALAND ECONOMY



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Introduction

Accurately defining and describing Industry Training skills leadership is not easy. At a theoretical level it's simple, because the skills leadership role is clearly set out in legislation. It is about identifying skill needs, developing strategic training plans and promoting training to employers and employees. It becomes more complicated when describing leadership in practice.

This complexity relates to the diversity of Industry Training Organisations (ITOs) and the different contexts they operate within. What leadership means for a small ITO like the Equine ITO will be completely different from a large, multi-sector ITO like Competenz (Engineering, Food and Manufacturing). The number of organisations with overlapping roles, both in the tertiary education sector and the labour market, makes articulating the leadership role even harder. How the Seafood ITO, in an industry with practically no learning occurring away from the workplace, is going to interact with tertiary providers will differ completely from the Sports, Fitness and Recreation ITO where there is a high level of provider-based learning. What leadership means for ITOs in industries dominated by one large, influential employer such as Fonterra for NZITO, or the government for the Public Sector ITO is not the same as for ITOs which predominantly represent small businesses, such as the Hairdressing ITO.

ITOs need to understand how skill development interacts with economic, employment and business developments to bring about productivity and other performance-related improvements. They also need to know how to fully utilise the different levels of influence they have over aspects of skill development/use in their industries to best effect.

The purpose of this paper is to take stock of the developing ITO leadership role and to locate it within international and New Zealand understandings of the impact of skill development on economic growth. It explores ideas for the future development of the leadership role, and also raises questions that we don't yet have answers for.

Executive Summary

For developed economies to continue to grow in the context of increased global competition, there is a need to focus on more sophisticated, knowledge-rich products and services, supported by improvements in the education levels of the population. The relationship between education and the economy, however, is complex, so increasing the skill levels of individuals *on its own* may not be enough to bring about change. New and innovative ways of bringing education and business development closer together are needed for increased levels of skill to be used effectively in the economy.

The New Zealand government has introduced reforms to the tertiary education system with the aim of better aligning it with economic and social development goals. These reforms have had mixed success, which is partly due to a lack of alignment between strategy and funding incentives. In this context, ITOs inherited a new role involving skills leadership. This has provided ITOs with the opportunity to take a broader and more strategic approach to tertiary education and training across their industries. As a voice of industry coupled with training expertise, ITOs are in a position where they have the potential to know:

- their industry(ie)s' education and training needs, now and in the future
- how education and training interacts with other organisational initiatives to increase productivity

Therefore, ITOs can influence *supply* of skills through participation in and interaction with the education system and *demand* for skills through deep connections with employers.

Implementing the leadership role has not been just about predicting future numbers of employees in particular occupations. Australian research has illustrated the need for a mix of information and people to get results: *There appears to be no substitute for sensible people as key decision-makers, faced with appropriate incentives, making informed judgements based on an array of relevant and accurate indicators.*¹ Some of the different ways ITOs have begun putting the role into practice have included:

- placing training within the context of workplace change;
- collaborating with key industry players;
- developing a learning culture within workplaces; and
- developing learning pathways through qualification development.

¹ R Blandy and B Freeland, (NZCVER, 2000) *Is the stock of VET skills adequate? Assessment Methodologies* p.vii

Implementing the role has been challenging for a number of reasons, as:

- ITOs are one of many intermediaries in the labour market;
- ITOs have different (and sometimes limited) levels of influence over areas of business development beyond training;
- the level of government support for the role has been limited;
- tension between ITOs and other parts of the tertiary education sector; and
- accessing and interpreting data can be time-consuming and expensive.

This paper concludes with ideas for developing the industry skills leadership role, including:

- Research and evaluation as an ongoing and integral part of ITOs' leadership planning and which guides decisions;
- Building on and expanding the ways that ITOs collaborate with each other, the tertiary sector, and industry players;
- Bringing industry together to articulate their future skill needs; and
- Funding arrangements that are better aligned with a vision for a more integrated and responsive tertiary education sector.

International context: thinking about the relationship between skills and the economy

Education performs an economic and social function, preparing citizens for their roles as workers and members of society. Knowing just how education contributes to economic growth and how this can be measured is not straightforward. The purpose of this section is to briefly survey ideas about the role and influence of education and skills in the economy. This provides a context for the New Zealand government's tertiary education policies, and more specifically, the decision to legislate for Industry Training Organisations to take on a skills leadership role.

The notion of developed countries moving on from an industrial to a post-industrial age, where knowledge and skills are a key force for change in the economy, has been a key policy driver for the Organisation for Economic Cooperation and Development (OECD) and has been taken up by countries such as Australia, the United Kingdom and New Zealand over the past decade. The argument is that for developed countries to continue to grow their economies in the face of trends like globalisation, (which includes increased competition with developing economies such as China and India), they need to focus on the production and commercialisation of knowledge that increases the quality and value of exports and domestic products and services. In order to bring about this transformation, increasing numbers of the population need to be educated to higher levels and work needs to be organised in ways which encourage innovation and quality. The knowledge economy concept emerges from human capital theory: i.e. that the education, experience and abilities of an employee have an economic value for employers and for the economy as a whole – and thereby countries can, by increasing the skill level of their population, increase economic outputs.

What can help bring about this change? Governments are investing in increasing the numbers of adults completing qualifications, and exhorting the education system, particularly the vocational education and training sector, to become more responsive to the needs of the economy. But is this enough?

There is a growing body of research in the UK that argues policy makers are overstating the relationship between education and economic performance. If they do not consider broader labour market issues, they risk developing an overqualified, underused and frustrated workforce. In *Education and economic performance: Simplistic theories and their policy consequences*, Alison Wolf asserts that “it does not flow that education policy is an effective tool for ensuring economic prosperity”. She outlines the difficulties involved in trying to measure just how much of a difference more education makes in the economy and finds that the evidence so far is inconclusive.

The importance of the structural differences between countries' economies and the subsequent effectiveness of strategies for growth are considered by Ewart Keep, Ken Mahew and their colleagues at the Economic and Social Research Council Centre on Skills, Knowledge & Organisational Performance (SKOPE) based at the Universities of Warwick and Oxford. Keep and Mahew have found that features of the English economy (such as a lack of labour market regulation, and shareholder-driven firms) result in a dominant strategy of cost-cutting and pursuit of short-term profits, which works against a focus on moving to a high skills economy. Bringing about a change requires more than lifting skill levels, as "skills are but one element within wider systems and interactions that combine to produce different levels of organisational development".² Research has also shown that while there is more demand for more highly-skilled people, there is also growth in low skill jobs and non-standard forms of employment.³ The new skills that are required are often outside of traditional technical skills, encompassing attitudes and values that are not able to be easily incorporated into traditional learning programmes and qualifications.⁴

So what will bring about the changes needed for a knowledge economy? Keep argues that a culture change is required in England so that consumers, firms and government are all focused on building the resources and knowledge necessary to develop and use skills, and produce and consume high quality products and services. The English government, he believes, has taken far too much responsibility for skills development, and this has meant that businesses do not feel the need to invest in skills development themselves. Carolyn Lloyd and Jonathan Payne see the need for systemic changes in the ways economic policy is developed and implemented, involving a "more democratic, stakeholder or cooperationist approach to national policy setting, based on partnership between capital, trade unions, and the State, designed to allow the development of long term strategic economic planning."⁵

While governments can be criticised for a simplistic approach to skill development, there are examples of initiatives aiming to address the complexity involved in meeting long term economic objectives through education and training. Two examples of Australian developments include:

- adding to the role of Industry Skills Councils (formally Industry Training Advisory Bodies/Boards) which since 2003 have been required to provide industry intelligence to the Vocational Education and Training sector on current and future skill needs and training requirements through industry skills reports; and
- the development of skill ecosystem demonstration projects, where education and training is planned in the context of business productivity and growth in a particular industry or region.

²Ewart Keep and Ken Mayhew, (July 1998) 'Was Ratner Right?' *T Magazine*

³ David Ashton, Bryn Davies, et al, (Coventry, 1997) *Work Skills in Britain*

⁴ Clive Chappel, *Changing Pedagogy: Contemporary vocational learning*

⁵ Carolyn Lloyd and J Payne, *Developing a Political Economy of Skill*

In the UK, the government has established the Skills for Business Network with 25 Sector Skill Councils. These organisations are to help shape the supply of relevant training and skills and to raise employer commitment to skills through Sector Skills Agreements. An evaluation of the effectiveness of the Skills for Business Network has found that while employer awareness, understanding, engagement and satisfaction in relation to the network has been mixed, employers who are aware of/deal with the Skills for Business network are more likely to adopt high performance workplace practices.

Australian Skill Ecosystem National Project

“Skills Ecosystems are concentrations of workforce skills and knowledge in an industry or region”.

From 2003-2006 the New South Wales Department of Education and Training has supported nine skill ecosystem demonstration projects. The concept of skill ecosystems emerged from the success of Silicon Valley as a high information technology skill cluster. The Australian projects expand on this concept, grappling with the relationship between business performance and specific skills, knowledge and ways of working in their particular region or setting, and coming up with strategies to achieve long-term structural changes.

A recent evaluation has found that a desirable skill ecosystem promotes skills development at the same time as ensuring these skills are effectively nurtured and applied in the workplace. They suggest that projects are likely to address both supply and demand side issues when:

- they have a breadth of stakeholder engagement with the capacity to engage in skill formation and industry development strategies
- the issue being addressed is a priority for all stakeholders
- those responsible for initiating and managing the project have credibility within the industry

DEST, 2006, *Skill Ecosystem National Project: Mid term evaluation report by Kim Windsor*

The UK and Australian examples illustrate that developing relationships between businesses and the education sector is not easy, but is important for ensuring the benefits of education can be realised in the economy.

New Zealand context: tertiary education and economic change

Like governments in other developed countries, the New Zealand government is working to understand and influence the development of the economy so New Zealand can continue to grow and prosper. In 2002 the government released its strategy for developing the New Zealand economy: the Growth and Innovation Framework (GIF). The GIF outlined the key areas where New Zealand needs to improve in order to sustain long term growth. Challenges for New Zealand include overcoming size and geographic isolation. As well as ensuring the underlying conditions for growth are in place (which involves consideration of economic, social, cultural, intellectual and environmental issues), GIF focuses on investment in innovation of a transformative quality – including developing skills and talent.

The government argued that the kind of transformation envisaged in GIF requires it to take a more active role in guiding the economy. Government agencies have been working across portfolios on a range of initiatives at regional and sector levels to improve performance (e.g. the Food and Beverage Taskforce).

This approach has been criticised by some as going in the wrong direction. Groups such as the Business Roundtable feel the government should be focusing its efforts on freeing up business, primarily through tax cuts and reducing compliance burdens. The GIF has also been criticised for its focus on picking winners, which ignores the fact that future innovation is as likely to come from the least expected places as it is from the current sources of new ideas.⁶

The government has continued to develop its economic strategy and has recently released its Economic Transformation agenda, which builds on the themes of GIF and has five objectives: growing globally competitive firms, world class infrastructure, innovative and productive workplaces, Auckland as an internationally competitive city, and environmental sustainability.⁷

Accompanying the GIF/Economic Transformation Agenda has been an ever-increasing number of government strategies and frameworks that include the aim of contributing to economic development. Examples of areas of focus include productivity, small business, scientific research, management and regional development.⁸

⁶ IPENZ, (2005) *Prosperity through Productivity: A plan of action*

⁷Ministry of Economic Development, *Economic Transformation*, http://www.med.govt.nz/templates/StandardSummary_22996.aspx

⁸ e.g. Workplace productivity working group, (2004) *The workplace productivity challenge*, Ministry of Economic Development's Small Business Advisory Group and Project Collaboration, New Zealand Trade and Enterprise's Regional Development Strategies

Of particular interest for the development of Industry Training is the Tertiary Education Strategy (The Strategy), released in 2002. The Strategy was also part of the government's tertiary education reform agenda which led to the creation of a new Crown Entity, the Tertiary Education Commission (TEC), and new regulatory mechanisms, Charters and Profiles. These reforms were designed to assist the government in taking a more active steering role and to make tertiary education organisations more accountable to stakeholders, including industry. The Strategy places tertiary education at the centre of economic change⁹, as illustrated in the following statements:

New Zealand's continued prosperity and social wellbeing will rely on the skills and knowledge of its people and how these skills and knowledge are applied to generate economic growth.

To accelerate the transition to sophisticated food, textile, manufacturing and tourism products and services will require a substantial increase in the education and training of the existing workforce...

While it highlighted the need for improvements in the quality and relevance of teaching, learning and research, the Strategy does not explicitly discuss *how* skill development will bring about economic growth, nor how education is expected to interact with wider economic and business developments. Since the release of the Strategy, significant growth in tertiary education provision in areas of questionable economic value¹⁰ has led the government to re-examine the way it funds tertiary education. A criticism of the reforms heralded by the Strategy has been the lack of alignment between the Government's desire for strategic shifts and the incentives in the funding system. The government began work in 2006 on developing an investment strategy to bring more of a focus on national and regional priorities for funding, rather than student enrolments.

⁹ In addition the strategy focuses on social development, including strategies for Maori and Pacific people's development and improving adult literacy and numeracy.

¹⁰ ILO and OECD, (2005) *Economic Survey of New Zealand 2005: Human Capital and Labour Utilisation*

Productivity

By international standards, New Zealand has high labour market participation, low unemployment and we work long hours. In order for the New Zealand economy to continue to grow, the government, business organisations and unions alike have agreed we need to increase our productivity.¹

Through publications like the Department of Labour's *Workplace Productivity Challenge*, Business New Zealand's *Productivity Perspectives* and the Institute of Professional Engineers' *Prosperity through Productivity*, there is recognition of the need for change across a number of fronts to bring about productivity growth. These encompass: the business operating environment; (which is impacted by government regulation, market factors, international conditions, and the national infrastructure); levels of capital investment; investment in innovation and research and development; the skill level in the labour market, and workplace culture/work organisation.

Labour productivity emerged as a priority from NZIER's ITO leadership research: *Labour supply constraints and the associated policy focus on labour productivity are the important contextual issues for ITOs over the next ten years. The training system must be sufficiently flexible to respond to a changing environment and a wide diversity of training needs.*

What does productivity mean for ITOs?

Examples of how some ITOs are responding to the need for increased productivity:

- having good measures of the impact of their training on business performance (e.g Agriculture ITO's value added project)
- designing training so that skills can be adapted and used in the workplace (e.g. most industry training involves some workplace learning)
- aligning training with change in the workplace/business practice (this could be to align with the introduction of new technology (NZITO) or investment in new capital in the industry (Road Transport), or changes in regulations to increase quality of service (Te Kaiawhina Ahumahi))
- developing foundation skills and management capabilities
- exemplifying businesses that have adopted a productive workplace culture (e.g. through awards evenings, good practice examples (ESITO, ATTTO)).

Industry Training and the industry skills leadership role

Within this broader context is the development and refinement of the Industry Training system itself. The Industry Training Strategy was introduced in the early 1990s in response to a low level of systemic training, which was seen to impede economic growth. “The old trade training system had several weaknesses – it was heavily centrally-regulated, was sluggish and unresponsive, and was – from the late 1980s – in decline.”¹¹ The main differences between Industry Training and the apprenticeship system that preceded it were the expansion of training to sectors beyond the trades, the provision of more equitable opportunities for older people, women, Maori and Pacific peoples, and the linking of training to the National Qualifications Framework. Industry Training Organisations were set up to develop and arrange workplace training for industry by:

- setting skill standards for industry, and
- arranging for the delivery of training programmes and qualifications for industry.

Industry Training has grown substantially from 16,711 trainees in June 1992 to 63,102 in June 2000, and 161,697 trainees in 2005. The Industry Training system was reviewed in 2001 to improve its responsiveness and effectiveness. ITOs were seen to have good connections with industries and businesses, however issues identified in the review included the limited ability of firms to anticipate economy-wide skill shortages and a need for clearer pathways throughout the education and training system. One of the changes that eventuated from the review was the introduction in 2002 of a new legislated role for ITOs. In recognition of their close connections with industry, ITOs were now to:

- provide industry leadership by identifying skill needs, developing strategic training plans, and promoting training that meets industry needs.

Information gathering, analysis and prediction of future trends were seen as an important part of this role from the start. The Tertiary Education Strategy identified the range of organisations that ITOs would have to link with in order to fulfil their leadership role, including enterprise, unions, economic and regional development agencies as well as other tertiary education organisations. The Strategy saw the increased links between ITOs and other tertiary education organisations leading to a system where employers had more say; stating that “the strong linkages between providers and ITOs and employer interests will ensure a better and faster match between the skills demanded in the labour market and those developed via education and training.”

¹¹ Nicholas Green et al, (2003) *A brief history of government funding for Industry Training 1989-2002*

After the initial legislation was passed, the details of just how TEC would assess ITOs' fulfilment of these new responsibilities, and how the role would be funded, were slow to materialise. ITOs had expected a clearer direction, given that they were used to a purchasing model where TEC specified the outputs required. Though they were not used to operating in this more flexible environment, many ITOs began interpreting the role and working on implementing it in their own ways, building on their existing connections with industry.

Developing a theoretical underpinning for the leadership role

To ensure there was common understanding of the industry leadership role among agencies and ITOs, work was undertaken in 2004 by the Industry Training Federation on reaching a consensus about what the leadership role would mean, and what its scope and size were. The leadership role has been defined by ITOs broadly as *Influencing outcomes for industry through skill development and training* in order to balance the need for consistency with the need to respond flexibly to different industry requirements.¹² Further, the role was seen as not being about collecting and analysing large amounts of data; rather each ITO would demonstrate in-depth strategic knowledge and understanding of the industry it represents. A conceptual model was developed to help guide ITOs in preparing their industry skills strategies and strategic training plans (see Appendix 3). This work has helped to establish a broad framework for ITOs to develop the leadership role in ways that suit their industries.

In order to provide a consistent research base for ITOs to use in supplementing their industry-specific research, NZIER was commissioned to undertake pan-industry macro analysis. Key trends identified by this research as impacting on the work of ITOs included:

- the aging population – which affects the supply of labour and demand for goods and services
- globalisation – the challenges and opportunities associated with the growing economies of China and India
- migration – increasing flows of migrants worldwide
- labour market constraints – dealing with increasing labour market participation and low unemployment
- demographic change – increasing urbanisation and ethnic diversity
- growth of the services sector.¹³

¹² ITF, *Final Report on the ITO IDF Strategic Leadership Project*, 15 July 2005. This project was about:

1. identifying and establishing a shared understanding of the strategic leadership role;
2. identifying and establishing common requirements (*of ITOs*) for fulfilling the strategic leadership role;
3. identifying and establishing suitable models/approaches to follow;
4. reviewing and recommending approaches for the second phase of the project;
5. inform the development of a system(s) required supporting ITOs to fulfil the strategic leadership role; and
6. engaging with and building government agency support for ITO approaches to the strategic leadership role.

¹³ NZIER, (2005), *Research to support the ITOs' leadership role: Analysis of economic and social environment*

Concepts of leadership

In the context of the development of the ITO leadership role, there are various styles of leadership that can be used effectively in different circumstances. Below are a few of the principles of good leadership in the context of what could be considered good practice in ITO leadership.

Creating a vision

The very essence of leadership is that you have to have a vision. It's got to be a vision you articulate clearly and forcefully on every occasion. - Theodore Hesburgh, President of the University of Notre Dame

The vision for ITO leadership, *Influencing outcomes for industry through skill development and training*, provides a broad framework within which each ITO defines what outcomes they want to influence. ITOs draw on their in-depth understanding of the current and future trends impacting on an industry or industries to develop clear directions for skill development. For their vision of skill development to be something that inspires people in their industries, ITOs build on activities such as closely involving key stakeholders in strategic planning, using language that mirrors that used by industry, and continuously and repeatedly communicating their message.

Leading by example

We must become the change we want to see - Mahatma Gandhi

As well as setting the agenda, leadership is about providing an example for others to follow. ITOs' responsibilities include standard-setting and arranging training delivery. By aligning these activities with a vision for future skill development in their industries, and by making changes to their practices where needed, ITOs exemplify a willingness to adapt. This may in turn motivate employers and tertiary providers to take similar action.

Supporting others to act

When the effective leader is finished with his work, the people say it happened naturally.
- Lao Tse

Influencing outcomes is about helping others to see what is required to bring about a desirable outcome and inspiring them to act, rather than the ITO doing everything themselves. ITOs are one of many players with a role in bringing about change in the workplace. Their vision for skills (industry skills strategy) is ideally developed with the active involvement of industry, government, tertiary providers, employers, and learners. While the skill leadership role belongs to ITOs, the industry skill strategies and strategic training plans they develop require shared ownership in order to be effective.

How is the ITO industry skill leadership role changing the way ITOs work?

The majority of ITOs see the leadership role as an opportunity to better match up education and training with industry needs, but there is still some trepidation about the government's expectations of them and about just how much they are expected to influence.

Interviews with ITO CEOs, analysis of ITO profiles, and a review of ITO research reveals that ITOs are taking on the leadership role differently depending on their circumstances. For some ITOs, leadership is about confirming work that they have already been doing to better meet industry needs. For others, it is an opportunity to re-examine the way training is configured in their industries.

The role involves ITOs working in a number of directions. As a voice of industry coupled with training expertise, ITOs are in a position where they have the potential to know:

- their industry(ie)s' education and training needs, now and in the future
- how education and training interacts with other organisational initiatives to increase productivity

Therefore, ITOs can influence *supply* of skills through participation in and interaction with the education system and *demand* for skills through contact with employers.

Challenges for ITOs

The differences between ITOs provide unique challenges. Some or all of the factors below will interact to define the nature of the kind of leadership that the ITO can provide for their industry(ies).

- Size of the industry
- Profile and role of ITO in the industry
- Coverage of a relatively homogenous/discrete industry, or a range of sectors
- Amount of collaboration/competition amongst the sector(s) represented
- How active industry associations are
- How connected the ITO is to industry association(s)
- How active tertiary education providers are in providing for the industry(ies)
- The level and type of engagement between the ITO and tertiary education providers
- Level of union involvement/union coverage
- Level of involvement of industry-specific government departments
- Whether the industry is the focus of reform/regulatory change
- Whether the industry is seen as a priority for development/seen as where the future lies
- Whether the industry is predicted to grow/decline/stay stable¹⁴

Across all ITOs there are also common issues which make meeting their legislated leadership role challenging.

One of many intermediaries in the labour market

One of the big changes in work patterns has been a move away from internal labour markets (i.e. labour markets within an organisation where people enter in an entry-level position and work their way up) to more flexible and less secure employment relationships, where people change employers more. In this context, labour market intermediaries that address employer workforce needs and workers' education and training needs are becoming increasingly important.¹⁵

In New Zealand, there is an array of organisations that fulfil aspects of this role. In addition to industry training organisations; industry and employer associations, chambers of commerce, unions, careers advice agencies, recruitment agencies, government agencies and tertiary education providers all contribute in one way or another to the functioning of the labour market. A clear idea of the respective

¹⁴ Derived from interviews with ITO CEOs, profiles analysis

¹⁵ Richard Kazis, (1998) *New Labour Market Intermediaries: What's driving them? Where are they headed?*

responsibilities of various organisations is needed in order to reduce the possibility of duplication or gaps in services.

Having the mandate to influence areas of business development beyond training

In some instances, ITOs may need to advise on the way work is organised so that the skills developed through Industry Training are used effectively in the workplace (e.g. recruitment and performance management policies). Defining the boundaries of their role in this context can be challenging.

Level of government support

Since the leadership role was legislated, ITOs have found the level of funding and guidance provided by government for the role inadequate. The TEC has developed guidelines¹⁶, provided funding for cross-industry research, and allocated a small sum to each ITO for the initial development of sector skill strategies. However, they have not clearly articulated how broadly or narrowly ITOs are to define their role, or how extensive ITOs' influence will be. While this gives ITOs flexibility to define the role in a way that suits their industries, it can be problematic in light of differences between ITOs and the relationship between skills development and wider business development. There is also an argument that the lack of ongoing funding limits ITOs' abilities to meet additional expectations associated with the leadership role.

Interaction with rest of the tertiary education sector

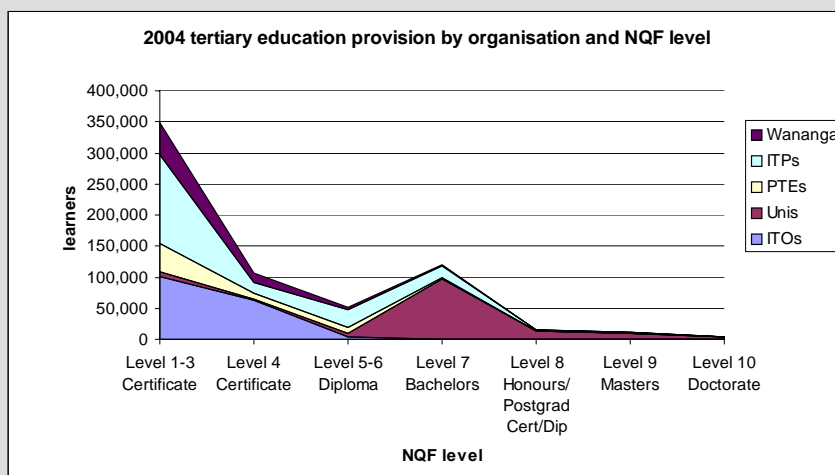
Over time, the roles of different organisations in the tertiary education system have become blurred. The tertiary education reforms seek a more collaborative tertiary education sector, with reduced duplication and increasing differentiation and specialisation. Tension between organisations remains, however, as their evolving roles have not been matched by changes in regulatory and funding settings. The diagram on the following page could be indicative of increased competition and duplication at levels 1-3 of the framework.

¹⁶ TEC, (2003), *Guidelines to Assist ITOs to Provide Leadership Within Industry on Skills and Training Needs*

Tertiary education provision in 2004: are we meeting New Zealand's skill needs?

This diagram illustrates that there was a significant amount of provision at levels 1-3 of the framework, with all organisation types involved to some extent. Could the gap between provision at levels 1-3 of the NQF and degree level (a trend of recent years) be:

- contributing to current skill shortages?
- a barrier for learners wishing to progress to higher level learning?



Source: Profile and Trends: New Zealand's Tertiary Education Sector 2004

Government has not articulated the official place of industry skills strategies and strategic training plans to the wider tertiary education sector, so there is a lack of explicit compulsion for the rest of the sector to align its provision with the objectives outlined in ITOs' strategic training plans. The question that remains unanswered is: where does ITO leadership fit within the range of regulatory and accountability mechanisms in the tertiary education system?

Accessing and interpreting data

Having access to accurate, up-to-date, and meaningful data is important for ITOs to determine current and future industry skill needs. Official sources of data do not always meet these expectations. On the demand side, data collected by Statistics New Zealand and the Department of Labour on industries and occupations through Census and the Household Labour Force Survey provides a useful starting point. For many ITOs though, this information is too broad for them to use to inform their decision-making. On the supply side, tertiary education data (participation and completion of industry-relevant qualifications) is often difficult to obtain, and there are inconsistencies between government agencies both in amount of information provided, and in the results.¹⁷

¹⁷ Sports Fitness and Recreation ITO (2005) *Education Provision for the Sports, Fitness and Recreation Industry*

How are ITOs responding to the challenge of leadership?

The leadership role is not necessarily about collecting and analysing large amounts of data, but ITOs do need to base their strategies for meeting industry skill needs on robust evidence. Many ITOs already have an understanding of what drives their industries. Leadership is about formalising and sharing this, so research in various forms is important. Many ITOs have undertaken some kind of research to inform their leadership plans to date, through, for example:

- expanding the questions and depth of analysis in annual surveys;
- working with agencies on data identification and analysis;
- collaborative projects (e.g. joint research with other ITOs, industry associations and/or other interested organisations);
- commissioning econometric studies/skill forecasting; and
- qualitative understanding of future trends/issues through access to industry leader expert opinion.

Summaries of examples of ITO research are provided in Appendix 2.

Research provides parts of the picture. More important is how research is used to inform the activities of ITOs, as well as industry and the wider tertiary education sector. An important concept within this is *influencing*. ITOs do not have direct control over most of the elements that need to change in order for businesses in their industries to improve productivity. However, through leadership they can influence how employees' acquired skills are used in the workplace.

ITO leadership activities

As well as research, ITOs are exploring ways to extend the reach of training in workplaces.

Placing training within the context of workplace change

One of the ways that ITOs are demonstrating leadership is by aligning their training activities with changes in the workplace. This may involve activities that support the introduction of new regulations; for example, the Building and Construction ITO is working with the government on underpinning new building licensing requirements with skill competencies.

Globalisation is also changing the way businesses operate in New Zealand. Free trade agreements are impacting on the apparel and textiles industry, and the Apparel and Textiles ITO are supporting businesses to counter off-shore low cost manufacturing by upskilling and reskilling existing workers so businesses can focus on manufacturing excellence and the use of technology.

Collaboration with key industry players

Lifting workplace productivity requires a range of business improvement practices, including training. For ITOs, effective leadership is not something they do on their own, but involves collaboration with other ITOs, industry associations, and government agencies.

The Aviation, Tourism and Travel ITO, Hospitality Standards Institute and the Sports Fitness and Recreation ITO are part of a Leadership Group involving a range of industry associations and government agencies. They are working on a whole-of-industry approach to identifying and addressing workforce needs in the tourism and hospitality industries, which has culminated in the development of the *Tourism and Hospitality Workforce Strategy*. The strategy outlines the need for a combination of upskilling, career path development and more competitive wage rates, which all industry players have a role in fulfilling.

Developing a learning culture within workplaces

ITOs may not have direct influence over workplace conditions, but they can have a role in illustrating good practice and supporting employers to attract and retain high quality staff.

The Public Sector ITO is working to refocus their services in order to take a broader role in learning and development. This involves expanding its role to support the State Services Commission's goals for building capability in the state sector through a more targeted approach to the recruitment, development and retention of high quality employees. It is also about the development of state sector agencies as learning organisations.

Learning pathways through qualification development

ITOs may not be directly involved in facilitating training at higher levels, but they are helping their industries to focus on career development, and are working with tertiary education providers to meet industry requirements and ensure smooth transitions for industry trainees into higher level learning.

The Motor Industry Training Organisation has recently reviewed its qualifications and developed a career roadmap which helps to clarify how their qualifications relate to each other as well as highlighting possibilities for advancement. The roadmap provides multiple pathways for new entrants as well as ongoing upskilling opportunities.

What is needed to fulfil the leadership role effectively?

Industry Training Organisations are making a start on their leadership roles with the examples above showing how they have rethought how they operate in order to help their industries be better prepared for the future. In order for industry leadership to continue to gain traction, there are a number of considerations for ITOs, government, and others involved in skill development.

Research and evaluation as an ongoing and integral part of ITOs' leadership planning and which guides decisions

A range of information sources need to be accessed by ITOs, which requires good processes for data gathering and sharing amongst ITOs, government and research organisations. ITOs also need the capability to help industry deal with information that is complex or at times contradictory, in order to come up with a clear direction. Processes to review and improve skill development activities and initiatives are also required.

Building on and expanding the ways that ITOs collaborate with each other, the tertiary sector, and industry players

In ITO profiles there are indications of increasing sophistication in their collaborative activities with other ITOs, tertiary education providers and industry organisations. Building on these activities will allow for the creation and implementation of initiatives that combine learning and business development.

Bringing industry together to form a view on future skill needs

Sectors or even businesses within an industry do not always agree with each other, so getting them to decide how to meet future skills needs requires a range of strategies. A large part of this is to develop the capability within the ITO and within industries to interpret future trends - creating a desire to respond, and to clarify responsibilities for areas of action.

Funding arrangements that are better aligned with a vision for a more integrated and responsive tertiary education sector

The tertiary education system has to have the right incentives so that organisations are compelled to balance their own business imperatives with the need to work together to meet New Zealand's economic and social development goals. This requires the government to rethink the way it invests in tertiary education and to look at the interface between different funding streams.

When it comes down to it, effective skills leadership is about having the right people with the right information helping industry to make decisions about what the future holds, and on how skills development can help in response.

Summary

International context

Among many OECD countries, there is a focus on improving economic competitiveness based on increasing quality and productivity, requiring a more skilled population and more sophisticated businesses. The relationship between education and the economy is not as simple as lifting the skill levels of the population to grow the economy – there is need for better matching between education and businesses, which requires both sides to change.

New Zealand context

The New Zealand government is working to understand and influence the development of the economy, releasing strategies that cover growth and innovation, productivity, and tertiary education. The 2002-2007 Tertiary Education Strategy drew links between education and the economy, but was not explicit about how education brings about economic change. Achievement against the goals of the Strategy has been mixed, and perceptions about the quality of provision areas of provision that have grown rapidly have led to further reforms.

Industry Training and Industry skills leadership role

The Industry Training system was introduced in the early 1990s in order to increase the responsiveness of, and expand access to, workplace learning. The numbers of people participating in Industry Training has increased substantially, and ITOs are considered to be well connected to their industries. The skills leadership role was given to ITOs in order to encourage industries to take a longer term view about their skill needs through their ITOs, and to increase learning pathways. ITOs influence the *supply* of skills through participation in and interaction with the education system and the *demand* for skills through contact with employers. The leadership role is an opportunity for better matching of education and training with industry needs.

Challenges for Industry Training Organisations

Putting leadership into practice is not easy, and various industry characteristics of combine to make leadership different for each ITO. Some of the challenge relates to the level of influence ITOs have, as they are one of many intermediaries in the labour market, have only limited scope to discuss wider issues of business development, and have little say over what the majority of the tertiary education sector does. The level of government support has also been limited, and access to data can be difficult.

Implementing leadership

In light of these challenges, ITOs are getting on with developing their skill leadership capabilities. For some ITOs, this is about confirming work that they have already been doing to better meet industry needs. For others, it is an opportunity to re-examine the way training is configured in their industries. As

well as building an in-depth understanding of their industries through research, various ITOs are working on:

- placing training within the context of workplace change;
- collaborating with key industry players;
- developing a learning culture within workplaces; and
- development of learning pathways through qualification development.

What is needed

The Industry skills leadership role has the potential to contribute to improving the productivity levels of New Zealand industries by better connecting businesses and the tertiary education system. For the leadership role to develop as an influencer of change in tertiary education and the economy, it is suggested that the following is needed:

- research and evaluation that is an ongoing and integral part of ITOs' leadership planning and which guides decisions,
- building on and expanding the ways that ITOs collaborate with each other, the tertiary sector, and industry players;
- bringing industry together to form a view on future skill needs; and
- ITO industry skills plans to explicitly influence the government's investment decisions and help to guide the activities of the tertiary education sector as a whole.

Appendix 1: Analysis of ITO research

ESITO: How Big is the Skills Gap? Long Term Planning and Strategy for Effective Training in the Electricity Supply Industry

Type of Research	Mix of primary (interviews with key industry players, questionnaire for employees) and secondary data (Asset Management Plans), qualitative and quantitative analysis, including estimate of numbers of new staff needed
Year of study	October 2005
Conducted By	Management Research Centre, Waikato University
Collaboration	Commissioned by ESITO
Frequency	Series – repeated annually
Industry(ies)	Electricity Supply
Supply side/demand side	Mainly demand side – skill shortages, employee skill levels
Wider working conditions	Explores employee satisfaction with pay, importance of job, stress levels etc
Findings	Increased demand for Electricity Supply services short of 286-340 technical trades staff (though skill gap decreasing), need for 303 more technical trades employees Retirements and attraction of overseas jobs (also more migrants) Drop in employee satisfaction – continuing high stress levels
Recommendations	Firms need to improve employee satisfaction and loyalty Training one way of improving retention and loyalty Importance of interest in work for potential employees
Dissemination	On website, findings discussed with industry leaders, in newsletter

ETITO: Draft Security and Telecommunications Sector Reports

Type of Research	Primary research – (extensive interviews/surveys with employers, employees, training providers) mainly qualitative, action research
Year of study	November 2005
Conducted By	Research and Development Team, ETITO
Collaboration	NA
Frequency	Ongoing 2004-07 – initial research reports followed by sector workshops and working groups to identify priorities and further research
Industry(ies)	Research sector by sector – started with security and telecommunications
Supply side/demand side	Explicit focus on supply and demand “sector research needs to examine the nature of skills, how they are learnt both in and outside of the workplace and how the workplace itself promotes or restricts the utilisation of these skills”
Wider working conditions	Security – negative impact of tender model, low use of qualifications, uncoordinated HR management and organisational development Telecommunications – short term focus of service delivery model, high turnover, low use of performance management
Findings	Security – limited sector-wide leadership, low quality on-job training, no occupational pathway Telecommunications – importance of vendor training, low status of national training, limited awareness of ETITO, need for flexible, enterprise specific/niche training, lack of contact between schools and employers
Recommendations	Security – redesign ETITO consultation processes, improved recruitment practices and organisational development, engaging education products, shift towards learning workplaces for businesses committed to training, QA mechanism – high quality workforce development for different organisations Telecommunications – A stable recruitment model for young people, the development of a high status training model, increased focus on quality and flexibility in ITO services
Dissemination	Draft reports on website, in newsletters, workshops with sector, sector working groups

Agriculture ITO: Employer and Employee Needs Analysis Research Results

Type of Research	Primary Research (interviews with 600 farm owners and managers and 600 farm employees), qualitative and quantitative analysis
Year of study	2005
Conducted By	Agriculture ITO
Collaboration	NA
Frequency	One-off - of this scale (part of ongoing needs analysis)
Industry(ies)	Agriculture
Supply side/demand side	Focused on skill needs and preferred methods for skill supply
Wider working conditions	Lack of access to broadband, long term employee commitment to the industry
Findings	<p>High participation in learning, including informal learning, focus on ongoing skill development for long term good of industry</p> <p>Business management and computing skills weakest</p> <p>Mismatch between employee desire for people skills training and employers' priorities</p> <p>Preference for one day courses with interaction</p> <p>Groupings of employers – 1. traditional, 2. delegators and 3. future-focused</p> <p>Groupings of employees – 1. older, experienced and confident, 2. young, formally educated and 3. young, less educated</p>
Recommendations	Information for targeted training - preferred format, subject areas and identification of people more likely to take up training
Dissemination	Findings in newsletters, presentation to government agencies

ATTTO/HSI: Tourism Workforce and Skill Projections
ATTTO: Aviation Workforce Skills Projection Report

Type of Research	Tourism: Combination of qualitative surveys and interviews and quantitative economic modelling Aviation: Survey data (web-based and telephone interviews with employers), employment projections based on census data
Year of study	Tourism: Oct 2004 Aviation: Jan 2005
Conducted By	Tourism: Business and Economic Research Limited Aviation: Polson Higgs and Co.
Collaboration	Tourism: ATTTO, HSI, Hospitality Association of NZ, Ministry of Tourism, Tourism Industry Association
Frequency	One-offs
Industry(ies)	Tourism (food and beverage, accommodation, transport, activities, attractions, tours and services etc) Aviation
Supply side/demand side	Demand focused – future skill needs based on employer opinion and statistical industry data
Wider working conditions	Tourism: Casual/seasonal nature of employment – high staff turn-over, large employers involved in In-House ITO training, but difficult for small businesses to commit to training, no clear career paths Aviation: seasonal nature to work though a stable (and aging) workforce, growth in full time work
Findings	Tourism: Significant increase in skill/employee requirements associated with growth in visitor numbers and high turnover, need for personal qualities that employers believe should be pre-requisites for entry to pre-employment and industry Aviation: Expectation of growth across all occupations, more important skills in the future will include ICT (generic and aviation-specific), customer service skills and understanding of regulatory compliance
Recommendations	Tourism: increased need for industry to better present its career opportunities (competing with other industries for limited labour pool), filtering entrants into pre-employment
Dissemination	Info in Newsletters, Tourism publication on websites, the basis of discussion for tourism and hospitality leadership group

Boating ITO: New Zealand Marine Industry Survey, 2003: Current Situation and Future Prospects

Type of Research	Secondary: Statistical and industry information analysed – history, current situation, future performance, factors affecting growth, and review of world market
Year of study	August 2003
Conducted By	Prepared for Marine Industry Association by Market Economics Inc, funded by NZTE
Collaboration	Marine Industry Association (inc Boating ITO), Marine Export Group, Marine Operators Association, Royal Institution of Naval Architects
Frequency	One-off
Industry(ies)	Marine (mostly pleasure boats)
Supply side/demand side	Demand side – current industry trends and ensuring future prosperity of industry
Wider working conditions	Employment Relations Act impedes ability to manage flexible and efficient workplaces
Findings	Recent period of growth - Importance of niches (e.g. super yachts), and maintaining competitive advantage in export market through flexibility and technologically-advanced and innovative production processes Targets for continuing growth
Recommendations	Strong industry leadership, focus on training through BITO, involvement in high profile activities, capital investment, maintaining collaborative culture
Dissemination	Marine industry document

FITEC: New Zealand Forestry Industries Labour Market Analysis 2005

Type of Research	Primary: Survey of 346 businesses, characteristics of business, employees and skill needs
Year of study	August 2005
Conducted By	APR consultants
Collaboration	NA
Frequency	One-off (part of extensive series of research)
Industry(ies)	Forestry (Forestry contractors, Forest owners, Forest health and biosecurity, world manufacturing)
Supply side/demand side	Demand side – looking at nature of employers, employees and skill needs
Wider working conditions	Anticipated growth, recruitment difficulties
Findings	Majority of training in regulatory, technical, and management business skill areas. Future skill needs – management/business, leadership and technical. Majority of workplaces rate workplace literacy as excellent or good
Recommendations	Not provided
Dissemination	Newsletter, Website

**HITO: Key drivers for skills and training in the hairdressing industry:
Results from desk research**

Type of Research	Secondary: literature review, data analysis (Stats NZ, TEC, NZQA)
Year of study	June 2005
Conducted By	NZIER
Collaboration	NA
Frequency	Part of research programme (to be followed up with primary research)
Industry(ies)	Hairdressing and beauty services
Supply side/demand side	Demand and Supply – looked at the industry and labour market, and provision of tertiary education
Wider working conditions	Low wage rates, poor working conditions, young age profile, recruitment difficulties, high occupational wastage
Findings	Steady growth in industry - demand driven by income levels, demographic change and consumer trends Predominance of small enterprises High replacement demand for skills, mismatch between skills and attributes of new entrants and reality of the job Significant amount of training (HITO and provider based)
Recommendations	Future skill needs: management and business, literacy and numeracy and upskilling in new products Strategies to attract and retain skilled people, improve management practices HITO and industry partners influence wage rates Review current training mix
Dissemination	Internal document

Niche Manufacturing: Review of a selection of New Zealand Niche Manufacturing Industries

Type of Research	Secondary (analysis of broad economic indicators) and primary (qualitative interviews with successful companies)
Year of study	2005
Conducted By	Infometrics
Collaboration	Niche Manufacturing: Apparel and Textile, Boating, Plastics and Materials Processing, Furniture, Printing and Allied Industries
Frequency	One-off
Industry(ies)	Selection of niche manufacturing (see ITOs above)
Supply side/demand side	Demand – economic indicators and future direction and challenges for industries
Wider working conditions	Spend more on labour (higher wages) than other manufacturing
Findings	Benefiting from strong performing economy Expansion of exports Niche manufacturers successfully managing operating costs in context of rising oil prices and exchange rates Strategies for challenges include: focusing on market segments less prone to competition (quality and flexibility) increased training, diversifying sources of materials, quality client relations Looking for employees' ability to fit in, diligence and willingness to learn – firms would like more critical reasoning abilities and experienced tradespeople with relevant technical skills Literacy issue in Auckland (ESOL), shortage of engineers
Recommendations	Need for more external assistance in training Need to improve image of trades Need for management support
Dissemination	Published in newsletters

SFRITO: Education Provision for the Sports, Fitness and Recreation Industry - Report on Labour Market Supply from the Education System to the Sports, Fitness and Recreation Industry

Type of Research	Secondary (quantitative data from government education agencies)
Year of study	May 2006
Conducted By	Independent Contractor
Collaboration	Included preparation of advice for all ITOs on methodologies for obtaining and analysing official education data
Frequency	One-off (to be updated when more recent data is made available)
Industry(ies)	Community Recreation Sector, Outdoor Recreation Sector, Fitness Sector, Sports Sector, Snow sport Sector, Dive Sector
Supply side/demand side	Supply side – supply of tertiary education graduates to sports, fitness and recreation industry
Wider working conditions	NA
Findings	Lower than national average completions Large number of qualifications, many go unused Large number of providers offering SFR qualifications, only a small number deliver in volume Provision is poorly aligned with industry needs Difficulty in accessing accurate and timely data
Recommendations	Need to rationalise qualifications (particularly local qualifications) due to suspected widespread duplication Making vocationally-oriented education more relevant to industry likely to increase completion rates Industry needs a say in distinctive contribution of providers and qualifications (ITO role in facilitating engagement with industry)
Dissemination	Sent to ITO CEOs and ITF

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Appendix 3: 8 x 8 Conceptual model for ITO leadership

Levels: Indicators/Measures								
8. Identification of key issues across industries and collaborative analysis of it using theoretical bases and multiple sources of information								
7. Identification of key issues across industries and analysis of it using multiple sources of information								
6. Identification of key issues within industry and analysis of it using multiple sources of information								
5. Dissemination of analysis and information re implications for current and future skills and training in industry								
4. Gather and analyse information re future (3 + years) implications for skills and training in industry								
3. Dissemination of data and analysis								
2. Analyse information re implications for skills and training in industry								
1. Gather data and information re present / current state								
Elements	1. Macro economic and social environment (NZ in global context)	2. Industry Implications High Level re skill & training	3. In- depth industry picture	4. Industry specific skill needs	5. Training requirements	6. Tertiary sector capacity	7. Strategic Training Plan, goals, objectives	8. Influencing outcomes



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