

KEY FACTORS AFFECTING LEARNER
MOTIVATION TO SUCCESSFULLY
COMPLETE QUALIFICATIONS
THROUGH WORKPLACE LEARNING

ITF OCCASIONAL PAPER 10/01
SEPTEMBER 2010

Karen Moses
Senior Advisor Research and Development
Learning State Limited: the Industry Training Organisation
for the State Sector



Acknowledgement

We would like to thank Gemma Piercy, University of Waikato, for comments on earlier drafts of this publication.

Published by the Industry Training Federation
PO Box 24-194
Wellington
New Zealand

September 2010



This work is published under the *Creative Commons 3.0 New Zealand Attribution Non-commercial Share Alike Licence (BY-NC-SA)* <<http://creativecommons.org/licenses/by-nc/sa/3.0/na/>> . Under this licence you are free to copy, distribute, display and perform the work as well as to remix, tweak, and build upon this work noncommercially, as long as you credit the author/s and license your new creations under the identical terms.

Disclaimer

This publication represents the views of the author, and does not necessarily represent the views of either the Industry Training Federation or Learning State: The Public Sector Industry Training Organisation.

Introduction

The Industry Training Federation is strongly committed to research and evidence-informed policy development, system implementation, and professional practice. Without good quality information and analysis, we all – policymakers, politicians, and practitioners – run the risk of not realising the full potential of our work at best, and at worst actually undermining our fundamental aims and objective.

I am therefore pleased to introduce the first of a series of ITF occasional papers on aspects of industry training, VET, and skill development, deployment, and utilisation. This first paper, prepared by Karen Moses and drawing on her postgraduate study, discusses a timely and relevant topic for both ITOs and the tertiary system as a whole: how we can better support learners to complete qualifications.

These publications have two purposes. Firstly, they are meant to stimulate thinking and promote good quality practice and policy. These publications will not always present the ‘official’ thinking of either the ITF or the author’s organisation, but will provide a vehicle for raising ideas and presenting research that can enhance the way in which we approach our work.

Equally important, though, is this series’ second purpose: to showcase the excellent research and thinking being conducted on VET and skills-related topics. We know that there is a lot of high-quality work being undertaken throughout the Vocational Education and Training community: research projects (both ‘academic’ and applied), pilots and initiatives, and the analysis and use of data. However, all too often this work remains in-house, or reaches only a small group of researchers or analysts.

We at the ITF therefore believe that not only must we conduct and support good-quality research, but we must also pay equal attention to disseminating and ‘connecting up’ the different work that’s going on in this area. These occasional publications will be part of this process, and will draw on a wide range of authors, from postgraduate students, to established researchers, to ITO staff, to consultants and government officials – and an equally wide range of readers.

In that spirit, I hope that you find this paper stimulating, and look forward to the next in the series. If you or your organisation is interested in developing a publication for this series, please contact the ITF.

A handwritten signature in black ink, appearing to read 'Jeremy Baker', is centered within a light gray rectangular box.

Jeremy Baker
Executive Director

Contents

Introduction	ii
Contents	iii
1. Overview	1
Research questions	1
2. Background	2
Industry training.....	2
New funding models	2
Definitions of completion	3
Changing industry environment	4
3. Models of workplace learning	5
Competency-based models of workplace learning	5
New Zealand industry training model of workplace learning	5
Key challenges to the New Zealand industry training model	6
Some models of industry training.....	6
Delivery of workplace learning	8
4. Completion issues in workplace learning	9
Completion rates for modern apprentices.....	9
Key barriers to effective workplace learning	11
Quality training delivery	11
Role of ITOs in ensuring quality training	12
Effective learning and successful qualification completion.....	13
Learning culture in the workplace.....	13
Supporting learners in workplace learning.....	14
5. Key motivational factors for workplace learners	16
Motivating adults to learn	16
Self-directed learning.....	17
6. Conclusion	18
Actions that will maximise learner motivation to complete qualifications	18
ITOs	18
Training providers.....	19
Employers.....	19
Learners.....	19
References	20
Appendix A: Models of workplace learning delivery.....	23
Appendix B: Models of workplace learning for different stages of learning.	24

1. Overview

This literature review was originally prepared as part of a programme of postgraduate study. Its purpose is to help develop strategies that Learning State and other industry training organisations (ITOs) can use to promote models of workplace learning that support learners in completing qualifications through industry training.

New Zealand tertiary education funding is moving towards being based on the number of learners competing qualifications. The review shows the relevance of completion issues to workplace learning from industry and learner perspectives. There is increasing concern about learner motivation to successfully complete qualifications. Literature on adult education, motivation and the self-directed learner identifies possible motivational strategies. This review focuses on New Zealand ITOs with qualifications based on the National Qualifications Framework (NQF). It specifically discusses adult education principles, motivation and learner support.

The paper looks at the link between learner motivation and successful completion of qualifications, then at some important barriers to effective learning in the workplace.

The paper further discusses:

- the definition of learner completion in an industry training environment
- the features of workplace learning models
- the need for learner support to successfully complete qualifications.

Sources for this review include government policy, journal articles and research reports from New Zealand and overseas.¹ The review focuses on policy. Literature was sourced from academic and workplace learning databases, tertiary education publications, and national and international research.

Research questions

The review addresses the following questions to identify key factors affecting learner motivation to complete qualifications through workplace learning.

- Why are New Zealand ITOs concerned about completion of qualifications?
- What can New Zealand ITOs learn from the research about models of workplace learning that are effective for completion of qualifications?
- What are the key factors associated with successful completions of qualifications?
- What role does motivation play in the successful completion of qualifications?
- How does motivation operate in workplace learning?

¹ The qualitative methodology used for this review is a modification of content analysis (Newnham, Pantebre and Spark, 1999).

2. Background

Industry training

Workplace learning is the formal acquisition of skills and knowledge in the workplace that are formalised with assessment and the achievement of unit standards and national qualifications. Workplace learning may be provided in-house or supported by off-site education and training on a regular or occasional basis (Curson, 2004, p.5).

For increasing numbers of New Zealanders, the workplace provides significant training and development opportunities that lead to nationally recognised qualifications from the NQF (Curson, 2004). These qualifications and unit standards are developed by industry training organisations, which help industry representatives identify key competencies based on the knowledge, skills, attitudes and values needed by industry.

The Tertiary Education Commission (TEC) states that “a key strength of industry training is that it allows those with few or no previous qualifications to engage in tertiary training in a workplace setting” (TEC, 2007, p.9). They report that 24% of industry trainees had no previous qualifications; 33% of these are Māori and 33% are Pacific. Forty-four percent of the unit standard credits achieved towards qualifications are from industry trainees with no year 11 equivalent or previous education qualification.

The success of industry training will continue to be a major feature of the New Zealand tertiary education landscape (Industry Training Federation [ITF], 2008). This is reflected by the fact that there are over 185,000 registered trainees and approximately 11,000 modern apprentices—which, according to TEC statistics, is approximately one-quarter of all learners in tertiary education in New Zealand. There was an 8% increase in the numbers of employers participating, with a 5% increase in industry trainees. However, only 29,389 trainees completed national certificates—a decrease of 16% compared with 2006 statistics.

Only 35% of all learners in tertiary education in New Zealand studying up Level one to level four qualifications actually completed a qualification. This includes students at polytechnics, private training providers, and wānanga as well as those in industry training sectors (Tolley, 2009).

Workplace learners in the New Zealand industry training system enter into formalised training agreements with the ITO and their employer. These learners are from all age groups and career stages, ranging from modern apprentices to managers and specialist professionals. Study levels range from Level 2 to Level 6, and qualifications are at certificate and diploma levels.

New funding models

Completion in tertiary education qualifications is a key issue in New Zealand and overseas. Gallacher, Whittaker, Crossan and Mills (2004) report it in Scotland, IFF Research Ltd. (2000) in England and Montague and Hopkins (2002) in Australia.

New Zealand has recently shifted funding models for tertiary education from learner engagement in tertiary education to their successful completion of a tertiary qualification and a focus on training to meet current identified industry skill needs. This shift has been driven through the government's Tertiary Education Strategy (2007–2012) (Ministry of Education, 2007).

New Zealand has the highest number of hours of tertiary education per adult in the OECD (OECD, 2004, as cited in ITF, 2006). Although New Zealand has focused on tertiary education, its return on investment is only medium. Many issues have contributed to this situation. In May 2007, two key issues reported by the then minister of Tertiary Education, Dr Michael Cullen, in a speech on tertiary funding reforms were the quality of training supplied and learner completion of qualifications (Cullen, 2007).

In its Skills Strategy 2007–2012, TEC acknowledges that funding for enrolment into workplace training has not generated a significant change in desired productivity outcomes and that qualification completion rates are declining. It has changed funding to relate to student outcomes measured as credit and qualification achievement. This type of funding reinforces an increasing focus on accountability and return on investment. This change has brought about new challenges and a change in focus for the ITO business: from numbers of registered learners to learners' progress. Contracting to TEC is now based on numbers of unit standard credits reported.

Definitions of completion

Curson (2004) identifies confusion over the definition of completion in the New Zealand ITO sector. For an ITO, a "successful completion" is the completion of a learner's training agreement. This may be either a qualification or a Limited Credit Programme, which is a smaller group of unit standards 20 credits or above linked to the competencies of the learner's role in the workplace and is only part of a qualification.

The NQF is based on the English National Vocational Qualification (NVQ). However, the NVQ acknowledges the need for smaller credit-based qualifications to meet the skill needs of industry with national certificate qualifications of 13–39 credits, whereas in New Zealand a national certificate qualification is 40 credits or above.

The ITO definition of completion contrasts with the TEC definition, which requires learners to complete a full qualification. ITOs aim to meet industry skill needs when and where they occur, while the TEC bases its definition on the formal semester-based structure of learning through a tertiary education institution.

This differing definition of completion has created an ongoing barrier between TEC and ITOs. Curson (2004) views the TEC definition as a challenge to ITO's to meet industry skill needs while negotiating a definition of completion with TEC in alignment with government policy.

Changing industry environment

Beyond meeting industry skill needs, two reasons New Zealand ITOs are concerned about learners' completion rates are funding and the increase in workplace productivity.

With the increased rate of change in today's economic environment, just-in-time models of workplace learning have been developed to meet the skill needs of industry (Raddon and Sung, 2006). In the New Zealand industry training environment these are often modules of learning developed for key skill sets which are limited credit programmes.

In today's global work environment, employees are required to:

- obtain a broader range of skills to operate successfully in the workplace
- remain open to continuous learning and upskilling
- achieve new competencies to meet changing skill needs on a continuing basis.

Workplace learning has become a career-long personal responsibility (Raddon and Sung, 2006).

Future economic growth will rely more on increased productivity and a more highly-skilled workforce than on increasing the size of the labour market (Ministry of Education, 2007). One of the seven key productivity drivers identified for New Zealand by the Department of Labour (2008) is investing in people and skills. An example of the benefits of education to the nation is that "increasing education by one year raises per capita national output by six percent" (Ministry of Education, 2007, p. 12). Greater skills lead to higher productivity.

How then can ITOs develop models of workplace learning that both meet the changing needs of industry and motivate learners to continuously upskill and complete qualifications, therefore increasing productivity in the New Zealand workplace?

3. Models of workplace learning

Competency-based models of workplace learning

The NQF model used in industry training in New Zealand has created a seamless approach (Cudby & Moses, 2004). Qualifications are derived from all types of learning. The model is underpinned by competency-based assessment of unit standards. The NQF qualifications and unit standards are developed by the ITO in consultation with industry and align to competencies required for the New Zealand workplace.

Bulik and Frye (2004, p. 71) observed, “What is meant by competency in a subject area ought to involve an emphasis on the possession of both knowledge and task skills and the ability to use them or to demonstrate their use.” These authors claim that the knowledge or content of a particular subject area is not enough to qualify an individual as competent; the ability to use that knowledge in the generation and integration of ideas in critical analyses or in creative problem solving is key.

This view of competence is supported by Cheetham and Chivers (2005), who identified the need to build a platform for the development of higher-level competency standards for qualification frameworks. Cheetham and Chivers developed a model of professional competence that:

- is based on the integration of
 - knowledge/cognitive competence
 - functional competence
 - behavioural competence
 - values and ethics competence
- acknowledges
 - the context of the work
 - the context of the work environment
 - core generic skills.

They argue that when integrated, these types of competencies produce a range of outcomes for workplace learning models using qualification frameworks.

Alternatively, Capper (1996) suggests that in workplace learning models, competence should be determined by work, training and assessment. To determine a learner’s competence, assessors should look most at things they have done naturally at work and in a learning setting. This is supported by clear presentation and cross-referencing of evidence to defined learning outcomes.

New Zealand industry training model of workplace learning

Competency-based models of workplace learning used by industry training in New Zealand are based on three key stages along the pathway of learning to achieve the unit standard outcomes. These are:

- training delivery either on or off the job
- coaching to transfer of the training
- gathering evidence and assessing competency to the unit standard outcome.

If models developed using these three key stages are used flexibly, learners can reflect on their learning and enter at any of the stages as their prior knowledge and current competency are recognised.

Key challenges to the New Zealand industry training model

Learners can exit at any of the three stages. For example, they can upskill by attending a refresher training course, but exit following the training because they already hold a qualification that covers this subject area. For other learners, not succeeding on previous exams can create a lack of confidence and motivation to complete the assessment stage. Cheetham and Chivers (2005), Reio (2004) and West (2000) all discuss this. They recommend using motivational strategies and reinforcing the different applied nature of summative workplace assessment models.

As new models of workplace learning are developed for industry, providers need to work together more to ensure the model is clear and learners get ongoing support at each stage. West (2000) observed that workplace learning models tend to be more organic and flexible in structure and stress the importance of horizontal communication, collective and continuous learning and adaptability.

Another challenge is the need for coordination between the three stages. In some cases different providers are used to deliver each stage and there are both on and off the job options. This uncoordinated approach creates new challenges for learner completions because to be successful, learners must be flexible and self-managing.

Learning and assessment need to be linked more closely than was the case in the past. Not linking them closely means that not only is the responsibility to maximise instruction potential abdicated but also learning is inhibited (Bowen-Clewley, 2004).

The design of new workplace learning models must allow flexible entry points and keep pace with how work is organised in an environment characterised by increasing competition, outsourcing, casualisation and an emphasis on specialisation and innovation (National Council for Vocational Education Research [NCVER], 2008).

Though workplace learning is unstructured, it is necessary to keep the three stages (workplace learning, training-coaching, and assessment) linked together. This gives clarity and coordination to the model of workplace learning and provides support to motivate learners to complete qualifications.

Some models of industry training

Education and training are no longer solely driven and delivered by educational institutions (Montague and Hopkins, 2002). Instead, they are increasingly viewed in a broader system

that includes collaborative models in the workplace. For these models to be successful facilitation between stakeholders is required.

The unstructured, applied nature of the three stages of workplace learning is a key difference between workplace learning models used by industry training and the structured nature and mainly knowledge-based learning and assessment of tertiary education provided by educational institutions.

Evans, Hodkinson, Rainbird and Unwin (2006, p.28) identify the workplace as an important location of learning. They share the views of theorists Billett (2001), Eraut et al. (2000) and Beckett and Hager (2002) (as cited in Evans, Hodkinson, Rainbird & Unwin, 2006) “who reject any notion that learning that takes place in educational institutions is superior to learning that takes place in the workplace”. These authors emphasise the importance of models of workplace learning being designed to meet the needs of both the learner and the industry.

Evans, Hodkinson, Rainbird and Urwin (2006) observe that workplace learning was embedded in production processes and social relations. They discuss Fuller and Unwin (2004, cited in Evans, Hodkinson, Rainbird and Urwin, 2006), which includes a conceptual tool, the Expansive-restrictive Continuum, which may assist industry to evaluate and analyse the extent to which the workplace learning model improves the quality of the learning environment, learning support and practice. This tool distinguishes between contrasting approaches to workplace learning models, and it may assist ITOs in the development and evaluation of workplace learning models in New Zealand to support and motivate learners to complete qualifications.

The workplace learning models used by industry training in New Zealand align with the Lominger and Eichinger (2002) 70/20/10 workplace learning model. Lominger and Eichinger found that 70% of the learning happens from real life, on-the-job experiences, tasks, and problem solving. Twenty percent happens from the coaching, mentoring and peer support that sit alongside the workplace learning. Ten percent comes from more formal learning exchanges, including just-in-time and off-the-job training activities to support learning theory.

The 70/20/10 model supports reflective practice as it gives the learner the opportunity to continually review, extend and build on their competence and link theory to their practice in the workplace.

Cheetham and Chivers (2003) argue that learners need to reflect on all aspects of learning, development and practice to improve their competence. Their model of professional competence is influenced by Schon's (1983, as cited in Cheetham & Chivers, 2003) “reflective practitioner” and acknowledges the importance of ongoing reflection for learners to build on initial learning through day-to-day practice to ensure continuous improvement and development towards competence.

Delivery of workplace learning

Many models of delivery of workplace learning have been developed to meet the rapidly changing needs of a broad range of learners and industries (NCVER, 2008). These range from the traditional provider-based modes of delivery (e.g. provider training with in-house coaching and assessment) to blended approaches of workplace learning which may include learner verification of current competence by manager and assessment by a subject matter specialist. (Some models are described in Appendix A.) Each model has strengths and weaknesses for learners at different stages of development.

NCVER also identified five models of workplace learning for the different learning stages of workplace learners, acknowledging that “Different learners, with varying capabilities, will need different amounts of time to develop occupational knowledge and diverse pathways through entry level preparation to meet both their own needs and those of industry” (2008, p. 12).

These models are:

- apprenticeship model
- induction programmes
- graduate internships
- professional development to build on existing skills
- recognition of current competency.

The five models are further described in Appendix B.

The final two models are intended for learners undertaking studies in further specialist skills who are capable of being self-directed learners. Working in a global market can require ongoing professional registration with qualifications being updated to meet to minimum requirements. To meet these new standards and skill shortages identified in industry, accelerated models of workplace learning have been designed where the focus has moved to coaching for competency and assessment. Another option is intensive up-front training followed by the transfer of training through structured coaching to ensure immediate productivity of the learner in the workplace.

The variations in the interpretation and practice of competency-based training and assessment can lead to pressure on the learner, and if there is not enough management support this may lead to non-completions (NCVER, 2008). “Just-in-time” skill development strategies need stringent monitoring to assure quality and learner support.

4. Completion issues in workplace learning

Findings are similar across a number of major research reports that focus on identifying the key barriers and motivational factors associated with successful learner completions of qualifications.

Three of the sources discussed here relate to the Modern Apprenticeship Programme. All identified non-completion of the programme as a key issue. Gallacher, Whittaker, Crossan and Mills (2004) did their research in Scotland, IFF Research Ltd (2000) in England. Jeffcoat and Jeffcoat (2006) did their research in New Zealand. The New Zealand modern apprenticeship programme is based on the UK model so the three research reports have findings relevant for the New Zealand situation.

In more general research, Curson (2005) set out to identify issues and provide evidence regarding why some trainees complete qualifications and others do not.

Montague and Hopkins (2004), in parallel Australian research, investigated the most effective ways learners receive informal and formal support to assist them in successfully completing vocational education and training (VET).

Completion rates for modern apprentices

Although modern apprentices are a small portion of workplace learners—there are 9,500 modern apprentices compared to 176,064 overall registered learners (ITF Research Ltd, 2006)—this programme is significant in that it focuses on young people entering the workforce (aged 16–24 in the UK and 16–21 in New Zealand).

Gallacher, Whittaker, Crossan and Mills (2004), IFF Research Ltd (2000) and Jeffcoat and Jeffcoat (2006) all state that many modern apprentices have no previous qualifications and require one-on-one learning support, which is provided by a modern apprentice coordinator, along with industry support from their employer. All found that the age of the learner makes little difference in completion rates, nor does the type of apprenticeship (whether it is a traditional, trade-related programme or a new programme such as business administration or retail). However, Gallacher, Whittaker, Crossan, and Mills found that the traditional apprentices reported being supported more by structured training and employers who had been apprentices themselves, as they had a greater understanding of the learner support required.

The most common barriers to completion of apprenticeships were:

- getting a new job
- lifestyle and personal reasons
- the difficulty of combining the training with the workload of the job
- allocation of study time
- programme timeframe.

The largest dropout rate from the programme was within the first 12 months in all three cases. There was a significantly higher dropout rate of learners with low school achievement and after learners completed their first qualification.

Jeffcoat and Jeffcoat (2006) reported that lifestyle and personal reasons were a key factor for non-completion, particularly relationships between employer and employees.

In the UK, IFF Research Ltd (2000) found that in some cases qualification levels and their relevance to the learner's job role were viewed as not aligned; this created a barrier and contributed to non-completions. There were also barriers in the new modern apprenticeship programmes in areas such as retail, where only 6% of learners received structured training. The programmes thus relied on coaching and self-directed learning models of workplace learning.

IFF Research Ltd (2000) analysed elements relating to the structure of the apprenticeship programme, for example the requirement in many cases for learners to complete two qualifications. Motivation dropped after the first qualification was achieved, and many modern apprentices suggested that a break from study between the qualifications might have increased their motivation. The two-year timeframe needed to complete the qualifications was considered a barrier in some cases: modern apprentices are new to a job, balancing work and study and participating in a new concept of learning.

Evans, Hodkinson, Rainbird and Unwin (2006) point out that for apprentices learning is not only a question of knowledge transfer, but rather about allowing young people to participate in social situations where they are accepted and contribute as members of a community bringing new ideas and growing their competence.

Other structural factors creating barriers to completion of the apprenticeship programme were reported as the same for all three countries. These were the need for:

- higher quality of training provision
- improved relationships between training providers and employers
- greater tracking of learner data between employers
- better quality of induction for the employer and modern apprentice
- higher quality of on-the-job learner support.

Transferability of the modern apprenticeship programme between employers is a barrier in all three countries. IFF Research Ltd (2000) found that 56% of modern apprentices who had moved to another job were interested in continuing with the programme. Gallacher, Whittaker, Crossan, and Mills (2004) found that apprentices in Scotland were not tracked through a formal management system once leaving an employer and were considered non-completers. However, some of these non-completers had a new training agreement registered with their new employer.

Movement between employers need not be a barrier for the apprentice as the qualifications frameworks within all three countries require transferability to meet the needs of the industry and the learner. The NQF in New Zealand requires qualifications to be nationally recognised, transferable, credible, and able to respond to a diverse and changing New

Zealand economy (Cudby & Moses, 2004). With the establishment of databases to monitor all learners in industry training, reporting on learner movements between employers may be possible. Learners could give formal notice via the apprentice coordinator, enabling them to transfer their training agreement to their new employer and supporting them in completing their programme.

All three sources report that modern apprentices who completed the programme identified the one-on-one learner support provided by the modern apprentice coordinator as something that motivated them to learn and encouraged them to stay and complete the programme.

One-third of modern apprentices in Scotland gave issues relating to the workplace context and lack of workplace support for workplace learning as reasons for non-completion. The highest success rate reported was among apprentices with supportive managers. Gallacher, Whittaker, Crossan and Mills say that “a work culture in which training is prioritised and valued can have a positive impact on completion rate, as for these young people this commitment by their employer was a key aspect.” (2004, p. 25).

Key barriers to effective workplace learning

Curson (2004) highlights what is needed for effective workplace learning in an industry training context and provides qualitative information through interviews with ITOs on how they defined completions and what the key influences for completions and non-completions were.

Two key barriers for completion of qualifications for all industry trainees were:

- learners moving jobs to a different employer or different industry
- the need for structured time and support to be allocated to undertake learning in the workplace (Curson, 2004).

These key findings align to the research findings for non-completion in the modern apprentice programme.

Curson further reports that “having an effective learning environment in the workplace is most likely to lead to successful completions” (2004, p. 3). Taking these three factors into account, Curson identified a further barrier to effective learning in the workplace as the lack of quality delivery of workplace learning and learner support.

Quality training delivery

The quality of training received on and off the job can affect some learners’ ability to successfully complete a qualification (Curson, 2004). Training of low quality and low relevance to learners’ skill needs will affect the learners’ motivation and enthusiasm to complete workplace learning through to the assessment stage.

The research of McDonald and Fyfe (2002) further supports this. They established that quality training can assist with motivation and staff retention and play an important role in attracting skilled employees.

Learners in industry training identified as key factors for successful motivation for training:

- creating a clear purpose for the training that is communicated to the learner
- delivering training that is motivational and of high quality
- using professionals to deliver
- providing follow-up learner support for the assessment (Industry Training Federation, 2007).

Gallacher, Whittaker, Crossan, and Mills (2004) noted that training providers have a key role to play in learner completion rates. It is necessary to have quality systems of evaluation along with guidelines about the role of training providers in workplace learning models. They argue that there is too much focus currently on the assessment stage at the cost of quality training. Similarly, Russell (2005) observes that the NZQA model can focus on assessment for completion of qualifications to the detriment of good teaching practice and states that good teaching practice and assessment are mutually dependant.

Davis and Davis (1998) establish a guide for effective training strategies and motivational training methods to meet different learning styles and situations. They outline training strategies aligned to key educational psychology theories of learning and motivation. The theories discussed are:

- behavioural theory—students are motivated to learn through achieving the required competencies
- cognitive theory—students understand the learning and gain confidence and a belief they will achieve their goals
- social learning theory—students need a stimulating learning environment with a purpose for learning
- humanistic theory—it is necessary to create an environment of inclusion and respect for individuals.

Davis and Davis (1998) acknowledge that within most training programmes a blended approach of theories is used.

Role of ITOs in ensuring quality training

Quality training is a key motivational factor for learner completion of qualifications, both in New Zealand and overseas. The Industry Training Act 1992 specifies that one role of industry training is to develop arrangements for the delivery of training that will enable trainees to attain qualifications. Analysis of these findings makes it clear that the ITO has a defined role in supporting industry by helping them to source quality training and evaluating the training to ensure that it is meeting the needs of industry and the learner.

In the current model of workplace learning in New Zealand, the unit standard assessments are moderated but the pathway of learning and learner support are not formally evaluated. ITOs already accredit training providers and moderate assessments; they may further be able to provide a quality systems structure to ensure the training delivery meets the identified needs.

To evaluate the quality of training, it is necessary to have a structured approach to workplace learning. This is supported by the ITF model for effective learning leading to successful qualification completion.

Effective learning and successful qualification completion

Curson (2004) identified eight key factors that influence learning in the workplace:

- presence of a learning culture
- management recognition of the value of training and support for it with the development of policies and inclusion of training in the business strategy
- administrative processes that effectively monitor and track an employee's progress
- a structured approach to meeting the training needs of the employee
- provision of incentives to learn
- provision of support services
- time to allow for training and learning to occur
- recognition that there is no one-size-fits-all formula to learning in the workplace.

Learning culture in the workplace

Curson argues that "if employers provide an environment which fosters and facilitates effective learning, they are more likely to have employees motivated to successfully complete qualifications" (2004, p. 4)

High-performing workplaces are founded on a strong workplace culture with motivated and engaged employees. People are the greatest asset and employers need to view supporting workplace learning to meet skill needs as an investment (Department of Labour, 2005).

Similarly, the New Zealand Institute of Economic Research (2004) reports that a more strategic approach in locating training and development within a business plan improves the quality of service, improves competence, and supports upskilling. Training and development aligned and targeted to business processes improve staff morale and motivation for training.

Managers are willing to devote time and resources to activities associated with employee development as long as such activities demonstrate a clear return on investment of time and effort; training should be functionally relevant and job specific (Learning and Development Roundtable, 2002).

There is more likely to be workplace support for the learner if industry training:

- meets the skill needs of industry
- supports industry to create a culture of learning and support for the learner.

This in turn creates motivation for learners to complete the qualification.

Supporting learners in workplace learning

Workplace support for the learner has been identified as a key motivator in learners completing a qualification. Montague and Hopkins (2002) identified learner support, from both educational and business perspectives, as a key factor: “the higher quality of learning support services provided, the higher percentage of student completion rates” (p. 8).

To analyse Montague and Hopkins’ (2002) findings regarding learner support, it is key to first establish who the stakeholders are and how the needs of both the learners and the industry are met. If a collaborative approach to workplace learning is used, a training provider facilitates learner support from an educational perspective and the workplace provides support from a business perspective. TEC emphasises the importance of the sector working together, with Cullen (2007) stating that the intention is to create a direct link between needs, planning, and delivery to encourage collaboration in tertiary education.

However, industry training models of workplace learning are often designed with the expectation that the workplaces will provide in-house training, coaching and learner support. A key question then is how small to medium businesses in New Zealand without human resource capabilities can have the capacity to provide quality training and learner support in-house both from an educational perspective and a business perspective. Learner support has been identified as a key factor associated with successful qualification completion, so is the ITO responsible for assisting in sourcing these services? Most ITOs provide individual learner support to modern apprentices, and only providers offer structured educational learner support to other workplace learners.

Models of workplace learning and learner support used for younger learners new to the workplace do not always suit older learners (NCVER, 2008). Bowen-Clewley (2004) argues that for learners to use the model of recognition of current competency successfully they require the skills to be self-directed learners. Learner support services must be provided to meet the different needs of learners for the different models of workplace learning. Learner support and motivation are aligned. The key is that the learners have confidence that the learning support is available to them if required.

Key factors for an ideal system for learner support in workplace learning are:

- a planned, systematic and funded approach to learner support along with a formal induction/orientation process
- identified incentives for learners to complete
- a critical ratio of experienced people to foster learning in the workplace along with organisational support for managers and trainees
- a flexible learner-centred approach
- cooperative partnerships between trainers and workplace staff (Montague and Hopkins, 2002).

There are similarities between the New Zealand and Australian research on what makes learner support successful in workplace training and vocational education. Although different environments have shaped the strategies that are established, each has the same

goal: to create a supportive learning environment that encourages and motivates learners to succeed.

These studies suggest that retention rates could be improved and learners could be motivated and supported to complete their qualifications with:

- identification of a planned approach
- workplace learning and learner support being valued and supported by industry
- establishment of collaborative partnerships between ITOs, training providers and employers to meet the skill needs of industry
- effective workplace learning models.

The scope for seeking further information on all these findings remains broad, though a commonly agreed point is that the workplace learning must be obviously relevant to motivate the learner to complete a qualification.

5. Key motivational factors for workplace learners

Motivating adults to learn

Knowles (1990) proposed learners' readiness to learn emerges from the need to learn. For employees today, the need to continually learn new skills and build on prior knowledge is a key factor to the success of their work. Motivation for ongoing learning in the workplace is very important to the success of workplace learning.

This is supported by Heimstra, who writes: "The demand for acquiring new information and learning new skills is increasingly becoming the key to success. Learning has become a lifelong process. The urge to succeed and survive in itself is an intrinsic motivating factor for adults." (1994, p. 35)

While most adults are intrinsically motivated to learn, some are extrinsically motivated (Heimstra, 1994). In workplace learning an intrinsic motivator for learners is the relevance of the training to their current role and future career options. Heimsta identified other intrinsic motivators as:

- the personal aim for self-improvement
- the challenge learning brings
- the networking, competitive and social opportunities provided through interaction with other participants on a course.

Extrinsic motivators include recognition of competence and the linking of competence to unit standards and qualifications, which gives the opportunity for greater value with monetary recognition and promotion at work.

One view is that industry uses qualifications as a form of legal tender—a tangible indicator of how valuable a potential employer is (Birchfield, 2005). The motivation is therefore extrinsic rather than intrinsic, and intrinsic motivators do not come into play.

Knowles (1990) developed six principles of adult learning that relate to workplace learners. These are:

- the need to know
- the learner's self-concept
- the role of the learner's experience
- readiness to learn
- orientation to learning
- motivation.

Expanding on these principles, Knowles (1990) observed that adults like to relate their learning program to their lives and prior knowledge, contextualising the content for their own meaning.

Burns (2002) identifies four key concepts in adult learning:

- self-directed learning
- experiential learning
- critical reflection
- learning to learn.

Adult learning, according to Burns, is self directed (learner centred) and task driven with learning on demand. All of these concepts have been acknowledged previously in this report as they relate to the delivery of workplace learning.

A key factor strengthening motivation for workplace learning is the acknowledgement of prior knowledge through competence. The learner's awareness of competence is a powerful influence on their behaviour (Wlodkovski, 1999). Learners who can feel a sense of progress also experience motivation.

Given what appears to be widespread agreement on what motivates adult learners, and why they resist departure from successful models, it appears that motivation (Bandura, 1977) may remain a key determinant in why some learners are successful and others are not.

Self-directed learning

Knowles (1975) defines self-directed learning as:

a process in which individuals take the initiative, with or without the help of others, in diagnosing their learning needs, formulating learning goals, identifying human and material resources for learning, choosing and implementing appropriate learning strategies, and evaluating learning outcomes (p18).

Self-directed learning readiness is a useful single-predictor variable of academic success, and individuals demonstrating higher levels of self-directed learning readiness are more likely to be independent, motivated and responsible for their own learning (Long and Morris, 1995).

A key to successful qualification completion using recognition of current competency is for the learner to become a motivated, independent, self-directed learner with confidence in their prior knowledge and their own learning ability (Bowen-Clewley, 2004).

Knowles' (1975) adult learning theory suggests that self-directed learning strategies are essential in effective learning provision. Successful workplace learners have:

- confidence in their learning ability
- skills to seek and develop their own independent learning strategies
- confidence to elicit support when it is required.

If self-directed learning is a key to successful learning, ITOs may have a role in promoting self-directed learner readiness as a strategy for successful workplace learning and qualification completion.

6. Conclusion

The New Zealand government bases its funding for tertiary programmes on how many learners complete qualifications. It considers workplace training a necessary part of upskilling the workforce; this upskilling will in turn increase productivity. To get funding to support the training they are required to give their workforces, ITOs must therefore find a way to meet the government requirements—i.e. have students completing qualifications. The definition of completion differs between ITOs and TEC.

Literature and research on workplace learning models confirms the immediate relevance of completion issues in workplace learning from the industry and learner perspective.

This research shows a clear picture: for workplace learning to be successful, all participants have a role to play to assist learners to be motivated and complete qualifications. Employers must provide an environment that supports and provides incentives for learning. ITOs must facilitate relationships with providers, help with support systems for learners and employers, and provide quality assurance systems. Training providers need to provide training that motivates learners and meets the needs of industry. For learners to achieve along their career pathway, they must accept the ongoing pathway of lifelong learning, be open to adapting to the new flexible approaches to workplace learning, and acquire the skills to be self-directed.

ITOs must develop strategies to promote successful models of workplace learning that support learners to complete qualifications.

Actions that will maximise learner motivation to complete qualifications

ITOs

- Design blended models of workplace learning relevant to the current business climate and business context.
- Ensure the quality design of qualifications, learning and assessment resources to meet industry and learner needs.
- Provide support and advice on workplace learning with formal agreements on training delivery.
- Evaluate workplace learning models and training programmes to ensure they meet the needs of industry and the learner and provide a return on investment.
- Design orientation programmes for models of workplace learning.
- Provide learner support beyond the modern apprenticeship programme and promote the goal of self-directed learning readiness.
- Design systems where the progress and location of workplace learners who give formal notice of exiting a training agreement can be monitored and tracked.
- Facilitate collaborative partnerships to ensure all providers work together on the development and delivery of workplace learning.

Training providers

- Ensure training is aligned to the identified industry skill needs.
- Use training strategies that motivate learners and acknowledge the different learning styles of the learners.
- Develop models to acknowledge and recognise learners' prior learning.
- Work together with other providers of workplace learning.

Employers

- Provide an environment to foster effective learning with motivational incentives and support for employees to learn.
- Provide learner support from a business perspective.
- Show value for the qualifications learning and assessment resources used.

Learners

- Understand the need to continually upskill to be successful in today's business environment.
- Have access to learning support systems from both an educational and a business perspective.
- Work to be a successful self-directed learner.

These key factors do not stand alone but are blended through the models of workplace learning to encourage motivation for learners to successfully complete their qualifications in workplace learning.

References

- Bandura, A. (1977). Self-efficacy: Towards a unifying theory of behavioural change. *Psychological Review*, 84: 191-215.
- Birchfield, R. (2005, October). The NZQA revolution. *Management magazine*, 10, 36–40. Retrieved July 2008 from www.management.co.nz
- Bowen-Clewley, L. (2004). *ITO Training and Assessment Models*. Wellington: Motor Trade Industry Training Organisation.
- Bulik, R., & Frye, A. (2004). A workshop for faculty: Teaching beliefs and implications for self-directed learning. *International Journal of Self Directed Learning*, 1(1), pp70-75.
- Burns, R. (2002). *The adult learner at work: The challenges of lifelong education in the new millenium*. Australia: Allen & Unwin.
- Capper, P. (1996). *Workplace skills assessment project final report*. Wellington: Centre for Research on Work, Education and Business.
- Cheetham, G., & Chivers, G. (2003). Utilising reflective practice interviews in professional development, *Journal of European Industrial Training*, 27(1), 5–15.
- Cheetham, G., & Chivers, G. (2005). *Professions, competence and informal learning*. Cheltenham, UK: Edward Elgar.
- Cullen, M. (2007, October 12). *Transforming tertiary education and the New Zealand economy*. Speech at the Institutes of Technology and Polytechnics of New Zealand Annual Conference, Wintec City Campus, Hamilton.
- Cudby, J. & Moses, K. (2004). *Standards-based workplace training and assessment in the New Zealand public sector*. Paper presented at the International Cooperative Learning Conference Auckland. Wellington: Public Sector Industry Training Organisation.
- Curson, R. (2004). *Completion issues in industry training*. Wellington: Industry Training Federation.
- Davis, J. & Davis, A. (1998). *Effective training strategies: A comprehensive guide to maximising learning in organisations*. San Francisco: Berrett-Koehler Publishers, Inc..
- Department of Labour. (2005). *New Zealand Government, Workforce 2010: A document to inform public debate on the future of the labour market in New Zealand*. Wellington: Author.
- Department of Labour. (2008). *The Skills–Productivity Nexus: Connecting industry training and business performance*, Wellington: Author.

- Evans, K., Hodkinson, P., Rainbird, H. & Unwin, L. (2006). *Improving workplace learning*. London: Routledge.
- Gallacher, J., Whittaker, S., Crossan, B., & Mills, V. (2004). *Modern Apprenticeships: Improving completions*. Edinburgh: Scottish Executive Social Research.
- Heimstra, R. (1994). Self-directed learning. In *International Encyclopaedia of Education*, (Vol. 2, p.5). Oxford: Pergamon Press.
- Industry Training Federation. (2006). *Industry training skills leadership: The role of industry training organisations in shaping skills in the New Zealand economy*. Wellington: Author.
- Industry Training Federation. (2007). *Learners' perception of industry*. Wellington: Author.
- Industry Training Federation. (2008). *Industry Training*. Retrieved 10 November 2008, from <http://www.itf.org.nz/iot.htm>
- IFF Research Ltd. (2000). *Exploring the reasons for non-completion in five sectors*. Nottingham, UK: Department for Education and Employment..
- Jeffcoat, G. & Jeffcoat, S. (2006). Evaluation of the modern apprenticeship programme. Wellington: Tertiary Education Commission. Retrieved August 15, 2008 from <http://www.tec.govt.nz>
- Knowles, M. (1975). *Self-directed learning: A guide for learners and teachers*. New York: Associated Press.
- Knowles, M. (1990). *The Modern Practice of Adult Education: From Pedagogy to Andragogy*. Chicago: Associated Press.
- Learning and Development Roundtable. (2002). *Emerging mandates for the learning and development function: Developing the business case for learning beyond the classroom*. Washington, D.C.: Corporate Executive Board.
- Lominger, M. & Eichinger, R. (2002). *The leadership machine: Architecture to develop leaders for any future*. Minneapolis: Lominger.
- Long, H., & Morris, S. (1995). Self-directed learning in business and industry. *A review of literature* in H .B. Long & Associates, *New Dimensions in self directed learning* (p.367-380). Norman, OK: Public managers Centre, University of Oklahoma.
- McDonald, R., & Fyfe, J. (2002). *Return to enterprise on training investment*. Retrieved 15 August 2008, from www.anta.gov.au
- Ministry of Education. (2007). *Tertiary Education Strategy 2007–12 incorporating Statement of Tertiary Education Priorities 2008–10*. Wellington: Ministry of Education.
- Ministry of Education. (2007). *Tertiary Education Strategy 2007* Wellington: Ministry of Education.

- Ministry of Education. (2008). *Tertiary Education Strategy 2007*. Wellington: Ministry of Education.
- Ministry of Education. (2009). *Tertiary Education Strategy 2007*. Wellington: Ministry of Education.
- Montague, A., & Hopkins, L. (2002). *Supporting learners in training*. Adelaide, SA: National Council for Vocational Educational Research.
- National Council for Vocational Education Research. (2008). *Effective models of employment-based training*. Adelaide, SA: Author.
- Newnham, L., Pantebre, J., & Spark, M. (1999). *Content and discourse analysis*. Retrieved 10 August 2007, from www.bechervaise.com/DBAR2.htm
- New Zealand Institute of Economic Research. (2004). *Industry training and productivity: A literature review*. Wellington: Industry Training Federation.
- Raddon, A., & Sung, J. (2006). *The role of employers in sector skill development: International Approach*. Leicester?: Centre for Labour Market Studies.
- Reio, T. G. Jr. (2004). Prior knowledge, self-directed learning readiness, and curiosity. *International Journal of Self Directed Learning*, 1(1), pp18-25.
- Russell, L. (2005, November). Opinion leaders: The education jigsaw. *Management magazine*, 11, 24–26. Retrieved July 10, 2008 from www.managment.co.nz
- Tolley, A. (2009, April 22). Opening Speech at the New Zealand Vocational Education and Training Research Forum 2009. Victoria University, Wellington.
- West, A. (2000). *Competence-based assessment*. Philadelphia: Open University Press, Buckingham.
- Wlodkowski, R. (1999). *Enhancing adult motivation to learn*. San Francisco: Jossey-Bass.

Appendix A: Models of workplace learning delivery

Training provider models of delivery

- Traditional training provider delivery and assessment.
- Integrated assessment as part of a training programme.
- Training followed by simulated or work-based project-based assignments for assessment.

Blended approaches of workplace learning

- Training delivery by a provider with the transfer of training through coaching in the workplace and assessment of the unit standards by a workplace assessor.
- In-house training, coaching and assessment by a contracted subject specialist.

Workplace models of delivery

- Training, coaching and assessment in the workplace.
- Coaching to competence and assessment by a workplace assessor.
- Coaching to competence with verification by manager/coach and assessment by a subject matter specialist from within the workplace or a contracted assessor.
- Recognition of current competence through assessment.

Appendix B: Models of workplace learning for different stages of learning.

- Traditional entry-level training model
 - for example apprenticeship model
- Accelerated entry level training model
 - to help learners progress speedily through skill development
 - induction programmes building on already acquired specialist knowledge and skills and recognition of current competency
- Internship entry-level preparation model
 - employment-related learning beyond the completion of a qualification
 - for example, graduate internships
- Extension model of entry-level preparation
 - for those who enter an occupation after success in another, similar occupation
 - entry-level management in area of specialisation and recognition of current competency for transferable skills
- Extension model for further development
 - for mature workers who have completed their initial occupational development based on strong employment experiences supported by education provision
 - management and leadership recognise current competency for transferable skills