

**Learning for Jobs
OECD Reviews of Vocational
Education and Training**

Chile: A First Report

Viktória Kis and Simon Field

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ORGANISATION FOR ECONOMIC CO-OPERATION AND DEVELOPMENT

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Summary: Strengths, Challenges and Policy Options

Strengths and challenges of the Chilean system of vocational education and training (VET)

The Chilean VET system has a number of strengths:

- It has been underpinned by a dynamic economy, with GDP growth averaging 6% over the last two decades – but Chile has not escaped the global economic slowdown in 2009.
- Society places a high value on education and training, with strong social demand for education, and fast-increasing participation in post-compulsory education; upper secondary graduation rates are up from 46% in 1995 to 71% in 2007 (OECD, 2009a).
- Efforts to improve schooling quality may be paying off: the reading performance of students in PISA improved between 2000 and 2006 (OECD, 2007a).
- The government's commitment to develop and reform the VET system is illustrated by the recent work of the VET Commission and the creation of the National Council for VET.

Chile also faces some challenges:

- The various elements of the VET system are weakly connected to each other, both in institutional and curricular terms. The initiative to create a qualifications framework is a welcome attempt to address this challenge, but its implementation faces a number of obstacles.
- The literacy and numeracy skills of 15 year olds in Chile are not as strong as they should be, and this is likely to be a particular problem among those in vocational education and training programmes.
- Workplace training, as part of VET programmes, is weakly developed. Many upper secondary VET students do not participate in workplace training and the mechanisms to assure its quality of are weak.
- Many VET teachers and trainers have the same qualification as the one they teach towards and do not have any other qualifications.
- Arrangements to link the mix of VET provision to labour market needs are weak.
- There are no systematic mechanisms for the assessment of learning outcomes in upper secondary VET.
- Careers guidance for VET students is relatively weak.

Implementing a qualifications framework: policy options

International experience suggests that in Chile, a qualifications framework has the potential to:

- Unify a fragmented VET system.
- Increase transparency, so that the value of different qualifications can be more clearly recognised by students, employers and other stakeholders.
- Facilitate lifelong learning, and improve access to higher level education for all.
- Help to sustain a broader reform effort.

But qualifications frameworks are no panacea. They need to be underpinned by a strong methodology for allocating qualifications to levels, supported by key stakeholders, and backed by complementary measures to unify the VET system and to improve transitions in the educational system. Implementing a qualifications framework might therefore be best seen in Chile (and elsewhere) as part of a wider approach to ensuring quality and coherence in VET provision.

Specific policy options for Chile include:

- Systematically engage with employers, trade unions and other key stakeholders to develop and implement the qualification framework. This may involve a gradualist approach to implementation, to ensure the full buy-in of all stakeholders.
- Strengthen quality assurance throughout the VET system to support the qualifications framework – within tertiary education ensure that the existing quality assurance arrangements can address the specificity of VET.
- Closely link the Skills Certification System to the qualifications framework. Skills certificates might be located on the qualifications framework and, similarly, qualifications delivered by the school-based VET system might build on the relevant competence profiles of the Skills Certification System.
- Address other barriers to access and mobility within the VET system and between different levels of the wider educational system – in particular to improve access to the tertiary education system as recommended in the OECD/World Bank review of tertiary education (OECD/World Bank, 2009).

Generic and specific skills: policy options

In Chile there is evidence that graduates of VET programmes may have inadequate general skills – both for the labour market and to underpin further learning. Thus:

- In Chile 36% of 15 year olds (those at or below Level 1) lack the necessary literacy skills to benefit from educational opportunities throughout their life. The challenge is even bigger in numeracy – 55% of 15 year olds (those at or below Level 1) will have serious difficulties in using mathematics as an effective tool to benefit from further education (OECD, 2007a).
- As noted by the recent report of the Commission, employers put less emphasis on specific vocational skills but they do need more general skills. Soft skills seem

highly valued on the labour market, but may not receive enough attention in the curriculum.

- The vocational tracks in upper secondary education provide rather weak preparation for the tertiary education to which the vast majority of vocational students aspire.
- Globally, literacy and numeracy skills are in increasing demand by employers.

The implication is that Chile may need a strategy to systematically enhance the general skills of VET graduates. Policy options include:

- Ensure that VET programmes devote sufficient space in the curriculum, and sufficient good quality teaching, to the acquisition of hard and soft general skills.
- Continue efforts to improve the basic skills of Chilean students through basic schooling, building on recent improvements.
- Systematically identify particular numeracy and literacy weaknesses among students in VET programmes and target help to those who need it.
- Use workplace training systematically to upgrade the soft skills of VET students.

Creating partnerships with employers: policy options

As in other countries, effective partnerships between employers and the vocational education and training system play a very important role in sustaining the VET system and its ability to meet labour market needs. At present:

- Mechanisms for employer engagement have been limited. The creation of the National Council for Vocational Education and Training (CNFP) is particularly welcome.
- There are weak arrangements for identifying and quantifying skills needs and translating them into the mix of training provision – effective partnerships with employers could alleviate this problem.
- The incentives for upper secondary students to complete their workplace training are inadequate, and quality standards are weak.

Policy options include:

- Starting with the initiative to set up the National Council, establish systematic architecture for consultation between the VET system and industry, allowing for consultation at sectoral and regional levels.
- Make systematic efforts to encourage workplace training in all parts of the VET system, building partnerships between vocational education and training institutions and industry; establish effective quality standards for the workplace training.
- Integrate the workplace training element into the body of upper secondary vocational programmes and consider making it a mandatory part of the programme.
- For IP programmes, reform the regulations so that workplace training, subject to quality standards, may count towards the required course hours.

Chapter 1

Introduction

This chapter describes the OECD policy study of VET in Chile and places it in the context of the wider OECD review. It summarises the main features of the Chilean VET system and sets out an assessment of its strengths and challenges.

1.1 Vocational education and training in Chile

Chile has an impressive record of economic growth – real GDP increased by 6% per year between 1985 and 2007. Alongside the growth have come dramatic improvements in educational participation, with around 80% of young people now entering upper secondary, and 40% entering tertiary education. But some big challenges remain if Chile is to sustain its strong economic record. One will be to make effective use of human capital. Many of the new jobs created have low productivity, low pay, and poor working conditions. Informal employment remains a challenge and female labour force participation, although it has risen, is still well below the OECD average. These factors suggest that an upgraded initial education and training system, alongside other labour and social policies will have a very important role to play in mobilising human capital to underpin future economic growth (OECD, 2009).

1.2 This report: a study of selected policy issues

This is the report of a study of Chile’s system of vocational education and training (VET) system, undertaken by the OECD as part of its Learning for Jobs exercise (see Box 1.1). It does not go into the same depth and breadth as in the many other countries which have been subject to a policy review – it covers a restricted set of issues and offers policy options for addressing the challenges identified rather than full policy recommendations. The OECD agreed with the Chilean authorities to look in particular at three issues – the implementation of a qualifications framework, the balance between generic and specific skills in vocational programmes, and the need to create partnerships with employers.¹ The analysis developed here depends significantly on the analysis set out in the initial comparative report of the OECD policy review of vocational education and training (Field *et al.*, 2009), and some of the associated individual country reviews². This report also notes some additional challenges to the VET system which could be addressed in further work.

1 See terms of reference in Annex B.

2 Both the initial report and all the published country reviews are available on the website www.oecd.org/edu/learningforjobs

Box 1.1 Learning for Jobs, the OECD policy review of vocational education and training

For OECD member countries, a well-skilled workforce is one of the main supports for prosperity and growth. Some skills come from general education, but specific occupational skills are also needed. Typically initial vocational education and training systems have a big part to play in supplying these skills. These systems are now under scrutiny to determine if they can deliver the skills required. Launched in 2007, Learning for Jobs, the OECD policy review of vocational education and training, is designed to help countries with this task. The key policy messages are:

To meet labour market needs

- Provide a mix of VET programmes that reflect both student preferences and employer needs, and beyond secondary level, share the costs between government, employers and individual students according to the benefits obtained.
- Engage employers and unions in curriculum development, providing young people with the transferable skills to support occupational mobility, and the specific skills to meet employers' immediate needs.

To sustain the workforce of teachers and trainers

- In VET institutions, promote partnerships with industry; encourage part-time working and promote flexible pathways of recruitment for the workforce.
- Provide appropriate pedagogical preparation for trainers of trainees and apprentices in workplaces
- Adopt standardised national assessment frameworks.

To promote workplace training

- Ensure there are sufficient incentives to participate in workplace training for both employers and students, and that the training is of good quality, backed by contractual frameworks for apprentices and effective quality assurance.
- Devise effective responses to the current economic crisis, to sustain workplace training, and cope with increased demand for full-time VET.

Develop tools for policy

- Construct effective mechanisms to engage employers and unions in VET policy and provision.
- Collect good data on the labour market outcomes of VET, and the capacity to analyse that data.
- Provide careers guidance accessible to all, informed by knowledge of labour market outcomes.

Methods and outcomes

The OECD is conducting individual policy reviews in Australia, Austria, Belgium (Flanders), the Czech Republic, Germany, Hungary, Ireland, Korea, Mexico, Norway, Sweden, Switzerland, the United Kingdom (England and Wales), and the United States (South Carolina and Texas). Short reports on Chile and the Peoples Republic of China are also to be prepared. Canada, Denmark, Finland and the Netherlands also provided voluntary financial contributions.

All reviews and working papers are published on the website. Working papers include reviews of previous literature, PISA data on VET, and a study of the effect of the economic crisis. The initial report (Field *et al.* 2009) of the policy review is available on the OECD website. The final comparative report will be published as a book in Autumn 2010.

For further information, publications and contacts see: www.oecd.org/edu/learningforjobs

Following a short preliminary visit in June 2009 by one member of the OECD Secretariat, two members of the Secretariat conducted interviews in Chile on 3-6 August 2009 to assemble information about the VET system and to identify the main policy challenges within the three agreed topic areas.³ This report presents the OECD's analysis of these topics and policy options.

This study takes place in a context marked by growing policy attention to VET in Chile. The Chilean National Innovation Strategy for Competitiveness and the OECD Review of Tertiary Education in Chile (OECD, 2009b) both highlighted the role of VET in enhancing competitiveness. The Ministry of Education established an External Commission on VET, which had the task of reviewing existing evidence on VET in Chile and developing proposals to improve the responsiveness of VET to the needs of the Chilean society. This report builds on the analysis and conclusions of the report (VET Commission, 2009) prepared by the Commission, and aims to add value by drawing on international evidence and experience. In August 2009 the Chilean government announced the creation of a Council on Vocational Education and Training, with a continuing role.

1.3 The structure of the report

This first chapter places this report on policy issues in the context of the OECD policy review of vocational education and training, sets out the structure of the report and describes the main features of Chile's VET system. Chapter 2 looks at the three selected policy issues.

Each policy issue is explored through:

- *The challenge* – the problem which needs resolution.
- *Analysis and international experience*.
- *Policy options*.

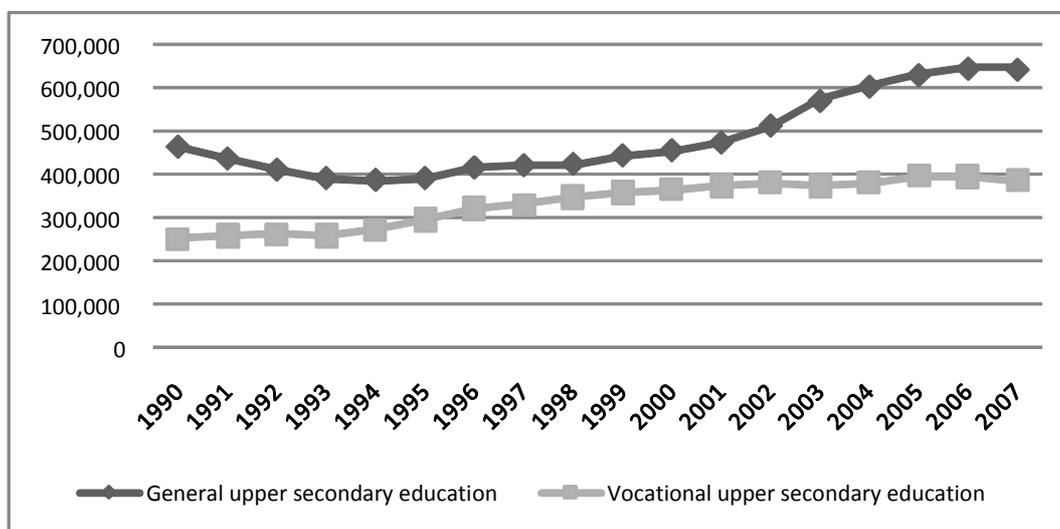
1.4 A snapshot of VET in Chile

Compulsory education includes eight years of basic education (*educación básica*) and four years of secondary education (*educación media*). During the first two years of secondary education students follow a general curriculum. During the last two years they choose between the general track (*EMCH*) and the vocational track (*EMTP*). Two thirds enter general programmes and one third vocational programmes. Chile allocates 22% more resources per student to general education than to vocational/pre-vocational programmes: this contrasts with most OECD countries, where more is spent per student on vocational programmes (OECD, 2009).

3 Annex A describes the agenda of the visits.

Figure 1.1 Enrolment in upper secondary education

Number of students in upper secondary education by track, 1990-2007



Source : Iruarizaga and Vergara (2008)

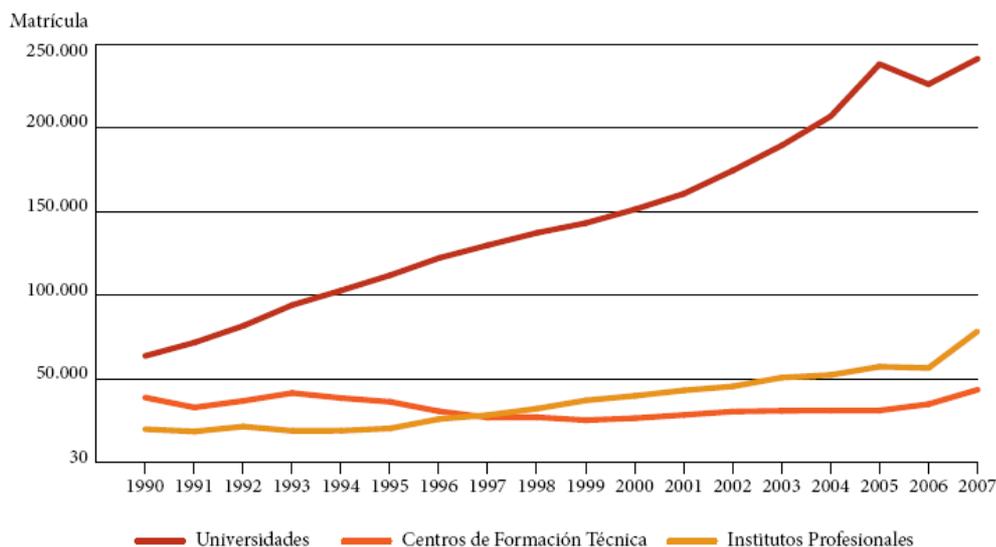
VET at upper secondary level is offered in 46 specialisation options (*especialidades*), grouped into 14 occupational areas. The curriculum contains 12 hours of general education per week (compared to 27 hours in the general track) and 26 hours of vocational education (VET Commission, 2009). After completing the four grades of upper secondary education, students obtain the secondary school leaving certificate (*licencia de enseñanza media*). To obtain a VET certificate they have to complete a period of workplace training (*práctica profesional*) with a duration of 480-960 hours, which typically takes place after graduation from secondary school. According to estimates, half of the students do not complete their workplace training period. A small share (4.5%) of VET students follow a dual track, with alternating periods of school-based and work-based training.

The majority of secondary VET students come from disadvantaged socio-economic backgrounds (64.7% of VET students belong to the two lowest income quintiles, VET Commission, 2009). Most (88%) of secondary VET students attend municipal and subsidised private schools, the remaining 12% attend schools administered by industrial corporations. The latter arrangement was established in 1980, allowing industrial corporations and foundations to take over the administration of 70 institutions. Fee-paying private institutions enrol less than 1% of students (VET Commission, 2009).

Tertiary level VET includes two-year programmes offered in technical training centres (*CFT-s*), and four-year programmes provided by professional institutes (*IP-s*). Enrolment is highly concentrated in a small number of institutions – three institutions enrol 54% of CFT students, and three institutions enrol 51% of IP students (VET Commission, 2009). While tertiary enrolment overall has increased dramatically over the past 20 years, growth has been concentrated in the university sector (Figure 1.2).

Figure 1.2 Enrolment in tertiary education

Number of students per type of tertiary education, 1990-2007

Matrícula en educación terciaria por tipo de institución 1990-2007

Source : VET Commission (2009, p.15)

1.5 Strengths and challenges of the Chilean VET system

The Chilean VET system has a number of strengths:

- It has been underpinned by a dynamic economy, with GDP growth averaging 6% over the last two decades – but Chile has not escaped the global economic slowdown in 2009.
- Society places a high value on education and training, with strong social demand for education, and fast-increasing participation in post-compulsory education; upper secondary graduation rates are up from 46% in 1995 to 71% in 2007 (OECD, 2009a).
- Efforts to improve schooling quality may be paying off: the reading performance of 15 year old students improved between 2000 and 2006 (OECD, 2007a).
- The government's commitment to develop and reform the VET system is illustrated by the recent work of the VET Commission and the creation of the National Council for VET.

Chile also faces some challenges:

- The various elements of the VET system are weakly connected to each other, both in institutional and curricular terms. The initiative to create a qualifications framework is a welcome attempt to address this challenge, but its implementation faces a number of obstacles.

- The literacy and numeracy skills of 15 year olds in Chile are not as strong as they should be, and this is likely to be a particular problem among those in vocational education and training programmes.
- Workplace training, as part of VET programmes, is weakly developed. Many upper secondary VET students do not participate in workplace training and the mechanisms to assure its quality of are weak.
- Many VET teachers and trainers have the same qualification as the one they teach towards and do not have any other qualifications.
- Arrangements to link the mix of VET provision to labour market needs are weak.
- There are no systematic mechanisms for the assessment of learning outcomes in upper secondary VET.
- Careers guidance for VET students is relatively weak.

The first three of these challenges are examined in this report. The latter four might be suitable topics for further work.

Chapter 2

Policy Issues

This chapter looks at three policy issues, and outlines policy options.

It notes the potential of qualification frameworks to improve the coherence of VET systems but notes that they need to be implemented with wide stakeholder support and supplemented by other measures to create a coherent VET system.

It underlines the challenge of ensuring that VET graduates have adequate general skills and suggests directed measures to improve numeracy and literacy alongside workplace training to improve soft skills.

It notes the importance of partnership with employers in all VET systems, and suggests establishing a full framework for collaboration on the basis of the National Council of VET. It proposes systematic measures to enhance both the quantity and the quality of workplace training through partnerships with employers.

2.1 Implementing a qualifications framework

The challenge

The recent report of the Chilean VET Commission (VET Commission, 2009) has proposed the establishment of a qualifications framework (see Box 2.1). The proposal aims to improve articulation within the education and training system. Currently VET is provided at numerous levels and learning contexts, but the lack of institutional or curricular articulation between these inhibits progression within the system. The report recommends the creation of a National Council for VET, which would be responsible for developing the qualifications framework, implementing and continuously updating it, as well as providing information to stakeholders. In our discussions in Chile this proposal received wide support.

Box 2.1 Qualifications frameworks and qualifications systems

A *qualifications framework* is a rank order of qualification levels, allowing each qualification to be assigned to a specific rank. It classifies qualifications according to a set of criteria for levels of learning achieved.

Qualifications systems include **all aspects** of a country's activity that result in the **recognition of learning**, and is therefore a much wider concept. Qualifications systems may be more or less integrated and coherent. An explicit qualification framework, when it exists, is a component of the qualifications system.

Source: OECD (2007b, p.22)

Potentially, the introduction of a qualifications framework might help to address the following challenges:

- In Chile progression pathways within the VET system are often limited. For example, advancing from a two year CFT programme at one institution to an IP programme at a different institution is not easy – unless specific arrangements exist between the institutions, much of the prior learning will not be recognised. Qualification frameworks may help illuminate the potential for pathways of progression within the system, by situating qualifications at different levels and clarifying how they relate to each other. Clarity and transparency of progression pathways also facilitates lifelong learning.
- The establishment of a qualifications framework, might, in itself, create a forum for co-operation between the different stakeholders involved in the VET system and in the education system more widely. The recently announced creation of a National Council for VET, expected to lead to implementation of the framework, could create such a forum. This might be particularly helpful in Chile where such fora have been weak in the past.
- Qualifications frameworks can be used to improve quality assurance mechanisms. Chile has made significant progress in quality assurance in tertiary education, as noted by the OECD Tertiary Review of Chile (OECD, 2009b). But many

challenges remain, for example only a small proportion of VET tertiary institutions have been accredited so far.

- According to some interviews conducted during the review visit, employers in Chile attach limited value to many vocational qualifications. Qualifications frameworks should give employers a clear view on the level of competences which should be associated with different qualifications.

In the light of the potential benefits, qualifications frameworks have been introduced in many countries, and are becoming a standard feature of educational systems. But many other measures are needed alongside qualifications frameworks to ensure that they are fully effective.

Analysis and international experience

Quantitative evidence on national qualifications frameworks is scarce, but some common themes have emerged in the literature. This section provides an account of these, following the analysis developed in the recent OECD policy review of Mexico (Kis, Hoeckel and Santiago, 2009).

Types of qualifications frameworks

The design of qualifications frameworks involves a number of dimensions. Choices regarding each dimension depend on the national context. Table 2.1 outlines some of these characteristics; for more details see Young (2005), Coles (2006) and Tuck (2007).

Table 2.1 Main dimensions in the design of qualifications frameworks

Dimension		Potential benefits
Tight vs. loose	Tight	More prescriptive about qualification design and quality assurance, they typically have a strong regulatory function, applying common rules across all qualifications. Country examples: United Kingdom, New Zealand, South Africa.
	Loose	Provide a map of qualifications with a “communicative” purpose. They are less prescriptive and allow room for differences in approach. Country examples: Australia, Scotland.
Inclusive vs. partial	Inclusive	Covering all qualifications, can ensure coherence across all qualifications.
	Partial	Partial coverage, e.g. in terms of level, occupational sector. May be easier to implement, allow for piloting and staged development.
Central vs. stakeholder-led design	Designed by a central agency	May be used as a tool for wider reform and may be linked to other national policies.
	Developed by stakeholders	Ensures greater buy-in from stakeholders and can better respond to regional specificities.

Source: Coles (2006), Tuck (2007), Young (2005).

Making the qualifications framework credible

Credibility requires a defensible methodology for locating individual programmes and courses within a qualifications framework – to demonstrate that one programme is indeed at level 3, for example, and is, by some objective test, superior to level 2. In an ideal world this would be a competence-based methodology, driven by the outcomes of programmes. In practice objective measures of competence levels are difficult even within one field, and situating them in respect to competences in another field (e.g. between cooking and journalism) is even harder. In response, many qualifications

frameworks are initially introduced with relatively weak tests of outcome comparability across fields. In practice, even in “competence-based” systems, a number of input measures are also used to situate one qualification in relation to another – *e.g.* the number of years of study, age of students, and linkages to other parts of the education and training system (*e.g.* to situate ‘upper secondary’ VET programmes in the qualifications framework).

Although measuring and comparing competence-levels is challenging, it is also clear that reliance on simple input measures (such as duration of the programme) does not guarantee meaningful qualifications. In Chile, a number of stakeholders argued during the review visit that defining tertiary degrees by the number of hours of instruction was inappropriate. Whether or not a framework is based on outcomes, strong quality assurance mechanisms are crucial to ensure the value of qualifications. A consultation of EU countries (in preparation for the creation of the European Qualifications Framework) showed that robust quality assurance mechanisms were considered a critical factor for the development of a qualifications framework (Coles, 2006).

In theory VET provided in the education system is already competence-based. A decree of 1998 defines the competences to be achieved in upper secondary VET by determining “fundamental objectives” and “exit profiles” for each occupation provided in VET. But translating this into reality is more challenging. Capacity building for teachers and trainers may be provided to help them teach curricula based on competences (Young, 2005). A competence-based system also requires a good assessment framework. But in Chile there is at present no systematic assessment of vocational competences of VET students, so it is difficult to ensure that students consistently acquire the set of competences required by industry.

Linking the framework to quality assurance

Some qualifications frameworks are explicitly quality assurance mechanisms and the title “national qualification” is reserved for qualifications accredited to the national qualifications framework. In such systems qualifications are subject to extensive quality control. In New Zealand, for example, the qualifications framework has an explicit quality assurance function, as for a qualification to be admitted to the framework, it has to be based on centrally defined quality standards and subject to a series of quality assurance procedures, including the accreditation of providers. In Scotland, the framework is also related to the quality assurance system, although more loosely. The framework was established by consensus between major qualification bodies, and the criteria for each level in the framework influence the quality mechanisms required for awarding qualifications at that level (Coles, 2006).

The quality assurance procedures underpinning a qualifications framework need to be adapted to the characteristics of different sectors. For example, during the review visit some representatives of tertiary VET institutions argued that current criteria for accreditation are not adequate for the mission of tertiary VET – for example having staff with a PhD may be less important for the quality of a VET programme than having staff with relevant work experience. The OECD Review of Tertiary Education in Chile also argued that quality assurance criteria need to be adapted to the varying missions of different types of VET institution (OECD/World Bank, 2009).

Co-operation across ministries

In Chile, as in many OECD countries, two ministries have key responsibilities in VET policy: the Ministry of Labour and Social Affairs and the Ministry of Education. A qualifications framework can improve articulation across different institutional sectors by locating qualifications delivered by different sectors within the same framework. But a qualifications framework does not automatically create links between different institutional sectors. Close co-operation between the ministries involved, and the institutional structures under their supervision, is also necessary. Co-operation is essential to ensure coherence and efficiency in VET policies to avoid duplication of efforts and to create progression pathways within the system.

Under the National Labour Skills Certification System (SNCCCL *Sistema Nacional de Certificación de Competencias Laborales*) launched in 2008, as part of the *Chile Califica* programme, competence standards are now being developed. This system aims to provide a framework for the recognition of competences, regardless of how these were acquired. But currently the system covers only low level skills and there are no links between this and the formal VET system. For example, the exit profiles for VET students defined by the Ministry of Education do not take into account the relevant competence profiles defined by the National Labour Skills Certification System. The National Labour Skills Certification System is under the responsibility of three ministries (Ministry of Labour and Social Affairs, Ministry of Economy and Ministry of Education). Articulating the Skills Certification System with the qualifications framework is essential, as skills certificates can then be located on the qualifications framework. Similarly, qualifications delivered by the school-based VET system should build on the relevant competence profiles of the Skills Certification System. The problems associated with parallel systems of qualifications devised by different government ministries have been highlighted in the OECD review of VET in Korea (Kuczera, Kis and Wurzburg, 2009).

Lessons on difficulties in implementation

In introducing a qualification framework in Chile, some account might be taken of the obstacles which have been noted in other countries. First, the implementation of national qualifications frameworks is often associated with administrative difficulties, such as a proliferation of bodies dealing with quality assurance, standard setting and assessment. The lack of appropriate expertise among staff may lead to an excessive focus on bureaucratic procedures rather than the quality of learning. This undermines trust in the new qualifications and complaints about the slowness of the process (Young, 2005).

Second, political difficulties may arise from tensions between public bodies, such as different ministries or agencies dealing with qualifications (Young, 2005). In New Zealand, for example, tensions between the qualifications authority and the Ministry of Education were the source of serious problems (Philips, 2003).

Regardless of the existence of a national qualifications framework, proliferation of qualifications remains a risk. Although qualifications should cover a wide range of occupations and competences demanded in the labour market, the number of qualifications should be limited since otherwise the meaning of a qualification and its signalling value may be reduced. Some OECD countries have consequently reduced the number of qualifications (*e.g.* Hungary recently reduced the number of qualifications from about 800 to 400). The “optimal” number of qualifications naturally varies with the national context.

Consultation and a gradualist approach

Consultation with employers is crucial to ensure that qualifications are recognised on the labour market. This requires strong employer engagement in their elaboration and updating. Consensus, compromise and partnership between different stakeholders is the key to success (Young, 2005; Raffe, Gallacher and Toman, 2007). Qualifications rely on trust, since they inevitably claim to represent more than they can demonstrate. As illustrated by the cases of Ireland, Scotland and New Zealand, effective consultation processes and principled compromises are essential (Young, 2005). Such a partnership approach is demanding in terms of co-ordination, and can slow down the pace of change, since each step requires the agreement of stakeholders (Raffe, Gallacher and Toman, 2007). Young (2005) warns that excessive involvement of stakeholders with political interests but lack of technical knowledge can undermine the role of specialists from relevant occupational sectors.

Support from different institutional sectors in the VET system also facilitates effective implementation. Raffe, Gallacher and Toman (2007) argue that one of the factors behind the success of the Scottish framework is that it was supported by all the key stakeholders, while other country examples, such as New Zealand and South Africa, show that the disengagement of some institutional sectors can cause difficulties. In Chile some sectors of the education and training system may be more interested in a qualifications framework than others. The framework in Scotland was designed to reduce barriers between different parts of the education and training system (Coles, 2006). But in Chile the OECD team heard that some universities were not keen to encourage lateral access to their courses – with particular barriers between 2 and 4 – year programmes; and some features of the financial aid system represent real barriers to poorer students. It would therefore be important to engage all relevant sectors in the dialogue to overcome these barriers.

Experience from various countries shows that pragmatic and incremental change is more likely to succeed than a radical break with previous qualifications systems (Young, 2005; Raffe, Gallacher and Toman, 2007). In Chile one option might therefore be to introduce national vocational qualifications in certain industrial sectors first and then gradually extend them. For instance, national vocational qualifications could be created in fields where occupational standards are widely agreed, homogeneous across the country and it is in the interest of all stakeholders to create a national qualification. In fact in Chile, initial steps towards a framework have been focusing on the mining sector. Finally, expectations need to be realistic about the capacity of the framework to achieve change, as well as regarding the speed at which change may be achieved (Raffe, Gallacher and Toman, 2007).

Resource implications

The costs of implementing a national qualifications framework could include policy analysis, assessment of international experience, development and modelling of options, creation of task groups, engagement and consultation of stakeholders, the establishment of a specific national body and pilots. While the central administration costs of a qualifications framework may be small, further costs can arise from associated processes, such as quality assurance procedures and the development of standards. At the same time, in a better co-ordinated qualifications system there are likely to be some cost savings, because there can be less duplication of effort. A national qualifications framework can

improve the efficiency of public investment in VET, if it is also used as a tool for quality assurance (Coles, 2006).

Young (2005) argues that, when considered a separate policy initiative, as in New Zealand, South Africa and the United Kingdom, a NQF is always seen as taking resources away from other activities. Conversely, when regarded as a way of reforming the VET system, it gains a more strategic role. Young further argues that high cost systems of certification are characteristics of low trust systems of VET, while high trust systems like Germany operate with lower costs. It follows that investment into institutional capacity building, improved training and professional development for teachers and trainers is necessary to develop trust and limit the costs of the qualifications framework.

Implementing a qualifications framework: summary and policy options

International experience suggests that in Chile, a qualifications framework has the potential to:

- Unify a fragmented VET system.
- Increase transparency, so that the value of different qualifications can be more clearly recognised by students, employers and other stakeholders.
- Facilitate lifelong learning, and improve access to higher level education for all.
- Help to sustain a broader reform effort.

But qualifications frameworks are no panacea. They need to be underpinned by a strong methodology for allocating qualifications to levels, supported by key stakeholders, and backed by complementary measures to unify the VET system and to improve transitions in the educational system. Implementing a qualifications framework might therefore be best seen in Chile (and elsewhere) as part of a wider approach to ensuring quality and coherence in VET provision.

Specific policy options for Chile include:

- Systematically engage with employers, trade unions and other key stakeholders to develop and implement the qualification framework. This may involve a gradualist approach to implementation, to ensure the full buy-in of all stakeholders.
- Strengthen quality assurance throughout the VET system to support the qualifications framework – within tertiary education ensure that the existing quality assurance arrangements can address the specificity of VET.
- Closely link the Skills Certification System to the qualifications framework. Skills certificates might be located on the qualifications framework and, similarly, qualifications delivered by the school-based VET system might build on the relevant competence profiles of the Skills Certification System.
- Address other barriers to access and mobility within the VET system and between different levels of the wider educational system – in particular to improve access to the tertiary education system as recommended in the OECD/World Bank review of tertiary education (OECD/World Bank, 2009).

2.2 Generic and specific skills

The challenge

Vocational programmes normally involve the acquisition of more general skills relevant to a range of jobs alongside the competences associated with particular jobs. For example, a baker will, alongside some rather practical skills associated with baking, need to be able to do simple mathematics (to manage accounts and order supplies) and to be able to read and write without difficulty – in short they will need to be numerate and literate. They will also need some soft general skills – such as skills in communicating with customers and working well with colleagues.

In all countries upper secondary VET programmes typically contain a proportion of general skills dealing with literacy, numeracy and some other elements such as second languages. These very important skills underpin much other learning including the learning of practical vocational skills. They also build into an individual's skill-set the capacity to adapt to changed circumstances and skill requirements.

In Chile, a 1998 government decree determines the outcomes to be achieved in upper secondary education⁴, both in terms of general and vocational competences. The vocational track includes years 11 and 12, during which 42 hours teaching are provided per week (26 hours of vocational education, 12 hours of general education, 4 hours are subject to the school's discretion). A range of generic skills ("transversal fundamental objectives", related to personal, cognitive and social development) are integrated into the curriculum.

There are three main reasons for thinking that VET programmes currently give insufficient attention to hard and soft general skills: first, there is evidence of weak numeracy and literacy in many of the students in Chile who will be entering VET programmes; second, employers want more hard and soft general skills; third, VET programmes at upper secondary level provide inadequate preparation, in terms of basic skills for the tertiary programme that many of the students subsequently enter.

Weaknesses in numeracy and literacy

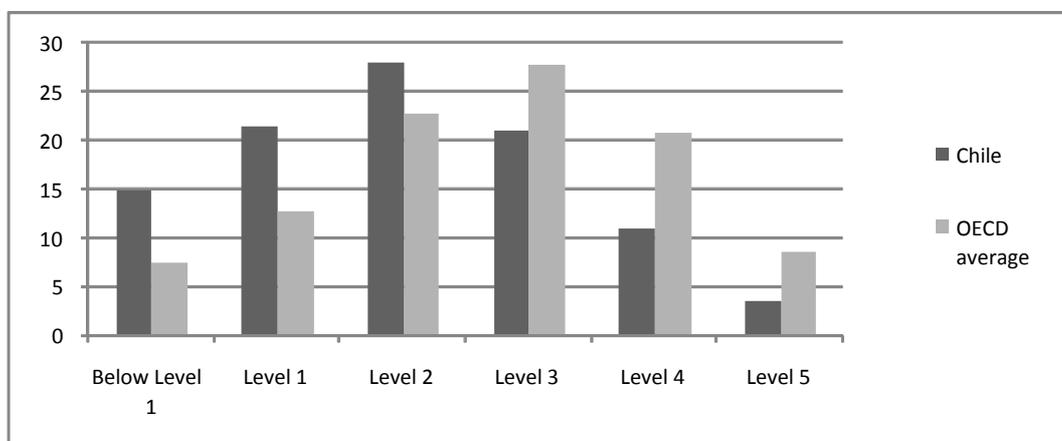
Evidence from PISA suggests that a significant proportion of students have weak literacy and numeracy skills (Figure 2.1 and 2.2). Around one third of 15 year olds lack the necessary literacy skills to benefit from educational opportunities throughout their life (those at or below Level 1 on the PISA scale), and more than half will have serious difficulties in using mathematics as an effective tool to benefit from further education⁵ (OECD, 2007a).

4 Fundamental objectives and compulsory minimum content, which allow to achieve these.

5 This is the interpretation attached to those at or below level 1 on the PISA literacy and numeracy scales.

Figure 2.1 PISA performance in reading

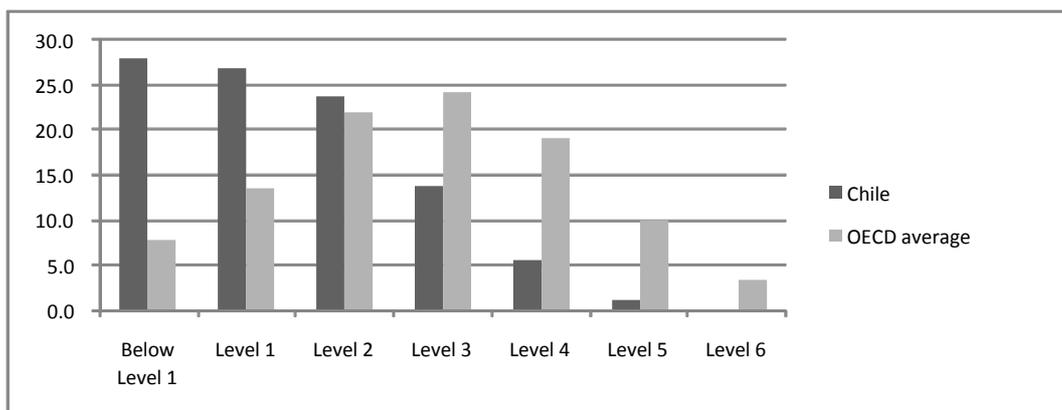
Percentage of students at each proficiency level on the reading scale, 2006



Source: OECD, (2007a)

Figure 2.2 PISA performance in mathematics

Percentage of students at each proficiency level on the mathematics scale, 2006



Source: OECD, (2007a)

In Chile, employers want more hard and soft general skills

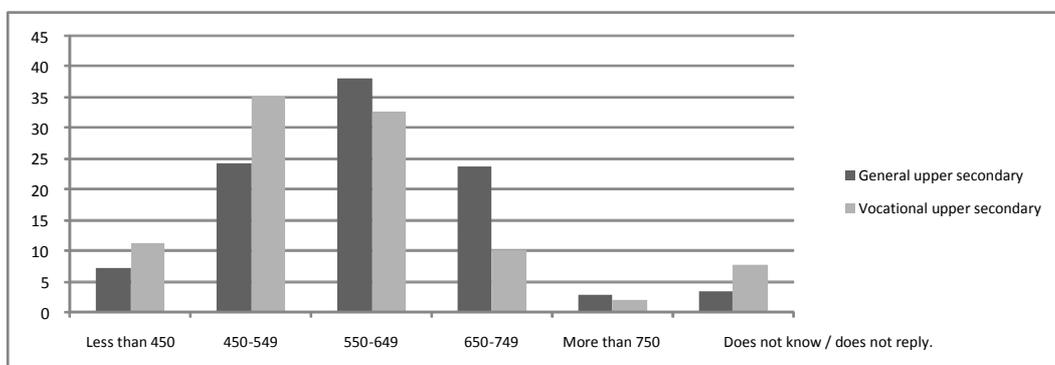
As noted by the recent report of the Commission, while employers put less emphasis on specific vocational skills they do express a need for more general skills. Soft skills are highly valued on the labour market, and it is sometimes suggested that they do not receive enough attention in the curriculum. An excessive focus on specific skills in upper secondary education might be unnecessary, as these can be readily learnt on the job and schools will inevitably struggle to keep their vocational curriculum and equipment up-to-date. The benefits of VET compared to general upper secondary education are marginal (VET Commission, 2009). One large company reported to the visiting OECD team that in their test of job-relevant skills, they found very few differences between the general

competences of university graduates, CFT graduates and those with vocational or general upper secondary education – young people were poorly prepared by the VET system both in terms of technical and soft skills. So the company created its own technical school to teach both types of skills.

Insufficient general skills for tertiary studies

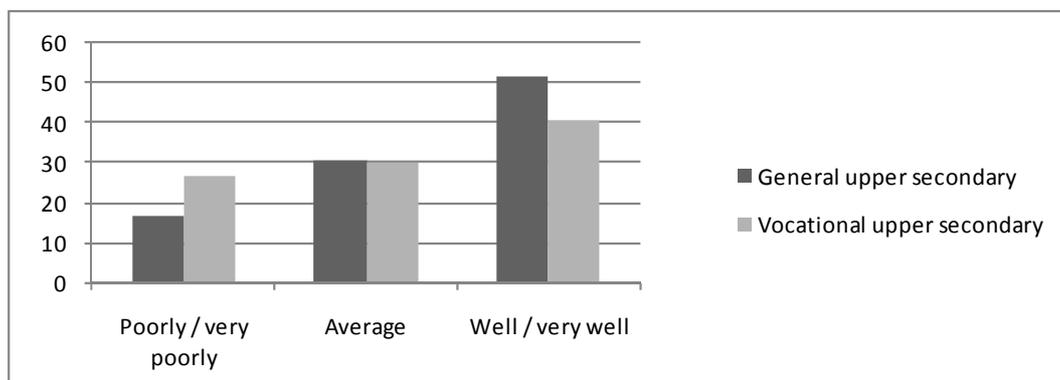
Although more than 90% of upper secondary VET students aspire to post-secondary studies (VET Commission, 2009), many are weakly prepared for it. In theory, graduates of upper secondary VET can access any tertiary education programme, but in practice it is extremely difficult and sometimes impossible for them to enter many VET programmes. Admission into tertiary programmes is typically based on results at a national test, PSU (*prueba de selección universitaria*)⁶, though some institutions (often IP and CFT) do not require PSU results. Students from the vocational track score significantly lower than those from the general track (Figure 2.3). The high barriers to advancing to tertiary education for VET students have also been noted in the OECD Review of Tertiary Education (OECD, 2009b). In addition, many of those who are accepted struggle with some elements of the tertiary curriculum because of weak general skills. During the review visit tertiary education stakeholders argued that many students come to tertiary education unprepared in terms of general competences. Students from the VET track feel their school prepared them less well for tertiary studies than their peers from the general track (Figure 2.4). Dropout rates are worryingly high. Of those who enter a university after vocational secondary education, 61% do not complete their studies, while for tertiary VET the figure is 47% (Bassi, 2009).

Figure 2.3: PSU results



Source : Bassi (2009)

6 The test is compulsory in language and communication, mathematics, optional in history and social science, and science. Applicants may choose to take all four tests (www.demre.cl/psu.htm).

Figure 2.4: Students perceptions on how well the school prepared them for tertiary studies

Source : Bassi (2009)

Analysis and international experience

Specific skills acquired in VET should allow a smooth transition to the labour market without lengthy additional occupation-specific training. Workplace training should include occupation and firm-specific elements to serve the short-term economic interests of firms – at least in the first instance – since this will help to encourage employers to offer workplace training.

Clearly employers are in a strong position to judge what mix of skills is optimal for particular occupations and it therefore makes sense for employers to play a key role in establishing the curriculum. However, if employers have too dominant an influence, programmes may overestimate the importance of occupation-specific skills and give insufficient attention to the generic skills needed for mobility between firms and between occupations (Smits, 2007). The interests of employers depend on the level at which they are expressed. While locally employers may not wish their employees to have strong transferable skills, collectively employers have an interest in a flexible and adaptable labour force.

Modern workplaces require good literacy and numeracy skills

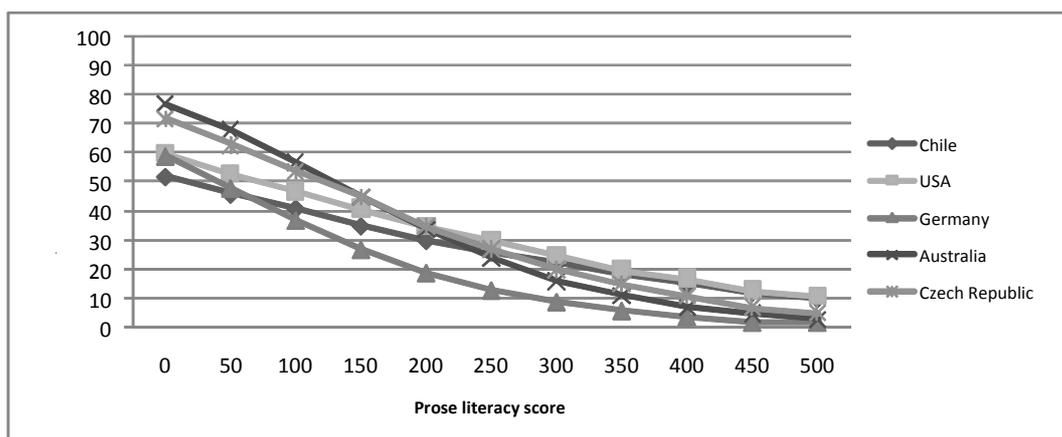
Various studies highlight the importance of general content in the curriculum (e.g. Munich, 2004; Kézdi, 2006). In modern economies an increasing number of jobs, including blue-collar jobs, require sound generic skills. A study from the United States (Autor, Levy, and Murnane, 2003) suggests that technological change (in particular computerisation) has made problem solving and complex communication skills much more important in the labour market. Although skills requirements inevitably vary among industrial sectors, virtually all workers will need to acquire new skills during their career. In sectors facing rapid technological change, the ability to learn is crucial and the generic skills which underpin this ability are highly valued by employers (Smits, 2007; Ghost, 2002). Labour markets change rapidly and often unpredictably, so skills like literacy, that assist the acquisition of new skills are particularly valuable in the long run (Kézdi, 2006). In low-technology industries and at lower skill levels generic competencies may be less valued by employers, but workers need to be able to switch jobs, since they are precisely

the ones at risk of job loss due to diminishing job opportunities (Smits, 2007). Good literacy and numeracy skills are necessary to the development of problem-solving and complex communication skills (Levy and Murnane, 2004). More generally, learning – both in initial VET and in lifelong learning – is difficult without strong basic skills. In a study of workplace literacy requirements in Central and Eastern Europe, Köllő (2006) argues that most marketable competences are developed through basic skills closely tied to literacy.

Strong literacy and numeracy skills are associated with better performance on the labour market. Data from IALS show that people with weak literacy skills are more likely to be unemployed, even if other background variables (educational attainment, age, gender) are taken into account (Figure 2.3). An Australian study (Chiswick, Lee and Miller, 2002) found that about half of the total effect of education on labour market outcomes (labour force participation, unemployment) can be attributed to literacy and numeracy⁷.

Figure 2.5: Probability of unemployment and literacy proficiency

Probability of being unemployed according to prose literacy score, for men aged 16-25 with less than upper secondary education, 1994-1998



Source : OECD and Statistics Canada (2000), p.65-66

In OECD countries, many students following vocational tracks at upper secondary level continue into tertiary education – either a vocational programme which effectively continues their upper secondary studies, or a sideways move into something different. Thus, for example one-quarter of Dutch upper secondary VET students continue into tertiary education, and around three-quarters of Korean upper secondary VET students do so (Field *et. al.*, 2009). This trend has been accelerating with the global expansion of tertiary education.

The implication is that the aspiration of most VET upper secondary students to enter tertiary education is quite consistent with the experience of OECD countries. It also implies in Chile as elsewhere that upper secondary vocational programmes need to prepare students not only for direct labour market entry, but also for a range of further

7 Adding literacy and numeracy to a regression of labour market status on schooling increases the explanatory power of the model.

educational and training programmes including tertiary education. This implies sufficient emphasis on core literacy and numeracy skills to underpin further learning.

Tackling serious deficiencies in literacy and numeracy

For some people, very weak basic skills are a serious problem. Two factors emerging from international evidence argue for systematic screening of literacy and numeracy difficulties among VET students: many people are unaware of their problems, and some of those who are aware of them may be reluctant to admit them. A number of studies show that many people cannot adequately assess their own literacy and numeracy weaknesses. Data from various British cohort studies show that many people with weak basic skills do not recognise that they have difficulties, particularly in respect of numeracy (Bynner and Parsons, 2006). Data from a literacy survey in Canada found that the average correlation between self-assessed scores and test scores (both on a scale of one to five) was only 0.42 (Finnie and Meng, 2005). This study also suggests that individuals assess their literacy skills relative to a sort of “local norm”, *e.g.* school mates, friends or colleagues, so they may be entirely unaware of literacy problems if those in their environment have similar levels of literacy. The same study also shows that learning disadvantages (*e.g.* having experienced learning difficulties as a child) have a greater effect on individuals’ perceptions of their skills than on their actual literacy levels. In other words, people with learning disadvantages are more likely to report difficulties, while those who did not are more likely to overestimate their skills.

Greater awareness of literacy and numeracy problems encourages many people to seek help. An analysis from British cohort studies (Bynner and Parsons, 2006) found that once people were aware of weaknesses in their basic skills, they tended to be interested in improving these. This is in line with an earlier study of FE students (Basic Skills Agency, 1997), which found that a major barrier to taking up basic skills support was that many people did not know that basic skills were essential to the successful completion of their course.

Conversely some of those who know they have literacy and numeracy problems are reluctant to admit it. A study of further education (FE) colleges in the United Kingdom (Basic Skills Agency, 1997) found that there was a stigma attached to poor basic skills, which then became a deterrent to taking up basic skills support.

Although literacy and numeracy deficiencies among VET students are rooted in weaknesses in basic education, the evidence shows that later interventions to tackle these problems can improve learning outcomes in VET programmes, with one study showing that such interventions can have a dramatic impact (see Box 2.2).

Box 2.2 Basic skills support and successful VET completion

A study from the United Kingdom (Basic Skills Agency, 1997) explored the relationship between basic skills support and drop-out, retention and completion rates in further education (FE) colleges. It drew on data from 19 FE colleges on withdrawal, retention, completion and achievement, as well as demographic and student characteristics and basic skills provision within each college.

In the study over 15 000 students were assessed and over 4400 were identified as in need of basic skills support, 90% of them in a vocational course. The study followed up these students – less than half of them received literacy and numeracy support, while the majority did not get any additional support with basic skills.

Reasons for not taking up support. Some students were not told the results of the basic skills assessment or did not understand what the results meant. Others could not take up support because of their timetable. In fact take-up was higher where support was offered as part of the course rather than as an optional extra. But the most important barrier was attitude – young adults in particular were reluctant to take up support because of the stigma attached to poor basic skills. Also many were not aware of the need to improve their basic skills to get through their course.

Forms of basic skills support. Basic skills support was available through workshops offering drop-in and timetables support for individuals and groups. Some colleges developed partnership-teaching, in which basic skills specialists and course tutors worked together to offer support as part of a course. This approach had two advantages: it allowed to support those who were reluctant to attend targeted workshops, and it related basic skills development to the student's course

Did basic skills support make a difference? Those who received basic skills support were three times less likely to drop out. They also had better completion (those on a two-year course) and qualification rates (those on a one-year course) than those who did not receive support.

	Drop-out	Completed the year / achieved a qualification		
	Withdrawal rate	Completed/achieved	Not completed	Not assessed /results not known
Support	10%	74.7%	15.5%	9.8%
No support	30%	54.0%	33.3%	12.7%

Systematic screening of literacy and numeracy difficulties helps identify people in need of support. At the same time it is important to handle this test carefully, so that it is not seen as a mere instrument of selection and a barrier to entry. Chile might consider developing systematic ways of providing “basic skills support” to all VET students in need. A study of basic skills support in FE colleges in the United Kingdom (Basic Skills Agency, 1997) argues that support measures should be designed in a way that encourages take up: support should be easily available, adapted to the needs of different course groups and individual students, it should suit the needs of students with low motivation and limited independent learning skills, and should be marketed in a positive way to avoid it being stigmatising.

Using workplace training to develop soft general skills

Workplaces provide a particularly effective environment in which to acquire soft transferable skills. While an apprentice electrician can learn how to wire a house in a VET school with the relevant electrical equipment, that electrician will normally need a work placement to find out how to deal with a complaining client. Soft skills like these are hard to develop away from the concrete demands of a real workplace. A study of sales assistants in Denmark (Aarkrog, 2005) found that soft skills were best acquired on the

job. Simulating practice (*e.g.* through role play) at school was perceived by students as artificial and useless. A study from Finland (Lasonen, 2005) found that workplace training taught students entrepreneurship, promoted maturity and supported the development of practical soft skills like initiative, problem-solving skills and the use of information sources. While some relevant theory may be best learned in a classroom environment, workplaces are often necessary to bring that theory to life. Other research has shown that it is easier to develop professional skills in work-based training than transferring theoretical knowledge, learned at school, into practice (Aarkrog, 2005; Woerkom, Nijhof and Nieuwenhuis, 2002).

Section 2.3 below argues that part of the payoff from stronger links between the VET system and employers should be an expansion of good quality workplace training in Chile. One of the many benefits of such an expansion would be more effective development of soft general skills.

Generic and specific skills: summary and policy options

In Chile there is evidence that graduates of VET programmes may have inadequate general skills – both for the labour market and to underpin further learning. Thus:

- In Chile 36% of 15 year olds (those at or below Level 1) lack the necessary literacy skills to benefit from educational opportunities throughout their life. The challenge is even bigger in numeracy. 55% of 15 year olds (those at or below Level 1) will have serious difficulties in using mathematics as an effective tool to benefit from further education (OECD, 2007a).
- As noted by the recent report of the Commission, employers put less emphasis on specific vocational skills but they do need more general skills. Soft skills seem highly valued on the labour market, but may not receive enough attention in the curriculum.
- The vocational tracks in upper secondary education provide rather weak preparation for the tertiary education to which the vast majority of vocational students aspire.
- Globally, literacy and numeracy skills are in increasing demand by employers.

The implication is that Chile may need a strategy to systematically enhance the general skills of VET graduates. Policy options include:

- Ensure that VET programmes devote sufficient space in the curriculum, and sufficient good quality teaching, to the acquisition of hard and soft general skills.
- Continue efforts to improve the basic skills of Chilean students through basic schooling, building on recent improvements.
- Systematically identify particular numeracy and literacy weaknesses among students in VET programmes and target help to those who need it.
- Use workplace training systematically to upgrade the soft skills of VET students.

2.3 Creating partnerships with employers

The challenge

Weak employer engagement

In Chile there have, until recently, been few systematic arrangements for the engagement of employers in the provision of workplace training, in the definition of competences required for particular jobs, or more broadly in the management and strategic direction of the VET system and VET institutions. Some features of Chile's history and social and political culture also add to the difficulty, with the private sector sometimes seeing government negatively, rather than a natural partner. A traditionally very free market culture may also be seen as at odds with the level of regulation necessary to drive an effective VET system. This needs to be overcome.

The importance of creating linkages with industry and business has been recognised by policy makers, as illustrated by some recent initiatives. The SNCCL Labour Skills Certification System (see Section 2.1) was designed to support lifelong learning, facilitating a better match between employer needs and training. Most significantly, the VET Commission, which reported in June 2009, was a major attempt to inject impetus into VET reform. The recently announced creation of a National Council for Vocational Education and Training (CNFP), following a recommendation of the Commission on VET, will create a platform where industry representatives, trade unions and stakeholders from the education and training sector can work together. These are important initiatives, but further steps would be needed to give employers a sufficient role in VET policy development.

At national and regional level there are no instruments to systematically identify labour market needs, a challenge also signalled by the recent report of the Commission on VET (VET Commission, 2009). This makes it hard for VET institutions, both at secondary and tertiary level, to ensure that the mix of VET provision responds adequately to labour market needs. This increases the risk that institutions will determine provision on the basis of the availability of teachers and facilities, and demand from students, without regard to labour market needs. Currently institutions have few incentives to reduce or close down programmes with limited labour market prospects, as long as these remain popular among students. The review team was told that some institutions conduct employer surveys to establish what competences are needed, but this depends on the institution. During the review visit we heard many complaints about obsolete facilities and weak teachers.

Weak local links between institutions and industry

The quality of links between VET secondary schools and industry varies greatly between individual institutions. There are some good practices – for example, in one upper secondary school administered by a corporation employers participated in the development of the curriculum and in the assessment of vocational competences. But interviews conducted during the review visit suggest that such good practice is patchy and that many schools have very little dialogue with employers.

At tertiary level, the challenge is similar. As noted in the OECD Review of Tertiary Education in Chile (OECD/World Bank, 2009), employer involvement in the

identification of skill needs, the development of programmes and the monitoring of graduates is often weak and unstructured. At the same time there are some encouraging developments— some institutions have strong links to industry, and some institutions conduct follow-up surveys of their graduates, as such surveys are a condition for accreditation. Employers participate in the governing boards of some tertiary institutions.

Weaknesses in the quality assurance of workplace training

Graduates of four year upper secondary education obtain the secondary school leaving certificate (*licencia de enseñanza media*). VET upper secondary graduates then have to spend about four months (480-960 hours) doing their workplace training⁸ (*práctica profesional*) to obtain a VET certificate. So workplace training is not integrated into the curriculum, and is seen as an application of what was learnt during the previous two years rather than as an additional (and properly valued) learning opportunity.

Many VET students who obtain their school leaving certificate do not pursue the workplace training to obtain a VET certificate. Exact data are not available, but according to estimates about half of upper secondary VET students do not complete their workplace training (VET Commission, 2009). One possible reason is that until recently those in workplace training did not receive any financial compensation, so many preferred to enter employment (or even be inactive). Also, completing workplace training means that, unless special arrangements are made in the school, students have to delay their entry to tertiary education by one year. Finally, students may consider that the returns from obtaining the VET certificate do not justify the effort needed to complete workplace training. Conversely, in some schools workplace training seems to work well – in one school we heard that virtually all students participate in workplace training and employment outcomes are above the national average.

Mechanisms to assure the quality of this workplace training seem weak. Although there are some tools in place (training plan, visits to the company by the school), much is left to the discretion of the school. The review team was told that it is hard for many schools to supervise the quality of workplace training, as students are no longer at the school and teachers would need to visit companies in addition to their regular teaching load. The local offices of the Ministry of Education also have few staff to effectively check the quality of workplace training.

A small proportion of VET schools (enrolling 4.5% of vocational upper secondary students) operate a ‘dual system’, with students spending some time in school and some in workplace training. The lack of evidence makes it difficult to assess the quality of these programmes. Interviews conducted during the visit suggest that the quality of dual programmes varies across institutions. One observation, based on experience with dual systems in other countries, is that the traditional strengths of the dual system depend on a range of institutional mechanisms including clear expectations on what is to be learnt in school and in the workplace, well qualified teachers and trainers, and strong links with the social partners in the management and operation of the system.

In tertiary education, some institutions include practical workplace training in their programmes while others do not. One inhibiting factor may be the curriculum, which is “input-based”, *i.e.* students are required to complete a certain number of hours in class.

8 In this report the term “workplace training” refers to practical training provided in an enterprise as part of an upper secondary or tertiary level VET programme.

For 2-year degrees time spent in practical training in a workplace counts towards the required number of hours, but in IP courses all 3 200 hours must be *presencial* (in a classroom or seminar, but cannot be in a workplace). This rule is unfortunate.

Analysis and international experience

Why involve employers?

The involvement of employers in the VET system is crucial if the system is to meet labour market needs. First, employers are in the best position to see if the content of VET – curricula and qualifications – is right for current labour market needs, and employers can guide their adaptation to new emerging requirements.

Second, employers need to be involved in policy development to ensure successful implementation of policy. In Norway for instance, the establishment of apprenticeship training required the full support of employers and trade unions. In the UK by contrast, persistently weak employer engagement in VET has been pointed out as a factor undermining many initiatives launched in the VET field (see Keep, 2005; Ryan, 2000; Soskice, 1993). Typically, engagement in VET policy making and provision of apprenticeship places go together: employer engagement and apprenticeship provision are very high in countries like Germany, Switzerland or Austria and conversely in countries like Sweden both engagement and provision are weak.

Third, active involvement in the design of VET policy makes employers understand the system better. If employers do not understand the policy context and the institutional settings, they are likely to disengage.

Forms and scope of employer engagement

The institutional frameworks for employer engagement need to be stable and effective. Instead of depending on individuals, formalised schemes ensure common and consistent quality standards. In some countries the role of employers (and trade unions) in VET design and delivery is even stipulated by law (*e.g.* Switzerland). By contrast, reliance on local *ad hoc* initiatives and co-operation between individual schools and employers can lead to a proliferation of different practices in VET and fragmentation.

Employer engagement in VET is very variable across OECD countries both in terms of the institutional arrangements and the tasks and actions carried out by employers. It can also vary in scope and involve merely an advisory or consultative role – of varying weight – or may be an actual decision-making role (see Table 2.2).

Table 2.2 Social partners' impact on VET

Estimated percentage of VET upper secondary programmes in which social partners have advisory or decision-making role, by different aspects of VET

	Curricula		Practical training content		Duration of practical training		Number of students in VET		Number of places in practical training	
	D	A	D	A	D	A	D	A	D	A
Australia	-	-	■■■	■■■	■■■ ¹	-	-	■■■ ¹	-	■■■ ¹
Austria	■■	■■■	■■	■■■	■■	■■■	-	-	-	-
Belgium (Flanders)	■	■■■■	■■	■■■■	■	■■■■	-	-	■	-
Czech Republic	-	■■	-	■■	-	-	-	-	-	-
Denmark	■■■	■	■■■■	■■■■	■■■■	■■■■	-	-	-	-
Finland	■■■	■■■	-	■■■	-	-	-	-	-	-
France	-	-	-	■■■■	-	-	-	■■■■	-	-
Germany	-	■■	■■■	■■■■	-	-	-	-	■■■	■■■
Hungary	-	■■■■	-	■■■■	-	■■■■	■■■■ ²	-	■■	-
Ireland	■■	■■	■■	■■■	■■	■■	-	■	-	■
Netherlands	-	■■■■	-	-	-	■■■■	-	-	-	-
Norway	-	■■■■	■■■■ ³	-	-	■■■■	-	■■■■	■■■■ ³	-
Sweden	-	■■■■	-	■■■■	-	■■■■	-	-	-	-
Switzerland	■■■	-	■■■■	-	■■■■	-	■■■■ ⁴	-	■■■■ ⁴	-
Turkey	■■■	-	■■■■	-	■■■■	-	■■■■	■■■■	■■■■	■■■■

	Acquired competencies		Examination requirements		Delivered Qualifications		Accreditation delivered to enterprises providing practical vocational training		Sectors/occupations in which practical vocational training is available	
	D	A	D	A	D	A	D	A	D	A
Australia	■■■	-	-	-	■■■	-	-	-	-	■■■
Austria	■■	■■■	■■	■■■	■	■■■	■■	■■■	■■	■■■
Belgium (Flanders)	■	■■■■	■	■■■■	-	■■■■	■	-	-	-
Czech Republic	-	■■■■	-	■■■■	-	-	-	-	-	-
Denmark	■■■■	■■■■	■■■■	■■■■	■■■■	■■■■	-	■■■■	-	■■■■
Finland	■■■	■■■	■■■	■■■■	■■	-	-	-	-	-
France	-	■■■■	-	-	-	■■■■	-	-	-	■■■■
Germany	-	■■	■■■	■■■■	■■■	■■■■	-	-	-	-
Hungary	-	■■■■	-	■■■■	-	■■■■	■■	-	■■	-
Ireland	■■	■■	■■	■■	-	■	-	■	■■	■■
Netherlands	-	■■■■	-	■■■■	-	■■■■	-	■■■■	-	■■■■
Norway	-	■■■■	-	■■■■	■■■■	-	-	■■■■	-	■■■■
Sweden	-	■■■■	-	■■■■	-	■■■■	-	-	-	-
Switzerland	■■■■	-	■■■■	-	■■■■	-	-	-	■■■■	-
Turkey	■■■■	-	■■■	-	-	-	-	-	-	-

Note: D – decision making; A – advisory role

0%; ■ 1-25%; ■■ 26-50%; ■■■ 51-75%; ■■■■ 76-100%

Total score in each category might be bigger than 100% .This is because social partners involved at different levels may have a say over the same aspects of VET. For example, in Denmark, the Advisory Council for Vocational training (REU) has advisory status towards the Minister of Education (national level). The Council advises on the overall structure of the system. At local and sectoral levels Sectorial Trade Committees and Local Trade Committees can decide on many elements of VET within the overall structure.

1. The role, ranging from advisory to none depends on industry, occupation, etc.
2. Since January 2008.
3. The apprenticeship model (2+2) for IVET consists of two years at school and two years as apprentice in a company. Figure refers to apprenticeship component of the programme.
4. Students taking part in VET programmes are free to choose the programme. But it is the business that provides apprenticeship places. Therefore students can only enter the programmes if there are enough available places in the apprenticeship.

Source: Kuczera, M. (forthcoming), *The OECD International Survey of VET Systems*, OECD, Paris.

Which models of institutional frameworks for employer engagement work best?

Bodies for employer engagement and representation can be established at various levels, depending on how policy making is structured in a given country (see Box 2.3 for country examples). They can be created at national level, according to industrial sectors, regionally structured or at the level of the individual institution (*e.g.* employer representation in school boards). While involvement at national level allows for the strategic steering of VET policies, employer engagement at school level can help to improve the concrete links between the workplace and schools, and encourage the exchange of teaching and training personnel. Bodies organised by industrial sector are particularly helpful in defining the specific competences associated with qualifications.

Box 2.3 Examples of institutional frameworks for employer involvement

National level:

The **UK Commission for Employment and Skills, UKCES** is an employer-led body that has the task of advising ministers on strategy, targets and policies, monitoring the VET system, and observing the performance of the Sector Skills Councils which are licensed by it. Launched in April 2008 following recommendations on a major report assessing UK's skills needs (the 2006 Leitch review of skills), UKCES is commissioned to assess the UK's overall progress towards fulfilling the skills targets set in the report. It is primarily composed of business leaders, and also has members drawn from the trade unions and local government.

The **Danish Advisory Council for Initial Vocational Education and Training** (*Rådet for de Grundlæggende Erhvervsrettede Uddannelser – REU*) comprises 25 members from the social partners, but also school leader and teacher associations as well as a number of members appointed by the Ministry of Education. It advises the Ministry of Education on all matters concerning the VET system monitors existing programmes and labour market trends and on this basis recommends the establishment of new VET qualifications, the adaptation of existing ones or discontinuation.

The **Swiss partnership arrangements** between the Confederation, the cantons and the social partners are established by law. This co-operation is a fundamental principle of the VET system and is set forth in Art. 1 of the Vocational and Professional Education and Training Act. In this arrangement, employers and trade unions have immediate impact on VET policy making. While each of the partners has their own area of responsibility (the Confederation is responsible for strategic planning and development, the cantons for implementation and supervision and the social partners the definition of course content and provision of apprenticeships in host companies) all major decisions are discussed and taken jointly and all three partners are represented on national, cantonal and local level.

Sectoral level:

The **Australian Industry Skills Councils, ISCs** are privately registered companies run by industry-based boards of directors, but whose funding is provided substantially by the Australian Government. There are currently 11 national ISCs covering the skills needs of most of the Australian industry. Their tasks include provision of industry intelligence and advice to Skills Australia (an independent body providing advice to the government on current and future skills needs), government and enterprises on workforce development and skills needs; actively supporting the development, implementation and continuous improvement of training and workforce development products and services, including training packages; provision of independent skills and training advice to enterprises, including matching identified training needs with appropriate training solutions; and working with enterprises, employment service providers, training providers and government to allocate training places.

The **UK Sector Skills Councils, SSCs** are employer-led bodies that set training strategies for particular sectors of the economy. There are currently 25 licensed SSCs grouped in the Alliance of Sector Skills Councils and covering roughly 85% of the UK's workforce, representing the interest of small and large business. SSCs are charged with determining the skills offer for their vocational area. They have a lead role in determining the qualifications which deliver skills and are eligible for public funding.

Regional level:

Regional VET Centres in the Netherlands (*Regionaal Opleidingscentrum, ROC*), have representatives of (regional level) social partners in their supervisory board. ROCs supply all the vocational training schemes financed by the government at secondary level and provides adult education for a region. There are currently 46 ROCs in the Netherlands.

It is more difficult to design institutions for employer engagement if employers are not already organised into representative bodies. Relying on individual companies rather than employer associations has the disadvantage that it may grant undue influence to a few random (mostly big) companies instead of a representative body that can act on behalf of the rest. However, if employer organisations (rather than individual employers) are represented in government bodies, it is important that these organisations are effectively representative and seen as such by employers. In Chile existing bodies, such as Sofofa (an umbrella body involving individual companies and employer associations) might be helpful in developing a system for employer engagement in VET.

Trade unions balance employer influence

Trade unions also have a role to play in the process of VET policy making. As representatives of the work-force, they take part in negotiations about the design of VET policy. In Norway for instance, without the approval of the work-force as a whole, the VET-system could not have been set up, as only the tripartite co-operation between the state, the employers and the unions grants legitimacy for the system.

Trade unions can constructively counterbalance the interests of employers. Trade unions have complex incentives in respect of training. They have incentives to protect the interests of existing workers, to ensure that those in work have access to good quality training and that employees have transferable skills (DGB, 2008). Less positively they also have incentives to reduce access to shortage occupations, to maintain wages and union bargaining power. In Chile, the unions argue that there have been inadequate opportunities to participate. The new National Council for VET is one of the first opportunities for the unions to get involved.

Workplace training is an important part of any VET system

In Chile, workplace training is employed diversely in different parts of the VET system, both at upper secondary and tertiary level. There are some very strong arguments in principle for workplace training in VET, when linked to effective regulatory standards. These arguments follow those developed in the OECD policy review of VET (Field *et al.*, 2009). There are four major advantages of providing practical training in workplaces rather than in VET institutions. First, workplace training can offer a very high quality learning environment: this allows students to acquire practical skills on up-to-date equipment and under trainers familiar with the most recent working methods and technologies; as argued above in Section 2.2, it also allows them to develop key soft skills – such as dealing with customers – in a real world environment. Second, it facilitates a two-way flow of information between potential employers and employees, making later recruitment much more effective and less costly. Third, the willingness of employers to offer workplace training provides a signal that a VET programme is of labour market value. Fourth, trainees in the workplace can make a productive contribution. Collectively, these arguments are so powerful that all VET systems should aim to make substantial use of workplace training.

The recent OECD review of labour market and social policies in Chile (OECD, 2009b), reports that minimum wages are relatively high in Chile by international standards. High minimum wages mean that employers may be unwilling to take on young untrained workers – such workers may therefore readily become trapped in the range of low-skill jobs in companies subcontracted to a larger company – a major feature of the

Chilean labour market. These conditions imply that it is particularly important for the initial education and training system in Chile to provide strong initial skills. Conversely, from the employers point of view, high minimum wages mean that it should be more attractive to provide workplace training for vocational students as a means of screening recruits who will immediately be costly.

As indicated above, the current arrangements for workplace training in upper secondary education in Chile are unsatisfactory, with many students failing to complete their workplace training. One option would be to integrate the requirement into the body of VET upper secondary programmes, preferably as an essential element – so that students could not obtain their upper secondary certificate unless they have undertaken such a placement. To ensure that the work placements are substantive, rather than just any type of work experience, adequate quality controls would need to be in place. Mandatory work placements of this type would also constrain provision to fields in which employers are interested, and conversely provide employers with an incentive to offer placements in fields where they need recruits.

Incentives for employers to provide workplace training

The benefits of workplace training, not only to the employers, but also to the student, as well as to other employers and society at large, provide an argument in principle for governments to support workplace training. Governments use a mix of direct subsidies, tax breaks and levy arrangements to boost the provision of workplace training (see Table 2.3).

Table 2.3 How governments and employers support workplace training

	Public funding		Firms' collective contribution (e.g. training levy)	Employers contribution to VET		
	Direct subsidy	Tax deduction		Training equipment	Salaries of trainers	Travel expenses of a trainee
Australia	Yes	Yes	No	Yes	Yes	Yes
Austria	Yes	Yes	In some sectors	Yes	Yes	Yes
Denmark	No	No	Yes	Yes	Yes	No
Finland	Yes	No	No	-	-	-
France	No	Yes	Yes	Yes	Yes	No
Hungary	Yes	No	Yes	Yes	Yes	Yes
Norway	Yes	No	No	Yes	Yes	Yes
Netherlands	No	Yes	-	Yes	Yes	Yes
Switzerland	No	Yes	In some sectors	Yes	Yes	Yes

Direct subsidy: A direct cash transfer from public sources to enterprises providing practical vocational training (e.g. state contribution to the training fund, grants).

Tax deduction includes:

- Payroll tax deduction/exemption: Deduction/exemption on an amount that an employer withholds and/or pays on behalf of their employees based on the wage or salary of the employee. Governments use revenues from payroll taxes to fund such programs as social security, health care, unemployment compensation, worker's compensation

- Profit tax deduction: Amounts deducted from a taxable income

Source: Kuczera, M. (forthcoming), *The OECD International Survey of VET Systems*, OECD, Paris.

A flat-rate subsidy to employers per apprenticeship place offered has two potential weaknesses. First, many of the apprenticeship places attracting the subsidy would be offered even without the subsidy. So the net effect of the subsidy on the overall training effort may be modest. Second, subsidised firms may reduce other types of training that are less generously subsidised. International evidence on the effectiveness of subsidies, as an incentive for a firm to train, is mixed. A Danish study (Westergaard-Nielsen and Rasmussen, 1999) found that subsidies had a positive effect in some sectors (and even there the effect was relatively minor), while they had no effect in others. An analysis of companies in Switzerland (Muehleman *et al.*, 2007) found that the net costs of training have a significant impact on whether a company offers apprenticeships or not, but they do not influence the number of apprentices, once the company decided to train, so subsidies given to firms that already train apprentices would not have any effect. Training levies have similar weaknesses – in particular there is a risk that levies subsidise training that would have been provided anyway (Dar, Canagarajah and Murphy, 2003). As set out in the OECD policy review of VET (Field *et al.*, 2009), evidence on the effectiveness of levies is mixed.

Some countries employ training levies to boost the amount of training offered by companies – typically using them to support the training of existing employees, but also sometimes trainees and apprentices. For example in Hungary, employers are required to contribute 1.5% of their payroll and have the possibility to offset their contribution against providing practical training for VET students (Hungarian Ministry of Labour and Social Affairs, 2008). In Chile, the existing training levy (*franquicia tributaria*) might be used in a similar way to support workplace training for VET students.

In some countries there are special bodies that aim to facilitate employer engagement in the provision of workplace training. They typically serve to improve the match between the needs of employers and students looking for workplace training. They also take care of the administrative duties, removing a considerable burden from employers (see examples in Box 2.4).

Box 2.4 External bodies involved in workplace training for VET students

Australia: In Australia, group training organisations (GTOs) are not-for-profit organizations supported by public authorities, with some charges to host employers. The role of GTOs is to employ apprentices and hire them out to host employers. They sometimes focus on a particular industry or region. The tasks performed by GTOs include: selecting apprentices to suit the needs of employers; arranging and monitoring training both on and off the job; taking care of the administrative duties involved; and ensuring that apprentices receive a broad range of training experience – sometimes by rotating them to different firms.

For research papers on GTOs see www.ncver.edu.au/publications/bytheme.html.

Norway: In Norway training offices (TO) (*opplæringskontor*) are owned by companies and usually relate to specific trades. TOs work actively to identify possible new training companies and establish new apprenticeship places, supervise companies with apprentices, and train staff involved in the tutoring of apprentices. Many TOs organise the theoretical part of the apprentices' training. They often sign the apprenticeship contracts on behalf of smaller training enterprises, thereby becoming accountable for completion of the training and its results

Source: Norwegian Directorate for Education and Training (2008).

Why quality standards in workplace training are important

At present quality assurance in workplace training is relatively weak in Chile. Reaping the full advantages of workplace training will depend on effective quality assurance. Good quality workplace training involves adequately prepared workplace trainers guiding the development of the trainee in the workplace, providing a good range of vocational skills – including both hard and soft workplace skills – and offering an effective route into relevant job. More specifically:

- VET institutions and work-based training should complement each other.
- VET students should also perform a variety of tasks, either within a firm or by rotating across firms (Gruber, Mandl and Oberholzner, 2008). Tasks should increase in complexity over time and allow trainees to work autonomously and practice their skills (Robertson *et al.*, 2000).
- Workplace trainers are crucial in ensuring successful workplace training. The quality of the relationship between VET students and their colleagues is also important (Robertson *et al.*, 2000). Such informal training is especially important in small and medium enterprises (Harris, Simons and Bone, 2000).

Firms are always interested in the immediate productive contributions of apprentices but sometimes less concerned with providing for a good learning experience (Cornford and Gunn, 1998; Kilpatrick, Hamilton and Falk, 2001; Gibb, 1999). In analysing firms' motives to train, some authors distinguish between substitution motives (*i.e.* substituting apprentices for workers) and investment motives (*i.e.* training to meet a future need of qualified labour). Some evidence suggests that firms training for substitution reasons are less likely to provide good quality training (Askilden and Øivind, 2005; Smits, 2006) and/or more likely to use trainees as cheap unskilled labour. Conversely in Switzerland Dionisius *et al.* (2008) show that firms manage to pay off the costs of training during the training period by allocating students to productive tasks and using apprentices in skilled jobs. The existence of regulations setting out the content of workplace training (Smits, 2006) and quality standards (Dionisius *et al.*, 2008) are identified as essential to ensure high quality learning.

Even if a firm has an interest in providing good training, there may still be a difference between the firm's interest and those of students: firms tend to have a preference for firm and occupation-specific skills, while students also need skills that are transferable to other firms and possibly other occupations (Smits, 2006). There is also variation in the quality of training according to the characteristics of firms. Research from Australia suggests that small firms are also unlikely to have dedicated training staff (Hawke, 1998), the training offered tends to be unplanned (Vallence, 1997), informal and firm-specific (Seagraves and Osborne, 1997). While workplace training needs to yield benefits to employers to encourage them to offer sufficient training places, it should not be so firm-specific that it inhibits future professional mobility.

These considerations argue for quality control carefully applied to apprentice training to ensure that the employers involved deliver on their training responsibilities. At the same time, the quality requirements should not be so demanding as to inhibit employer participation.

Introducing quality standards in workplace training

Quality standards may cover the content and duration of training, the assessment of training outcomes and trainers' qualifications. They should help avoid the allocation of students to unskilled tasks and prevent training narrowly focused on firm-specific skills, and should ensure that training meets minimum standards in all workplaces. Ryan (2000) in a review of apprenticeships in several European countries suggests that in the UK the lack of external regulations for apprenticeships leaves room for low quality training, while in Germany and Denmark there is stronger quality control and permission for training is withdrawn for companies that provide substandard training. Similarly, in Switzerland firms need to meet quality standards to be licensed to take on apprentices and the quality of practical training is monitored.

Table 2.4 Quality assurance in enterprises providing workplace training to VET students

	Curriculum	Training content	Duration of the programme	Equipment and training material	Number of training places	Qualifications acquired during the programme	Educational performance of VET students	Performance on the labour market of VET graduates
Australia	no	yes	no	no	no	no	no	no
Austria	yes	yes	yes	yes	yes	yes	yes	no
Czech Republic	no	No	no	no	no	no	no	no
Denmark	no	No	no	no	no	yes	no	no
Finland	no	No	no	yes	no	no	yes	yes
France	no	No	no	no	no	no	no	no
Germany	yes	yes	no	no	no	yes	yes	no
Hungary	**	**	**	**	**	**	**	**
Netherlands	m	m	m	m	m	m	m	m
Norway	m	m	m	m	m	m	m	m
Sweden	***	***	***	***	***	***	***	***
Switzerland	yes	yes	yes	yes	yes	yes	yes	no
United States	no	No	no	no	no	no	no	no

Note: m: missing;

** in Sweden, the Swedish Schools Inspectorate has a mandate to examine the quality of workplace training, and locally, education/governing boards are responsible for workplace training.

*** In Hungary the Chamber of Commerce and Industry operates the quality assurance system covering the conditions needed to start workplace training, interim checking to ensure that the training is done under prescribed circumstances, and that its content and methodology is appropriate.

Source: Kuczera (forthcoming), *The OECD International Survey of VET Systems*, OECD, Paris.

Table 2.4 provides information on quality assurance practices in selected OECD countries. Given the need to encourage and support workplace training, the quality control may need to take the form of supportive measures for employers, rather than something which could be seen as a bureaucratic obstacle to firms wishing to undertake workplace training. The *QualiCarte* project in Switzerland (Box 2.5) provides an example of a tool that supports employers in improving their training.

Box 2.5 Quality control of workplace training in Switzerland

The quality of practical training is controlled at two levels. Host companies are responsible for checking the progress of students. Developed with the social partners, the *QualiCarte* provides a checklist of 28 quality criteria (see Annex C) describing key aspects of workplace training (including the engagement of the company, particular aspects of the initial phase of the training and the subsequent training process). These criteria are used by companies for self-assessment.

Cantonal authorities control the quality of workplace training by issuing licenses, which host companies must obtain to provide workplace training to VET students. To acquire a license, companies must meet technical and personal criteria, and demonstrate that their training programme complies with quality standards and the content of training matches the needs of the occupation.

1. PET Professional education and training

Source: Federal Office for Professional Education and Technology, 2008

Contracts for workplace trainees

Special contracts for apprentices or trainees exist in many countries. In some countries (e.g. Germany, Austria, Switzerland) students are responsible for finding a company that will provide them with workplace training. Conversely, in Hungary for example VET institutions often help students find apprenticeship places and then the contract is signed between the firm and the apprentice. Some countries (e.g. Australia, Norway) involve third partners in the apprenticeship. Box 2.6 provides examples of the terms of apprenticeship contracts in three countries.

Box 2.6 Contracts for workplace training

In **Australia**, the Australian Apprenticeship/Traineeship Training Contract is a legally binding agreement between the employer and the apprentice. A representative of the Australian Apprenticeships Centre is required to be present at the signature of the contract, and advises both parties on their rights and responsibilities as outlined by the National Code of Good Practice; ensures that the apprenticeship is appropriate to both parties and that they have received relevant information. The training contract outlines the employer's obligation to employ and train the apprentice; pay wages and ensure that the apprentice receives adequate facilities and supervision. Employers need to submit a training plan, which must be endorsed by the concerned training provider (VET institution). The contract stipulates a probation period, during which either party can terminate the agreement. Upon completion of the probation period, only by mutual agreement is it possible to transfer, suspend, cancel or vary the contract.

Source: www.training.com.au/portal/site/public/menuitem.7e75abb80a4e4690f9fa5a1017a62dbc/

In **Switzerland**, an apprenticeship contract is signed by the VET student, the student's legal guardian and the host company. Legally binding, these contracts must remain in effect for the entire duration of the VET programme. In almost every respect, apprenticeship contracts are equivalent to work contracts (based on Articles 344 to 364a of the Swiss Code of Obligations). The only difference is that apprenticeship contracts include a clause whereby the host company agrees to provide the student with practical training. The apprenticeship contract also sets out the salary conditions for the entire period of training.

Source: (Swiss) Federal Office for Professional Education and Technology (2008).

Box 2.6 Contracts for workplace training (continued)

In **Austria**, a training contract, concluded between the host company and the student, forms the basis of the training relationship. The student (apprentice) receives health, accident, pension and unemployment insurance. The training relationship is regulated by the labour and social law, as well as particular employee protection regulations for young people. Apprentices are entitled to a salary (*Lehrlingsentschädigung*), determined through collective negotiation and which varies among occupations.

Source: www.bmukk.gv.at/schulen/bw/bbs/berufsschulen.xml#toc3-id4

An apprenticeship or traineeship contract, setting out the rights and obligations of both trainees and receiving firms can be a tool not only to enhance the quality of workplace training, but also to encourage the involvement both of employers and students. A study of five European countries (Germany, Austria, Denmark, Ireland and the United Kingdom – Ryan, 2000) identified the existence of a strong institutional framework, including a legal framework for apprenticeships, as an important condition for the successful implementation of workplace training.

Creating partnerships with employers: summary and policy options

As in other countries, effective partnerships between employers and the vocational education and training system play a very important role in sustaining the VET system and its ability to meet labour market needs. At present:

- Mechanisms for employer engagement have been limited. The creation of the National Council for Vocational Education and Training (CNFP) is particularly welcome.
- There are weak arrangements for identifying and quantifying skills needs and translating them into the mix of training provision – effective partnerships with employers could alleviate this problem.
- The incentives for upper secondary students to complete their workplace training are inadequate, and quality standards are weak.

Policy options include:

- Starting with the initiative to set up the National Council, establish systematic architecture for consultation between the VET system and industry, allowing for consultation at sectoral and regional levels.
- Make systematic efforts to encourage workplace training in all parts of the VET system, building partnerships between vocational education and training institutions and industry; establish effective quality standards for the workplace training.
- Integrate the workplace training element into the body of upper secondary vocational programmes and consider making it a mandatory part of the programme.
- For IP programmes, reform the regulations so that workplace training, subject to quality standards, may count towards the required course hours.

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Annex A

Programme of the Review Visit

Preliminary visit, 23-25 June 2009

- Meeting with experts from the National Council for Innovation and Competitiveness (CNIC)
- Meeting with experts from Fundación Chile
- Meeting with representatives of tertiary VET institutions
- Meeting with representatives of vocational secondary institutions
- Meeting with officials from Chile Califica
- Meeting with representatives of the Súmate programme
- Meeting with an official of the Inter-American Development Bank
- Visits to vocational upper secondary schools

Main visit, 3-6 August 2009

Monday 3 August

Meeting with the steering group

Tuesday 4 August

- Meeting with representatives of VET tertiary institutions
- Meeting with officials from SNCCCL
- Meeting with experts from Fundación Chile
- Meeting with employers
- Meeting with officials from the Curriculum Department of the Ministry of Education

Wednesday 5 August

- Meeting with VET policy makers from the Ministry of Education (secondary education) and regional offices of the Ministry of Education
- Meeting with representatives of vocational secondary schools
- Meeting with VET policy makers from the Ministry of Education (tertiary education)
- Meeting with officials from the National Accreditation Commission

Thursday 6 August

- Visits to vocational upper secondary schools
- Meeting with the steering group

Annex B

Terms of Reference

Background

The National Innovation Council for Competitiveness (CNIC) has identified human capital formation as a key enabling factor for improving innovation capabilities both at the company and at the economic clusters levels. This implies increasing the availability of workers with the right mix of knowledge, skills and attitudes required for companies to innovate in their products, processes and / or business models. The National Strategy for Innovation and Competitiveness launched by the CNIC in 2007 and 2008 gives a high priority to these challenges and recommends an improvement in the quality and relevance of both higher education and vocational education and training in the country.

On its part, the Chilean Ministry of Education considered it relevant to appoint an External Commission charged with the task of reviewing available information on Vocational Education and Training (VET) at secondary and tertiary levels and proposing policy recommendations for better aligning VET with the needs and expectations of relevant stakeholders, including students and their families, business companies and the National Innovation Strategy for Competitiveness.⁹

Since 2007, the Organisation for Economic Co-operation and Development (OECD) has been undertaking a thematic review named “Learning for Jobs” whose aim is to identify the policy options available for OECD countries to make their VET systems more responsive to labour market needs.¹⁰

Despite not having previously participated in this OECD study, the Chilean Ministry of Education considers it advisable to include the preliminary conclusions and the analytical frameworks developed by the Learning for Jobs initiative in the definition of a medium and long term policy for the VET sector in Chile and moving forward in the recommendations offered by the above-mentioned External Commission. The CNIC, on its part, believes that the comparative analysis made by the OECD would contribute to defining priorities and targets for the National Innovation Strategy for Competitiveness.

In this context, the Chilean government has decided to request the OECD to carry out a country case study which would provide information and implementation proposals of key policies aimed to better align VET with labour market needs in Chile. This is a joint effort involving the Ministry of Education and the CNIC.

9 The Commission finished the elaboration in April 2009.

10 See www.oecd.org/edu/learningforjobs

Aim of the study

The goals of the study are the following:

- Acquire a joint vision of the situation of VET in the OECD countries and the challenges countries face to make it more relevant to labour market needs.
- Learn the options available to high medium-income countries like Chile in order to establish an articulated VET system introducing flexible learning pathways, responsive to the needs of both students and employers.
- Based on the information from the OECD and Chile, to obtain policy options for three topics which are: the qualifications frameworks; the balance between generic and specific competences in the curriculum and; the links between vocational education and training and companies.

The OECD team will be provided with information from previous reports but especially with the recommendations of the policies implemented by the CNIC in volumes I and II of the National Innovation Strategy and by the Mineduc Commission on Vocational Education and Training. The OECD team will consider in its analysis and final report previous thematic reviews on Chile's education and labour market policies.¹¹ In addition, the OECD team will make two country visits in June and August 2009.

Main activities

The study includes the following activities:

Analysis of secondary information by the OECD Team

The OECD team, led by Mr. Simon Field, Project Manager Learning for Jobs, OECD policy review of vocational education and training, Education and Training Policy Division, Directorate for Education, OECD.

Preparation of an executive report with main conclusions and recommendations

The OECD team will prepare a report including in each study area the key information, policy options and a comparison of Chile with other OECD countries.

Analysis, discussion and dissemination of results

The results of the study will be presented in Chile by the OECD along with the mandating entity. Meetings will be held with key players to analyse and discuss the document.

11 OECD/World Bank (2009) *Reviews of National Policies for Education. Tertiary Education in Chile*. Paris: OECD; OECD (2009b) *Reviews of Labour Market and Social Policies. Chile*. OECD: Paris. OECD (2004) *Reviews of National Policies for Education: Chile*. OECD: Paris.

Annex C

QualiCarte

Company/institution.....

Date

Name of supervisor.....

Assessment

-- does not meet criteria - partially meets criteria + meets criteria (there is room for improvement) ++ meets criteria well

Quality indicators	Assessment				Notes
	--	-	+	++	
Hiring: The receiving company/institution establishes the conditions of hiring.					
1. The criteria defining the expected profile of the apprentice are announced.					
2. Interviews are conducted with the applicants, in addition to other recruitment tools.					
3. “Taster apprenticeships” (short periods allowing potential apprentices to learn about the job) are organised.					
4. The results of the application process are communicated clearly.					
5. Information is provided on working conditions.					
6. The terms of contract are explained to the apprentices.					
Starting the training: A special programme is prepared for the initial period spent in the company/institution.					
7. The persons responsible for the apprenticeship are designated.					
8. The apprentice receives a personal welcome.					
9. Information is provided on the activities of the company/institution and the relevant industrial field.					

10. The apprentices are informed about work, security, health and hygiene regulations.					
11. A workplace equipped with the necessary tools is available to the apprentice.					
12. The apprentices are informed about the importance of the training plan (methodological guide, apprenticeship plan etc.).					
13. There is a regular dialogue between the apprentice and supervisor during the probationary period. At the end of the probationary period a training report is written together with the apprentice.					

Training: The company/institution helps the apprentice acquire competences required in the labour market and takes the time to provide training and progressively transmit their knowledge and skills.

14. The training of the apprentice provided by supervisors is embedded in the company/institution.					
15. The training plan and other tools to support learning are used in an interactive way.					
16. The supervisor defines clear and measurable objectives.					
17. The different working methods and procedures are planned, demonstrated and explained.					
18. Tasks carried out by the apprentice are subjected to qualitative and quantitative control.					
19. The apprentice progressively becomes involved in the company's activities, with increasing autonomy.					
20. The performance of the apprentice in the VET school and industry courses is taken into account and discussed.					
21. The supervisor supports each apprentice according to his/her potential and needs.					
22. The supervisor prepares a training report at the end of each semester, according to relevant regulations ("ordinances").					
23. The supervisor takes into account the feedback received from the apprentice as much as possible.					

Responsibility of the training company/institution: The company/institution is engaged and collaborates with all those involved in the training.					
24. If the apprentice has difficulties, the supervisor contacts his/her parents, school or relevant VET office.					
25. If there is a risk of breaking off the apprenticeship contract, the training company/institution immediately informs the relevant authorities.					
26. The departure of the apprentice is in order.					
27. The supervisor continuously updates his/her skills needed to support apprentices.					
28. The company/institution provides the supervisor with the necessary time, financial and material resources.					

Objectives	Deadline

The supervisor (name and signature)

For the company/institution (name and signature)

Learning for Jobs

OECD Reviews of Vocational Education and Training

CHILE

For OECD member countries, high-level workplace skills are considered a key means of supporting economic growth. Systems of vocational education and training (VET) are now under intensive scrutiny to determine if they can deliver the skills required.

Learning for Jobs is an OECD study of vocational education and training designed to help countries make their VET systems more responsive to labour market needs. It will expand the evidence base, identify a set of policy options and develop tools to appraise VET policy initiatives.

The government's commitment to develop and reform the VET system is illustrated by the recent work of the VET Commission and the creation of the National Council for VET. Chilean society places a high value on education and training, with fast-increasing participation in post-compulsory education. At the same time, the various elements of the VET system are weakly connected to each other, the literacy and numeracy skills of 15 year olds in Chile are not as good as they should be, and workplace training, as part of VET programmes, is weakly developed. Among the report's policy options:

- Systematically engage with employers, trade unions and other key stakeholders to develop and implement the qualification framework. This may involve a gradualist approach to implementation, to ensure the full buy-in of all stakeholders.
- Strengthen quality assurance throughout the VET system to support the qualifications framework – within tertiary education ensuring that the existing quality assurance arrangements can address the specificity of VET.
- Ensure that VET programmes devote sufficient space in the curriculum, and sufficient good quality teaching, to the acquisition of hard and soft general skills.
- Systematically identify particular numeracy and literacy weaknesses among students in VET programmes and target help to those who need it.
- Starting with the initiative to set up the National Council, establish systematic architecture for consultation between the VET system and industry, allowing for consultation at sectoral and regional levels.
- Make systematic efforts to encourage workplace training in all parts of the VET system, building partnerships between VET institutions and industry; establish effective quality standards for the workplace training.

OECD is conducting country VET policy reviews in Australia, Austria, Belgium (Flanders), the Czech Republic, Germany, Hungary, Ireland, Korea, Mexico, Norway, Sweden, Switzerland, the United Kingdom (England and Wales), and the United States (South Carolina and Texas). A short report the Peoples Republic of China is also to be prepared. The initial report of *Learning for Jobs* is available on the OECD website. The final report on the study's findings will be published in 2010.

Background information and documents are available at www.oecd.org/edu/learningforjobs.