



Literature Review

Vocational Education and Training

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The society which scorns excellence in plumbing because plumbing is a humble activity and tolerates shoddiness in philosophy because it is an exalted activity will have neither good plumbing nor good philosophies. Neither its pipes nor its theories will hold water (John Gardner).

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Introduction

Investing in a strong, public vocational education and training sector (VET) sector must be crucial in knowledge-based societies as well as in developing countries. As the UNESCO Revised Recommendation on Technical and Vocational Education and Training notes: *'Given the immense scientific, technological and socio-economic development, either in progress or envisaged, which characterizes the present era, particularly globalization and the revolution in information and communication technology, technical and vocational education should be a vital aspect of the educational process in all countries'* (UNESCO, 2001). VET is important as it enriches a person for life and it provides the competences which are necessary in a democratic society. Societal and economic development depends on the strength of VET as it provides access to skills and entry routes into the labour market. For under-privileged and marginalised groups in particular, it can be an important route towards a better life.

The sheer size of the VET sector in some parts of the world should confirm its importance. Even though there exist huge problems in terms of data collection, the UNESCO Institute of Statistics (UIS) has found that in both Europe and Oceania, more than sixty percent of pupils in upper secondary education, weighted by school-age population, are enrolled in VET programmes, with the rest of the world hovering around ten percent (UIS, 2006, p. 46)¹. As VET is provided at almost all levels of education, the real numbers of students in the sector are probably much higher in actual fact.

In 2007, Education International's Executive Board adopted a set of Guidelines for Cross-Border Provision of VET. The Guidelines were *'intended to address and counterbalance the threats posed by trade and investment agreements, not only to staff jobs and living standards, but to the quality of education and training students receive'* (Education International, 2007a). Clearly, as in other sectors of education, the neo-liberal approach to governance and regulation influences the international level of policy-making. However, as VET is by definition positioned close to the market, acting as a hub between general education and the labour market, it is not hard to imagine EI's concern that VET *'is particularly vulnerable to these pressures'* (EI, 2007). It will become clear from this literature review that governments use many excuses for not taking responsibility for public VET systems, because it is a complex sector, because international agencies are telling them not to, because of a misunderstanding of the labour market, or because it is simply considered to be too expensive to make the needed changes.

This literature review has been carried out in order to address threats to VET from an academic point of view. It is to complement a survey undertaken with EI member organisations by providing an analytical framework for any conclusion that will be drawn from the results of the survey. The Journal on Vocational Education and Training and the International Journal on Education Development have been extensively consulted – editions spanning from the mid-nineties to today - in order to select articles relevant for teachers unions. Furthermore, a set of books was selected to complement and frame the debates in the journals. Interestingly, the inclusion of General Agreement on Trade in Services (GATS) plays only a very minor role in

¹ North America is an exception with only 4 percent of pupils studying in these types of programmes. The report notes that this is partly a consequence of the Mexican system, which has a low gross enrolment rate in upper secondary education in general (UIS, 2006, p.46).

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academic literature. Indeed only one such article could be identified. This could be due to the general trend that it takes a while for the academic world to catch up with concerns voiced by EI.

From an academic perspective, the consulted literature does highlight a number of problems in relation to VET. The most existential one is a problem of definition. As VET is provided from ISCED levels 2 to 5, it is hard to clearly delineate it from other sectors. Secondly, the literature is not clear about the role of VET in social and economic development. There is much controversy surrounding the policies of the World Bank, which has placed VET quite strongly in contrast with general education, promoting an agenda of privatisation while reducing the availability of loans for the sector. On the other hand, VET is strongly associated with high growth rates in economies in South-East Asia as well as the industrialised world.

Thirdly, a debate exists on the link between VET and the labour market. While this link is generally seen as important, the way of organising and planning it requires further clarification. It is also important not to conceptualise VET as purely a labour market tool, but as an important public good in its own right. Finally, as EI is a representative organisation of employees in the education sector, there is the obvious question of the place and status of teaching personnel, which will be addressed below, even though little comparative research has been undertaken on this topic.

This review therefore addresses these four dimensions, while trying to keep the overall perspective and concerns relevant to a strong, public VET system in mind.

To begin with, it is necessary to assess the political arena in which VET is embedded. For most international organisations, including EI, VET has not always received the highest priority. In the context of the growing importance accorded to lifelong learning and the current global financial and economic crisis, policymakers increasingly focus on the importance of VET. Indeed, UNESCO-UNEVOC (the International Centre for Technical and Vocational Education and Training) has recently received a new mandate to develop new areas of expertise; the ILO has given VET an important position in its *Decent Work Agenda*; and the Organisation for Economic Cooperation and Development (OECD) has undertaken an extensive review of VET policies in a number of its member states. Finally, there is the omnipresent threat posed by the GATS negotiations, which pose a major concern. Thus, while this literature review is meant to shed some light on academic debates, since the international political reality also requires policy and actions, for each section, some implications for EI are also discussed below. An important job lies ahead for EI in identifying major concerns in the VET sector across countries, based on a sound analysis. Such work is to be undertaken by the EI international taskforce on VET, which was formed following EI's 5th World Congress in Berlin in July 2009.

Finally, it is noteworthy that there are many issues which this review does *not* address. These include the place of students and trainees in the system and the quality of VET, among others. These important issues are to be addressed in future work, although they have been kept in mind while developing the current analysis.

1. What is Vocational Education and Training?

Defining VET as a sector within the education system poses a number of difficulties. For the most part, general and academic education is seen as that which builds analytical skills, knowledge and critical thinking, while VET develops craftsmanship, practical experience and practical problem-solving. However, this simple distinction does not hold up to scrutiny. Critical thinking and analytical skills are needed in the case of a good plumber or electrician who must routinely make judgements in order to solve problems. Equally, a good surgeon needs a large set of practical skills to masterfully operate a patient. These simple distinctions can also lead to confusion and academic drift of vocational institutions (cf. Neave, 1978) or a vocationalisation of higher education (cf. Williams, 1985). In this section, different approaches to defining VET are discussed and suggestions are made on how EI can take the issue of definition forward.

A Practical Problem

Although seemingly abstract, the discussion on what VET constitutes is first of all a practical discussion. A question of definition leads to further questions of the place where VET is provided, who VET students are, who VET teachers are and crucially for EI, under which types of conditions such teachers work.

VET is offered at different levels of educational systems and in a variety of educational institutions. Chappel (2003, p. 26) makes this very clear, noting that in Australia VET is provided by:

- educational institutions including schools, TAFE (Technical and Further Education) colleges, Adult and Community Education (ACE) and universities;
- public, private and non-government providers of education and training;
- industry, in-house and organisation-specific training; and
- small business and private training consultants.

In the UIS study above-mentioned (UIS, 2006, p.10), the assumption is made that VET students can be identified as early as at ISCED level 2, usually designated as lower secondary education, up to ISCED level 5, usually the first cycle of higher education. Moreover, VET can sometimes be identified in aspects of general education or even outside the general education system, in various kinds of informal learning.

Hence it is almost impossible to identify the total number of students studying in the sector. A related problem exists for teachers' unions, as it is difficult to identify who works inside such institutions and with what type of contract. As will be made clear below in section four of this review, some authors identify up to twenty-four different teaching profiles in VET institutions (cf. Grollmann and Rauner, 2007).

An Analytical Problem

In an analysis of the emergence of VET in the United States, Venn (1964) explains the etymology of the term 'vocational' as a sort of 'calling'. He refers to it as education aiming at a stable job and a stable career in a recognised profession, pinpointing its emergence somewhere in the 19th century industrial revolution. However, in more recent times, this cannot be said to apply. Societal institutions – religious, political cultural, economic and social – which were once based on permanency were

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subsequently caught up in the twentieth century trend of 'change' (ibid, pp.38-39). As the reasons for VET did not remain obvious over time, its status started to be put in question. Indeed, much of the literature on VET focuses on the lack of a clear definition of the term 'vocational'.

Stevenson (2005), researching on VET in Australia remarks that *'wherever one looks, the place for the vocational appears to be similar – the vocational is at the bottom of a hierarchy of knowledge and value, it is a stream of learning available to the "lower achiever", it is governed in a paternalistic way with highly circumscribed degrees of freedom over content and process, it is legitimated solely in industrial and other utilitarian terms, rather than in the connections among different kinds of meaning-making, and it is preserved for occupations of lower status'* (ibid, pp.335-336). Instead, Stevenson adopts a view from John Dewey in that a *'vocation means nothing but such a direction of life activities as renders them perceptibly significant to a person, because of the consequences they accomplish, and also useful to his associates'* (ibid, p.348). However, while such a definition does raise the status of what 'vocational' is, it does not solve the practical problem of difficulties in being able to identify VET provision in certain institutions. In such an approach, vocationalism is important for all types of studies. Indeed, even for academics, meaning to their own work often arises in application.

Moodie (2002) analyses existing definitions in four dimensions - epistemological, teleological, hierarchical and pragmatic. He argues that a definition is needed on all four levels, stating that *'one may consider vocational education and training to be the development and application of knowledge and skills for middle-level occupations needed by society from time to time'* (ibid, p.260). Such a pragmatic definition seems to match the approach of UNESCO in its Revised Recommendation on Technical and Vocational Education and Training (TVET), giving preference to the term 'technical and vocational education and training' over the term 'vocational education and training'. The mentioned recommendation states that 'technical and vocational education' is *'used as a comprehensive term referring to those aspects of the educational process involving, in addition to general education, the study of technologies and related sciences, and the acquisition of practical skills, attitudes, understanding and knowledge relating to occupations in various sectors of economic and social life'* (UNESCO, 2001, p. 2).

A Political Problem

If one definition of VET is given importance over another, this might lead to some forms of provision being left out or given more importance than others. It is also a matter of political importance to consider how VET is positioned in relation to the rest of the education system. For instance, in relation to the debate on the relation between gender inequalities and VET, the UNESCO Institute of Statistics (UIS) concludes that it is difficult to draw conclusions on whether VET contributes to gender inequalities. It notes that the issue is complex and likely to vary greatly across regions and countries. It is further made clear that there is both over-representation and under-representation of girls in different countries (UIS, 2006, p. 63). However, Oketch (2007), who writes about the question of vocationalisation in Africa, is more critical stating: *'... the gender inequalities that have persisted in the general programmes are also prevalent in the TVET programmes. But where the picture seems improved in terms of female participation, TVET is relegated to a less prestigious strand of education. It is really a double loss for girls in such cases'* (ibid, p.229). Oketch's

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conclusions are plausible, as in Africa, the VET sector is often small and offered at lower levels.

Another approach to this political problem comes directly from the role of the state, in relation to how the labour market should be organised. As VET is an intended bridge between education and the labour market, broader visions are important for the design of a VET system. Clarke and Winch (2007) trace different definitions of VET back to the historical context of the nation-state. They contrast the German and French systems with the British system. In the former two systems, the state is instrumental in setting a politically-defined programme of VET, in the structuring of the labour market and in determining relations between capital and labour. By contrast, in Britain, the state's role is simply one of governance or supervision, thus introducing new sets of rules or laws, resulting in an apparent or real fragmentation of relations between labour and capital, often arbitrarily linked to state institutions and thus unresponsive or unpredictably responsive to local or state policies. Consequently, the authors conclude that the British VET model is less one of state intervention and more of social injustice (Clarke and Winch 2007, p.14). It is not hard to imagine that the vision of the state towards the labour market then defines - to a large part - how VET is organised, who pays, where it is provided and who benefits from it.

Thus, it must be clear by now that a definition of VET is ultimately political, as it involves the central questions of who gets what, when and how (Lasswell, 1936).

Implications for EI

For EI, the question of definition has a number of practical implications. First of all, it is important to note that any choice of definition will entail a gross simplification of reality. Not all VET systems around the world - or even in a single country - can be described in a few lines, as many nuances which may arise will necessarily be omitted. Therefore, it will always be the case that a number of EI member organisations may not identify with any one single definition as some of the issues and problems applicable to them may be ignored. Indeed, such a problem might apply if a definition is chosen that is built too much on the continental European model. Secondly, the definition is chosen is too general in nature, it risks being a tautology such as 'education that prepares students for the labour market' (as all types of education aim to do).

Therefore, it might be a fruitful strategy to concentrate on the process of developing a definition of what VET is in the 'real world' while at the same time adopting a vision of what VET is in the eyes of EI and its member organisations, taking into account the problems abovementioned.

2. VET and Development

The industrialised world invests more in vocational schooling than the developing world. The UNESCO Institute of Statistics (UIS) finds a simple correlation between the two, as *'the greater a country's Gross Domestic Product per capita, the greater its secondary Percentage of Technical/Vocational Enrolment'* (UIS, 2006, p.54). However, surprisingly, there is little in the relevant literature to support the link between VET and development. With a few exceptions, the standard conclusion is that it is wiser for governments to invest in general education than in VET. This line of reasoning has been set on the pretext of *'the vocational school fallacy'* – a term coined by Foster when researching the externalities of Western education reform in Ghana in 1965.

A second influential strand of work originates from authors linked to the World Bank, who argue that while VET can be important for growing economies, the organisation of VET should be minimal, with strong private sector involvement both in terms of organising supply and creating demand. A third factor is the EFA agenda, which according to some made *'VET fall from grace'* (McGrath, 2002).

As targets have been set for many education sectors - but not for VET - concerns over this sector, have nearly disappeared from the international development agenda. The discussion below critically examines these three approaches to VET, and suggests some implications for Education International (EI).

The Vocational School 'Fallacy'

King and Martin (2002) explain the VET 'fallacy' as a challenge between planning and reality. Foster's main message was that youth in Africa had already quite rationally decided in the sixties – despite all types of attempts to change their attitude - that an academic education would be better for achieving their goals and improving their position than vocational schooling. Thus while policy could have had many noble goals in trying to improve the situation of socially and economically disadvantaged people, the actual attitudes and behaviour of young people may not match these goals, as was the case in Africa, according to Foster. Foster's conclusions were based on a study of perceptions of young Ghanaian males on their future prospects and education opportunities. Although several methodological points are made and the mitigating effects of schools on society are recognised, King and Martin's (2002) survey still concludes that *'Foster's message today as in 1963 remains relevant for any attempts to use schools to deliver massive changes in attitude and aspiration in the absence of any parallel initiatives in the larger economic environment'* (King and Martin, 2002, p.24). Oketch (2007) is more critical of the fallacy, claiming that it does not have to apply today, as vocational education is seen as training which forms the basis for future training, not as a way to facilitate job entry, but as a way to facilitate vocational-specific skills over a lifetime. He argues that VET in Africa needs to be reformed to train for what he calls *'higher skills'* linking better with the informal sector (Oketch, 2007). It is however clear that the 'fallacy' continues to influence policymakers today, making them sceptical about the need for VET.

The World Bank and VET

An influential World Bank publication entitled *'Skills for Productivity'* (Middleton *et al.*, 1993) attempts to historically track the impact VET on economic development, to

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develop options for public policy and suggest strategies for policy reform. The vocational school fallacy is taken as the point of departure, although significantly more research material is analysed. The position of the World Bank is interesting, as it has funded many VET projects in the past.

From 1963 to 1976, more than half of World Bank-assisted investments in the educational systems of developing countries supported vocational education or training. Two-thirds of this investment was made in middle-income countries. Similar patterns persisted well into the 1980s, not only for the World Bank, but also for the investment programs of the Asian, African, and Inter-American Development Banks (ibid, p.4).

The dilemma that gives rise to the mentioned World Bank study is that developing nations are faced with a dual problem while developing strategies for increasing the access to 'middle-level skills'. This dual problem is to improve productivity under severe resource constraints and respond to high demands of public education and training resources, including improving access to, and quality of, basic education (ibid. p.3). Therefore, the results of VET should be seen in the context of other investments as well. The authors (ibid) take note of the above-mentioned problems of definition, combined with a lack of data, concluding that due to such problems '*it is not surprising that the attempts to examine VET's contribution to economic growth have been unsuccessful*' (ibid, p.46). However this does not stop them from drawing far-reaching conclusions.

The authors (ibid) then define three critical dimensions which can make VET cost-effective as a strategy:

When it is focused on improving productivity, when jobs are available, and when it produces workers with needed skills of acceptable quality. Understanding the economic context in which training is delivered is therefore critical to the development of effective training policies and programs' (ibid, p. 70).

Not surprisingly, these are also the points of departure of the World Bank policy paper on VET, which was written two years earlier by the same authors. The policy paper focuses on four main strategies to improve VET provision, namely: strengthening primary and secondary education; encouraging private sector training; improving effectiveness and efficiency in public training; and training and equity strategies (World Bank, 1991). It is hard to pinpoint one clear message from the policy paper, as some messages can be seen as being in conflict with one another. On the one hand, the policy is critical of the role of public providers, identifying problems of rigid planning and management, weak linkages to employers, inappropriate objectives and inadequate financing (ibid, pp.26-29). On the other hand, it stresses that there should be a role for the state in compensating for market distortions in wage policy, capturing external benefits, offsetting weak private training capacity and improving equity (ibid, pp.34-37).

It is perhaps then that the role of the state that is envisaged is the one usually played by the British state as explained above, being more of a mediator than a strong regulator. However this is a point that raises quite some controversy. Bennell (1996), in a critical article on the World Bank's involvement in Sub-Saharan Africa, argues as follows:

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Perhaps the most critical issue is the largely unresolvable tension that exists between the Bank's obvious desire to promote its demand-driven VET reforms and the feasibility of actually implementing this agenda in developing countries and especially in Sub-Saharan Africa. [...] The continuation of such a dirigiste role for the state does not sit comfortably with its essentially voluntaristic and supportive role envisaged in the VETSPP [VET Policy Paper]. Not surprisingly, therefore, this dilemma is likely to seriously limit the Bank's own (operational) room for manoeuvre (ibid, p.485).

Several other authors, also linked to the World Bank, have published similar material. In these articles, the stand on VET is slightly more positive, although the discourse remains the same. Psacharopoulos (2006), writing about two decades of education policy in the World Bank, argues that the Bank is not against VET but against VET provision in general schools rather than in dedicated vocational schools (ibid, p.335).

Tzannathos and Johnes (1997), writing about training and skills development in East Asia, do partially attribute economic growth in the region to role of VET. They explain how the model that these countries have used is one largely built on the private sector. For example, in Singapore, training levies are paid through a 1 percent tax imposed on companies using the wages paid to low-paid workers as the tax-base. They conclude that the: *'low social rates of return to vocational education and the high rates observed in the case of in-service training suggest that the fundamental question in skills development is not whether to vocationalise schools but at what stage [to do so] in the education process'* (ibid). Thus, once again, the value and contribution of VET is not entirely put aside, provided that VET is organised within the discourse of privatisation and competition.

VET and Education For All

The policies above-described above are not very well-suited to the general line of thinking adopted in the Education For All (EFA) agenda. The 2009 Global Monitoring Report (UNESCO, 2009) is quite hostile towards the agenda of *'choice, competition and voice'*, arguing that competition and choice have the potential to reinforce inequality. Moreover, when Ministers met in Seoul in 1999 at the Second International Congress on Technical and Vocational Education (TVE) they adopted the goal of *'Technical and Vocational Education for All'* stating:

TVE is one of the most powerful instruments for enabling all members of the community to face new challenges and to find their roles as productive members of society. It is an effective tool for achieving social cohesion, integration and self-esteem (UNESCO, 1999).

At the same time, however, it can be questioned how the EFA agenda, adopted in Dakar in 2000, *does* contribute to VET. Goal three – *'to promote learning and skills for young people and adults'* – is the only goal that addresses some aspects of VET. The goal is not very concrete and it is certainly not as strong as the 1999 Seoul conclusions. Consequently it interpreted in many different ways (UNESCO, 2009, p. 91). This could perhaps be the reason why VET is not mentioned in the Global Monitoring Report (ibid). However it could also be said that the focus on primary education in the EFA goals is likely to be the reason behind governments' distraction from developing proper strategies for VET.

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The dilemma, described already by the World Bank, is made quite visible in a study by the UNESCO International Institute for Educational Planning (IIEP) for the World Bank by Atchoarena and Delluc (2001) on VET in Sub-Saharan Africa. They explain that in Malawi, where 90 percent of the population dwelling is rural, the government has been preoccupied with meeting international goals of expanding basic education rather than developing a TVET system which matches the kind of rural life that the majority lead. Similar reasons surface in Algeria, Lesotho, Chad and Senegal where TVET figures are either less than 2 percent or are just slightly above it but not reaching the 3 percent level (Atchoarena and Delluc, 2001, pp.37-38).’ McGrath, in an attempt to formulate a new skills agenda for development, goes a little further by claiming that the absence of language of skills in international targets increases the likelihood of reduced attention for VET. Moreover, the reduction in emphasis on skills-development in cooperation activities is not consistent with OECD governments’ own programmes and policies at home (McGrath, 2002, pp.426-427). Finally, Oketch is again more critical, stating that *‘nowhere is TVET mentioned and, or even when it is mentioned, it is not in the agenda of international community or the national governments to finance’* (Oketch, 2007, p.228).

Implications for EI

As EI advocates for strong and sustainable public VET systems, it certainly diverges from the bulk of literature advocating strong private involvement. However, there is quite some debate on the privatisation agenda, giving EI some room for involvement. EI’s policies on the subject should therefore be seen as a strength in this area as its voice can be quite unique. At the same time, the problems defined above should be taken into account, as it will not be easy to convince policy-makers without addressing their concerns head-on. EI could take the opportunity of involving key people from developing countries (either representing teachers from the VET or general education sectors) to debate concerns. Secondly, EI could consider involving some more critical researchers in developing an agenda for VET. Thirdly, EI should use its policies to engage in a dialogue with the international institutions. These organizations tend to react to criticism, in some cases quite strongly, which will be useful to raise attention to EI’s positions. Finally, as the debate on the link between VET and Education for All is a complex one, further research and debate on this topic will be necessary to inform future involvement of EI in the achievement of the EFA goals, as this is the primary forum in which concerns over development are raised.

3. The Connection with the Labour Market

While several issues have already been raised about the connection between VET and the labour market, a better understanding of this link remains necessary. For labour unions concerned with the agenda of decent work, this question is central. While general vocational education is important, a system that is disconnected from the world of work leads to undervalued skills or, even worse, unemployment. The *ILO Recommendation Concerning Human Resources Development: Education, Training and Lifelong Learning* (ILO, 2004) departs from this reasoning, stating that members should 'ensure that vocational education and training systems are developed and strengthened to provide appropriate opportunities for the development and certification of skills relevant to the labour market' (ibid, III.f). Firstly, the organisation of the link between VET and the labour market is important, where apprenticeships play an important role. Secondly, the content of programmes is important, as it is a concern of some that employers have too much influence. From an international perspective however, it is hard to generalise about something as local as curricula. Instead, some points are made below on the methods of defining curricular content through so-called 'skills projections'.

Categorising the Link

In different countries, the transition from school to work is organised in different ways and related to different modes of production. Grollman and Rauner (2007) describe four models of organising the school-to-work transition, which is associated with different types of problems. Systems differ depending on the significance assigned to the relative occupation, the organising principle for labour markets, the company work organisation and vocational training. The first model, '*Direct Transition*' is based on the Japanese situation and does not contain an organised 'bridge' between school and employment. Rather, extra training is offered in independently-chosen employment in large companies, which offer training for their employees. This type of training is described as successful because of a high company loyalty and high work morale.

The second model, '*Hardly Regulated Transition*', is based upon the typical situation in the UK, which arises to a lesser extent Italy and Spain. The model is characterised by a relatively long and lightly regulated transition phase with extensive search and orientation processes for youths. It is accompanied by a high rate of youth unemployment and other social risk situations. Participation in training programmes is closely linked to entry in the employment system and commencement of gainful employment can be a temporary solution during one's search for a job.

The third model, '*Regulated Overlapping Transition*', is based upon central European countries such as Austria, Switzerland and Germany and Denmark. The transition from school to work takes place via a regulated system of apprenticeship. The young person is a trainee, a student in a vocational school, as well as an employee working in a company with the status of an apprentice at the same time. Youth employment is low as vocational education acts as a bridge between the working world and the education system.

The fourth and final model, '*Shifted Transition*', is based upon countries with a well-developed, school-based state-provided vocational training system. Completion of general education is followed by a vocationally-related or vocationally-oriented form of

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schooling. On completion of the vocational school, students usually acquire a state certificate for special subjects or a school occupation attained. School and work thus remain institutionally separate (Grollmann and Rauner, 2007, pp. 2-6).

Apprenticeships

'Apprenticeship' is a term from the Middle Ages, which can mean very different things. For the World Bank for example, the 'traditional' apprenticeship is offered by a small business owner, which is willing, for a fee, to teach a skill or trade that is in demand. The training period varies in length, depending upon the technical difficulty of the trade and how quickly apprentices master the body of skills. Such apprenticeships are still found in North and West Africa and to a lesser extent in Latin America (Middleton *et al*, 1993, p.174). Such an apprenticeship is quite the opposite of what is described above, especially in the more regulated 'transitions'. In the latter situation, it is in the interest of the company to provide the apprenticeship when it employing and giving a (modest) salary to the apprentice. The word 'apprenticeship' is therefore quite ambiguous. Ryan (1998), in an attempt to calculate the economic merits of apprenticeship, explains that the category ranges from the informal purely work-based learning-by-doing - which still predominates in developing countries - to formal structured programmes of general education and vocational preparation sponsored by large industrial firms in some advanced economies.

The OECD prefers the broader term 'workplace learning' to encompass all these things. For the OECD, there are many advantages to apprenticeship for all the parties involved - the individual, the company, the education system and the labour market more generally (OECD, 2009). This seems to match the positive conclusions by Ryan, who claims that apprenticeship is associated with moderate gains in subsequent employment for participants, particularly relative to job training and labour market programmes, but also relative to full-time vocational education. However, he finds that gains are not equal for men and women, as men seem to benefit more (Ryan, 1998). However the OECD sees even more constraints to the apprenticeship. First of all, apprenticeships might not always fulfil student needs. Furthermore, there are also problems on the supply-side as firms might be more interested in productivity gains than in providing a learning experience and might also be focused too much on firm-specific skills (OECD, 2009).

Key Skills and Competences for the Labour Market

In Europe, the design of curricula and the planning of places available for learning are to some extent based upon large-scale economic analyses of 'skills needs'. Such skills projections lead to ambitious conclusions and reports, bearing titles such as '*Key Skills for the Knowledge Economy*' or '*Les Métiers en 2015*'. The European Centre for Vocational Education and Training (CEDEFOP) argues that this development is continuing as '*recent economic developments, decreasing supply of skills due to demographic change and increasingly felt shortages of workforce in many [EU] Member States have become an important push factor in developing systems for early identification of skills*' (CEDEFOP, 2008, p.30). These skills projections are based on a multiplicity of methods, both quantitative and semi-quantitative, such as econometric forecasting models or alumni surveys (*ibid*, p.12). Moreover, CEDEFOP argues that labour unions can play an important role in such research in tripartite discussion models, for example in the setting of occupational standards in Poland, Hungary and Slovenia (*ibid*, p.23).

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In the literature, skills projection models are not uncontroversial. The World Bank is the biggest enemy of '*manpower requirements forecasting*', stating that the models are based on wrong assumptions on economic behaviour. For the Bank, the relationship between labour and the quantity of goods produced and between labour productivity and the level of education are not fixed. Another challenge that it identifies is that there are also methodological problems, as it is hard to find the right information (cf. Middleton et al, 1993, p.137). A final fundamental concern is that the skills projections are likely to be more inaccurate if they project further into the future. However, at the same time, a long-term future projection will always be needed if the education system is to be reformed in some way. Before the first generation of students finishes in new programmes, a few years would already have passed before the policy will have had time to produce the desired effect. In the meantime, labour market needs might have already drastically changed.

Implications for EI

For EI, this discussion raises interesting policy questions. While EI is generally sceptical towards tying education systems too closely to the perceived needs of employers and the labour market, the importance of this dimension cannot be underestimated. Therefore, the links between the two should be further discussed as policy is developed. Furthermore, skills-forecasting should be addressed as a policy issue as it is a macro-economic tool that can unduly influence the content of VET programmes. Finally, it is important to note that, due to strong labour market involvement in VET, other labour unions are concerned about its outcomes as well. Connection will therefore have to be sought with the other Global Union Federations, particularly the International Trade Union Confederation (ITUC), which may already have policies on the topic as it is likely that they have been involved in discussions on the issue through International Labour Organisation (ILO). Nevertheless, first and foremost, it is the representatives of teachers, staff and students which will have to be involved in these discussions.

4. The Place of Teachers in VET

A 1973 UNESCO study about teacher education claims that *'the technical and vocational teacher occupies a most important place in modern society: he is the link between industrial society – the 'real' world – and the educational system. He is uniquely placed for contributing to the goals of binding humanism and technology'* (UNESCO, 1973, p.14). Nevertheless, the VET teacher faces a problem of status, which is a problem that needs to be resolved in order for the VET teaching profession to be attractive.

Grollmann and Rauner (2007) consider the question of status to be the *'core paradox'*, because while vocational teachers and trainers are essential to supporting skills development in the workforce, the status that they actually have is not high enough for this role. They claim that the *'parity of esteem'* between teaching in VET and teaching in general education is still wishful thinking, and could indeed never be established (ibid, pp.1-2). The World Bank generally argues along the same lines, explaining that the requirements for good instructors in VET (with pedagogical and technical skills, trained in teacher education institutions and with experience in the labour market) are higher than those for general education, and they are costly to develop or attract. Consequently, such teachers are often qualified for higher-paying positions outside of education and training, making them costly to retain (Middleton *et al* 1993, pp.195-196).

The literature thus addresses two main problems. The first one is a question of who the teacher really is, as different profiles of VET teachers can be identified. Secondly, there is a question of teacher training and recruitment. Even though there are many more questions to be asked - in terms of conditions of work, VET teachers' career paths or their salaries - they are currently not being addressed in the relevant literature, making it hard to consider these issues for the purposes of this literature review. Therefore EI may also have unique contributions to make in this respect.

Who is the VET Teacher?

As VET is offered in many different types of schools, as well as outside of formal education, there are different types of VET teachers that can be identified both within and across systems. Grollmann and Rauner (2007) identify six different teaching profiles based on a comparative study across ten countries. Other studies considered for the purpose of this literature review add or omit one or more such categories. Seeing however that Grollman and Ruaner's study (ibid) is relatively recent and rather comprehensive, these categories they propose can be considered to be quite comprehensive. The different categories are as follows:

1. Teachers or lecturers working in formal school or college settings and giving instruction in vocational courses;
2. Instructors and laboratory assistants working in school or college settings in vocational laboratories;
3. Others who teach with a high degree of autonomy or sometimes act as assistants to other vocational teachers;
4. Trainers, tutors and others in enterprises who integrate training and education functions into their jobs with varying degrees (from incidental to full-time teaching of trainees and apprentices). In dual systems, this function is often separated from

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- human resource development functions within companies, while in others this distinction is not strongly maintained;
5. Instructors and trainers working in labour market training institutions supported by governments and public authorities, often with a strong focus on social inclusion and basic occupational competences; and
 6. Instructors and trainers working in employers' organisations, such as chambers of commerce, sectoral training institutions or privately-run training companies and providers that focus on upgrading of technical competences, training in communication skills, etc (ibid).

The first three of these categories seems to be the most relevant for EI, as are situated in formal school settings, while the last three types of categories refer to instructors who are active in the general labour market, for instance within large companies. Nevertheless, within the first three categories, large differences can still arise. The definitions do not reveal the type of public institutions in which work is offered, at which level these people work or with which type of background and qualifications. Moreover, the definitions reveal little about instructors who are generally based in companies but teach at public institutions part-time. In relation to this, a key role for EI would be to come up with a better overview of who VET teachers might possibly be, including therein the various aspects required of such definition.

How is VET the Teacher Trained and Recruited?

The ILO/UNESCO 1966 *Recommendation Concerning the Status of Teachers* applies to all teachers, including those in VET. The Revised UNESCO *Recommendation on Technical and Vocational Education and Training* (UNESCO, 2001) consequently states that teachers in VET should have the same status as their colleagues in general education. In this respect, preparation for technical and vocational teaching should '*preferably be offered as a tertiary programme*' and several in-service and lifelong learning arrangements should be in place to give teachers access to possibilities to update their knowledge and competences (ibid,81-87). However, different realities also exist in teacher education. Broadly, Grollman and Rauner (2007, p.17) identify four models of VET teacher education, as follows:

1. A model mainly based on the recruitment of practitioners of a certain field of occupational work who complete additional courses in teaching and training and management techniques, usually leading to a teaching certificate which provides the necessary qualification for work in the education sector;
2. A model which is based on a sequence of studying relative to a specific subject matter e.g. at the level of a first level tertiary education degree (Bachelor's degree), then obtaining appropriate entry qualifications to the education sector by acquiring general teaching skills in a designated programme;
3. A model which is based on the concurrent study of a subject matter and educational sciences leading to first or second level tertiary education degree (Bachelor's or Master's degree). Often the subject matter takes the form of a diminished portion of an ordinary business or engineering degree and sometimes special vocational didactics are added; and
4. The last model is based on an integrated conception of vocational disciplines, which entail the subject matter as derived from the world of work (i.e. not from the respective engineering discipline) and a model of competence-development within this domain.

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In this respect it is important to note that, ideally, training for a vocational teacher should take more time than that for a general secondary teacher, due to the requirement for the VET teacher to have practical experience (UNESCO 1973, p 98).

In the case of VET, it is difficult to separate problems of teacher education from those of teacher recruitment. The 1973 UNESCO study on teacher education concludes that vocational and workshop teachers are usually recruited from one of three groups: well-qualified workers and technicians in employment; secondary technical or general school-leavers; or teachers of general subjects (usually of basic science or mathematics) who, through in-service courses, are converted into vocational teachers (UNESCO 1973, p.86).

This diversity in recruitment practices leads Grollman and Rauner (2007) to conclude there is a '*fundamental dilemma*' between recruitment of VET teachers and the practices of VET teaching and learning. There is either, on the one hand, a highly professionalised model of teacher education and recruitment associated with a strong alienation from the world of work or, on the other hand an *ad hoc*-type model of recruitment based on experience in the field, leading to occupational localism or strong subject-based identities (ibid, pp.11-12).

In this context, the OECD recommendation that pedagogical requirements should be lower when recruiting people from industry is rather questionable. The OECD argues this on the basis that the need for high pedagogical requirements for VET teachers may '*discourage people in mid-career from entering VET*' (OECD, 2009, p.34). Such proposals, while addressing the problem of VET teacher recruitment in the short term, will lead to less qualified teachers which lack the necessary pedagogical skills required to teach a new workforce. The OECD policy also seems at odds with an earlier UNESCO analysis which claims that '*standards of qualifications must be set, programmes geared to the needs of various groups of recruits developed, and the status and pay of vocational and workshop teachers raised*' (UNESCO, 1973, p.87).

Implications for EI

As there are many gaps in the relevant literature on VET teaching a key role for EI is to provide for a better understanding of the definition, role and profile of VET teachers by putting forward its observations on the position of VET teaching personnel. It is helpful that this problem is already identified in the relevant literature, providing the required space for intervention. The envisaged survey on VET, undertaken with EI member organisations, might be a useful instrument to make this first possible contribution.

EI will also face a problem of defining which teachers it represents. While it defends the idea of a public VET system, many vocational teachers in fact fall outside the scope of such a system. This problem has been taken into account to some extent in the above-mentioned survey, although not all the types of teachers mentioned above have been referred to. This is also most likely to become an issue of policy as well. EI should also develop a clear vision of what types of qualifications VET teachers should have and how such teachers should be recruited. It is hard to generalise by saying that all teachers should have an academic high-level tertiary education qualification, as these are often unavailable and are perhaps not always needed in the VET sector. At the same time, some international institutions (such as the OECD) doubt the need for proper pedagogical qualifications, which may lead to a key deficiency in the VET teaching sector. Like in other sectors of education, this could become a major policy debate.

Conclusion

This literature review is a first attempt to summarise the main academic debates on VET. Through this exercise, it has become clear that VET suffers from a lack of clear definition. VET is offered in many different levels and ways and varies according to the ways the local labour market is organised. Consequently, it suffers from a competition in status with general academic education, emerging as 'second choice' education. This problem is underlined by the approach taken by the international development community, which has prioritised general education and promoted an agenda of privatisation for VET. This strengthens EI's concerns that this sector is particularly vulnerable to pressures of globalisation, commercialisation and trade liberalisation. At the same time, it challenges EI to start working more intensively in this area.

EI must define what a strong public and sustainable VET system really means. Equally, some challenging discussions should be initiated about the relation between VET and the Education For All agenda, in which EI plays a crucial role. Other key issues to be addressed in EI's work are the relation between education and the labour market as well as the place of teaching personnel within the VET system. In summary, this leads EI back to what the Global EI Taskforce on VET recommended in 2007, being that *'Education International makes vocational education and training a more prominent component of its ongoing program work'* (Education International, 2007b).

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