**Using the ‘transition systems’ literature to understand the position of VET in Australia**

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**Abstract**

This paper uses two different but complementary ‘transition literatures’ to understand the relation between vocational education and training (VET) and employment, VET and education, and the low status of VET in Australia. The first is from literature on educational ‘transitions systems’ ([Raffe 2008](#_ENREF_18)), and the second is from literature on ‘transitional labour markets’ ([Schmid and Schömann 2003](#_ENREF_20)). The paper is drawn from the National Centre for Vocational Education funded project *Vocations: the link between post-compulsory education and the labour market*.

Raffe ([2008: 278](#_ENREF_18)) defines an educational transition system as those enduring institutional and structural arrangements that shape young people’s transitions from education to employment and their outcomes. In contrast, the literature on transitional labour markets theorises the nature of working life so that it overcomes limitations of linear models that posit unproblematic life transitions from youth to adulthood (and family) and education to employment. These literatures provide insight into the structural and institutional relationships that shape VET. Bosch and Charest ([2008: 445](#_ENREF_2)) argue that ‘developments in vocational training cannot be understood solely by examining the inner dynamics of education and training systems’. The structure of the economy and labour market and social institutions are fundamental in shaping VET and this means that policy that focuses only on VET will not be successful in achieving lasting change. However, a problem with the transition systems literature is that it overly-homogenises nations and is not able to account for diversity in regions or between industry sectors within countries. The skills ecosystems literature provides an additional conceptual tool to account for change and development within countries ([Buchanan 2006](#_ENREF_3)), and the reasons why VET has stronger relationships with some industries (such as in the trades) and weaker relationships in others (as in many unregulated occupations). Taken together, these literatures provide insight into the weak relation between VET and employment and the low status of VET. They also provide some indications for policy to improve these links.

**Introduction**

Policies that seek to improve outcomes from vocational education and training (VET) will founder if they are not based on an understanding of the institutional and structural arrangements that shape the relation between VET and work, and between VET and other sectors of education. Proclamations of parity of esteem between VET and ‘general’ education in schools, and between the VET and higher education sectors do little to alter VET’s position within these institutional and structural arrangements. Nor do policies that blame VET for poor outcomes, for not being responsive to industry’s needs, and for not being transparent and accessible ([see for example, Evans 2012](#_ENREF_7)). Improving outcomes from VET requires a focus on the demand side (the labour market), as much as on the supply side (education). This is because the way occupations are structured within different segments of the labour market helps shape the relation between education and work. So too does the way in which work is structured and labour is deployed. However, most policy engages with the labour market as it is, and not on the mutual adjustments between education and work that are needed for a more orderly flow of people into more desirable educational and labour market trajectories.

This paper draws from the three year National Centre for Vocational Education funded project *Vocations: the link between post-compulsory education and the labour market*. It is based substantially on our forthcoming discussion paper *Revitalising the vocational in flows of learning and labour* (Wheelahan, Moodie & Buchanan forthcoming). The project’s purpose is to investigate the nature of vocational pathways to inform new strategies to create better flows within education, improved connections between education and work, and improved development and use of skills at work. The overarching question that shapes our research project is: Could education pathways, labour market pathways and links between the two be improved if they were based on a modern notion of vocation? Our use of the term vocation is not as a ‘calling’; rather, a vocation emerges from fields of practice where there are commonalities; for example, the commonalities between nursing, aged care and childcare. Related to the term vocation is vocational streams. Vocational streams consist of linked occupations that relate to the core underpinning concept and set of practices – for example care and care work. Vocational streams operate within broad fields of practice where the focus is on the development of the person, the attributes they need, and the knowledge and skills they require to work within a broadly defined field of practice that combines educational and occupational progression ([Buchanan; Yu *et al.* 2009](#_ENREF_5)). A

The project is conducted in three strands. Strand 1 is investigating entry to vocations – how to improve occupational and further study outcomes for entry level VET including VET in schools and certificates I and II. Strand 2 is investigating the role of educational institutions in fostering vocations – how to improve occupational outcomes and educational pathways within VET, and between VET and higher education. Strand three is investigating the nature of vocations today – how to improve the development and use of skills within core sectors of the labour market, how to improve vocational pathways and the changes that are needed to the institutional arrangements that mediate vocational pathways.

In undertaking the first year of the project we found we needed to develop conceptual tools to understand dynamics in the Australian education and training systems and the nature of the relationship between education and work and to make sense of our empirical findings, which are that the relationship between education and work is weak and fragmented. We outline this conceptual model in this paper. The first section of the paper is on transition systems, and it draws on two distinct but complementary literatures to understand the relationship between VET and employment, VET and education, and the low status of VET in Australia. The first is from literature on educational ‘transitions systems’ ([Raffe 2008](#_ENREF_18)), and the second is from literature on ‘transitional labour markets’ ([Schmid and Schömann 2003](#_ENREF_20)). The second section discusses the impact of the economy and social institutions on education, while the third uses concepts from the literature on skills ecosystems to provide a more nuanced analysis that accommodates diversity between regions and industries within nations. The penultimate section returns to the concept of transition systems to explore systems that have an ‘employment logic’ and those that have an ‘educational logic’. The final section uses this conceptual framework to problematise the relationship between education and work in Australia, and outlines challenges for policy.

**Transitions systems**

‘Transitions systems’ is a broad heading to refer to different approaches that are used to compare education and training systems in different countries. Raffe ([2008: 278](#_ENREF_18)) defines a transition system as those enduring institutional and structural arrangements that shape young people’s transitions from education to work and their outcomes. Transition systems comprise different structural and institutional relations in education and the labour market, but are also shaped by social welfare systems and family structures([Raffe 2008: 277](#_ENREF_18)). Heinz ([2009: 392](#_ENREF_11)) says that ‘transitions from education to employment evolve through time-dependent interactions of individual decisions and pathways in the context of institutions and changing opportunities’. The Organisation for Economic Development and Cooperation (OECD) ([2000: 13](#_ENREF_17)) thematic review on the transition from education to working life identifies six ingredients of effective transition systems. They are:

* ‘A healthy economy.
* Well organised pathways that connect initial education with work and further study.
* Widespread opportunities to combine workplace experience with education.
* Tightly knit safety nets for those at risk.
* Good information and guidance; and
* Effective institutions and processes.’

They argue that a well functioning economy is ‘perhaps the most fundamental factor to shape young people’s transition from initial education to work’ ([OECD 2000: 13](#_ENREF_17)). Raffe ([2008: 291](#_ENREF_18)) says that these are common or general components of successful transition systems, while they may require different policies in different countries to ensure they are implemented.

Raffe argues that the various transitions systems approach has four achievements: first, ‘the initial hypothesis of “institutional effects” has been supported’. That is, the hypothesis that the structure of social institutions has an impact on transitions. This in turn provides insight into the nature of social change and has implications for policy. Second, our knowledge of countries’ comparative transition patterns has been improved. Third, several important characteristics of transition systems have been identified. And fourth and from the perspective of this paper most importantly, it:

has helped researchers and policy-makers to gain a better understanding of their own transition systems and their distinctive logics. It has provided conceptual tools for analysing a country’s transition patterns and the institutional features which may explain them. ([Raffe 2008: 291](#_ENREF_18))

There are also limitations within the transitions systems literature because of the paucity of data that can be used to compare countries. Raffe says the approach suffers from theoretical eclecticism and tends to result in a narrow focus on the education/work axis because that is the data that is available. He says analyses ‘often lack crucial information on topics [such] as social background, education and skills which are central to the analysis of transitions’ ([Raffe 2008: 292](#_ENREF_18)).

Raffe ([2008: 292](#_ENREF_18)) argues that while it has value, the educational literature on transition systems is not sufficient to conceptualise the way in which transitions take place and how transition systems change. He explains that the transitions literature has demonstrated the path dependence of countries in the nature of their social and institutional structures, but it is less able to explain why and how transition systems change. He argues that we need to engage with theories of social change and the role of the nation state, and to draw on comparative political economy for explanations about how skills systems are structured, the relation between systems of skill formation and the state, variability within regions and between industries in nation states, and mutual influences and interrelationships between nation states.

We may add a further caveat to Raffe’s: the education transitions systems literature is mainly used in studying young people’s transitions, but it can arguably be used to study transitions between education and work more broadly. This is possible if a broader notion of transition is used to understand individuals’ life trajectories. Transition refers to movement from one state to another, such as from education to work, or work to unemployment or retirement. Trajectories, in contrast, refer to the general direction in which individuals’ multiple transitions take them. This may include, among other things, trajectories that lead to higher or lower skilled jobs, to marginal attachment to work or to long-term secure careers, or to a disengagement from work or to a sense of calling in employment.

Buchanan and his colleagues ([2009: 11](#_ENREF_5)) draw on research on transitional labour markets that theorises the nature of working life so that it overcomes limitations of linear models that posit unproblematic life transitions from youth to adulthood (and family) and education to work. They argue working life ‘is best understood as comprising a series of key transitions involving education, family formation, [and] spells outside of paid employment and retirement’ ([Buchanan; Yu et al. 2009: 11](#_ENREF_5)). They explain that the ‘defining assumption of this model is that not only does the nature of work continually change, but so too do workers’ preferences and working life choices’. And as with young people, the structure of the economy, labour market and social institutions affects the nature of individuals’ transitions. Buchanan et al. argue that the intersection between Australia’s social institutions and individuals’ transitions results in fragmented flows of labour marked by deep inequalities. People are at their most vulnerable during times of transition, and consequently policy should focus on providing support through transitions. Schömann & O’Connell ([2003: 19](#_ENREF_21)), both of whom are researchers within the transitional labour markets tradition, argue that:

… (1) Both initial investments in education and training, as well as the early experience of transitions, have lasting effects on entry into the labour market and subsequent labour market transitions; (2) segmentation tendencies early in the education system, and particularly at the time of entry and re-entry into the labour market, have a strong tendency to persist unless mitigated through transitional labour market arrangements which confer additional qualifications.

**The impact of the economy and social institutions on education**

There is a body of literature that argues that the relation between social institutions in society shape education systems and their relation to the economy. The ‘varieties of capitalism’ literature posits two main types of market economies: liberal market economies typical of Anglophone countries; and, coordinated market economies typical of Northern European countries, with varying points along the way ([Hall and Soskice 2001](#_ENREF_9)). There are other approaches such as that of Ashton, Sung and Turbin ([2000](#_ENREF_1)) who identify four models of skills formation associated with different types of economies: the ‘market model’ of the Anglophone liberal market economies; the corporatist model of Northern European countries; the ‘developmental state’ of industrialised Asian countries (Singapore, Japan, South Korea and Taiwan); and, neo-market models in countries such as Chile, Mexico and Brazil.

Liberal market economies use the market to coordinate the economy and to match graduates to job. Coordinated market economies use mainly non-market mechanisms to coordinate the economy based on social partnerships between employers, workers and the state, and these mechanisms are used to match graduates with jobs. Each results in different ‘systems of labour market regulation, of education and training, and of corporate governance’ ([Culpepper 2001: 4](#_ENREF_6)). The skill formation system is different in each. There are tight links between work and education in the coordinated market economies (although this is mainly restricted to entry level occupations for young people) reflected in strong apprenticeship systems that prepare young people for work and for citizenship more broadly.

The links between education and work are much looser in liberal market economies. The emphasis is on general education and on using qualifications to screen for entry into the labour market. Apart from the regulated occupations where the professional and occupational bodies have strong input into curriculum, there is little direct engagement between education and work as this is mediated by the market. Education is itself a market and institutions compete for funding and students. Graduates need skills to compete with each other in the market and broader knowledge and skills that can be used in a wider range of areas. Vocational education is developed in the absence of strong corporatist institutions and in countries such as the United Kingdom and Australia, is based on industrial models which are ‘functional, workplace focussed and task-oriented’ ([Guthrie 2009: 17](#_ENREF_8)).

The structure of senior secondary and post-school education reflects these differences in coordinated and liberal market economies. The Northern European coordinated market economies have tracked vocational and higher education systems; graduates go to different occupational destinations and draw on different knowledge and skills in each. Streaming between vocational and academic education starts in secondary school. The Anglophone liberal market economies tend to have unified secondary school systems that emphasise academic or general education, and unified tertiary education systems where there may well be sectoral divides, but the differences are a matter of degree not of type. These systems emphasise pathways between qualifications, sectors and to and from vocational and academic education. Australia is unusual because it has a liberal market economy with a unified secondary school system, but a tracked tertiary education system that differentiates between VET and higher education characteristic of Northern Europe.

Bosch and Charest ([2008: 445](#_ENREF_2)) explain that coordinated and liberal market economies are trying to create bridges between vocational and academic education. They argue, however, that vocational education is being crowded out by academic education in liberal market economies, while in coordinated market economies the attempt to establish bridges is a response to the growing complexity and knowledge requirements of different occupations, including the growing importance of soft skills. They conclude that:

…developments in vocational training cannot be understood solely by examining the inner dynamics of education and training systems. They do not acquire their societal significance and their value for companies and trainees until they are embedded in the labour market. In particular, differences in industrial relations, welfare states, income distribution and product markets are the main reason for the persistent high level of diversity in vocational training systems. The difference can perhaps be summarised as follows: in the coordinated market economies, the modernisation of vocational training is seen as a contribution to innovation in the economy, while in liberal market economies it is seen as a siding into which weaker pupils can conveniently be shunted ([Bosch and Charest 2008: 445](#_ENREF_2)).

**Skills ecosystems**

The relevance of the above analysis is that it helps to explain the weak relation between education and work in Australia. More nuanced analyses that distinguish between a broader range of economies and their relationship to the state are possible ([for example, Ashton; Sung et al. 2000](#_ENREF_1)), but a broad analysis is adequate for our purposes, particularly since most analyses of liberal market economies and their relation to education and training are similar.

While nation states can be broadly understood as having liberal or coordinated market economies that shape their national system of institutions and provide the national context in which they operate, these typologies are less helpful for understanding regional diversity or diversity between industries. The skills ecosystems approach is premised on diversity between regions and within industries. Different ecosystems have different logics for the development of skill, the deployment of labour, and the relationships between social institutions. Buchanan and his colleagues ([2001: 21](#_ENREF_4)) define skills ecosystems as ‘clusters of high, intermediate or low-level competencies in a particular region or industry shaped by interlocking networks of firms, markets and institutions’. Explanations that blame VET for economic underperformance, skill shortages and skill mismatches are not adequate because they do not take into account prior questions such as the nature of the demand side and how it is structured. The features structuring regional or sectoral skills ecosystems are:

* ‘business settings (eg type of product market, competitive strategies, business organisation/ networks, financial system);
* institutional and policy frameworks (VET and Non-VET);
* modes of engaging labour (eg labour hire);
* structure of jobs (eg job design, work organisation);
* level and type of skill formation (eg apprenticeships, informal on-the-job training)’. ([Buchanan; Schofield *et al.* 2001: 22](#_ENREF_4))

They argue that ‘Analysing the interaction between these inter-locking forces is necessary to understand changes to approaches to skill formation for a particular region or sector’ ([Buchanan; Schofield et al. 2001: 22](#_ENREF_4)). The changing nature of the labour supply also affects the way skills ecosystems develop and the way skills are developed and deployed. Buchanan (2006, p.14) argues that ‘[c]hanging life courses, especially concerning the roles of women and students in the workforce, have profoundly reshaped the options available to both workers and employers in recent years’. He says that while the development and deployment of labour are matters to be considered in all skills ecosystems, the form it will take will differ between systems.

Skills ecosystems are able to account for change and development. Industries and regions within nations will differ in their structure and skill formation. Importantly, they will result in relations between education and work that are either tighter or looser, so that some (the regulated occupations) may be embedded within the occupational field of practice similar to coordinated market economies, while they will not, however, be identical to the coordinated market economies because they are located within a liberal market economy. Other skills ecosystems will have a contingent relationship between education and work.

**Transition systems with an employment or educational logic**

Iannelli and Raffe ([2007](#_ENREF_12)) broadly define educational transition systems as having an employment or an educational logic. Systems (like those in coordinated market economies) that have strong institutional links between work and education tend to follow an ‘employment’ logic, while systems (like those in Anglophone liberal market economies) that have weak institutional links tend to follow an ‘educational’ logic. In systems with an employment logic upper level vocational education (usually upper level vocational secondary education) has strong connections with work, but weak connections with higher education, except in some cases where higher education is in the same vocational area. Vocational qualifications are highly valued, and as a consequence, the difference between higher and vocational education cannot be reduced to simple status hierarchies. They explain that:

Vocational programmes are less likely to be stigmatized or to signal low ability or low motivation to employers, because employers have more direct knowledge of the programmes and of the students they recruit. And young people have more contact with employers and easier access to recruitment networks. ([Iannelli and Raffe 2007: 50](#_ENREF_12))

In contrast, transition systems where the educational logic is dominant have weaker links between education and work, vocational education is less differentiated from academic education, and there are stronger connections to tertiary education. Iannelli and Raffe ([2007: 51](#_ENREF_12)) say that vocational education:

…functions more straightforwardly as a part of the education system, and its relationship with academic upper-secondary education is defined more by its lower status than by its stronger orientation to employment. Employers select applicants with the greatest potential rather than those with vocational skills: potential is indicated by the level of study and attainment in education, and vocational qualifications may signal a low educational level.

It is important to distinguish a system’s or a program’s educational or employment logic from its curriculum and assessment. Programs with a strong employment logic in coordinated market economies have substantial amounts of what we would consider general studies such as studies of foreign languages and liberal studies that prepare students for citizenship. Their curriculum includes ‘systemic-theoretical knowledge and has a strong educational dimension’ ([Hanf 2011: 58](#_ENREF_10)). The purpose of VET is to prepare apprentices and students for an occupation (which is much more broadly understood and more complex than in countries such as Australia and England), but also to support their ‘formation of character and [as] good citizens’ ([Hanf 2011: 58](#_ENREF_10)). Conversely, programs with an educational logic in liberal market economies may be restricted to curriculum based on work competences. While in Australia and England vocational education is narrow, instrumentalist and task-focused ([Buchanan; Yu et al. 2009](#_ENREF_5)), it nonetheless has an educational logic. The distinction is based not on the program’s content but on the links between educational institutions and employers and the extent to which a significant part of students’ time is spent in the workplace and results in the employment of a high proportion of graduates in those workplaces. Learning in systems with a strong employment logic takes place in two sites – the educational institution and the workplace.

The distinction between systems with an educational logic and those with an employment logic provides us with conceptual tools to understand dynamics in the Australian education and training systems. It cannot by itself account for dynamics within education – for this we need a broader analysis such as skills ecosystems that provide insights into how skills ecosystems change and the impact this has on relations between education and work.

**The relation between education and work in Australia**

We can see both the educational and employment logics operating in Australia. Overall, Australia’s education system follows an educational logic, and this helps to account for the low status of VET. It also accounts for the overall weak link between education and work. However, there are industries where the links between education and work are much stronger, such as in the regulated occupations. Where there are strong occupational pathways with entry requirements specified and controlled by professional and occupational bodies there are strong educational pathways *within* those occupations, but not necessarily for (usually) lower-skilled occupations within the same industry. Training for the regulated occupations that require relatively long training and the development of specific high level knowledge and skills such as in the skilled trades and some professions result in the strongest links between education and work. In these cases, the occupational and professional bodies have much greater input into the development of qualifications, but also students must undertake substantial learning in the workplace.

The links between work and education are much weaker in most areas of the labour market, and result in much more tenuous links between educational and occupational progression. In 2011, only 29% of VET graduates worked in jobs directly associated with their qualification, while a further 34% found the qualification relevant. Only 16% of graduates undertaking management qualifications ended up on those roles, while 76% of those graduating from apprenticeships in the trades did so ([NCVER 2011: Table 13](#_ENREF_16)). There are mismatches between workers’ knowledge and skills and the jobs they are required to do, with many finding that their skills are not used sufficiently, or that they need higher level skills to do their job. Similarly, there are mismatches between level of education and job, with many finding that their qualification is not used sufficiently within their job or that they need a higher level qualification to do their job ([Mavromaras; McGuinness *et al.* 2010](#_ENREF_14); [Mavromaras; McGuinness *et al.* 2011](#_ENREF_15); [Ryan and Sinning 2011](#_ENREF_19)).

The weak relationship between education and work also results in weak educational pathways within fields of education. We found, for example, that about 52% of students change their field of education when they undertake a second qualification ([Wheelahan; Moodie *et al.* forthcoming](#_ENREF_22)). Where there are strong occupational pathways, students are more likely to stay within their original field of education. Moreover, most students stay within the same educational sector when they undertake a second qualification, and this reflects the relative absence of occupational pathways that require qualifications from both sectors (except in fields of education such as nursing where there is a strong educational pathway from state enrolled nurse to state registered nurse).

**Conclusion**

What does it mean to prepare students for work when the relationship between work and education is so weak, and most students don’t end up in the specific jobs for which they are trained? This is particularly an issue for VET because its qualifications are based on units of competence specified by industry which define workplace tasks and roles. If graduates do not work in jobs directly associated with their qualification then we need to rethink what we mean by education that prepares students for work.

Improving educational and occupational progression will require building links between education and work. This poses a number of dilemmas for our system given the overall dynamics of liberal market economies and transition systems with educational logics. Raffe’s (2008) point is, however, that transition systems can and do change (see also Bosch and Charest 2008). It is possible to consider the types of policy interventions that can help to achieve government objectives for education and its role in the economy as long as we understand current dynamics. One of the key conclusions we have come to is that policy that seeks to build tighter relationships between education and work must take account of the different structures and systems of skill formation between different skills ecosystems. This would help to strengthen those skills ecosystems where there is already a strong relationship between education and work, while using different approaches in those where the relationship is very weak, and the status of VET is low.

**References**

Ashton, David; Sung, Johnny and Turbin, Jill (2000). "Toward a framework for the comparative analysis of national systems of skill formation." *International Journal of Training and Development* **4**(1): 8-25.

Bosch, Gerhard and Charest, Jean (2008). "Vocational training and the labour market in liberal and coordinated economies." *Industrial Relations Journal* **39**(5): 428-447.

Buchanan, John. (2006). *From ‘skill shortages’ to decent work: The role of better skill ecosystems.* Board of Vocational Education and Training, NSW. <https://[www.training.nsw.gov.au/forms\_documents/industry\_programs/workforce\_development/skill\_ecosystem/buchanan.pdf](http://www.training.nsw.gov.au/forms_documents/industry_programs/workforce_development/skill_ecosystem/buchanan.pdf)> viewed 17 January 2010.

Buchanan, John; Schofield, Kay; Briggs, Chris; Considine, Gillian; Hager, Paul; Hawke, Geof; Kitay, Jim; Meagher, Gabrielle; Macintyre, John; Mounier, Alain and Ryan, Shaun. (2001). *Beyond Flexibility: Skills and Work in the Future.* Australian Centre for Industrial Relations Research and Training, University of Sydney, and Research Centre for Vocational Education and Training, University of Technology, Sydney. <<http://www.skillecosystem.net/data/files/general/Beyond%20Flexibility.pdf>> viewed 6 May 2004.

Buchanan, John; Yu, Serena; Marginson, Simon and Wheelahan, Leesa. (2009). *Education, work and economic renewal: An issues paper prepared for the Australian Education Union.* Workplace Research Centre, University of Sydney. <<http://www.aeufederal.org.au/Publications/2009/JBuchananreport2009.pdf>> viewed 26 August 2009.

Culpepper, Pepper D. (2001). Employers, Public Policy, and the Politics of Decentralized Cooperation in Germany and France. *Varieties of Capitalism The institutional Foundations of Comparative Advantage*. Peter A. Hall and Soskice, David. Oxford, Oxford University Press**:** 275-306.

Evans, Chris (2012). Transforming the training system for the new economy. National Press Club, <<http://minister.innovation.gov.au/chrisevans/Speeches/Pages/Speechabouttransformingthetrainingsystemfortheneweconomy.aspx>> viewed 18 March 2012.

Guthrie, Hugh. (2009). *Competence and competency based training: What the literature says.* National Centre for Vocational Education Research. <<http://www.ncver.edu.au/publications/2153.html>> viewed 7 July 2009.

Hall, Peter A. and Soskice, David (2001). An introduction to Varieties of Capitalism. *Varieties of Capitalism The Institutional Foundations of Comparative Advantage*. Peter A. Hall and Soskice, David. Oxford, Oxford University Press**:** 1-68.

Hanf, Georg (2011). The Changing Relevance of the *Beruf*. *Knowledge, Skills and Competence in the European Labour Market: What's in a vocational qualification?* Michaela Brockmann, Clarke, Linda and Winch, Christopher. London, Routledge.

Heinz, Walter R. (2009). "Structure and agency in transition research." *Journal of Education and Work* **22**(5): 391-404.

Iannelli, Cristina and Raffe, David (2007). "Vocational Upper-Secondary Education and the Transition from School." *European Sociological Review* **23**(1): 49-63.

Karmel, Tom; Mlotkowski, Peter and Awodeyi, Tomi. (2008). *Is VET vocational? The relevance of training to the occupations of vocational education and training graduates.* National Centre for Vocational Education Research. <<http://www.ncver.edu.au/publications/2013.html>> viewed 5 August 2009.

Mavromaras, Kostas; McGuinness, Seamus and Fok, Yin King (2010). *The incidence and wage effects of overskilling among employed VET graduate.* National Centre for Vocational Education Research. <<http://www.ncver.edu.au/publications/2231.html>> viewed 21 January 2011.

Mavromaras, Kostas; McGuinness, Seamus; Richardson, Sue; Sloane, Peter and Wei, Zhang. (2011). *Over-skilling and job satisfaction in the Australian labour force.* National Centre for Vocational Education Research. <<http://www.ncver.edu.au/publications/2365.html>> viewed 7 June 2011.

National Centre for Vocational Education Research. (2011). *Australian vocational education and training statistics: student outcomes 2011.* <<http://www.ncver.edu.au/statistic/publications/2442.html>> viewed 5 December 2011.

Organisation for Economic Co-operation and Development. (2000). *From Initial Education to Working Life: Making Transitions Work.* <<http://www.oecdbookshop.org/oecd/display.asp?CID=&LANG=EN&SF1=DI&ST1=5LMQCR2K9V7D>> viewed 15 August 2011.

Raffe, David (2008). "The concept of transition system." *Journal of Education and Work* **21**(4): 277-296.

Ryan, Chris and Sinning, Mathias. (2011). *Skill (mis)matches and over-education of younger workers.* National Centre for Vocational Education Research. <<http://www.ncver.edu.au/publications/2330.html>> viewed 11 January 2011.

Schmid, Günther and Schömann, Klaus, Eds. (2003). *The Concept of Transitional Labour Markets and Some Policy Conclusions: The State of the Art*. Berlin, TLM.NET Working Paper No. 2003-01.

Schömann, Klaus and O’Connell, Philip J. (2003). Education, Training and Employment Dynamics. Transitional Labour Markets in the European Union. *The Concept of Transitional Labour Markets and Some Policy Conclusions: The State of the Art*. Günther Schmid and Schömann, Klaus. Berlin, TLM.NET Working Paper No. 2003-01, <<http://www.siswo.uva.nl/tlm/root_files/State%20of%20the%20Art.PDF>> viewed 16 August 2011.

Wheelahan, Leesa; Moodie, Gavin and Buchanan, John. (forthcoming). *Revitalising the vocational in flows of learning and labour.* National Centre for Vocational Education Research.