ESRC Research Project on *The Introduction of a Unified System*

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BRINGING ACADEMIC EDUCATION AND VOCATIONAL TRAINING CLOSER TOGETHER

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INTRODUCTION: UNIFICATION AND RECENT STUDIES

There are at least two ways to consider the futures of education. The first starts from a vision of a future society or the principles which define it, and draws out the implications for education. The other extrapolates from existing trends within the education system. In this chapter I take the second approach. I examine a current trend within upper-secondary or post-compulsory education in most OECD countries: the bringing together of academic and general education on the one hand with vocational education and training on the other. For brevity I call this the 'unification' of academic and vocational learning.

Colleagues and I at Edinburgh are currently studying an example of unification: the introduction of a unified system of post-compulsory education in Scotland. This reform began in 1999 and is known as Higher Still after the government document which introduced it (Scottish Office, 1994). It brings academic and vocational post-compulsory education into a 'unified curriculum and assessment system', based on units and courses at seven levels of study. It offers a framework for access and progression, so that any young person or adult can enter the system at an appropriate level and progress freely within it. The unified system does not cover higher education and it excludes work-based provision leading to occupational Scottish Vocational Qualifications, but these are included along with Higher Still provision in the broader but looser Scottish Credit and Qualifications Framework, which covers both academic and vocational qualifications at all levels (SCQF, 2001). However, there is often a gap between the policy rhetoric of unification and the type of education system which actually emerges from unifying policies. Our research analyses the kind of unified system which is being created by these reforms in Scotland. It also examines the process of change and the role of educational institutions in shaping the new system.

The Scottish reforms are examples of a much wider trend. In an earlier research project, the Unified Learning Project conducted with the London Institute of Education, we compared the plans for Higher Still, which were then being developed, with parallel reform proposals in England and in Wales (Spours *et al.*, 2000). Each country of Great Britain was pursuing a distinctive reform strategy, but in their different ways they all promoted the unification of academic and vocational learning. We also took part in a project on Post 16 Strategies, led by the University of Jyväskylä in Finland, which compared reforms in eight European countries

to promote parity of esteem for vocational and academic learning (Lasonen, 1996; Lasonen and Young, 1998). The successor to the Post-16 Strategies project, called SPES-NET, pursued the same theme across a larger number of countries, thirteen in total (Stenström and Lasonen, 2000). Two other European studies, the INTEQUAL and DUOQUAL projects, explored the introduction of dual-qualifying programmes which aimed to qualify young people for higher education as well as for employment (Manning, 1996, 1997, 2000). These projects identified a variety of national initiatives and policy strategies, but all with the common theme that they were bringing vocational and academic (or general) learning closer together - or at least, that this was the common claim of the policy rhetoric.

Unification has also been examined in recent OECD inquiries. In the early 1990s the OECD conducted an activity on Vocational and Technical Education and Training (VOTEC), in which the changing relation of VOTEC to general education was a major theme (OECD, 1994, 1998). Later in the decade it carried out a Thematic Review of the Transition from Initial Education to Working Life, based on studies of 14 countries (OECD, 2000). Once again the process which I call unification was a central theme. The OECD is currently studying developments in qualification systems.

Along with several studies of national reforms, these studies provide the evidence on which I draw in this chapter. I propose to look beyond the experience of unification in any one country and ask what may be learnt by viewing it as a global trend. I will address five main questions.

1. First, exactly what is unification? What are the current trends and policies which bring academic education and vocational training closer together?
2. Second, why is it taking place in most OECD countries? What are the common pressures which drive the unification process?
3. Third, how do policies and strategies for unification vary across countries?
4. Fourth, what has been the impact in practice of unifying policies and measures?
5. And finally, is unification leading to system convergence? Is it leading all countries towards a single model of upper-secondary education and training?

WHAT IS UNIFICATION?

First, what is meant by the unification – or the bringing closer together – of academic education and vocational training? Unification refers to changes introduced within upper-secondary or post-compulsory education, mainly by deliberate policy interventions. It refers to a range of measures, which may involve at one extreme the complete integration of academic and vocational learning, or at the other extreme modest curricular or organisational changes which bring them slightly closer together. These measures all aim to reduce the distance between academic (or general) and vocational learning, but they vary with respect to the concept of distance which they are trying to reduce. Different unifying measures bring academic and vocational learning closer together in *curricular* terms, in *organisational* terms, and in *longitudinal* terms respectively. I will discuss each of these in turn.

The first type of unifying measure aims to unify academic and vocational curricula. There are different ways of doing this. An *additive* approach to curricular unification encourages

greater mixing of academic and vocational components, but does not try to blur the differences between them. An additive approach may involve increasing the number of academic or general courses within vocational programmes, as in Norway, Sweden, Hungary, Japan and several other countries. Or it may involve offering students a menu of options drawn from both academic and vocational programmes, and encouraging them to select mixed programmes. This approach has been followed in Australia, in England and in Finland, where general and vocational schools collaborate to offer a curriculum in which general students can take modules in vocational schools and vocational students can take modules in general schools. An *integrative* approach aims to create a new kind of curriculum, rather than simply mix academic and vocational elements. Examples include the career clusters and career academies in some American high schools, and projects in the German and Austrian dual systems which aim to exploit the potential of vocational training for general learning. Another example of an integrative approach is the introduction of key qualifications or transferable skills as elements in both vocational and academic programmes. The distinction between additive and integrative approaches is often a matter of emphasis. Most additive measures aim at a degree of curricular integration: for example, the Finnish reforms aim for the 'mutual enrichment' of academic and vocational curricula. In most countries, curricular unification affects vocational tracks more than academic tracks, and when it does affect academic tracks this is often in the form of additional options rather than a change in the mandatory curriculum.

The second type of unifying measure aims to reduce the organisational distance between academic and vocational learning. Most upper-secondary education systems are organised around tracks or pathways with labels such as vocational, technical, general or academic. Unification is the process of linking these tracks or reducing the differences between them. It may, for example, involve bringing them together within integrated upper-secondary schools, either on a system-wide basis such as in Norway and Sweden, or alongside existing track-based institutions as in Greece and Japan. It may involve integrated arrangements for the training, socialisation and registration of academic and vocational teachers, as in Norway. It may involve certification systems which emphasise the equivalence of academic and vocational study by using common terminology and levels to describe the certificates, such as General, Technical and Vocational Baccalauréats in France, the proposed 'over-arching' diplomas in England, or the qualification frameworks being developed in several English-speaking countries. The unified qualification systems of New Zealand and Scotland not only define equivalent levels of academic and vocational study, but also specify common principles of assessment and grading. Organisational unification may also involve creating flexible pathways in which it is easier to change direction within tracks or to move between tracks. This may be achieved through modularisation, through credit transfer arrangements and courses which bridge between programmes, or through dual-qualifying pathways such as the Swiss Berufsmatura which qualify vocational graduates for higher education as well as the occupation in which they have trained. Finally, organisational unification may involve bringing academic and vocational study under a single national or regional ministry, or create common arrangements for funding, administration, regulation and quality assurance.

The third type of unifying measure aims to reduce the distance between vocational and academic learning in longitudinal terms, in order to provide flexible, seamless opportunities for access and progression in lifelong learning. It may involve measures to make learning

available in more flexible forms and in a variety of modes and contexts, which transcend the barriers often associated with the distinction between academic and vocational study. It may involve flexible multi-purpose institutions, such as the British Further Education college or the American community college, which offer both general and vocational learning over the life course. It may involve breaking down age barriers, for example to extend adult participation in youth-based programmes such as apprenticeships in Australia. It may involve qualification frameworks, designed to make it easier to carry credit from one learning episode to another and to move between general and vocational programmes. The WEB reform in the Netherlands shows how different methods of pursuing longitudinal unification may be combined in a single policy: it provides a single qualifications system for vocational education and adult learning, delivered in an integrated community college. Measures to promote longitudinal unification incorporate a logic which is distinct from the curricular and organisational logics of unification. This longitudinal logic conceives of academic and vocational learning, not as discrete pathways between which people must choose, but as episodes in a sequence of lifelong learning. Learners combine general and vocational motives for learning and their motives change over time. For example some adults return to learning for a vocational purpose, then continue because they find that learning enhances their confidence and personal growth, and based on this confidence return again to pursue new vocational goals. They move between general and vocational motives and between general and vocational programmes, and they build on their initial education whether this has been academic or vocational in content. Measures of longitudinal unification aim to make this type of integration of academic and vocational learning possible and fruitful.

So far I have not defined ‘vocational’ and ‘academic’. That is because the definitions vary across these three logics of unification. With respect to the curricular logic, the distinction is based on the content of learning and the extent to which this is designed specifically to prepare individuals for roles in the labour market. With respect to the organisational logic, the terms vocational and academic describe the main tracks or pathways to which upper-secondary students are allocated, and the expected progression from these tracks. With respect to the longitudinal logic, they describe the individual purposes for learning, which may vary among students on the same programme. In all three cases the distinction between academic and vocational depends on the institutional and cultural context – as do further distinctions such as that between academic and general, or (in English) between vocational education and vocational training. For present purposes I treat academic and general as interchangeable terms, and likewise vocational education and vocational training.

WHY IS UNIFICATION HAPPENING?

Why are nearly all countries trying to bring general and vocational education closer together in at least one of these ways? Part of the answer is that there are ‘global’ pressures and challenges to which they all respond.

One source of pressures is economic: global economic competition, the growth of the service sector, changes in the work process, technological change, flexible forms of employment and increased occupational mobility. These trends, it is claimed, create a need not only for higher levels of qualification but also for new kinds of skills and knowledge which transcend the dichotomy between academic and vocational learning. They require a shift from specific to

generic skills, from skills for immediate application to those which provide a foundation for lifelong learning, and from specialised skills to skills of connectivity. In practice, these pressures are mediated by governments and by political processes. It is not the economic pressures themselves but rather how they are perceived which drives educational changes. Some commentators have become more sceptical about the extent to which changes in the economy and the work processes do in fact demand new kinds of skills (Young, 2001a). An alternative view is that educational reforms are required, not to maintain competitiveness *per se*, but rather to do so in a way that is compatible with social cohesion, inclusion and active citizenship.

A second set of pressures is social in nature. Young people – and many adults as well – have higher aspirations, they increasingly want to keep their options open, and they expect greater control as citizens and as 'consumers' over the education and training system and over their pathways through it. They are less willing to accept the early selection and narrowing of choices which a rigid separation of vocational and academic tracks may involve. Education must also help the casualties of the global economy, such as people at risk of unemployment or social exclusion, and the socially and culturally disadvantaged who are less well provided for by mainstream education. There are pressures for education to become more inclusive, to extend access, to make learning opportunities more flexible, to unblock dead-ends and to reduce the risks associated with participation and progression in education.

These global economic and social pressures are external to the education system, and they are often discussed in national and international policy debates (eg CEC, 1995, 2000; OECD, 2000). They are nevertheless contested by many analysts, who point out that their impact on education and training is mediated by political processes and by an international policy rhetoric which is as influential in its own right as the economic and social trends it portrays (Brown and Lauder, 1997; Dale, 1999; Green, 1999). However the strongest pressures for unification are pressures from within each education system (Spours *et al.*, 2000; Lasonen and Manning, 2001). These internal pressures may appear to be specific to each country, but they also have generic origins. For example, many unifying measures aim to promote parity of esteem between vocational and academic learning and to encourage participation in vocational programmes. These measures respond to the problem of academic drift, the growing tendency for young people to choose academic courses which confer a positional advantage even if they may not offer the most appropriate learning opportunities. Other generic pressures arise from the expansion of post-compulsory education and training systems and their growing functional complexity. Education systems pursue a wider range of goals for a wider range of students; they must develop from a set of relatively specialised and unconnected programmes to an interconnected network of programmes with overlapping and interdependent functions. For example, programmes which were once 'terminal' have become steps in a longer progression sequence, and must articulate with other programmes. Unification is the response to this growing functional interdependence and the resulting need for co-ordination and coherence. Academic drift, expansion and functional complexity are generic problems which affect nearly all countries, but they are manifested in different ways within each country.

HOW DO STRATEGIES FOR UNIFICATION DIFFER?

I have already started to answer my third question, which is how do policies and strategies for unification vary across countries. The three types of unification described earlier – curricular, organisational and longitudinal – represent different possible national strategies. Of course, the three are often connected in practice. For example, organisational measures which link academic and vocational tracks by making it easier for students to move between them are likely to involve a degree of curricular integration. But this is variable: it is possible to bring tracks closer together without having much effect on curricula, and conversely curricular integration may take place within one or more tracks without reducing the organisational or cultural distance between them. Similarly, measures such as qualification frameworks may promote both organisational and longitudinal unification; but this may not be the case in systems where initial and continuing education are organised separately.

Most countries pursue all three types of unification but with differences of emphasis. Curricular unification tends to be emphasised in countries with occupational labour markets, with large dual systems or well institutionalised vocational tracks, and with a tradition of 'general' education through vocational training. Organisational unification tends to be emphasised in countries with weaker vocational tracks, with large and powerful university sectors, and with comprehensive school systems. Longitudinal unification tends to be emphasised in countries with flexible labour markets and liberal educational traditions and where the boundary between initial and continuing education is weak.

Strategies may also vary with respect to the strength of unification. In the Unified Learning Project we identified three main strategies, which respectively aimed to maintain a track-based system, to develop a linked system in which the tracks remained separate but were linked or brought closer together, or to develop a unified system (Raffe *et al.*, 1998). These three strategies represent points along an underlying continuum from weak to strong unification (in practice this continuum applies primarily to organisational unification). A country's choice of strategy - its place on this continuum - will depend on such factors as the size of its education system, the homogeneity of that system, the centralisation of control and the nature and strength of the vocational track. However, in relating strategies to national circumstances I do not suggest that countries simply respond passively to pressures in the light of their circumstances. National strategies are also shaped by political processes and political values. For example, the model of a unified system introduced in Sweden reflects a balance among the principles of equality of opportunity, equality of treatment and equality of outcome (Raffe, Arnman and Bergdahl, 1998). A very different balance is reflected in the model of a unified system introduced in Scotland, which puts more emphasis on individual choice and flexibility.

Other typologies to describe national strategies have been proposed. For example:

- the Post-16 Strategies project distinguished four main strategies which it labelled vocational enhancement, mutual enrichment, linkages and unified system (Lasonen and Young, 1998);
- the SPES-NET project identified four sub-strategies with respect to vocational education, which focused respectively on links with higher education, links with employers, the status of teachers and the curriculum (Stenström and Lasonen, 2000);

- the Unified Learning Project identified different dimensions of unification which might be emphasised in different strategies: curriculum, certification, pathways, institutions, staffing, governance and so on (Raffe et al., 1998);
- in a contribution to the OECD's current review of qualifications systems, Michael Young (2001b) has proposed a distinction between process-based and outcome-based approaches.

However, a recurring theme of comparative research is that national differences cannot all be reduced to a set of dimensions or categories. Each country's approach to unification is, in some respects, unique.

WHAT IS THE IMPACT OF UNIFICATION?

What impact have 'unifying' measures had in practice? It is not easy to give a summary answer because unifying measures and their objectives are so varied. Many are too recent for their effects to be observed, and others are hard to evaluate because they were introduced as part of a broader set of policy changes. Much of the available research maps the policy measures rather than assesses their impact. I will offer five rather cautious comments on the impact of unification.

First, some unifying measures do not fully achieve even the immediate objective of bringing academic and vocational education closer together. For example, some curricular reforms achieve a rather modest 'additive' change when something more 'integrative' was intended. Unifying measures which are merely permissive, and depend on the voluntary decisions of institutions or of students, may have little impact in practice. Only a minority of students in the Finnish reforms have selected options which bridged the academic/vocational divide (Vuorinen, 1999). The Dutch WEB reform has made pathways more flexible but it is reported to have had little impact on the pathways actually followed by students (Nijhof, 2001). And the English Curriculum 2000 reform has found limited take-up of 'key skills' when these remain voluntary (Hodgson and Spours, 2002). The OECD's Transition Review, echoing many other studies, notes the constraining influence of selection to employment or tertiary education: students will avoid unifying programmes if these harm their chances of a job or higher education (OECD, 2000).

My second comment is an extension of this. It is that unification is not simply a technical matter of designing and implementing a better system; it is above all a political process. The goals of unification may conflict with the interests of stakeholders who have the power to block, neutralise or modify them. 'End-users' such as employers and universities have considerable influence over the progress of unification, especially in more flexible systems where they have more discretion in how they value the outcomes of upper-secondary education. But unification may also be resisted by academic or vocational interests within the education system. The new school certificate currently being introduced in New Zealand represents a retreat from earlier proposals for a unified system, the result of opposition from 'academic' interests. Similar tensions have surfaced in Scotland, where it is still not clear how far the system will remain 'unified' in the face of conflicting academic and vocational demands (Tinklin, Howieson and Raffe, 2001; Raffe, Howieson and Tinklin, 2002).

Third, unifying measures, especially those based on 'pathways engineering', can encourage higher participation in vocational education and discourage the drift towards academic programmes. The OECD's Pathways Study found that participation in vocational pathways was most likely to increase where opportunities had been provided for progression to higher education (OECD, 1998). The Norwegian Reform-94 increased participation in vocational programmes by bringing them within a more unified system (Andersen, 2000). Students in the integrated lyceum in Greece were more likely to choose vocational programmes than the national average (Paleocrassas, 2001). The INTEQUAL and DUOQUAL projects on dual-qualifying programmes in Europe report that enrolments either increased or remained stable in all the programmes studied (Lasonen and Manning, 2001).

Fourth, in at least some cases unified curricula or unified organisational arrangements promote learning. A majority of the studies of American career academies reviewed by David Stern (2000) report a positive effect on school attainment or retention. The attainments of Norwegian students following Reform-94 are judged as good as, or better than, the previous system (Andersen 2000). Reviewing dual-qualifying programmes, Johanna Lasonen and Sabine Manning report on the success of students in the French Baccalauréat Professionnel and German integrated projects. However success is not guaranteed. Lasonen and Manning also note the high dropout rates in unifying programmes in Finland and England. Flexible pathways based on modular systems may encourage initial participation, but they may also encourage dropping-out later on. Some unified programmes are more demanding than either a vocational or a general programme on its own, and attainment may suffer (OECD, 2000). Early evaluations of the Swedish unified system reported problems of motivation and attainment of vocational students on core courses whose content and standards were common to all programmes (Raffe, Arnman and Bergdahl, 1998). Several studies note that integrated curricula may be more demanding to teach and their success may depend on adequate training and preparation for teachers and trainers (for example Viceník, 2000).

Finally, the effects on student progression appear to be mixed. Stern (2000) found little evidence that American career academies gave their graduates any immediate advantage in the labour market. However he found stronger evidence that at least some programmes increased enrolment in post-secondary education. The INTEQUAL and DUOQUAL studies reported that graduates of dual-qualifying programmes who entered the labour market had better employment outcomes than other young job-seekers (Lasonen and Manning, 2001). The proportion who entered higher education varied across countries, and many students might have entered higher education in the absence of these programmes, but it is likely that most programmes increased total enrolment. There is less cross-national evidence on how well unified curricula prepare students for the demands of higher education once they have entered it.

One reason why it is hard to evaluate the impact of unifying reforms is that they are essentially systemic in nature. Comparing students in experimental programmes with other students, or comparing those who do and do not take advantage of opportunities available to them, does not necessarily tell us how unification affects the system as a whole. The evaluations summarised above may tell us more about the structural location of reforms within the wider system than about their impact on students. For example, if graduates from dual-qualifying programmes have better outcomes than other vocational graduates this may

simply mean that these programmes recruit the ablest or best motivated vocational students. To judge the impact of unifying measures we need to consider their effect on the system as a whole; and this leads to my final question.

IS UNIFICATION LEADING SYSTEMS TO CONVERGE?

Finally, what are the implications for education systems? As systems become more 'unified' are they converging on a single model of education and training system, and if so what model?

Other studies of the effects of 'globalisation' on education systems cast doubt on the notion of convergence (Ashton and Green, 1996; Scott and Kelleher, 1996; Brown and Lauder, 1997; Green, Wolf and Leney, 2000). They tend to show that:

- most education systems face the same (or similar) challenges and pressures;
- countries often use common concepts and rhetoric to analyse these challenges and to design policy responses;
- however, despite this common rhetoric, there is considerable variation in the strategies and the particular policies which countries adopt; and
- there is even more variation in the outcomes of policy, and there is limited evidence of convergence in the structure of education and training systems.

This model describes the unification process very well. There are common 'global' trends which affect all countries in varying degrees. There is also, if to a lesser extent, a common policy rhetoric: the knowledge economy, lifelong learning, parity of esteem, flexibility of pathways, and so on. However, despite this common rhetoric, strategies for unification vary across countries and specific policy measures may vary even more. And although it is still too soon for an empirical assessment we may see similar variation in the impact of unification and little or no convergence of systems. Indeed, one possibility is that systems will diverge, as they follow one of three national scenarios for the progress of unification.

In the first scenario, unifying reforms actually reinforce the role of academic and vocational tracks as the basic organising principle of the system. In this scenario, academic education remains largely unreformed; unification affects the vocational track, which may be strengthened and often lengthened but maintains its distinct identity. This scenario is most likely to apply to countries such as Germany which pursue curricular rather than organisational unification, but it may also apply to countries whose pathways reforms emphasise flexibility and progression within the vocational track more than the crossing-over between tracks. For example, some dual-qualifying programmes encourage progression from vocational education to higher education, but to a distinct vocational sector of higher education. They make the vocational track longer and probably stronger, but they do not necessarily bring it closer to the academic track. Other possible examples of this first scenario include Denmark, the Netherlands, Austria and Switzerland.

In the second scenario, unification affects both academic and vocational tracks, and vocational education loses its distinct identity. In place of distinct tracks upper-secondary education comes to be organised around a more finely graduated but permeable hierarchy of programmes and institutions. As qualitative differences between types of learning are

reduced, hierarchical differences between levels of study or levels of attainment become more important. The progress of unification is analogous to Peter Scott's (1995) analysis of the evolution of higher education systems, from binary to unified to stratified systems; a similar process may apply to some upper-secondary systems. Possible examples include Norway, Sweden, Australia, New Zealand and Scotland. The place of academic and vocational education in this stratified system varies across different variants of this scenario. In one variant the hierarchy is not defined primarily in terms of the academic or vocational orientation of programmes. In another variant the more academic programmes have higher status and there is little movement towards parity of esteem. In a further variant academic values dominate; vocational education is either displaced to the tertiary sector or re-emerges as a new informal sector in work-based training or continuing education.

In the third scenario, unification neither transforms nor replaces the academic and vocational tracks but creates a new intermediate track between them. In several countries dual-qualifying programmes may play this role, creating or renewing a 'technical' track between the general and vocational. Japan's integrated senior secondary schools appear to be establishing themselves as a new stratum between the general and vocational schools. To the extent that American innovations such as career academies can be considered systemic, they may have a similar impact.

Another possibility, however, is that there are elements of all three scenarios in each country, and that national differences are reflected in the different but complex ways that they combine them. Either way, the pressures for unification are global in scope but many of the factors which determine its progress are national: institutional structures, the size and homogeneity of the system, governmental structures, economic conditions, the structure and organisation of labour markets, the higher education system, and so on. And as citizens in our respective countries, we have choices. I conclude with the words of the director of the Swiss Federal Office for Vocational Training and Technology, as reported by the OECD Transition Review:

> *Globalisation leaves countries' decision-making power in the field of education, research and technology intact; it is up to us to decide how much must be invested in this crucial field and what kind of education system we want (Clement et al. 1999, p.44).*

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