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The Paradox of Scotland: Limited Credit Transfer in a Credit-based Lifelong Learning System

Cathy Howieson and David Raffe, Centre for Educational Sociology,
University of Edinburgh

Abstract

On paper, Scotland has a highly permeable, unified system of lifelong learning underpinned by the Scottish Credit and Qualifications Framework. Recent reports suggest that the reality is less positive. This paper examines credit transfer in Scotland across three interfaces: between general and pre-vocational learning and vocational education and training (VET); within VET; and between VET and university degrees. It finds that credit transfer across the first two interfaces is limited; credit transfer at the third interface is more frequent but often problematic. One explanation is that the system is designed around credit accumulation rather than credit transfer; this, together with other features of the Scottish system, means that a degree of permeability is built in without the need for formal credit transfer. But a second explanation highlights the epistemological, institutional and political barriers to a unified system. The paper illustrates the importance of distinguishing among different types of credit system and the limitations of credit and qualifications frameworks as agents of change in the face of the institutional logics of national education and training systems. The capacity of cross-national credit systems to support mobility between national systems should not be exaggerated.

Introduction: credit transfer as a policy instrument

Credit 'is a formal quantified recognition of learning achievement awarded to learners', usually at a specified level (Bridges & Flinn, 2010, p.144). It 'can be accumulated towards a qualification or transferred towards other learning programmes or qualifications' (Cedefop, Ulicna *et al.*, 2010, p.49). Recent international policy debates have advocated credit arrangements, and credit transfer in particular, as means to achieve the objectives of lifelong learning. The OECD (2007) study of *Qualifications Systems* ranked 'providing credit transfer' first among twenty possible mechanisms which countries could employ to achieve policy goals. Many countries have introduced credit arrangements either for the whole education and training system or for particular subsystems (*ibid.*; Cedefop, Coles *et al.*, 2010). Two European credit systems, ECTS and ECVET, have been developed for higher education and vocational education and training (VET) respectively.

The development and extension of credit arrangements to cover different sectors of education and training can be understood as an aspect of a wider trend towards the creation of more coherent and unified education and training systems (Raffe, 2003). Credit transfer arrangements are expected to increase 'permeability between different education and training qualification systems, permitting progress vertically (upgrading qualifications and competences) or horizontally (re-qualifying or changing learning pathways)' (Cedefop, Ulicna *et al.*, 2010, p.20). They are claimed to increase and widen access in education, to eliminate 'dead-ends' and reduce social exclusion, to promote parity of esteem between different modes and types of learning (including non-formal and informal learning) whose outcomes earn equivalent volumes and levels of credit, to stimulate participation in VET by enabling vocational learners to keep their options open (including for higher education), to increase the efficiency of the learning system by reducing duplication and facilitating competition between providers, to make the learning system more responsive to learner demand and to change the culture of lifelong learning (OECD, 1998, 2007; Davies & Bynner, 1999; Bridges & Flinn, 2010; Cedefop, Ulicna *et al.*, 2010). Credit arrangements may also have negative consequences, including the fragmentation of learning associated with modularisation or unitisation, the commodification of knowledge, an increased burden of assessment, increased costs and bureaucracy and a loss of confidence and trust in qualifications and their assessment (Wolf, 1995; Hart & Howieson, 2004; Allais, 2007; Young, 2007). These advantages and disadvantages may vary according to the qualification system and the role of credit within it. Credit systems vary in their objectives and design, and much of this variation does not lend itself to simple classification. However, a useful distinction may be drawn between systems based on credit accumulation and those which give priority to credit transfer (Le Mouillour, 2005). For example, ECTS and ECVET prioritise credit transfer because they were introduced to promote international mobility (Deij, 2010).

A flexible, unified education and training system may look permeable on paper but in practice progression and transfer may be limited by epistemological, institutional or political barriers (Raffe, Howieson & Tinklin, 2007). Epistemological barriers may be encountered when credit systems define equivalent levels and volumes across different types of learning. In most credit frameworks the specification of levels and the measurement of volumes of learning are based on learning outcomes. Critics argue that the learning-outcomes approach

exaggerates the similarities between types of learning (such as professional and disciplinary, formal and informal, codified knowledge and competences) and glosses over their differences (Ensor, 2003; Young, 2007; Young & Allais, 2009). Even when outcomes are formally identical they may give rise to different ‘enacted curricula’ and to contrasting learning experiences in different contexts (Miller, Edwards & Priestley, 2010; Aarkrog, 2012). Credit transfer arrangements based on false assumptions about the equivalence of different forms of learning may be unsustainable; a recent Australian study of transfer between VET and higher education concluded that ‘learning equivalence remains the point of impasse for achieving equitable credit transfer arrangements’ (Walls & Pardy, 2010, p.8).

The second type of barrier is institutional. The ‘intrinsic logic’ of a credit transfer system assumes that individuals can move easily about the system, acquiring credit in one part of the system and transferring it to further learning opportunities elsewhere. In practice, this intrinsic logic may conflict with the institutional logics which shape the actual behaviour of learners and providers of education. Institutional logics are created by the organisational imperatives of education and training institutions, by their resources, funding and regulatory arrangements, by their relations with other stakeholders and their capacity to generate trust and reciprocity, by the decisions of selectors in education and employment, and so on (Croxford, Howieson & Raffe, 1991). For example, an institution may be reluctant to give credit for learning already achieved because this would cause timetabling difficulties or a loss of funding; or institutional change may undermine the mutual trust between providers that underpins the recognition of credit; or there may be few available learning opportunities in which to spend the credit; and so on. As a recent European study concluded, ‘the aspects of transfer tackled directly by qualifications frameworks and credit systems, which are qualifications and curriculum design, are only one of the elements to be taken into account when designing policies and approaches to promote flexible learning pathways’ (Cedefop, Ulicna *et al.*, 2010, p.148).

Young (2002) distinguishes between the micro and macro aspects of institutional logics. The macro aspects relate to the third type of barrier, which is political. Political barriers arise from the status of education as a positional good with a role in social reproduction and from the powerful interests associated with particular sectors of education. A credit transfer system threatens the power of these interests - for example by attempting to establish the parity of vocational and academic learning - and it potentially disrupts the rules of positional competition (Brown, 2000). It is therefore likely to encounter resistance, with consequent restrictions on permeability. Political barriers may be less visible than epistemological or institutional barriers; indeed they may masquerade as epistemological barriers, or they may be manifested in the design of ‘passive’ credit arrangements (Cedefop, Ulicna *et al.*, 2010, p.98) which powerful institutions can use or ignore at their discretion.

The development of a credit-based system in Scotland

Scotland is seen as an example of good practice in credit and credit transfer, especially in relation to VET and to pathways between VET and general education (Raffe, 2009a). Starting with the *16-plus Action Plan* (SED, 1983), which created a national, outcomes-based framework of portable vocational modules in the 1980s, a series of curricular and

qualifications reforms has aimed to create a more unified, flexible, permeable learning system. In 1997 a single awarding body, the Scottish Qualifications Authority (SQA), assumed responsibility for nearly all qualifications delivered in schools and for a majority of those delivered in colleges, including the Higher National Certificates and Diplomas (HNCs and HNDs, or HNs) which certify short-cycle 'vocational' higher education programmes. The SQA's National and Higher National awards comprise a unified framework of unitised, credit-based qualifications constructed on common design principles.

In 2001 the comprehensive Scottish Credit and Qualifications Framework (SCQF) was launched. It brought together the three main sub-frameworks created by the earlier sequence of reforms: the SQA's National and Higher National awards; competence-based occupational Scottish Vocational Qualifications (SVQs) designed, like NVQs in England, primarily for workplace delivery and based on National Occupational Standards; and university degrees, which were already being brought into the Scottish Credit Accumulation and Transfer Scheme for higher education. The SCQF also aims to include all other qualifications awarded in Scotland, including those awarded by employers, professional bodies and non-Scottish awarding bodies. Each unit or component of each qualification in the SCQF must be 'credit-rated', placed at one of the framework's twelve levels and allocated credit points with each point corresponding to ten hours' of notional learning time. Qualifications in the framework are based on learning outcomes, so that learning can be described independently of the institution, place or mode of study, which in principle facilitates transfer. Confidence in credit is underpinned by the framework's requirement that qualifications and their assessment should be quality-assured. The SCQF has also published guidelines for the recognition of prior learning (RPL), which has been the focus of recent activity associated with the framework (SCQF, 2009; Raffe, 2011).

Other countries have sought to learn from Scotland's seemingly permeable, credit-based system. International studies and reviews have examined its experience of modularisation, its unified system and its flexible pathways (Howieson, 1992; Lasonen & Young, 1998; OECD, 1999). Scotland, along with Wales, has been a source of inspiration for advocates of credit in England (Tait, 2003). The SCQF was judged the most successful of the 16 National Qualifications Frameworks (NQFs) studied by the International Labour Office (ILO) (Allais, 2010). And Scotland appears to have maintained its role as a leader in the field. It was one of the first two countries to self-certify for the Qualifications Framework for the European Higher Education Area (the other was Ireland), and it was the first country to consult on referencing its qualifications to the European Qualifications Framework. Along with other anglophone countries, it has had a substantial influence on the development of credit systems and NQFs in Europe and elsewhere (Tuck, 2007; Cort, 2010). The ILO study cited above suggested that the SCQF had gained 'an almost moral authority among NQFs' (Allais, 2010, p.31).

Despite this, two reports published in 2011 suggested that Scottish education was less permeable and flexible in practice than this rosy picture might suggest. The *Roe Review of Post-16 Education and Vocational Training in Scotland* argued that current arrangements were 'not yet a fully developed or integrated system' and called for a more coherent,

transparent and learner-centred system (Roe, 2011, p.19). It acknowledged the potential of the SCQF and of the SQA's unitised academic and vocational qualifications, but suggested that these were building blocks around which such a system could be built. A few months later the Scottish Government's policy statement on post-16 learning, *Putting Learners at the Centre*, argued for 'increased collaboration and co-operation between and across all sectors' in order to provide 'efficient, flexible learner journeys' (SG, 2011a, pp.12-13). Post-16 learning should be easier to access and navigate; institutions should work together more carefully to manage learners' transitions between different sectors and styles of learning, and they should extend articulation arrangements and make more use of the SCQF. While recognising past progress both reports suggested that Scotland had a long way to go before it achieved a flexible, permeable learning system. In this respect they echoed successive studies of the SCQF which have drawn attention to the extent to which much of the framework's potential has yet to be realised (Gallacher *et al.*, 2005; Raffe, 2011).

The Scottish paradox: research questions

This, then, is the Scottish paradox: on paper, Scotland has a credit-based lifelong learning system which is widely seen to be one of the most flexible in the world; but if the reports cited above are accurate there is little formal credit transfer to be observed, in practice, in Scotland. In this paper we explore this paradox by asking two main questions:

1. How much credit transfer, in practice, takes place within Scottish education and training? We ask about credit transfer across three main 'interfaces': between general or pre-vocational learning and VET; within VET, between different types of VET or different programmes; and between VET and university degrees.
2. To the extent that credit transfer is limited, and the Scottish paradox is therefore accurately described, how can this be explained? To what extent is the limited extent of credit transfer attributable to the nature of Scotland's credit system and/or to epistemological, institutional or political barriers?

In considering these questions we are concerned with 'ordinary' practice in Scottish education and training rather than new initiatives and special programmes. While the study considered and reported on initiatives taking place at each of the interfaces (and these may point the way to future practice), they do not represent the present reality of the system as a whole.

Methods

We use data collected in the Scottish component of a four-country study of *Credit Systems for Lifelong Learning* funded by the German Federal Institute for Vocational Training (BIBB). The other countries were Denmark, the Netherlands and Germany. We use four sources of data (for further details see Howieson, Raffe & Kinsella, 2012):

- *Published documents, research and statistical evidence.* Formal credit arrangements in Scotland are well documented, but statistics and other evidence on their use in practice are much more limited. The SCQF Partnership maintains a database on the qualifications within the framework, but there are no central data on the numbers of people achieving qualifications, let alone on the achievement of credit towards qualifications or on the recognition of this credit elsewhere. The SQA has comprehensive data on its own

qualifications but these do not directly show their use for credit transfer. Our experience is consistent with the review by Cedefop, Coles *et al.* (2010, p.58), who noted that ‘with the exception of higher education and the European credit transfer system (ECTS), the extent to which credit arrangements are operating in a concrete way is still not clear from literature sources alone’.

- *Interviews with key stakeholders.* We carried out 24 interviews involving 27 individuals between September 2010 and August 2011. Fourteen of the interviews were conducted face-to-face and the other ten by telephone. Interviews were semi-structured, based on a pre-circulated interview guide, and lasted from 35 minutes to three hours. The interviewees were chosen to represent the main stakeholders in the three interfaces. They covered a range of types of VET (eg college- and work-based) across a number of occupational sectors with a particular focus on construction, engineering and social services as sectors that appeared to be active in relation to credit-related initiatives. They included policy makers, qualifications providers, representatives of providers or stakeholders in a particular field or sector, and providers including those at the ‘cutting edge’ of new initiatives.
- *Scenarios.* Each team in the project illustrated its country’s credit processes and procedures by describing the possible options available to seven fictional individuals (described in common terms for all countries) who wanted to progress with their learning. The Scottish scenarios were drafted by a professional careers adviser, drawing where necessary on web and other sources. The scenarios provided an opportunity to test generalisations from the interviews and documentary analysis, but they also provided important insights in their own right.
- *The comparative perspective.* Our research design, including our operational definitions, interview schedules and analysis templates, were developed through discussions with project partners. The definition of the three interfaces and the choice of scenarios were also developed in this way, and early findings and issues arising from the research were shared with other team members. Thus, although this paper reports only the Scottish study, its concepts, data and analyses are shaped by the comparative project of which it is part. In this sense it satisfies Ragin’s (1987, p.5) criterion of comparative social science: it uses ‘attributes of macrosocial units in explanatory statements’, even when analysing a single country.

The extent of credit transfer across the three interfaces

The four country teams discussed and agreed a definition of credit and credit transfer that could be used in the interviews in each of the four countries. This definition was made available to participants at the start of each interview:

“procedures enabling the recognition and crediting of evidenced/proven learning outcomes in order to ease access and transition within the qualification system and/or to shorten the duration of training”.

The interface between general/pre-vocational learning and VET

The first interface was between general and pre-vocational learning and mainstream VET:

- General and pre-vocational learning included general education, mainly at school, prevocational education including SQA *Skills for Work* courses and pre-apprenticeship

programmes in school or non-formal settings, and training programmes for young people at risk of exclusion. It also included transitions from non-formal and informal learning, primarily in relation to RPL. Those currently in work and with considerable employment experience but who had not previously undertaken formal VET are also included in this interface in relation to RPL.

- Mainstream VET included full-and part-time programmes in colleges, typically leading to the SQA's National Certificate (NC) and HN qualifications, and work-based Modern Apprenticeships, which were usually based on SVQs, sometimes supplemented by NC or HN units.

The SQA's National Qualifications framework of units, courses and group awards provides a common architecture for qualifications for general, prevocational and vocational learning in schools and colleges. In principle it is possible to transfer credit from units or courses in general or especially pre-vocational education to larger NC awards. In practice, however, the research found little credit transfer across this interface. General educational qualifications give access to initial VET but do not, as a general rule, provide credit that can be transferred. The same is true of pre-vocational learning. All the interviews that covered this interface agreed that its main benefit was improved access to initial VET. It improved participants' knowledge of a sector and demonstrated their interest in it, which they could then show in their applications and at interview, and it improved their performance in the selection tests for Modern Apprenticeships. In the case of college courses with no or few formal entry qualifications, where selection decisions were based on a judgement of applicants' motivation and interest, pre-vocational learning could enable an individual to enter at a higher level than would otherwise have been the case, effectively saving up to a year, but generally there was little credit transfer to college provision. Some interviewees suggested that pre-vocational courses could help learners to progress through their training more quickly, although others argued that success in general education was the better predictor of how quickly training would be completed.

The main exception was in respect of the transfer of credit for core skills both to full-time courses and to Modern Apprenticeships. The Scottish education system recognises five core skills: communication, information and communication technology, numeracy, problem-solving and working with others. One interviewee noted that the core skills with which school leavers were credited would usually have been achieved in their general school subjects rather than a pre-vocational course. The outcome of this credit transfer was often to enhance the VET course or Modern Apprenticeship rather than to shorten it, since the learner would be expected to take the core skill at a higher level or to replace it with some other element relevant to the training. This was explained, at least in part, by the desire to keep the cohort of learners moving through the course or training programme together.

RPL was rarely used for credit transfer into VET. A review of RPL in Scotland in 2008 identified examples of good practice but found that it was not consistently accessible or delivered across areas, industry sectors or sectors of education and training (Inspire Scotland, 2008). It has been used more as a formative tool (including as a step in the process of gaining formal certification) than as a means of formal accreditation (Hart & Howieson,

2004; Whittaker, 2011). However, the SQA is developing its policy and guidance on RPL with an emphasis on its summative purposes and on the accreditation of formal learning (including certification from other awarding bodies) which may in the future increase its use for formal credit transfer.

The interface within mainstream VET

This interface relates to transitions within VET:

- between types of programmes, in particular, between full-time college programmes (NC and HN qualifications) and work-based Modern Apprenticeships (SVQs and sometimes NC or HN units); and
- between different Modern Apprenticeships.

All those interviewed about this interface agreed that in principle no-one should have to repeat learning already completed and of which they could provide evidence, but it was apparent that credit transfer across this interface was limited. As with the first interface, the main exceptions related to core skills. In addition, if a Modern Apprenticeship Framework specified a college-based component, as for example in engineering and in construction, the apprentice might gain credit for this component if they already had an appropriate award. This could save two or three months of the Modern Apprenticeship but many apprentices simply took the college-based component at a higher level. In Modern Apprenticeships without college-based components the potential for credit transfer was more limited.

There was less movement from Modern Apprenticeships to full-time college-based VET than in the other direction. In the few examples we encountered in this study, it was suggested that where there was an appropriate SVQ (eg in child development) the college staff would credit this to the corresponding NC or HN unit, exercising their professional discretion and perhaps requiring the student to undertake some additional work.

Movement between different Modern Apprenticeships, and thus the demand for related credit transfer, was not common. For an apprentice coming from a different Modern Apprenticeship, any unit that had been fully completed and signed off and which mapped over *completely* to all the standards of the relevant SVQ unit would be given credit. But only small numbers moved from one Framework to another; movement was usually within a Framework, for example to a different pathway within engineering, often because the person had changed employers. Transfer to a different pathway within a Modern Apprenticeship Framework was most likely to happen at the end of the first year before the more specialised training took place; there would typically be some common units and apprentices would be exempted from any they had already completed. Transfer after first year was possible but rare. But the extent to which credit transfer was possible within a Modern Apprenticeship Framework varied across occupational areas, partly related to the specific design of the particular Framework.

The interface from VET to degrees

The final interface concerns transitions:

- between colleges' HN provision and degrees, largely at university. HNCs and HNDs are programmes of one and two years respectively if studied full-time, which have traditionally provided access to technician-level and lower-managerial occupations. They are placed at levels 7 and 8 of the SCQF and are equivalent to the first one or two years of a (four-year) Honours degree; and
- between Modern Apprenticeships/SVQs and degrees. SVQs at level 4 are placed at SCQF level 8 or 9, so in principle they are equivalent to the second or third year of an Honours degree.

In Scotland, this is the most important interface for credit transfer; it is where credit transfer is most visible and understood and where most credit transfer takes place, largely between HN programmes and university degrees. In 2010-11 a total of 5,534 HN students went on to degree study. In terms of credit transfer, or articulation as it is more generally referred to in this interface, just under half of them articulated (2,678; 48%), entering second year if they had an HNC and third year if their qualification was an HND¹. This level of articulation has remained constant since 2007-08. Many students articulated in the context of partnerships between colleges and universities, often governed by articulation agreements of varying degrees of formality. The Scottish Funding Council supports five Regional Articulation Hubs, each based on a regional partnership of universities and college, to develop articulation routes and support activities. However, credit is discretionary, and over half (52%) of HN graduates who progress to degree courses do not receive full credit for their HNs, and many simply enter the first year. Some choose to do so for social and/or academic reasons (Howieson, 2012). Interviewees thought that this should continue to be possible although it might not be regarded as an 'efficient learner journey' of the kind the Scottish Government wished to encourage. However, in other cases the university providing the degree courses refuses to transfer credit from HNs; this was the reason given by over two-fifths (42%) of HN students who entered a degree programme without full credit (Howieson, 2012). There is considerable variation across universities and in 2010-11, 79% of the HN students who articulated into second or third year were concentrated in four universities in Scotland, all of them 'new' universities.

The Scottish Government's ambition to encourage 'flexible, efficient learner journeys' also focuses attention on other possible credit transfer routes to higher education. The highest-level school qualifications are placed at the same SCQF level as many first-year university courses, and in some situations are recognised for credit, although very few school leavers achieve a volume of credit at this level equivalent to a whole year of university. However, current reforms to the school curriculum are encouraging universities to explore more structured arrangements for advanced entry (Universities Scotland, 2012).

There is very little credit transfer from other VET programmes into degrees, in particular from Modern Apprenticeships using the SVQ qualifications gained, but the Regional Articulation Hubs are now beginning to explore this articulation route. The placing of SVQs in the SCQF and the creation of more SVQs at higher levels (SVQ levels 4 and 5) creates the context where credit transfer from SVQs to the second or third year of degree study has

¹ Data from the National Articulation Database and subject to final validation.

become a real possibility. A number of interviewees commented on the value of the SCQF in enabling and legitimising the concept of SVQ-to-degree articulation and it had been critical to the successful development of at least one initiative in this area. But interviewees stressed that the idea of articulation from SVQs to degree as part of normal practice was at a very early stage.

Explanations: the nature of credit arrangements in Scotland

Our research thus confirms the validity of the Scottish paradox: that in a unitised, credit-based system of education, with considerable flexibility on paper, the actual extent of formal credit transfer is limited. We found rather limited credit transfer in relation to our first two interfaces, into and within VET; transfer from VET to degrees was more frequent, but still constrained.

Part of the explanation for this lies in the nature of Scottish credit arrangements. We noted earlier the distinction between systems based on credit accumulation and those which give priority to credit transfer: Scottish credit arrangements encompass both functions but they give more weight to credit accumulation than to transfer. The Scottish education and training system is based on a broad notion of credit accumulation, which is reflected in the design of qualifications and in the architecture of the system. Credit is primarily a tool in the management of learning and in the design and planning of programmes. Credit transfer has lower priority. The credit system is permissive with respect to credit transfer, but in the terms of Cedefop, Ulicna *et al.*, (2010) it is largely passive: in most circumstances neither providers nor awarding bodies are required to transfer credit. Scottish credit arrangements contrast with the Qualifications and Credit Framework in England, which is a regulatory framework designed in the context of multiple awarding bodies as well as multiple providers, with the aim of improving coherence and enabling learners to move flexibly between providers or awarding bodies.

Scottish credit arrangements tend to be management tools for a producer-led education system, more than they are means of empowering learners or other ‘users’ of the system. This is not to ignore the function of the SCQF in providing a ‘road map’ of qualifications: one of its formal aims is to enable employers, learners and the general public to understand the full range of Scottish qualifications and how they relate to each other. Nevertheless it has been used primarily by educational institutions to design progression pathways within their sector and to link their provision to that in other sectors. The concept of credit remains firmly anchored in the education system and especially in mainstream education. Analyses of the SCQF contrast the way it has become embedded within the education system with its relative lack of impact on the labour market (Raffe, 2012). The same contrast emerges from our interviews. Several education-based interviewees, especially those engaged in initiatives to improve progression and transfer, praised the enabling role of the SCQF and noted that their work would be much harder, if not impossible, without it; by contrast, employers and those speaking on their behalf tended to see it as irrelevant. It may be no coincidence that the most extensive example of credit transfer in this study has been to degrees from HNs, arguably the least ‘vocational’ of the VET programmes covered by our study, and particularly from those HNs with weaker links to the labour market.

The Scottish example illustrates how a system designed on the principle of credit accumulation may support a degree of flexibility and permeability through means other than formal credit transfer (Frommberger & Krichewsky, 2012). Except for degrees and some Modern Apprenticeships, programmes and qualifications tend to be relatively small. There are progression routes and connections between them, sustained by the leading role of a single awarding body for non-university qualifications and a comprehensive credit and qualifications framework. Entry to programmes and movement between them is flexible. Programmes in further education are often available at different levels with entry at the discretion of the college: learners can enter at an appropriate level and then progress through the levels. There may be further flexibility within the college programme or Modern Apprenticeship training, for example to cover units at a higher or lower level or to take them at a faster or slower pace, and to allow learners to take the assessment when they are considered to be ready rather than according to a fixed timetable. Learners with relevant prior experience can therefore cover the programme more quickly. As a result many of the benefits of flexibility may be achieved by the way in which learners enter and move between programmes, or progress within them, without the need for more formal processes of credit recognition and transfer.

Explanations: epistemological, institutional and political barriers

However, we would not exaggerate the permeability of the Scottish system. Our study also finds evidence of the epistemological, institutional and political barriers to a unified, permeable system discussed earlier.

Epistemological barriers. Many interviewees felt that the employability skills developed in much pre-vocational educational were qualitatively different from the vocational skills developed in mainstream VET, making credit transfer between the two inappropriate. Even if pre-vocational programmes covered specific crafts they were designed as a vehicle for employability skills rather than for craft skills as such. Credit transfer from pre-vocational education into Modern Apprenticeships or college programmes delivering SVQs was seen as especially unlikely, since SVQs were based on National Occupational Standards while pre-vocational provision was not. Interviewees also noted that candidates for SVQs must demonstrate competence in the workplace over a substantial period of time but most pre-vocational programmes only offered short periods of work experience.

There was an even stronger boundary between the (mainly college-based) provision which developed broader vocational capability and the (mainly work-based) provision which developed occupational competence. These were perceived to involve qualitatively different types of learning and assessment between which little credit transfer was possible. One interviewee argued: 'The key to credit [in relation to the SVQ element of the Modern Apprenticeship] is being able to demonstrate occupational competence'; this required 'capturing the evidence against occupational standards, in a real job in a real workplace and demonstrating the competence over a period of time not just on one occasion'. These requirements ruled out credit transfer from college-based qualifications, although these qualifications might enable apprentices to complete certain aspects of the Modern

Apprenticeship more quickly and/or to be ‘fast-tracked’ to the SVQ assessment. Similarly, apprentices rarely received credit for relevant industrial experience because this experience was unlikely to map over fully to the complete SVQ unit; however, it might lead them to require less formal training and to undertake the assessments more quickly.

Some interviewees questioned whether core skills and other generic units could transfer between occupational contexts. Several argued that the occupational standards for generic units such as health and safety or customer service could differ between Modern Apprenticeships in terms of the work environment and the specific circumstances of each industry: ‘you can’t take these generic units at face value’. For example, health and safety would need to be covered in greater depth in childcare than in hospitality, and in more depth in hospitality than in retail.

Some interviewees with a labour-market focus complained that educationists were unwilling to give credit for relevant industrial experience, even if this gave access to the kinds of learning outcomes that educational programmes aimed to develop. Similar issues arise with respect to credit transfer from HNs to degrees. HNs have traditionally been vocational qualifications with a high standing in the labour market but they have increasingly acquired a dual role as ‘transitional’ qualifications to degrees. The extent of curricular fit between HNs and degrees has varied across subject areas and institutions, and much of the work of the Articulation Hubs and their member institutions has concentrated on improving this fit. However, the question of whether this can be achieved while maintaining HNs’ integrity as vocational qualifications was acknowledged in interviews as a key issue. Even when the learning outcomes of HNs and degrees appear to be matched HN students may be ill-prepared for degree study, especially in relation to their academic study skills (Gallacher, Ingram & Reeve 2012). Some universities, notably the older ones, do not recognise credit from many HN programmes because their methods of teaching and learning are not considered to prepare students adequately for degree study. The pedagogies of many HN programmes are very different from those of university degrees, a consequence partly of HNs’ vocational aims and partly of colleges’ mission to provide ‘second chance’ education. Some colleges and universities have developed additional preparatory resources and activities for articulating students, with varying levels of take-up. In 2012 the SQA launched a project to pilot enhancements to selected HN programmes to improve articulation to degrees.

Institutional barriers. Credit arrangements in Scotland are far weaker than the institutional logics in which they are embedded. The SCQF is voluntary, and education providers vary in their willingness to recognise and transfer credit at the interfaces where they operate. They may fail to do so for a number of reasons, including the increased cost of flexible provision, a lack of trust in the learning or assessments delivered elsewhere, funding disincentives, the requirements of regulatory or professional bodies, the persistence of time-serving norms and expectations, and so on. Some Modern Apprenticeships Frameworks include minimum time scales for completion which limit the extent to which they could be shortened through credit and exemptions (Anderson, 2012). Several interviewees recounted instances where individuals on college programmes had been required to repeat NC units they had already

successfully taken at school. This appeared to be related to timetabling and resource considerations; the college found it too difficult or too expensive to provide alternative options. Other interviewees gave examples of training providers who required apprentices to undergo further training and to re-take the assessment for SVQ units already covered in a school or college pre-apprenticeship programme. In this case the issue was one of trust: the training providers did not trust the training and assessment that had been carried out at college. Sometimes this lack of trust outweighed funding incentives: interviewees told of training providers requiring units to be repeated even though they would not be funded for these units.

In some cases the architecture of qualifications does not facilitate recognition or transfer of credit. Different qualifications tend to be used for work-based and college-based learning, inhibiting transfer between them. The 96 SCQF points in an HNC fall short of the 120 points normally associated with a year's full-time study for a degree. The delivery of courses may not reflect the architecture of qualifications; for example if several units are covered in an integrated block students who have covered some but not all the units may have to take the whole block. In other cases, the design rules of units might mean that prior learning would not map neatly onto whole units.

Institutional factors help to explain the wide variation in the practice of credit transfer from HN to degree programmes. Four out of five HN students who articulate into the second or third year of degree programmes do so in just four institutions, all post-1992 universities. These traditionally 'recruiting' universities see HNs as a potential source of recruitment and have more incentive to incur the additional costs of student support, curriculum changes and administrative overheads associated with articulation. The institutional logic favours credit transfer along well-designed pre-specified pathways rather than based on the notion of liquid, freely convertible credit allowing transfer in multiple directions. Much articulation therefore occurs along the pathways developed by the Regional Articulation Hubs. However, even within the Hubs the nature and operation of articulation agreements vary widely across and within institutions; our evidence echoes the conclusion of Harris, Rainey and Sumner (2006, cited in Walls and Pardy, 2010), that the complexities of institutional arrangements in Australia were better described as 'crazy paving' than as a seamless pathway. Interviewees drew attention to the need for closer and more sustained interactions between university and college staff. Universities have been reluctant to guarantee places on degree programmes for HN graduates because of the difficulty of managing demand from both traditional and articulating students, in the context of funding policies which penalise over-recruitment.

The 'scenarios' draw attention to the need, in some occupational fields, to secure employment or work experience in the field in order to achieve the necessary qualification; access to employment is sometimes a condition of access to qualifications. In an area such as zoo-keeping (the learner's occupational ambition in one scenario) such opportunities are scarce and access to the relevant qualifications is therefore limited. The scenarios showed that multiple routes were typically available to individuals wanting to use their previous learning for credit transfer and progression. However, they also showed how learners

needed initiative, knowledge and resources if they were to take advantage of these opportunities. The Scottish system places the responsibility on the individual, who needs to be proactive in initiating the process to gain credit and who may have to fund the process and any award of credit. Help and support are available from career advisers, education providers and employer bodies but this too has to be identified and then sought out by the individual and, in reality, may not be readily available across the country. Moreover, while the Scottish Government is committed to an all-age public guidance service (SG, 2011b), service delivery is increasingly premised on the assumption that most clients will use its web-based provision: it is questionable whether this will meet the needs of potential learners seeking to understand and navigate the multiple routes available. Certainly, support tailored to the specific circumstances of individual learners is often critical.

Political barriers. We referred above to *perceived* epistemological boundaries, because they were described to us by our interviewees, but even our interviewees disagreed on their significance and the extent to which they made credit transfer impossible. Apparent epistemological barriers may in fact be political barriers if the boundaries between types of learning are constructed, or at least exaggerated, in order to defend particular professional, institutional or subject interests. Some of the institutional barriers noted above may similarly reflect political forces. Indeed, the institutional logic of a qualifications system is a product of the distribution of power and advantage within the system as much as of other institutional forces. The very nature of the SCQF, as a producer-led voluntary framework which gives providers, and especially universities, discretion in whether and how to recognise credit is itself a product of political forces. Political barriers cannot be observed as directly as the institutional and epistemological barriers described above, but they may be present in the very structure of the system. This does not mean they are immutable. For example, the Scottish Government (2011a) has proposed legislating to require universities to recognise credit from HNs where there is a sufficient curricular fit.

Conclusion

Our first research question asked about the extent of credit transfer in Scotland across the three interfaces covered by the study. Our research uncovered a complex situation, but on balance credit transfer was found to be relatively limited at two of the three interfaces we studied. It was somewhat more frequent, but still heavily constrained, at the third interface, between VET and higher education. Our second research question concerned the explanation for this 'Scottish paradox' and we offered two sets of explanations. On the one hand it reflected the particular nature of Scottish credit arrangements, based on accumulation rather than transfer and used primarily as a tool for managing learning. Not only do these give lower priority to credit transfer but they reflect an education system whose architecture sustains a degree of permeability without the need for formal credit transfer. On the other hand, we found evidence of epistemological, institutional and political barriers to the greater use of credit transfer. We could not quantify the relative importance of these three types of barriers, but all appeared to be significant.

Our case study of Scotland offers several lessons for researchers and policy-makers in other countries who are interested in credit systems and in measures to make education and

training more permeable. In the first place, it illustrates the importance of distinguishing among different types of credit system. The distinction between systems based on credit accumulation and those which give priority to credit transfer is a helpful one (Le Mouillor, 2005), as is the distinction between passive and active roles in respect of transfer (Cedefop, Ulicna *et al.*, 2010). All types of credit system may promote permeability to some extent (some more than others), but they do so in different ways.

Second, the analysis draws attention to the limitations of credit and qualifications frameworks as instruments of change. The institutional logic of an education and training system is typically more powerful than the intrinsic logic of a credit and qualifications framework. The currency of qualifications and of credit depends upon familiarity, understanding and above all trust, which develop over time and in the context of practice; qualifications and credit are therefore blunt instruments for changing practice, as to do so might undermine that familiarity and trust (Raffe, 2009b). For this reason ‘communications’ frameworks such as the SCQF, with their modest goals, are often perceived to be more successful than more ambitious reforming or transformational frameworks (Allais, 2010; Raffe, 2011). A communications framework describes the existing system and thereby provides the understanding and conceptual tools (such as the concepts and measures of level and credit) which may be used to support rationalisation and incremental change. In contrast to reforming and transformational frameworks, it provides tools for change but does not try to drive change directly. The SCQF is voluntary and institutions can choose whether or not to use it to recognise and transfer credit.

However, this does not mean that credit and qualifications can never be used more proactively to drive change: some reforming frameworks, with stronger powers of intervention or regulation, have had impact (Raffe, 2011). And there is an irony in the fact that the (perceived) success of the Scottish framework is closely linked to its limited ambitions as an agent of change. Its most visible success consists in becoming accepted and established with relatively little opposition, but it did so because it had modest objectives which did not challenge existing interests, a reflection of the political barriers that constrained its design. There is a lesson here for cross-national policy learning: the ‘success’ of initiatives in other countries should always be judged in relation to their ambition, and should never be confused with their political acceptability.

Finally, our analysis confirms once again the path-dependence of national education and training systems and the need to see policy initiatives in their national context. Like any other educational arrangement, a credit system must be designed and implemented to reflect national circumstances and institutional logics. Cross-national comparisons may provide insights and tools to help national policy-makers to understand these logics, but they should not be used to identify best practice abroad for copying at home. For the same reason, cross-national credit systems such as ECTS and ECVET need to be designed flexibly so that they can be used in countries with contrasting institutional logics, and we should not exaggerate their capacity to support permeability and mobility between national systems.

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