

Credit Systems for Lifelong Learning

Draft CS3L Background Report on Scotland

by

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INTRODUCTION

This report is a background study of the credit system in Scotland carried out as part of a comparative study of Credit Systems for Lifelong Learning. The study involves four countries - Denmark, Germany, The Netherlands and Scotland - and is co-ordinated by the Federal Institute for Vocational Education and Training (BIBB) in Germany. Each country has produced a background report as part of the first phase of the study; the next phase will involve interviews with key actors in each country on the development, impact and operation of credit transfer in practice.

Scotland has a long history of credit arrangements in vocational education and training as well as in general education. Most of its qualifications are designed on the basis of credit and a series of incremental reforms has led to the creation and continuing development of the Scottish and Credit Qualifications Framework (SCQF).

The nature of the Scottish system has particular implications for the study: the system in Scotland is credit-based, unitised and built around a combination of shorter and longer programmes that normally have credit accumulation and progression routes built into them. In this situation credit transfer is often seen within a subsystem as a normal or automatic process requiring no special arrangements. We have concluded therefore that in the Scottish context it is necessary to distinguish between credit transfer and credit accumulation and we have adopted the following definition of credit transfer:

*the use of credit from one learning programme or qualification to contribute towards the requirements of another programme or qualification **and** with the implication that this will reduce the amount of further learning required for the latter.*

The meaning of credit transfer in a particular national context will be a key issue to discuss at the project team meeting in Bonn: arriving at a definition that is meaningful in each country will be essential to the successful development of a common interview schedule to examine the use of credit transfer in practice. It may worth considering whether Phase 2 should examine the practical use of credit systems not only in respect of credit transfer but also in relation to the design of qualifications, in planning and coordinating learning provision, in funding this provision and for recognising prior learning.

1. BACKGROUND

The VET system

Vocational Education and Training (VET) in Scotland stands in a state of semi-independence from the rest of the UK. Scotland has always had a distinct education system; before 1999 this was administered separately by the Scottish Office, a department of the UK government, and many distinctive features of Scottish VET are the result of policy decisions that were specific to Scotland but taken by the pre-devolution UK government. Since 1999 VET has been the responsibility of the Scottish Government and Parliament whose devolved powers include education and training. It falls under two departments of the Scottish Government, the Lifelong Learning Directorate (whose policy areas include colleges, universities, training programmes and skills development) and the Schools Directorate (whose policy areas include schools, qualifications and the 3-18 curriculum). Both are under the minister (called 'Cabinet Secretary') for Education and Lifelong Learning. Other bodies

with a national remit include Skills Development Scotland (SDS: responsible for public training programmes and careers guidance), the Scottish Qualifications Authority (SQA: responsible for most non-university qualifications), Scotland's Colleges (the representative body whose activities include curriculum development and support), the Scottish Funding Council (SFC: responsible for funding teaching and learning provision, research and other activities in Scotland's 43 colleges and 20 universities and higher education institutions), Her Majesty's Inspectorate of Education, the Alliance of Sector Skills Councils in Scotland and the Scottish Modern Apprenticeships Group.

However, the UK dimension is still important. Industrial training policy was a UK- in the 1970s and 1980s when it was led by the tripartite Manpower Services Commission. VET, as a field embracing both education and training, therefore incorporates elements with a long Scottish pedigree (such as the key VET institutions, - the colleges and the former vocational higher education institutions which became universities after 1992) and elements that draw on its UK heritage (such as national occupational standards and qualifications based on these, including Scottish Vocational Qualifications, SVQs). VET is affected by certain policy areas reserved to the UK government, including public finance, professional regulation and aspects of employment and skills policy. The Sector Skills Councils (SSCs), which develop national occupational standards, cover the whole UK, although their detailed responsibilities vary significantly between Scotland and England. The UK Commission on Employment and Skills (UKCES), although primarily an advisory body, is distinctive because it offers advice both to the UK government and to the devolved administrations in Scotland, Wales and Northern Ireland. Perhaps more importantly, the dependence of Scottish VET on an integrated UK labour market, and the influence of closely connected UK higher education systems, put a limit to its divergence from the rest of the UK. The relative autonomy of Scottish VET within the UK has been compared by some commentators to that of Member States within the European Union.

VET provision in Scotland is very varied and there is no clear boundary between what is defined as VET and general education. VET is not based on a regulated system of occupations, and there is seldom a single qualification which gives entry to an occupation, although a growing number of occupations are subject to some degree of regulation and in some occupations a body has been identified or established to make judgements about which qualifications are acceptable for entry or for specific roles (eg counselling, accountancy). The Scottish Government's skills strategy document identifies several overlapping clusters of skills, including core skills, employability skills, essential skills and vocational skills which it defines as skills 'that are specific to a particular occupation or sector' (Scottish Government 2007, p8). However, there is no agreed or consistent understanding of the term 'vocational' and it is applied to a wider range of types of learning. It may be helpful to think of Scottish VET as a continuum including:

- provision to develop full workplace *competence* in specific occupational roles (eg SVQs: see below);
- provision to develop *capability*, but not full workplace competence, in occupational areas (eg many college-based programmes); and
- *pre-vocational* learning - this includes learning that is not related to a particular occupational area (such as enterprise education) and learning that may take place in an occupational context but whose main outcomes are defined in generic terms (such as the 'employability skills' developed by the new Skills for Work courses for school-age pupils).

The implications for credit transfer are likely to vary across the different points on this continuum.

Qualifications

The variety of vocational learning in Scotland is reflected in the range of qualifications:

Scottish Vocational Qualifications (SVQs) are unitised, competence-based qualifications available at five levels, based on National Occupational Standards for specific occupations. They are intended to be delivered in the workplace and/or in partnership with a college or training provider. They are awarded by a range of bodies, including the SQA and professional and industry organisations, and they are formally accredited by a special division of the SQA. In principle they cover most occupations but they tend to be used most frequently at lower or intermediate levels and in particular sectors such as business administration, care, construction, hairdressing and hospitality.

National Qualifications and *Higher National Qualifications* are unit-based qualifications awarded by the SQA. Units may be taken separately or as part of group awards or National Courses. Larger group awards include National Certificates, available at lower and intermediate levels, Higher National Certificates (HNCs) and Higher National Diplomas (HNDs); they typically represent one or two years' full-time study (or its part-time equivalent) and are usually delivered in colleges. Smaller but flexible group awards include National Progression Awards (NPAs), which certificate skills in a specialist vocational area, and Professional Development Awards (PDAs) which allow those already in a vocation to extend or broaden their skills. National Qualifications also include National Courses, subject-specific courses at a range of levels which are the main certificates awarded in secondary schools. These include Highers and Advanced Highers which are the main currency for entry to university. Most National Courses are in general or 'academic' subjects but some offer introductions to occupational areas such as administration, business management, care or computing, and they include Skills for Work courses in areas such as care, construction crafts, hairdressing and rural skills.

Three factors give SQA qualifications a great deal of flexibility and distinguish them from many other European systems. First, individual units are intended to have value in their own right and are given a relatively high status in the certification system; second, apart from individual units many qualifications are small in size, so that transfer may take the form of movement from one completed qualification to another rather than transfer of credit between qualifications; third, all qualifications can be delivered by any institution or organisation which meets the relevant requirements of the SQA; and fourth, certification is carried out centrally by the SQA, which maintains a cumulative record of the achievements of individual learners. This means that credit transfer and accumulation are built into the SQA system, so that an individual achieving one or more SQA units in one or more institutions can automatically count it/them towards any full SQA qualification of which it is a component if s/he goes on to complete that qualification in another institution.

In terms of the vocational continuum described above, most SVQs aim to develop *competence*, many of the Higher National and National Qualifications delivered in colleges develop *capability* and some other National Qualifications, including some of those which form part of school or college programmes, are pre-vocational.

Other qualifications include:

University degrees. The main degrees awarded by Scottish universities are Bachelors (awarded at Honours or Ordinary level, typically on the basis of three or four years' study respectively), Masters (typically one year) and Doctor (typically three or more years). There is no formal distinction between academic and vocational (or professional) higher education, although in fields such as education and medicine the content of qualifications and the programmes that lead to them are regulated by professional bodies.

Qualifications of other awarding bodies. The SQA is sponsored by the Schools Directorate of the Scottish Government, and it is the national body in Scotland responsible for the development, accreditation, assessment and certification of qualifications other than university degrees. When qualifications are introduced or re-designed in pursuit of national policy, the SQA is usually given responsibility for this task. However, schools and (especially) colleges are able to choose qualifications awarded by other bodies, especially those based elsewhere in the UK. Vocational qualifications awarded by the City and Guilds of London Institute continue to occupy a niche in some occupational areas. The European Computer Driving Licence is also widely used in Scotland as are IC3 certification and Microsoft and Cisco vendor awards¹. Pre-vocational qualifications or those which recognise personal development or achievement, such as ASDAN (Award Scheme Development and Accreditation Network), are also widely used.² NVQs (National Vocational Qualifications, similar to SVQs, but intended for use in England, Wales and Northern Ireland) are also offered in Scotland: this may happen when, for example, an employer operating across the UK is unwilling to work with both NVQs and SVQs.

Employer and professional awards. These include awards by professional bodies in fields such as accountancy, banking and engineering, as well as awards by employers ranging from the police and fire services to hoteliers and whisky distillers. (In some cases these have been credit-rated for inclusion in the SCQF and in some cases they are jointly awarded with the SQA).

All SVQs, National and Higher National qualifications and university degrees, and a growing proportion of other qualifications, are placed in the Scottish Credit and Qualifications Framework (SCQF), a comprehensive framework launched in 2001 and intended to accommodate all qualifications and assessed learning in Scotland (see Annex 2). Each qualification in the framework, and each separate unit or component of a qualification, is given a number of credit points representing the volume of study and allocated to one of the twelve levels of the framework. The definitions of level and credit are based on learning outcomes; each qualification in the framework must be based on learning outcomes and the learning and its assessment subject to appropriate quality assurance.

The main providers of VET

Scotland's Colleges, 43 publicly-funded institutions, are, with the universities, the main providers of post-school learning. They provide full- and part-time courses and programmes in a variety of vocational and non-vocational subjects, and leading to nearly all the qualification types reviewed above. They have a strong tradition of access and responsiveness: of promoting access to education among all learners, including the socially

¹ SQA has credit transfer arrangements in place for all of these awards.

² Both ECDL and ASDAN awards have been credit-rated by SQA for inclusion in the SCQF.

disadvantaged and those at risk of exclusion, and of responding flexibly to the demands of learners, employers and local communities.

Higher Education Institutions, including 15 universities and five other institutions, provide degree-level programmes in a range of (vocational and non-vocational) areas. Seven universities acquired their current status after 1992 when the higher education sector was unified and the former Central Institutions, vocational institutions under more direct government control, became universities. These 'post-1992' universities tend to have higher proportions of mature and part-time students, and they have been most active in credit developments (Gallacher 2006).

Secondary schools cater for young people between the ages of 12 and 18, although attendance is compulsory only up to age 16. About two-thirds of each year group continues in school to age 17 and nearly a half to age 18. Except for a small independent sector, which caters for about 4% of the age group, all secondary schools are comprehensive, co-educational and administered by elected local authorities. The curriculum of Scottish secondary schools is predominantly academic or general, although there have been attempts to increase its vocational (or more typically pre-vocational) content.

Other institutions include *training providers*, a wide variety of private organisations which provide training courses for employers and often manage public training programmes, *employers* (or groups of employers) who provide training for their own workers, possibly in collaboration with colleges or training providers, and *voluntary organisations* which are increasingly involved in delivering programmes for the least advantaged young people. The term *community learning and development* (CLD) refers to informal learning and social development work with individuals and groups within their communities. It includes youth work, community-based adult learning and support for community capacity-building. It is provided by local authorities and partner agencies in the public and voluntary sectors.

'Work-based' programmes

Although most programmes are defined by qualifications and linked with particular institutions, those which aim to workplace training do not easily fit the above categories. Of these the most important is the *Modern Apprenticeship* programme, managed and delivered by SDS. MAs are based on frameworks developed by the SSCs and lead to occupational SVQs (or NVQs) together with relevant core skills; most are at craft level but there are a few higher-level MAs and MAs are currently being extended to lower-level SVQs, replacing the current programme (*Skillseekers*) at that level. MAs are open to employed trainees of all ages but young people receive priority for public funding. Other programmes are aimed at young people or adults who need support in developing basic skills or accessing employment. These include *Get Ready for Work* for 16-19 year-olds, *Training for Work* programmes for unemployed adults and a range of *New Deal* programmes for different categories of unemployed people.

Challenges

Scottish policy has increasingly been framed by concepts of lifelong learning, and the relative flexibility and responsiveness of its institutions and qualifications are consistent with a lifelong learning approach. However the Scottish Government's (2007, p.5) skills strategy identified continuing challenges, and outlined a programme based on three themes which it labelled individual development, economic pull and cohesive structures. The

strategy should promote equal access to skills and learning for everyone, achieve a 'step change in skills development and use', create parity of esteem between vocational and general learning and encourage providers 'to see themselves as part of a continuum of provision'. It challenged 'employers, learning providers, awarding bodies and others to use the SCQF as a tool to support learning, specifically to facilitate the recognition of learning and for enabling individuals to move smoothly through learning environments, getting credit for learning they have already achieved'.

The skills strategy is innovative for placing emphasis on the demand and utilisation of skills as well as their supply. However, there are issues on the supply side too. One of the main challenges facing Scottish education is to provide a full range of opportunities with progression into employment and further/higher education, for the full cohort of young people completing compulsory education. This has been a driving factor behind reforms at least since the 1980s, but the problem persists. The OECD's Review of *Quality and Equity in Scottish Schooling*, published in December 2007, identified two main challenges for Scottish schooling: an 'achievement gap' in later primary and secondary education, associated with socio-economic status; and the need for 'socially broader and more successful participation in upper secondary education and greater equity in higher education' (OECD 2007, p.15). It criticised the comparatively high proportion of young people in 'precarious transition' and called for local collaboration to assist in 'establishing a charter of learning opportunities and defining the pathways through school to further education, training and employment' (p.20). The OECD's analysis has been criticised for underestimating the role of colleges in providing such pathways (its remit covered schools only), but other commentators have also identified a need for clearer, stronger and better signposted pathways. Scotland has one of the highest proportions in the OECD of young people who are not in education, employment or training (Scottish Executive 2006), and inequalities appear to widen beyond the end of compulsory school (ref). A current policy termed 16-plus Learning Choices aims to enhance opportunities through local partnerships of education providers, voluntary organisations and employers, with a particular emphasis on non-formal and informal learning as a means to continue the participation of the most disadvantaged or disengaged young people. This strategy in turn requires there to be progression back into more formal modes of learning.

Annex 1 provides an overview of the sectors and stages of Scottish education and training and the main opportunities for credit transfer

Concepts

In this report we identify *three main interfaces*:

- from general and pre-vocational learning into mainstream VET, that is, into the types of VET denoted by the terms 'capability' and 'competence'; this includes most transitions into mainstream VET from school (including from 'vocational' courses such as Skills for Work), from training programmes designed for young people or adults at risk of exclusion (such as Get Ready for Work and New Deal), from CLD and from other types of non-formal and informal learning;
- between different types of mainstream VET, for example, between college-based and work-based provision, between different colleges or training providers or between different qualifications (and especially those awarded by different bodies); and

- between VET and university, in particular between colleges' sub-degree provision (HNCs and HNDs) and universities' degree-level provision, although the implied labelling of college as 'vocational' and university degrees as 'non-vocational' is questionable.

We also distinguish *credit transfer* and *credit accumulation*. We define credit transfer as the use of credit from one learning programme or qualification to contribute towards the requirements of another programme or qualification, with the implication that this will reduce the amount of further learning required for the latter. *Credit accumulation* refers to the process of accumulating credit in order to achieve a qualification - and, more broadly, to the principle underpinning the architecture of many Scottish qualifications and of the SCQF itself. This architecture, the relatively small size and interconnected nature of qualifications, and the relatively flexible arrangements for access to many qualifications, paradoxically makes credit transfer less important than in some systems based on larger and more rigid qualifications. In principle, the system is flexible even without credit transfer. Conversely, credit plays key roles in Scottish education - in the design and development of programmes and qualifications, in the management of delivery, in funding and so on - which are not directly related to its use for transfer.

Finally, we distinguish formal opportunities for credit transfer from the actual use made of these opportunities, which may be limited by factors unrelated to the design of the credit system itself.

2. THE ORIGINS OF CREDIT TRANSFER

Summary of main events

Credit arrangements in Scotland, and their underlying concepts of credit, have developed over the course of several reforms since the 1980s. These include:

Action Plan. Initially called the 16-18 Action Plan, this 1983 document introduced a national framework of modules which replaced most non-advanced vocational courses in colleges, were used to certificate young people and some older workers on training programmes, and came to supplement more traditional academic courses in schools. The Action Plan aimed to modernise the vocational curriculum and to stimulate participation in learning by increasing opportunities for 'less academic' learners, by making the system more flexible and by encouraging more learner-centred pedagogies. Although it was not formally a credit system, the modular framework had many credit-like features. In the first place, it was based on modules, each of notional 40-hour design length (with half- and double-modules); in formal VET the 40 hours tended to be interpreted as contact time or scheduled learning time. Funding for colleges was based on the 40 hours which became known as a SUM (Student Unit of Measurement) and in other contexts as a 'credit'. Second, each module was defined by learning outcomes and associated performance criteria, and was intended to be 'institutionally versatile' - that is, capable of delivery in a range of institutional settings. Third, all modules were awarded by a single body, the Scottish Vocational Education Council or SCOTVEC, and placed in a single national catalogue. It was expected that colleges would devise programmes based on modules from the catalogue and give credit for modules already completed elsewhere. Young people who had taken a few modules at school, it was hoped, would thus have an incentive to continue learning in a college where they could use their accumulated credit. Fourth, it was intended that more generic modules such as communication and numeracy would be included in different programmes, facilitating

horizontal transfer. Finally, although modules were individually certificated they could contribute to some group awards, including some SVQs (see below) and, from 1993, new awards, intended mainly for delivery in colleges, known as General SVQs. These qualifications helped to establish a pattern of national qualifications based on the accumulation of units or credits.

Unitisation of Higher National awards. In 1988 SCOTVEC launched a programme which unitised HNCs and HNDs, with a rationale and objectives similar to the Action Plan, but with the additional aim of developing clearer pathways from the Action Plan modules to HN awards. In contrast to the Action Plan modules, the new HN units were designed primarily as components of group awards, that is HNCs and HNDs, although they could also be individually certificated. HNCs and HNDs had previously been distinct awards for part-time and full-time study respectively. They were re-designed as new qualifications linked by credit transfer: in many subjects, all or most of the 12 unit credits that comprised an HNC could count towards the 30 credits required for an HND. The new qualifications were similarly intended to provide credit towards degree courses, where articulation agreements between colleges and universities made this possible. In such cases an HND might give exemption for up to the first two years of a four-year Honours degree course.

The introduction of SVQs. SVQs were introduced in the early 1990s. They are unitised, competence-based occupational qualifications at five job-related levels, based on national occupational standards. They were mainly delivered as whole qualifications but employers sometimes selected the units that they perceived to be most relevant. Some SVQs were based on Action Plan modules, with a possibility of credit transfer from other types of programmes, but most were based on specially designed units intended to facilitate workplace assessment. This, and the fact that SVQs were not included within the 'unified system' introduced by Higher Still (see below), may have marginalised them from the main arenas wherein credit transfer may occur. In principle, different SVQs may have units in common, making credit transfer possible, but this is not common.

The Scottish Credit Accumulation and Transfer (SCOTCAT) Scheme. SCOTCAT was launched in 1991 as the credit system for higher education. It established a currency of one credit equal to ten hours' study time (later re-defined as the notional learning time for the average student to achieve the outcomes: see below). Each year of a full-time programme was assumed to comprise 1200 hours' learning time or 120 credit points. The scheme defined five levels of higher education study, four corresponding to the different years of a four-year Honours degree and a fifth for Masters. It thus not only introduced a concept of credit that was to be the basis for the current framework; it also established the idea that credit points had to be awarded at a specific level and that a qualification or programme could be based on credits achieved through working up through a series of levels. By 1992 all universities and other higher education institutions had signed up to SCOTCAT and agreed to modify their provision to fit with it, although it had most impact on 'new' universities and in the context of local credit accumulation and transfer arrangements.

Higher Still/National Qualifications. Starting in 1999, the Higher Still reform replaced Action Plan modules and post-16 school courses with a single 'unified system' of units and unit-based courses. The new National Qualifications combined elements of both systems, and covered most academic courses below higher education level and a substantial proportion of vocational courses apart from SVQs. They thus brought academic and vocational courses, and school and college courses, into a single framework. The new framework retained the

concept of a 40-hour unit introduced by the Action Plan; schools typically delivered single-subject courses each comprising four units (with around five courses in an annual programme), whereas college courses were more often constructed from stand-alone units. Over-arching Scottish Group Awards, based on combinations of courses or units, were designed to recognise coherent programmes but had low take-up and were eventually withdrawn. Courses and units were developed at seven levels, ranging from a level appropriate for those with severe learning difficulties to the highest level of pre-university study. The curriculum introduced by Higher Still has been described as a 'climbing frame' model because it allowed flexible choices of courses with movement in all directions.

Launch of the SCQF. The SCQF was formally launched in 2001 on the basis of a consultation in 1999. It started as a merger of three 'sub-frameworks' that had been created by earlier reforms: the SCOTCAT scheme, the National Qualifications 'climbing frame' introduced by Higher Still and SVQs, although it aimed to include all qualifications and assessed learning in Scotland. It had twelve levels: the five SCOTCAT levels (with an extra level added for Doctorates) and the seven levels of National Qualifications, the top one of which was deemed to be the same as the bottom SCOTCAT level. Level descriptors were adapted from the existing frameworks and the concept and measure of credit were taken from SCOTCAT (see Annex 3 for examples of level descriptors).

The SCQF's launch document described its 'general aims' as to:

- help people of all ages and circumstances to access appropriate education and training over their lifetime to fulfil their personal, social and economic potential;
- enable employers, learners and the public in general to understand the full range of Scottish qualifications, how the qualifications relate to each other, and how different types of qualifications can contribute to improving the skills of the workforce (SCQF 2001, p.vii).

Note that the second aim in particular was about more than credit transfer. Credit became an important tool for designing and describing qualifications, and for planning their interrelationships; it was part of the 'national language' of learning that the SCQF aimed to provide. According to the SCQF Handbook: 'The SCQF provides a vocabulary for describing learning and helps to:

- make the relationships between qualifications and learning programmes clear;
- clarify entry and exit points, and routes for progression;
- maximise the opportunities for credit transfer;
- assist learners to plan their progress and learning;
- minimise the duplication of learning (SCQF 2009, p.11).

The implementation of the SCQF formally began in 2003, although its main sub-frameworks were already well established. Early activity focused on modifying qualifications in these sub-frameworks to fit the SCQF model (see Section 3 below), and the process of including other qualifications, including many employment-based and professional qualifications, was slow. In 2007 the Partnership which led the SCQF was re-structured to facilitate faster progress. The government's skills strategy published that year asked the re-structured Partnership to 'move quickly to ensure that the SCQF embraces more learning opportunities by increasing the number of credit rating bodies; facilitating the inclusion of work based learning programmes and encouraging the recognition of informal learning' (Scottish Government 2007, p.49). Colleges were admitted to the Partnership and recognised as credit-rating bodies, authorised to place their own or other organisations' qualifications in

the framework. In 2009 a process was established for recognising other organisations as credit-rating bodies (see section 4).

Characteristics of the process of creating a credit framework

The process of creating the SCQF was thus incremental and pragmatic. It was incremental because it proceeded through a series of reforms, which successively established the main building blocks of a credit system - units, levels and measures of credit volume - in what became the different sub-frameworks of the SCQF (Raffe 2009). Not only did it create these building blocks, but it established reasonably consistent conceptualisations and designs: the concept of a unit was relatively consistent across sectors even if the size of units sometimes varied, the existing levels of the three frameworks could be brought together into a single hierarchy and National Qualifications and SVQs could be measured using the SCOTCAT concept of credit although - as we see in section 3 below - this raised conceptual difficulties.

The process was also incremental in the sense that definitions based on the existing system were used to rationalise the system. It was pragmatic: it went with the grain of existing educational arrangements; it offered a basis for reviewing and reforming them but it did not try to impose a new blueprint. For instance, the process whereby credits and levels were assigned to university courses initially reflected existing conventions and assumptions much more than it reflected a rigorous analysis of the learning outcomes; but over time the framework was used as a tool in routine processes of review and redevelopment, so that the framework and educational practice tended to converge over time. Other aspects of pragmatism were the simplifying assumptions to prevent the system becoming too complex. For example, as mentioned above, one year's full-time degree study was assumed to be worth 120 credit points; and Standard grades - subject qualifications awarded at the end of compulsory schooling - were awarded 24 points each regardless of subject, despite the fact that English and mathematics were normally allocated more hours than other subjects in the school timetable.

The policy drivers varied across the different stages of the process, but included the desire or perceived need to:

- raise participation and enhance progression, especially among young people, by providing more opportunities particularly for those with middle or lower levels of attainment in compulsory school;
- make VET more attractive by developing pathways within VET and from VET to general/higher education, by integrating vocational and general learning; to promote parity of esteem;
- reduce exclusion by enhancing opportunities for those at risk and recognising existing skills and prior learning on which to build;
- update VET, enhance its relevance and promote pedagogical change;
- rationalise provision and enhance the coherence and coordination of the learning system.

Not all of these aims related specifically to credit, and where credit was a central feature of reform its role was often to support the management of learning as much as to provide opportunities for transfer.

The reforms involved a variety of stakeholders and combined 'top-down' and 'bottom-up' processes. The SCQF, unusually among National Qualifications Frameworks, was led by a voluntary partnership of educational institutions and awarding bodies. However, it would be

misleading to characterise it simply as a bottom-up reform. In the first place, the partnership did not include all institutions; initially only higher education institutions were actively involved and the colleges (the sector with the most to gain or lose from a credit framework) were not admitted to the leadership of the SCQF until 2006. Other VET or education providers are still not directly represented. This may be seen as a further example of the pragmatism of the SCQF, in that it recognised political realities. Second, the SCQF built on a series of reforms, some of which (Action Plan, SVQs, Higher Still) were government-led even if they aimed to be consultative and to respond to the expressed needs of their communities. (SVQs were intended to be employer-led although the role of employers was often largely symbolic.) The experience of these reforms suggested that up to a point reforms which sought to create coherent system-wide structures, such as a common system of credit, *need* to be 'top-down' (ref), even if the extent to which the structures are used depends more on bottom-up influences. Third, the reforms were led by combinations of government, central agencies and education providers; the direct influence of learners on the process was rarely visible, despite the rhetoric of the learner-centred system that the framework was intended to create.

Assessment issues

Further issues raised by the sequence of reforms described above concern assessment and its impact on learning. The unitisation of programmes, with credit awarded for each unit, tends to involve an increased volume of assessment - sometimes exacerbated by pressures from subject interests and by the perceived need to assess all learning outcomes rather than rely on sampling. The volume of assessment - aggravated by its organisation and timing - contributed to a national crisis in 2000 when the SQA failed to process the assessment results for the first round of Higher Still completely and accurately. There have been recurrent concerns with the possible fragmentation of learning in a unit-based curriculum, and several qualifications have been designed to recognise and encourage the integration of learning. The need for more internal assessment (conducted by staff of the institution) has raised questions about the confidence of staff to assess their own students and about the reliability and credibility of internal assessment, especially when frequent re-assessment is possible; external assessment has tended to carry greater public confidence in Scotland and to be used for high-stakes qualifications.

3. METHODOLOGICAL-CONCEPTUAL FOUNDATIONS

Learning outcomes

Level and credit are the two conceptual pillars of the SCQF. In contrast with many other NQFs, credit is built in to the SCQF, a fact which has significant implications for its architecture as well as for its uses. The process whereby qualifications are admitted to the framework is called 'credit-rating'.

Learning outcomes help to define the conceptual foundations for these two pillars. All qualifications or learning programmes in the SCQF must be based on learning outcomes. The SCQF is defined on the basis of learning outcomes, in terms of level descriptors which describe the characteristics and expected performance at each of 12 levels, in relation to five types of outcomes:

- knowledge and understanding;
- practice (applied knowledge and understanding);

- generic cognitive skills, such as evaluation and critical analysis;
- communication, ICT and numeracy skills;
- autonomy, accountability and working with others.

Learning outcomes in qualifications are grouped into units, although it is possible to have single-outcome units. From the late 1980s 'unit' became the standard term, replacing 'module' in relation to non-advanced qualifications in general education and VET. A unit is understood to be a coherent collection of learning outcomes and may therefore be assessed separately; a module, on the other hand, is generally understood to be a component of a learning/teaching programme. An outcomes-based qualification system therefore prefers the language of units to modules. Learners may take whole qualifications, or individual units, and can, of course, work towards qualifications over a period of time, possibly with breaks in their learning. In a vocational context, learners may take single units or clusters of units to upgrade their skills, to allow them to make a sideways move into a new field or specialism, to improve their promotion opportunities, etc. Within the SQA system, all units are accredited in the sense that individuals who successfully complete even a single unit are given a Scottish Qualifications Certificate. The notion of 'part qualifications' does not have the same significance in the Scottish system as in some other countries, although most candidates taking qualifications which are in the SCQF probably complete whole qualifications which may take anything from a few weeks to several years to complete. In some cases a smaller qualification can be considered a part of a larger qualification – for example an HNC may be the first half of an HND and a Higher Education Diploma may equate to the first two years of a degree programme.

The SCQF, like the EQF, defines learning outcomes as 'statements of what a learner knows, understands and is able to do on completion of a learning process, which are defined in terms of knowledge, skills and competences' (SCQF 2009, p.8). Its concept of learning outcome is 'loose' in at least three respects. First, as the five characteristics of the SCQF level descriptors, listed above, indicate, it embraces a wide range of types of learning outcomes. It does not, for example, restrict outcomes to a narrow concept of 'competence' which excludes direct reference to underpinning knowledge and understanding, as was the case with early NVQs and SVQs and some competence-based frameworks influenced by them. Second, the SCQF does not treat learning outcomes as a *sufficient* basis for describing learning or the qualification based on it. Instead, as the SCQF's guidelines on credit-rating (see below) make clear, other types of information (such as 'professional judgement' or familiarity with learning programmes) are required to interpret statements of learning outcomes. In other words, the SCQF concept of learning outcome does not rest on the fiction that outcomes can be understood independently of the associated 'inputs'. Third, and relatedly, the SCQF accommodates a variety of different concepts of learning outcome within its sub-frameworks.

SQA uses learning outcomes of all kinds in its National and Higher National qualifications. Depending on the area and level of learning outcomes may refer to demonstrations of knowledge and understanding, the ability to use generic cognitive skills, the ability to use occupationally specific practical skills, or the capability to demonstrate a range of what are sometimes called *behaviours* or *personal competences* such as leadership and initiative. The nature of the outcomes and the ways in which they combine into coherent units will also depend on the purpose of the unit and the anticipated entry skills, knowledge or experience of the target learners.

SVQs are based on relatively a 'tight' concept of learning outcome, called elements of competence, which define national occupational standards. Since 1996 the bodies which develop these standards and those which award SVQs have had freedom to use a variety of formats, although most retain the broad outline of the original format which consists of:

- units of competence, expressed as outcomes and which describe a substantial work role; these are generally developed using a functional analysis approach which involves the 'mapping' of the entire occupational sector and the subsequent identification of units and elements of competence, in consultation with industry stakeholders;
- elements of competence within each unit, which describe, in outcomes, the sub activities of the work role;
- performance criteria attached to each element of competence, which describe the successful outcomes of performance;
- a range statement, setting out variations to be covered by the element (there is considerable variation in the adoption of this component); and
- the essential knowledge and understanding required to meet the standard.

Further variety in the interpretation of learning outcomes is found if we examine other types of qualifications within the SCQF, such as those offered by the different universities and higher education institutions.

Credit

According to the SCQF Handbook 'SCQF credit points give learners, employers and learning providers a means of describing and comparing the amount of learning that has been achieved, or is required to complete a qualification or learning programme' (SCQF 2009, p.35). Credit points relate to the time required to achieve a qualification, with one credit representing a notional ten hours of learning. 'This is notional because it is based on the time judged to be required for an 'average' learner at a specified SCQF level to achieve the learning outcomes and does not measure the time actually taken by any individual learner' (SCQF 2009, p.36).

The SCQF makes a key distinction between general and specific credit, which respectively relate to credit accumulation and to credit transfer. General credit refers to a fixed volume of credit which is allocated to a qualification or unit in the SCQF. It is the basis of credit accumulation and the design of programmes or qualifications defined in terms of credit volume (see below). Specific credit refers to the credit points that can be transferred into a new programme or qualification - typically one offered by a different organisation or awarding body to that which awarded the general credits. It is the responsibility of the receiving organisation - or the home institution in ECVET terminology - to decide how many of the general points are recognised as specific credit with value in the new programme or qualification.

The SCQF Partnership publishes advisory guidelines for credit transfer, the main burden of which is that processes should be transparent and consistent and 'embedded in general good practice in assuring quality and standards' (SCQF 2009, p.97).

Credit is specific to a level and is based only on the volume of learning at that level, as expressed by the notional learning hours required to achieve the outcomes. It is distinct from other indicators of the quality of learning such as the grade awarded within the level. This is a possible source of confusion as other measures of learning may take account of grades. For example, the central (UK) Universities and Colleges Admissions Service publishes

a tariff which some universities use to rank candidates with different types, levels and grades of qualifications, including both Scottish and English qualifications. The UCAS tariff value of a given qualification varies according to the grade of pass achieved, reflecting the competitive character of the university selection process but possibly not the more inclusive, progression-focused philosophy of a credit system.

Credit values are used to define types of qualifications within the SCQF. For example, a National Progression Award must have a minimum of 12 points. The definitions of larger qualifications typically refer to minimum number of credit points at each of a range of levels. For example, an HND must have 240 credit points, of which at least 64, including the units for which grades are awarded, must be at level 8 and the remainder at level 7 or above. A Bachelors degree at Honours must have at least 480 credit points of which at least 90 must be at level 10 and at least 90 at level 9. Since a full HND is defined as level 8 and an Honours degree as level 10, this shows that in a credit-based framework only a small proportion of credit points need be at the level of the full qualification. These credit points typically refer to the final year of study and reflect an expectation that the level of learning will rise during a programme. The proportion of credit points at the level of the qualification is likely to be smaller, the larger the number of levels in the framework. The unusually large number of levels (twelve) in the SCQF partly reflects the way that it developed in the course of attempts to develop smoothly graduated progression pathways (notably in the 'climbing frame' of Higher Still), although it also reflects the relatively large number of 'access' levels which incorporate standards associated with the outcomes of education and training for those with learning difficulties.

Quality assurance

A condition for the inclusion of a qualification or learning programme, or components of a qualification or programme, within the SCQF is that 'the learning is included within an appropriate quality assurance system' (SCQF 2009, p.11). The universities, the SQA and the colleges, members of the SCQF Partnership, are credit-rating bodies with powers to decide on the inclusion of their own qualifications or programmes within the framework. The universities' quality assurance (QA) arrangements are overseen by another SCQF Partner, the Quality Assurance Agency for Higher Education. This devolves much of the responsibility for QA to institutions, within a process of 'enhancement-led institutional review'. The SQA's QA model decentralises responsibilities to its presenting centres in proportion to their capacity to exercise them; the SQA provides external verification and moderation, with increasing emphasis on supporting staff to understand and apply the standards for qualifications. Colleges have their own QA arrangements as well as those relating to the SQA and other qualifications which their students attempt. Other organisations wishing to place their qualifications within the framework must either pass through a process to become credit-rating bodies (see below), in which quality assurance procedures are an important criterion, or submit a proposal to an existing credit-rating body. This proposal must provide documented evidence to demonstrate the suitability and quality of assessment arrangements, and provide evidence of externality. External assessors/verifiers, auditors, examiners or evaluators should periodically report on the appropriateness and consistent application of assessment procedures and criteria, and on the achievement of learning outcomes (SCQF 2009, p.47).

Connections with European developments

Along with the other UK countries, Scotland has played a significant role in the development of the ECTS for higher education and subsequently of European credit arrangements for VET. The SCQF and the ECVET are based on a number of common principles. Both are based on learning outcomes (using the same definition) and both assume that outcomes will be grouped into units. Both are linked with a wider set of measures concerning qualification levels and quality assurance. Both are voluntary; the recognition of credit for transfer is a decision for the receiving organisation (in SCQF terminology) or the home institution (in the ECVET terminology). However, the SCQF's distinction between general and specific credit is not reflected in the ECVET.

Both the SCQF and the ECVET adopt a time-based metric for credit points, although this is less clearly articulated in the case of ECVET. ECVET's convention of 60 credit points per year of formal full-time VET suggests that an ECVET point is twice the value of an SCQF credit point, whose value is based on a convention of 120 credit points per year. (This principle is used to convert SCQF to ECTS credit points.) However, the two frameworks differ in their treatment of units which appear in more than one qualification. If the same unit is common to several qualifications the number of ECVET points attached to that unit may vary from one of these qualifications to another. In the SCQF the same unit has the same general credit value regardless of the qualification to which it contributes, although its specific credit value may differ. This difference reflects an underlying difference in approach. ECVET points are allocated first to a whole qualification (on the basis of the expected learning time in one chosen learning context) and then subdivided among the component units. In the SCQF the process works the other way round: points are allocated first to units and then to the qualifications built from those units, although the design of a unit may be influenced by assumptions about the qualification(s) of which it will be part. In this respect the SCQF is closer to the current ECTS than to ECVET; some Scottish experts on credit anticipate that the current ECVET arrangement will prove confusing or unworkable and eventually converge towards the ECTS/SCQF position.

Another possible difference arises from the fact that credit is built in to a levels framework in the case of SCQF but not the EQF. Both SCQF and ECVET credits should be understood in relation to a specific level of the respective framework, SCQF or EQF. But, as noted above, in the SCQF a whole qualification at a given level may include units at levels below (or above) that level, whereas there is no clear guidance on this in relation to either ECVET or the EQF. It remains to be seen whether this causes difficulty in the cross-national transfer of credit.

The links between Scottish quality assurance arrangements and the European Quality Assurance Reference Framework (EQARF) are limited (although the EQF and ECVET also have their own quality assurance requirements, apart from the EQARF). The European guidelines on the recognition of non-formal and informal learning are close to the SCQF's principles and practice.

Annex 4 shows how the SCQF has been referenced EQF framework.

Conceptual challenges and obstacles

The SCQF is based on the twin concepts of level and credit, and both of these are defined in terms of learning outcomes. Yet, paradoxically, some earlier understandings of learning outcomes in Scotland did not consider them to be compatible either with levels or with

measures of credit or volume of learning. Thus, the Action Plan did not allocate modules to general levels, partly on the grounds that levels reflected an earlier 'ranking' mentality which contrasted with the new emphasis on what a learner knew or could do. Some modules, however, were ordered in sequences which made sense in terms of the area and the related skills (eg Communication 1 to Communication 6) but not in terms of generic levels. At the same time modules, which were designed with delivery in formal VET in mind, did have credit values. SVQs, on the other hand, were placed at levels based on definitions of generic occupational roles, but were not initially given a credit value or any indication of volume of learning. This, it was felt, was inappropriate for qualifications which signalled competences and were designed for delivery in informal settings, and could only be managed by reintroducing 'input' concepts such as duration of study. This was particularly unwelcome as SVQs and NVQs were introduced as an alternative to 'time-serving' as a criterion for completing industrial training.

The idea of generic levels for VET delivered in schools and colleges was gradually introduced in practice and then consolidated and formalised by the Higher Still reforms which preceded the introduction of the SCQF. SVQ levels were related to SCQF levels at the earliest stage of the development of the framework, and this placement was refined over a number of years. Any delays partly reflected the need to remain compatible with slower developments affecting NVQs in England. The process of allocating credit to SVQ units was more controversial, since it seemed to users to imply a return to time-serving. However, the standards-setting bodies were persuaded that allocating credit to these qualifications would be valuable to individuals, giving them opportunities for transfer and progression and activities were quickly focused on developing an acceptable methodology. A number of piloting projects were undertaken which assured these bodies that they would still have a lead role in allocating credit and that the use of a score card, or best fit, approach would not threaten the integrity of the occupational standards or the qualifications derived from them. The routine allocation of a framework level and credit value to SVQs as part of the accreditation procedure is now accepted practice.

Similar tensions surround more recent conceptual issues. Credit-rating non-formal and informal learning may be relatively easy when there is a formal learning process with which to compare it (as is made clear in the documentation for ECVET). In such cases, there is an empirical basis for determining the notional hours required by the average learner at the given level to achieve the outcomes. When there is no such comparison, the problem can be more difficult. A similar issue concerns the new literacy and numeracy awards which all 15 year-old school pupils in Scotland will be expected to attempt from 2013. At the time of writing, their credit values have not been decided. The awards are intended to attest competence in literacy and numeracy and to encourage cross-disciplinary work in these areas; assessment will be portfolio-based with evidence to be drawn from different areas of the curriculum. It is therefore no simple matter to determine the notional learning hours required to achieve the outcomes, given that they are achieved as part of other learning, including non-formal and informal learning. In practice, the decision is likely to be based less on any concept of notional learning hours than on a value judgement, namely the weight to be attached to the new awards in a school leaver's qualifications profile.

One of the main conceptual issues faced in the development of the SCQF as a comprehensive framework is the need to reconcile different concepts of credit that have developed in different parts of the system. This is an important issue: if a credit system aims to support transfer, not only between institutions or programmes but also between broader

sectors of education or training, then it is important not only that a single concept covers all sectors but also that this concept is recognised and trusted in all of them. The SCQF concept of credit developed largely from the definition adopted by SCOTCAT in the 1990s. Many National Qualifications delivered in schools and colleges were organised around units - sometimes termed 'credits' - which had traditionally represented 40 hours' timetabled time. The SCQF/SCOTCAT concept of credit and the NQ concept of credit were both time-based, but the NQ concept tended to be restricted to timetabled time, omitting learning outside the classroom.³ The NQ system was made compatible with the SCQF by giving each NQ unit a value of six credit points rather than four, in other words assuming that total notional learning time including non-contact hours totalled 60 rather than 40. For units at level 7 - the highest level normally attempted by secondary school pupils - a value of 8 credit points was agreed, equivalent to 80 hours total notional learning time. This was in line with the credit value attached to comparable HN and university units and reflected the expectation of a larger volume of independent study at this level.

A key issue in the transfer of credit across institutions or sectors is the comparability, not only of the concept of credit but also of the learning outcomes for which specific credit is sought. There are several issues here. The first concerns the transparency and degree of precision with which learning outcomes can be defined. There is a large international literature on this issue which we do not discuss here. In our judgement, the Scottish experience supports the argument that learning outcomes are a blunt instrument and do not provide perfectly transparent and precise information about learning. They typically need to be interpreted in the light of knowledge of the discipline or field of study and information about the learning process or 'inputs'. The SCQF Handbook stresses the importance of 'professional judgement'.

The second issue concerns the importance of institutional cultures in shaping the content, the process and consequently the outcomes of learning. A recent study by Miller, Edwards and Priestley (2008) uses Bloomer's (1997) distinction between the prescribed and enacted curriculum to compare the delivery of particular units in hospitality, life science and technical studies in a school and a college respectively. They argue that the translation of the prescribed curriculum into an enacted curriculum is influenced by the background and characteristics of the teacher, by the characteristics of students and by the organisation, resources and ethos of the institution. Qualifications or units with the same prescribed learning outcomes may therefore involve different learning experiences, which (the researchers argue) calls the logic of credit transfer into question. A similar argument might be made with respect to the award of credit on the basis of the recognition of non-formal or informal learning: the learning experiences differ from formal learning. Whether or not such differences matter for credit transfer may depend on the nature of the learning and the role of the credit that is transferred. For example, they may matter less for credit transfer for an enabling unit, which prepares for further learning, than for an exit unit, which represents the end point of learning in its topic.

The third issue concerns the ways in which receiving institutions exercise their discretion over whether or not to recognise credit for transfer. The organisation of programmes may discourage credit transfer: if units are delivered in an integrated manner rather than discretely it may be difficult to exempt students from specific units for which they have already earned credit. A more sensitive issue concerns the decision of some institutions,

³ In the NQ definition, as in the SCQF/SCOTCAT definition, the hours in the NQ definition were 'notional': four-unit courses were often delivered in around 120 hours rather than 160 hours.

notably the older universities, not to recognise credit from many HN programmes because their methods of teaching and learning are not considered to prepare students adequately for continued university study.

4. INSTITUTIONAL FRAMEWORK CONDITIONS

The SCQF was originally implemented and administered through a partnership of organisations. In 2007 this arrangement was strengthened by the establishment of the Scottish Credit and Qualifications Framework Partnership, a company limited by guarantee (that is, a 'not for profit' charity). The Partnership has an Executive Board which consists of members from the partner organisations plus an independent chair. The partners are Universities Scotland (representing higher education institutions), the Quality Assurance Agency for Higher Education, the Scottish Qualifications Authority (SQA), Scotland's Colleges and the Scottish Government.

The SCQF Partnership has a small executive, with a staff of around ten people led by a Chief Executive. A Quality Committee is responsible for maintaining the SCQF guidelines, ensuring consistency in the process and criteria for admitting qualifications to the framework (credit-rating - see below) and aligning the SCQF with other national and international frameworks. An SCQF Forum represents the main stakeholder interests, promotes the use of the framework and provides feedback on its design and implementation.

The process by which qualifications are accepted into the SCQF is called 'credit-rating'. The SQA and the universities, whose qualifications formed the nucleus of the original SCQF, have always had the powers to credit-rate their qualifications and place them in the SCQF. The colleges were accepted as credit-rating bodies after a pilot in 2005-06, at around the same time as they became partners in the SCQF. A further pilot and consultation in 2007-08 led to new criteria and procedures being established under which other organisations could gain credit-rating powers. In 2009 it was announced that these powers would be given to City and Guilds (a UK awarding body), the Scottish Police College and two professional bodies representing banking and management respectively. In order to become a credit-rating body an organisation must:

- be a body of good standing, demonstrating a track record in the design and delivery of learning provision in Scotland;
- have in place a documented quality assurance system for programme design, approval, validation, accreditation, assessment or other related activities, with evidence of reliability and validity; and
- have the necessary capacity and commitment and ensure that its credit-rating processes link to, and function within, the quality assurance system described above.

When approved as an SCQF credit-rating body, an organisation can credit-rate its own qualifications and learning programmes, and those of partners covered by the same quality assurance system. An organisation may be approved to credit-rate other organisations' qualifications and programmes if it meets further requirements that demonstrate its capacity, commitment and experience to do so and that it has appropriate structures and systems in place.

Qualifications in the SCQF are registered on a national database (www.scqf.org.uk/SCQF_CourseSearch.aspx?)

The SCQF publishes guidelines on the Recognition of Prior Learning. These state the following principles:

- recognition is given for learning, not for experience alone;
- the learning that is recognised should be transferable;
- SCQF credit points awarded as a result of RPL are of the same value as credit gained through other formal learning (SCQF 2009, p.98).

The SCQF distinguishes different types of outcomes of RPL, not all of which result in the award of SCQF Credit Points. Where Credit Points are awarded they may be used to:

- gain entry to the first level of a programme at a college or HEI;
- enable advanced entry to a programme of study at a college, HEI or other learning and training provider (SCQF 2009, p.72).

The SCQF has no regulatory function; it is an agreed framework and participation is voluntary. This, and the fact that the main awarding bodies are represented among the partners, help to explain its small bureaucracy: many of the functions of regulatory agencies in other systems are carried out by the SCQF Partners in Scotland. The SCQF has been represented as an instrument of change rather than a driver or agent of change. Its increasing use as the language of learning in Scotland may push it towards a more 'regulatory' role, because the language of learning necessarily becomes the language by which learning is regulated, but this is unlikely to make the recognition or transfer of credit mandatory.

An earlier study of the introduction of the SCQF distinguished two concepts of the 'implementation' of a credit system: a minimal concept which focused on the availability of opportunities for credit accumulation and transfer or of structures to facilitate it, and a broader concept which focused on the use of these opportunities and structures (Raffe 2003). In the voluntaristic Scottish system the former, minimal concept has dominated. Early research on the Action Plan distinguished between the 'intrinsic logic' of a qualifications system, which may favour credit accumulation and transfer, and the 'institutional logic' of its context. The institutional logic includes the factors which shape individuals' choices and opportunities for moving through learning and the labour market, institutional practices and the broader processes of educational and occupational selection which may inhibit the demand for credit transfer or the recognition of credit in practice. Not only may institutional logics provide barriers to credit transfer, but they may vary across sectors of education and training and thereby make it hard to design a comprehensive framework which is sensitive to these multiple logics. The tension between intrinsic and institutional logics has been a leitmotiv of the development of credit arrangements in Scotland. One practical consequence is the need for policy breadth: complementary policies or measures that directly influence institutional logics in order to facilitate the use of these arrangements.

One measure of this kind is the encouragement of partnerships between institutional providers of education and training which jointly develop progression pathways that may involve credit transfer. In effect, such partnerships provide a context within which general credit may be guaranteed to become specific credit. For example, the Scottish Funding Council funds the activities of five Regional Articulation Hubs, each based on a regional partnership of universities and colleges (a sixth hub links the Open University in Scotland with colleges). The Hubs' detailed activities vary, but they all work to increase and enhance

curricular pathways by planning the articulation of their respective programmes. For example, a college and university may plan an HND and degree course so that graduates of the HND earn automatic transfer into the third year of the degree course.

Other current developments involve the greater use of institutional partnerships which may provide a context for credit transfer. For example, the 16-plus Learning Choices programme - a strategy primarily designed to reduce the number of young people not in education, employment or training by ensuring that all have sufficient opportunities in education - is organised around partnerships of local authorities, colleges and the voluntary sector.

5. PRACTICAL USE

In this section we discuss the practical use of credit transfer in the Scottish system in relation to the three main interfaces we identified earlier: from general and pre-vocational learning into mainstream VET; between different types of mainstream VET, and between VET and university. We first identify two reasons why this may be problematic.

The first reason is the relative lack of suitable data. The SCQF Partnership has created a central database of opportunities registered on the SCQF but there still no central record of learners and the use that they make of these opportunities. This reflects the voluntary nature of the SCQF and its character as a meta-framework. Most data are collected and held by individual awarding bodies, who do not routinely report the number or proportion of awards that involve recognition of credit from elsewhere, or that give credit for prior learning in admitting students. Relatively few studies of credit transfer have been carried out, and these have tended to look at opportunities for credit transfer, or the way these opportunities are designed and implemented, rather than their use by learners. Other studies have focused on the impact of specific policies or measures rather than the overall impact and use of credit arrangements. For example, the evaluation of the SCQF concluded that the introduction of the SCQF *per se* had (at that time) had only a modest impact on progression and transfer, but this partly reflected that fact that it built on pre-existing arrangements such as SCOTCAT (Gallacher et al. 2005). Moreover, studies to date have focused on the interface between Higher National qualifications and university degrees with little, if any, attention to credit transfer from general education into vocational education and training or credit transfer within mainstream vocational education and training. More generally, there is a lack of longitudinal data in Scotland that would enable tracking of learners' movement through the education and training system.

The second reason why the discussion of the practical use of credit transfer in the Scottish system is problematic concerns the ways in which credit is used within the Scottish system. As we noted in the introduction to the report, the small size of many Scottish qualifications and the central role of a single awarding body mean that the type of flexibility that may be achieved by credit *transfer* in other systems may be achieved in Scotland through credit *accumulation* and through the *interconnectedness* of qualifications in the SQA portfolio and in the SCQF more generally. Credit in Scotland serves multiple uses, of which credit transfer is arguably not the most important. Credit is also a principle for designing qualifications, for planning and coordinating learning provision, for funding this provision and for recognising prior learning. Moreover, these functions are connected: credit may be used to plan and coordinate provision across institutions precisely in order to provide opportunities for learners to progress between them, possibly transferring credit in the process.

In the rest of this section we discuss these uses of credit transfer in relation to the three interfaces. For the reasons outlined above, our analysis is sketchy and incomplete; this section should be read as an agenda for the next phase of the project rather than as a summary in its own right.

Access interface: from general or pre-vocational education to ‘mainstream’ VET

Many of the qualifications reforms which led to the SCQF (especially the Action Plan and Higher Still) introduced a common architecture for qualifications for general, prevocational and vocational learning in schools and colleges. This is now embodied in the National Qualifications framework of units, courses and group awards. In principle it is possible to transfer credit from units or courses taken at school to college programmes, and from smaller awards such as Skills for Work courses or National Progression Awards to larger National Certificate awards. We have not found any publicly available statistical data on this but we have identified a number of examples where school students who complete Skills for Work courses are guaranteed places on full-time vocational courses at college. Similarly, there are examples of pre-apprenticeship programmes offered by schools and training providers where school students work towards a National Progression Award (NPA) and satisfactory progress leads to a Modern Apprenticeship with the training provider. Nevertheless, having taken an NPA does not necessarily in practice shorten the young person’s apprenticeship or enable him/her to undertake SVQ level 3 qualifications in a shorter time period.

Data on movement from Community Learning and Development provision to mainstream VET is not readily available but there is case study evidence of this. Examples include courses in sport, recreation and fitness aimed at young unemployed people and credited rated at SCQF level 3 with 2 credit points. Successful students from this have entered either the first or second year of the National Certificate in Sport at a local college (SFC 2008).

Potentially the interface from general education/pre- apprenticeship programmes is becoming more important with current attempts to expand pre-vocational learning in schools, to promote collaboration between schools and colleges, to expand the role of informal and non-formal learning in catering for the post-16 age group and to ensure that the range of opportunities is better coordinated so that it meets the needs of the client group and provides clearer progression routes. In practice, however, these trends may not make heavy use of credit transfer as such; many pre-vocational programmes, especially those for disadvantaged learners, focus more on the personal qualities of participants and the employability skills that will help them gain entry to initial training rather than on delivering qualifications from which credit may be transferred. A recent study of programmes to provide opportunities for young people at risk of becoming NEET noted that some of these programmes provided articulation to Modern Apprenticeships, training and employment programmes, but the report made no mention of credit transfer (Lowden *et al.* 2009). It concluded that effective provision offered ‘appropriate assessment to recognise learners’ achievements and provide nationally recognised qualifications to provide credible accreditation for young people’, and that promoting progression and positive transitions and destinations was ‘extremely important’, along with other features of the process, content and organisation of learning and the relevant support. However, there is no suggestion in the report either that credit transfer is a necessary component of effective practice or that it was available in the programmes studied.

In their review of unitisation, Hart and Howieson (2004) note that the recognition of prior certificated learning was an issue within the unitised system. Particularly in the early days of National Certificate modules, it was common for college students to have to repeat units they had already covered at school: 'While this was unfortunate, it was often understandable, because the flexibility of the units meant that the skills and knowledge developed through the same modules in different centres can differ considerably and the expectations which lecturers had of learners proceeding from module A to module B in their college would not be met by learners progressing from the local school.' (Hart and Howieson 2004, p.10). More recently, a report on Modern Apprenticeship and Skillseekers noted that core skills taken at school were sometimes not being recognised so that some learners had to repeat this as part of their Modern Apprenticeship (Cambridge Consultants 2007). Considering the examples we gave earlier of guaranteed entry to mainstream VET on completion of Skills for Work/pre-apprenticeship provision, it is notable that these programmes were offered jointly by schools and by colleges or training providers. It may be that recognition of the prior certificated learning is likely to happen where there is joint provision but less likely where schools alone offer the courses.

There has been strong recent encouragement for the recognition of prior learning (RPL). A strong driver has been the desire to use RPL to help workers meet new qualifications requirements in particular areas such as health and social services, sometimes to gain exemption from these requirements but also as a source of credit to transfer. For example, a new degree in Childhood Practice, based on a new professional standard, is designed to recognise prior learning either from qualifications already completed or from work or other experience. A recent review of RPL in Scotland 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). Current areas of development include apprenticeship, where RPL is seen to contribute to efficient delivery and the use of RPL for securing recognition and credit for migrant workers, refugees and asylum seekers especially those with experience and skills in the areas of healthcare, teaching and the building trades. The review identified a 'need for capacity building and infrastructure development on the supply side and a concerted marketing effort on the demand side'; the issues raised included 'the need for flexibility in providing recognition of prior learning and access to and credit towards other more formal learning'.

Transition interface: within mainstream VET

The evaluation of the SCQF drew attention to the way it had been used to map, rationalise and coordinate learning provision among neighbouring colleges and other providers (Gallacher *et al.* 2005). Progression from non - advanced VET to advanced level VET within the college sector is well established, indeed integral to the Scottish system which has credit accumulation and progression routes built into it. But there is little available data on the extent of credit transfer as defined in terms of reductions in study time or exemptions. This is an area that we will explore in Phase 2.

The progression routes between government-supported training programmes - Get Ready for Work, Skillseekers and Modern Apprenticeships - are well recognised. For example, over two thirds of young people in one study participated in Skillseekers because it would give them the required qualification to start a Modern Apprenticeship (Cambridge Policy Consultants 2007). The same study also notes that there had been progress in developing more effective articulation, but the numbers progressing between programmes were nevertheless reported as modest especially in relation to the Get Ready for Work and the

Skillseekers bridge. But it is extremely difficult to gain an overview of progression in general, or of the use of credit transfer in particular, because of the acknowledged lack of data on aspects of participation and especially on movement through the government supported training programmes.

Transition interface: from VET to university

The transition from VET to university, and in particular from HN qualifications to degree courses, is one of the most important interfaces for credit transfer, and also one of the most studied (eg Raban and MacLennan 1995, MacLennan *et al.* 2000, Gallacher *et al.* 2005). This is partly because degrees are large qualifications with a relatively standard currency and standing; they therefore contrast with other parts of the system where small, flexible and interconnected qualifications permit multiple pathways without the need for formal credit transfer. The HN route to degrees has also been seen as important for wider access and breadth of participation in higher education. The launch of SCOTCAT and the subsequent creation of a Scottish Advisory Committee on Credit and Access encouraged activity in this area, although progress has been uneven, with most activity concentrated in the 'new' universities created after 1992. More recently, the Regional Articulation Hubs (see above) have promoted inter-institutional agreements to provide opportunities for credit transfer.

There is certainly demand from students taking HN qualifications for transfer to university and frequently, depending partly on the subject discipline, an expectation of advanced standing to second or third year of the degree programme (Knox and Massie 2005). Across a number of disciplines, this study found that between 70% and 89% of HN students intended to progress to university.

A 2000 report on HN/degree interface identified several 'barriers' to credit transfer: 'pre-requisite knowledge (subject-specific and study and assessment skills); the in/flexibility of HN design, degree structures, and delivery options; lack of acceptance in principle of ... equivalence [of levels]; adherence to traditional student norms and full-ownership of students and degree programmes; problems comparing the 'quality' of [colleges] and HN awards; problems assessing the abilities of [college] students and comparing them with traditional students in lieu of a robust and acceptable grading system; problems assessing the "deservedness" of students; restrictions imposed by Professional Bodies, and practice of maintaining standards through controlling entry (as well as) exit points.' (MacLennan *et al.* 2000, p.v) Five years later the evaluation of the SCQF suggesting that there had been little change since the earlier report. It found a substantial number of articulation arrangements, but these had mainly pre-dated the SCQF. An interviewee from an older university criticised the perception among some people that the SCQF had solved the problems of articulation between the sectors.

We pointed out earlier that among the issues concerning credit transfer is the ways in which receiving institutions exercise their discretion over whether or not to recognise credit for transfer. Examples of this include the variation in the credit given by the ancient, traditional and post 92 universities. In the disciplines of Psychology and Sociology, for example, differences were reported in the amount of credit offered to candidates with the relevant HND: while a post 92 university offered entry to third year of the degree, a traditional university only offered entry to the first year of the degree (Knox and Massie 2007).

Another obstacle that can inhibit the use of credit transfer in practice is the cap that the Scottish Funding Council applies to student numbers: this can mean that there may be

limited opportunities for transfer into second and third years of courses in institutions and subject areas with high levels of retention (Knox and Massie 2007).

The most recent figures, published by the SFC, show that in 2007-08 there were 2,982 HN-qualified entrants to the second or third year of a first degree course (and therefore probably with credit transfer or 'advanced standing'). This may underestimate the true figure; it compares with a total of more than 38,000 HN students studying in Scotland, mostly in colleges. The SFC data show a fall since the previous year, when there were 3,377 such entrants, but an increase since 2001-02 when there were 2,329 (SFC 2009, p.40).

The development of work based degrees is attracting interest. A draft report of a study on work-based degrees carried out by the Edinburgh, Fife and Borders Regional Articulation Hub concludes that 'there is significant employer demand to enable individuals in the workplace holding SVQ qualifications, Modern Apprenticeships or HNC/D qualifications to progress to study at degree level without loss of time' (p 42 Chatterton and Smith 2010 forthcoming). They note that six Sector Skills Councils are currently looking at developing models for the formal accreditation of work based learning to degree levels: Construction; Engineering; Hospitality and Tourism; Health; Childcare, Health and Social Care; and the Creative Industries. One difficulty facing this development is that the SCQF framework does not provide a clear mapping of SVQs to HE qualifications (SVQs are levelled across more than one SCQF level) so that individual mapping of each VQ framework is required which has resource implications. Nevertheless it can have the benefit of ensuring curriculum progression is fully considered. There are already some examples of work based degrees such as 'Engineers of the Future' which takes the learner from a Modern Apprenticeship to Masters level. Work based degrees take advantage of the Scottish credit system to construct an integrated programme that combines academic and vocational study and qualifications in a shorter timescale than would be otherwise possible (and arguably in a more effective way).

6. PERSPECTIVES

In this section we are asked to consider whether the present discussion about ECVET has an influence on existing procedures for crediting learning outcomes. As noted in section 3, above, there are many similarities in the conceptual foundations of ECVET and Scottish credit arrangements. We noted a few differences: the SCQF's distinction between general and specific credit, its premise that the same units has a fixed general credit value regardless of the qualification of which it is part, and the fact that credit is built into the SCQF and a qualification may include credits at more than one level. We do not anticipate an influence on Scottish arrangements in the short term; the expectation is that ECVET arrangements will evolve over time.

7. PROPOSED INTERVIEWEES

We have not divided up the interviews in relation to each of the interfaces since a number of them cover more than one interface.

- SCQF Partnership: Margaret Cameron (manager, for general overview of SCQF and credit); Julie Cavanagh (responsibilities include RPL)

- SQA: 3 members of staff will be interviewed from the sections of Business and Intelligence Services (Steve Borley: responsible for statistics on use of SQA qualifications); HN and Vocational Delivery (Martin Hughes); and NPAs and SfW
- Skills Development Scotland (responsible for government-supported work-based training): one member of staff from statistics and one from operations
- Scotland's Colleges (representative body for colleges, with developmental role): Jane Polglase
- SVQ/MA Work Based Learning Network (facilitated by Scotland's Colleges and chaired by Maria Roushias)
- Scottish Funding Council (responsible for funding colleges: possibly a statistician and project officer responsible for projects concerning credit transfer and colleges)
- Scottish Training Federation (body representing training organisations in Scotland including employers, training providers and colleges): Chair (Colin Dalrymple) or Director (Maria Roushias)
- Modern Apprenticeship Group in Scotland – this will be covered by interviewing members who are already noted under their own organisation
- Sector Skills Alliance (alliance of Sector Skills Councils (SSCs) - 'employer-led' bodies concerned with skills and qualifications in each sector): Qualifications Manager (Iain McCaskey)
- We have identified SSCs most likely to be using credit, including:
 - Construction Skills (SSC for construction): Education Manager (Steven Sheridan)
 - Childcare, Health and Social care (SSC)
 - Semta (Science and Engineering SSC): Education Manager
- Two colleges eg Telford College and Adam Smith College. Colleges can provide data on the use of credit transfer in respect of all three interfaces
- Three other training providers as identified by Sector Skills Councils and other interviewees.
- Two of the Regional Articulation Hubs: one led by the University of the West of Scotland and the other led by Napier University

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Annex 1:

SECTORS & STAGES OF SCOTTISH EDUCATION AND TRAINING and main opportunities for credit transfer					
Any age ↑ 18+	Limited provision for adults in schools	College	University	Workplace training	Community learning
		← →	←	-----	---
		←	-----	-----	---
		←	-----	→	
17	Secondary school (voluntary)	-----	→ ←	←	---
16		← →	Secondary school/college		
13-16	Secondary school (compulsory)				
5-12	Primary School				
3-4	Pre-school				

Annex 2:

THE SCOTTISH CREDIT AND QUALIFICATIONS FRAMEWORK



scottish credit and
qualifications framework

SCQF Levels	SQA Qualifications			Qualifications of Higher Education Institutions	Scottish Vocational Qualifications
12				DOCTORAL DEGREE	
11				INTEGRATED MASTERS DEGREE / MASTERS DEGREE POST GRADUATE DIPLOMA POST GRADUATE CERTIFICATE	SVQ5
10				HONOURS DEGREE GRADUATE DIPLOMA GRADUATE CERTIFICATE	
9			PROFESSIONAL DEVELOPMENT AWARD	BACHELORS / ORDINARY DEGREE GRADUATE DIPLOMA GRADUATE CERTIFICATE	SVQ4
8		HIGHER NATIONAL DIPLOMA		DIPLOMA OF HIGHER EDUCATION	
7	ADVANCED HIGHER	HIGHER NATIONAL CERTIFICATE		CERTIFICATE OF HIGHER EDUCATION	SVQ3
6	HIGHER				
5	INTERMEDIATE 2 CREDIT STANDARD GRADE				SVQ2
4	INTERMEDIATE 1 GENERAL STANDARD GRADE	NATIONAL CERTIFICATE	NATIONAL PROGRESSION AWARD		SVQ1
3	ACCESS 3 FOUNDATION STANDARD GRADE				
2	ACCESS 2				
1	ACCESS 1				

Note; National Certificates: group awards based on National Units (not NC modules introduced by Action Plan).

Source: SCQF: www.scqf.org.uk

Annex 3: Example of SCQF Level Descriptors

SCQF Level 5 (Intermediate 2, Credit Standard Grade, SVQ 2 are examples of qualifications at this level)

Characteristics	The following descriptions are for guidance only — it is not expected that every point will be covered
Knowledge and understanding	Demonstrate and/or work with: • Basic knowledge in a subject/discipline which is mainly factual but has some theoretical component; • A range of simple facts and ideas about and associated with a subject/discipline; • Knowledge and understanding of basic processes, materials and terminology.
Practice: applied knowledge and understanding	Relate ideas and knowledge to personal and/or practical contexts. Complete some routine and non-routine tasks using knowledge associated with a subject/discipline. Plan and organise both familiar and new tasks. Select appropriate tools and materials and use safely and effectively (e.g. without waste). Adjust tools where necessary, following safe practices.
Generic cognitive skills	Use a problem-solving approach to deal with a situation or issue that is straightforward in relation to a subject/discipline. Operate in a familiar context, but where there is a need to take account of or use additional information of different kinds, some of which will be theoretical or hypothetical. Use some abstract constructs – for example make generalisations and/or draw conclusions.
Communication, ICT and numeracy skills	Use a range of routine skills – for example: • Produce and respond to detailed written and oral communication in familiar contexts; • Use standard applications to process, obtain and combine information; • Use a range of numerical and graphical data in straightforward contexts that have some complex features.
Autonomy, accountability and working with others	Work alone or with others on tasks with minimum supervision. Agree goals and responsibilities for self and/or work team with manager/supervisor. Take leadership responsibility for some tasks. Show an awareness of others' roles, responsibilities and requirements in carrying out work and make a contribution to the evaluation and improvement of practices and processes.

SCQF Level 6 (Higher, SVQ 34 are examples of qualifications at this level)

Characteristics	The following descriptions are for guidance only — it is not expected that every point will be covered
Knowledge and understanding	Demonstrate and/or work with: • Generalised knowledge of a subject/discipline; • Factual and theoretical knowledge; • A range of facts, ideas, properties, materials, terminology, practices, techniques about/associated with a subject/ discipline; • Relate the subject/discipline to a range of practical and/or everyday applications.
Practice: applied knowledge and understanding	Apply knowledge and understanding in known, practical contexts. Use some of the basic, routine practices, techniques and/or materials associated with a subject/discipline in routine contexts which may have non-routine elements. Plan how skills will be used to address set situations and/or problems and adapt these as necessary.
Generic cognitive skills	Obtain, organise and use factual and theoretical information in problem solving. Make generalisations and predictions. Draw conclusions and suggest solutions.
Communication, ICT and numeracy skills	Use a wide range of skills – for example: • Produce and respond to detailed and relatively complex written and oral communication in both familiar and unfamiliar contexts; • Select and use standard applications to process, obtain and combine information; • Use a wide range of numerical and graphical data in routine contexts which may have non-routine elements.
Autonomy, accountability and working with others	Take responsibility for the carrying out of a range of activities where the overall goal is clear, under non-directive supervision. Take some supervisory responsibility for the work of others and lead established teams in the implementation of routine work. Manage limited resources within defined and supervised areas of work. Take account of roles and responsibilities related to the tasks being carried out and take a significant role in the evaluation of work and the improvement of practices and processes.

Source: SCQF: www.scqf.org.uk

⁴ SVQ3 spans SCQF Levels 6 and 7.

Annex 4:

SCQF – EQF Referencing	
SCQF	EQF
12	8
11	7
10	6
9	
8	5
7	
6	4
5	3
4	2
3	1
2	
1	

Source: Final Report on the Referencing of the Scottish Credit and Qualifications Framework to the European Qualifications Framework for Lifelong Learning