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## Acronyms and abbreviations

AQF	Australian Qualifications Framework
CAMES	African and Malagasy Council for Higher Education
CAT	Credit Accumulation and Transfer
CEDEFOP	European Centre for the Development of Vocational Training
CQAF	European Common Quality Assurance Framework
DoE	Department of Education
ECTS	European Credit Transfer and Accumulation System
ECVET	European Credit Transfer System for Vocational Education and Training
ELOAC	Exit Level Outcomes and Assessment Criteria
EWNI	England, Wales and Northern Ireland
EQF	European Qualifications Framework
GATS	General Agreement on Trade in Services
GATT	General Agreement on Tariffs and Trade
HECIW	Higher Education Credit Initiative Wales
HESA	Higher Education South Africa
HEQF	Higher Education Qualifications Framework (draft)
HSRC	Human Sciences Research Council
ILO	International Labour Organisation
InCCA	Inter Consortia Credit Agreement
NEPAD	New Partnership for Africa's Development
NICATS	Northern Ireland Credit Accumulation and Transfer System
NLRD	National Learners' Records Database
NQAI	National Qualifications Authority of Ireland
NQF	National Qualifications Framework
NTB	National Training Board
NZQA	New Zealand Qualifications Authority
NUCCAT	Northern Universities Consortium for Credit Accumulation and Transfer
QAA	Quality Assurance Agency
RPL	Recognition of Prior Learning
SACCA	Scottish Advisory Committee on Credit and Access
SADC	Southern African Development Community
SADCQF	Southern African Development Community Qualifications Framework
SAQA	South African Qualifications Authority
SAUVCA	South African Universities' Vice Chancellors' Association (Now Higher Education South Africa)
SCOTCAT	Scottish Credit Accumulation and Transfer
SCQF	Scottish Credit and Qualifications Framework
SEEC	Southern England Consortium for Credit Accumulation and Transfer
SQA	Scottish Qualifications Authority
TCCA	Technical Committee on Certification and Accreditation (SADC)
UNESCO	United Nations Education, Scientific and Cultural Organisation
UNISA	University of South Africa
VET	Vocational Education and Training
VQA	Victoria Qualifications Authority

## Definition of key terms

The **South African National Qualifications Framework** is a set of principles and guidelines by which records of learner achievements are registered to enable recognition of acquired skills and knowledge, and thereby using an integrated system that encourages lifelong learning.

A **Credit Accumulation and Transfer System** is an arrangement wherein the diverse features of both credit accumulation and credit transfer are combined to enable lifelong learning.

**Credit accumulation** is the totalling of (general) credits required to complete a qualification or a part of a qualification that is usually limited to specific programmes, often within a particular institution.

**Credit transfer** is the vertical or horizontal relocation of (specific) credits towards a qualification or part qualification on the same or higher level that usually takes place between programmes, often between different institutions.

## EDITORIAL COMMENT

This report is a summary of an exploratory investigation into the use of credit accumulation and transfer (CAT) systems in the international context. SAQA has undertaken this research to compare the NQF in South Africa with NQFs in other countries. This report is a contribution to the ongoing debate on different forms of NQFs.

The report is structured into three sections. The first is an attempt to reach a common understanding of a CAT system, including the perceived benefits for such a system; the second looks at credit accumulation and transfer as these occur in or alongside existing and emerging NQFs; and the third reflects on the possibility of the South African NQF as a CAT system, including possible obstacles and challenges that may limit such a development.

The following is a brief overview of the main points raised in the report:

- Credit accumulation and credit transfer are not the same. Credit accumulation is the totalling of (general) credits required to complete a qualification or a part of a qualification that is usually limited to specific programmes, often within a particular institution. Credit transfer is the vertical or horizontal relocation of (specific) credits towards a qualification or part qualification on the same or higher level that usually takes place between programmes, often between different institutions.
- A credit accumulation and transfer (CAT) system is an arrangement wherein the diverse features of both credit accumulation and credit transfer are combined to enable lifelong learning. CAT systems depend on the development of communities of trust where there is mutual acceptance of quality assurance processes.
- A CAT system is characterised by credits assigned to an amount of learning, learning outcomes as the basis for credit values and the verified achievement of designated learning outcomes at a specified level.
- The potential benefits of a CAT system include the common currency of credits, accommodation of diverse learning, improved student mobility, the meaningful articulation of credits within and between institutions, and the more coherent linking of academic and vocational awards.
- CAT systems and NQFs are closely related but are not the same. In some cases CAT systems are included in NQFs, while in other cases CAT systems function alongside NQFs.
- A credit matrix provides an effective tool to facilitate the development of a fully functional CAT system.

- There are at least five examples of NQFs that either have or are in the process of developing CAT systems: Australia (with a particularly detailed development in Victoria), New Zealand, the Republic of Ireland, England, Wales and Scotland.
- Both the European and SADC regional (meta) frameworks encourage integrated CAT systems.
- At present the South African NQF is not a CAT system, nor does it include a CAT system. Portability of qualifications is limited and there is only sparse evidence of credit transfer taking place.
- Stumbling blocks in the way of developing a CAT system in South Africa include entrenched beliefs about the quality of institutions (lack of parity of esteem) and entrenched institutional practices.
- A number of recent developments are already working towards supporting improved credit accumulation and transfer.

In conclusion, the exploratory investigation shows that the South African NQF provides the basic framework wherein the systematic development of a CAT system can be pursued.

# CHAIRPERSON'S FOREWORD

The research report included in this edition of the *SAQA Bulletin* is a summary of an exploratory investigation into the use of credit accumulation and transfer (CAT) systems in the international context. First identified during the NQF review as an important issue requiring attention, CAT was discussed at the First Annual NQF Colloquium (June 2005), and followed by this further investigation that was completed in January 2006.

As shown in the research report, CAT is also closely linked to Recognition of Prior Learning (RPL) and Continuing Education. For this reason SAQA is currently in the process of setting up two think tanks (one on RPL, the other on Continuing Education) to create opportunities for creative thinkers from different sectors in education and training to, amongst other things, identify the systemic constraints that affect the development and implementation of the NQF. A brief overview of the issues that will be dealt with in each think tank is given below.

## ***Think tank on Continuing Education***

As learners and employers are becoming more aware of the advantages of NQF-aligned education and training, Continuing Education centres are being forced to reconsider the manner and format in which their courses are offered. While there is general recognition that Continuing Education centres have an important role to play in developing more customised courses in a much shorter period than would be possible in more formalised offerings, it is apparent that Continuing Education in general is facing considerable challenges.

The purpose of the think tank on Continuing Education is, therefore, to address the following:

- Quality assurance and recognition of non-credit-bearing Continuing Education
- Alignment of some Continuing Education courses
- Moving beyond the historical discipline-based approach

## ***Think tank on Recognition of Prior Learning***

Internationally, RPL is fast becoming an important issue in relation to the notion of lifelong learning. This is evident in the number of studies that have been commissioned by important international bodies. The International Labour Organisation (ILO), for example, requested SAQA to compile an introductory guide to RPL that will be disseminated to all their member countries. This guide is in its final stages of development. In addition, the Organisation for Economic Co-operation and Development (OECD) has approached SAQA to participate in a worldwide study on RPL practice. South Africa is seen to be at the forefront of developments in this regard. However, despite its good policies and implementation guidelines, RPL has not been implemented systemically in South Africa.

The purpose of the RPL think tank is to:

- Take the lead in thinking about, and in clarifying the implications for a systemic approach to RPL.
- Involve critical thinkers in finding appropriate approaches that will meet the needs of the different permutations of RPL.
- Investigate the possible barriers to recognising the skills and knowledge of people who may have much work and life experience, but no formal qualifications, and to propose how such barriers could possibly be overcome.

SAQA encourages its NQF principals, partners and stakeholders to support the continued and improved development and implementation of the South African NQF by engaging critically with the research report and proposed think tanks. SAQA welcomes response papers and also undertakes to publish such papers where appropriate.

Shirley Walters

Chairperson: South African Qualifications Authority

July 2006



# CREDIT ACCUMULATION AND TRANSFER IN THE CONTEXT OF THE SOUTH AFRICAN NATIONAL QUALIFICATIONS FRAMEWORK

## *An exploratory investigation*

### *Background*

Both literature and praxis seem to suggest that the notion of credit accumulation and transfer (CAT) systems is almost always linked with the idea of national qualifications frameworks (NQFs). One notable exception is the United States of America, where there are both local and national credit systems but no national framework. In some countries, such as Scotland's Credit and Qualifications Framework (SCQF), NQFs are CAT systems, while in others NQFs are not even credit-based. The South African NQF appears to lie somewhere between the two extremes: it is credit-based and allows for accumulation of credits, but is not a credit transfer system that meticulously keeps track of learners' credits partially achieved towards qualifications and unit standards. Questions about the NQF and CAT are not new to the South African context either. Since the days of the *National Training Board Initiative* (NTB, 1994) and the HSRC's *Ways of seeing the NQF* (HSRC, 1995), the comparisons have been discussed. More recently, in 2004, the draft *Higher Education Qualifications Framework* (HEQF) document (DoE, 2004) proposed that systematic work on a CAT scheme needed to be undertaken by SAQA, the Department of Education (DoE) and higher education role-players:

The Ministry of Education intends to undertake systematic work on the development of a national CAT scheme in collaboration with the higher education community and SAQA (DoE, 2004:10).

Even more recently various discussion forums have included a focus on CAT in the context of the South African NQF. Examples of articles that followed from these forums, and that are referred to extensively in this report, are:

- *National qualifications frameworks as credit accumulation and transfer systems* (Hart, 2005)
- *Can we build trust and enhanced articulation through a credit accumulation and transfer system?* (Samuels, 2005)
- *The call for credit accumulation and transfer in South African higher education: progress or wishful thinking?* (Naudé, Blom and Keevy, 2005)

Similar examples of research on CAT in the international context include the following:

- *What managerialists forget: higher education credit frameworks and managerialist ideology* (Trowler, 1998)
- *A documentary study of arrangements for credit accumulation and transfer in higher education* (Butler and Hope, 2000)
- *European reference levels for education and training. An important parameter for promoting credit transfer and mutual trust* (Coles and Oates, 2004)

## ***Purpose of this investigation***

When reviewing literature, it is evident that the implementation of CAT in the context of NQFs is an emerging phenomenon (even trend) that will require much deeper interrogation in the years to come.

It is with this background in mind that SAQA has initiated this exploratory investigation into the use of CAT systems internationally. Although the investigation is primarily exploratory, it has as its particular purpose the development of a resource document that can form the basis for systematic work on the development of a national CAT system in South Africa.

## ***Overview of investigation***

This investigation is structured into four sections:

Section 1 is an attempt to find some common understanding of what is meant by credit, credit accumulation, credit transfer and a system that would combine the features of both credit accumulation and transfer, i.e. a CAT system. Using local and international literature, it is shown that these processes and systems are very different and it is emphasised that a common understanding of each is an important prerequisite to more detailed analysis. Eight characteristics as well as a number of potential benefits of a CAT system are also discussed.

Section 2 focuses on five cases where credit accumulation and transfer occur alongside or within national qualifications frameworks: Victoria's credit matrix, New Zealand's credit recognition and transfer policy, the English common credit framework<sup>1</sup>, Ireland's national approach to credit, and Scotland's Scottish Credit Accumulation and Transfer Scheme. Credit accumulation and transfer in the context of two emerging regional qualifications frameworks is also briefly discussed: the European Qualifications Framework (EQF) and the Southern African Development Community Qualifications Framework (SADCQF).

In Section 3 the common understanding of credit and accumulation is used (as explored in Section 1) in conjunction with the main points raised in the discussion on credit accumulation and transfer in the context of current and emerging NQFs (Section 2) to start to explore how the South African NQF could accommodate a CAT system. This includes possible obstacles and challenges that may limit such a development. The section ends with some recommendations for the implementation of CAT in the context of the South African NQF.

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<sup>1</sup> This is an English development, which will be followed by Northern Ireland, but Wales and Scotland will not use it.

# SECTION 1:

## TOWARDS A COMMON UNDERSTANDING OF A CREDIT ACCUMULATION AND TRANSFER SYSTEM

### **Introduction**

The first step towards a common understanding of credit accumulation and transfer is to reflect on the various interpretations given to credits, credit accumulation, credit transfer and also a credit accumulation and transfer (CAT) system. Each of these are briefly discussed below and followed by a summary of the key characteristics, after which a brief discussion on the perceived benefits of a CAT system is presented.

### **Credit**

In the Northern Ireland Credit Accumulation and Transfer System (NICATS)<sup>2</sup> model, which was intended to apply to all forms of learning (i.e. general education, higher education and vocational education and training), a credit is defined as an ‘award made to a learner in recognition of the verified achievement of designated learning outcomes at a specified level’ (NICATS, 2005).

Butler and Hope (2000:7), reporting on developments in Higher Education, add a time-based interpretation by defining credits as the ‘currency used to measure student workload in terms of the notional learning time required for specified learning outcomes’, but also add that a certain level of performance is necessary:

In addition, a certain level of performance must be maintained in the work done for each course, if the credit hours relating to that course are to count towards the qualification, and credits are awarded only if academic performance on the course is judged to be satisfactory (e.g. by passing examinations at the end of the course) (*ibid.*).

The Southern England Consortium for Credit Accumulation and Transfer (SEEC) interpret credits as ‘a quantified means of expressing equivalence of learning’ (SEEC, 2005). According to SEEC:

Credit is awarded to a learner in recognition of the verified achievement of designated learning outcomes at a specified level. It is a way of comparing learning achieved in a variety of different contexts... The amount of credit achieved is related to the amount of learning (*ibid.*).

Hart (2005:80) offers a similar interpretation, emphasising that this interpretation may be restricted in partial national qualifications frameworks, such as those that do not take account of informal or workplace learning:

Credit is intended to give an indication of the volume of learning required by a programme. It is usually expressed as a numerical value linked to notional learning time, although the precise definition of notional learning time may vary from system to system. Many credit systems (including the South African) work on the basis that one credit point represents the outcomes of learning achieved through a notional 10 hours of learning.

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<sup>2</sup> The English Common Credit Framework will in all probability replace NICATS.

SAQA (2000:9) offers another, also similar interpretation, linking credits to specific levels and notional time:

SAQA uses a credit system based on the idea that one credit equals 10 notional hours of learning, motivated in context in each case. 'Notional hours of learning' refers to the learning time that it would take an average learner to meet the outcomes defined. It includes concepts such as: contact time, time spent in structured learning in the workplace, individual learning and assessment.

A common understanding of credit, based on this discussion, is suggested as follows:

**Credit** is the quantified recognition of verified achievement of learning outcomes at a specific level of performance. It represents a particular volume of learning (linked to notional time).

### ***Credit accumulation***

The manner in which credits are accumulated differs extensively from country to country. In some cases a formal system, such as an NQF, supports the accumulation of credits on a national and even regional basis, while in others accumulation is only possible within a particular institution. Despite this range of possibilities, literature does point towards common characteristics of credit accumulation.

For example, Butler and Hope (2000) describe credit accumulation as the totalling of credits that are required to complete a programme, or a part of a programme, according to requirements of the programme. SAQA (2000:10) offers a similar interpretation, but focuses on the qualification rather than the programme:

Qualifications and standards are registered at specific levels of the framework and have a credit value. Learners, in the course of study, may accumulate credits over time towards a qualification.

Apparently lacking in the SAQA definition is the point made by Butler and Hope (2000) that the 'requirements of the programme' will have a significant influence on that manner in which credits can be accumulated. There are systems where the requirements of all or some part of the programme can be quite broad (e.g. some high school graduation requirements in the USA), but on the whole it is likely that there are quite demanding rules about the basis for accumulating credits towards a qualification.

The point to be made here is that there is general agreement that credits can, and should, accumulate towards a qualification, or part qualification. Based on a common, at least national, interpretation of what such credits are, this accumulation should in principle be possible. In reality, however, this is seldom the case. The intricate relationship between learning programmes and credits may make it possible to accumulate credits within a particular institution, but does not necessarily imply that such accumulated credits will be recognised elsewhere. Even less so, it will not necessarily be possible to 'add' such credits to credits obtained elsewhere. Without some form of a national coherent approach, credit accumulation is virtually impossible.

Another important point related to credit accumulation is the different classes of qualifications that may be offered in a particular country. In South Africa both unit standard-based and non-unit standard-based qualifications are included on the NQF:

### **Unit standard-based qualifications**

These are qualifications that are made up of a specific grouping of unit standards so that specific rules of combination for a qualification are adhered to – this refers mainly to the fundamental, core and elective components of the qualification. These qualifications also have their own sets of outcomes and assessment criteria, but are characterised by the matrix of unit standards that are attached to them.

### **Non-unit standard-based qualifications**

These are qualifications that specify only the exit level outcomes and assessment criteria (ELOAC)<sup>3</sup> and are not made up of distinct unit standards. These qualifications are described by broad exit level outcomes and assessment criteria to ensure that a planned combination of learning outcomes is presented.

While the building blocks of unit standard-based qualifications are obviously unit standards (each associated with a particular number of credits), non-unit standard-based qualifications are made up of modules. Even though such modules may also be associated with a particular number of credits, the modules remain localised and unique to the particular institution that offers the non-unit standard-based qualification.

Does this mean that all qualifications should be unit standard-based to enable credit accumulation? Not necessarily. There are alternative ways in which to accommodate non-unit standard-based qualifications and, in doing so, avoiding the much-resisted shift towards an overly vocationally orientated system. In this regard, Hart (2005) suggests an approach based on the learning outcomes of a programme that applies to all learning programmes, whether the learning programme is based on a unit standard, a unit standard-based qualification or a non-unit standard-based qualification. According to Hart (*ibid.*) there is a difference between ‘general’ credits that can be *accumulated* and ‘specific’ credits that are *transferable* (see the next section on credit transfer). ‘General’ credits are recognised when a programme is used as a component in a larger programme (e.g. a module in a three-year programme):

The credit value given to a programme on the basis of notional learning time is its general credit value and when the programme is used as a component in a larger programme this is the value which it must be given. It might be thought of as the credit accumulation value (*ibid.*, 12, emphasis added).

Following from Hart’s argument and the supporting prior points raised by Butler and Hope (2000), a common understanding of credit accumulation is suggested as follows:

**Credit accumulation** is the totalling of (general) credits required to complete a qualification or a part of a qualification that is usually limited to specific programmes, often within a particular institution.

<sup>3</sup> For this reason non-unit standard-based qualifications are also referred to as ELOAC-qualifications.

## **Credit transfer**

Butler and Hope (2000:8) suggest that at least two dimensions of credit transfer are important:

*Horizontal credit transfer* involves students moving between institutions at the same level and receiving credit at their home institution for the time spent away.

*Vertical transfer* involves a student moving from an institution at one level in an educational system to another institution at a higher level taking with him/her the credits earned at the former institution. As a result, less time will be spent at the latter institution (emphasis added).

It is useful to return to Hart's (2005) earlier suggestion for a distinction between 'general' credit value that can be accumulated (and that is usually limited to a particular institution and/or programme) and 'specific' credit value that may be transferred. In order to determine 'specific' credits, Hart suggests that a comparison be made between the learning outcomes of two programmes, the one being a previously (partially or fully) acquired programme (A), the other a new programme (B). According to Hart (*ibid.*, 85) such a comparison leads to three possible positive results:

- The outcomes are identical.
- The outcomes are comparable enough to allow the full credit value of programme A to be counted in programme B.
- The outcomes are sufficiently comparable to make programme A worth some credit in programme B.

An important difference between the earlier understanding of credit accumulation and credit transfer (both supported by interpretations from Hart, 2005 and Butler and Hope, 2000) is that credit accumulation is more localised (i.e. limited to a particular institution) whereas credit *transfer* is mostly inter-institutional. Table 1 summarises these differences between credit accumulation and credit transfer.

<b>Credit accumulation</b>	<b>Credit transfer</b>
Accumulation of general credits towards a qualification	Vertical and/or horizontal transfer of specific credits towards a qualification
Mainly localised – limited to a particular programme or institution	Often generalisable – between different programmes or institutions
On a particular level	On the same level or on a higher level

**Table 1: The differences between credit accumulation and credit transfer**

Keeping the differences between credit accumulation and credit transfer in mind, the following common understanding of credit transfer is suggested:

**Credit transfer** is the vertical or horizontal relocation of (specific) credits towards a qualification or part qualification on the same or higher level that usually takes place between programmes, often between different institutions.

### ***Credit accumulation and transfer system***

According to Trowler (1998:91), a credit framework or system is one in which the diverse features of both the accumulation of credits and the transfer of credits are combined:

The constellation of more or less compatible features facilitated by the assignment of credit to assessed learning, including modularity, the semester system, franchising, the accreditation of work-based learning and of prior learning.

The Department of Education (2004:10) adds another aspect to Trowler's already encompassing interpretation:

Credit accumulation and transfer is the process whereby a learner's achievements are recognised and contribute to further learning even if the learner does not achieve a qualification.

It is evident from both the Trowler (1998) and DoE (2004) definitions that a CAT system could easily be seen as an immediate solution to all problems related to credit transfer. In this regard, it is important to realise that a CAT system, just as an NQF, may offer various benefits to an education and training system, but that these benefits are usually incremental in nature and may only be implemented in part in the short term.

Naudé, Heyns and Keevy (2005) list eight characteristics of systems that combine both credit accumulation and credit transfer that are particularly useful to fully understand the various components of a CAT system (some of which have been touched on in the preceding discussion). According to Naudé *et al.*, a CAT system includes a focus on:

1. credits assigned to the amount of learning;
2. learning outcomes as the basis for credit values;
3. verified achievement of designated learning outcomes at a specified level;
4. lifelong learning;
5. quality assurance of assessed learning;
6. non-traditional learners;
7. development of communities of trust; and
8. common goals, e.g. facilitate mobility of learners, flexible mechanisms, improved access, and recognition of different forms of knowledge.

The following is an extract from Naudé *et al.* (2005:6-10) that elaborates on each of the eight points above.

The *first* characteristic of a credit accumulation and transfer system is that it is based on credits assigned to the amount of learning required to master and/or understand a particular aspect of the learning programme. One credit, in the South African

context, is assigned for every ten hours of learning, which may include contact time, structured learning in a workplace, individual learning and assessment.

The *second* characteristic deals with commonly understood learning outcomes as the basis for decisions about credit values. These descriptions of the 'end-points' of learning become the common currency according to which credits are assigned. Different systems have defined their 'common currency' in different ways. All the systems, however, use learning outcomes and an outcomes-based approach to education and training as the common principle to describe the results of learning that has taken place. In Australia 'units of competency' are specified (AQF, 2005). New Zealand uses 'units of learning' (Hall, 1996), as does Ireland (NQAI, 2003), while Scotland uses 'outcomes and attainment' (SCQF, 2003). It is evident that nationally agreed standards form the basis for the assignment of credit and consequently of credit accumulation and transfer.

A *third* characteristic deals with the levels at which credits will be granted. The South African NQF currently uses an eight level framework, and so does the New Zealand NQF, (Snook, 1995) which includes levels 1–4 in the Further Education and Training band, and levels 5–8 as post-school, or Higher Education and Training band. However, in some cases, credit accumulation and transfer is only associated with Higher Education, e.g. in the work of English Higher Education consortia, the Welsh framework (SEEC, 2005) and the SCOTCAT system which took in general and vocational higher education and is now incorporated into the SCQF, while in other cases, it is only associated with vocational education, e.g. Australia. In Ireland and Scotland, there are moves towards extending the CAT system to Further Education and Training and its articulation with Higher Education. In these cases credit is strongly associated with a particular level in the overall framework of qualifications. The different levels seem to facilitate determining 'equivalence' or 'comparability'. The Southern England Consortium for Credit Accumulation and Transfer, which is concerned with higher education, for example, states:

Credit is a quantified means of expressing equivalence of learning. Credit is awarded to a learner in recognition of the verified achievement of designated learning outcomes at a specified level (SEEC, 2005).

Lifelong learning and the extent to which, in particular, credit accumulation makes this possible, is a *fourth* characteristic of a CAT system. The South African NQF clearly states that 'learners, in the course of study, may accumulate credits over time towards a qualification' (SAQA, 2000:10). In the Australian system, the growing importance of multi-skilling, re-skilling and lifelong learning is a key consideration for the establishment of a credit matrix (VQA, 2004), which enhances lifelong learning, while in the United Kingdom the development of a credit system is the pledge by the government that universities will provide lifelong opportunities to meet the aspirations of a growing proportion of the population. In Scotland, the establishment of progression and credit transfer opportunities across the full range of qualifications in Scotland, is an important foundation for widening access to lifelong learning opportunities (Quality Assurance Agency for Higher Education, 2004). In Scotland, the SCQF credit system takes in general and vocational learning delivered in schools, further and higher education institutions, community education and the workplace at levels from very basic to the highest academic outcomes.



A *fifth* characteristic is that credit is awarded for assessed learning, and that the assessed learning is quality assured, for example, credits are awarded and accumulated if the achievement of the required learning outcomes can be proved by assessment (Butler and Hope, 2000). In addition, the recognition of prior learning (RPL), namely giving recognition for learning regardless of where learning has taken place (formal, non-formal, informal), is an important intention evident in all the systems. The New Zealand Qualifications Framework has as an intention, for example, 'the development of systems for credit transfer and recognition of prior learning' (Hall, 1996:275). Assessment is inextricably linked with quality assurance. Scotland, England, Wales and Northern Ireland take the position that the nature, level and volume of outcomes relate closely to the key elements of their quality assurance framework.

A focus on non-traditional learners is a *sixth* characteristic. The massification of higher education and greater participation rates in education and training amongst youth and adults has precipitated the need for more flexible systems whereby 'a learner's achievements are recognised and contribute to further learning even if the learner does not achieve a qualification' (Department of Education, 2004:10). Learning and career pathways and the up-skilling and multi-skilling of employees seem to require an approach that enhances mobility. Credit-bearing short courses and skills programmes are increasingly becoming the 'units of learning' that contribute to mobility within institutions and workplaces.

A *seventh* characteristic that emerges mainly from the older systems (United Kingdom, Scotland and Ireland), but also more recently in South Africa, is the need for the development of communities of trust (French, 2005) or zones of mutual trust as they are referred to in the European context (cf. Coles and Oates, 2005). The SCQF therefore 'is designed to support lifelong learning by enabling, where appropriate, the transfer of credit between programmes and between institutions' (*ibid.*). Many consortia have been established as a mechanism whereby such communities of trust may be formed, for example, the Southern England Consortium for Credit Accumulation and Transfer (SEEC), the Higher Education Credit Initiative Wales (HECIW), the Northern Universities Consortium for Credit Accumulation and Transfer (NUCCAT), the English Inter Consortia Credit Agreement (InCCA), the Irish NICATS project and the Scottish (SCOTCAT) agreement, as well as agreements between Ireland and the European Credit Transfer and Accumulation System (ECTS).

A *final* characteristic of all the CAT systems is the common goals that such a system is intended to achieve. In general, all the CAT systems want to facilitate mobility of learners across all divisions within education and training and to provide flexible mechanisms that will enhance maximum learner choice, learning pace and degree of specialisation. Further, improved access (and equity of access) to traditional and non-traditional learners is important, as is the recognition that there are different forms of knowledge and that such knowledges are valuable, in particular in the ways in which academic and vocational learning can enhance relevance and complementarity. The need for compatibility, coherence and clarity within national and international systems is also an important feature and hence, a common currency, whereby a network of horizontal, diagonal and vertical progression routes are made clear, is desirable. It is hoped with such systems that greater parity of esteem could be achieved between learning attained in different contexts of the education and training system.

Based on this discussion, the following common interpretation of a credit accumulation and transfer (CAT) system is suggested:

A **credit accumulation and transfer (CAT) system** is an arrangement wherein the diverse features of both credit accumulation and credit transfer are combined to enable lifelong learning. CAT systems depend on the development of communities of trust where there is mutual acceptance of quality assurance processes.

### ***Potential benefits of a credit accumulation and transfer system***

In the literature, the potential benefits of a CAT system encapsulate a number of objectives, some of which are discussed below.

The European Credit Transfer and Accumulation System (ECTS), for example, was introduced to facilitate transfer of students between higher education institutions between European states and to facilitate accumulation of credit and transfer of credit within and between higher education institutions nationally (National Qualifications Authority of Ireland, 2004:1). In addition, more recently the ECTS has undertaken development work to create a CAT system for vocational education and training (called European Credit Transfer System for Vocational Education and Training – ECVET), which will articulate with the ECTS. In the development of a European Qualifications Framework (EQF) therefore, a key objective is to:

...enable citizens to navigate within and between complex systems and locate their own learning outcomes in this broader context. According to this perspective, the EQF can be understood as a kind of reading grid [or qualification matrix] (European Commission, 2004:2).

A consistent message emerging from these debates is that a CAT system will establish a common currency of credit, or a 'neutral common reference point' as the basis for decisions about credit transfer with the aim to facilitate comparisons between frameworks and systems (*ibid.*).

Several developments in the international education and training arena are influencing the need for a CAT system: globalisation and the subsequent mobility of workers and learners across borders and the need to establish equivalences to enhance comparability between qualifications awarded in different countries; massification of education and training opportunities, especially to non-traditional and adult learners; the need for lifelong learning; and the need for regional and international comparability all impact on what will be addressed in a credit accumulation and transfer system. The proposed EQF, for example, suggests that 'common reference points' will enable people 'to fully utilise the rich diversity of education, training and learning opportunities in Europe, to enhance communication and transparency between systems and providers, to facilitate recognition and to promote mobility' (*ibid.*). In other words, nationally and internationally, there seems to be a need for processes that will enable different organisations, or at a macro level, states, to recognise each other's credits.

The potential benefits of a CAT system are numerous. One such benefit is that it may be possible to accommodate a much more diverse learning community, particularly adults and other non-traditional learners. Learners who undertake learning through part-time study or whose studies have been interrupted for some or other reason, would benefit from an arrangement where credits can be accumulated towards a qualification award. These credits

could be retained (depending on the currency of the credits) until such time that the learner can return to learning, either through further part-time study or to complete the programme that was interrupted.

Also, according to the European Commission (2004:2), a generalised basis for credit systems facilitates student mobility and international co-operative curriculum development and delivery.

As mentioned earlier, the literature suggests that CAT systems support and complement the notion of lifelong learning and the recognition of prior learning (RPL). A study on developing sustainable mechanisms for the implementation of RPL, for example, noted that a common currency, as captured in learning outcomes:

...may greatly facilitate the establishment of common benchmarks because qualifications against which learning programmes are to be developed, contain generic descriptions of the requirements for the qualification common to any context and institution...The generic descriptions are captured in outcomes, with the purpose of making clear the knowledge, skills and values expected of a learner on successful completion of a programme, regardless of where this learning was acquired (Heyns, 2004:188).

In South Africa, part-time learning, as opposed to formal full-time, classroom-based learning, in the form of short learning programmes (short courses or skills programmes), is very prevalent. Numerous learners have been frustrated by the lack of credit transfer between short learning programme outcomes and the requirements of the full qualification from where the short programme is derived. A CAT system could encourage meaningful articulation of credits within the institution, but also, if such credits are awarded against a set of commonly agreed national outcomes, across institutions and other contexts, particularly where credit is defined independently from the curriculum and is awarded in its own right. In the *Criteria and Guidelines for Short Courses and Skills Programmes* (SAQA, 2004:18) for example, it is suggested that:

...a short learning programme should be conceptualised within the framework for a particular qualification to ensure that articulation with that qualification may take place. This could include inter-qualification articulation, which is situated within a particular field of learning, but should most certainly also include inter-institutional articulation. These two types of articulation will have an impact on the transferability of credits between qualifications and providers.

In addition, CAT systems are considered to be complementary to the objectives of national qualifications frameworks (NQFs). The Irish system, for example, intends to 'support and complement the National Framework of Qualifications by promoting and facilitating access, transfer and progression' (National Qualifications Authority of Ireland, 2004). In addition to lifelong learning enhanced by credit accumulation principles, new modes of learning will also increasingly become valued, the system will be much more compatible with other regional initiatives, (such as the ECTS) and it will become possible to award credit for smaller units of learning towards the achievement of an award. Stable, and clearly understood nationally agreed standards will foster mobility in institutions, amongst institutions and in employment.

A very important benefit is a much more coherent linking of academic and vocational awards. In the Australian system it was found that where work-based qualifications and academic qualifications were part of a single system, maximum flexibility in career planning and continuous learning was improved (VQA, 2004).

Finally, the quality assurance and, therefore, the credibility of credits awarded are greatly facilitated by a common currency of learning (SCQE, 2003).

### ***Summary***

In this section an attempt has been made to move towards a common understanding of a CAT system. It has been shown that credit accumulation and credit transfer are not the same, but that both can be accommodated in a CAT system. It has also been shown that a CAT system holds a number of potential benefits to an education and training system.

In the next section this common understanding will be applied within the context of a number of existing and emerging National Qualification Frameworks in an attempt to further prepare the basis for systematic work on CAT in South Africa.

## SECTION 2: CREDIT ACCUMULATION AND TRANSFER WITHIN THE CONTEXT OF EXISTING AND EMERGING QUALIFICATIONS FRAMEWORKS

### *Introduction*

As mentioned in the introduction to this report, credit accumulation and transfer (CAT) systems and national qualifications frameworks (NQFs) seem to be closely related. Although all of the more than thirty NQFs that currently exist, or are in the process of being established (see Table 2 below), are not CAT systems, most NQFs seem to at least be aiming for a credit-based system.

<b>1<sup>st</sup> Generation</b> (implemented since 1995)	<b>2<sup>nd</sup> Generation</b> (implementation and development started in the late 1990s, early 2000s)	<b>3<sup>rd</sup> Generation</b> (currently under consideration)
Australia; England, Wales and Northern Ireland; Ireland; New Zealand; Scotland; South Africa	Mauritius; Malaysia; Mexico; Namibia; Singapore; Trinidad and Tobago	Angola; Barbados; Botswana; Brazil; Chile; China; Colombia; Caribbean (regional); Democratic Republic of Congo; EU (regional); France; Jamaica; Lesotho; Macedonia; Malawi; Mozambique; Pacific Islands (regional); Philippines; SADC (regional); Slovenia; Uzbekistan; Tanzania; Turkey; Uganda; Zambia; Zimbabwe

**Table 2: Time-based categorisation of NQFs (from Keevy, 2005)**

An important point to be made here is that an NQF and a CAT system are not the same. A CAT system, as interpreted in the previous section, and based largely on Trowler (1998), Hart (2005) and Butler and Hope (2000), is an arrangement wherein the diverse features of both credit accumulation and credit transfer are combined to enable lifelong learning. CAT systems depend on the development of communities of trust, where there is mutual acceptance of quality assurance processes.

On the other hand SAQA (2001:1) defines the South African NQF<sup>4</sup> as:

...a set of principles and guidelines by which records of learner achievements are registered to enable recognition of acquired skills and knowledge, and thereby using an integrated system that encourages lifelong learning.

<sup>4</sup> Both these definitions require more in-depth reflection and debate that fall outside the scope of this exploratory investigation. The varying definitions of NQFs can be found in UNESCO, UNISA & NEPAD (2005). Also see Tuck et al. (2004) for a discussion on the varying purposes, scope and prescriptiveness of NQFs.

The International Labour Organisation (ILO) (2005:2) in its (draft) introductory guide to NQFs for policy makers suggests the following definition of an NQF:

...an instrument for the development and classification of qualifications according to a set of criteria for levels and learning achieved.

Accepting that an NQF and a CAT system are not the same even though there may be various similarities, it is evident that various combinations of NQFs and CAT systems are possible. The following categorisation is useful in this regard:

Type 0: No CAT, no NQF	This is possibly the most common state in most countries. The country has no NQF, nor does it have a national arrangement for credit accumulation or credit transfer.
Type 1: Only NQF	In such cases the country has an 'instrument for the development and classification of qualifications' that may be credit-based, but does not include a national arrangement for both the accumulation and transfer of such credits.
Type 2: Only CAT	Here both credit accumulation and transfer are formalised through a national arrangement, but there is no NQF.
Type 3: CAT and NQF	The NQF and the CAT system function separately even though there may be areas of commonality. In most such cases the NQF contributes to the effectiveness of the CAT system, but is not a prerequisite to its existence. In effect, the CAT system may function without an NQF being present at all. Likewise an NQF may exist without a CAT system.
Type 4: CAT in the NQF	The NQF includes both credit accumulation and transfer features – to the extent that no reference may even be made to a CAT system.

While noting examples of NQFs that are concerned with credit accumulation (e.g. South Africa) and credit transfer (e.g. the European Credit Transfer System), Hart (2005:76) supports the position that all NQFs are not primarily CAT systems:

...whilst most frameworks use at least a form of credit-rating, some frameworks are, or have been, primarily concerned with qualifications and may not be designed to

facilitate the use of credit, for example, the English frameworks to date. Of those which do have credit systems, not all are full CAT systems, since some are more focused on credit accumulation and others on credit transfer.

In this section, examples of credit accumulation and/or transfer have been limited to Type 3 (CAT and NQF) and Type 4 (CAT in the NQF). In most cases credit accumulation and/or credit transfer were only partially established. Five<sup>5</sup> examples are discussed (see the list below), followed by a brief overview of two emerging regional qualifications frameworks, one in Europe, the other in the Southern African Development Community (SADC)<sup>6</sup>, and the possibilities for credit accumulation and transfer that are associated with each:

1. Victoria's Credit Matrix and the Australian Qualifications Framework (AQF) (VQA, 2004)
2. New Zealand's Credit Recognition and Transfer Policy in the New Zealand National Qualifications Framework (NZQA, 2002)
3. United Kingdom's common credit framework and various national qualifications frameworks (Butler and Hope, 2000)
4. Ireland's national approach to credit in the National Framework of Qualifications (NQAI, 2004)
5. Scotland's Scottish Credit Accumulation and Transfer Scheme in the Scottish Credit and Qualifications Framework (QAA, 2004)

### **Victoria's Credit Matrix**

Policy on the issue of credit accumulation and transfer is still evolving in Australia. Credit transfer between universities in Australia, and between Australian universities and those overseas is a matter for recognition between the institutions concerned or between the individual student and the institution he/she wishes to attend. The transfer of credits allows mostly for vertical transfer from institutions both in Australia and overseas.

The Victoria Qualifications Authority (VQA) has designed a Credit Matrix, which is a different approach to the way achievements in qualifications are described and recorded to date. The Credit Matrix consists of 'a detailed model of levels, level descriptors and a process for allocating points' (VQA, 2004:7). Currently, it is in a consultation phase to get input from stakeholders. The Credit Matrix, as nationally agreed, applies to vocational qualifications and the responsibility for higher education qualifications lies with the respective institutions – according to the VQA (*ibid.*) the Credit Matrix does not have to apply comprehensively to all qualifications or all providers in Victoria to be effective.

The Credit Matrix's levels align broadly to the Australian Qualifications Framework (AQF) but do not duplicate it. Table 3 shows the main differences between the AQF and the credit matrix. According to the VQA, the Credit Matrix rather supplements the AQF:

The AQF describes whole qualifications. Because the credit matrix describes the individual components of qualifications, it can supplement the AQF by providing

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5 Although only five examples are discussed, it is acknowledged that more examples (e.g. in Wales) can be added. The choice was based on the availability of information and the scope of the investigation only. South Africa is not included as it is discussed in more detail in Section 3. The inclusion of NQFs in the SADC Region (see TCCA, 2005) was considered but was also not done mainly because of a lack of readily available information. This concern was also raised at the recent Q-Africa Conference (held at Gallagher Estate, 16-17 November 2005), and will require significant attention in the years to come. SAQA's more recent attempt at developing an International Engagement Business Plan may go some way towards alleviating this problem.

6 It is noted that a third regional framework is being developed amongst the English-speaking countries in the Caribbean Community (CARICOM) (see Zuniga, 2004 for a more detailed discussion on this).

a way in which people can compare the volume and complexity of the learning outcomes for different qualifications (VQA, 2005).

Australian Qualifications Framework	Victorian Credit Matrix
Qualifications are defined by the type and sector of accreditation.	Units, modules and subjects (units) are defined by their level (of complexity) and points (amount of learning).
There are specific guidelines for each type of qualification.	The one set of level descriptors, and the points system, apply to all units.
The framework deals with qualifications.	The matrix deals with units.

**Table 3: Differences between the Australian Qualifications Framework and Victorian Credit Matrix (from VQA, 2004)**

The main objectives for developing the Credit Matrix in Victoria are as follows (VQA, 2004:7):

- make the qualifications system easier to understand;
- allow for the design of more flexible qualifications that could include new and different kinds and combinations of knowledge and skills;
- provide a simple and uniform way of describing qualifications and recording achievement in them;
- make it easier to keep track of learning achieved and to plan ahead – for individuals, providers and employers, as well as the system as a whole; and
- help ensure learning already successfully achieved need not to be repeated.

As a result of the extensive consultation process in Victoria, a range of suggestions for implementation have been gathered. These include a proposal that, given the large number of units and qualifications in the Victoria education and training system, a phased implementation would be best. It was also noted that the participation of Higher Education institutions would be critical. In another comment a stakeholder suggested that the Credit Matrix ‘would be a far more useful tool if it operated at the national level’ (VQA, 2004:21). Support for the utilisation of existing databases was also emphasised. Overall, the Victorian consultation process pointed towards strong support for the incremental implementation of the Credit Matrix.

### ***New Zealand***

New Zealand developed an NQF as a structure designed to bring coherence to qualifications. Qualifications are defined in terms of learning outcomes and credit totals. Qualifications are registered, providers accredited to assess and award credits, and moderation systems ensure nationwide consistency.

Credits are defined as ‘the collecting of credits towards qualifications’ (NZQA, 2005:25), while credit transfer is defined as:



...the granting of credit towards a qualification on the basis of credit already earned in another qualification. Credits have to be recognised before they are transferred (*ibid.*).

The universities in New Zealand make arrangements for the recognition of credit obtained both within and without the university system. Institutions enter into co-operation agreements to acknowledge credits achieved. Where such agreements do not exist, arrangements are discretionary, and depend on consideration of the circumstances and record of individual students (Butler and Hope, 2000).

The New Zealand Qualifications Authority (NZQA) identified the building blocks of the NQF as 'unit standards' that are assigned to the NQF according to level. In turn, qualifications consist of tailored packages of unit standards developed by educational providers to incorporate the set of unit standards considered appropriate to the profession, industry or field of study. The intention of unit standards is to promote ease of movement of students between programmes and learning establishments. The development of systems for credit transfer and recognition of prior learning is, therefore, regarded as fundamental to the operation of the NQF (Hall, 1996).

According to Butler and Hope (2000:23), the NZQA has also undertaken a consultation process to 'develop consistent definitions and credit requirements for degrees and postgraduate qualifications' in response to the government's policy that all qualifications should be registered in terms of level, credit, outcome and field.

According to the NZQA (2002:4) the following outcomes should result from an effective and productive credit transfer system:

- credit will be granted for recorded success, whether or not it forms part or all of a formal qualification;
- credit will be granted at the highest level consistent with the learner's demonstrated level of competence;
- credit transfer arrangements will recognise the distinctive characteristics of qualifications;
- where credit is not granted, providers will provide clear reasons for the decision;
- each institution will have procedures in place to enable learners to seek a review of initial decisions on credit transfer matters; and
- information about credit transfer arrangements will be readily available to all learners.

The NZQA further explains that the successful implementation of the CAT system:

...does not require the development of new and expensive systems, a national "formulaic" approach or any major rework. It does however require commitment to the principles [for credit transfer] and in particular the needs of the learner (2002:6).

In summary, the NZQA lists three factors that are necessary for the implementation of effective recognition and credit transfer:

- providers have appropriate recognition and transfer and appeal processes in place;
- learners have access to information and recourse to appeal; and
- quality assurance bodies ensure credit recognition and transfer and appeal requirements are met through quality assurance processes i.e. course approval, accreditation and ongoing audit (*ibid.*).

### ***United Kingdom (Higher Education)***

The systematic use of credits in the United Kingdom as a common transferable measure of learning achieved in higher education has its antecedents in the establishment of the Open University in 1969 and the various developments in modular higher education provision during the 1970s. A CAT system was first proposed by the Robbins Report (1963) (Butler and Hope, 2000). Robertson (1994 in Butler and Hope, 2000:24) notes that at that time it seemed that ‘credit transfer in the United Kingdom remains heavily circumscribed by traditions, regulations, and the absence of a culture of mobility and choice’.

The development of the CAT scheme in the higher education sector in the United Kingdom has gone hand in hand with a period of expansion of Higher Education provision, which resulted in a change from an elite system enrolling up to 15% of the age group to a mass system (Trow, 1973 in Butler and Hope, 2000:25) in which almost half of the age group go into higher education of some kind. Until the late 1990s, the movement has been largely based on regional consortia of autonomous institutions, namely Southern England Consortium for Credit Accumulation and Transfer (SEEC), Northern Universities Consortium for Credit Accumulation and Transfer (NUCCAT), Higher Education Credit Initiative Wales (HECIW), Northern Ireland Credit Accumulation and Transfer System (NICATS) and the Scottish Credit Accumulation and Transfer Scheme (SCOTCAT). Such consortia consist of institutions within a particular geographical area that share a common interest in improving access to higher educational opportunities within their region.

According to Butler and Hope (2000:28), the credit system in the United Kingdom has been driven by:

- the need to provide a highly skilled workforce for a competitive economy;
- greater equity and social mobility through the provision of lifelong learning; and
- an increase of the participation rate in Higher Education to 35%.

Robertson (1994, in Butler and Hope, 2000:27) defines the early United Kingdom system as an *impositional* credit system approach:

Such systems use credit to superimpose a numerical partition on a programme by allocating to each course a volume of credit in direct relationship to the proportion of the total workload in the particular year of the learning programme which it represents.

This approach, by and large inherited from the Council for National Academic Awards (CNAA) that introduced ‘CATS’ as early as 1986, is identified as ‘top down’, as it implies the division of the existing provision and the credit rating of each segment with reference to its contribution to the achievement of the qualification.

Following agreement that ‘a common credit framework’ (Butler and Hope, 2000:27) would only become a reality if the government were to endorse the principles thereof and also incorporate them into the Qualifications Frameworks for Higher Education (one for England, Wales and Northern Ireland and one for Scotland) being developed by the Quality Assurance Agency for Higher Education (QAA)<sup>7</sup>, the United Kingdom Higher Education Inter Consortia Credit Agreement (InCCA) project reached agreement on the major elements of the proposed common credit framework in 1998.

Following a somewhat different approach than the earlier *impositional* one, it was contended that qualifications should be developed using a ‘bottom up’ approach. Robertson (1994, in Butler and Hope, 2000:28) defines this approach as a *compositional* approach wherein ‘[c]redit is defined independently of any overall qualification, can potentially be built up towards different qualifications and is recognised as an award in its own right (*ibid.*).

Subsequently both the higher education framework for England, Wales and Northern Ireland (ENWI) and the framework for Higher Education Institutions in Scotland (which is now incorporated into the SCQF) have adopted a *compositional* approach that has included the development of broad level descriptors and leaves the responsibility for structuring programmes with individual institutions.

In conclusion Butler and Hope (2000:30) make the important observation that moving from traditional curriculum frameworks to credit-based frameworks will require significant shifts in practices, cultures and values:

The paradigm shift required to embrace credit-based systems is not insignificant. It is quite clear that moving from a traditional curriculum framework to a credit-based modular framework is a step change requiring not only radical changes in academic, administrative and managerial practices, but significant shifts in professional cultures and values.

Based on the experience in the United Kingdom, Butler and Hope (2000:30-31) offer five points of interest for another country that may be considering a CAT system:

- The long time-frame and co-operative effort required to develop the definitions of levels and learning outcomes, which will form the basis of the national credit-based qualifications frameworks.
- The need to enshrine institutional autonomy at the heart of any system-wide CAT system initiative.
- The impetus for CAT system development provided by a major expansion in the provision of tertiary places, without matching additional funding.
- The importance of distinguishing between credit points (representing student workload input) and credit levels (representing learning outcomes).
- The shift away from the ‘top-down’ or ‘impositional’ approach to the design of CAT system, in which an existing qualification is divided into credit units,

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<sup>7</sup> The Dearing Report (National Committee of Enquiry into Higher Education, 1997) announced the development of a national qualifications framework to be implemented by 2006 that can provide for progression through various levels, incorporating provision for credit accumulation and increasingly offering scope for transfer of credits earned in one institution to another. In this sense the envisaged credit framework will allow individuals to move easily into and within the plurality of learning opportunities available to them.

towards a 'bottom-up' or 'compositional' approach in which a credit is defined independently of any overall qualification and is recognised as an award in its own right.

## Ireland

According to the NQAI (2004), credit systems in Ireland have been modelled on the European Credit Transfer and Accumulation System (ECTS), which originally focused on the transfer of students between higher education institutions in different European states. Since 2003, the NQAI has been involved in the development of a national approach to credit, including credit for prior and experiential learning, towards the achievement of awards. This is an approach that, according to the NQAI (2004:2-3), will have a number of benefits, including to:

- complement and support the National Framework of Qualifications;
- facilitate and enhance processes for RPL, new modes of learning and learning achieved in many non-formal and informal contexts; and
- support the attainment of awards and indicate the achievement of outcomes in smaller units of learning.

The national approach to credit will also "...establish a stable and clearly understood national currency in learning that will benefit both learners and recruiters in education and employment" (NQAI, 2004:2).

Overall, credit systems or arrangements in higher education will (*ibid.*, 6):

- be simple, clear and comprehensive;
- be compatible with the ECTS;
- encourage learner participation and mobility by facilitating access, transfer and progression;
- support the attainment of awards as well as indicating achievement of outcomes in smaller units of learning (i.e. the achievement of credit will indicate progress towards an award);
- maintain the quality of standards of awards in the national framework of qualifications;
- support the comparability and recognition of higher education and training awards;
- facilitate, as appropriate, the development of the education and training systems including the design and/or redesign of learning units and awards;
- accommodate and facilitate change in curricula and in delivery systems;
- enable stakeholders (including funding bodies, awarding bodies and providers) to exercise their rightful responsibilities;
- be cost-effective, and involve as little bureaucracy as possible; and
- respect the autonomy of providers and/or awarding bodies in the design of their programmes and awards systems and awards regulations.

In order to achieve coherence, clarity and complementarity between credit systems and the National Framework of Qualifications, some of the following guidelines are proposed (*ibid.*, 7):

- Credit will only be earned by the learner after appropriate assessment and the successful achievement of the specified learning outcomes.
- Credit shall not be earned twice for the same learning achievement (in the sense that this should not lead to two awards at the same level for essentially the same learning).
- There should be a minimum volume of credit attributed at the level at which an award is to be placed.
- It is recommended that a typical credit volume or credit range be established for each award-type from levels 6–9 in the Framework in line with existing ECTS conventions and current practice in the Irish Higher Education system.
- In order to facilitate progression, it should be possible for a learner to use some credit earned for an award at one level in the Framework towards an award at a higher level in the Framework – the processes and protocols for recognising previously achieved credit in order to give exemptions or to transfer will be determined by the receiving providers and/or awarding bodies.

## Scotland

Scotland has developed an integrated qualifications framework including all sectors, levels of qualifications, credit system and transfer arrangements. The basis was laid by the Garrick Committee commissioned to investigate a qualifications framework for Higher Education in Scotland (National Committee of Enquiry into Higher Education, 1997b), which made the recommendation to providers of higher education programmes in Scotland, the Quality Assurance Agency (QAA), the Scottish Qualifications Authority (SQA) and the Scottish Advisory Committee on Credit and Access (SACCA) that they should together:

...consider and adopt an integrated qualifications framework based around level of study and Scottish Credit Accumulation and Transfer Scheme credit points (*ibid.*, Recommendation 1).

Their report further emphasised that ‘the realisation of key aspects of the Committee’s vision relies on the adoption by institutions of this framework, and many of our subsequent recommendations are therefore contingent upon institutions taking this forward’ (*ibid.*, Paragraph 4.4). Key aspects of the qualifications framework stressed in the report included that it was to be a parallel framework of qualifications for the rest of the United Kingdom and that qualifications should be based on outcomes and attainment, not on years of study – related to the accumulation of credits linked to levels (*ibid.*).

Much of what Garrick recommended was already in place within the VET system in Scotland, having been introduced by the Executive’s *Action Plan* of 1984 and developed in the succeeding decade and a half by the Scottish Vocational Educational Council. Also, in the same years as Garrick reported, the Executive published plans to extend characteristics of the VET framework into schools and bring general and vocational qualifications together.

The higher education framework in Scotland, like the SCQF as a whole, and also the higher education framework for England, Wales and Northern Ireland, is an outcomes-based structure that helps make explicit the nature, level and volume of outcomes. The frameworks also relate closely to other key elements of quality assurance frameworks, including subject benchmark statements and programme specifications. These quality assurance frameworks are designed to make clear to providers, users and all stakeholders, the purposes and outcomes of higher education. The positioning of the qualifications of the higher education institutions within the full SCQF will facilitate comparisons with other kinds of qualifications, including work-based qualifications. This will also enable the establishment of progression and credit transfer opportunities across the full range of qualifications in Scotland, an important foundation for widening access to lifelong learning opportunities.

The SCQF is designed to support lifelong learning by enabling, where appropriate, the transfer of credit between programmes and between institutions. There is no intention, however, that the framework should do other than facilitate this process. It is not a mandatory process, and individual institutions remain solely responsible for all matters of credit recognition towards their awards.

According to the Garrick Report (*ibid.*) the higher education framework would also have to be able to accommodate new qualifications as the need for them arises. In general, it must also recognise and facilitate diversity and innovation, and promote a wider understanding of qualifications internationally. It should be regarded as a framework, not as a straitjacket. It is also recommended that the Quality Assurance Agency (QAA) work with the higher education institutions in Scotland to ensure that any new higher education qualifications and other relevant developments are properly accommodated and described. Importantly, the Garrick report persuaded higher education to move closer to a system that, since 1985, was used more in the VET context, but was already being developed by the Executive, the UK Employment Department and SCOTVEC.

### ***Credit transfer and accumulation in the emerging regional qualifications frameworks***

In this section two emerging regional qualifications frameworks, the European Qualifications Framework (EQF) and the Southern African Development Community Qualifications Framework (SADCQF), and the potential for credit accumulation and transfer in each is briefly discussed.

According to Tuck *et al.* (2005:1), development of both the EQF and SADCQF are a logical synthesis of the earlier developments of NQFs in each of the regions:

The Southern African Development Community (SADC) and European Union (EU) have both recently taken steps towards the creation of regional qualifications frameworks, embracing the qualification systems of all member countries. The SADC Integrated Council of Ministers approved the development of the SADC Qualifications Framework (SADCQF) as recently as June 2005, while the EU Heads of Government requested the creation of the European Qualifications Framework (EQF) in March 2005. Both these regional qualification frameworks may be seen as a logical development from (and synthesis of) the earlier development of national qualifications frameworks (NQFs) and international sectoral frameworks in the two regions.

Following from Tuck *et al.* (*ibid.*), it can be assumed that the credit accumulation and transfer

possibilities associated with the NQFs in both regions will be further enhanced within the two regional frameworks<sup>8</sup>. Despite both regional frameworks being less prescriptive (more loose) (see Tuck *et al.*, 2004) and not entailing any legal obligations' (European Commission, 2005:4), it is clear that harmonisation and the facilitation of the transfer and recognition of qualifications across the regions are a high priority.

The EQF in particular is seen as having an integrated credit transfer and accumulation system that will make it possible for learners to pass from one qualification to another at the same EQF-level, or to pass from one EQF-level to another (European Commission, 2005). The SADCQF Concept Document (TCCA, 2005:26) echoes the sentiment<sup>9</sup>:

The SADCQF will have to recognise the variety of credits awarded by Member States and develop a matrix that will allow for comparability and transfer. This may ultimately evolve into a Credit Accumulation and Transfer (CAT) system and should facilitate Recognition of Prior Learning (RPL) processes.

### **Summary**

The extent of credit accumulation and transfer within the context of existing and emerging qualifications frameworks is presented in Table 4 on the following page.

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8 *The EQF is envisaged as a 'meta-framework' that 'can be understood as a means of enabling one framework of qualifications to relate to others and for one qualification to relate to others that are normally located in another framework. The meta-framework aims to create confidence and trust in relating qualifications across countries and sectors by defining principles for the ways quality assurance processes, guidance and information and mechanisms for credit transfer and accumulation can operate so that the transparency necessary at national and sectoral levels can also be available internationally' (European Commission, 2005:13). A more detailed discussion on meta-frameworks can be found in Tuck et al. (2005) and Keevy (2005).*

9 *Also see Mudzi (2005).*

Country/ region	Example of full or partial CAT system	Type <sup>10</sup>	Comments
Australia	Victoria's Credit Matrix	3	Consultative process Policy still evolving Vocational only – universities function independently but are regarded as important stakeholders Incremental implementation favoured
New Zealand	Credit Recognition and Transfer Policy	4	Consultative process Credit transfer and RPL seen as fundamental to the NQF No major rework required Focus on appeal processes
England	Agreement between two consortia for higher education (SEEC, NUCCAT) and guidelines for higher education developed by SEEC, NUCCAT, NICATS and CQFW and initial work on a wider credit framework being undertaken by QCA	3	Driven mainly by increased participation rate in Higher Education Move to 'compositional' approach that give institutions greater autonomy Incremental and co-operative effort required
Ireland	National approach to credit	4	Complements NQF Compatible with the ECTS
Scotland	SCQF – common approach to credit for all sectors	4	Voluntary participation sup- ported by Executive and Fund- ing Council
Europe SADC	ECTS and the EQF SADCQF	4	Logical synthesis of NQF developments Focus on harmonisation and transfer and recognition of qualifications Potential to evolve into CAT systems

**Table 4: Summary of credit accumulation and transfer within the context of existing and emerging qualifications frameworks**

Table 4 and the preceding discussion point towards a number of overarching considerations for CAT in the context of qualifications frameworks:

<sup>10</sup> Refer to the categorisation on page 14.



1. CAT systems in the countries indicated are in various stages of development – in most cases it is more appropriate to recognise only elements of a CAT system.
2. The development of CAT systems, as is the case for qualifications frameworks, is a highly consultative process involving a range of diverse stakeholders and role-players.
3. An incremental approach<sup>11</sup>, as is also often the case with NQFs (see Tuck *et al*, 2004), is favoured.
4. NQFs embrace elements of a CAT system (Type 4) to varying degrees. In some cases the NQF is seen as offering both credit accumulation and transfer but is not necessarily formally recognised as a CAT system (e.g. Ireland).
5. In some cases full or partial CAT systems are developed alongside (Type 3) qualifications frameworks (e.g. Victoria and England, Wales and Northern Ireland) in order to complement the frameworks or address particular, often geographically limited, shortcomings.

In conclusion, it has been shown, as noted by Hart (2005), that even though most qualifications frameworks use a form of credit rating, they are not primarily designed to facilitate the transfer and accumulation of credits as might be expected in a full CAT system. If South Africa is to successfully pursue the development of a CAT scheme, it will be important to first take cognisance that the South African NQF is not yet a CAT system, even though it may provide the ‘framework’ wherein such a development can take place.

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<sup>11</sup> *Incrementalism refers to both the rate (progress within a specific time) and manner (ranging from phased to comprehensive) of implementation (see Keevy, 2005).*

## SECTION 3:

# A CREDIT ACCUMULATION AND TRANSFER SYSTEM WITHIN THE SOUTH AFRICAN NQF

### ***Introduction***

This section explores the extent to which the South African NQF may be developed to include a fully functioning CAT system. Based largely on the description and examples of CAT systems presented in the previous two sections, it is assumed that the NQF, in its current form, is not a CAT system, but that it does provide the framework wherein such a system can be developed. This position is supported by Naudé *et al.* (2005:3):

The South African NQF has included a strong focus on access, mobility and progression, yet it cannot be described as a CAT system. Through the Recognition of Prior Learning (RPL), an integrated approach and a call for greater parity of esteem between education and training providers, progress towards credit accumulation and transfer has been made, but not to the extent that we can say the NQF is a CAT system.

### ***Current state of credit accumulation and transfer in South Africa***

As mentioned earlier, the South African NQF, like most other NQFs, is also a credit-based system where one credit equals ten notional hours of learning. Qualifications and standards are registered at specific levels of the NQF and have a specific credit value.

Since unit standards, unit standard-based qualifications and non-unit standard-based qualifications<sup>12</sup> are included on the NQF, credits can be grouped in a variety of ways, all of which are not yet accommodated on the NQF:

1. Separate unit standard (i.e. not as part of a qualification)
2. Unit standard within a unit standard-based qualification
3. Complete qualification (unit standard-based or non-unit standard-based)
4. Module within a non-unit standard-based qualification

Of these four examples, the first three are currently accommodated, while the fourth is not. In addition to the groupings mentioned above, it is also possible that a learner may partially complete a unit standard or module. Recognition for such learning can presently not be accommodated on the NQF, although it may be recognised within a particular institution. In summary, it can be said that credit accumulation (i.e. the totalling of [general] credits required to complete a qualification or a part of a qualification that is usually limited to a particular institution and/or programme) is possible within the South African system, but that credit transfer (i.e. the vertical or horizontal relocation of [specific] credits towards a qualification or part qualification on the same or higher level that usually takes place between different institutions and/or programmes) is limited to only unit standard-based qualifications.

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<sup>12</sup> *The inclusion of both unit standard-based and non-unit standard-based qualifications on the South African NQF marked an important concession, one that has not been unique to South Africa, nor one that has been without substantial criticism. A paper by Michael Irwin (1997) from New Zealand offers some useful perspectives on this matter.*

The extent to which this ‘limited’ credit transfer takes place is yet to be determined. This may be in part owing to the relatively short time in which the NQF has been implemented when compared with other countries, but it remains to be seen if the NQF in its current form has had a significant impact on credit transfer, albeit mainly for unit-standard based qualifications.

Ensor (2003, in SAQA, 2005:26) seems to be in agreement that the NQF, despite its noble intentions, was not offering effective credit accumulation and transfer:

In South Africa, the NQF promised to be ‘a radical credit accumulation and transfer system, promised to accredit workers for accumulated proficiency and undertook to open up access to education and training routes that had previously been closed to them’.

The Second Cycle of the NQF Impact Study (SAQA, 2005) suggests a similar conclusion. Based on the data gathered, the portability of qualifications (Indicator 3, defined as ‘the extent to which qualifications facilitate the mobility of learners horizontally, diagonally and vertically’ [*ibid.*, 45]), was rated as having only a minimal impact on the transformation of education and training. This finding confirmed the earlier indicative finding made in 2004 (see the Cycle 1 Report, SAQA, 2004b):

The questionnaire returns suggest that respondents were fairly equivocal about the level of progress [of the portability of qualifications] and the interviews threw up few concrete examples of portability.

Table 5 (also from SAQA, 2005) provides a more detailed overview of the responses related to portability<sup>13</sup>:

	Disagree/ Strongly Disagree	Agree/ Strongly Agree	Don't Know/ Too Soon to say
Learners know about qualifications that follow or articulate with NQF qualifications	33,1% 	39,3% 	27,6% 
Learners with NQF qualifications are able to move between vocational, professional and academic streams	11,1% 	60,5% 	28,1% 
NQF qualifications offered by some institutions are seen as more portable than NQF qualifications offered by others	12,3% 	48,6% 	39,1% 
NQF qualifications are seen as more portable than non-NQF qualifications	13,3% 	52,0% 	34,8% 
Recognition (credit transfer) is given for incomplete NQF qualifications when learners move from one institution to another	12,9% 	45,9% 	41,2% 

**Table 5: Portability of qualifications**

<sup>13</sup> See the report for a detailed discussion on the sampling and research design.

### ***Possible stumbling blocks for improved credit accumulation and transfer***

The NQF Impact Study (SAQA, 2005) identified a number of stumbling blocks that have an effect on the portability of qualifications. Most notably this included beliefs about the quality of institutions or education sectors and entrenched institutional practices:

Many respondents pointed to the unwillingness of certain sectors of education or training to trust the qualifications gained in other sectors. Universities did not accept technikon qualifications...although an employer said there was evidence of vertical progression from technikons to universities. Technikons were said not to accept private provider qualifications. Academic qualifications were viewed as superior to training qualifications...(SAQA, 2005:46).

Other inhibiting factors that were identified included (*ibid.*):

- The drive for profit by educational institutions
- The 50% residency clause that inhibited transfer of credits between institutions for more than 50% of credits already attained at the first institution
- Modular versus semester systems
- The practice of re-assessing students on entry
- Differences in syllabus content or length of study
- Continuing limitations of portability of qualifications between universities

It is apparent from the list above that most of the factors that have a negative influence on improved portability and, therefore, also on effective credit accumulation and transfer, are of a systemic and localised nature entrenched through many years of functioning within a disparate system where some institutions were privileged above others. Aspects of current legislation, particularly the residency clause, also limit credit transfer. On the global front, the increased commodification of education and training (and the associated neo-liberal influences) cannot be ignored either.

### ***Recent developments that support improved credit accumulation and transfer***

The stumbling blocks to improved credit accumulation and transfer are not new, with some having already been addressed. As this exploratory investigation on CAT does not warrant a detailed discussion on each of these developments, they are only briefly listed below to allow the reader the opportunity to read more if needed:

- Development of level descriptors for levels 5 to 10 (1 to 4 have already been completed).
- Investigating the possibility of registering only generic qualifications on the NQF, with the specialisations only being recorded as an administrative process.
- Standardised groups of credits (e.g. 20 credit modules) used in non-unit standard-based qualifications.
- The inclusion of “professional” qualifications on the NQF.
- Development of communities of trust and continued stakeholder involvement.

- Implementation of RPL.
- Simplification of assessment and quality assurance.
- Continued emphasis on the autonomy of institutions.

### ***Recommendations for the implementation of credit accumulation and transfer in the context of the South African NQF***

Despite being outside the scope of this exploratory investigation, a number of recommendations for the implementation of a CAT system within the South African NQF seem very apparent from the preceding discussions. As a result these are briefly listed below, but are offered only as being tentative, requiring more research before they can be implemented.

#### **Develop communities of trust**

It is generally acknowledged that NQF development and implementation is critically dependent on well functioning communities of trust – sometimes also referred to as communities of practice or zones of mutual trust<sup>14</sup>. A fully functioning CAT system in an NQF will be equally dependent on trust between stakeholder communities. In South Africa the legacy of distrust left by years of domination will not be addressed without concerted effort and significant resources.

#### **Undertake extensive consultation**

Closely related to the development of communities of trust, it is evident from the international examples that continued and extensive consultation is required, particularly to ensure effective credit transfer between different institutions on different levels and sometimes even in different sectors.

#### **Follow an incremental approach**

Here again, it is evident that the development of both a CAT system and an NQF is more successful if a step-by-step approach is used. Although it is recognised that South Africa did not have the luxury of following an incremental approach in 1994, it does seem that now as the system is maturing it may be possible to be less hasty.

#### **Develop a credit matrix**

The successful implementation of the NQF is to no small degree dependent on the ease with which stakeholders can use the information captured on the NLRD. The establishment of a credit matrix (initially within specific fields of learning and areas of responsibility) could encourage the use of the NQF and improve understanding of an outcomes-based approach. A credit accumulation and transfer system as reflected in a credit matrix could facilitate the following:

- Development of a mechanism to enhance portability and credit transfer
- Improvement of quality assurance mechanisms and building of communities of trust
- Improved uptake of unit standards and qualifications by providers in different sectors
- Identification of possible overlaps between fields of learning

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<sup>14</sup> *It is apparent that communities of trust, communities of practice and zones of mutual trust are not the same and are understood in very different contexts and applications – a more in-depth engagement with such differences, but also similarities, falls outside this investigation but should be pursued as a matter of urgency.*

- Streamlining of unit standards and qualifications to meet a broader need (i.e. broader than a single provider/sector)
- Alignment of initiatives with other stakeholders, e.g. the Departments of Education and Labour

### ***Investigate alternative ways in which credits can be grouped***

The current restrictions that allow only credits associated with separate unit standards or complete qualifications to be transferred require serious attention. The development of the Further Education and Training Certificate (FETC) Vocational by the Department of Education may offer some insight into such alternatives.

## **Summary**

This investigation has shown without any doubt that the South African NQF is not a CAT system, nor does it include a fully functional CAT system as yet. The investigation has also shown that despite this current state of affairs, which includes a number of potential stumbling blocks, evidence suggests that the NQF does provide the basic framework wherein the development of a CAT system can be actively pursued in South Africa.

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