Credit accumulation and transfer in South Africa: preparing for national policy and improved articulation
SAQA BULLETIN
Volume 14 Number 1, December 2014
Credit accumulation and transfer in South Africa: preparing for national policy and improved articulation
DISCLAIMER
The views expressed in this publication are not necessarily those of the South African Qualifications Authority (SAQA) and only those parts of the text clearly flagged as decisions or summaries of decisions taken by the Authority should be seen as reflecting SAQA policy.

COPYRIGHT
All rights reserved. No part of this publication may be reproduced, stored in a retrieval system, or transmitted in any form or by any means, electronic, mechanical, photocopying, recording, or otherwise, without the prior written permission of the South African Qualifications Authority (SAQA).

THE SAQA BULLETIN IS PUBLISHED AND DISTRIBUTED BY THE DIRECTORATE: ADVOCACY, COMMUNICATION AND SUPPORT
SOUTH AFRICAN QUALIFICATIONS AUTHORITY
POSTNET SUITE 248
PRIVATE BAG X06
WATERKLOOF
0145
FACSIMILE: +27 (0)12 431 5039
WEBSITE: www.saqa.org.za
HELPDESK: 086 010 3188
E-MAIL: saqainfo@saqa.org.za
Contents

Foreword......................................................................................................................................................... 5

Editorial comments........................................................................................................................................ 6

Review of Credit Accumulation and Transfer Policy....................................................................................... 8
  John Hart..................................................................................................................................................... 8

Exploring the Fundamentals of Credit Accumulation and Transfer: Towards a CAT System for South
Africa............................................................................................................................................................. 55
  Loffie Naude.................................................................................................................................................. 55

Potential and Limitations of Credit Accumulation and Transfer Systems within National
Qualifications Frameworks: Case Studies from Australia and Hong Kong ................................................. 79
  Rob Fearside and Alison Vickers .................................................................................................................. 79

Acronyms ....................................................................................................................................................... 103

Policy for Credit Accumulation and Transfer within the National Qualifications Framework....... 106
Foreword

The finalisation of both the Credit Accumulation and Transfer (CAT) and Assessment Policies during 2014 signals a key milestone in the development and implementation of the South African National Qualifications Framework by bringing to a close the policy development phase required by the NQF Act 67 of 2008. With all the policy instruments in place the next phase of the implementation of the NQF, in the South African context, is that of policy implementation. It is with this policy implementation phase in mind that SAQA invited and commissioned key international experts to reflect on practices where CAT has been tried and tested internationally.

The lessons learnt from other contexts are clear. The main lesson is that we should never forget the broader context of the main objective of the CAT system which is the enhancement of articulation in the system. It is easy to get lost in the details of the day to day operational issues and lose sight of the overarching purpose of CAT. This Bulletin therefore has an important purpose to present both the good practices and the mistakes made by others elsewhere in the implementation of CAT systems. This important document reflects critically on how we could move forward without repeating the mistakes of others.

I want to urge the whole NQF community to engage with the issues raised by the writers in this volume. I want to thank our international contributors John Hart, Rob Fearnside and Alison Vickers for the insights which they share with us. Thanks must also go to Dr Loffie Naude for his paper, Ms Coleen Jaftha who took over the editing of the Bulletin and our Advocacy and Communication Directorate for ensuring that the publication is widely disseminated.

Enjoy the reading that will contribute to taking us from CAT policy development to CAT policy implementation.

Joe Samuels
Chief Executive Officer
South African Qualifications Authority
Editorial comments

The purpose of this Bulletin is to present research on the local and international decisions and debates around credit accumulation and transfer (CAT) to support SAQA in implementing a Policy for Credit Accumulation and Transfer within the National Qualifications Framework. A copy of the Policy is included with this edition along with three papers outlining key debates and considerations for the successful implementation of CAT in South Africa.

The first paper by John Hart is titled Review of Credit Accumulation and Transfer Policy. In this paper, Hart reviews international experience of credit accumulation and transfer (CAT) systems while examining the SAQA National Policy and Criteria for Credit Accumulation and Transfer, when it was still in draft for public comment. Hart uses the proposals for the South African CAT system and compares these with the strengths and weaknesses of the following four international credit systems:

- Scottish Credit and Qualifications Framework (SCQF);
- Qualifications and Credit Framework (QCF) in England, Wales and Northern Ireland;
- European Credit Transfer and Accumulation System (ECTS),
- European Credit System for Vocational Education and Training (ECVET)

The paper concludes that, although the draft SAQA policy on CAT raises awareness of issues which will face organisations introducing a CAT system across diverse sectors, it lacks sufficient focus on communicating larger issues which will shape the policy and set basic principles for its implementation. This, he argues might create a situation where stakeholders lose sight of the intentions of CAT and become caught in the same kind of technical and operational issues which are reported to be inhibiting implementation of CAT in ECTS, ECVET, the SCQF and the QCF. Hart examines a range of full CAT systems and other arrangements internationally which focuses on managing credit, and notes that these systems are primarily concerned with intentions, design features and operational requirements. He proposes a five-tier related-levels model of CAT systems which can be used to analyse the South
African CAT system. Hart argues that consistency, at and between the different related levels is a key factor in ensuring the successful introduction of CAT.

The second paper, by Loffie Naudé, is titled *Exploring the Fundamentals of Credit Accumulation and Transfer: Towards a CAT System for South Africa.* Naudé’s paper focuses on the bigger developmental and socio-economic debates impacting the relationship between CAT, lifelong learning (LLL) and recognition of prior learning (RPL). He draws upon strengths of CAT system models from Australia, New Zealand, Scotland, United Kingdom, and Europe. Naudé suggests that in order for a CAT system to be successfully implemented in South Africa, three enabling mechanisms need to be considered. These enablers are learning organisations, communities of practice and communities of trust.

The third paper, authored by Rob Fearnside and Alison Vickers is titled *Potential and Limitations of Credit Accumulation and Transfer Systems within National Qualifications Frameworks: Case Studies from Australia and Hong Kong.* As the title suggests, this paper considers the implementation of CAT systems underpinned by the NQF in Australia and Hong Kong respectively. These two countries are developing different mechanisms within their NQFs to facilitate credit transfer. Vickers describes the Credit Matrix piloted by the Victoria Registration and Qualifications Authority and other policy levers in Australia. Fearnside describes the CAT policy levers and potential and limitations of a CAT system within an NQF in Hong Kong. The paper presents key learnings to be considered by South Africa for the successful implementation of a CAT system within the South African NQF.

As closure to this Bulletin, a copy of the *Policy for Credit Accumulation and Transfer within the National Qualifications Framework* is enclosed. This CAT Policy was gazetted on 2 December 2014. SAQA looks forward to working with all South African NQF partners and stakeholders to implement this Policy and further develop the CAT system in South Africa to the benefit of all lifelong learners and towards the implementation of an articulated, quality-assured National Qualifications Framework.

Coleen Jaftha
Editor
Review of Credit Accumulation and Transfer Policy

John Hart

INTRODUCTION

This paper was written at the invitation of the South African Qualifications Authority (SAQA). It reviews international experience of credit accumulation and transfer (CAT) systems and examines the SAQA publication, National Policy and Criteria for Credit Accumulation and Transfer - Draft for Public Comment (South African Qualifications Authority, 2013), in the light of that experience. The SAQA publication is referred to throughout this paper as “the draft SAQA policy on CAT”.

South Africa has a National Qualifications Framework (NQF) of long standing. It includes all kinds of education and training in both institutional and workplace contexts and incorporates the idea of credit accumulation. The “objectives” of the NQF, as set out in the SAQA Act, 1995¹, are to:

a. create an integrated national framework for learning achievements;
b. facilitate access to, and mobility and progression within education, training and career paths;
c. enhance the quality of education and training;
d. accelerate the redress of past unfair discrimination in education, training and employment opportunities; and thereby
e. contribute to the full personal development of each learner and the social and economic development of the nation at large.

These ambitious aims were re-affirmed in 2007 by the Ministers of Education and Labour in a joint policy statement, Enhancing the Efficacy and Efficiency of the National Qualifications Framework. This statement went on to take a clear position on credit in relation to the NQF. The Ministers jointly confirmed the need for “something less than a qualification” for which credits (or some form of recognition of learning achievement) can be given. The principle of having some kind(s) of

¹ http://www.saqa.org.za/show.asp?id=445
nationally recognised building blocks which support the notion of CAT and Recognition of Prior Learning (RPL) is said to be indispensable to the goals of “access, redress and transformation” (Ministers of Education and Labour, 2007: 9). They called on SAQA to develop a national CAT system to give credit to components of qualifications for access purposes or towards the award of a qualification. The system should build on the existing provision for credits, but should be “more responsive and more easily understood by different role players in the education, training and skills development system” (Ibid: 13). In accord with this decision, it is now proposed to add a fully-functioning and equitable CAT system to the South African NQF and, at the time of writing, SAQA was consulting on a draft policy on CAT (South African Qualifications Authority, 2013).

Information on international experience of CAT systems is very limited. Worldwide there are many policy documents and statements of intent regarding NQFs and credit systems. However, whilst these policy documents and statements of intent suggest particular approaches to the introduction and management of credit systems, and in some cases show how policy can be tailored to specific contexts and issues, they do not usually provide the evidence of use and impact which would give a solid basis for policy learning.

Reference to two substantial reviews of NQFs\(^2\) shows that out of the more than 50 countries world-wide which are reported on, around 30 have operational NQFs which incorporate more than one education and training sector, and only a handful of these have functioning credit systems which facilitate transfer within or between sectors. A literature search suggests that very few of these have been subject to formal evaluation. As might be expected, the frameworks which have been subject to review tend to be the longest established – Australia, Ireland, New Zealand, South Africa, Scotland and the other United Kingdom (UK) countries. Of these, those with the most recent reviews giving significant attention to the credit dimension are the Scottish Credit and Qualifications Framework (SCQF); and the Qualifications and Credit Framework (QCF) which operates in England, Wales and

Northern Ireland.

Most of the countries dealt with in the reviews are engaged in the Bologna Process, which involves 47 countries in the creation of a European Higher Education Area (EHEA) based on international co-operation and academic exchange. The Bologna Process requires the use of the European Credit Transfer and Accumulation System (ECTS), which has been in existence for 24 years and has been subject to a number of evaluations.

In addition, a range of the European countries in the surveys are committed to linking existing credit systems to the European Credit System for Vocational Education and Training (ECVET), or to developing systems based on ECVET. This European system was introduced relatively recently, in 2009, but has already been the subject of a sequence of monitoring and evaluation reports.

In order to base comments on the findings of monitoring and evaluation, rather than statements of intent, this paper concentrates on the two UK qualification and credit frameworks and the two European credit systems identified in the preceding paragraphs: the SCQF, which takes in all forms of education and training; the QCF, which includes all kinds of vocational qualifications; ECTS, designed for use by higher education institutions; and ECVET, designed for use in VET.

Taken together, the available policy documents and statements of intent suggest that an ideal credit system would be one in which:

i. credit, based on the achievement of outcomes-based units, or part-qualifications, can be accumulated over time;

ii. this credit can be transferred between contexts, sectors, institutions or programmes to achieve qualifications;

iii. credit, and the potential for accumulating and transferring credit, is built into the design, management and quality assurance of all the qualifications offered by all the organisations and institutions participating in the system; and

iv. processes for awarding, accumulating and transferring credit are open, fair and realistic, and are consistently and routinely applied by all organisations and institutions participating in the system.
In this paper, a credit system which works in this way is referred to as *fully functioning*.

The evaluations of ECTS, ECVET, the SCQF and the QCF show that these four credit systems are each intended, in its own way, to reach this ideal, but that, for various reasons do not yet do so. The failures and the reasons for them are discussed in the course of the paper. In particular, the paper examines how the implementation and impact of credit systems may be linked to the policy frameworks which shape them. To assist in making this link, this paper introduces a model for understanding policy on CAT – the related-levels model – which examines the aspirations, goals, definitions and principles, and operational mechanisms which shape CAT systems and the wider policies and actions which are needed to support their establishment. Issues raised by the monitoring and evaluation of these four systems are discussed in the sections of this paper, which deal with the aspirations and goals of credit systems and the definitions and principles which give them substance.

Overall, the analysis suggests that lack of consistency at, and between, the different developmental levels may be a key factor in the slow development of these CAT systems. The inconsistency can lead to implementation becoming focused on technical or operational issues concerned with the nature of the system, rather than on longer-term strategic intentions.

The origins of academic credit appear to lie in the United States (US), where credits based on “desk time” were introduced over a century ago and CAT is widely used today in different education sectors in America. There have been moves towards outputs or outcomes as a measure of credit, but practice appears to be varied across and within states. This means that the current situation in the US is not yet a fully-functioning and equitable national system.

In October 2010, a White House Summit on Community Colleges – perhaps the main users of credit in America – was convened. The summit looked at the role of community colleges in developing America’s workforce and considered how to respond to targets for participation set by President Obama at that time. The papers,
preparation for the White House Summit by important stakeholder organisations, offer some insights into issues of access, progression and completion of courses which are of interest in the context of CAT. Some of these papers are referred to in this paper.

In each section, the paper asks how the proposals for South Africa can be compared with the strengths and weaknesses of the four systems, as revealed by the available monitoring reports and evaluations. It asks whether this analysis suggests issues or actions for South Africa. The paper concludes that, although the draft SAQA policy on CAT raises awareness of the issues which will face the organisations introducing a CAT system across diverse organisations and sectors, it is not sufficiently focused on communicating larger issues which should shape the policy or on setting the basic principles for its implementation. This may create a situation where stakeholders, including government, lose sight of the intentions of the system and become entangled in the same kind of technical and operational issues which are reported to be impeding implementation of CAT in ECTS, ECVET, the SCQF and the QCF.

The paper finishes by examining whether the draft SAQA policy suggests clear enough priorities for action to ensure the establishment of a fully-functioning and equitable CAT system in South Africa. It proposes some priority actions for SAQA and the Quality Councils and considers a number of policies which the Government of South Africa might adopt to support the implementation of a credit system attached to the NQF.

THE RELATED-LEVELS MODEL

The preliminary examination of a range of full CAT systems and other arrangements for managing credit from around the world, referred to in the previous section, shows that these systems are defined at a number of different levels. Broadly speaking, these levels are concerned with intentions, design features and operational requirements, although they may be described in different ways. To allow comparisons to be made, a set of five levels, incorporating common features found
in these credit systems and other arrangements, has been identified. The contents of these levels are defined in this paper as:

- aspirations
- goals
- definitions and principles
- operational mechanisms
- actions and policies

Together these five levels form a model which can be used to analyse CAT systems. In this paper, it is called “the related-levels model of credit accumulation and transfer systems”, or just “the related-levels model”. It is illustrated in Figure 1 below.

![Related-levels model of credit accumulation and transfer systems](Figure 1)

One feature of the model is that the contents of each level can be differentiated or categorised in some way, with the complexity of the system increasing from level to level, from aspirations to actions and policies. So, for example, the aspirations for the system might be social, economic or political in nature, or a combination of these. The goals may relate to the context of the system or to the system itself, and the way
that the system operates can be placed on a continuum between a tight (more regulatory) regime and a loose (more voluntary) one.

The central idea in the model is that each level should depend on the level above and influence the level below, with each item at each level having a widening spread of consequences for, or influences on, the whole system. For example, a single aspiration will probably relate to a number of specific goals, and each of these goals will require that several conditions, in the form of agreed definitions and principles, are met, and so on. It is not suggested, however, that the model represents a fixed chronological sequence of stages in a set process. The development of a CAT system will be iterative, with decisions at each level calling for a review of the levels above and below, to ensure consistency and practicability. If the system is to be effective, or perhaps even implementable, the development process needs to ensure that the levels of aspirations and goals have a realistic relationship with the level of definitions and principles and the level of operational mechanisms and vice versa. It is also the case that the relative importance of the different levels to the process will vary according to the political, economic, or social context in which the system is being developed and/or the maturity of the qualifications system or framework in which it will have to operate.

The levels of the model are explored in more detail in the following sections.

“**Aspirations**” in the related-levels model

In the documentation referred to in this paper, terms such as *aims*, *goals* and *objectives* are used in different ways, which can make comparisons difficult. In this paper, the term “aspirations” has been adopted to signify long-term strategic aims related to the effects which the introduction of a CAT system is intended to have. Aspirations do not normally relate to the process of establishing or developing the system, because the system should be a means of achieving the aspirations and not an end in itself. The aspirations associated with the introduction of a CAT system will be social, economic, political, or some combination of these. They will be related to national or sectoral circumstances and ambitions.
The draft SAQA policy on CAT published in October 2013³, is said to be “of a reforming nature” and to provide “a strong impetus for change” (South African Qualifications Authority, 2013: 2). In a preface to the draft policy, SAQA states that the credit policy is linked to government strategy on human resources and skills, although no detail is given. It is also said to be “premised on the notion that social transformation in a developmental state such as South Africa can be achieved in part through well-articulated qualifications within an NQF that has a clearly defined policy on CAT” (Ibid: 5). However, the anticipated contribution of the CAT system to these aspirations are not indicated.

The decision to add a CAT system to the NQF implies that the credit system should reinforce and improve the existing arrangements for achieving the aims of the NQF, and/or create a new dimension to the NQF which will add significant value to the qualifications system. However, the nature of this added value is not spelt out. It would add force to the draft policy if the distinctive, additional aspirations for the credit system were articulated.

The level of aspirations in the model is explored in more detail in a later section of this paper.

“Goals” in the related-levels model

The term “goals” in the model refers to the more immediate and specific aims or objectives which are explicitly or implicitly associated with CAT systems. These may be either extrinsic to the system, or intrinsic, or in a form which combines the intrinsic and the extrinsic. Extrinsic goals re-state the aspirations in relatively practical terms and are about social, economic and/or political ends. Intrinsic goals are also expressed as relatively practical outcomes, but they are concerned with the ways in which it is intended to develop the system itself in order to achieve the aspirations or the extrinsic goals.

For example, using the related-levels analysis it can be seen that the long-term strategic aim – the aspiration of ECVET as it appears on the ECVET website – is “to give people greater control over their individual learning experiences and make it more attractive to move between different countries and different learning environments”.\(^4\) A related extrinsic goal from the same website is to ensure that the system can “facilitate the validation, recognition and accumulation of work-related skills and knowledge acquired during a stay in another country or in different situations”. A related intrinsic goal, from the website, is to “create a technical framework to describe qualifications in terms of units of learning outcomes, and … assessment, transfer, accumulation and recognition procedures.”\(^5\)

Although the draft SAQA policy on credit hints at ambitious aims, the goals focus on the development of “well-articulated qualifications within an NQF that has a clearly defined policy on CAT” (South African Qualifications Authority, 2013: 5). In a section entitled “Purpose”, the following intrinsic goal is set: “the development of credible, efficient and transparent CAT processes within and between each of the Sub-Frameworks of the NQF”. Other intrinsic goals for the development of the system are stated or implied throughout the paper, but there is no hint of extrinsic goals, related to the social aspirations, which might drive implementation.

The level of goals in the model is explored in more detail in a later section of this paper.

**“Definitions and principles” in the related-levels model**

The definitions and principles, which are the next level of the model, are likely to include how credit is going to be measured, who can award credit, and the circumstances in which credit can be awarded, accumulated and transferred. They are the basis of a functioning CAT system and must be agreed to by all participating stakeholders. In effect, they create operational requirements which guarantee the


\(^5\) The European Commission defines a unit of learning outcomes as “a component of a qualification, consisting of a coherent set of knowledge, skills and competence, which can be assessed and validated”[European Commission, 2009: 7]. In South African terms, this is a part-qualification.
validity, reliability and transparency of the CAT system and must be observed by participating bodies. This could include general school education, basic education for adults, initial vocational education and training (VET), continuing VET, higher/university education and community learning or other provision for adults.

Effective CAT systems appear to require the following: qualifications made up of units based on learning outcomes (“part-qualifications” in the South African system); agreed foundations of assessment to guarantee that the outcomes have been achieved; a standard measure of credit value; and shared data sets for specifying qualifications, certificating and/or recording assessed outcomes. They also require accessible information and trustworthy procedures for learners and partners in the system.

The definitions and principles, which govern practice in all participating sectors, may be more or less tightly set. A tight system will exercise detailed control over the way qualifications are designed and quality assured while a loose system will be designed to accommodate valid differences of practice in the different sectors. In a loose system, the definitions and principles will avoid being too specific, or will be expressed as norms and guidelines, rather than rules and regulations.

The draft SAQA policy on CAT includes 31 definitions and ten principles. The definitions (South African Qualifications Authority, 2013: 3-4) cover basics, such as “credit” and “part-qualification”, and give useful interpretations of terms which may be problematic, such as “articulation” and “comparability”. However, it also contains background items which appear to relate more to the paper, than the policy, such as “NQF Act”, and some terms which do not appear to affect the policy, such as “apprenticeship” and “skills programme”. The principles focus on: making access more flexible; creating and publicising articulation and progression routes; using credible, but proportionate, processes for comparing qualifications and validating outcomes; judging the value of learning on outcomes, not on forms of learning; identifying the need for, and providing, bridging courses (“supplementary work”); and ensuring that quality assurance practices are transparent. The principles (South

---

6 This definition is adapted from the definition of tight and loose qualifications frameworks, Tuck, 2007: 22.
African Qualifications Authority, 2013: 7-9) underline the importance of collaborative approaches to credit transfer and set a number of conditions which are clearly intended to make sure that providers support learners in the process of progressing through the transfer of credit. However, some of the most basic requirements for consistency are taken for granted, possibly because, being already part of the NQF, they are assumed to be understood and unproblematic.

These basic requirements, and other issues relating to the level of definitions and principles in the model, are explored in more detail in a later section of this paper.

“Operational Mechanisms” in the related-levels model
Operational mechanisms are the specific practices and processes by which the principles are put into effect.

In a tight system, measures to secure credibility and trust will depend on centralised quality control. All participants will be required to follow the same detailed steps for developing, credit-rating, assessing and certificating qualifications. In a looser system, there will be common steps and stages, but it will be possible for different approaches to be taken to some or all of these. Trust will be based on transparency, validity and consistency of practice rather than on regulation. Good practice will have to be established at two levels – sectoral and institutional – and, management mechanisms to monitor and evaluate practice and ensure that it is transparent, valid and consistent at each level will be required. In the case of South Africa, as is increasingly the case with developing qualification frameworks, there are three NQF Sub-Frameworks, each with its own regulatory body to monitor quality. In this case, there will also have to be mechanisms to ensure that the system works effectively across and between the Sub-Frameworks.

The areas where there are likely to be practical differences between sectors include aspects of: qualification design, credit-rating for credit accumulation, credit-rating for credit-transfer, processes for admitting learners to courses/programmes, assessment and verification of assessment, and institutional quality assurance. These are areas, therefore, where it will be particularly important to agree definitions
and set general operational principles. It will also be important to have the means for conducting cross-sectoral and inter-sectoral debate and arbitration processes.

In the draft SAQA policy on CAT, the existence of diverse mechanisms and the need to manage them are acknowledged by giving the three sectoral Quality Councils (QCs) clear responsibilities and proposing whole-framework quality mechanisms. The responsibilities of the QCs include: developing policy on CAT for their Sub-Frameworks, undertaking systematic work on the development of sectoral credit systems within their specific Sub-Frameworks, and participating in the adjudication process of SAQA to monitor unfair exclusionary practices related to CAT within all three Sub-Frameworks (South African Qualifications Authority, 2013: 13-14). In addition, the draft policy requires provider institutions to demonstrate formally to the QCs that their practices and internal policies are in line with the national principles. If there is a concern here, it may be that the focus appears to be more on addressing transgression than encouraging collaboration.

Operational mechanisms are not explored further in this paper.

“Actions and policies” in the related-levels model
Evidence regarding the relative lack of success of the CAT systems examined suggests that they need to be backed by a range of actions and policies which recognise the limitations of credit systems, the barriers to full adoption and the pitfalls which can impede their effectiveness.

CAT systems are unlikely to be successful unless those who should participate in the system are able and motivated to do so, and those who should benefit from the system are persuaded that participation will be to their advantage. Bringing this about is likely to require not only technical change in the design and management of qualifications, but also fresh thinking on a wide range of other processes and approaches: learning and teaching, guidance and counselling, and financing. One of the contributors to the White House Summit on Community Colleges talks of a need to make changes which amount to reinvention in order to make the American system function effectively (Sugar, 2010: 33). For this reason, immediate actions will need to
include projects to build capacity within and across the different sectors of education and training, to generate evidence of the value and success of the system, to adapt the system as required to deal with emerging issues, and to win the hearts and minds of managers, teachers and learners.

This level also draws on the concept of policy breadth as articulated by Raffe (Raffe, 2003). In his paper, entitled ‘Simplicity itself’: the creation of the Scottish Credit and Qualifications Framework, Raffe defines policy breadth as the extent to which the establishment of a qualifications framework is linked with other measures to influence how the framework is used. These are measures which can influence or offset such matters as the policies and practices of providers, perceptions of different fields of study, the influence of the labour market and social tendencies which affect learners to make the success of the framework more likely. In this paper, it is assumed that these comments apply equally to CAT systems.

Examples of supportive policies and areas for action might include measures on focused information/communication, adult guidance and counselling, national measures to take the awarding of credit into account in public funding, financial measures to support private sector involvement, support for the recognition of prior learning (RPL). It might also include initiatives to build capacity, to design and deliver articulation routes, to strengthen national quality assurance measures, national and local planning, monitoring and evaluation, and measures to minimise bureaucracy.

The level of actions and policies in the model is explored in more detail in later sections of this paper.

**ASPIRATIONS**

Not all NQFs have, or are planned to have full credit systems, but most credit systems seem to be associated with NQFs and a small number of NQFs are described as “credit and qualification frameworks”. Statements of aspirations tend to be attached to the NQFs, although sometimes there is a discernable link between an aspiration and a credit system. For example, the Credit and Qualifications Framework for Wales (CQFW) gives as an aim, “The CQFW allows learners to
explain to others the relative value of their award, to transfer their knowledge and skills between career paths, providers and countries” (Credit and Qualifications Framework for Wales, 2009: 9). Where a CAT system is being added to an NQF, it would seem reasonable to expect that the new system would be formally linked to specific existing or new aspirations to make clear what value it is expected to add to the existing arrangements.

If the stated aims of CAT systems are not markedly different from the aims of the qualifications framework, this may be either a strength or weakness. It may suggest coherence of aim and approach, but it may equally well mean that the specific benefits of the CAT system are being missed or not sufficiently stressed.

A CAT system is supposed to make it easier to work towards qualifications over time and to carry previous achievements forward from institution to institution and between sectors. Therefore, a credit system might be seen as a way of making education and training more accessible and so reducing inequalities in education and training, or as a way of motivating people to participate in personal or professional development at different times in their lives and so improving the country’s skills base, or of making the education and training system more clearly accountable. What these aspirations have in common is an underlying vision of a wide range of different programmes linked in a single system which allows individuals to learn what they need, when they need it and always to be able to capitalise on this learning and progress further. CAT systems aspire to remove (or, at least, reduce) restrictions on the place, pace and mode of learning which can be recognised and built on. These aspirations for access and recognition put the citizen as learner at the centre of the vision.

For example, the National Qualifications Authority of Ireland (NQAI) says of the Act which established the Irish National Framework of Qualifications (a credit and qualifications framework), “The purpose of the Act was to put the learner at the centre of education and training in Ireland by supporting and recognising lifelong learning” (National Qualifications Authority of Ireland, Undated: 4).
Another common driver for developing CAT is a concern to improve human capital quickly and cost-effectively. There is a widening recognition that this is needed to cope with rapid changes in technology and economic profiles, and some action to address these changes is underway in most countries. There are, however, different views about the nature which the improvement should take and how it should be funded. Is a country’s human capital to be developed by focusing on people’s occupational skills, or their key skills, or their knowledge, or by fostering an entrepreneurial spirit, or promoting active citizenship? Or all of these? And how should this be paid for – by the state, by individual learners, or by the private sector? Or, if by a combination of these, who should pay for what? Different countries set different priorities and these affect the way in which reforms affecting their education and training systems are carried out.

The types of aspiration which can be found in the literature do not form a long list, although the particular combination of aspirations will vary according to the particular national or sectoral circumstances in which the NQF and the CAT system are being developed. Usually this relates, in turn, to a recognised economic or social context. Some countries working on NQFs and credit, like Kosovo, need to develop the skills of the population to attract inward investment, some, like Kazakhstan, want to depend less on international experts in their main economic sectors, others, like Turkey, are increasing their exports of goods and services and identifying skills gaps as this progresses. The United States and South Africa want to redress current and historical social inequalities.

An example of a political aim is that of changing what may be called “institutional logics”, making education and training institutions more accountable or responsive and reducing the power of academic or other expert elite. As has been noted in the previous section of this paper, the introduction of a CAT system will challenge and change existing norms and preconceptions. If challenge and change become ends in themselves, however, a situation can develop where, instead of growing capacity and fostering innovative thinking, the old rigidities are simply replaced by new, and the system can get bogged down in new technicalities rather than responding to the social and economic needs which are supposed to be its focus. Arguably, this was what happened in the UK, when a framework of occupational standards and
workplace qualifications was introduced in the 1990s\(^7\), making the system more complex instead of less so.

If the aims which drive the development are hidden, there is a danger that priority actions and supportive policies will not focus on the real needs of the system. In the South African situation, the political drivers appear to be clearly stated, but there are tensions within the system, arising from the differing views which the different sectors have about priorities and perceptions of quality, and these could make development of an integrated national credit and accumulation system difficult. These differences need to be brought into the open at the level of aspirations and worked out at the succeeding levels.

Even where the aspirations are open and clear, however, the monitoring reports and evaluations show that actions which claim to be driven by the aspirations can become tangled with operational issues and technical difficulties which inhibit implementation. If the fact that learners are at the heart of the credit system is kept to the fore, this should help to focus on the practicalities of the “range of related practices that are in many cases not explicitly defined as CAT” (South African Qualifications Authority, 2013: 1) – i.e. identifying/ creating progression routes, RPL, agreeing on advanced standing, mapping articulation between qualifications and courses – as well as negotiating formal credit transfer. This focus, in turn, should make it easier for leaders to encourage their institutions to find ways to address operational and technical matters rather than using them as excuses for avoiding real change.

For the European Union (EU), the long-term strategic objectives of education and training policies (interpreted in this paper as aims) are comprehensive\(^8\):

- making lifelong learning and mobility a reality;
- improving the quality and efficiency of education and training;
- promoting equity, social cohesion and active citizenship;


• enhancing creativity and innovation, including entrepreneurship, at all levels of education and training.

These long-term strategic objectives are supported by a range of “referencing tools” with the overall aim “to give greater access to learning or employment opportunities in different countries and encourage greater mobility – for individuals, businesses and other organisations”.9 Two of these tools are ECTS and ECVET and these do not have stated aims of this kind. The overarching statements which appear in ECTS and ECVET documentation relate to the purpose and design of the systems – essentially saying, “these are tools, and here is how they will work” (European Commission, 2009a and 2009b) – but give no guidance as to what should drive decisions or help to identify priorities. This may partly account for the slow adoption of ECTS, other than in a formal way, which is discussed later in the paper.

As was noted at the beginning of this paper, the South African NQF Act, 67 of 2008, combines technical aims with immensely ambitious social and political aspirations: “accelerate the redress of past unfair discrimination in education; training and employment opportunities” and “contribute to the full personal development of each learner and the social and economic development of the nation at large”. These aims are cited in the draft SAQA policy on CAT, but are not explicitly linked to the addition of a fully-functioning CAT system.

Evidence from the most recent review of ECVET underlines the importance of having a clear understanding of the benefits which the system should bring:

A crucial condition for ECVET implementation is a clear and explicit added value that can be transmitted and communicated to interested partners. … several respondents (20%) mentioned difficulties in finding a clear specific added value for ECVET and are also concerned about the administrative burden and workload linked to it (Cedefop, 2013b: 4-5).

The draft SAQA policy on CAT links credit to social transformation, which is said to be achievable, in part, through the NQF and a credit system (South African Qualifications Authority, 2013: 5). The purpose of the policy is to “facilitate the development of credible, efficient and transparent CAT processes within and

9 Ibid.
between each of the Sub-Frameworks of the NQF" (Ibid: 6). This might be called a neutral aim, potentially benefiting all stakeholders. One of its objectives is to “position CAT in relation to the objectives of the NQF to support lifelong learning in South Africa” (Ibid: 6) - the NQF objectives are listed in later paragraphs. By reading between the lines of the principles and other provisions of the draft policy, it can be seen that there is a concern for the effect of the CAT system on learners. However, there is no clear indication in the draft policy of what the CAT system will add to the NQF or how it will contribute to social, political or economic change. There is no aspiration related to CAT to drive forward the implementation of the credit policy once it is agreed.

**GOALS**

As described in the section on the related-levels model, the goals associated with CAT systems may either break down the aspirations in practical terms (extrinsic goals) or set out the ways in which the system itself is to be developed (intrinsic goals). It could be argued that the distinction is better understood as a continuum, but by separating out the two kinds of goal, the model calls for an analysis which shows how far the aspirations are expected to be carried through in setting up the system. The more the goals are intrinsic, the less attention may be paid to the aspirations. Where there are no strong extrinsic goals, it seems, there is a danger that the development of the system can become too concerned with technical issues. It can then become too easy for stakeholders to withdraw from serious engagement with the aspirations, on the grounds that dealing with the difficulties presented by the intrinsic goals is too complex or time-consuming or demanding of resources. Where there is an emphasis on extrinsic goals related to the hoped-for strategic benefits of the system, on the other hand, stakeholders can be stimulated to deal with the systems issues, which are likely to be many and challenging, in order to pursue greater good.

ECTS is described as “a learner-centred system because it helps institutions to shift the emphasis in programme design and delivery from traditional teacher-centred approaches to approaches that accommodate for learners’ needs and expectations” (European Commission, 2009: 13), but it is not always clear from practice that this is
an aim. Using ECTS should give institutions the goal of “facilitating and supporting learners in shaping their own learning pathways and helping them to build on their individual learning styles and experiences” (*Ibid*: 13). However, there are no specific goals related to this, and monitoring and evaluation studies such as the European University Association’s *Trends* reports of 2007 and 2010 (Crosier *et al.*, 2007, and Sursock and Smidt, 2010) suggest that actual practice in this respect is very varied.

The ECVET website headlines the following aspirations for the system: “The European Credit system for Vocational Education and Training (ECVET) aims to give people greater control over their individual learning experiences and make it more attractive to move between different countries and different learning environments.”

However, the introductory brochure for ECVET starts by stating that “ECVET is a technical framework for the transfer, recognition and accumulation of individuals’ learning outcomes with a view to achieving a qualification” (European Commission. 2009: 3). ECVET users appear to associate the system most strongly with intrinsic goals. In 2011, researchers from Cedefop\(^{11}\) surveyed the ECVET Users’ Group\(^{12}\) and found that this credit system is “strongly associated with improving recognition, validation and permeability within education and training systems” (Cedefop 2011: 17). This implies benefits to learners, but learners, as such, are not mentioned.

Systems improvements are at the core of ECTS:

ECTS is a tool that helps to design, describe, and deliver programmes and award higher education qualifications. The use of ECTS, in conjunction with outcomes-based qualifications frameworks, makes programmes and qualifications more transparent and facilitates the recognition of qualifications. ECTS can be applied to all types of programmes, whatever their mode of delivery (school-based, work-based), the learners’ status (full-time, part-time) and to all kinds of learning (formal, non-formal and informal) (European Commission, 2009: 7).

---


\(^{11}\) The European Centre for the Development of Vocational Training / Centre européen pour le développement de la formation professionnelle.

\(^{12}\) The ECVET Users’ Group was established by the European Commission to support the establishment and development of ECVET. It brings together representatives of EU Member States and associated countries as well as representatives of European social partners.
Sometimes the goals of a credit system may be stated in a way that tries to bridge the extrinsic and the intrinsic and this at least keeps users in consideration. For example, the aims of the Scottish Higher Education Framework (part of the SCQF) are said to be “to enable employers, schools, parents, prospective students and others to understand the achievements and attributes represented by the main qualification titles, and how qualifications relate to one another” (Quality Assurance Agency for Higher Education, 2001: 3). Goals may be about establishing links between existing qualifications through using learning outcomes, or establishing equivalences between qualifications awarded by different awarding bodies to make it possible, or more possible, for learners to navigate provision and change between providers and qualifications. In some cases, CAT systems may be linked to action to improve access to education and training for specific social groups, such as school dropouts, migrants or disadvantaged groups and to the creation of qualifications for such groups.

In some systems, the link between the goals and the role of credit is not obvious – for example where the introduction of credit is linked to the revision of VET standards, the increased coherence of standards across or between different sectors (especially initial and continuing VET), or quality improvement in learning. In the case of ECVET, what appears to be a reform to introduce a credit system has turned out to be about introducing modularised, outcomes-based systems of qualifications:

One of the main obstacles to attracting more interest in transnational mobility as part of initial and continuing vocational training and education is the difficulty in identifying, validating and recognising learning outcomes acquired during a stay in another country… and in a wide variety of contexts, formal, non-formal and informal (European Commission, 2008: 2).

The European Commission stated that what was needed was “a way of enabling people to pursue their learning pathway by building on their learning outcomes when moving from one learning context to another” (Ibid: 2). In fact, in many member states what was required was a reliable way of identifying and assessing learning outcomes, and much of the work of the ECVET pilot projects has been focused on pursuing this end.
Credit systems can be presented as tools for wide-scale reform, but evaluations and other practical studies of CAT systems suggest that aspirations and goals are not always realistic or clearly enough focused. In the last section, it was noted that tensions between stated aspirations and actual drivers can lead to a lack of policy focus in some cases and hold up progress in establishing CAT systems. Similarly, goals may be set which are not sufficiently linked to the aspirations or to the real challenges of implementing a CAT system. Goals may be so focused on intrinsic issues that they obscure the aspirations; or there can be tensions between a goal such as ensuring flexibility of provision and certification and a goal such as using and maintaining academic or occupational standards; and there can be difficulties in establishing a framework of qualifications which is responsive to individual needs, but also accessible and understandable.

England (together with Wales and Northern Ireland) has a relatively mature outcomes-based qualifications system. It has made a series of attempts to create a comprehensive qualifications framework, with the most recent being the QCF. It is the first national credit framework and as such, the objectives for the framework itself are worth considering. It is to support the establishment, maintenance and continuing development of a qualifications system that is inclusive, responsive, accessible, and non-bureaucratic. These characteristics are presented as aspects of the aim of the framework, distinctive from its design features. Each characteristic is accompanied by an explanation which, in terms of the conceptual structure of this paper, can be thought of as goals or objectives. These are presented in a fuller form (Office of the Qualifications and Examinations Regulator, 2008: 5) in what follows:

- **Inclusivity** is the goal of developing the capacity to recognise the achievements of all learners at any level and in any area of learning. Currently, the QCF is actually restricted to vocational qualifications and does not include qualifications in the higher education framework, but the goal is still challenging in that context.
- **Responsiveness** is defined in two dimensions. The first of these is to develop the ability to "support individuals and employers to establish progression routes appropriate to their needs" and the second is to create a system where "recognised organisations" can develop units and qualifications in response to demand.
• Accessibility is defined in quite restricted terms, which suggest something more like transparency – i.e. to build the QCF into “a system based on clear design features that are easy for all users to understand”.

• Avoidance of bureaucracy represents the creation of a balance between robust and proportionate regulation and quality assurance which will foster trust and confidence between the active stakeholders.

In its 2010 review (Office of the Qualifications and Examinations Regulator, 2011), the Office of the Qualifications and Examinations Regulator, 2008 found that participants in the QCF were becoming too focused on “detailed and/ or poorly understood regulatory requirements”, which was distracting them from more important principles (Ibid: 24).

As has been noted in previous sections of the paper, the draft SAQA policy on CAT has a stated commitment to supporting social transformation. However this is not worked out in particular extrinsic goals for CAT, although measures to remove unfair and exclusionary practices are given prominence in the document. This might lead to a similar situation, where technical details of implementation distract from more important principles.

There are four “objectives” in the draft SAQA policy on CAT:

a) Provide for the development and implementation of CAT as an integral component of qualification design within the NQF and its Sub-Frameworks.

b) Position CAT in relation to the objectives of the NQF to support lifelong learning in South Africa.

c) Directly address CAT-related challenges faced within the education and training system, such as the need for a more diverse and differentiated post-school system, unfair exclusionary practices, mainstreaming of RPL, articulation of schooling and college qualifications, and the recognition of worker education and workplace learning.

d) Specify the roles and functions of SAQA, the Quality Councils, education institutions and skills development providers, recognised professional bodies and workplaces in relation to CAT (South African Qualifications Authority, 2013: 6).

These are more like ways of judging the success of the policy drafting than ways of judging the success of the policy implementation, which would be the nature of goals. The second objective may be seen as implying the broad goal of developing a
system in which CAT is used in relation to the objectives of the NQF, to support lifelong learning, but the others would not provide a good basis for future evaluation.

In the detail of the policy which follows the objectives, however, a number of characteristics of the proposed system emerge which may be seen as intrinsic goals i.e. the goals to develop a CAT system in which:

- credit accumulation and credit transfer are combined to facilitate lifelong learning and access to the workplace;
- CAT and pathways for articulation are integral components of qualification design within the NQF and its Sub-Frameworks;
- there are credible, efficient, transparent and fair CAT processes, including the comparison of qualifications for the purpose of CAT, within and between each of the Sub-Frameworks of the NQF;
- collaboration between providers from different sectors to develop cross-sector qualification linkages and to identify and address the need for bridging/supplementary courses is standard practice;
- worker education and workplace learning are recognised and RPL is a mainstream activity;
- the roles and functions of SAQA, the QCs, education institutions and skills development providers, recognised professional bodies and workplaces in relation to CAT, and in dealing with unfair and exclusionary practices, are clear;
- there are credible, transparent and co-ordinated quality assurance arrangements for CAT across all sectors, and
- career advice services provide guidance on career pathways and articulation routes.

The evidence from ECTS, ECVET, the SCQF and the QCF, suggests that it would be helpful to the implementation of the new credit system in South Africa, whatever form it takes, if both intrinsic and extrinsic goals are simplified to guide all stakeholders to make the necessary changes to embed the new system, and to give structure to the management of the system.

DEFINITIONS AND PRINCIPLES

Like the draft SAQA policy on CAT, the main examples of CAT systems examined in this paper require the co-ordination of diverse institutions operating within different cultures. Specifically, they require co-ordination across different countries (ECTS
and ECVET), across all sectors (the SCQF) or across all parts of vocational education and training (the QCF). The policy documents for these systems take different approaches to setting the conditions which will ensure an appropriate and achievable degree of commonality in all participating institutions. In the main, they do this through relatively high-level definitions and principles or guidelines, rather than through rules and regulations. Details of these systems, as recorded in evaluations and monitoring reports, are set out below.

**The European Credit Transfer and Accumulation System (ECTS)**

The ECTS Users’ Guide (European Commission, 2009a) contains a combination of explanations, guidelines and illustrations of good practice. It contains ten statements which include the word “must” and sixty which use the word “should”: These are scattered through the document. In addition, in a separate document covering the ECTS label, which is awarded to “Higher Education Institutions who demonstrate excellence in applying the principles of the European Credit Transfer and Accumulation System (ECTS)” (European Commission, 2013: 3), a number of conditions are set out. These include four criteria for the award. In addition to evidence that ECTS is used correctly (i.e. in accordance with the guidelines), the criteria include evidence that all departments within the institution are applying the ECTS mechanisms in all first and second cycle degree programmes (even where there is no current demand) and that full information on the use of ECTS in the institution is readily accessible on the applicant’s website. In other words there are requirements for technical conformity with the system, serious commitment to the system, and active communication regarding the system (although there appears to be no requirement to promote the system) (Ibid: 8). However, the European University Association’s reports of 2007 and 2010 (Crosier et al, 2007, and Sursock and Smidt, 2010), suggest that some of these requirements are only formally met.

In addition, the 2010 research found that “ECTS … is applied very differently across countries and is implemented superficially in many cases or inconsistently across faculties within an institution and between HEIs in the same country” (Sursock and Smidt, 2010: 54).
Research on CAT conducted for the UK’s Higher Education Academy (Souto-Otero, 2013) states that, although more than 90% of UK higher education institutions recognise and award credits, there are issues about information and guidance, which is “often presented in a technical non-user-friendly way, not sufficiently informative and/ or difficult to find” and there is little evidence of active marketing of RPL by the institutions (Ibid: 6). In other words, these applications of ECTS are not fully-functioning credit systems as defined in the opening section of this paper and would not satisfy the intentions of the draft SAQA policy on CAT.

Souto-Otero also notes that ECTS suffers where countries calculate credits following very different approaches. He lists “contact hours, workload excluding learning outcomes, learning outcomes excluding workload or both learning outcomes and workload” (Souto-Otero, 2013: 9). He makes the point that this makes the meaning of the credit points vary substantially from country to country, and reduces the value of ECTS as a potential referencing tool. This is not an issue in the UK, which has a uniform approach to credit values, but he draws attention to variations in important technical aspects of assessment between higher education institutions, which also make the value of credits less certain. Given the importance placed on sustaining the diversity of institutions and maintaining academic autonomy in the UK’s higher education sector, this may not be surprising, but it does represent a challenge in relation to the introduction of a fully-functioning national CAT system.

**The European Credit system for Vocational Education and Training (ECVET)**

The basis of ECVET is set out in a handbook, published in two parts. Part one (European Commission, 2011a) contains explanations of key concepts and processes, sets out the functions of ECVET and the role of “competent institutions”, and gives examples of possible approaches to the concrete application of ECVET. Part two (European Commission, 2011b) contains explanations of the key issues to bear in mind when organising mobility using ECVET, explains functions of “competent institutions” in using ECVET, and provides a check list for using ECVET for transnational mobility.
The technical components of ECVET can be classified in three main categories: qualification design, the accumulation of learning outcomes, and the process of credit transfer. Qualification design is about qualifications, units of learning outcomes (“part-qualifications” in South African terms) and credit points: the process of accumulating learning outcomes covers assessment, validation and recognition of learning outcomes; and the transfer process relates to memoranda of understanding, learning agreements and learners’ transcripts and other records.

ECVET processes are described in quite detailed form:

In ECVET, units of learning outcomes achieved in one setting are assessed and then, after successful assessment, transferred to another setting. In this second context, they are validated and recognised by the competent institution as part of the requirements for the qualification that the person is aiming to achieve. Units of learning outcomes can then be accumulated towards this qualification, in accordance with national or regional rules. Procedures and guidelines for the assessment, validation, accumulation and recognition of units of learning outcomes are designed by the relevant competent institutions and partners involved in the training process (European Commission, 2009: 3).

However, it is also made clear that these technical components will have to be developed in line with each national institutional and political context.

The third monitoring report on ECVET (Cedefop, 2013b) makes it clear that it is still too early to draw any clear conclusions about the use or value of the system: “The analysis shows lack of readiness for full-scale implementation but that countries have progressed in creating the conditions to accommodate to ECVET principles” (Ibid: 4).

**The Scottish Credit and Qualifications Framework (SCQF)**

The SCQF Partnership, which is the body responsible for the SCQF, publishes a Handbook/ User Guide (The Scottish Credit and Qualifications Framework Partnership, 2009), which has been revised on a number of occasions since the launch of the Framework in 2001. Much of the handbook is concerned with CAT.

The structure of the SCQF means that, whilst it is very open to the inclusion of qualifications from any body offering outcomes-based qualifications which are
subject to quality assured assessment, only certain bodies can allocate credit to qualifications: this creates a distinction between credit-rating bodies and the bodies which may submit qualifications for credit-rating. In the handbook, there are thirty-seven guidelines for those participating in the system. These come under six headings: credit rating own provision; general processes to be undertaken by credit-rating bodies; information to be provided by submitting bodies to credit rating bodies; outcomes of credit rating decisions and monitoring; actions required of the credit rating body and submitting bodies; and credit transfer.

The key statement about the CAT system of the SCQF is that

*SCQF Credit Points give learners, employers and learning providers a means of describing and comparing the amount of learning that has been achieved or is required to complete a qualification or learning programme at a given level of the Framework* (The Scottish Credit and Qualifications Framework Partnership, 2009: 38).

The other key point is that the SCQF makes a formal distinction between *General SCQF Credit Points*, which define the volume of learning and are used for credit accumulation, and *Specific SCQF Credit Points*, which represent the value given to a qualification or unit in the course of credit transfer.

As with the South African NQF, credit accumulation is built into qualifications in the SCQF. This applies particularly to the qualifications accredited and awarded by the Scottish Qualifications Authority (SQA), which offers general school qualifications, pre-vocational and vocational qualifications, and workplace qualifications in most occupational sectors and at all levels of the SCQF. Where units are shared between SQA qualifications, transfer from qualification to qualification is automatically dealt with by the SQA, but where credit has to be awarded for transfer based on the similarity of units, decisions are left to the organisations and institutions registering the learners. Recent research into the functioning of the SCQF as a CAT system (Howieson and Raffe, 2013) has shown that credit transfer is, in fact, limited. The one area where there is significant transfer is between higher vocational qualifications (Higher National Certificates and Diplomas offered by colleges of further and higher education) and university degree programmes. This is an important area for transfer: for example, it allows individuals to gain qualifications in
their local college, studying full-time or part-time, and later to count these qualifications towards degrees. This particular form of credit transfer has been fostered by government through a range of national agencies, financial arrangements, and guidance and counselling initiatives over the past two decades, but is still not routine.

**The Qualifications and Credit Framework for England, Wales and Northern Ireland (QCF)**

Unlike the other systems, the bases of the QCF are set out in “regulatory arrangements” (Office of the Qualifications and Examinations Regulator, 2008). The regulatory objectives for the QCF – i.e. the objectives of the regulator - are to ensure that the framework: meets the needs of learners, maintains the standards and comparability of qualifications, promotes public confidence, supports equality and diversity, and ensures efficiency and value for money.

The published regulations represent standard good practice. They deal mainly with the design and management of qualifications made up of units (“part-qualifications” in South African terms) and the criteria and processes for entering qualifications in the framework. Two sections deal with the award of credits, focusing on accuracy and probity in awarding and certification and there are relatively detailed definitions of CAT.

In 2010, The Office of the Qualifications and Examinations Regulator (Ofqual) carried out an evaluation of the regulations (The Office of the Qualifications and Examinations Regulator, 2011) and found that there were “significant challenges to the introduction of meaningful opportunities for credit accumulation and transfer” and that learners had “not yet expressed significant demand for CAT” (*Ibid*: 3). Ofqual also reported that, “The small number of learners we spoke with during the evaluation had little awareness of the QCF” (*Ibid*: 5). As with other CAT systems, there was a concern that credits were not being assigned consistently enough, which is a significant problem.
The draft SAQA policy on credit accumulation and transfer

As noted earlier in this paper, the draft SAQA policy on CAT includes thirty-one definitions and ten principles. However, it takes for granted some of the basics which are already included in the NQF. If this is to be a stand-alone policy – a blueprint for all matters relating to CAT in South Africa – and if it is to achieve consistent practice, it should start from the very beginning, setting out all the tenets to which participants in the credit system must commit themselves.

It might start with a statement of foundation principles and definitions such as the following:

- Credits in the South African system are awarded for qualifications and part-qualifications gained in formal, non-formal and informal contexts.
- Each credit represents 10 notional hours of learning (including contact time, time spent in structured learning in the workplace and/or individual learning) and is allocated at a specific level of the NQF.
- The credit value of a qualification or part-qualification does not imply that there is a fixed timescale for achieving the qualification or part-qualification.
- Each qualification and part-qualification in the NQF has a credit value.
- Credits can be accumulated over time and counted towards a qualification.
- The structure of each qualification in the NQF makes clear the number and nature of part-qualifications which are required for an award, together with their credit values and levels.
- Credits can be transferred from one course leading to a qualification, into another.
- Transfer can be within one institution or department or between institutions/departments. The institutions may be in the same sector or in different sectors.

These lead into the third principle in the draft policy (South African Qualifications Authority, 2013: 7), “articulation by design”. This principle requires that identifying potential connections between qualifications and building articulation into the qualification specifications should be standard stages of qualification design. This is also thought of as ensuring that, as far as possible, there are no dead ends in a qualifications framework, but here it can relate more directly to the potential for credit transfer. In other words, “articulation by design” could simply mean ensuring that qualification A provides a good basis for progression to qualification B, but it could mean that qualification A (in part or in whole) counts towards qualification B.
(guaranteeing exemption or credit transfer), or that the specification for qualification B makes it clear where there is scope for credit transfer by indicating where particular kinds of experience or achievement could serve as replacements for specific components of the qualification and be given the relevant credit value counting towards the qualification. Since these are matters of principle, they might be spelt out in the policy paper.

Creating a fully-functioning credit system will always be problematic where there is ambiguity in the definition of credit, as in the United States, where the Department of Education has been working to change the system and establish a uniform credit measure since 2005. South Africa has a single definition of credit, but may need to strengthen the validation of the processes of credit-rating for credit accumulation and awarding credit for transfer. This does not feature strongly in the draft SAQA policy on CAT. There needs to be a set of basic rules covering such areas as:

- Who is responsible for the process of allocating credit values to qualifications and part-qualifications?
- How is it ensured that these allocations are valid?
- How will it be ensured that the processes used for awarding credit for transfer will achieve consistent and fair results?
- Will there be appeal systems and will these be institutional, sectoral or national?

The first principle in the draft SAQA policy on CAT, “access with success” (South African Qualifications Authority, 2013: 7), implies a very important consideration: if credit transfer is to have value then it must offer a reasonable chance of successful progress to the learner. This can be achieved by what is sometimes called “matching, bridging and tracking” – i.e. identifying where qualifications do and do not overlap, creating provision to allow learners to fill in gaps in knowledge and skills, and evaluating both by following up learners to see where and why they have/ have not been successful. This idea also underpins principles 2 (“appropriateness and applicability”), 4 (“credible methods”) and 9 (“supplementarity”). It also appears to underlie principle 7 (“equity and inclusiveness”), although the reference is not entirely clear. Again, this needs to be spelt out in a series of simple statements in which it is clear what participating organisations and institutions must commit to. These statements should be extended to cover related issues such as the need for open-
minded, cross-sectoral collaboration and the importance of transparency and how these can be achieved.

It is important that the principles which underpin CAT systems are stated in ways which make them clear, unambiguous and (if possible) memorable to all stakeholders and this is not yet the case with all parts of the draft SAQA policy on CAT.

**PRIORITY ACTIONS**

In developing a policy for CAT, SAQA’s aim is to create a framework for a combined CAT system which will be fully implemented across all education and training sectors in South Africa. That this is an ambitious aim is confirmed by the evidence from the two international and two national CAT systems examined in this paper – ECTS, ECVET, the SCQF and the QCF.

ECTS (originally the European Credit Transfer System) was established to facilitate the recognition of study undertaken by students on courses outside their home country. It is now a fundamental element of the Bologna framework, but the evidence suggests that the adoption of ECTS as a credit accumulation system is uneven (Souto-Otero, 2013; Sursock & Smidt, 2010). Evaluations of ECVET and the QCF (Cedefop, 2013b; The Office of the Qualifications and Examinations Regulator, 2011) show limited evidence of actual credit transfer within the VET sector. The Cedefop evaluation, based on a survey of 35 frameworks in 32 states, also indicates that it is proving difficult in a number of countries to make credit links between VET and higher education qualifications (Ibid: 46-47). Of the four systems examined in detail in this paper, only the SCQF is set up to facilitate the use of credit across all education and training sectors, but even here there is evidence (Raffe et al, 2012) that, while credit transfer is actively pursued between some areas of further education and higher education, it is otherwise very limited.

The current structure of the South African NQF consists of a single qualifications authority, three Sub-Frameworks and three QCs to regulate the Sub-Frameworks. This could turn out to be either strength or weakness in pursuing the aim of
establishing a fully-functioning CAT system and the draft SAQA policy on CAT acknowledges this by understanding the potential which the Councils have to implement the proposed system.

Even assuming the harmonious implementation of a CAT policy by the QCs, the evidence from existing credit systems suggest that it is unlikely to be possible to establish the system quickly. On the basis of this evidence, this section of the paper offers four priority areas for action to take the policy forward. These are winning hearts and minds, capacity-building, working incrementally, and future-proofing the system. Successful implementation, it is argued, will be dependent on leadership linked to aspirations, operational capacity, evidence of benefit, and trust.

**Winning hearts and minds**

The recent report on the practice and policy of CAT in UK higher education (Souto-Otero, 2013) suggests that, while policy frameworks and systems are in place, policy commitment is not always guaranteed and, while credits are often mentioned in policy documents, there is little evidence that credit concepts are employed at operational levels. This suggests failure at all levels of the CAT system.

This paper has argued for the importance of aspirations and extrinsic goals as drivers of CAT implementation on the basis that implementation leaders (policy-makers, managers or practitioners) can use these to inspire addressing and overcoming technical problems rather than allowing these problems to limit or prevent progress.

The draft SAQA policy on CAT starts by clearly linking CAT with social transformation (South African Qualifications Authority, 2013: 5). This kind of aspiration needs to be worked out at both policy and operational levels in institutions in a range of ways, such as ensuring that institutional strategies for widening participation are explicitly tied to CAT regulations – a point which is hinted at in the draft policy’s references to the residency clause, which states that a minimum of 50% of credit has to be achieved in the institution that awards the qualification. If this is not a current practice or issue, it may be because the potential benefits of the CAT
system at institutional level are not sufficiently clear and that would need to be addressed by the ministry, SAQA and the QCs. As has been noted elsewhere in this paper, issues of this kind, arising from a lack of understanding or faith in CAT, appear to be a major obstacle to full CAT implementation.

**Capacity-building**

Howieson and Raffe (2013) suggest two reasons for the lack of active credit transfer in Scotland. One is that the system is designed for credit accumulation rather than credit transfer and the second is that there are deep-rooted epistemological, institutional and political barriers to implementing a unified CAT system. The existence of credit accumulation as a design norm in the Scottish system, means that programmed articulation between qualifications is commonplace, but the barriers mean that the development of other forms of progression, e.g. credit transfer between different awarding bodies and different sectors, is not being achieved. The researchers say that their findings illustrate “the limitations of credit and qualifications frameworks as agents of change in the face of the institutional logics of national education and training systems” (Ibid: 366) – ie the logics which shape the actual behaviour of learners and providers of education.

In the case of ECTS, the opposite problem pertains. ECTS was originally conceived of as a credit transfer system, a means of capitalising on study undertaken by students on temporary residences in other countries, and there has been resistance to the idea of developing it into a credit accumulation system. The Bologna process and its qualifications framework, with its international levels and fixed ranges of credit for different types of qualifications, has driven change forward, but, as noted in the previous section, a number of reports, including research carried out by the European Universities Association (Crosier et al, 2007; Sursock & Smidt, 2010) suggested that many higher education programmes have not been sufficiently restructured to implement ECTS fully. In this case, the institutional logics are preventing the move from selective credit transfer to a system where CAT is the norm.
A number of the processes which come within the ambit of NQFs and credit systems are mentioned in the draft SAQA policy on CAT. They include designing outcomes-based qualifications and their component part-qualifications, allocating credit and levels to qualifications and part-qualifications, comparing outcomes and identifying articulation possibilities, employing outcomes-based assessment, validating non-formal and informal learning, and the quality assurance systems related to these. From the negative reports about progress on CAT, it seems that policy-makers and implementing agencies and, perhaps, the managers of participating organisations and institutions, often assume that these are skills which are current among teachers and trainers, but this is not necessarily the case.

In implementing the new policy on CAT, SAQA and the QCs will need to support teachers and trainers, whose professional experience may be with more traditional approaches, to understand the new processes and acquire the skills necessary to operate a CAT system. They will also have to support managers to understand the implications of the change for their practitioner colleagues and make appropriate changes to their planning and deployment activities. This priority for action is fundamental.

**Working incrementally**

The draft SAQA policy on CAT acknowledges the need for both inter-institutional and inter-sectoral collaboration on a large scale. While enthusiasts will no doubt welcome this as an opportunity, there will be others who will try to avoid engaging with those whose norms are different from their own. Measures can be devised to force a façade of collaboration, but for it to be effective it must be real. In other words, there will be a need to persuade institutions and the practitioners in participating institutions to make the effort to work together. The best way to achieve this is to persuade them that it is to their advantage to do so - one way will be to sponsor or run collaborative projects which can serve as examples and from which ordinary participants can act as champions for CAT.

In a report on developments in the opening up of VET pathways (McCoshan et al, 2008), the researchers report that post-secondary, non-tertiary institutions are often
unaware of expectations at tertiary level and thus unable to prepare their students to progress. Conversely, tertiary institutions (both tertiary VET and academic) are often reluctant to issue credits for courses not taught at their own institution because they do not know the content detail (*Ibid*: 169). Dealing with this on a case-by-case basis can use up a lot of time and effort for not much advantage, and projects focused on particular areas which may affect many institutions within a province, or across several provinces, can lower the input and raise the gain, providing the elusive bulk discount.

In addition, the experience of collaboration can have cumulative effects, with the experience becoming incorporated into admissions processes, new learning and assessment techniques, further projects, and so on.

There will also be broader issues which need to be tackled on a practical, as well as a theoretical level. The kind of questions which are arising in the implementation of CAT systems are about the extent to which an “inclusive and responsive” framework should:

- lead to the development of new qualifications for achievements that had previously not been recognised;
- accredit overlapping qualifications with slight differences to suit individuals/employers;
- require the ongoing amendment of qualifications to take account of these users’ needs and preferences.

Also, how does this flexibility affect standards and trust and does it add to compliance requirements and bureaucracy? These issues need to be explored in practical ways and across the sectors.

The European Commission has adopted a project-based approach to the development and implementation of ECVET, and this has already produced answers to questions which were not fully articulated in the course of designing the system. *(G)iven the variety of VET qualifications, putting ECVET in place, even in the context of mobility, requires preliminary work on analysis of qualifications (are they comparable?, what learning outcomes do they have in common?, and how these are delivered (what are the assessment criteria? is the assessment acceptable for the other partner institution?)). This preparatory work requires*
resources and commitment, as can be seen from the work of the current ECVET pilot projects (Cedefop, 2010b: 40).

A general request of most of the consultation responses on ECVET was that it should be simple and clear. However, it seems inevitable, that in such a diverse system, where so much depends on quality assurance to generate trust, there is likely to be a high level of bureaucracy. Finding out how to simplify processes, clarify different approaches to quality assurance, and minimise bureaucracy is another priority which could be addressed through incremental projects.

Of course, working from projects, requires a sophisticated approach to monitoring and evaluating, to collecting data, and to moving from the local to the national. One paper for the White House Summit on Community Colleges put it this way:

Good data systems, well utilized, enable college leaders, faculty, and staff to determine what works specifically for which kinds of students in the complex, diverse, and challenging environments provided by today’s community colleges. Sound and well-utilized data systems are as important to student success as dedicated and well prepared faculty, caring and knowledgeable student support staff, and up-to-date and appropriate educational facilities and technologies (Ewell, 2010: 92).

All of this will apply equally to the situation in South Africa when the CAT system is being implemented.

**Future proofing**

To talk of future proofing the CAT system is probably over-optimistic, but as the system is developing, changes in education and training provision which could affect the workings of the system will be taking place.

One challenge which has faced frameworks for a number of years is the development of international and so-called “vendor” qualifications. An example of a globally successful qualification is the European Computer Driving License (also known as the International Computer Driving License). Microsoft and Cisco also offer computing qualifications which have proved very attractive in the US and around the world. In some cases, negotiations have been undertaken to bring these qualifications into NQFs and it seems likely that there will be agreements at national or international level to set credit values for these qualifications. It should also be
possible to set up tailored RPL to allow bulk processing of credit for learners holding these qualifications. The issues for the NQF authorities will be about scope, ownership, and quality assurance.

More recently, there have been online developments including massive open online courses (MOOCs). If these are successful, then they will raise similar issues, but the existing structures of levels and credit values, comparisons and validations should be able to deal with them.

In these cases, it will be bad for the reputation of the system if learners are raising issues about developments like MOOCs only to be met with obvious confusion, puzzlement or standard bureaucratic answers. For this reason it will be important for the NQF/ CAT community to be working together to identify emerging issues and working with SAQA and the QCs to develop learner-orientated responses explaining what can and cannot be done to accommodate these innovations and why. This activity brings together all the priority actions - project working, capacity-building and winning hearts and minds – by applying them with a single focus.

**SUPPORTIVE POLICIES**

In relation to the successful implementation of a CAT system within or across education and training sectors, the evidence from the reviews of ECTS, ECVET, the SCQF and the QCF offer three warnings. First, the policy which underlies the system needs to present a coherent structure of aspirations and goals, definitions and principles. Second, it needs to be implemented using mechanisms which are transparently in line with the policy; and third, it needs to be supported by measures which address real implementation issues. This section of the paper is concerned with measures which can influence how well the policy on a CAT system added to the NQF will be used, once it is agreed nationally. The measures considered here are among those which could influence the policies and practices of providers, stakeholder perceptions of different kinds of study, the influence of the labour market and social tendencies which influence learners.
The first Cedefop report on ECVET (Cedefop, 2010b) found that securing transfer and progression for learners depend on a number of factors which may be external to qualifications systems. These included financial resources, the level of bureaucracy in the system, and the motivation of different stakeholders to cooperate. It also concluded that “designing and implementing pathways across education and training sectors, and especially allowing for credit transfer, requires regulatory statements from qualifications systems about the right to access and new forms of agreement between stakeholders” (Ibid: 51). A further survey one year later found that the essential factor identified by those introducing ECVET is judged to be dissemination across education and training sectors: “Member States are investing much in this aspect and are organising events, setting up websites, and institutionalising ECVET by creating ECVET national co-ordination points” (Cedefop, 2011: 52).

As noted above, research in Scotland has also shown that providers are failing to transfer credit. In one study (Raffe et al, 2012) the researchers identify six factors for this, most of which are outside the system. They are: the increased cost of flexible provision; a lack of trust in the learning or assessments delivered elsewhere; funding disincentives; the requirements of regulatory or professional bodies; the persistence of norms about time-serving and other related expectations; and difficulties in matching prior learning onto whole units.

This section of the paper considers the role of supportive policies in three areas which are to some extent interrelated: focused information/communication; public funding and other financial measures; and stimulating involvement in and demand for CAT.

**Focused information/communication**

A number of reports on the SCQF confirm that the framework has become part of the language of education and training for learners, providers and employers in some sectors. This is at least partly because of an early government decision to use the framework levels and credit values of the framework as the official way of describing achievement within the school system. This measure has exposed successive
cohorts of young people, together with their teachers, parents and relatives to the language and the concepts of the national framework. Insofar as this measure has accelerated the embedding of the SCQF in the education and training system, it underlines the importance of targeted communication in establishing new systems. This is in accord with evidence from ECVET, for the most recent Cedefop review of ECVET found that “One of the most common activities is the ‘marketing’ of ECVET to relevant stakeholders, with several reports of activities directed to promoting ECVET during 2012” (Cedefop, 2013b: 4).

The draft SAQA policy on CAT requires providers to make information about CAT available. An early adoption of the language (and where appropriate the practices) of CAT, along with NQF levels and qualification terminology, by all ministries with an interest in education, training, skills or qualifications, would be an important step towards embedding the CAT system in national life. If they are not already adopted, then NQF levels should be used in all sectors as a means of describing the current state of knowledge and skills and for setting goals related to economic and social development and CAT processes should be built into planning which involves increasing levels of knowledge and skills. In other words, the government should ensure that CAT is not seen as a matter only for the education ministries.

Similarly, responsibility for promoting CAT should not only be at national levels, but also at provincial and local level, and information about CAT should be conveyed on government websites at all three levels. Information about the CAT system, the opportunities it offers and the commitment it may require, should be built into all forms of adult guidance and counselling, communication with employers regarding workforce development, and human resource processes in South Africa. One of the findings from reviews of CAT systems is that it is important that information and guidance on CAT are made available in a non-technical, user-friendly way. In many countries pathways may actually exist, but may not be in use by learners because they lack advice, counselling and transparent information in their options (McCoshan et al, 2008: 130).
Public funding and financial measures

Working out the costs of introducing a CAT system would be challenging, working out the opportunity costs or undertaking a cost-benefit analysis would be even more so. Passing references to costs appear in some documents about CAT systems, but mainly they are of two kinds: those which warn that the costs are likely to be much greater than forecast, and those which claim that there are no real costs for CAT because they can be absorbed in existing arrangements.

Nonetheless, some CAT reports suggest that an important reason that these systems are slow in developing, or that institutions are slow to adopt them, is the cost. Part of the cost appears to lie in the systems themselves - developing and running more flexible curricula, modularising and credit rating courses, articulating customised qualifications, and quality assuring this relatively fragmented provision – but there are also start-up costs of capacity-building among course providers and counsellors, building the knowledge and understanding of learners, and informatics developments, and these may be overlooked or underestimated.

If CAT is successfully introduced, there will undoubtedly be direct and immediate costs, many of which can be easily calculated. In particular, as noted in the previous section of this paper, there will have to be a significant programme of capacity-building. In addition, the management and quality assurance aspects of the system will have to be paid for. It is expected that there will also be gains, but these will tend to be less direct, less immediate, and less easy to calculate. Less time will be spent delivering programmes to learners who already have the skills or knowledge, individuals will be able to play a more advantageous role in the labour market and as active citizens, national economic and social outcomes may be delivered more quickly, the quality and international reputation of the country’s education and training system and the recognition of its qualifications may be improved, and so on. Therefore, those countries which do not try to carry out detailed cost-benefit analyses may be adopting a wise approach.

A more practical and useful exercise may be to work out how direct and related aspects of funding may be improved by the use of CAT or better aligned to its
implementation. Financial aid can be used to support students, but also to ensure that providers take responsibility for completion rates. This was a repeated theme of the contributors to the White House Summit on Community Colleges, where the focus was on improving both access and outcomes for excluded sections of society (Boggs, 2010; Long, 2010). Examples of this approach include: using CAT values as one means of managing the education and training system; funding providers using formulae based on credits achieved by learners; linking certain forms of social support, benefits, grants, loans or personal taxation to learning; linking grants, loans and business taxation to workforce development and linking workforce development to CAT; and creating funds which can support innovation and development in education and training using CAT.

Involvement and demand

It is also important that NQF levels and CAT, like all aspects of lifelong learning, should be normal currency in human resource processes throughout the civil service and in all institutions and organisations which are wholly or partly funded by the government.

CAT can be very demanding because it aims to be tailored to individual needs and there is seldom any bulk discount. That statement contains a technical issue for SAQA and the QCs to address. However, it is also true that CAT can take off where a specific sector sees a need for workforce development – health may be a common example in Europe, and education in other parts of the world, but it could apply to any economic sector with a potential for growth which is endangered by a lack of necessary skills. Identifying areas where CAT can assist economic development by speeding up the process of filling skills gaps and supplying skills shortages is an area where government can influence practices and promote the CAT system.

Addressing issues of individual rights and/ or entitlements which can stimulate involvement in lifelong learning and create a demand by learners for the use of CAT processes would also be beneficial. The aim should be to raise learners’ expectations and create informed demand, which in turn should help to convince
institutions of the value of establishing systems to fully implement CAT and thereby achieve the aspirations behind the implementation.
REFERENCES

* All websites were accessed between 5th October and 30 November, 2013.


(NCHEMS) for the White House Summit on Community Colleges.


Quality Assurance Agency for Higher Education. 2001. The framework for qualifications of higher education institutions in Scotland (FQHEIS). Gloucester: QAA.


http://www.ed.gov/college-completion/community-college-summit *


http://ec.europa.eu/education/lifelong-learning-policy/eqf_en.htm *


http://ec.europa.eu/education/lifelong-learning-policy/eqf_en.htm *
Exploring the Fundamentals of Credit Accumulation and Transfer: Towards a CAT System for South Africa

Loffie Naude

INTRODUCTION

One of the objectives of the National Qualifications Framework (NQF) is to facilitate access to, and mobility and progression within education, training and career paths (NQF Act No 67 of 2008 (5.1b)). In addition to access, mobility and progression, the NQF Act mandates SAQA, together with the Quality Councils “to achieve the objectives of the NQF by developing, fostering and maintaining, an integrated and transparent national framework for the recognition of learning achievements” (NQF Act (3a)). Learning achievements can be recognised through assessment, recognition of prior learning and credit accumulation and transfer (CAT) for which SAQA must develop and implement policy and criteria after consultation with the Quality Councils (QCs) (NQF Act (13h iii)).

In order to develop and implement policy, one of SAQA’s functions is to “conduct or commission investigations on issues of importance to the development and implementation of the NQF” (NQF Act (13.1k)).

This paper serves the purpose of researching one of the elements related to recognition of learning achievements, namely CAT in order to provide input that could serve as a basis to develop policy and eventually a CAT system. To give effect to this aim, this paper deals firstly with broader issues such as CAT within a lifelong learning and RPL discourse, CAT as part of an NQF, CAT models and a possible way forward in implementing a CAT system. This document focuses on the relationship between CAT and lifelong learning (LLL) and recognition of prior learning (RPL). The reason for this is that CAT and RPL are conceptually embedded
in a LLL discourse. Both CAT systems and RPL practices aim to enhance access, progression and mobility within a LLL framework (SAQA, 2013).

RECOGNITION OF LEARNING ACHIEVEMENTS: LLL, RPL AND CAT

Recognition of learning achievements is the key function of the South African NQF. The objectives of the NQF include two aspects that may be in tension with each other i.e. personal development of each learner and the social and economic development of the nation at large. The link between “full personal development” and “economic development” is still debated in literature on lifelong learning, and needs to be highlighted briefly.

A CAT system in South Africa should operate within the context of LLL, RPL and the NQF. Although LLL is described as the organising principle of the NQF (Republic of South Africa, 1995), the purpose of LLL is debated extensively (Naude, 2011). First, the essence of discourses around LLL is about its purpose related to personal development and/or economic development. The notion of economic development as purpose of education is sometimes described as neo-liberal. The debates argue that LLL discourse is born in the North (developed countries) and is shaped by the needs and possibilities of the knowledge-based economy and society of the North (Torres, 2004: 86). As such LLL promotes economic competitiveness, employability and citizenship (Torres, 2004: 86). Jarvis acknowledges that LLL functions within the context of globalisation with its demand for global market and knowledge production, and the drive to make a profit (Jarvis, 2007: 196 – 202). As knowledge has market value, the perception has grown that LLL serves economic ends only (Jarvis, 2007: 197).

Torres is of the opinion that the South (developing countries) focuses more on LLL in the context of the poor, such as self-esteem, empowerment, citizenship, community organization, labour skills, income generation, and poverty alleviation (Torres, 2004: 93). In this sense LLL serves humanity – a better life for all. Humanity is explained as incorporating people as ends in themselves, living together, respecting the world, and striving towards a better society (Jarvis, 2007: 196 – 202). Having said this, Jarvis makes the remark that the critique on the way globalisation
has shaped the view on LLL is based on the way profits are distributed and not on
the economic life of people (Jarvis, 2007: 197). In line with this reasoning, LLL is
defined as the "lifelong, voluntary, and self-motivated" pursuit of knowledge for either
personal or professional reasons (Department of Education and Science (Ireland),
2000). As such, it does not only enhance social inclusion, active citizenship and
personal development, but also competitiveness and employability (Commission of
the European Communities, 2006).

Recent debates also reflect the softening of the distinction between lifelong
education (institutional) and LLL (personal). Walters (2010: 1) refers to Confucius
(circa 500 BC) who indicated that life is a constant process of pursuit and
development; that the realisation of the need for learning and setting goals for
learning play a key role in life’s development; and that the highest level of learning is
“to have access to freedom in the real world” (Walters, ibid). Walters argues that this
view of Confucius about LLL is different from what many understand LLL to be today,
which primarily emphasises the needs of the economy and the need to adapt to
labour market requirements. She argues for a learning culture that may help to move
closer to the attainment of equity, redress and development (Walters, 2010: 4), thus
linking personal and economic purposes closer to each other.

In the same vein, the debates on LLL signal the need for a balanced understanding
of the contribution that LLL could make to society. Jarvis (2007: 197) indicates that:
“no society can survive without work and employment”. And clearly personal
development is part and parcel of the NQF. Drawing on Jarvis a learning society
could provide a more balanced view of LLL by introducing values such as :

- to be – persons not just employees;
- to do – to work not only to labour;
- to know – or have opportunities to learn a broader spectrum of
  knowledge;
- to live together, respecting each other and as active citizens seeking to
  create a better world;
- to respect the world and not just use its resources for the benefit of the
  minority;
- to keep striving towards the type of society that lifelong learning and
  the learning society actually offer (Jarvis, 2007: 197).
The above balanced view on LLL is reflected in the use of the phrases “full personal development” and “economic development” in the objectives of the South African NQF (Republic of South Africa, 2009) and forms the basis for a CAT system as will be discussed later in this paper.

A second set of debates on LLL considers the locus of learning. Learning is not confined to schools, colleges and universities. The emphasis in LLL debates is not on places but rather on spaces of learning. Fischer (2000) for example emphasises that learning can no longer be divided into a place and time to acquire knowledge (school) and a place and time to apply the knowledge acquired (the workplace). He is of the opinion that learning takes place throughout life and in a range of situations (Fischer, 2000: 265 – 294).

The emphasis on recognition of learning that takes place in spaces links LLL with CAT and RPL. RPL and CAT are the mechanisms to appropriate LLL in terms of access, progression and mobility of learners. RPL and CAT could be regarded as vehicles or tools that intend to implement systems that recognise learner achievements – RPL through a mediated process (pedagogical/ androgogical learning activities and assessment of informal and non-formal learning) and CAT through recognition of assessed credits for accumulation or transfer (formal, informal and non-formal learning). In this sense assessment forms the cornerstone of both formal and informal learning: assessing knowledge obtained towards a qualification. Learners that obtained knowledge through different means are challenged by the same assessment methods and standards levelling candidates approaching assessment. Figure 2 below illustrates the process of levelling (as far as possible) the playing field.
Figure 2: Levelling the playing field

It should be acknowledged that the relationship between RPL and CAT is not always a clear-cut one. It is sometimes assumed that learners seeking RPL are literate with a schooling or university background. Breier (1997: 4) indicates that the reality is that some learners in need of RPL do not have a schooling background and have only work experience gained through “piece work” jobs. The challenge is how to translate this kind of knowledge into units of learning compatible with those encapsulated in formally determined qualifications and part-qualifications. To address learner needs such as these, Ralphs (2010) suggests that RPL assessment practices should be a developmental practice in relation to the accumulated past experiences of learners, and should not be viewed only as a summative assessment process. This conceptualisation of RPL requires that the potential of learners to engage with deep and specialised knowledge criteria in any area is identified and deliberately developed as part of the RPL intervention. For this reason Ralphs refers to this RPL intervention as “specialized pedagogy” (Ralphs, 2010). In this process CAT plays an important role in opening up progression and mobility possibilities - recognition and transferability of knowledge gained towards further study.
A last consideration is that a CAT system is not primarily bound to the notion of an NQF. There are examples internationally where CAT practices are performed without establishing a formal CAT system as part of an NQF (ILO, 2010). This paper argues that as South Africa has implemented an NQF, CAT practices should be part of the NQF – in fact the existence of an NQF in South Africa should facilitate the transfer of credits to appropriate qualifications and NQF levels. The South African Qualifications Authority (SAQA) is required by legislation to develop policy for such a cat system.

The SAQA, established in 1995 by an Act of Parliament (SAQA Act No 58 of 1995) was tasked to establish an NQF as a key instrument for transformation (Parker and Walters 2008:71). Under the SAQA Act (which was replaced by the NQF Act No 67 of 2008) SAQA developed a system whereby the traditional understanding of curriculum (standards setting; programme development and delivery; and quality assurance) were separated - standards became linked to a qualification and unit standards. Outcomes statements and assessment criteria became the standard against which expected performance were evaluated (NSB Regulations of 1995). The intention was that the standard would serve as a guide for curriculum design, enabling more freedom to providers to develop their own content.

According to Allais (2003), standards set have determined (unintended) contents which impacted negatively on academic freedom. Allais raised a concern that competence-based training could be too behaviourist and atomistic, focusing narrowly on specific areas of skills performance. The view was that knowledge and skills would be understood as referring to performances that can be observed and measured in such a manner that the interiority of the learner are excluded. Young (2002) investigated the developments of the National Vocational Qualifications (NVQ) in the United Kingdom (UK) and argues that the definition of outcomes (that is a feature of a qualification), changed from being a guide (to those devising assessments and curricula) and an indication of a person’s capabilities, to claiming to be a precise definition of a person’s competence or what he or she could do.

However, Parker and Walters (2008: 72) indicated that a policy decision was made in South Africa in the mid-1990s to rather use the term outcomes-based education (not competence-based education) to ensure a more holistic and constructivist view
of learning that would not reduce competence to only the observable but would include the consciousness and conscience of the learner (Parker and Walters, 2008: 72).

According to Parker and Walters (2008: 74), two major changes were made to the NQF: a move away from standardisation to differentiation; and a move away from an up-front, design down and prescriptive approach to standards setting, to a practice-based, design up and descriptive approach. The establishment of three Quality Councils (QCs) namely the Quality Council for Trades and Occupations (QCTO), Umalusi: Council for Quality Assurance in General and Further Education and Training, and the Council on Higher Education (CHE) allowed for the emergence of different Sub-Frameworks which are shaped to the needs of each distinct knowledge field and its associated forms of learning.

It should be noted that a descriptive approach to standard setting may not be the ultimate solution to enable a CAT system. Differentiation based on qualifications that reflect own distinct institutional curriculum creates a system whereby mobility and articulation across institutions becomes a difficult and even impossible exercise. Articulation becomes an exercise where programme contents need to be compared – posing a challenge in terms of time and resources. A differentiated system could be utilised for articulation and a CAT system if articulation by design is implemented: career pathing and articulation between Sub-Frameworks of the NQF is possible if these are designed for articulation and mobility.

**FORMALISATION OF A CAT SYSTEM**

Drawing on the research done by CEDEFOP on NQFs internationally (2010: 153 – 160), some models could be considered regarding integration of NQF and CAT systems. CEDEFOP distinguishes between:

- No formal integration model: The lack of formal integration of the NQF and CAT system means that these two instruments are governed independently; qualifications are not developed using credits to be registered on the NQF; and
accumulation, transfer and progression are not necessarily organised around learning outcomes but are governed through equivalences based on consensus by parties involved, rules on access and exemption, validation of non-formal learning and possibly institutional co-operation and autonomy (CEDFOP, 2010: 154).

- Integration based on a passive role of the NQF and a common credit convention: NQFs use a measure of volume (credits) and a common set of levels to create a common approach to qualifications. The extent to which credit transfer, accumulation and progression are organised depends on the sub-systems. The transfer of credits varies from voluntary to regulated. The passive role of the NQF in this case does not improve coherence in qualification design.

- Integration based on the active role of NQFs and CAT systems: This model ensures a common approach to design of qualifications including rules of design which creates equivalence and automatic recognition. As qualifications are built from units, the credit system requires rules on accumulation.

CEDEFOP argues that the main differences between the three models (no integration; integration with passive NQF; and integration with active NQF) described above are:

- The extent to which qualifications are described or constructed following same rules and requirements;
- The extent to which the NQF is regulated;
- The manner in which learners’ assessed learning can be recognised.

In South Africa, formalisation of a CAT system could follow one of two possibilities:
(i) either a CAT system based on a passive role of the NQF with a common credit convention; or
(ii) a CAT system based on the active role of the NQF.

In both possibilities issues such as institutional autonomy, recognition of quality of qualifications by peers, recognition of assessment practices, and unique course contents could play a role in CAT practices.

Regardless of the model preferred, the CAT system will consist of elements such as credits, credit accumulation and credit transfer that could enable CAT practices.
CREDITS, CREDIT ACCUMULATION AND CREDIT TRANSFER

The architecture of the current South African NQF (post 2008) shapes the framework for a CAT system. This framework consists of three Qualifications Sub-Frameworks (general and further, trades and occupations, higher education) each providing career-paths, qualification rules, levels, and nomenclature. The qualification rules contain important building blocks towards a CAT system such as credits, credit accumulation and credit transfer which are discussed further.

A credit is defined by Butler and Hope (2000) within the UK CAT system reflecting a time-based interpretation (SAQA, 2006). He defines credit as a currency used to measure student workload in terms of the notional learning time required for specified learning outcomes. Hart (2005) and the Southern England Consortium for Credit Accumulation and Transfer (SEEC, 2005) suggest a second possible interpretation of a credit, namely a volume-based interpretation. Hart defines a credit as “intended to give an indication of the volume of learning required by a programme” (Hart, 2005: 80). It is also possible to describe credit in terms of a level-based interpretation. In this sense credit includes the NQF level on which learning takes place and the cognitive demand made by learning contents. In most of the countries the formula indicating the value of a credit is the same: 10 notional hours = 1 credit.

Credit accumulation is defined in the UK NQF system as the “successful completion of learning outcomes totalling a specified number of credits to complete a programme of study, according to requirements of the programme” (Butler & Hope, 2000).

Credits are awarded and accumulated if the achievement of the required learning outcomes is verified by assessment. SAQA offers a similar definition but focuses on the qualification and not the programme. SAQA states that: “Qualifications and standards are registered at specific levels of the framework and have a credit value. Learners, in the course of the study, may accumulate credits over time towards a qualification” (SAQA, 2000:10). In the NQF (post 2008) accumulation of credits may include part-qualifications such as modules (or clusters of modules).
Lastly, Butler and Hope (2000) define credit transfer within the UK CAT system as “consisting of both vertical and horizontal transfer”. 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 receiving institution. Horizontal credit transfer involves students moving between institutions at the same level and receiving credit at their home institution for the time spent away. A more recent definition refers to credit transfer as “a process through which learning outcomes achieved in one context could be taken into account in another. Credit transfer is based on the process of assessment, validation and recognition” (ECVET, 2009); and as “the process through which credit achieved and recognised in one setting can be taken into account for other qualifications or education and training programmes” (CEDEFOP, 2010: 50).

The distinction between credit accumulation and credit transfer should be noted. Hart (2005) makes a distinction between general credit value and specific credit value (SAQA, 2006). General credit value refers to credits accumulated within a particular institution and transferred from one programme to another. Specific credit value refers to credits that may be transferred to another institution in a similar programme or related programme.

**A CAT system**

The architecture of the NQF (post 2008) shapes the framework for a CAT system. This framework consists of three Qualifications Sub-Frameworks, each with their own conventions such as career paths, qualification rules, nomenclature, credits and rules for transfer of credits. These are important building blocks towards a CAT system.

Having discussed the elements of a CAT system above, the following overall remarks could be made:

- Recent definitions of credit systems, credits, credit accumulation and credit transfer are linked to assessment, validation and recognition. These aspects link a CAT system to recognised assessment and quality assurance
processes. Quality assurance processes refer to institutions involved with assessment of outcomes, and with the relevant Quality Councils’ (QCs) accreditation of programme contents, institutional processes, academic delivery and assessment. A combination of these processes enables a CAT system.

- The use of concepts such as: credits, credit accumulation and credit transfer, qualification, qualification title, learning outcomes, programmes, assessment, recognition, validation, RPL, LLL, NQF, and NQF level creates a common language which is essential for the implementation of a CAT system. This common language could create coherence and consistency which serves as clear communication nationally and internationally to and between stakeholders, the world of work, institutions and learners (CEDEFOP: 88).

The CEDEFOP report on the transnational CAT system warns against an approach to a CAT system that assumes general acceptance. The report (CEDEFOP, 2010: 148) argues that the mere availability of a credit system does not promote accumulation and transfer of credits. A CAT system does not create a demand for progression in itself, nor does it make institutions more open to non-traditional learners. It simply facilitates the task of those who have decided to take this path in establishing rules of accumulation and transfer.

The South African NQF and a CAT system are complementary in terms of NQF levels, learning outcomes, assessments, credits, qualifications, part-qualifications or modules. As such it creates in principle a common language and platform for accumulation and transfer of credits which could be affected by the three QCs within their respective NQF Sub-Frameworks.

**CAT system models**

CAT models are not developed by all countries introducing an NQF. A report by the International Labour Office (ILO, 2010) reported on the findings of case studies of 18 countries worldwide on the implementation of their NQFs. From this report it is evident that only the “older” NQFs provide a CAT system, namely Scotland, Australia, New Zealand, and the United Kingdom. Other countries such as Mexico, Chile, Malaysia, Mauritius, Botswana, Sri Lanka, Turkey, Lithuania, Tunisia, Bangladesh and Russia are implementing NQFs but are not yet at the stage to implement a formal structured CAT system.
Australia

The Australian Qualifications Framework (AQF) was introduced in 1995 and implemented over five years. Australia has a comprehensive framework consisting of three sectors: secondary schooling, vocational education and training, and higher education. The AQF was originally described as a weak/loose framework as it did not have a regulatory function over the three sectors (ILO, 2010: 32). Its limited success of the past years led to reviews (ILO, 2010: 33) resulting in the AQF Council moving away from a weak to a stronger AQF from 2009. This strengthened AQF is more prescriptive in bringing about national coherence across the three sectors to facilitate student mobility, pathways, and credit transfer between education sectors.

In terms of a CAT system, the AQF issued a Draft Policy on Qualification Pathways and Linkages. This policy (AQF, 2010: 51 – 52) builds into the AQF the capacity to support lifelong learning in a way that reflects the reality of student movement over a lifetime, that learning can be formal, non-formal or informal and that all forms of learning can potentially contribute to a qualification. The intention of the policy is to maximise credit that can be gained for learning already undertaken. The policy covers all education and training sectors that offer AQF qualifications and creates pathways, linkages and credit arrangement for determining and managing credits for students.

The Victorian Registration and Qualifications Authority (VRQA) in Australia implemented a credit matrix as from December 2008 (VRQA, 2008). The Credit Matrix is based on a point system which allocates points to units of learning. The allocation of points indicates the volume of learning and time required to complete the learning. The calculation of points takes the outcomes and level descriptors into consideration. Once calculated, and a number of points are allocated to the volume of learning, the AQF provides a suitable title for the qualification. This process of designing a qualification is valid for all sectors (vocational, occupational, and academic) and all types of qualifications (certificates, diplomas, degrees). The aim of the credit matrix is to:

- provide better information for learners; a common and uniform approach for accumulating credit in qualifications;
improve credit transfer arrangements;
enable easier tracking and planning of learning;
improve international recognition and portability of qualifications;
ensure consistent and flexible entrance requirements for non-ENTER students;
provide to employers and industry the level and amount of learning in different qualifications held by job applicants to assist in human resource planning; and
assist development of courses and design rules for qualifications.

The users found the credit matrix to be a valuable communication tool, although some reservations were indicated regarding subjectivity in the assessment process to determine levels of units of learning. However, should it be required to consider specified credits, the institutions involved should compare and match contents of the relevant unit(s) of learning (VRQA, 2008).

New Zealand
The ILO report (ILO, 2010: 31) indicates that the New Zealand Qualifications Authority (NZQA) could not convince the university sector to adopt a unit standard model. In 1994, the New Zealand Vice-Chancellors’ Committee withdrew the university sector from the NZQF. In 1999, a register of quality assured qualifications was established which include both traditional and unit standards based qualifications. The register, launched in 2001, provides a structure that brought all qualifications together. All qualifications are described in terms of course objectives and learning profiles (ILO, 2010: 31 – 32). The register introduced a common credit currency for New Zealand qualifications. This credit currency provided the basis for the next step: agreement on a policy that will underpin consistent credit transfer systems within New Zealand education providers (NZQA, 2002). The CAT system, however, enables transfer of credits as a structured agreement between two or more organisations or providers (NZQA, 2002).

The initial NQF was reviewed in 2010. A proliferation of qualifications made it difficult for learners to select courses and for employers to assess the quality of qualifications, and provide information on whether potential employees have the skills and knowledge they need. A new procedure was introduced whereby qualifications are registered using common criteria, and are outcomes-based with a
common core of skills, knowledge and attributes which could assist credit transfer arrangements (NZQA, 2010).

Scotland
The Scottish Credit and Qualifications Framework (SCQF) was launched in 2001 as a comprehensive framework consisting of 12 levels, and three sub-frameworks. When the SCQF was launched in 2001, its architecture was already in place. Most mainstream qualifications were outcomes-based, unitised, pegged on a framework with levels. Most were based on the concept of a credit and within established quality assurance systems. The SCQF has a loose design, with three sub-frameworks which are more tightly specified. The impact of the SCQF objectives such as increased access and transfer is limited. It nevertheless has retained support of all sectors of education and training (ILO, 2010: 31).

United Kingdom
The UK has replaced the former National Vocational Qualification (NVQ) system with a Qualification and Credit Framework (QCF) in England, Wales and Northern Ireland. The government asked the Qualifications and Curriculum Authority (QCA), the Learning and Skills Council (LSC) and the Office of Qualifications and Examinations (Ofqual) to implement the QCF in England in 2008, following two years of tests and trials (QCDA, 2010); in Northern Ireland the Northern Island Vocational Qualifications Reform Programme Board (VQRF) was responsible for the new QCF; and in Wales the Department for Children, Education, Lifelong Learning and Skills (DCELLS) implemented the QCF.

The QCF consists of qualifications and units of learning within a credit system where one credit represents 10 hours of work. The system enables transfer of credits between qualifications and units of learning; avoids duplication of learning and assessment of learning already completed; assesses and awards learning and achievements not certificated through RPL; and exempts learners with certificated achievements outside the QCF (QCDA, 2010a). The credit system aims to encourage learner progression, within lifelong learning and between further education and higher education (QCDA, 2010b).
Europe

The European Qualifications Framework (EQF) is different in comparison to the other NQFs such as those of Australia, New Zealand, Scotland, the UK and South Africa as it is a metaframework. The EQF intends to be a translation device to make national qualifications more readable across Europe, promoting workers' and learners' mobility between countries and facilitating their lifelong learning (CEDEFOP, 2010: 32).

The European Commission (2008: 3) indicates that the EQF aims to relate different countries' national qualifications systems to a common European reference framework. Individuals and employers will be able to use the EQF to better understand and compare the qualification levels of different countries and different education and training systems. The EQF aims to promote citizens' mobility between countries; and facilitate their lifelong learning.

The EQF provides a framework of eight levels based on learning outcomes in terms of knowledge, skills and competence. The framework also consists of level descriptors which are using parallel formulations to refer to a field of study or work and not to a qualification in terms of outcomes of assessment and validation and underpinning standards. It also makes no reference to credits to allow EQF levels to serve as reference for qualification systems where programmes leading to qualifications have different durations (CEDEFOP, 2010: 33).

In 2008 European institutions agreed that the EQF will be put in practice across Europe (European Commission (EC), 2010). The EC encourages countries to relate their national qualifications systems to the EQF so that all new qualifications issued from 2012 carry a reference to an appropriate EQF level. An EQF national co-ordination point, able to use learning outcomes, has been designated in each country. By using learning outcomes as a common reference point, the EQF will be able to facilitate comparison and transfer of qualifications between countries, systems and institutions. Levels of national qualifications will be placed at one of the central reference levels, ranging from basic (Level 1) to advanced (Level 8). This will enable a comparison between national qualifications and should also mean that
people do not have to repeat their learning if they move to another country (European Commission, 2008: 4).

Apart from the EQF, the European Commission has put two other mechanisms in place to improve transparency, comparability and transferability of qualifications, which are the European Credit System for Vocational Education and Training (ECVET) and European Credit Transfer and Accumulation System (ECTS) for Higher Education (HE).

ECVET is a European instrument to support lifelong learning, mobility of learners and flexibility of learning pathways. As such, ECVET is also the link between the labour market and education and training systems. ECVET is giving a central role to units as components of qualifications. A qualification consists of 60 points per year of full time study. Points serve as the reference for credit transfer or recognition of credits and appear on the transcript of assessed and completed units of learning or qualification (ECVET, 2009).

As the EQF is still in its early stages of implementation, lessons still need to be learned and its impact on countries still need to be measured.

The international CAT models described here provide lessons to be learned. All four countries which have introduced CAT systems revised their initial models. Australia from a loose model to a more prescriptive one; New Zealand to include Higher Education up to level 6 on a national level; and the UK from a primarily NVQ system to a more comprehensive system with qualifications and units of learning that meet industry needs. Credit systems (of the countries discussed) are mostly organised within an NQF with three sub-frameworks with a prescriptive approach (Australia and Scotland). Credits are calculated as one credit = 10 notional hours (Scotland, UK) which allow for credit transfer, although credit transfer between Further Education and Training (FET) and Higher Education seems to be limited. The relationship between FET and HE is around access rather than in-curriculum credit transfer.

An important lesson learned is that a comparison between qualifications based on outcomes is crucial to determine transferability of credits (EQF) – not based on
curriculum contents. Such a credit system provides a strategic platform to enable CAT. A comparison between qualifications based on outcomes is supported by a common language to communicate the credit system arrangements among systems (EQF); career advice and advocacy to enhance the uptake of possible accumulation and transfer of credits by learners; a quality assurance process to foster credibility (New Zealand); and a learner register which has an important role to play in the administration of learner achievements (New Zealand).

Taking the pointers provided by the above models into consideration, it could be indicated that the South African NQF (post 2008) provides important aspects that are required for the implementation of a CAT system such as qualification titles, units of learning, levels, credits, and progression to enable learner mobility and RPL options. To a certain extent the accumulation of credits as well as transferability of credits are already embedded in the part-qualification and modular qualifications design. A CAT system needs to be developed to streamline and strengthen these practices across sectors and NQF sub-frameworks. An important aspect of credit arrangements in a CAT system is communication with all participants about the arrangements that institutions have made to move between qualifications. This aspect of a CAT system is in line with the thinking about the way to go about developing an NQF. Walters and Isaacs (2009: 23) states:

Qualifications frameworks can play an important role in the transformation of education and training systems, provided that they are seen as a platform for communication and co-ordination rather than an arena of contestation and confusion.

IMPLEMENTATION APPROACH FOR CAT

Parker and Walters (2008: 77) argues that the South African experience indicates that qualification frameworks should be built cautiously, modestly and incrementally. Development should have a strong experimental scientific approach in which failures or falsifications are seen as evidence. This is said against the backdrop of the implementation of a strong prescriptive NQF system (pre-2008) which used outcomes-based statements as an up-front, design-down approach which was intended to create a communication’s platform for portability of learning between
different knowledge and occupational fields, an approach which had limited success (ibid: 77). The remark is made that NQFs are best understood as ‘work-in-progress’ (ibid: 78).

In view of a developmental approach, it is suggested that the implementation of a CAT system should consider three windows: learning organisation, communities of practice and communities of trust.

First, it should be recognised that the implementation of an NQF system is complex and needs negotiation and buy-in by all role-players. For this reason complexity theory (Fullan, 1993) could provide some additional guidance on how to deal with implementation of a CAT system. Complexity theory considers the value of forces for and against implementation of policy reform in education, and indicates that opposing approaches might provide innovations and reform but not solutions to the implementation problem. According to Fullan (1993: 46) the answer to the implementation problem of a complex system is usually not to be found in better reform strategies, but rather to make the educational system a learning organisation where a collaborative culture could be developed. Peter Senge (1990: 3) describes a learning organisation as

...a place where ‘people continually expand their capacity to create the results they truly desire, where new and expansive patterns of thinking are nurtured, where collective aspiration is set free, and where people are continually learning to see the whole together.

Senge refers herewith to the need to respond to transformation (change) by understanding, guiding and influencing transformation to make it integral to institutions and organisations. This view on transformation (to see the whole together) formed the basis of Senge’s systems theory (aligning all activities in a system to the purpose of a system) (Senge, 1990: 354). Systems theory could grow the view that institutions of learning are not ‘islands in the sea’, but rather part and parcel of the destiny of the ‘main land’ of which learners form an important component.

Second, communities of practice could serve the implementation of a CAT system. Communities of practice refer to a web of relations between people as having a
particular identity, value orientation and purpose and as such could be complementary to the ideas of a learning organisation and work-in-progress. Within a community of practice, values and beliefs are shared and people are committed to a shared purpose which shapes the activities of such a community (Lave & Wenger, 1998). As a community of practice forms a closely knit ‘family’, it could enable credit recognition and credit transfer between qualifications and institutions.

Third, it is key to build a CAT system based on communities of trust (French, 2005). Internationally, consortia were established within which credit transfer and credit recognition has been enabled. Examples of these are the Southern England Consortium for Credit Accumulation and Transfer (SEEC), the Higher Education Credit Initiative Wales (HECIW), the English Inter Consortia Credit Agreement (InCAA), the Irish NICATS project and the Scottish (SCOTCAT) and ECTS agreements (SAQA, 2006: 9). Within these co-operative relationships, trust is a decisive component of the system. A CAT system requires trust in the standard and value of qualifications across sectors to introduce a general accepted and supported credit system. There should be a mutual acceptance of quality assurance (QA) processes applied by the institutions involved (especially with regard to assessment of outcomes) and prescribed and implemented by the relevant QC regarding accreditation of programme contents, institutional processes, academic delivery and assessment. It could be stated that the relationship between CAT and QA is the basis for the establishment of communities of trust.

In addition to the ideas of communities of practice and communities of trust, other enablers of a CAT system could be considered. CEDEFOP (2010: 131 – 151) suggests that training pathways could be an instrument through which programmes leading to qualifications are articulated to create education and training progression. An example is the pathway in the field of Engineering: from technologist to technician to engineer (Hanrahan, 2010). A further possibility is to create multiple exit points to a qualification with duration of more than one year. The current General and Further Education and Training Qualifications Sub-Framework (GFETQSF) offers 120 credit qualifications ranging from NQF Levels 2 – 4, thus providing progression, not exit points. The Occupational Qualifications Sub-Framework (OQSF) includes Occupational Certificates from NQF Levels 1 – 8 also without exit points.
(Department of Higher Education and Training, 2010). The Higher Education Qualifications Sub-Framework (HEQSF) includes three year diplomas and degrees without any exit points (Republic of South Africa, 2007).

CEDEFOP also views the right to access as an important step in promoting progression across sectors. Although the right to education is part of the SA Constitution, and part of the objectives of the NQF, institutional logic with its legal right to determine entrance requirements is sometimes a stumbling block to access (and sometimes rightly so in terms of specific professional requirements). The role of bridging programmes between FET, Trade and Occupations and HET could play a vital role in providing cross-sectoral linkages. Bridging programmes could assist the design of flexible qualifications that will allow transfer of credits across sectors which will allow the identification of comparability or articulation possibilities of learning outcomes in terms of level. In this way a system is created whereby a broad supportive environment is created to initiate, develop and use transition pathways. An appropriate IT system to record learner achievements across different education and training institutions could assist in the allocation of credits. In this regard, the National Learners’ Records Database (NLRD) could play a major role in CAT.

**CONCLUDING COMMENTS**

South Africa had a top down approach (pre-2008) which had not been instrumental to serve all learners. A design-up and descriptive approach was suggested by Parker and Walters (2008:74). To communicate this approach, a strategy of piloting various scenarios to design a CAT system is suggested. A piloting strategy could be implemented to clarify issues that hampered the implementation of the initial NQF and to develop new ways of dealing with these difficulties such as cognitive differences between sectors and disciplines; the differences between institutional and workplace learning; the recognition of knowledge obtained through formal, informal or non-formal means; and comparison of qualifications (Barnett, 1994).

The insights of complexity theory (Fullan, 1993) and systems theory (Senge, 1990) indicate that a complex system is implementable if a collaborative culture among participants is to be developed. One way of doing this is to develop a CAT system
incrementally within communities of practice and communities of trust. CAT projects should be piloted between the same and diverse types of institutions within and across communities of trust.

The following scenarios of CAT should be considered:

- Communities of practice between institutions of the same nature could be identified to develop credit accumulation within their own institutions and transfer between institutions within the community of practice. Such communities of practice could be formed between comprehensive universities within the same region; between universities of technology grouped together by the South African Technology Network (SATN); between public FET colleges operating in the same province; between private FET colleges; and between private HET institutions offering the same fields and levels of study in the same province or city.

- Communities of trust where the private/public partnerships are piloted: a private FET College working together with a public FET College; private higher HET institutions working together with a university, private higher HET institutions working together with a university of technology.

South Africa has an NQF that includes General and Further, Trades and Occupations and Higher Education sectors. The NQF provides these sectors with all the elements required for a CAT system. What is now needed is trust between educational institutions and Quality Assurance bodies - and the will to engage in and develop a CAT system.
REFERENCES


New Zealand Qualifications Authority. 2010. Targeted review of the qualifications system: Progressing the changes. New Zealand: NZQA.


INTRODUCTION
Countries across the world now recognise the importance of maximising participation in education and training to enhance an individual’s employability and provide human capital that, in turn, drives productivity. Access to higher levels of education provides individuals with opportunities to access a greater range of jobs, and with this, higher levels of income and lifestyle. Industry is increasingly demanding higher qualified employees (Birrell et al, 2008, Commonwealth of Australia, 2013a). For those individuals excluded from education there is a much higher social and cultural cost for society (Wheelahan, 2009).

National Qualifications Frameworks (NQFs) have become important mechanisms to facilitate lifelong learning by providing a tool for understanding learning and qualification pathways, their exit and entry points, and the interconnections between qualifications. Quality assurance is an essential element for the functioning of NQFs. If stakeholders within a country are to have confidence in the qualification system then there needs to be procedures for ensuring that qualifications are fit for purpose, well designed and that the awards can be trusted. The development and implementation of a policy on credit accumulation and transfer (CAT) is an essential part of the infrastructure in support of the objectives of the NQF. Current research on CAT suggests a range of different approaches (Souto-Otero, 2013). In Ireland and New Zealand, general policy providing learners with opportunities for access, transfer and progression in their pursuit of continuous learning was set up (NQAI and NZQA, 2010). In the European Qualifications Framework (EQF), the focus is on a transparent mechanism for validation and recognition of learning outcomes so that learning from different contexts can be recognised (European Commission, 2013). In the case of Scotland, the establishment of an “articulation hub” to facilitate learners’
progression between partner institutions has been piloted (Scottish Funding Council, 2014). In all of these jurisdictions, the qualifications framework authorities publish a CAT policy with principles and guidelines as part of the overall qualifications framework policy handbook for reference and adoption by stakeholders.

This paper considers the implementation of CAT systems within the context of an NQF in two places, Australia and Hong Kong. The paper starts with an explanation of CAT systems, looks at both Australia and Hong Kong qualifications frameworks and their CAT policies, and concludes with an analysis of the potential and limitations of CAT systems within NQFs.

**What are credit accumulation and credit transfer systems within NQFs?**

CAT systems consist of two parts: credit accumulation and credit transfer. CAT systems are defined by Tuck (2007) as putting a credit value on a program of learning and allowing stakeholders to describe and compare the learning undertaken in completing the program. CAT systems assume that it is possible to identify the outcomes of a programme of learning, to place outcomes at a level and to give them a weighting or numerical value. Tuck *(ibid)* defines credit accumulation as taking place within an institution or sub-system, for example a university or faculty or within a closed sub-system within an NQF. An NQF describes the qualifications offered in a system and how they relate to each other in terms of levels. Credit accumulation is generally automatic. Credit transfer takes place between institutions and sub-systems for example between universities or related professional qualifications. Credit transfer is normally less automatic; negotiation and agreement are required.

There are some marked differences between the CAT systems which have been put in place around the world, in relation to the calculation of credit, implementation through legislation or through voluntary arrangements and the setting up of authorities to implement national systems. There are also common aspects of CAT that can be identified in almost all NQFs, particularly in areas such as institutional autonomy, transparency, and specific arrangements for articulation. CAT facilitates the recognition and validation of units of learning. In theory this allows learners to move from one programme to another without having to repeat learning. Learners
can gain a qualification having undertaken study and achieved credits in different places and in different learning settings at different times. This learning may have been formal, non-formal or informal. Provided that the learning outcomes can be properly validated and assessed, they should be eligible for recognition.

The concept of flexibility for the learner in terms of time and location of learning is central to credit accumulation. If a learner is awarded credits for successful learning achieved, then he/she could, in theory, take a break from studying and come back to achieve more credits knowing that previous credits will still be recognised. This is the concept behind the Qualifications and Credit Framework (QCF) now operating in the United Kingdom. Under this system, learners can build towards the achievement of a qualification by being awarded credits for the completion of units. All qualifications in the QCF are built from smaller units. Every unit and qualification in the QCF has a credit value, showing how much time it takes to complete – one credit represents 10 hours of notional learning, and a level, showing the complexity of learning (QCF, 2014).

In New Zealand these concepts have been extended through the development of a centralised database of records of learning and qualifications which stores all of the credits obtained by learners in a readily accessible online format (NZQA, 2002). Credit transfer takes this process one step further, allowing learners to move between programmes, to another institution, or from the workplace to formal education taking with them the credits already awarded and adding these to new credits earned at the new institution to qualify for an award.

The work that has been done around the world to formalise arrangements for CAT has shown that credit is a necessary but not sufficient condition to enable a CAT system to operate effectively (Souto-Otero, 2013). In addition to the mechanisms for attaching credits to learning and enabling students to accumulate credits and convert them into a qualification, other elements are important:

- A relationship between the qualifications and the units offered in an NQF, which facilitates a relationship between the NQF and the CAT system.
- Learning outcomes which are an account of a learner’s attained knowledge, skills and application as a result of completing a learning programme.
• A trusted quality assurance system, which gives confidence to receiving institutions that the credits achieved at other institutions are of an appropriate standard and level.

Australia and Hong Kong understand that facilitating credit transfer needs to be an important aspect of their NQFs in recognising that pathways are necessary between vocational and higher education sector qualifications. However, both countries are developing different mechanisms within their NQFs to facilitate credit transfer.

CREDIT ACCUMULATION AND TRANSFER IN AUSTRALIA

Why is credit transfer important in Australia?

Seamless pathways between education sectors have long been part of Australian government policy. The Australian government has been a strong supporter of enhanced credit transfer arrangements through a variety of policy mechanisms. Some state or territory governments have played an important role in driving the development of cross-sectoral arrangements largely in response to recognition by those states or territories of the importance of pathways between the vocational and higher education sectors to meet the state or territory’s skill needs.

Efforts to improve outcomes in credit transfer have stemmed from a range of drivers. In the mid-2000s, much of the government support for enhanced cross-sectoral collaboration was based on an assumption that collaboration could reduce duplication of effort and create efficiencies in the use of resources. The need to support effective articulation also stems from the Council of Australian Government’s (COAG) productivity agenda and the importance of human capital development. This places emphasis on progressive development of knowledge and skills by individuals with an education/qualification system designed to support this. Recent modelling by the Australian Workforce and Productivity Agency (Commonwealth of Australia, 2013a) has estimated industry demand for total qualifications held by those employed, unemployed and not in the labour force will increase annually by 3 – 3.6% and that growth in qualifications will be strongest at the higher levels - Diploma (AQF level 5) and above.
Some of the impetus for enhancing credit transfer arrangements also comes from persistent concerns about skill shortages. In addition, employers highlight their need for workers to have a mix of skills that includes applied vocational and technical elements in addition to higher levels of critical thinking and theoretical understanding. Increasing convergence between the vocational and higher education sectors in terms of the courses they offer, the awards they confer, their links with employers and the increasing numbers of dual sector institutions is also providing fertile ground for increased cross-sectoral collaboration and credit transfer arrangements.

**CAT AND THE AUSTRALIAN QUALIFICATIONS FRAMEWORK**

The Australian Qualifications Framework (AQF) underpins Australia’s approach to CAT policy. The AQF is a system of national qualifications introduced in 1995 to ensure consistency across Australia’s eight states and territories and provide a coherent framework for a single system of school, work-based (vocational) and academic qualifications. Along with the United Kingdom and New Zealand, Australia was one of the first countries to introduce an NQF. The AQF is a non-regulatory framework although legislation and governance underpin each of the sub-sectors.

Though the first version of the AQF was widely regarded within industry and across the education and training system, limitations in its structure became increasingly evident due to its lack of qualification levels. In late 2010, the AQF was reviewed and strengthened to include levels to ensure it would support flexible cross-sectoral linkages and pathways and international recognition.

There are currently a number of components of the AQF that provide advice to institutions about qualifications pathways. These include:

- The AQF Qualifications Pathways Policy (Australian Qualifications Framework Council, 2013);
- Articulation: An Explanation (Australian Qualifications Framework Council, 2012a);
- Credit Transfer: An Explanation (Australian Qualifications Framework Council, 2012b); and
The AQF defines ‘credit transfer’ as a “process that provides students with agreed and consistent credit outcomes for components of a qualification based on identified equivalence in content and learning outcomes between matched qualifications” (Australian Qualifications Framework Council, 2013)

This is underpinned by the AQF definition of credit, as follows:

*Credit is the value assigned for the recognition of equivalence in content and learning outcomes between different types of learning and/ or qualifications. Credit reduces the amount of learning required to achieve a qualification and may be through credit transfer, articulation, recognition of prior learning or advanced standing* (Australian Qualifications Framework Council, 2013)

Under the AQF Qualifications Pathways Policy (Australian Qualifications Framework Council, 2013), institutions in both sectors are expected to have “clear accessible and transparent policies and processes to provide qualification pathways for students” (Australian Qualifications Framework Council, 2013:78). They should also have publicly available registers of their credit transfer arrangements. Accrediting authorities in each education and training sector are responsible for the implementation and monitoring of the use of this policy.

The AQF Qualifications Pathways Policy (Australian Qualifications Framework Council, 2013) gives indicative benchmarks (see bullet points below), for the minimum amount of credit that can be granted, describing these as ‘the basis of negotiations’ when reaching agreements with another institution, these benchmarks are not incorporated within the accrediting authorities regulatory instruments (Commonwealth of Australia, 2013). They represent a point of reference for negotiation only.

Credit agreements negotiated between issuing organisations for crediting students towards higher-level AQF qualifications in the same or a related discipline, should use the following as the basis of negotiations:

- 50% credit for an Advanced Diploma or Associate Degree linked to a 3 year Bachelor Degree
- 37.5% credit for an Advanced Diploma or Associate Degree linked to a 4 year Bachelor Degree
- 33% credit for a Diploma linked to a 3 year Bachelor Degree
- 25% credit for a Diploma linked to a 4 year Bachelor Degree.
In addition, each AQF qualification type, except a Doctoral Degree, must be a “pathway to further learning” (Australian Qualifications Framework Council, 2013: 14-17) and includes a requirement that the accredited qualification will include documented pathways (Australian Qualifications Framework Council, 2013).

**VICTORIAN CREDIT MATRIX PILOTS**

From 2004 to 2009, the Victorian Registration and Qualifications Authority (VRQA) piloted how a credit accumulation system, titled the Credit Matrix, would work in conjunction with the AQF. In essence, the Credit Matrix was a tool that made available additional information about the content and structure of qualifications which provides all parties (developers, institutions and students) with a clearer definition about the workload and complexity of each qualification and the relative value and weight of individual units comprising qualifications (VRQA, 2008). This is done through the allocation of both levels and credit point values to each unit within a qualification. The levels and credit point values of the units are tallied and this provides a clearer definition of both the AQF level and workload. The model used was similar to that used in several other countries including New Zealand and Scotland, and the model being implemented in Hong Kong through the Hong Kong Qualifications Framework (HKQF) which is discussed later in this paper.

The Credit Matrix approach added another layer of information to assist the development of credit transfer arrangements, particularly for higher education institutions that may be less familiar with VET and competency standards and qualifications. The increased defined layer of levels and points provides a tool that enabled the users to readily see the connections between qualifications in terms of both workload and complexity. This helped establish the intersection where credit might be applicable. This provided a basis for agreeing unspecified credit, which is granted towards elective components in a qualification, and the place where discussions about specified credit, which is credit granted towards particular or specific components of a qualification, could occur.
CAT POLICY LEVERS IN AUSTRALIA

The reform environment created by the COAG human capital reform agenda and the Australian government decisions arising from the Review of Australian Higher Education (Bradley Review) (Commonwealth of Australia, 2008) created a number of policy levers that supported CAT. The Bradley Review targets seek to increase the number of Australians holding diploma or degree qualifications.

**Bradley Review targets**

These targets have been established to:

- increase the proportion of the population aged 25-34 years with a qualification at Bachelor Degree or above from 32% in 2008 to 40% by 2025
- increase the percentage of students from low socio-economic backgrounds in higher education from around 16% in 2007 to 20% by 2020
- half the proportion of Australians aged 20 to 64 years without a Certificate III qualification by 2020
- double the number of VET higher qualification completions (Diplomas and Advanced Diplomas)
- raise the proportion of young people achieving Year 12 or an equivalent qualification from 74% in 2007 to 90% by 2015, and
- half the gap for Indigenous students in Year 12 or equivalent attainment by 2020.

(Commonwealth of Australia, 2008)

A number of state and territory governments have their own initiatives in place to achieve these targets and there are also many projects at university level funded through a variety of sources. While there is little co-ordination of this activity across states and territories, when combined, these developments are expected to see more students negotiating their way between the vocational education and training and higher education sector qualifications. Establishing effective pathways and a supportive environment in which students can succeed is critical in meeting these targets.

**STANDARDS FOR TRAINING PACKAGES**

Australia’s vocational education and training system is underpinned by the National Skills Framework, which is designed to ensure that training delivered across the nation is consistent and of similar quality. The framework has three pillars: the AQF,
training packages and its quality assurance system, the Australian Quality Training Framework (AQTF). The AQF organises the types of qualifications available and the relationships between them, while training packages, developed in consultation with industry, specify the set of competencies a graduate should demonstrate within an occupation. The AQTF aims to ensure that registered training organisations have qualified staff, suitable facilities and equipment, and appropriate training and assessment materials.

In response to the Bradley Review and COAG reforms, the National Skills Standards Council developed Standards for Training Packages (Commonwealth of Australia, 2012). This requires Industry Skills Councils to specify existing credit arrangements between their training package qualifications and Higher Education qualifications in accordance with the AQF.

VET FEE-HELP STUDENT LOANS SCHEME

To be eligible for the FEE-HELP student loans scheme, vocational courses at the diploma level or above must have at least one approved credit transfer arrangement to a Bachelor degree with a higher education institution (Commonwealth of Australia, 2011). This makes credit transfer a requirement for institutions to be able to access this form of student assistance on behalf of their students. This FEE-HELP Policy introduces regulation to the nominal credit values between Diploma and Bachelor Degrees as set out in AQF Qualifications Pathways policy (Australian Qualifications Framework Council, 2013). This is claimed as one of the most significant policy levers for supporting pathways between VET and higher education qualifications.

HOW ARE CREDIT TRANSFERS ESTABLISHED IN AUSTRALIA?

Harris (2014) argues that increased rates of skills obsolescence, job turnover, unemployment and underemployment mean that traditional patterns of front-loaded education, linear pathways and jobs for life are becoming increasingly redundant. Evidence that movement is much more fragmented heightens the need for learners to take responsibility for their own career development. If student choice is to be effective in the context of a ‘demand driven’ system, like Australia, then students
need “fair and transparent processes that are student centred for recognising their prior achievements and information to make choices and plan their career paths” (Harris, 2014).

The 2009 Pathways Project of the AQF Council (Commonwealth of Australia, 2009) recommended aligning pathways policy with institutional interests as the best way to achieve change. This project found that the most successful credit arrangements are between institutions that have strong commitment from the institution’s leadership. Institutions are the entities that enrol students hence the focus for change needs to come from within the institution.

Within Australian VET institutions, many qualifications may be based on the same competency outcomes in training packages. However, each will differ in the teaching, learning and assessment strategies that they use for the same qualification and it is this that is used to establish comparability. Not all Australian higher education institutions will accept a VET qualification at face value; it can depend on the institution that has awarded it. Watson, Hagel and Chesters (2013) found that there is considerable variation in the rates of admission of students with vocational qualifications between higher education institutions.

With an inputs-based model, higher education qualifications cannot be designed independently of the syllabi, learning and assessment processes, and educational institutions issuing the qualifications. The Australian university system is an example of such a system, whereby a high level of trust between academics, professional groups and other stakeholders facilitates the process of developing curricula, learning processes, assessment and self-accreditation. Secondary schools use similar models of curricula, developed by the Australian Curriculum, Assessment and Reporting Authority (ACARA) and administered by state and territory Boards of Studies. By comparison, the Australian VET system, an output-based system, derives learning outcomes independently of the institutions and learning processes in which they take place - the curricula of learning outcomes are developed by the Industry Skills Councils and are accredited by the National Skills Standards Council.
As such, the National Skills Framework has some way to go to build trust in the equivalence of vocational qualifications from different institutions. Tuck (2007) notes that zones of trust are necessary precursors for CAT systems to operate. Qualification Frameworks and CAT systems can make negotiations easier because they provide a basis for a common language, but they cannot substitute for relationships built on trust and confidence.

The Australian Quality Training Framework (AQTF), Australia’s quality assurance system for the VET sector, is currently under review with one of its goals to further address the quality and consistency of qualifications. The revision aims to better align learning outcomes, complexity and volume of learning as a way of ensuring comparability between qualifications within the framework. This may go some way to reconcile the competency-based learning of VET with the knowledge-based learning of higher education, and thus may well improve trust between the sectors, which in turn, improve student pathways, particularly the credit transferred between the education sectors.

**HOW MUCH CREDIT TRANSFER IS OCCURRING IN AUSTRALIA?**

Improving pathways for students between VET and higher education has been a focus of sector attention and government policy since the early 1980s and the evidence suggests that there has been a gradual improvement over time. The proportion of domestic, commencing undergraduate students admitted on the basis of prior TAFE study increased from 5.8 per cent in 1994 to 10.1 per cent in 2006 (Commonwealth of Australia, 2008). Watson, Hagel and Chesters (2013) indicate that currently this is around 10%. The proportion of students gaining credit (or exemption) for previous TAFE study increased from 2.4 per cent to 4.3 per cent over the same period (ibid). However, there are large differences between universities in the proportion of students admitted on the basis of vocational qualifications or receiving credit for vocational studies.

Mazzachi and Bartram (2010) identify that the largest amount of credit is awarded where there are specific arrangements between a vocational and a higher education institution for a particular course combination, or where there is agreement on the
amount of credit a university faculty will award to a VET student. The field of study is also relevant: the most credit is obtained in vocationally oriented fields such as teaching, nursing and business. In contrast, vocational studies do not lead as well into more theoretical areas such as arts and general science. Perhaps in reflection of this, the eight research-intensive universities in Australia have relatively fewer credit transfer arrangements with VET institutions and in general offer the lowest amounts of credit.

Rates of credit transfer raise a fundamental question namely what is the desirable level of credit transferred nationally and how much of a problem is there in this area? Studies show that, although there are real difficulties for students in navigating across the sectors, pathways are functional for most young people (Harris, Sumner & Rainey, 2005; Harris, Rainey & Sumner, 2006).

Currently there is little basis on which to estimate the required levels and the costs associated with credit transfer that is desirable for achieving targets. Nor is there a good basis for estimating institutional performance, which is critical to CAT implementation.

CREDIT ACCUMULATION IN AUSTRALIA

The VRQA Credit Matrix pilots determined that a CAT system within an NQF was not a panacea for improving credit-based pathways. Its key value was in assisting the parties in developing credit transfer agreements, based on a better understanding of the relationships between their respective qualifications, particularly for unspecified credit arrangements. Specified credit or articulation pathways still required the application of separate equivalence processes of development.

The AQF review in 2010 took into consideration the findings from the Credit Matrix pilots and considered the option of a credit accumulation system. The outcomes of the initial consultations were that the approach was considered too complex for the purpose of defining and structuring qualifications within the AQF. From a pathways perspective, a credit accumulation system may assist some institutions to build better understandings and relationships with each other that may, in turn, facilitate
improved articulation and credit transfer arrangements. However, other VET and higher education providers, which already have established partnerships and existing arrangements, could achieve the same outcomes and there was a view that the policy levers for CAT, in particular VET FEE Help, were facilitating those outcomes.

While recognising that it is critically important for individuals to have opportunities to move within and between sectors, the AQF credit arrangements balance institutional autonomy and responsibility with the needs of individuals, the labour market and the economy. They preserve the integrity of the institution as central to decisions about credit and that credit agreements will be made between institutions and not between systems.

The inherent nature of the current AQF and its associated policies means that Australian institutions will most likely establish credit transfer based on “equivalence in content and learning outcomes” (Australian Qualifications Framework Council, 2013) through specified credit arrangements only, which is credit granted towards particular or specific components of a qualification. The major institutional challenge with creating credit transfer arrangements in the absence of a credit accumulation mechanism is the high workload involved in a close one to one comparison (mapping) of learning outcomes across qualifications in order to define specified credit outcomes that the parties can agree to support.

This approach also means that opportunities for a student transferring unspecified credit, which is granted towards elective components in a qualification, is likely to be limited or not available, as there is no means to effectively determine the workload and complexity of units in qualifications, which provide the basis for unspecified equivalence. This is likely to be detrimental to the individual where the pathways of learners may not be linear or simply not available in particular institutions.

A credit system within the AQF would be a useful additional tool. However, the question must be asked as to whether the same outcomes could be achieved without using a complex and time-consuming additional process. If the key credit outcomes arising from the application of this tool is primarily unspecified credit and
there is still a need to do close matching of content for specified credit or separate negotiations to develop articulation arrangements between qualifications, can such unspecified credit be determined in easier ways?

**CREDIT ACCUMULATION AND TRANSFER IN HONG KONG**

*Why is credit transfer important in Hong Kong?*

Skill shortages are also becoming increasingly apparent in Hong Kong and these concerns have led to consideration of a sustainable population policy with the vision of enhancing human capital to sustain Hong Kong as Asia’s world city. Acknowledging that Hong Kong’s future lies in economic development and social progress being hand in hand, the Steering Committee on Population Policy has proposed that the objective of Hong Kong’s population policy should be:

*To develop and nurture a population that will continuously support and drive Hong Kong’s socio-economic development as Asia’s world city, and to engender a socially inclusive and cohesive society that allows individuals to realise their potential, with a view to attaining quality life for all residents and families* (Consultation Document on Population Policy, 2014:9).

In May 2008, the Hong Kong Special Administrative Region Government launched the Hong Kong Qualifications Framework (HKQF). The HKQF is a seven-level hierarchy of quality-assured qualifications covering the academic, vocational and continuing education sectors that aims to establish an accessible articulation pathway to promote lifelong learning with a view to continuously enhancing the quality, professionalism and diversification of the local workforce.

A unique feature of the QF in Hong Kong is the industry-based Recognition of Prior Learning (RPL) process. Through this process, practitioners with sufficient years of relevant work experience and able to demonstrate competencies, as stipulated in the Specifications of Competency Standards (SCS) of the industry concerned, can apply for RPL qualifications. Such RPL qualifications are outcome-based and the appointed Assessment Agency(ies) granting the RPL qualifications have successfully undergone rigorous accreditation. RPL qualifications, though obtained through informal learning, should have parity of value under the HKQF.
To achieve these policy objectives, the Hong Kong Government has recognised that it is important to establish a policy on CAT within its NQF whereby prior learning would be recognised, and credits earned from prior learning can be transferred to future learning.

**CAT AND THE HONG KONG QUALIFICATIONS FRAMEWORK**

In October 2012, the Hong Kong Education Bureau (EDB) announced the introduction of QF credit (HKQF – QF Credit, 2012) which provides information on the size or volume of learning required by the average learner to complete a given qualification on the HKQF. In line with the definition commonly adopted in other economies, one HKQF credit point consists of 10 notional learning hours. With effect from 1 January 2014, all new programmes at QF Levels 1 - 4 have to indicate the HKQF credit values of the qualifications before they can be placed on the Qualifications Register (QR). From 1 January 2016, this requirement will apply to all programmes on the Qualifications Register at QF Levels 1-4.

In his 2013 policy address, the Chief Executive reiterated the government’s commitment to providing young people with flexible and diversified study pathways with multiple entry and exit points. The policy address pledged to continue to promote the HKQF and to further explore the development of a CAT system and to foster cross-sector collaboration, with the aim of providing more relevant training opportunities for young people and in-service personnel in pursuit of “the seamless integration of education, training, business and employment” (Policy Address, 2013:55).

The next step is to develop CAT policy and principles which provides clear direction to promote learner mobility and enable people to maximise their learning potential throughout their lives.
CAT POLICY LEVERS IN HONG KONG

Under the HKQF, there are now objective benchmarks about (i) QF level based on the Generic Level Descriptors (GLD); (ii) learning size based on the use of QF credit; and (iii) learning quality through the quality assurance (QA) system.

Effective from 1 January 2014, all new programs registered in the Qualifications Register (QR) will have to indicate the QF credit values before registration. Operational Guidelines on Use of Credit (Hong Kong Education Bureau, 2012) has been published to provide guidance on how QF credit values should be assigned to programs and how such credit values are assessed by QA bodies.

The HKQF encourages all providers to devise a CAT policy at the institutional level, and set up a clear, transparent and fair credit transfer system to facilitate progression of learners. To this end the Government is undertaking a project for the development of a CAT system that includes consultation, promulgation and promotion of CAT policy and principles applicable to education and training providers and their programmes (covering academic, vocational and continuing education sectors) at HKQF levels 1 to 7. It also involves piloting the use of CAT principles, procedures and practices through the participation of stakeholders of different sectors in individual pilot exercises, with a view to developing practical guidelines for the recognition and transfer of credits.

HOW ARE CREDIT TRANSFERS ESTABLISHED?

CAT of various forms already exists in Hong Kong institutions with different terminologies being used, for example advanced standing, credit exemption, and so on. The number of places available for undergraduate degrees is substantially less than the number of students who actually fulfil the entry requirements for general admission to university. From the beginning of the academic year in 2012, undergraduate courses were extended to four years, in line with the government’s policy of 3 + 3 + 4 (three years of junior secondary, followed by three years of senior secondary then 4 years of university). For students who are unable to gain direct entry to a degree programme, studying an Associate Degree or a Higher Diploma, which may articulate with a degree course later on, is a popular option. It is also
possible to transfer from a successfully completed Higher Diploma or Associate Degree into a locally delivered overseas degree programme with credit transfer.

To safeguard the integrity of a qualification, the amount of credit accepted for transfer to a qualification is normally subject to a ceiling. The ceiling commonly adopted by providers may be up to 50% of the total learning size of the qualification, depending on the academic requirement of the institution and the nature of the specific programme.

**Higher Education Report**

In 2010, the University Grants Committee (UGC) produced a substantial strategy review entitled “Higher Education Review (HER) Report: Aspirations for the Higher Education System in Hong Kong” (UGC, 2010). This review considered all aspects of post-secondary education in Hong Kong and argued for a more integrated system that would facilitate greater ease of movement for learners between institutions and between levels of education.

The review noted “we have yet to see the establishment of a sector-wide Credit Accumulation and Transfer System, both within and outside the UGC-funded sector” (UGC, 2010: 28). The report observed the growth of self-financing, post-secondary education in Hong Kong, with publicly funded and self-financing elements co-existing and overlapping. Given the mixed character of the system, the report indicated the need for “clear and easily workable mechanisms that allow individuals to progress within the post-secondary system...” (UGC, 2010:43). It noted that pathways for progression between private and public parts of post-secondary education are essential and recommended:

*Pathways for student progression through the whole post-secondary system and between its parts should be made clearer, including for those returning to education at different times (Recommendation 5)*

The report further noted that “the clarity and reality of student progression would certainly be facilitated by the adoption of a robust CAT system that would be coherent across the whole post-secondary education system and between comparable institutions within the system” (UGC, 2010:44) and recommended:
A transparent and trustworthy Credit Accumulation and Transfer System should be developed for the whole post-secondary system (Recommendation 6)

The report noted the likely benefits of a comprehensive CAT system particularly in the light of recent developments in Hong Kong education such as the 3+3+4 system, the establishment of private universities and the increase of publicly funded senior year places and recommended that (UGC, 2010:42):

*The development of a Credit Accumulation and Transfer System for the whole system requires it to be appropriate for articulation between different levels and across different institutions at the same level. (Recommendation 37)*

The proposed development of a CAT system in Hong Kong is being constructed in step with the introduction of a unified NQF that has strong stakeholder support and without the institutional and federal political complexity that has impacted on the development and implementation of the AQF in Australia.

The drivers for the development of a CAT system in Hong Kong differ from those of Australia, which has had a formalised and systematic vocational training system for many years and does not have the extensive sub-degree sector that characterises the provision of post-secondary education in Hong Kong.

The adoption of a formal credit accumulation mechanism is seen as essential to support the implementation of the CAT system under the HKQF. At the same time the development of CAT policy and principles rests on the assurance that they will not affect the authority of the provider to make decisions about admission of learners.

**POTENTIAL AND LIMITATIONS OF A CAT SYSTEM WITHIN AN NQF**

CAT systems are focused on ensuring that an individual can acquire education or training by progressing through qualifications, with credit, where appropriate. When an NQF is implemented, it is anticipated that learners will make transitions between the identified levels of learning. If the learning outcomes of the previous and prospective learning programs are validated as relevant, the learner can apply for
credit recognition and/ or transfer, with the final decisions vested with the receiving institution. Ideally, this should apply to the attainment of learning outcomes independent of the contexts of learning, including those achieved through formal, non-formal and informal learning.

Implicit in the design of an NQF is the idea that learners should be given every opportunity to learn and progress in their learning pathways. Learners should not be expected to repeat the same learning if the prior learning attained by the learner could be recognised as equivalent and counted towards further learning. The recognition of prior learning depends on many considerations; these include the level, size and quality of the learning outcomes attained, and the mapping of these to the learning outcomes of the receiving institution.

The use of different credit values or indeed the absence of the use of credit values should not prevent an institution from recognising a qualification possessed by a learner under the NQF for articulation to another qualification. Although, CAT systems will operate more effectively with the adoption of common NQF credit values to measure the learning achieved.

An effective CAT system must therefore work to support individual aspirations while at the same time ensuring the integrity of the qualification awarded by the institution. Institutions are responsible for meeting the learning outcomes required of each qualification, within the parameters set within the NQF and being overseen or regulated by external agencies. While credit policy and systems are in place in many countries, this does not mean that the policy commitment is always guaranteed. CAT is often mentioned in policy documents but there is not always strong evidence that credit concepts have been put into operational practice. They are also often regarded as overly technical and complex and can lead to a reductionist construct of qualifications. Many institutions argue that a qualification should retain a vision that it is more than the sum of its parts. And numbering of credits are cautioned because there are problems for any institution or country who applies credit with excessive zeal. Since credit values are expressed as numbers, they are precise. However, there is a crucial difference between precision and accuracy. This distinction is
important because the methods used to represent the values are imprecise being based on subjective judgements.

**CONCLUSION**

NQFs have become important policy tools to facilitate lifelong learning by providing a mechanism for understanding learning and qualification pathways, their exit and entry points, and the interconnections between qualifications. The development and implementation of a policy on CAT is an essential part of the infrastructure supporting the objectives of an NQF. CAT systems within NQFs facilitate the accumulation and transfer of units of learning or the credit values assigned to the outcomes of learning.

Australia and Hong Kong have recognised that credit transfer is an important aspect of their NQFs however the two places have developed different mechanisms within their NQFs to facilitate credit transfer.

Australia has used policy levers such as targets, a student loans scheme and standards for qualifications to facilitate the development of pathways between vocational and higher education qualifications. A Victorian pilot of a credit accumulation system, designed to work in conjunction with the AQF, questioned whether an additional tool would achieve improvements to credit pathways while balancing institutional autonomy and responsibility with the needs of individuals, the labour market and the economy.

In contrast the proposed development of Qualifications Framework for credit by the Hong Kong Special Administrative Region Government is in line with the introduction of the Hong Kong Qualifications Framework thereby encouraging all institutions to facilitate progression of learners to higher-level qualifications.

As Raffe (2009) points out, an NQF on its own is a weak driver of change. Its implementation and impact depends on complementary policies and other drivers that promote its use. In essence, these are two different pathways to achieve similar
Hong Kong’s development of a CAT system is being constructed within the introduction of a unified NQF, whilst Australia has opted to drive credit transfer through significant policy breadth within and alongside the AQF.
REFERENCES


Harris, R, Rainey, L & Sumner, R. 2006. Crazy paving or stepping stones? Learning pathways within and between vocational education and training and higher education, National Centre for Vocational Education Research.


Raffe, D. 2009. Can national qualification frameworks be used to change education and training systems? Scottish Funding Council, Core principles for articulation supported by SFC funding,


<table>
<thead>
<tr>
<th>Acronyms</th>
<th>Definition</th>
</tr>
</thead>
<tbody>
<tr>
<td>ATP</td>
<td>Access, Transfer and Progression</td>
</tr>
<tr>
<td>BFUG</td>
<td>Bologna Follow-Up Group</td>
</tr>
<tr>
<td>CAO</td>
<td>Central Applications Office</td>
</tr>
<tr>
<td>CAT</td>
<td>Credit Accumulation and Transfer</td>
</tr>
<tr>
<td>CEDEFOP</td>
<td>European Centre for the Development of Vocational Training</td>
</tr>
<tr>
<td></td>
<td>(from its French title, <em>centre européen pour le développement de la formation professionnelle</em>)</td>
</tr>
<tr>
<td>CHE</td>
<td>Council on Higher Education</td>
</tr>
<tr>
<td>CSO</td>
<td>Central Statistics Office</td>
</tr>
<tr>
<td>DARE</td>
<td>Disability Access Route to Education</td>
</tr>
<tr>
<td>DES</td>
<td>Department of Education and Service</td>
</tr>
<tr>
<td>EAR</td>
<td>European Area of Recognition</td>
</tr>
<tr>
<td>EC</td>
<td>European Commission</td>
</tr>
<tr>
<td>ECTS</td>
<td>European Credit Transfer and Accumulation System</td>
</tr>
<tr>
<td>ECVET</td>
<td>European Credit system for Vocational Education and Training</td>
</tr>
<tr>
<td>EHEA</td>
<td>European Higher Education Area</td>
</tr>
<tr>
<td>EI</td>
<td>Education International</td>
</tr>
<tr>
<td>ENIC</td>
<td>European Network of Information Centres</td>
</tr>
<tr>
<td>ENQA</td>
<td>European Association for Quality Assurance in Higher Education</td>
</tr>
<tr>
<td>EQAR</td>
<td>European Quality Assurance Register for Higher Education</td>
</tr>
<tr>
<td>EQF</td>
<td>European Qualifications Framework</td>
</tr>
<tr>
<td>ERA</td>
<td>European Research Area</td>
</tr>
<tr>
<td>ESG</td>
<td>European Standards and Guidelines for Quality Assurance</td>
</tr>
<tr>
<td>ESRI</td>
<td>Economic and Social Research Institute</td>
</tr>
<tr>
<td>ESU</td>
<td>European Students' Union</td>
</tr>
<tr>
<td>ETF</td>
<td>European Training Foundation</td>
</tr>
<tr>
<td>EU</td>
<td>European Union</td>
</tr>
<tr>
<td>EUA</td>
<td>European Universities Association</td>
</tr>
<tr>
<td>EURASHE</td>
<td>European Association of Institutions of Higher Education</td>
</tr>
<tr>
<td>FET</td>
<td>Further Education and Training</td>
</tr>
<tr>
<td>FETAC</td>
<td>Further Education and Training Awards Council</td>
</tr>
<tr>
<td>Acronym</td>
<td>Description</td>
</tr>
<tr>
<td>---------</td>
<td>-------------</td>
</tr>
<tr>
<td>FIIS</td>
<td>Framework Implementation and Impact Study</td>
</tr>
<tr>
<td>GFETQSF</td>
<td>General and Further Education and Training Qualifications Sub-Framework</td>
</tr>
<tr>
<td>HEA</td>
<td>Higher Education Area</td>
</tr>
<tr>
<td>HEAR</td>
<td>Higher Education Access Route</td>
</tr>
<tr>
<td>HEI</td>
<td>Higher Education Institution</td>
</tr>
<tr>
<td>HEQF</td>
<td>Higher Education Qualifications Framework</td>
</tr>
<tr>
<td>HEQMISA</td>
<td>Higher Education Quality Management Initiative for Southern Africa</td>
</tr>
<tr>
<td>HEQSF</td>
<td>Higher Education Qualifications Sub-Framework</td>
</tr>
<tr>
<td>HESA</td>
<td>Higher Education South Africa</td>
</tr>
<tr>
<td>HETAC</td>
<td>Higher Education and Training Awards Council</td>
</tr>
<tr>
<td>IUA</td>
<td>Irish Universities Association</td>
</tr>
<tr>
<td>MOOC</td>
<td>Massive Open Online Courses</td>
</tr>
<tr>
<td>NARIC</td>
<td>National Academic Recognition Information Centres</td>
</tr>
<tr>
<td>NCCA</td>
<td>National Council for Curriculum and Assessment</td>
</tr>
<tr>
<td>NFQ</td>
<td>National Framework of Qualifications (Ireland)</td>
</tr>
<tr>
<td>NQAI</td>
<td>National Qualifications Authority of Ireland</td>
</tr>
<tr>
<td>NQF</td>
<td>National Qualifications Framework</td>
</tr>
<tr>
<td>NQF</td>
<td>National Qualifications System</td>
</tr>
<tr>
<td>OECD</td>
<td>Organisation for Economic Co-operation and Development</td>
</tr>
<tr>
<td>OQSF</td>
<td>Occupational Qualifications Sub-Framework</td>
</tr>
<tr>
<td>QCF</td>
<td>Qualifications and Credit Framework (for England, Wales and Northern Ireland)</td>
</tr>
<tr>
<td>QF-EHEA</td>
<td>Qualifications Framework of the European Higher Education Area</td>
</tr>
<tr>
<td>QQI</td>
<td>Quality and Qualifications Ireland</td>
</tr>
<tr>
<td>RPL</td>
<td>Recognition of Prior Learning</td>
</tr>
<tr>
<td>SADC RQF</td>
<td>Southern African Development Community Regional Qualifications Framework</td>
</tr>
<tr>
<td>SADC</td>
<td>Southern African Development Community</td>
</tr>
<tr>
<td>SAQA</td>
<td>South African Qualifications Authority</td>
</tr>
<tr>
<td>SCQF</td>
<td>Scottish Credit and Qualifications Framework</td>
</tr>
<tr>
<td>SQA</td>
<td>Scottish Qualifications Authority</td>
</tr>
</tbody>
</table>
UK United Kingdom
UNESCO United Nations Educational, Scientific and Cultural Organization
UNESCO-CEPES UNESCO European Centre for Higher Education
UNICE Business Europe
USA United States of America
VEC Vocational Education Committee
VET Vocational Education and Training
Policy for Credit Accumulation and Transfer within the National Qualifications Framework
Policy for Credit Accumulation and Transfer within the National Qualifications Framework
Contents

Foreword.................................................................................................................................................. 2
Glossary of terms.................................................................................................................................... 3
Policy for Credit Accumulation and Transfer within the National Qualifications Framework......... 6
  Preamble.................................................................................................................................................. 6
  Scope ...................................................................................................................................................... 8
  Purpose .................................................................................................................................................. 8
  Principles for CAT.................................................................................................................................. 9
  Credit Accumulation and Transfer in the context of the National Qualifications Framework........ 10
  Responsibilities for the implementation of Credit Accumulation and Transfer............................. 11
  Effective Implementation Date ............................................................................................................ 14
List of acronyms...................................................................................................................................... 15
Members of the SAQA CAT Reference Group ....................................................................................... 15
Foreword

The National Qualifications Framework (NQF) Act (Act 67 of 2008) requires that the South African Qualifications Authority (SAQA) develops Policy for Credit Accumulation and Transfer (CAT) after consultation with the three Quality Councils. This is the first time a National Policy on CAT has been developed in South Africa. The introduction of CAT has been given a high priority in South Africa as one of the tools that will positively contribute to the facilitation of lifelong learning.

SAQA envisages that this Policy will have a positive impact on the education and training system as it puts in place nationally agreed principles which have the potential to ensure that opportunities for individuals to progress, from qualification to qualification in the NQF, are increased.

This CAT Policy draws on existing good practice, while also providing a strong impetus for change. It promotes articulation between qualifications within and across the three Sub-Frameworks of the NQF and has the potential to improve access to the world of work. As well as setting out the principles on which the CAT system is based, this Policy explains aspects of the operation of the system and sets out the specific roles of SAQA, the Quality Councils, education institutions, skills development providers, recognised professional bodies, and workplaces. The Policy recognises that the context across the three Sub-Frameworks of the NQF differs substantially and this fact was therefore carefully considered in the drafting process.

SAQA recognises the valuable contribution made by the CAT Reference Group (see the end of this Policy document for the list of members), as well as the organisations and individuals, both local and international, that commented on earlier drafts of this Policy.

SAQA looks forward to working with all NQF partners and stakeholders in implementing this Policy and further developing the CAT system in South Africa to the benefit of all lifelong learners and towards the implementation of an articulated, quality-assured national qualifications framework.

This Policy for Credit Accumulation and Transfer within the National Qualifications Framework comes into effect on the date of its publication in the Government Gazette.

Joe Samuels
Chief Executive Officer
Glossary of terms

“Advanced standing” means the status granted to a learner for admission to studies at a higher level than the learner’s prior formal learning would have allowed, and includes exemption where applicable.

“Articulation” means facilitating the progress and mobility of learners within and across each of the three Sub-Frameworks and to the world of work, which is achieved by the intentional design of structure and content of qualifications.

“Comparability” means the degree of similarity between two qualifications in terms of purpose, level, credits and learning outcomes in order to determine the extent of credit accumulation and/or transfer within or between institutions. The matching of curricular properties should also be considered when comparability is determined.

“Credit accumulation and transfer (CAT) system” means an arrangement whereby the diverse features of both credit accumulation and credit transfer are combined to facilitate lifelong learning and access to the workplace.

“Credit accumulation” means the totalling of relevant credits required to complete a qualification or a part-qualification.

“Credit matrix” means a system in which learning outcomes can be arranged and compared in levels of increased complexity based on agreed groupings of credits, such as in modules or part-qualifications.

“Credit transfer” means the vertical, horizontal or diagonal relocation of credits towards a qualification or part-qualification on the same or different level, usually between different programmes, departments or institutions.

“Credits” means the amount of learning contained in a qualification or part-qualification whereby one (1) credit is equated to ten (10) notional hours of learning.

“Curriculum” in the context of this Policy means the requirements for learner achievement of a qualification or part-qualification in terms of knowledge, skills, and where relevant, also work experience.

“Exclusionary practices” means systems and processes that are designed to limit fairly the opportunities of specific individuals or groupings of individuals to gain access to further learning or professional recognition when they do not meet legitimate criteria for admission or professional registration. Unfair exclusionary practices limit opportunities based on illegitimate criteria, such as race, gender and affordability and may be contested.
“Formal learning” means learning that occurs in an organised and structured education and training environment and that is explicitly designated as such. Formal learning leads to the awarding of a qualification or part-qualification registered on the NQF.

“Learning programme” means a purposeful and structured set of learning experiences that leads to a qualification.

“Level descriptor” means a statement describing learning achievement at a particular level of the NQF that provides a broad indication of the types of learning outcomes and assessment criteria that are appropriate to a qualification at that level.

“Lifelong learning” means learning that takes place in all contexts in life from a life-wide, life-deep and lifelong perspective. It includes learning behaviours and obtaining knowledge, understanding, attitudes, values and competencies for personal growth, social and economic well-being, democratic citizenship, cultural identity and employability.

“National Qualifications Framework (NQF)” is a comprehensive system approved by the Minister of Higher Education and Training for the classification, registration, publication and articulation of quality-assured national qualifications.

“Notional hours of learning” comprises the total amount of time it would take an average learner to meet the outcomes defined in a learning experience and include, *inter alia*, face-to face contact time, time spent in structured learning in the workplace, time for completing assignments and research, and time spent in assessment processes.


“Part-qualification” means an assessed unit of learning that is registered as part of a qualification.

“Professional body” means any body of expert practitioners in an occupational field, and includes an occupational body.

“Professional designation” means a title or status conferred by a professional body in recognition of a person’s expertise and/ or right to practise in an occupational field.

“Provider” means a body that offers any education programme or trade and occupational learning programme that leads to a qualification or part-qualification registered on the NQF.

“Qualification” means a registered national qualification.
“Recognition of Prior Learning (RPL)” means the principles and processes through which the prior knowledge and skills of a person are made visible, mediated and assessed for the purposes of alternative access and admission, recognition and certification, or further learning and development.

“Residency clause” means the rule that emanates from the Joint Statutes (Section 18, 1955) that sets a limit to the number of credits that may be transferred towards a qualification by a higher education institution, or between higher education institutions, in order to comply with certification requirements and/or with funding implications.

“Workplace-based learning” means the exposure and interactions required to practise the integration of knowledge, skills and attitudes required in the workplace.
Policy for Credit Accumulation and Transfer within the National Qualifications Framework

Preamble

1. This Policy for Credit Accumulation and Transfer (CAT) provides for the implementation of CAT within the context of the National Qualifications Framework (NQF) Act 67 of 2008 within South Africa.

2. This Policy for CAT is an enabling policy that is closely related to the revised South African Qualifications Authority (SAQA) National Policy for the Implementation of the Recognition of Prior Learning (RPL) (2013) and the revised SAQA National Policy for Designing and Implementing Assessment for NQF Qualifications, Part-qualifications and Professional Designations.

3. The national RPL, CAT, and Assessment policies have been developed in an integrated manner to draw on a common conceptual basis and strengthen the interrelationships between Assessment, RPL and CAT:

   a) Assessment refers to the process used to identify, gather and interpret information and evidence against the required competencies in a qualification, part-qualification, or professional designation in order to make a judgement about a learner’s achievement. Assessment in respect of formal, informal and non-formal learning is transparent and includes CAT and RPL where feasible.

   b) RPL refers to the principles and processes through which the prior knowledge and skills of a person are made visible, mediated and assessed for the purposes of alternative access and admission, recognition and certification, or further learning and development. RPL can be undertaken for the awarding of credits, or for access. Assessment is an integral feature of all forms of RPL, but does not exist in isolation from a range of other strategies that allow for different sources of knowledge and forms of learning to be compared and judged.

   c) CAT refers to an arrangement whereby the diverse features of both credit accumulation and credit transfer are combined to facilitate lifelong learning and access to the workplace. Credits previously obtained may be recognised as meeting the requirements for a different qualification, and, subject to identified limits, the credits achieved towards one qualification may be recognised as meeting part of the requirements for another qualification. Decisions regarding the transfer of credit are made by the Quality Council(s) responsible for the qualifications in question, once the necessary evaluations have been completed.
4. The objectives of the NQF are to:

a) Create a single integrated national framework for learning achievements;
b) Facilitate access to, and mobility and progression within, education, training and career paths;
c) Enhance the quality of education and training; and

d) Accelerate the redress of past unfair discrimination in education, training and employment opportunities.

The objectives of the NQF are designed to contribute to the full personal development of each learner and the social and economic development of the nation at large.

5. SAQA and the Quality Councils (QCs) must seek to achieve the objectives of the NQF by:

a) Developing, fostering and maintaining an integrated and transparent national framework for the recognition of learning achievements;
b) Ensuring that South African qualifications meet appropriate criteria, determined by the Minister as contemplated in Section 8 of the NQF Act (Act 67 of 2008), and are internationally comparable; and

c) Ensuring that South African qualifications are of an acceptable quality.

6. The Policy is located within the broader context of the government’s Human Resource Development Strategy, the National Skills Development Strategy, and other national strategies.

7. The NQF in South Africa is a comprehensive system approved by the Minister of Higher Education and Training for the classification, registration, publication and articulation of quality-assured national qualifications and part-qualifications. It was established under the SAQA Act (Act 58 of 1995). It continues under the NQF Act (Act 67 of 2008), which came into effect on 1 June 2009.

8. The NQF, as an integrated framework overseen by SAQA is made up of three co-ordinated Sub-Frameworks, each overseen by a QC:

a) Higher Education Qualifications Sub-Framework (HEQSF) overseen by the Council on Higher Education,
b) General and Further Education and Training Qualifications Sub-Framework (GFETQSF) overseen by Umalusi, and

c) Occupational Qualifications Sub-Framework (OQSF) overseen by the Quality Council for Trades and Occupations.
Scope

9. This Policy applies to:

   a) SAQA, QCs, public and private education institutions and skills development providers, assessment bodies, recognised professional bodies, and workplaces.

   b) All qualifications, part-qualifications and professional designations registered on the NQF and offered in South Africa.

10. The specific context of each QC and its Sub-Framework must be considered in the interpretation of this Policy.

Purpose

11. This Policy facilitates the development of credible, efficient and transparent processes both for the accumulation of credit within qualifications and for the transfer of credit between qualifications both within and between the Sub-Frameworks of the NQF.

12. This Policy provides for the development and implementation of CAT as an integral component of qualification design within the NQF and its Sub-Frameworks.

13. This Policy intends to benefit individuals seeking to progress between qualifications or part-qualifications on the NQF, and between these qualifications and the world of work.

14. The Policy brings arrangements for the accumulation of credit and arrangements for the transfer of credit into a single differentiated system. It has implications for a range of practices related to the completion of qualifications on the NQF and progression between qualifications in the NQF. The development of qualifications needs to provide for CAT. The Policy also has implications for admission committees in higher education, the allocation of credits through RPL, the use of advanced standing, and agreements on recognition of qualifications by recognised professional bodies.
Principles for CAT

15. This Policy for CAT is based on the following principles which will guide the work of all organisations and institutions responsible for developing, quality assuring and/or offering qualifications in the NQF:

a. Access for success
   Institutions and providers facilitate the bridging of theory and/or practice components that are identified as weaknesses during admission and/or RPL processes in order to promote CAT. Steps are taken to support individuals starting on courses in new sectors or more advanced courses by identifying gaps in knowledge and/or skills and making arrangements to supply these gaps through bridging courses or other supplementary work.

b. Articulation by design
   Possibilities for articulation pathways, including within and between the Sub-Frameworks of the NQF and the world of work, are included in the design and purposes of new qualifications and part-qualifications in order to promote CAT.

c. Comparison based on credible methods
   In promoting CAT, qualifications are compared based on credible methods that determine the extent to which their curricular properties, as well as their content and outcomes match, as guided by the NQF level descriptors. The comparison of qualifications takes into account the purpose of each qualification as well as the broader application of the qualifications within the context for which they were designed. The degree of similarity between qualifications ensures that students have the necessary knowledge and background to be successful in more advanced courses. The decisions of receiving departments or institutions on the transfer of credit may be appealed by providers or learners using processes agreed by the QCs.

d. Supplementarity
   Where there are differences in prerequisites, the rigour of the curriculum, or the topics covered, the relevant authority may require the learner to do supplementary work before credits are awarded. This supplementary work is determined in a fair, consistent and transparent manner, using credible methods, and in consultation between the two institutions. The amount of credit awarded for transfer may be set by a pre-existing agreement, or may be decided by the authority responsible for the programme into which credit is being transferred. The amount of credits will vary according to the comparability of the outcomes gained to the outcomes required.
e. Transparency

Rules, regulations and any register of precedents which inform, influence or govern decisions taken in respect to CAT are valid, fair, reliable and transparent. They must be publicly available and drawn to the attention of intending students prior to enrolment. This should include clear information about fees for CAT where they are charged.

Credit Accumulation and Transfer in the context of the National Qualifications Framework

16. Credit within the context of the NQF is a measure of the volume of learning required for a qualification or part-qualification, quantified as the number of notional study hours required for achieving the learning outcomes specified for the qualification or part-qualification at a specific level of the NQF as described in the level descriptors. One credit is equated to ten (10) notional hours of learning.

17. The development of possible pathways for articulation during the design of new qualifications and part-qualifications contributes to effective CAT.

18. Articulation within the NQF is both systemic and specific:

a. Systemic articulation is based on legislation, national policy and formal requirements, including within and between the Sub-Frameworks of the NQF, and the steering mechanisms available to the State such as funding and planning within the education and training system; and/or

b. Specific articulation is based on formal and informal agreements within the education and training system, mostly between two or more education and training sub-systems, between specific institutional types, and guided by guidelines, policies, and accreditation principles.

c. Systemic and/or specific articulation may apply to qualifications, part-qualifications and professional designations.

19. Credit accumulation can take place in the following forms:

a. In the case of systemic articulation:

   (i) National - the recognition and accumulation of credits across all institutions within South Africa.

b. In the case of specific articulation:

   (i) Intra-institutional – the totalling of credits within a specific institution, or department within an institution;

   (ii) Inter-institutional – the recognition and accumulation of credits between two or more institutions. In these instances, the purpose of the qualification, the associated learning outcomes, the nature of the curriculum, and the value of the credits are taken into account.
20. Credit transfer is the process whereby credits awarded in one learning programme can count towards:

a) the same learning programme in another institution;
b) another learning programme on the same or a different level of the NQF, the same or a different Sub-Framework of the NQF, a different department in the same institution, or in a different institution.

21. The NQF, through the level descriptors, provides a basis for credit matrices that can be developed by specific Sub-Frameworks or sectors as a means to further promote CAT.

Responsibilities for the implementation of Credit Accumulation and Transfer

22. The development and implementation of CAT is the joint responsibility of the Department of Higher Education and Training, the Department of Basic Education, SAQA, the QCs, education institutions and skills development providers, assessment bodies, recognised professional bodies and workplaces. Specific responsibilities of each contributor are outlined below.

23. Responsibilities of SAQA:

a) Develop national policy for CAT, after consultation with the QCs.
b) Develop national CAT guidelines for institutional practice, inter-institutional collaboration and cross-sector qualifications linkages, after consultation with the QCs and other stakeholders.
c) Adhere to the principles and responsibilities as outlined in this CAT Policy.
d) Co-ordinate the Sub-Frameworks of the NQF, including the alignment of Sub-Framework policies on CAT, to enable articulation across the system.
e) Support the development of collaborative partnerships across the Sub-Frameworks of the NQF to develop an enabling environment for CAT and the progression of lifelong learners in general.
f) In collaboration with the QCs, establish and manage a monitoring and mediation process to advise and alert institutions regarding potential and actual transgressions relating to national SAQA and QC CAT policies. This process must take appeal mechanisms located at the level of the education and training provider, as well as those of the relevant QC, into account, and may involve publishing unfair or contested exclusionary practices relating to CAT.
g) Support the Sub-Committee on RPL\textsuperscript{13} to act as an advisory forum for SAQA and the QCs as part of the monitoring and mediation process outlined above, and to identify issues and good practice relating to articulation and CAT.

h) Oversee research to improve CAT in collaboration with the QCs. Specific focus should be placed on existing partnerships and models of good practice relating to CAT, and national studies to improve outcomes in CAT within and between the Sub-Frameworks of the NQF.

24. Responsibilities of the QCs:

a) Adhere to the principles and responsibilities as outlined in this Policy.

b) Collaborate with the other QCs to ensure that effective CAT takes place within and across the three Sub-Frameworks of the NQF.

c) Develop a Policy on CAT for their Sub-Frameworks, taking into account the relevant national SAQA policies, and the broader context of their specific Sub-Frameworks and related policies.

d) Formalise principles and conditions for CAT that guide and encourage the development of articulation agreements within their specific Sub-Frameworks.

e) Undertake systematic work on the development of credit schemes within their specific Sub-Frameworks.

f) Initiate and oversee projects within their specific Sub-Frameworks to strengthen the conceptual understanding of CAT, build capacity in the use of credit, and promote good practices.

g) As and where applicable, develop linkages for articulation and progression to promote CAT within and across their Sub-Frameworks through facilitating and encouraging formal articulation agreements among institutions, co-ordinated quality assurance systems, bridging programmes and the formation of regional groupings of linked institutions as required.

h) Promote the collaborative development of curriculum and qualification pathways between different types of provisioning to promote and enable successful CAT.

i) Provide a mechanism in QC policy to deal with unfair CAT practices.

j) Collaborate in the national monitoring and mediation processes to advise and alert institutions within their Sub-Frameworks regarding potential and actual transgressions, relating to national SAQA and QC CAT policies.

k) Actively promote the recognition of workplace-based learning for CAT in collaboration with workplaces.

\textsuperscript{13} The Sub-Committee on RPL refers to a committee proposed in the \textit{National Policy for the Implementation of RPL} (SAQA, 2013, clause 49d) that will report to the CEO Committee comprising the CEOs of SAQA and the Quality Councils, as well as members of the Interdepartmental NQF Steering Committee. The Sub-Committee on RPL could consist of representatives from the Department of Higher Education and Training, SAQA, the Quality Councils, the National Artisan Moderation Body (NAMB), the National Economic Development and Labour Council (NEDLAC), RPL practitioners and researchers, public and private providers, professional bodies, and organised labour and other stakeholders.
25. Responsibilities of education institutions, skills development providers and assessment bodies as applicable:

a) Adhere to the principles and responsibilities as outlined in this Policy.

b) Develop and implement an institutional policy on CAT in accordance with the principles and responsibilities as outlined in this Policy to ensure equity and inclusiveness in access to learning opportunities.

c) Demonstrate through regular internal and external quality reviews, including those done by the QCs, that their policies and practices for CAT support the principles as listed in this Policy.

d) Seek accreditation by the relevant QC(s) where applicable.

e) In the case of private education providers that offer qualifications and part-qualifications located in the Higher Education and General and Further Education and Training Sub-Frameworks, registration with either the Department of Higher Education and Training or the Department of Basic Education, respectively, is also required.

f) Provide career advice services on career pathways and articulation routes.

g) Put in place appropriate appeal mechanisms.

h) Avoid unfair exclusionary practices related to CAT.

i) In the case of higher education providers, the residency clause must be consistently applied to expedite learner mobility and not to limit CAT.

j) Collaborate to offer diverse and mutually recognised qualifications, through formal articulation agreements and in regional consortia where relevant.

k) Set fair and transparent admission criteria that are consistent with national policy.

l) Address the bridging of theory and/or practice components that are identified as weaknesses during admission processes, including through RPL.

m) Undertake collaborative approaches to curriculum development across different institutional types to advance CAT, including alignment of curricula in common fields, taking into account their purpose and the types of knowledge and competencies.

n) Initiate and participate in partnerships with other education and training providers to implement and promote CAT.

---

14 Provincial departments of education that reside with the Department of Basic Education are deemed to be accredited as providers.

15 At the time of the finalisation of this Policy, private skills development providers that offer qualifications and part-qualifications in the trade and occupational sector must be accredited by the Quality Council for Trades and Occupations, but are not required to be registered (see the Joint Communiqué issued by the Department of Higher Education and Training, SAQA and the Quality Councils in August 2012). This interim registration measure will be reviewed.
o) Develop and maintain information management systems that are compatible with the National Learners’ Records Database (NLRD) and other relevant government information management systems, and submit the relevant data to SAQA using effective existing systems.
p) Participate in - and adhere to - the findings of the national adjudication process set up by SAQA and the Quality Councils to monitor unfair exclusionary practices related to CAT.
q) Through representative organisations, participate in and contribute to the sub-committee on RPL.

26. Responsibilities of recognised professional bodies:

a) Adhere to the principles and responsibilities as outlined in this Policy.
b) Comply with the SAQA Policy and Criteria for Recognising a Professional Body and Registering a Professional Designation on the NQF, including not to apply unfair exclusionary practices in membership admission to the body or when recognising education and training providers.
c) Initiate and participate in partnerships with education and training providers and workplaces to recognise and promote CAT.
d) Provide career advice services on career pathways and articulation routes.
e) Participate in and adhere to the findings of the national adjudication process set up by SAQA and the QCs to monitor unfair exclusionary practices related to CAT.
f) Through representative organisations, participate in and contribute to the work of the Sub-Committee on RPL.

Effective Implementation Date

27. This Policy comes into effect on the date of its publication in the Government Gazette.
List of acronyms

CAT  Credit Accumulation and Transfer
CHE  Council on Higher Education
GFETQSF  General and Further Education and Training Qualifications Sub-Framework
HEQSF  Higher Education Qualifications Sub-Framework
MerSETA  Manufacturing, Engineering and Relations Services Sector Education and Training Authority
NLRD  National Learners’ Records Database
NQF  National Qualifications Framework
OQSF  Occupational Qualifications Sub-Framework
QC  Quality Council
QCTO  Quality Council for Trades and Occupations
RPL  Recognition of Prior Learning
SAQA  South African Qualifications Authority

Members of the SAQA CAT Reference Group

Mark Abrahams  University of the Western Cape
Elizabeth Burroughs  Umalusi
Karen Deller  LearnSys
Muavia Gallie  Consultant
Ansa Liebenberg  MerSETA
David Mabusela  National Artisan Moderation Body
Abbey Mathekga  Higher Education South Africa
Jay Moodley  Mining Qualifications Authority
Kessie Moodley  Workers’ College
Julia Motaung  Quality Council for Trades and Occupations
Tholsia Naicker  Association for Private Providers of Education Training and Development
Heather Nel  Nelson Mandela Metropolitan University
Martin Oosthuizen  University of the North-West
Linda Van Ryneveld  University of Pretoria/Tshwane University of Technology