What is the evidence for the impact of National Qualifications Frameworks?

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Abstract
Numerous countries are introducing National Qualifications Frameworks (NQFs), or preparing to introduce them, despite the limited empirical evidence for their effectiveness. This paper takes advantage of recent additions to the evidence base on NQFs in order to assess their impacts, focusing on comprehensive frameworks. It also presents analytical tools for studying these impacts, by distinguishing among different types of framework and among the different 'change processes' by which they try to achieve their objectives. The evidence, while still inconclusive, shows that the impacts of NQFs have been smaller than expected, have often taken many years to appear, have varied across frameworks and sub-frameworks and have been negative as well as positive. However, the most important conclusion is the variability of the impacts of NQFs and the complexity of the underlying causal processes.

Introduction
Countries across the globe are rushing to acquire NQFs. According to Tuck (2007) only five first-generation frameworks had begun to be implemented by the mid-1990s, and a further ten frameworks were in development or implementation in the mid-2000s. By the beginning of 2012, 138 countries were reported to be planning, developing or implementing NQFs, including all 27 countries of the European Union (Serban 2012; CEDEFOP 2011).

Policy makers introducing NQFs, and the policy literature that supports them, tend to explain this stampede as the aggregate of countries' more or less rational responses to the economic and social pressures of globalisation (Coles 2006; Tuck 2007; Bjørnåvold and Coles 2010; CEDEFOP 2011). NQFs are promoted as instruments for reforming education and training and thus enhancing national competitiveness (EC 2006; OECD 2007). They are expected to help countries to address perceived challenges such as the lack of transparency, inflexibility and fragmentation of qualifications and qualifications systems, the irrelevance of education and training to labour-market and social needs or the need to enhance access and progression. They also promise to deliver transparent and mobile qualifications which will give countries access to emerging global or regional education, labour and capital markets. Many European countries - and other countries with close economic ties with Europe (ETF 2010a) - are introducing NQFs in order to reference their qualifications to the trans-national meta-frameworks, the European Qualifications Framework (EQF) and the (Bologna) Qualifications Framework for the European Higher Education Area, and thereby have access to the labour and education markets which are expected to develop around these meta-frameworks (Bjørnåvold 2010; Maguire 2010; CEDEFOP 2011). However, despite this rush to acquire NQFs, and the widespread belief in their efficacy - dubbed 'NQF-[eu]phoria' - the evidence base on their impact is weak. NQFs are a recent phenomenon; most have not yet been fully implemented, let alone reached the stage where their full impacts can be measured. Most evaluations of NQFs have focused on their implementation rather than their impact. Much of the literature consists of description and advocacy. Produced mainly by bodies responsible for developing and promoting NQFs, with a vested interest in their perceived effectiveness, this literature has been aspirational and optimistic and has tended to present the objectives of NQFs as their demonstrated effects (OECD 2007).

This paper assesses what is currently known about the actual impacts of NQFs, taking advantage of recent contributions to the evidence base. It also proposes analytical tools for assessing these impacts, by distinguishing among different types of framework, among their different possible objectives and among the different 'change processes' by which they try to achieve these objectives. It focuses on 'comprehensive' frameworks which cover all types of qualifications and all sectors of education and training. The paper asks whether the NQF-phoria that has surrounded the diffusion of NQFs, and helped to sustain it, can be justified by the evidence. It thus interrogates the policy rhetoric which presents this diffusion as the aggregate of rational policy decisions by countries in a globalising world. An alternative perspective argues that NQF policies may be legitimated by myths of scientific rationality but are not themselves the consequence of rational, evidence-informed decision-making. The fact that so many

countries chose the same policy response to a wide variety of challenges, despite the limited empirical evidence for its effectiveness, suggests that other forces are at work. Institutionalists explain NQFs as examples of a general convergence towards 'institutional isomorphism' or global models of the organisation of education systems (Meyer 2000; Chisholm 2007; Karseth and Solbrekke 2010). NQFs have spread through processes of cross-national policy borrowing, and international bodies and donor organisations have played an important role in their global diffusion (Phillips 1998; Mukora 2006; Allais 2010; Chakroun 2010). However, as these global models are diffused, they are re-interpreted in each specific national context; policy transfer involves translation, re-shaping and innovation by local agencies (Phillips and Ochs 2003; Steiner-Khamsi 2004; Freeman 2006). NQFs introduced in different social, economic and institutional settings may look similar in their formal design and organisational structures but differ in their purposes and the ways that they work (Young 2007a).

The next section of the paper briefly reviews the evidence base on NQFs and the methodological issues in assessing their impact. The following section lists the objectives of NQF; it then introduces an analytical framework which identifies the 'change processes' by which NQFs attempt to achieve these objectives and distinguishes different types of framework. The discussion in this section relates to the impacts that they are *claimed* or *expected* to have by their proponents. The following three sections examine the evidence on their *actual* impacts, which are discussed in relation to their change processes, objectives and types of NQF respectively. The final section offers an overview.

Assessing the impact of NQFs
As noted above, much of the literature on NQFs consists of description and advocacy, and tends to confuse policy objectives with policy impacts. Nevertheless, the evidence base is slowly improving. As the first- and second-generation NQFs frameworks mature, evidence is accumulating on their processes and impacts (eg RSA 2002; Philips 2003; Gallacher et al. 2005; Collins et al. 2009). A variety of social-science disciplines and perspectives are being brought to bear on NQFs, including the sociology of knowledge (Allais 2007a; Young 2007b), the sociology of education and labour markets (Strathdee 2003; Raffe 2009a), comparative analyses of systems and cultures of vocational education and training (VET) (Brockmann, Clarke and Winch 2011), managerialist theories (Fernie and Pilcher 2009) and perspectives on organisational change (Granville 2003). There is a growing comparative literature on NQFs. The cross-national reviews by Young (2005), Coles (2006), Tuck (2007) and Lythe (2008), volumes and journal issues with collections of national studies (Donn and Davies 2003; Young 2003; Young and Gordon 2007; Sellin 2007/08) and monitoring reports by CEDEFOP (2011) and the European Training Foundation (ETF) (2010a) have recently been supplemented by a more systematic comparison of *The Implementation and Impact of National Qualification Frameworks* in 16 countries conducted by the International Labour Office (ILO) with the ETF (ILO 2009a, 2009b; Allais 2010; Young and Allais 2011).(1) The ETF (2010b, 2011) has also published the first comparative study of trans-national frameworks and a ten-country study of NQF implementation.

This paper takes advantage of this expanding evidence base. It draws especially on the ILO study but incorporates evidence from the wider literature summarised above, including evidence for first-and second-generation frameworks not covered by the ILO study such as France and Ireland. It also uses the analytical framework of change processes and types of NQF to assess this evidence.

The improvements in the evidence base have already had some influence on the policy debate. Despite - or perhaps because of - the need for institutions associated with NQFs to retain legitimacy, the claims for NQFs have become less exaggerated in recent years. NQF-phoria has given way to NQF-realism, if not NQF-scepticism,(2) and the crude policy borrowing that dominated the early diffusion of NQFs has been tempered. CEDEFOP (2011, 29) claims that the latest round of NQF development in Europe is 'not blind policy copying'. The ETF has adopted a model of policy learning in its work with partner countries; rather than borrowing models of NQFs from elsewhere these countries are encouraged to learn from the international experience in order to develop appropriate policies for their national aims, needs and circumstances (Grootings 2007; ETF 2008; Chakroun 2010). Nevertheless, especially among middle- and lower-income countries, and those which have recently decided to adopt NQFs, there still appears to be an uncritical acceptance of their benefits and a willingness to borrow international models that are perceived to work.

Despite the expanding evidence base, it is still difficult to reach firm general conclusions about the impact of NQFs. This is partly due to the small number and unrepresentative composition of countries with appropriate evidence. Few frameworks have been fully implemented, to date, and even fewer have been functioning for long enough for impacts to be visible. There are therefore too few 'degrees of freedom' at national level for analyses to allow for the diversity of NQFs and of their national contexts.   Moreover, except for France most first-generation frameworks were introduced in anglophone countries, typically to compensate for weaknesses of education and training that are characteristic of those countries. The experiences of these early frameworks may be very different from those of NQFs introduced later in countries with contrasting educational traditions and in the wake of trans-national frameworks that shaped their purposes and design.

These problems are confounded by the poverty of data. Monitoring and evaluation have been an afterthought for most countries introducing NQFs; few have collected appropriate baseline data, or developed systems for tracking the destinations of individuals holding qualifications. Such evaluations as have been conducted have rarely been wholly independent.   The problem of inadequate data is compounded by the complexity of the causal processes and the difficulties of identifying an 'NQF effect': even the South African NQF, which has better data and evaluation material than most frameworks, has been the subject of widely contrasting interpretations of its impact (French 2009).

Furthermore, the independent variable is unstable and often ill-defined.   NQFs are typically the product of political compromise and this often creates ambiguity about their

aims, objectives and even their formal authority. Frameworks are not only diverse; they are inherently dynamic constructs which change over time, either because of deliberate policy change or because new uses for a framework may be found once it is in place. In some cases, such as New Zealand, South Africa and Australia, such changes have been well signalled (Philips 2003; Allais 2009; Wheelahan 2009); in other frameworks, such as Scotland, they are more subtle. Moreover, as we see below, most comprehensive NQFs embrace sub-frameworks whose purpose, design and impacts may vary substantially; this variability is often not captured by monitoring and evaluation at the level of the whole framework.

This paper aims to allow for the complexity and instability of NQFs, and the small sample numbers for national-level analyses, by using the conceptual framework presented below, and especially the concept of 'change processes', to provide a common analytical thread.

A conceptual framework: objectives, change processes and types of NQFs
The EQF recommendation defines an NQF as 'an instrument for the classification of qualifications according to a set of criteria for specified levels of learning achieved, which aims to integrate and coordinate national qualifications subsystems and improve the transparency, access, progression and quality of qualifications in relation to the labour market and civil society' (European Parliament and Council 2008, C111/4). There is an apparent tension between the two parts of this definition: how could such wide-ranging aims be achieved merely by classifying qualifications into levels? However, many NQFs classify qualifications on other dimensions as well as levels (such as volume or credit, award type, field of study, sector), and they may incorporate requirements, guidelines, procedures, institutional arrangements and a range of 'associated functions' (Bjørnåvold and Coles 2010, 13) which extend beyond their classificatory role.

A typical NQF tries to achieve some of the objectives summarised in Figure 1 (Coles 2006; Tuck 2007; Young 2007a; Allais 2010; Bjørnåvold and Coles 2010). The list is not exhaustive, nor are the objectives all discrete; several overlap and the last two, promoting lifelong learning and transforming the economy and society (the distinguishing aspiration of the South African NQF), are second-order objectives, to be achieved *via* some of the others.

[Figure 1 about here]

The policy literature points to at least seven change processes by which NQFs are claimed or expected to achieve their objectives:
   o *A common language*. An NQF introduces a common language of levels, award types, outcomes, credit, and so on which is claimed to make the learning system, its component parts and the relationships among them more transparent and easier to understand. It also provides conceptual tools for planning and coordinating learning, for making the system more coherent and unified and for underpinning other objectives such as promoting access, transfer and progression.
   o *Stakeholder engagement and coordination*. The process of developing and implementing an NQF, and the institutional arrangements for maintaining and

> supporting it, are contexts in which different providers, users and other stakeholders in education and training may come together, identify mutual interests and coordinate their activities. This, it is claimed, enables standards to be updated and made more relevant and the learning system to become more coherent and demand-driven.
> o *Regulation*. An NQF may be an instrument for regulating qualifications and thereby mandating reform in education and training. For example, qualifications in a framework may have to satisfy requirements or guidelines for their delivery, assessment and certification, for quality assurance, for access transfer and progression or for recognising formal and informal learning.
> o *Quality assurance*. Most frameworks are linked to quality assurance systems, whether or not enforced through regulation.
> o *Unitisation or modularisation*. In many NQFs programmes or qualifications are based on units of learning which can be combined and accumulated in different ways and used for credit transfer and progression. Unitisation is claimed to provide opportunities for learners or end-users to exercise choice and increase their power in the learning market, and to make it quicker and easier to revise qualifications.
> o *Transparency of qualifications*.   NQFs are claimed to make individual qualifications more transparent, and thereby make it easier to improve standards, to relate qualifications to labour-market needs, to increase the power of 'consumers' in the training market and to facilitate transfer and progression.
> o *Cultural and pedagogical change*. An NQF is expected to stimulate changes in the culture of learning, especially in favour of more 'learner-centred' approaches, and thereby stimulate improvements in pedagogy and assessment.

[Figure 2 about here]

NQFs vary with respect to their objectives, their intended change processes and consequently their design and implementation. Analysts have proposed various typologies to express this diversity. One approach focuses on NQFs' strategies for change, as summarised in Figure 2 (Allais 2007a; Raffe, 2009a). A *communications framework* takes the existing system as its starting point and provides tools for change but does not try to drive change directly. It aims to make this system more transparent and to provide conceptual tools for rationalising it, improving its coherence and developing progression pathways. It therefore focuses on the first three objectives in Figure 1 (making the system easier to understand, increasing coherence and coordination and promoting access, transfer and progression); its typical change processes are a common language, stakeholder engagement and quality assurance. It is typically loose in design, voluntary, outcomes-referenced(3) and at least partly led by educational institutions. A *transformational framework* takes a proposed future education and training system as its starting point and defines the qualifications it would like to see in a transformed system, without referring explicitly to existing provision. It tries to drive change directly. It pursues a broader set of objectives, typically including a shift to a demand-led system, and it relies more upon such change processes as regulation and the transparency of individual qualifications. It is typically tighter in design, with stronger central direction,

and outcomes-led. A *reforming framework* takes the existing system and its institutions as its starting point, like a communications framework, but it tries to drive change directly as well as provide tools for other change agents. It tends to have a broader range of objectives than a communications framework: it may for example seek to enhance access by filling gaps in provision, promote transfer and progression, or make standards more relevant and consistent. It draws on a wider range of processes, including regulation; it tends to be statutory and to have tighter requirements. The Scottish, South African (in its early versions) and Irish NQFs are examples of communications, transformational and reforming frameworks respectively.(4)

Most comprehensive frameworks are multilevel, and embrace sub-frameworks for sectors such as VET or HE which may differ in their objectives and designs. A second approach to typologies of NQFs is based on the relations among these sub-frameworks. For example, Bjørnåvold and Coles (2010) distinguish *sector frameworks*, *bridging frameworks* which over-arch and link discrete and different sector frameworks and *integrating frameworks* which cover all sectors with a single set of levels and descriptors.

A third approach distinguishes regional models of NQFs. For example, European frameworks tend to be designed for relatively developed education and training systems; they have an emphasis on international readability and are strongly influenced by the EQF and Bologna frameworks and by the need to balance their respective constituencies of VET and higher education. Compared to frameworks in other continents they are more likely to be comprehensive, to start as communications frameworks (but often with ambitions to become reforming frameworks), to be 'loose', to be outcomes-referenced rather than outcomes-led and to have wider stakeholder support. Of the change processes listed above their early emphasis has been on a common language, stakeholder engagement, quality assurance and (in many cases) regulation (CEDEFOP 2011; Pevec Grm and Bjørnåvold 2010).

This diversity of NQFs has several implications. One is that learning outcomes are less important in many frameworks than some commentators suggest. Learning outcomes are the focus of heated debates in the NQF literature but all sides in these debates tend to accept their central importance (Young and Allais 2009; Bjørnåvold and Coles 2010; Sursock and Smidt 2010). However, learning outcomes play a modest role in many NQFs, especially communications frameworks (Raffe 2011). Some of the change processes listed above may involve a learning-outcomes approach, especially the last two: learning outcomes are commonly claimed to make individual qualifications transparent, and thereby improve communications between providers and users; and they are claimed to facilitate cultural change and 'learner-centred' approaches to pedagogy and assessment (Jessup 1991; Adam 2008; CEDEFOP 2009). But none of the change processes depends upon a learning-outcomes approach, and some of them (such as stakeholder engagement and regulation) are not directly associated with learning outcomes at all.

A further implication is that NQFs are not the exclusive creatures of any one policy trend such as neo-liberal or market-led strategies. Even when NQFs have similar objectives

they may use different change processes to achieve them. For example, some NQFs aim to update standards and make them more relevant to labour-market needs by unitising qualifications and by making their outcomes more transparent, thereby facilitating market forces. However, other NQFs may pursue the same objectives through regulation or through stakeholder engagement and coordination. Some NQFs may be used to support market-oriented strategies but this is not true of all NQFs.

The objectives and change processes described above - and to some extent the different typologies - relate to the impacts that NQFs are claimed or expected to have. The following three sections summarise the evidence on their impacts in practice.

Evidence on the use and effectiveness of NQF change processes
I start by reviewing the evidence on each of the 'change processes' by which NQFs have aimed to achieve their objectives.

A common language.   A comprehensive NQF introduces a common language and concepts across different sectors of the education and training system; these, it is claimed, are possible tools for making this system more transparent and coherent, for coordinating its components and for constructing pathways between them. There is evidence that this has happened, to an extent, in some communications frameworks such as Australia, France and Scotland (Bouder and Kirsch 2007; Wheelahan 2009; Raffe 2009b). These countries also demonstrate how this impact may accumulate over time; once a framework is in place all further reforms, however disconnected in origin or purpose, will achieve a degree of coherence by using its common language (Gallacher et al. 2005).

However, a new language does not necessarily increase transparency. Some NQFs, including several based on a competence or unit-standards approach, had the opposite effect by using complex and technical language, by introducing different terminology for different sub-frameworks, or simply by displacing the old, familiar language (Allais 2010). The Irish framework facilitated 'agreement around a common currency' but its impact was hindered by inconsistent terminology across sub-frameworks (Collins et al. 2009, 48). The New Zealand framework's language of unit standards was rejected by the universities (Strathdee 2009). Transparency may suffer when there are multiple frameworks with overlapping scope. For example, the Welsh framework coexists with UK-wide VET and HE frameworks (WAG 2008); similar issues may arise with the EQF in future.

Even for comprehensive frameworks with simple and consistent terminology, knowledge and understanding of the 'language' tend to be greater among education and training providers than among learners or other stakeholders (eg WAG 2008; Marock 2009). The common language of NQFs has so far been more significant as a means of communication *within* the education system - enabling providers to coordinate their provision and develop transfer and progression routes - than as a means of communicating this system to learners and other users.

Finally, the common language of an NQF is primarily a tool; one of the most consistent messages from the experience of NQFs, especially of communications frameworks, is that other incentives or drivers may be required to ensure that the tool is used for the purposes described above, such as planning progression routes or supporting the recognition of prior learning. Changing the language does not on its own change the social realities it describes.   For example, simply placing academic and vocational learning at the same level on a framework is not sufficient to confer equivalent status, as reflected in the choices of learners, unless it has more material consequences such as extending entitlements to enter university or changing the regulatory status of programmes (Strathdee 2003).

Stakeholder engagement and coordination. Another process through which an NQF is expected to achieve system transparency and coordination, as well as wider aims such as updating standards and making the learning system more responsive to demand, is through the increased engagement and coordination of stakeholders. In many countries the process of developing and implementing an NQF has brought stakeholders together almost for the first time (Grootings 2007; Bjørnåvold and Coles 2010). Stakeholder engagement is institutionalised in the structures that support and maintain most frameworks. An NQF may therefore have a positive impact on the coordination of the system and on transfer and progression routes in systems where there had previously been little contact between stakeholders, such as in some European countries where NQF debates brought HE and VET interests, and/or public and private providers, together. However, NQFs have had less impact where the barriers to such coordination have deeper roots. For example, the Malaysian framework was relatively successful within its sub-frameworks but it made no observable 'advances towards a more coherent and articulated qualifications system' because of divisions between government departments responsible for different sectors of education (Keating 2009, 35). In many countries education providers have resisted frameworks which might increase the influence of other stakeholders.

The perception that stakeholders are widely involved is important for the legitimacy of NQFs. This may explain why stakeholder engagement is so prominently featured in official accounts of NQF developments, or reports based on those accounts (eg Coles et al. 2011). However, there is surprisingly little *independent* evidence either that NQFs have substantially increased the engagement of stakeholders in education and training or that this engagement has significantly contributed to the objectives of NQFs.   In particular, the effective engagement of industry has long been a challenge for most countries, and NQFs have had only limited success in addressing it. Even in relatively well-established frameworks, such as Ireland and Scotland, employers have been hard to engage (Frontline 2010; NQAI 2010), and Bouder and Kirsch (2007) find little evidence that the French framework has increased employers' influence. The ILO study includes countries such as Turkey and Russia where employers have led NQF developments, but in most cases employers' engagement with NQFs has been limited, uneven across sectors and relatively superficial; that of trades unions has been even more limited (Keating 2009). Most NQFs have been driven by governments or central agencies more than by stakeholders, and employers or professional bodies tend to be closely involved only in

specific sectors or niches - the construction industry being a common example (Sumer 2009). Some NQFs have reduced the influence of employers by excluding familiar and trusted qualifications or by introducing new terminologies, technical requirements or bureaucratic procedures that made it harder for them to participate (Allais 2010).

Regulation. Many NQFs are regulatory, and some include regulatory sub-frameworks (typically for VET) within voluntary over-arching frameworks.   In such cases the regulatory powers of the framework may be the most important lever of change: for example, the Irish framework has required all qualifications in its further education and training sub-framework to meet the specifications of a new Common Awards System, and required all qualifications to satisfy guidelines for quality assurance and for access, transfer and progression. These requirements have, at least so far, been more important change processes than (for example) the transparency of qualifications or cultural change (Collins et al. 2009). The same is true of several other frameworks; for example the high uptake of recognition of prior learning (RPL) procedures in France is partly due to the regulations which require and enforce these procedures, although it also reflects the availability of resources and a strong infrastructure for supporting the process (Dif, Heraud and Nkeng 2009; Coles, Oates and Leney 2011). However, NQFs have not always been effective instruments for regulation. Although the Russian NQF was still at an early stage of development when studied for the ILO, it appeared to conflict with existing modes of occupational regulation (Allais 2010). And regulation, by its nature, is a means of steering change rather than driving it. It cannot create the resources or infrastructure for an effective education and training system.

Quality assurance. Quality assurance, like stakeholder engagement, is widely seen as an essential feature of an NQF.   It provides the core rationale for some frameworks, such as the Malaysian NQF which aimed to make quality more consistent across a segmented and partly privatised learning system (Keating 2009). Most reports and evaluations of NQFs assume that quality assurance improves the quality of learning, although the evidence for this is usually weak, typically based on the perceptions of participants. Its wider impacts are less evident. Ireland and Scotland have relatively mature NQFs and robust quality assurance systems, but in neither country are qualifications at the same level of the framework necessarily viewed as comparable by educational and labour-market selectors (Gallacher et al. 2005; Collins et al. 2009). Quality assurance alone does not compensate for the inadequate capacity of educational institutions or the scarcity of trained teachers and trainers. Effective quality assurance may be undermined by complex governance arrangements, as in South Africa (Allais 2009) or by lack of capacity, as in Botswana (Tao and Modesto 2009).

Unitisation.   Like quality assurance, the impact of unitisation or modularisation has attracted a large research literature in its own right but there is relatively little evidence of its impact in the context of NQFs. In New Zealand the common currency of unit standards is claimed to have contributed to the creation of learning markets (Strathdee 2009). Unitisation has been important in the Scottish reforms, although as in other countries other measures have been needed for the potential benefits, such as for transfer and progression, to be enjoyed; 'flexibility' has not solved deep-rooted educational

problems (Raffe 2009c). 'Unit standards' have proved contentious in several countries that have introduced them. In some countries unitisation has had negative consequences including reduced system transparency and the fragmentation of learning.

Transparency of individual qualifications. Outcomes-based frameworks are claimed to make individual qualifications more transparent by expressing them in terms of learning outcomes.   This, it is claimed, makes it easier to improve standards, to relate qualifications to labour-market needs, to increase the power of 'consumers' in the training market and to facilitate transfer and progression. The evidence to support this claim is limited. The ILO study concluded that many countries which tried to use learning outcomes and competency standards to make qualifications transparent had the opposite effect. Many employers felt that the new arrangements were not meeting their needs, and many NQFs had large numbers of qualifications that had never been used (Allais 2010). Even in New Zealand, where the NQF has had longest to become accepted, Strathdee (2009, 76) finds 'little evidence that employers as a group trust NQF qualifications more than previous qualifications'. However, NQFs may have had more positive effects in countries where previous qualifications were particularly opaque or irrelevant to needs.

Learning outcomes have not, in practice, provided 'a precise language ... for the accurate communication of competences and attainment' (Oates 2004, 46); attempts to make them do so, as in South Africa, have foundered in a 'spiral of specification' (Allais 2007b). In Australia learning outcomes were not perceived to provide sufficient information about qualifications whose delivery and pedagogy differed (Wheelahan 2009).   Moreover, learning outcomes may only provide transparency for those who have the means to 'read' them; this typically requires contextual knowledge of the educational and professional field, and technical understanding of the way that outcomes and standards are expressed. Consequently, the instances where transparency of qualifications has been achieved and has 'empowered' users of qualifications tend to be in relatively narrow occupational or sectoral niches (Young 2009).

Cultural and pedagogical change. Almost all studies and evaluations of NQFs conclude that the requisite cultural changes - whether towards a lifelong learning culture, a learner-centred approach, an outcomes perspective or an understanding of the unit standards approach - have been slow to appear. The limited cultural changes that have occurred have typically been within NQF policy circles rather than in the contexts in which learning takes place or in which qualifications are used. For example, the first wave of the impact study of the South African framework reported a substantial impact on lifelong learning culture (SAQA 2005), and French (2009) counted among its achievements a buy-in to core principles and values, but both reports refer primarily to cultural change among leading stakeholders. Several commentators suggest that cultural change takes time, and only when it happens can the more far-reaching aims of NQFs, such as enhancing the quality of learning and making the system more demand-driven, be achieved (eg Bouder and Kirsch 2007; CEDEFOP 2009; NQAI 2010). The Trends report on the Bologna process notes that learning outcomes are not well understood within

European higher education institutions, but argues that reaching such an understanding is on the critical path for further progress (Sursock and Smidt 2010).

NQFs' impacts on their objectives
I now briefly summarise the consequent impacts of NQFs on the objectives listed in Figure 1. None of these objectives has been consistently and fully achieved by all the frameworks that have adopted them. For example, whereas some frameworks have helped to make their education system more transparent and easier to understand (the first objective), other frameworks have had little impact and some have made the system less transparent. Overall, impacts have been variable and have depended on the nature of the NQF, the context and circumstances in which it is introduced and the presence of supporting policies. With respect to many of their objectives frameworks provide tools for change rather than the agents of change; the tools will only be used if incentives or requirements are built in to the framework or provided through other policy measures. Thus, many NQFs provide a tool for RPL but not the resources or incentives to use it, or the trust to underpin recognition. Actual take-up of RPL, and especially formal RPL, has been limited and patchy, with a few exceptions such as France where it is underpinned by regulation. Several frameworks (such as Australia, Ireland and - in some sectors - Mexico) have recorded positive impacts on transfer and progression, but this has usually happened when incentives or requirements to use them in this way have been built in to the framework (as in Ireland) or provided through other measures. NQFs can be used to fill gaps in provision or create new pathways, but their specific contribution is to identify the gaps: resources and incentives are required to fill them.

Many NQFs have been used as instruments for the accountability and control of education systems, although it is not evident that they are necessarily more effective than other possible instruments. An NQF can be bureaucratic and costly. Many frameworks have been introduced to coordinate divided education and training systems, or to promote parity of esteem, but an NQF cannot eliminate external sources of incoherence or division, such as conflicts within government or the pressures of educational selection. Some frameworks have aggravated existing divisions by introducing parallel structures of governance or classification. There is no evidence that NQFs alone have had a significant impact on the parity of esteem for vocational and general learning.

On balance, there is most evidence of success in respect of the first three objectives in Figure 1, which focus on the education and training system. A loose, comprehensive NQF can make the education system more transparent, provided its language is kept simple and applied consistently. The conceptual maps provided by NQFs can be used to rationalise and unify the system, especially if they provide the architecture for later reforms. In the right circumstances NQFs can be used to promote access, transfer and progression.

NQFs have been less successful in relation to objectives focused on learners, employers or others outside the education system. Even when they have made this system more transparent for education and training providers, and helped them to improve its coherence and to develop transfer and progression routes, NQFs have had less impact on

its transparency for learners, employers and other users of the system. There is little evidence that NQFs have helped to empower learners or to make the learning system more responsive to demand, except in specific niches. Their defenders argue that these objectives require more time. The ILO study 'found little evidence that NQFs have substantially improved communication between education and training systems and labour markets' (Allais 2010, 2). Many NQFs were intended to be an instrument for updating and extending standards and making them more relevant to learners' and employers' current needs. They have done this in specific sectors or occupations, but complexity, bureaucracy and cost have often discouraged employer engagement. The large number of unused qualifications in many NQFs suggests that the qualifications and the standards on which they are based are not always perceived by learners or employers to meet current needs.

Impacts on the quality of learning have been variable and slow to become apparent. They are probably positive where an NQF has extended quality assurance (eg Malaysia) although NQFs are not a necessary condition for this. There is less evidence of impact through other change processes. NQFs themselves do not substitute for weak or ineffective educational institutions or for a lack of qualified teachers or trainers. As Chakroun (2010, 212) notes, 'NQFs are not pedagogical reforms in that they do not directly change the teaching and learning processes'.

It is too soon to judge the international impacts of NQFs. They have provided the means for referencing qualifications to the EQF and other meta-frameworks. However, learners', institutions' and employers' trust in the outcomes of the referencing process have barely been tested. NQFs have helped countries such as Australia, Malaysia and New Zealand to sell educational services to learners from other countries, but it is too early to judge their impact on labour mobility.

The impact of different types of NQF
Of the types of NQF reviewed earlier, communications frameworks are often perceived as most successful. The ILO study concluded that the Scottish framework, the paradigmatic example of a comprehensive communications framework, was the most successful of those it studied (Allais 2010). The change process that is most characteristic of a communications framework, the introduction of a common language, is arguably the one whose potential impact has been most clearly demonstrated. However, Ireland's reforming framework, which was not covered by the ILO study, has as much claim as Scotland's communications framework to be considered successful (Young 2005, Collins et al. 2009). There is therefore evidence of success both for reforming and for communications frameworks; transformational frameworks, by contrast, have been less successful (at least as comprehensive frameworks). Unlike transformational frameworks, reforming and communications frameworks start from the existing qualifications system. Their change strategies respect the socially and politically constructed character of a qualifications system and do not undermine the conditions for its effectiveness such as stakeholder support and trust which develop with time and experience.   They have the potential to support slow, incremental and reasonably

consensual change, but their potential is more limited in countries requiring more radical reforms.

However, the picture is somewhat different if we do not look only at comprehensive frameworks. Much of the 'success' of the Scottish NQF can be attributed to the sectoral sub-frameworks that had developed over the previous two decades, which included reforming and even transformational frameworks as well as communications frameworks (Raffe 2009b). Moreover, the observed impacts of an NQF may vary across its different sub-frameworks, or between sub-frameworks and the comprehensive framework of which they are part. For example, Marock (2009) contrasts the Mauritius NQF's relative success as a comprehensive communications framework, introducing a common language across three sectors, with the limited success of its transformational VET sub-framework. A similar contrast may be drawn between the over-arching Australian NQF and the training packages delivered (more successfully in this case) within its VET sub-framework (Wheelahan 2009). Many vocational frameworks have been more successful in particular sectors or occupational niches than across all vocational learning (Young 2009). There are similar examples of relative success and failure among HE sub-frameworks (Witte et al. 2008; Sursock and Smidt 2010).

There is an inverse relationship between the scope of an NQF and its direct transformational potential. The examples of success among transformational frameworks have usually been within specific sectoral or occupational niches. Conversely, the transformational frameworks that have encountered greatest difficulties have sought transformation across the whole range of qualifications; almost invariably, their scope has narrowed. Unit standards in New Zealand, like NVQs in the UK, eventually covered a much narrower range of qualifications than originally intended.

Successful NQFs have typically had two features. They have respected the need for qualifications reform to start from the existing system and to progress incrementally; and they have exploited a multilevel structure. This has enabled them to secure the benefits of a communications framework at the level of the comprehensive framework and to pursue more transformative goals within sub-frameworks, and to harness different change processes in different sectors and across different ranges of the qualifications system.

The impact of NQFs: an overview
This review of the evidence provides little support for the more exaggerated expectations or aspirations of the NQF-phorics. The impacts of NQFs have been smaller than expected, have often taken many years to appear, have varied across frameworks and sub-frameworks and have been negative as well as positive. For each objective, there are frameworks for which some impact is evident, but there are others whose impact has been negligible or even negative. For some of their most important objectives, such as making education and training more demand-focused, the record is unimpressive. And we have almost no evidence on whether NQFs will support mobility and ensure access to emerging regional and global labour markets - despite this being a main reason for many countries to develop one. For nearly all comprehensive frameworks the picture is

differentiated: impacts vary across sectors, across sub-frameworks and between sub-frameworks and the comprehensive framework of which they are part.

Moreover, NQFs may have negative consequences which in some countries have outweighed the benefits (Allais 2010). They may disrupt effective good practice, either by withdrawing recognition from tried and respected qualifications or by requiring that they be delivered or assessed in new ways. They may increase bureaucracy and complexity and add to the costs of employers, learning providers or learners. Above all, they have an opportunity cost, especially in countries with limited policy-making capacity or where NQFs divert attention and resources from the need to establish effective educational institutions and practices.

However, the evidence is far from conclusive. The number of NQFs with evidence on impacts is still small and unrepresentative. Even studies of mature frameworks such as France, Ireland and Scotland conclude that it is too early to find evidence of impact, or that there is evidence of potential use or impact but much of this potential has still to be realised (Bouder and Kirsch 2007; Collins et al. 2009, Raffe 2009b).(5) The evidence base is still inadequate. Too often the analyst has to decide whether the absence of positive evidence for impact can be interpreted as negative evidence, and to judge the appropriate time scale over which the impact of an NQF should be measured. And the difficulties of reaching clear conclusions are amplified by the complexity and conditionality of the causal processes involved.

For the most important finding of this review of the evidence is not that the impacts of NQFs are often weak, smaller than expected, and sometimes negative. It is rather that they are complex and variable. Not only have some frameworks or sub-frameworks been more successful than others; frameworks and sub-frameworks have varied with respect to the objectives achieved (or not achieved) and the ways they achieve them. It is not easy to 'unpick' this variability. For example, we have found no clear distinction between objectives which NQFs can expect to achieve and those which are unattainable. On balance, the objectives for which comprehensive frameworks have demonstrated the greatest potential impact have been related to their comprehensive character, such as making the system more transparent, increasing its coherence and promoting transfer and progression. However, many frameworks have failed to do these things and others have succeeded with different objectives. The more 'transformational' objectives are more likely to be achieved by sub-frameworks, or sector frameworks with a relatively narrow scope, rather than by comprehensive frameworks; but many sector frameworks or sub-frameworks have had no transformational impact. This paper has proposed the concept of 'change process' as an analytical tool for abstracting across the diversity of NQFs. Regulation, quality assurance and (when kept simple and consistent) a common language have been the most consistently effective change processes; conversely, despite the emphasis in the policy literature on stakeholder engagement, on making individual qualifications transparent and on cultural change, there is less evidence that these have yet provided an important means by which NQFs have achieved their objectives. But, once again, there is wide variation across frameworks and sub-frameworks; we cannot make a clear distinction between effective and ineffective change processes.

Our evidence draws attention to three important sources of variability of the impacts of NQFs. The first is the diversity of their national contexts. The evidence from national case studies suggests that the most important contextual variables include the size and diversity of the education system, its culture and level of development, its governance arrangements, the structure and organisation of labour markets (formal and informal), the strength of civil society and the culture of policy-making. We do not have a systematic comparative understanding of the relation between contexts and impacts, but the concept of change process provides a possible analytical tool. As we noted above, different NQFs may use different change processes to pursue a given objective. For example, they may pursue the objective of updating standards and making them more relevant to labour-market needs through regulation, through stakeholder engagement and coordination, or through a combination of unitisation and making qualifications' outcomes more transparent. These alternative change processes correspond to three different principles of governance, respectively hierarchy, networks and markets (Thompson et al. 1991). An NQF's relative emphasis on each change process tends to reflect national modes of governance. Countries with bureaucratic or hierarchical traditions of governance may rely more on regulation, countries where (social) partnership is stronger may rely more on a common language and on stakeholder engagement and coordination, and countries with stronger market-led approaches may rely more on unitisation and the transparency of qualifications. Such connections are visible among the emerging European frameworks as well as among those studied by the ILO (CEDEFOP 2011; Allais 2010). The effectiveness of an NQF may depend less on its change processes *per se* than on the congruence between change processes and national modes of governance.

A second source of variability in the impact of NQFs is the diversity of educational, labour-market and social contexts *within* each country. The role of qualifications varies across the 'institutional logics' of different sectors of education (Young 2002; Raffe 2009b). For example, in general education these logics typically emphasise the use of qualifications for vertical differentiation, and in VET they often emphasise their use for horizontal differentiation. Qualifications similarly play different roles in different sectors of the labour market, for example to screen for ability, to indicate specific competences, to motivate trainees, to support human resource development, and so on (Coles, Oates and Leney 2011). Consequently the impacts of sub-frameworks, and the change processes which achieve these impacts, vary across sectors and contexts.

The third source of variability consists of the other policies which NQFs complement. Guides for policy-makers recommend that NQFs are designed as part of broader policy programmes (Grootings 2007; OECD 2007; Tuck 2007; Bjørnåvold and Coles 2010); an NQF may also provides an opportunity to introduce reforms that would otherwise be politically difficult. But if an NQF is part of a broader policy programme it is difficult to separate out its specific impacts.(6) A successful NQF similarly builds on earlier policies; the Scottish framework is widely recognised as relatively successful, but it built on incremental policies pursued over several decades; its success would therefore be difficult to replicate (Allais 2010).

For the social scientist seeking 'parsimony' of explanation, or for the policy-maker looking for simple examples of transferable best practice, this variability may be disappointing. However, it is a familiar conclusion for the comparative educational researcher. It confirms Schriewer's (1999) analysis of the complexity of comparative explanation and the need to avoid a simple dichotomy between nomothetic and idiographic approaches: researchers should look for cross-national generalisations *and* for national distinctiveness, and not see these as alternatives. Despite the continued weakness of the evidence base it is strong enough to provide several clear messages to national policy-makers introducing NQFs.

First, an NQF needs to be designed and implemented in the light of national needs, circumstances and resources. International experience may be used for policy learning, to help national policy-makers develop their own understandings and judgements of what might be required in their own countries, but not for policy borrowing; models and strategies for NQFs cannot be taken off-the-peg.

Second, the educational, social and labour-market roles of qualifications are modest, so policy changes based solely on qualifications are unlikely to have far-reaching effects (Young and Allais 2009; Coles, Oates and Leney 2011). An NQF can only be effective as part of a broader policy programme and it should be designed and implemented accordingly.

Third, the more effective NQFs rely on change processes that are appropriate to their objectives and their national contexts, including modes of governance. Frameworks which rely largely on one or two change processes, and in particular frameworks which rely solely on the transparency of individual qualifications and cultural change to be achieved through a learning-outcomes approach, have been less successful.

Fourth, the more successful comprehensive frameworks start from the existing system and promote incremental reform without undermining the trust and stakeholder relationships which underpin effective qualifications.

Fifth, the more successful comprehensive frameworks tend to be multi-level frameworks whose objectives and change processes vary across sub-frameworks and between sub-frameworks and the over-arching framework. This is a dynamic process; the development of many NQFs involves a shifting emphasis between development within sub-frameworks and integration across them. For many countries, especially if resources or expertise are scarce, an appropriate strategy may start with particular sectors or sub-sectors and let these become established before building up to a comprehensive framework.

Finally, NQFs are not indispensable means of achieving *national* policy objectives. They may, as many EU countries have found, provide the only realistic way to reference national qualifications to trans-national meta-frameworks; but most specifically national objectives of NQFs could be achieved by other means.

Notes
1.   References in this paper are to the working papers, country studies and synthesis reports published by the ILO.   Shorter versions are available in the journal issue edited by Young and Allais (2011).
2.   This paper is a small reflection of this change in mood. It is based on an invited presentation to a European Union Peer Learning Activity on NQFs, in December 2010; the presentation's 'NQF-sceptical' title - 'Do we over-estimate the potential of qualifications frameworks?'- was chosen by the organisers, not the author. However, the issue remains sensitive. In April 2011 the ETF took the unusual step of publicly distancing itself from the 'NQF-sceptical' conclusions of the ILO study in which it had been   a   partner: http://www.etf.europa.eu/web.nsf/opennews/F18552D17CAC5685C1257873002B17B9_ EN?OpenDocument (accessed 19 April 2011).
3.   An outcomes-led framework uses learning outcomes as the principal driver of change; in an outcomes-referenced framework they play a less central role (Raffe 2011).
4.   Figure 2 includes a more hypothetical fourth type, a developmental framework, which takes a future system as its starting point but does not try to drive change directly.
5.   This raises the question of why this potential has not been realised, and whether the problems that the NQF was introduced to address were those identified by the users of the framework or by the government or agency that set it up.
6.   This was the strongest (and most cogent) argument raised against what was perceived to be the 'NQF-sceptical' conclusion of this paper when an earlier version was presented to policy-makers.

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Figure 1. Possible objectives of NQFs

To make the education and training system and its component parts more transparent and easier to understand

To increase the coherence and coordination of this system and make it more 'unified'

To promote access, transfer and progression into, within and between programmes of learning

To promote the recognition and consequently the utilisation of existing skills, including those acquired through informal and non-formal learning

To establish parity of esteem for vocational and general learning

To provide an instrument of accountability and control

To update and extend standards, and make them more relevant to current needs

To make education and training more demand-focused, increasing the influence of learners and employers relative to the providers of learning

To enhance the quality of learning

To promote the international mobility of learners and workers

To provide a means for referencing national qualifications to trans-national frameworks such as the EQF

To promote lifelong learning

To transform the economy and society

Figure 2. A typology of NQFs based on their strategies for change

	starts from existing system	*starts from proposed future system*
tool for change	communications framework	(developmental framework)
agent of change	reforming framework	transformational framework