BACKGROUND READING

Note: This paper was prepared by Prof. Gordon Stanley for a forthcoming book edited by Josef Brada.

It is provided as ONLY background reading for universities representatives.

Challenges in the quest to create global qualifications and standards are driving change in education systems

Gordon Stanley

1. *Introduction*

Today public policy around the world is being focussed on education in a way not previously prominent. Human services have become an important aspect of trade for many countries and the demand for human capital is now growing globally (Bashir, 2007). As higher education is recognised as an important ingredient in the development of human and social capital (Bassanini & Scarpetta, 2001) policies relating to it are becoming central in the economic and public policy of both developed and developing countries. A direct consequence of this has been expansion of higher education with government policies to increase participation and access. The major challenges for governments from this global trend relate to funding expansion and ensuring maintenance of standards.

Development of human and social capital is seen as a driver of national competitiveness in an ever more interconnected global world. This leads to both the public and private sectors of the economy increasingly sharing concerns about the effectiveness of the processes responsible for ensuring effective educational outcomes. Today what happens in education is no longer just the province of educators and academics. Other stakeholders want to be involved more directly.

> The rapid increase in the concentration of time, attention and funds has elevated higher education to a new, higher-order concern for governments, corporations, institutions, families, and individuals around the world. The global education imperative makes it necessary to focus society's attention on how to achieve and measure greater education inclusion, higher-quality learning, and better attainment rates in order to grow economies and improve society. (Freedman, 2010, p4).

When universities were small and elite institutions on the sidelines of public consciousness they were left pretty much to themselves to determine their own agendas. Their reputation was determined by being part of an international community in which scholars and researchers earned their reputation through publication and scholarly communication and visitation. However the sector has expanded too rapidly for these old forms of reputation building and maintenance to prevail. The movement of higher education from elite to mass participation has meant a change from the periphery of public policy focus to central stage.

In this context both the private and public sectors have developed a particular focus on performance outcomes in education: How good is our education system? Is it of comparable

standard to other countries? These questions arise because of the critical nature of human and social capital. The challenges for education systems are to attempt to answer these questions and to relate to the emerging trend for the creation of global qualifications and standards.

This chapter will consider the challenges for national education systems of the global human capital market driving international student mobility, increased participation and the need for consistency of standards and comparability of qualifications. Approaches to link qualifications to common standards and outcomes are reviewed.

2. *Flows of human capital and higher education as a competitive market*

As part of globalisation there have been significant flows of human capital. Global employers are keen to recruit and move employees to where their operations are located or most profitable. Despite this, Johnson and Wolf (2009) have recently pointed out that international movement by individual people is in many ways more restrained in the 21st century than it was in the 19th century.

In the 19th century if one could afford the passage much of the world was open to immigration with few restrictions. However, today most countries control immigration. Increasingly such control of cross-border movement of people is through the imposition of work permit processes (see e.g. Media Report (2010) on Australian skilled migration rules). These commonly require formally accredited levels of education and specific vocational and occupational training. Sometimes quotas are applied explicitly for certain classes of skill to match unfilled workforce demand. In some ways movement across human capital markets in recent times has become even more restricted than movement of money across financial capital markets.

With the imposition of these new controls access to employment requires evidence of achievement of the agreed educational and occupational standard recognised within a country or regional bloc. This is becoming a major feature of national and regional agreements, and is leading to a need for more focus on the challenge of achieving global standards in educational and vocational qualifications and skills.

Largely through the emphasis of the OECD and UNESCO (Bassanini & Scarpetta, 2001), the centrality of higher education in the development of human capital has found its way into the policy agendas of developing nations. While the developing nations have been expanding their own systems they have also been sending students to developed countries in increasing numbers.

The market for international students is increasing rapidly and becoming very competitive. A 59 per cent increase occurred from 1.9 million foreign students enrolled worldwide in 2000 to 3.0 million enrolled in 2007 (McNamara & Williamson, 2010). As Bashir (2007) has pointed out the

shift in international student movement from developing countries to developed countries has moved from aid-funded places to fee-based places. Thus higher education has become a tradable commodity with large transfer payments. Of the top eight host countries for international student destinations only three do not export higher education on commercial terms. Higher education systems in many developed countries have become dependent upon income from fee paying students from developing countries.

The international student market is diversifying as some developing countries also set internationalization as an agenda for their own systems. Some developing higher education systems are starting to move up the international league tables on which universities are compared as their investment matures. Many have been concentrating on getting their institutions to improve their performance on research indicators which dominate international rankings. China, Brazil and India now have a greater growth in articles published in peer-reviewed journals than the US which up until now has been the world leader (Cookson, 2010).

Much of the money behind international student enrolments is private where the individual is funding their chance to improve occupational opportunities denied in their own country because of excess demand for higher education or a perceived lower status of their home institutions. The driver for such movement is well stated by Bashir:

> Overall, employer demand for skilled labor that can be used in a variety of geographic locations or than can work with multinational teams, which arises from the increasing integration of product and factor markets, is a powerful factor behind growing student demand for internationally recognized qualifications. Such qualifications enable students to access the global market for highly skilled labor with much higher returns on their investment (Bashir, 2007, p35).

Clearly the global human capital agenda leads to a demand for comparable standards and qualifications being delivered in the variety of modes of higher education provision.

3. *Challenges in funding higher education*

The importance of human capital creates a major challenge for government investment and regulation in higher education and vocational training. The cost of providing mass higher education and vocational training has become too great for governments to bear without encouraging greater financial contributions from the private sector and from students themselves.

Most governments have moved towards a fee and loan scheme, often with loan repayments being contingent on employment income. However even governments guaranteeing and subsidizing loans is becoming an issue for some governments under fiscal pressure.

With the great growth in participation in recent years in developed countries the rate of return to the individual who invests in their higher education is likely to decline, making it less attractive as a form of personal investment. Unless the employment market can absorb the dramatic increase in university graduates it is unlikely that the rates of return to individuals when 10-15 per cent of an age cohort attends university can be sustained when 50 per cent of an age cohort attends.

Some evidence of change of rate of return is occurring in the UK. Nicola Woolcock (2010) recently reported a postgraduate qualification such as a master degree no longer carries the weight it used to, as increasing numbers of postgraduate qualifiers compete for jobs in UK workplaces.

The study, commissioned by the British Library and the Higher Education Policy Institute (Hepi), found that the benefit of taking another qualification after graduating was decreasing. In 2003 graduates taking a postgraduate course earned, on average, 18 per cent more than peers who had obtained a first class degree and 31 per cent more than those who achieved a 2:1. By 2008 this had fallen to 15 per cent and 27 per cent respectively. Woolcock concluded:

> Such a situation would be of no small concern: if students are increasingly expected to take postgraduate qualifications to differentiate themselves from their peers, while the financial returns to this study are decreasing (and fees increasing), it may become increasingly difficult for those from less economically secure backgrounds to consider this course.

The UK government has a major debt burden to confront, yet wants to see university education continuing to be 'world class' and accessible. In the middle of the recent global recession the former UK Secretary of State for Business, Innovation and Skills, Peter Mandelson released the *UK Higher Ambitions Policy Paper* in which he stated:

> The Government will not relent on its commitment to wider participation and fair access to our universities. Higher education equips people with the skills that globalisation and a knowledge economy demand, and thereby gives access to many of this country's best jobs. Everyone, irrespective of background, has a right to a fair chance to gain those advantages (Mandelson, 2009, p3).

Recognising that the policy directions were being announced in a period of financial restraint he nonetheless said:

> We will need to focus on resources where they can have the greatest return in excellence and social and economic benefit. In all likelihood that will mean more research concentration where institutions are strongest. It should also drive a greater insistence on

> the value of diversity in the mission statements of our universities. (Mandelson, 2009, p4)

The pressures to cut government funding to UK universities will continue with the new UK government facing major cuts in public spending. While government funding is reducing one of the requirements for UK universities is to ensure that their activities are maintained at the required standards.

Achieving minimal standards is no longer sufficient for UK universities as they need to have standards sufficiently high to continue to attract overseas full-fee students, on whom they are increasingly reliant as a source of income. Of course this is not just a UK problem, but one facing a number of developed countries whose higher education institutions have become dependent on such fee-paying students.

One response to demand and the difficulty of governments continuing to be a major funder has been moves to encourage greater private investment in all forms of education. As direct government grants recede and indirect government subsidies in the form of tax credit for donors and other incentives for industry to fund projects becomes more prominent in the sector so higher education institutions become more corporate in aspiration and function.

In general and higher education most private providers to date have been owned and run by not-for-profit trusts. For-profit providers have been quite common in the area of vocational and industry training. This situation is now changing with for-profit higher education providers being the fastest growing sector internationally. Many of the smaller providers are parasitic on the national systems and select areas where demand is unsatisfied and infrastructure requirements for entry to the market are not excessive.

While competition from for-profit providers is seen to be beneficial in providing efficiency pressures on traditional providers, there are issues about whether quality is being maintained. Especial concern is focused on niche players who are not well capitalized and who tend to be small scale operators. Given their profit motive and the relatively easy entry price concerns centre around how adequately they compare in outcomes to more traditional higher education institutions. Again the common response is a call for better assurance that expected standards are being delivered.

4. *Global pressures raising issues about the regulation of higher education*

Roger King (2009) has pointed out that the emphasis on the role of universities in human capital development has led to a growing global interest in how universities are regulated. King considers that universities increasingly see themselves as part of an international trend in which marketization has become a form of regulation in itself. Marketization involves processes of

purposeful standardization, normative internalization, and markets as solutions for coordination and collective action problems, as well as hierarchical command.

While it could be argued that the global forces of marketization are becoming a potent driver of self-regulation, in most countries governments are still a major funder and subsidizer of higher education. As such they are seen as responsible agents for ensuring the quality of the systems in their jurisdiction. Modern approaches to accountability means that governments are under pressure to hold higher education accountable even as they are held accountable. The challenge is to create an appropriate regulatory and accountability system that provides credible evidence about outcomes.

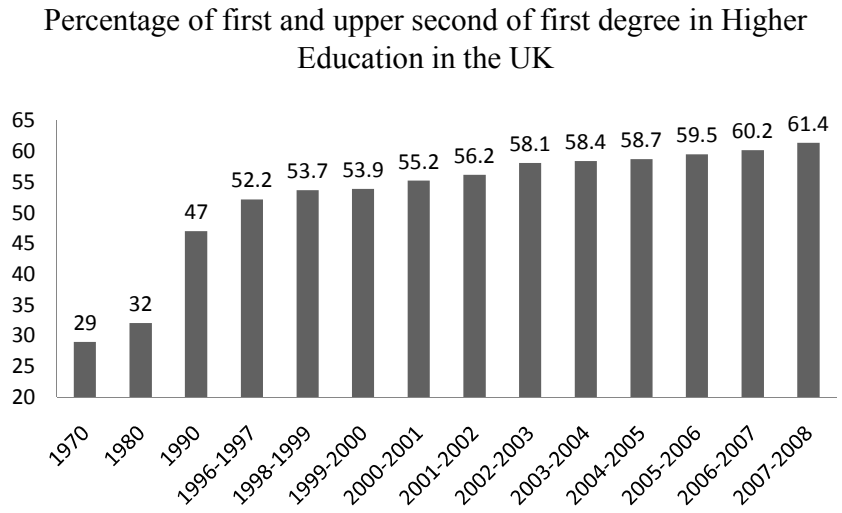
The increased development of higher education and the growth of institutions has created pressure on governments to develop regulatory processes to ensure that students receive appropriate outcomes from all providers of higher education. In most countries the approach to regulation of higher education and qualifications has involved the development of accreditation and registration processes, qualification frameworks, and quality assurance processes.

Additionally professions generally have their own profession specific national accreditation processes to ensure achievement of professional competencies and standards. In many cases these are becoming common across national borders through interaction between international councils of national professional associations who have a common interest in ensuring the global recognition of equivalent qualifications for practice.

Historically these processes have begun at national level and the prime concern has been to achieve standards required for national purposes. Despite such processes issues are constantly arising about how effective they are in maintaining standards. For example, in the UK the expansion of higher education has been made on the assumption that common standards are being used across universities. The peer-based system of external examiners has been thought to provide an appropriate check on the maintenance of these common standards.

Despite this external moderation process, data on student performance in the UK has raised issues about grade inflation. There is skepticism about the rate of upper seconds and firsts being given in degrees results. As can be seen in Figure 1 the percentage of graduates with first (A) and upper second (B) grades has steadily increased over the years.

Figure 1



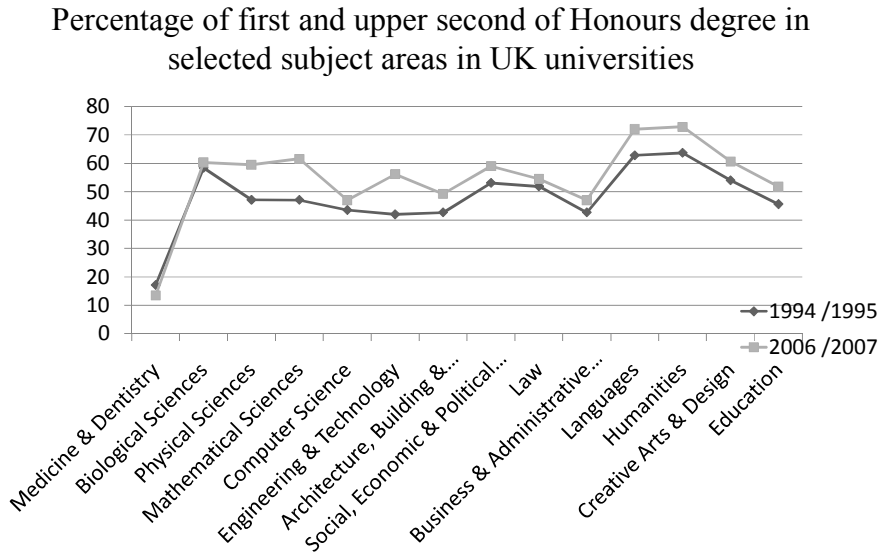
Data source:1970 -1990, MacFarlane (1992); 1996-2008, IUSSC report(2009), vol. 1, pp107

The figure shows a large increase from 1980-1990 with more modest increases since then. In response to the suggestion that grade compression or inflation is occurring by manipulation, rather than by attainment, five claims have been made:

- Students are well prepared and universities are attracting better students
- Students work harder than before
- Teaching quality has improved despite larger classes
- Marking is more rigorous than ever
- Academic standards are under scrutiny by the Quality Assurance Agency

All of these claims may seem reasonable, but evidence in their favour is not that strong as a credible explanation for the top grade increase. To begin with the entry qualifications (GCE A-levels) themselves have been criticized for evidence of rather serious grade inflation (Stanley & Tognolini, 2008). Perhaps more questions follow from the fact that grade improvement is variable in interesting ways across field of study as is shown in Figure 2.

Figure 2.



Data source: HESA

In this figure some fields of study have maintained fairly consistent proportions in aggregate over the time period while others have shown considerable leaps. Yorke et al (2002) found that 22% of UK first degree awards in Mathematics were at first class level, while for law it was only 4%. They concluded that this variation appeared to have little relationship at all to any identifiable measure of input.

This raises issues about whether some fields of study may be more inclined to grade inflation than others. While giving higher grades may be thought to encourage recruitment to a discipline, there is evidence that it may not over-ride other competitive pressures between fields of study (Stanley & MacCann, 2009).

Suggestions of grade 'inflation' are not confined to the UK. Using data on self-reported GPAs, Kuh and Huh (1999) found that average grades increased for all types of post-secondary institutions in the USA between the 1980s and 1990s, with the largest increases observed at research universities. Analyzing institutional data from nationally representative data sets in the US, Adelman (1996) reported average grades rising between the 1980s and the 1990s, though not between the 1970s and 1980s. Eaton & Eswaran (2008) examined time-series data on grades awarded by discipline in three Canadian universities. There were persistent and significant differences across disciplines in both the percentage of students who received high grades and in the average grade awarded. A very substantial portion of these differences was attributable to differences in grading standards.

An apparent disconnect between increase in number awarded high grades and change in input is prima facie evidence of grade inflation occurring. When academics are required by their institutions to allocate grades in accord with fixed proportions of the student population ('grading on the curve') grade inflation is not a problem (Tognolini & Stanley, 2007). However as modern practice requires assessment to provide information about the outcomes of education, standards-referenced reporting of results has become more common (Sadler, 1987).

Standards-referenced reporting of student achievement does not in principle restrict the number of students who can receive a given grade. Attainment of the grade is only conditional upon judgment of student performance with respect to the appropriate standard for the grade. Such judgments potentially can be subject to local interpretation which may not be consistent overtime. Typically at undergraduate level judgments may be dependent on a single instructor. This potentially allows for grade allocation to be able to drift and there are many incentives for such drift to occur upwards and produce grade inflation. Some of the reasons why more standardization and moderation against standards is being called for have been well expressed by Coates (2010):

> Within self accrediting institutions, the assessment of student competency and capability has largely been managed by teaching staff – even in highly regulated professional programmes. Teachers have had the freedom to shape content and pedagogy and assess the quality of outcomes, often using very localized materials, processes and individual frames of reference. Collaborations, compliance with accreditation requirements, outsourcing and the use of standardized materials have led to pockets of generalisability. By and large, however, the examinations and assignments that have provided the means of determining the standards of learners' attainment have been referenced to the localized frames in which the educational interactions have occurred (p173).

Worries about grade inflation and maintenance of standards have led to governments addressing the adequacy of their quality assurance and regulatory measures. In the UK, the *House of Commons Innovation, Universities, Science and Skills Committee* concluded in its 11th Report:

> First, the system in England for safeguarding consistent national standards in higher education institutions is out-of-date, inadequate and in urgent need of replacement. The current arrangements with each university responsible for its own standards are no longer meeting the needs of a mass system of higher education in the 21st century with two million students.
>
> Given the amount of money that the taxpayer puts into universities it is not acceptable, as we found during our inquiry, that Vice-Chancellors cannot give a straightforward answer to the simple question of whether students obtaining first class honours degrees at different universities had attained the same intellectual standards. The body that currently "assures quality", the Quality Assurance Agency for Higher Education (QAA), focuses

> almost exclusively on processes, not standards. This needs to change. We call for the QAA to be transformed into an independent Quality and Standards Agency with a remit, statutory if necessary, to safeguard, monitor and report on standards. (Students and Universities 2009, p5).

In Australia, where the global recognition of degrees is felt to be essential to the sustainability of its large education export industry, Brendan Nelson when Federal Minister for Education raised similar issues about his system:

> Over the years there have been allegations that university standards are falling. Some critics contend that some universities now offer courses lacking intellectual rigour and that there has been a 'dumbing down' of universities. There are also concerns about deterioration in the calibre of students entering university but the available evidence does not support this. There have been claims that 'softmarking' has become common practice, and the quality of education has generally been compromised. (Nelson 2002:19)

As a response to concerns about standards in the system of higher education the Australian Universities Quality Agency (AUQA) issued a discussion paper on setting and monitoring academic standards (AUQA, 2009). After consultation with the States, the Australian Government has agreed to establish a new body to replace AUQA. To be known as the Tertiary Education Quality and Standards Agency (TEQSA), it will combine aspects of regulation and quality assurance with a specific remit to develop minimum standards for universities.

The perceived failure of quality assurance agencies with their existing processes to ensure comparability of outcome standards is leading to the development of alternative approaches. Those based on the use of standardized external assessments will be discussed in section 6 of this chapter.

Clearly with the growth of international education and the global human capital market countries are looking beyond their borders for comparability. How to meet this challenge is an important matter for education systems.

5. *The challenge of standards-based qualifications frameworks*

In Europe and in many Commonwealth countries the first approach to comparison has been to develop qualifications frameworks to classify levels of qualifications and to define their common characteristics. Probably the most ambitious project to get an agreed approach to standards has been attempted by the European Union where the common labour market has led to the need for creating better alignment and comparable standards across the education and training systems.

The Bologna Process signed by 29 European countries in 1999 has been the driving force towards convergence of national systems of higher education. The goal has been seamless movement, cross-institutional credit transfer and automatic cross-border recognition.

In 2010 the Bologna process is being transformed into the European Higher Education Area (EHEA). The London Communiqué describes the EHEA:

> Building on our rich and diverse European cultural heritage, we are developing an EHEA based on institutional autonomy, academic freedom, equal opportunities and democratic principles that will facilitate mobility, increase employability and strengthen Europe's attractiveness and competitiveness (London Communiqué, 2007, p1).

The European Framework for Lifelong Learning (EQF, 2008) is very ambitious with respect to harmonising education and training in the EU member states, accession countries and EEA countries. It has been developed as a reference or 'meta-framework' against which individual countries can map their national frameworks in order to articulate equivalences of level between qualifications within the EU. The EQF brings together in one framework all sectors of education, general, higher and vocational education. The framework involves generic descriptors across three domains of outcomes for eight levels. The domains describe knowledge, (cognitive and practical) skills, and responsibility and autonomy (labelled 'competence').

Level 1 relates to qualifications obtained at the end of compulsory education, while the top three equate essentially to the three cycles in the EHEA framework. The goal is for member countries to align their national frameworks to the EQF. Many countries have not had QFs in the past so have needed to develop them and then align to the generic standards in the EQF.

What do generic level descriptor standards look like and how useful are they for the purpose of ensuring minimum standards? Table 1 presents the set of descriptors indicating the learning outcomes relevant to qualifications in any system of qualifications for level 1 (end of compulsory schooling) and level 5 (corresponding to the descriptors for the higher education short cycle within the EHEA).

Clearly such descriptors are very generic and only become meaningful when exemplars of qualifications are aligned to these standards. Selection of exemplars from student work in effect becomes the practical guide for understanding the standard. The problem is that the generic statements are capable of very different interpretations which need to be resolved in each case being aligned.

Table 1: Sample of Descriptors Defining Levels in the EQF

Knowledge	**Skills**	**Competence**
Theoretical &/or Practical	Cognitive & Practical	Responsibility & Autonomy
Level 1 Basic general knowledge.	*Level 1* Basic skills to carry out simple tasks.	*Level 1* Work or study under direct supervision in a structured context.
Level 5 Comprehensive, specialized, factual & theoretical knowledge within a field of work or study & an awareness of the boundaries of that knowledge.	*Level 5* Comprehensive range of cognitive & practical skills required to develop creative solutions to abstract problems.	*Level 5* Exercise management & supervision in contexts of work or study activities where there is unpredictable change. Review & develop performance of self & others.

Extracted from EQF 2008

Lester (2008) reported an attempt to align the English and Northern Ireland Qualifications and Credit Framework (QCF) levels to that of the EQF. Ten qualifications and units were chosen, comprising five units and qualifications from the QCF; two NVQs; a GCSE and a GCE A-level; and a Higher National specification. The findings from the mapping exercises carried out by Lester indicate that, while there are legitimate differences in emphasis between the QCF and the EQF, it is possible to demonstrate a consistent relationship between the levels of the two frameworks (Lester, 2008, p11).

When attention is focused on higher education, Andrejs Rauvargers points out:

> in most higher education systems the learning outcomes associated with each qualification are not yet clearly articulated in term of the knowledge, skills and competences the qualification holder is expected to possess (Rauvargers, 2009 p113).

In principle the task is much easier in vocational education and training which in many countries has adopted competency based assessment (Koeppen et al, 2008). Many professions in higher education have also moved considerably towards defining competency standards. Definition itself takes considerable time to develop and is not without difficulties. Then it is important that these learning outcomes or competencies are reliably assessed.

Not surprisingly there has been considerable debate as this process has been attempted in Europe. As Johnson and Wolf (2009) have indicated:

> Learning outcomes, though, are neither an input variable nor a genuine outcome variable. At their best, learning outcomes convey some information about what a programme of study or training is expected to achieve in terms of what holders of the resulting qualification 'know, understand and can do'. But the key term here is 'expected'.
> Merely attaching learning outcomes to courses and programmes does not guarantee the intended outcome. Nor does some sort of internal quality assurance process which leads to self-certification (Johnson & Wolf, 2009, p4).

The UK Quality Assurance Agency (Quality Assurance Agency, 2009) and the EU Tuning Process (European Commission, 2009) have developed a series of subject benchmark statements that are designed to clarify outcomes and guide the discussion of standards of defined courses of study. These statements have focused the attention of system-level discipline groups around what university qualifications are intended to achieve. The UK Quality Assurance Agency also requires each institution to write specifications for each program that align with the corresponding subject benchmark statement. However without standardised assessment against the 'benchmark' statements, there may be little convincing evidence that students have actually reached expected levels of competence.

Consistency of assessment of learning outcomes has been assumed to be occurring in competency based systems because of the explicit nature of the competencies being assessed. Indeed in the vocational education and training sector it has been claimed that both validity and reliability of assessment can be assured when there has been appropriate industry training of assessors (Rutherford, 1995). While there is some truth to this claim, studies of workplace assessment indicate that even among experienced assessors there can be greater variation than is desirable (Innesa & Strakerb, 1999).

However in higher education the different approaches to assessment ranging from normative systems to competency ones means that there is often variation within institutions and discipline groups as well as across systems. Karran (2005) has looked into systems operating with EU institutions as part of the Bologna process and found that there were considerable difficulties in the operation of the European Credit Transfer System in higher education because of the differences in assessment and grading systems.

Nevertheless he argued that:

> The level of convergence between differing national examination systems is greater than expected, given the number of states and their diverse histories. This suggests that creating and implementing a European system of grading could be technically possible (Karran, 2005,p12).

The hope for the EQF is that it will provide greater incentive for all systems in the EHEA to move towards a more consistent and transparent system of assessing and reporting student

outcomes. In the next section we look at developments which focus on recent work on external measures of higher education outcomes.

6. *External measurement of outcome standards*

In a review of the assessment of higher education learning outcomes for the OECD, Nusche (2008) reported that

> Brazil is currently the only country where testing is mandatory for students from all HEIs and takes place on the national level. But large-scale direct assessments also exist in Australia, Mexico and the USA. In Australia and Mexico, institutions may voluntarily subscribe to nation-wide standardized tests for graduating students. In the USA, nongovernmental assessment agencies offer a vast array of different tests that are being used by hundreds of HEIs every year. Although not covering all HEIs, such widely administered assessment instruments also allow for comparisons of results across programmes and HEIs (p6).

The emphasis in these direct assessments of learning outcomes is on cognitive learning. The Brazilian ENADE focuses on the domain-specific knowledge and skills that are thought to be essential and common to all HEI curricula in the specific domain (Verhine & Dantas, 2005). The ENADE involves specific tests for 13 different subject areas as well as assessing general content knowledge and skills. The tests used in Mexico use a similar approach.

Following the Spellings Commission on the Future of Higher Education (Spellings,2006), the American Association of State Colleges and Universities and the National Association of State Universities and Land-Grant Colleges developed a programme called the Voluntary System of Accountability (VSA). As of April 2009, 321 institutions from 50 states had signed up for the VSA (Liu, 2009, p1).

The purpose of VSA is to evaluate core educational outcomes in public universities and colleges by assessing skills that are common, multidisciplinary and university-wide. These generic 'outcome skills' are written communication, critical thinking and analytical reasoning.

They are assessed by an institution choosing one of three standardized tests: The Measure of Academic Proficiency and Progress (MAPP) developed by ETS, the Collegiate Assessment of Academic Proficiency (CAAP) developed by ACT and the Collegiate Learning Assessment (CLA) offered by the Council for Aid to Education.

These tests have been developed to make use of computer delivery and efficient scoring. For example, the CLA can be delivered on-line and scored automatically, making it a cost-effective instrument. The CLA measures students' critical thinking, analytic reasoning, problem solving, and written communication skills with meaningful, holistic, complex tasks. Some of the CLA tasks emphasize written communication skills whereas others involve realistic "work-sample" performance tasks. The performance tasks require students to use an integrated set of skills to

answer several open-ended questions about a hypothetical but realistic situation. It also requires students to marshal evidence from different sources such as letters, memos, summaries of research reports, maps, diagrams, tables, etc. All the tasks are appropriate for college students across a wide range of undergraduate academic majors and general education programs and have a 'real world' quality to them as they assess the generic skills (Klein, et al 2007).

The VSA involves looking at the value added in these critical outcome skills as assessed by one of the three tests between fresher and senior years. The emphasis is on getting evidence about institutional performance rather than individual performance, Hence the design of the program is to be as cost effective and efficient as possible. A cross sectional design is used with samples of freshers and seniors being tested at the same time, rather than tracking students over four years. Admission scores on either the SAT or ACT are used to control for admission scores.

The value-added computation compares learning gains from fresher to senior year with the expected learning gains given students' admission scores. The program is still rather new and has some problematic issues that have not been adequately answered. Student participation has been voluntary so there is no guarantee that they are representative of their institution or necessarily motivated to perform well.

One of the tests used in the American VSA, the CLA, has been adopted to test generic skills by an initiative undertaken by the OECD called the Assessing Higher Education Learning Outcomes (AHELO) project. The OECD launched the AHELO feasibility study in 2008 with the support of both governments and higher education institutions to determine, by the end of 2012, whether an international assessment of higher education learning outcomes is scientifically and practically possible. The aim of the feasibility study is thus to explore the feasibility of measuring higher education quality across different institutions, countries, languages and cultures. Details of the project and progress reports can be accessed at www.oecd.org/ahelo.

According to the OECD, AHELO will potentially be the largest, most comprehensive assessment of universities yet devised. The aim is to measure various types of learning outcomes and to examine as wide a range as possible of criteria to assess their influence on those outcomes The feasibility study is composed of four 'strands' of work: three assessments to measure learning outcomes in terms of generic skills and discipline-related skills (in engineering and economics) and a fourth – research based– value-added strand.

The discipline-related strands measure students' competences in their field, looking beyond the simple demonstration of factual knowledge. Students will be expected to demonstrate 'above content' application of knowledge to a new situation. Economics and engineering have been chosen as these disciplines are assumed to be most similar across diverse cultures. The OECD has worked closely with the Tuning Educational Structures in Europe Association and that has led to collaboration with a number of recognised experts in these two fields.

The feasibility study has two key aims:

1. To test the science of the assessment – whether it is possible to devise an assessment of the outcomes of tertiary education which enables reliable statements about the performance/effectiveness of learning in institutions of very different types, and in countries with different cultures and languages

2. To test the practicality of implementation and of motivating institutions and students to participate. In addition, the feasibility study involves related work exploring other options for capturing measures of tertiary education quality indirectly.

The participation of OECD members in AHELO is growing with up to 15 countries involved as follows:

- CLA – US, Finland, Korea, Norway, Mexico
- Engineering – Australia, Japan, Sweden, Colombia,
- Economics – Italy, Belgium, Netherlands

The venture is being entered into with recognition that there are many issues to be resolved in the implementation and analyses from this feasibility study. Plans for the evaluation of the feasibility study include extensive and careful psychometric analysis, technical reviews by international experts as well as an international conference in late 2012. At this gathering technical experts, country representatives and different stakeholder groups are to discuss whether, and how, to take the results from the feasibility study forward. Assuming positive results, this proof of concept would constitute a key pillar for longer-term work as it would assist OECD countries in deciding whether to launch a fully-fledged AHELO main study.

The external outcome measures used in the VSA and AHELO feasibility study represent early stages in the development of assessment of higher education learning outcomes. It is debatable whether such measures provide a sufficient basis for establishing comparable standards across institutions. Judgments about the level of outcomes and alignment with qualification framework standards will require an agreed standards setting process. Even with standardized psychometric tests consistency is found to be dependent on the setting process selected (Cizek, 2001).

The measures and processes currently developed fall well short of the requirement if they are to form the basis for global comparison of qualifications and standards. Alderman and Brown (2005) argue processes which affect the standing of institutions and their attractiveness in the marketplace need to be robust. If they are not, and revenue suffers because of adverse judgment about quality based on such measures, one can expect recourse to legal challenges to the process.

7. *Conclusion*

Global competition in higher education is driving change in education systems. Systems are expanding to meet the challenge of demand for human capital. This expansion and the international student market are leading to concerns about quality and comparability of standards, essential ingredients for global recognition of qualifications. Considerable progress is occurring across systems within the EU in the task of developing recognition of higher education qualifications and alignment to the common qualifications framework, the EQF. Nevertheless within Europe the task is immense and the endeavors mentioned in this chapter are revealing of the challenges facing such developments.

The idea of common global qualifications and standards has a strong appeal to those with a vested interest in the global movement of human capital. Establishing minimum global standards may become feasible but finding cost-effective and agreed means of establishing and then auditing them is a challenge yet to be met. The AHELO project is an ambitious endeavour to further the cause of getting greater understanding of how systems compare on some common outcome measures.

The quest to create global qualifications and standards is understandable, but difficult to deliver as it presupposes an international process which participants believe is transparent and fair. Bodies such as UNESCO and the OECD are somewhat slow-moving bodies dependent upon achieving consensus through pilot work and feasibility studies.

In a competitive world those countries with an initial advantage will be looking for solutions that are not too disruptive for their institutions. Moreover higher education has gained its position as a driver of economic and social development by being an engine of creativity and change. Too much focus on commonality and regulation may inhibit the flexibility necessary for institutions to experiment and challenge existing knowledge and practice.

In similar vein Fernie and Pilcher(2009) state:

> Historically, previous studies have shown tensions between the imposition of uniformity in education and resistance to this imposition from education institutions. The recent 'global tsunami' of national qualifications frameworks has been so swift that research has been unable to keep pace with its development and diffusion (p230).

8. *References*

Adelman, C. 2004: *Principal Indicators of Student Academic Histories in Postsecondary Education, 1972-2000,* Washington, DC: U.S. Department of Education, Institute of Education Sciences.

Alderman, G. & Brown. 2005: Can Quality Assurance Survive the Market? Accreditation and Audit at the Crossroads. *Higher Education Quarterly*, 59, 4, 313-328.

AUQA. 2009: *Setting and Monitoring Standards for Australian Higher Education*. Retrieved from http://www.auqa.edu.au/

Bashir, A. 2007: Trends in International Trade in Higher Education. *Education Working Paper Series*, number 6. Washington: The World Bank.

Bassanni, S. & Scarpetta, S. 2001: *Does Human Capital Matter for Growth in OECD Countries? Evidence from Pooled Group Mean Estimates,* Paris: OECD Economics Department Working Papers, no. 282.

Cizek, G.J. (Ed). 2001: *Setting Performance Standards: Concepts, Methods and Perspective,* Mahwah, N.J.: Erlbaum.

Coates, H. 2010: New Directions in Quality Management. In C.S. Nair, L. Webster & P. Mertova (eds) *Leadership and Management of Quality in Higher Education,* Oxford: Chandos .

Cookson, C. 2010: China Scientists Lead World in Research Growth. Retrieved from *Financial Times* UK. January 25, 2010. (FT.com)

Eaton, C.B. & Eswaran, M. 2008: Differential Grading Standards and Student Incentives. *Canadian Public Policy / Analyse de Politiques*, Vol. 34, No. 2, 215-236.

European Commission (EC) 2009: *European Tuning Process*. Accessed from: http://unideusto.org/tuning

EQF. 2008: *The European Qualifications Framework for Lifelong learning (EQF)*, Brussels: Office for Official Publications of the European Communities.

Fernie, S. & Pilcher, N. 2009: National Qualification Frameworks: Developing Research perspectives. *Quality in Higher Education*, 15, 3, 221-232.

Freedman, G. 2010: Unlocking the Global Education Imperative. Retrieved from http://www.blackboard.com/CMSPages/GetFile.aspx?guid=6032f8df-b6ba-4510-81d2-3198459529dc

Innesa,E. & Strakerb, L.1999: Reliability of Work-related Assessments. *Work* 13 (1999) 107–124.

Johnson, S. & Wolf, A. 2009: Qualifications and Mobility in a Globalizing World: Why Equivalence Matters. *Assessment in Education: Principles, Policy & Practice*, 16, 1, 3-11.

Karran, T. 2005: Pan-European Grading Scales: Lessons from National Systems and the ECTS, *Higher Education in Europe*, 30, 1, 5-22.

Kuh, G. & Hu, S. 1999: Unraveling the Complexity of the Increase in College Grades from the Mid-1980s to the Mid-1990s, *Educational Evaluation and Policy Analysis*, 21, 1-24.

King, R. 2009: *Governing Universities Globally: Organisation, Regulation and Rankings,* London: Edward Elgar.

Klein, S., Shavelson, R., Benjamin, R., & Bolus, R. 2007: The Collegiate Learning Assessment: Facts and Fantasies. *Evaluation Review*, 31,415-439.

Koeppen, K., Hartig, J., Klieme, E. & Leutner, D. 2008: Current Issues in Competence Modeling and Assessment. *Zeitschrift für Psychologie*, 216 (2), 61-73.

Lester, S. 2008: Linking the Qualifications and Credit Framework levels to the European Qualifications Framework. *Report Commissioned by the Qualifications and Curriculum Authority*. Taunton: Stan Lester, 23 October.

Liu, O.L. 2009: Measuring Learning Outcomes in Higher Education. *R&D Connections*,10, June.

London Communiqué. 2007: Towards the European Higher Education Area: Responding to Challenges in a Globalised World. *Bologna Process*, London.

Mandelson, P. 2009: *Higher Ambitions: The Future of Universities in a Knowledge Economy.* London: Department for Business, Innovation and Skills.

Media Report 2010: Tighter Australian Skilled Migration Rules Squeezes Higher Education. http://www.visabureau.com/australia/news/17-08-2010/tighter-australian-skilled-migration-rules-squeeze-higher-education.aspx

McNamara, J. & Williamson, A. 2010: Measuring and Benchmarking the Internationalization of Education, London: British Council and Economist Intelligence Unit. http://www.britishcouncil.org/going_global_4_-_shaping_the_next_generation_-_j_ncnamara_a_williamson_-_pp.pdf

Nelson, B. 2002: *Higher Education at the Crossroads: An overview paper,* Canberra: Department of Education, Science and Training.

Nusche, D. 2008: Assessment of Learning Outcomes in Higher Education: a Comparative Review of Selected Practices. *OECD Education Working Paper No. 15*. Paris: oecd.org.

Quality Assurance Agency (QAA) 2009: *Subject Benchmark Statements*. Accessed from: www.qaa.ac.uk

Rauvargers, A. 2009: Recognition and Qualifications Frameworks. *Assessment in Education: Principles, Policy & Practice*, 16, 1,111-125.

Rutherford, P.D. 1995: *Competency Based Assessment*, Melbourne, Pitman.

Students and Universities 2009: House of Commons Innovation, Universities, Science and Skills Committee Eleventh Report of Session 2008–09. London: The Stationery Office Limited

Sadler,D.R. 1987: Specifying and Promulgating Achievement Standards. *Oxford Review of Education,*13,191-209.

Spellings, M. 2006: *Action Plan for Higher Education: Improving Accessibility, Affordability, and Accountability,* Washington, DC: U.S. Department of Education.

Stanley, G. & MacCann, R.G. 2009: Incorporating Industry Specific Training Into School Education: Enrolment and Performance Trends in a Senior Secondary System. *Journal of Vocational Education and Training*, 61,459-466.

Stanley, G. & Tognolini, J. 2008: Performance With Respect to Standards in Public Examinations. *Proceedings of the 34th IAEA Conference*, Cambridge, UK.

Thomas, P., Roe, J. & Tarrant, M. 2005: *Inquiry into Vocational Education and Training: A Report to the Minister for Education and Training, Lynne Kosky, MP*, Melbourne: Department of Education and Training.

Tognolini, J. & Stanley, G. 2007: Standards-Based Assessment: a Tool and Means to the Development of Human Capital and Capacity Building in Education. *Australian Journal of Education*, 51, 2, 129-145.

Verhine, R.E. and Dantas, L.M. 2005: *Assessment of Higher Education in Brazil: From the Provão to ENADE.* Document prepared for the World Bank, Responsible party: Alberto Rodriguez

Woolcock, N. 2010: Poor Reward for a Masters: Post-graduates Find Pay Premium Eroded. Retrieved from The Times January 21., 2010. http://www.timesonline.co.uk/tol/news/uk/education/article6996004

Yorke, M., Barnett, P., Bridges,P., Evanson,P., Haines,C., Jenkins,D., Knight., P., Scurry,D., Stowell, M., & Woolf., H. 2002: Does Grading Method Influence Honour Degree Classification? *Assessment and Evaluation in Higher Education, 27, 3, 269-279.*