CHEA International Quality Group

Quality Principles

Commentary on Quality Principle #7

*Quality and change*: Quality higher education needs to be flexible, creative and innovative; developing and evolving to meet students' needs, to justify the confidence of society and to maintain diversity

**Background**

The CHEA International Quality Group considers that the growing international activity within higher education has created a sense of urgency for a shared understanding of educational quality. It has developed seven quality principles to contribute to such understanding whilst respecting the many differences that shape our systems of higher education and our perspectives on quality.

To stimulate discussion of the principles CIQG has asked a number of scholars and practitioners to write commentaries on each of them. Although the principles themselves are articulated briefly so as to be as universally relevant as possible, these commentaries aim to inspire debates about their application in local contexts.

Principle #7 calls for flexibility, creativity and innovation so that higher education can develop and evolve to meet students' needs, to sustain the confidence of society and to maintain diversity. This commentary will address three questions:

- What would it take to implement the principle?
- What challenges would implementation involve?
- How can this principle enhance quality?

**Implementing change: drivers and actors**

Change usually requires a combination of *drivers of change* bringing pressure from the external environment, and *internal actors* pushing for change within institutions. We shall identify four drivers of change and consider that academic staff (faculty) and students are the key internal actors.

External drivers

Higher education is in a state of turbulence in many countries. Four drivers of change are particularly important: weak economies, graduate unemployment and underemployment, Internet technology and public attitudes as expressed through the news media. These four drivers combine to set directions for change, so we shall first describe each one succinctly before exploring the directions for change that they exert together. What will be the quality implications of these changes?

*Economies*

The global economy is still struggling to recover from the 2008 recession as new shocks appear, such as the slowdown in China. This economic uncertainty is making governments cautious about public spending, notably on higher education. Real incomes are stagnant in many countries, making it hard for universities to balance budgets by raising fees.

*Unemployment*

There is a scourge of unemployment and inactivity among young people, dubbed 'generation jobless' by The Economist newspaper (2013). Nearly 300 million young people, one quarter of the world's youth, are not in employment, education or training. Yet employers complain that they cannot find graduates with the right skills and competences to fill some jobs.

Moreover, countries as different as the US and China have serious problems of graduate underemployment. Many graduates in these and other countries are taking jobs that do not require university education – such bartenders or retail clerks. Education and the job market seem to be out of sync.

*Technology*

Technology has enabled us to increase efficiency, effectiveness and quality of the products and services we depend on in everyday life. There is no good reason why technology could not similarly improve the impact of higher education and cut its costs, but this is only happening slowly. Open universities in various countries have shown that lower cost and higher quality can be combined but their methods have not yet had much impact on conventional campuses.

*News media*

Media coverage is our fourth driver of change. This relates to Quality principle #3, which states that the quality of higher education is judged by how well it meets the needs of society, engenders public confidence and sustains public trust. Media coverage is a reflection of a certain lack of public confidence in higher education rather than its cause. In many countries news reporters have become markedly less respectful of higher education than they once were, with much of their criticism being about failure to adapt to changing times. Here are three examples.

The global media covered enthusiastically the MOOCs (Massive Open Online Courses) frenzy that elite US institutions started in 2012. Early coverage hailed a revolution in higher education that would allow everyone to study free online. This was followed by a backlash when teaching methods on most campuses continued much as before.

In the US the book *Academically Adrift: Limited Learning on College Campuses'* (Arum & Roksa, 2011), which reported that students are not learning much, attracted extensive

commentary. One review (Jaschik, 2011) cited the finding that '36 percent of students did not demonstrate any significant improvement in learning over four years of college'. It continues: ' the main culprit... is a lack of rigor... 32 percent of students each semester do not take any courses with more than 40 pages of reading assigned a week, and half don't take a single course in which they must write more than 20 pages over the course of a semester... Students spend, on average, only about 12-14 hours a week studying, and that much of this time is studying in groups'.

Stimulated by youth and graduate unemployment, the media are the voice for public concerns about whether higher education is giving graduates the skills and knowledge they need for today's and tomorrow's worlds.

*Summary*

This brief assessment of four external drivers of change highlights three big issues in higher education that must be addressed to improve its quality:
- Students are not studying in modern, online ways;
- Students are not working hard enough;
- Students are not learning the right things.

Change requires internal actors to act on these issues. What are the attitudes of the key actors: students and faculty?

**Internal actors**

Students

*How much study and by what methods?*

If students are prepared to shop around they already have a wide choice of study options. Some are based on face-to-face contact, others are fully online and many are a blend of both. The learning opportunities that institutions offer will inevitably evolve to meet student preferences. What do students look for?

In preparing its report, *Driving the skills agenda: Preparing students for the future,* the Economist Intelligence Unit (2015) conducted research in countries across the world (Australia, Brazil, Canada, China, Finland, Ghana, India, Malaysia, Mexico, the Netherlands, New Zealand, Nigeria, the Philippines, Poland. Romania, Russia, Saudi Arabia, South Africa, Spain, Sweden, Thailand, the UAE, the UK and the US). It found that at the school level: 'Increased use of technology tops the list of the changes students aged 11 to 17 would most like to see in their school, by a margin of 14 percentage points. This is particularly true in Spain, Russia and Mexico, where respectively 68%, 63% and 58% of young students call for more technology to be used in schools'. Findings at the level of higher education were similar: 'Only 23% of 18-25-year-olds think that their country's education system is very effective at making full use of the technologies now available'.

Student attitudes, of course, vary across the world as the following examples reveal. Some prefer the face-to-face option, some like blended learning, and some are happy with courses purely online.

Wong (2015) reported on surveys in Hong Kong showing that traditional face-to-face learning remains the preferred mode of study there despite the fact that Hong Kong has high availability of personal computers and high penetration of broadband access. His investigation concluded that the most important barrier to the adoption of online learning was poor self-discipline and self-motivation in learners. This results from a teacher-centred and utilitarian learning culture with a tradition of rote learning that is contrary to the self-directedness and student-centredness that online study requires. Hong Kong institutions have done little planning for online learning and the students' utilitarian aim of getting through the course with minimal effort is often mirrored in the teachers, who also seek to instruct with least work.

Attitudes are different in North America. A study of blended learning at York University found high-achieving students to be particularly enthusiastic (Owston, York & Murtha, 2013). They report: 'a remarkably strong relationship was found between perceptions and grades. Compared with low achieving students, high achievers were the most satisfied with their blended course, would take one again, and preferred the blended format more than fully face-to-face or online. High achievers also found blended courses more convenient, more engaging, and they felt that they learn key course concepts better than in other traditional face-to-face courses they have taken.'

The Learning and Teaching Office at Ryerson University conducted a literature survey on online learning for the benefit of its faculty (Schwartz, 2013). Her research found that the quality of online learning is only as good as the pedagogy underlying it and that course structure has the greatest influence on student perceptions. The instructor's role is also a crucial factor in student perceptions of quality in online learning. Students 'want their faculty to be partners in the learning process by providing content expertise, scaffolding learning experiences, helping students make connections, and providing prompt feedback… they expect to have a professor' (Barcelona, 2009).

Schwartz noted other studies where a majority of students found the online course more challenging than a traditional course and a better learning opportunity in which they were more likely to do their assigned readings. She found evidence that older students and women had somewhat more favourable views of online learning than younger students and men. Finally, she found that people who have already experienced an online course were more likely to take another one successfully.

This roundup of students' views shows that five factors influence their attitudes to technology-based learning and working harder.
- A cultural tradition of rote learning and reproducing the knowledge thus acquired through conventional tests is not a good environment for introducing change that could

improve quality.

- High achievers take to blended learning more readily than low achievers. The more students experience blended learning the better they perform.
- Both blended and online offerings stimulate students to work harder and engage more fully with the course, which enhances the quality of learning.
- Sound pedagogy, especially clear signposting, is essential to the quality of online teaching.
- Where technical standards are not met, students have a very negative experience of the quality of the course (Uvalić-Trumbić & Daniel, 2013).

*What skills and knowledge?*

Unsurprisingly, students' views on the 'right things' to learn are general rather than specific. After surveying students as part of its strategic planning process Concordia University (2015) reported: 'Students tell us they want purpose-driven, hands-on learning. They want to develop multidisciplinary ways of thinking and collaborating. They benefit from digitally enhanced pedagogy that directly helps them practice, connect, and achieve their academic goals, rather than teaching technology used for its own sake.'

Students around the world sense weaknesses in institutional offerings. The Economist Intelligence Unit (2015) notes: 'Students appear to lack confidence in the relevance of their education: just 44% of students aged 18 to 25 believe that their education system is providing the skills they need to enter their country's workforce'.

However, the report, which was based on research across the world, also notes that students are learning more on their own: 'Despite a minority of 18-25-year-olds reporting that their education had provided them with the skills needed in the workplace, a large majority are confident or very confident about their career prospects. Similarly, there is a significant difference—in several cases of over 20 percentage points—in the number of students who believe that they have become good or very good at certain skills without receiving much formal education in them'.

*Summary*

In the light of the three big issues identified above research suggests that most students would be pleased to receive more instruction on online provided that it is based on sound pedagogy and technology. They find that online study requires more work but welcome this if it leads to deeper learning. Students' views on the 'right things' to learn are more a sense of unease about the relevance of their current higher education than a specific prescription for change.

Faculty

Quality principle #7 calls for 'flexibility, creativity and innovation so that higher education can develop and evolve to meet students' needs, to sustain the confidence of

society and to maintain diversity'. There must be a desire for change welling up within institutions to stimulate implementation with quality in mind.

*Who decides about change?*

Academic staff (faculty) are valued for the diversity of their views, so it is futile to expect them to express a common perspective on desirable directions of change. Nevertheless, change will not be implemented without the support - or at least the tacit consent - of the faculty.

Writers about change in higher education today owe a huge debt to Professor Tony Bates for his magisterial work *Teaching in a Digital Age: Guidelines for Designing Teaching and Learning* (Bates, 2015). It is a pleasure to acknowledge this debt here and refer those wishing to explore these topics further to his excellent book.

In an important passage (2015, p. 20) he argues that ' If universities are to change to meet changing external pressures, this change must come from within the organization, and in particular from the professors and instructors themselves. It is the faculty that must see the need for change, and be willing to make those changes themselves'.

His reasoning is that universities have been around for over 800 years because they are deliberately designed to resist external pressure. 'They have seen kings and popes, governments and business corporations, come and go, without any of these external forces fundamentally changing the nature of the institution'. Any change that threatens the way that universities make their contribution to society through their core values, which are independence and freedom, will be strongly resisted by academic staff.

Quality principle #4 states that governments have a role in encouraging and supporting quality higher education. In discharging that role they do well to remember first, that the basic functions of universities are the creation, evaluation, maintenance and dissemination of knowledge and, second, that to perform that role they need a good deal of autonomy, not least because the potential value of specific knowledge is hard to assess in advance. In other words, the core values of academe underpin its quality.

As Bates puts it, 'universities provide society with a safe way of gambling on the future, by encouraging innovative research and development that may have no immediate apparent short-term benefits, or may lead nowhere, without incurring major commercial or social loss. Another critical role is the ability to challenge the assumptions or positions of powerful agencies outside the university, such as government or industry, when these seem to be in conflict with evidence or ethical principles or the general good of society'.

It is for this reason that academics are free to choose what they study, and more importantly, how best to communicate that knowledge. University teaching is bound up with this notion of academic freedom and autonomy. Therefore 'it is the faculty that must see the need for change, and be willing to make those changes themselves... If

government or society... tries to enforce changes from outside, especially in a way that challenges the core values of a university, there is a grave risk that the very thing that makes universities a unique and valuable component of society will be destroyed, thus making them less rather than more valuable to society as a whole'.

*Summary*

Highlighting the decisive role of faculty is not an argument against change in universities, simply a reminder that in implementing Quality principle #7 academics must see the 'need for flexibility, creativity and innovation' to allow higher education to develop and evolve to 'meet students needs, to justify the confidence of society and to maintain diversity'.

This brings us back to our third big issue. What are the 'right things' that academics should be sharing with their students? These choices cannot readily be imposed from outside, they must attract consensus from within the institutions. But if quality is 'fitness for purpose' then teaching a curriculum relevant to the times is basic to quality higher education.

We saw that students, unsurprisingly, do not have clear views about the skills and knowledge they need in particular domains. It is the task of faculty to articulate those needs and respond to them. We start with skills.

*Skills*

There is a lively debate about the '21st century skills' that people need for life and work in today's world. A report cited earlier (EIU, 2015) asked employers to name the most important skills they sought in their employees. The top five responses were problem solving, team working, critical thinking, creativity and leadership. Basic skills like literacy and numeracy came lower down the list, possibly because the employers surveyed took those skills for granted. They may also have assumed that graduates will have the subject knowledge that they need to make a start in their jobs, even if they require further training for the specific professional tasks they will be required to perform. Where should institutions find the balance between fostering skills and teaching content and what type of content do graduates need?

*Teaching in a Digital Age* (Bates, 2015) begins by reflecting at some length on the skills and knowledge that people will need for living and working in today's and tomorrow's worlds. What are its conclusions?

Bates agrees (2015, p. 16) that certain skills have acquired greater importance in a knowledge society but his analysis goes deeper than the EIU (2015) report. Adapting work on the topic by the Conference Board of Canada (2014) he emphasises the importance of the following skills:
- communication skills (including the use of social media)

- the ability to learn independently
- ethics and responsibility
- teamwork and flexibility
- thinking skills
- digital skills
- knowledge management (which he calls 'perhaps the most over-arching of all the skills', adding that the skill of how to find, evaluate, analyse and disseminate information within a particular context is a skill that graduates will need to employ throughout their careers).

He also stresses that these skills mostly need to be embedded within a particular knowledge domain, so developing them is often context specific. Writing mainly with higher education institutions in mind, he stresses that content and skills are tightly related and that as much attention needs to be devoted to skills development as to content acquisition for a quality education. This imposes constraints since 'although content can be transmitted equally effectively through a wide range of media, skills development is much more tied to specific teaching approaches and technologies'.

*Academic knowledge*

In discussing the acquisition of content, Bates (2015, p. 59) swims against the stream by attacking the view, often heard outside higher education, that academic knowledge is less relevant in the Internet age. Building on the work of Laurillard (2001) he emphasises the difference between academic knowledge and knowledge or beliefs based on direct personal experience.

Without denying the importance of the experiential component of study, Bates argues persuasively that academic knowledge, which is 'a second-order form of knowledge that seeks abstractions and generalisations based on reasoning and evidence', is likely to be more future-proof than much experiential learning. He stresses that the concept of academic knowledge is equally applicable to both pure and applied knowledge. Both have the four fundamental components of academic knowledge: transparency, codification, reproduction and communicability.

Academic knowledge also applies to all levels of higher education, to community colleges as well as to universities. One reason why some institutions are moving more material online in professional and vocational programs is because the cognitive learning element in many professions and trades has rapidly increased. For example, trades now require more academic learning, such as increased ability in mathematics, electrical engineering and electronics.

It is not an accident that the societies that have prospered in both the industrial era and the knowledge age attach importance to rigour, abstraction, evidence-based generalisation, rationalism and academic independence. Academic knowledge has been the foundation of quality higher education. Depreciating the importance of academic

knowledge is tantamount to cutting off the branch on which advanced societies are sitting.

What does this imply for how we blend the means of learning? The key point, according to Laurillard (2001), is that university teaching must mediate between students' experience and its symbolic representation. We cannot expect students to construct academic knowledge simply through independent study or discussion with their peers. The teacher's role is to help them master the conventions and rules for acquiring and validating knowledge in that subject within a dialectical environment, in which argument and discussion within the rules and criteria of the subject discipline are encouraged and developed by teacher. Conversation and discussion are critical if this is to be achieved. Bates (2015, p. 78).

The classic example used to make this distinction between experiential and academic knowledge more concrete is Newton's Third Law of Motion, which states that for every action there is an equal and opposite reaction. Two decades ago Howard Gardner showed that even MIT physics students adopt the practices of naive elementary students when studying Newton's Laws of Motion (Gardner, 1991; Brown, 1992). The website of the American Psychological Association (2015) gives other examples of 'Common Alternative Conceptions (Misconceptions)' in Science, Mathematics and Language Arts' that show where students have difficulty grasping academic knowledge.

*Summary*

This summary of the skills and knowledge that graduates will need for the 21st century has clear implications for changing in higher education while improving its quality. It reveals two rather different areas in which faculty should invest special effort. The first is to give more attention to developing skills while embedding them in the appropriate context. The second is to ensure that students grasp the academic knowledge that underpins their areas of study.

**Challenges of implementation**

Our analysis of the drivers of change and the attitudes of students and faculty indicate that change will occur in three directions in particular:
- Increasing use of online learning;
- More emphasis on developing skills in various knowledge domains;
- Improving students' grasp of the academic knowledge in their subject areas.

Probably the greatest challenge in implementing progress in all three of these directions is the need to introduce greater specialisation and division of labour in the teaching function of higher education - as is already the practice in research.

Compared to most modern organisations, teaching in higher education is still a cottage industry where one individual is responsible for all stages of production and delivery. All

the changes proposed above will require division of labour and specialisation. This is already well under way for the development of online learning materials, where most institutions have web designers, software programmers and media specialists who can help faculty design and develop courses.

This same principle will also need to be implemented in support of the interactive components of all three directions of change: personal support to online learners; skills development and the tutoring required to embed academic knowledge. This teamwork will demand a substantial change in working practices for faculty. Yet as student numbers increase it becomes essential for the lead faculty member to have help with the vital functions of supporting individual online learners, holding apprenticeship sessions to develop skills and reviewing students assignments (which will become a more important teaching tool).

Instead of dividing large classes into smaller sections and having adjunct faculty teach each one semi-autonomously, it will be more effective to make courses available online and use the adjunct faculty for these interactive components. This approach changes the demands on both students and faculty but can give greater satisfaction to both groups once they are familiar with them.

**Enhancing quality**

The changes outlined in this paper on change flow with the grain of the evolving discourse on quality in higher education. The focus of assessments of quality by governments and their quality assurance agencies is moving steadily towards learning outcomes. This, for example, is the core criterion for the 'Quality Platform' being developed by the US Council for Higher Accreditation (CHEA) for post-traditional (non-institutional) higher education providers (CHEA, 2014).

Indeed, the three key areas of change we have described make older approaches to quality assurance such as reviewing library holdings or faculty qualifications seem quaintly out of date. Today the Internet is the library and the effectiveness of teamwork among faculty and their supporting adjuncts and professionals will be more important than their individual CVs. This presents a great opportunity for institutions that are ready to redesign their teaching in a technology-rich manner to equip graduates with 21st century skills and knowledge.

Applying modern principles of division of labour and specialisation to teaching will enhance quality as has happened in other areas of life.

Much help is available to institutions as they move more teaching online. *Teaching in a Digital Age* (Bates, 2015) is an important resource. Two guides focussed on quality issues are also available as Open Educational Resources: *A Guide to Quality in Online Learning* (Uvalić-Trumbić et al., 2013) and *A Guide to Quality in Post-Traditional Online Higher Education* (Uvalić-Trumbić et al., 2014).

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