

Concepts of 'quality': And the problem of 'customers', 'products' and purpose in higher education



Trudi Cooper

Edith Cowan University, Perth, Western Australia
t.cooper@ecu.edu.au

***Abstract:** Concepts of quality and methods of measurement appropriate to commercial settings have been applied to higher education without adequate consideration of their applicability. One result has been inconsistency between the desired outcomes of quality assurance, explicit philosophical choices about the concept of quality and the choice of methods to demonstrate quality. Within the commercial context where the concept of quality assurance originated, the concept of quality is referenced variously to features of the product, customer satisfaction, the fitness of the product for its intended purpose, the process of production of the product, or the culture of the organisation. An exploration of the relationship between different concepts of quality, and the purposes of quality assurance and quality improvement requires discussion of how concepts such as 'customer', 'product', 'intended purpose', apply in the context of higher education. The purpose of the paper is to clarify these relationships and develop a framework that will make explicit the different identifiable positions on 'quality' in higher education and describe the relationship between alternative definitions and key issues for the philosophy of education such as the nature of the relationship between students and the university, the purpose of higher education and how academic standards for degrees should be established. The paper concludes by indicating how this approach may be used to aid the process of designing and improving quality assurance and quality improvement processes.*

***Keywords:** quality assurance, universities*

Background

Quality management in education has gained prominence in Australia during the past ten years, (Anderson, Johnson, & Milligan, 2000; DETYA, 2000b; Harman & Meek, 2000). A consequence has been the appearance of a multiplicity of measures as 'quality indicators' for higher education including, staff qualification profiles, staff research output, graduate destinations surveys, course experience questionnaires, data on student attrition, and calculations of student progress units. (Andrews, Aungles, Baker, & Sarris, 2000; DETYA, 1999, 2001a; Long & Johnson, 1997). A review of the literature on quality management in higher education reveals difficulty in making judgements about educational quality arises because of the difficulty in collecting, acquiring and interpreting data that validly reflects educational quality independently of other variables (Reed, 1995; Yorke, 1999).

The concept of quality assurance and its methods were originally developed within a commercial context, (Australian Quality Council, 2000) and form an important element in

rational approaches to management. In the commercial context, 'quality' is a technical concept having several distinct meanings and defined by the relationship between measurement and explicit criteria. Different concepts of quality in higher education will be related to the intended purposes of quality assurance in higher education.

Lack of clarity about how quality is defined is problematic because it leads to confusion about how quality should be measured and what claims about quality can legitimately be made on the basis of data collected. If individual staff or institutions focus excessively on gathering data to support quality claims without adequate clarity about their definition of quality and their assumptions about the methods and purpose(s) of higher education, it will lead to simplistic thinking about quality and quality measurement. Poor interpretation of data produces faulty policy (Reed, 1995), and undermines the possibility of quality. A potentially undesirable outcome of this state of affairs is that measures chosen to demonstrate quality, as implicitly defined in one way, may fail to satisfy the requirements of quality assurance, based upon a different (implicit) definition of quality. The choice of how quality is defined is important because it should derive directly from the philosophy of the enterprise and should be used to inform both internal functioning of the organisation, especially how control is exercised and legitimated, and its external public relations, especially how its products and services can be marketed to the public (Australian Quality Council, 2000).

Although different definitions of quality have been acknowledged in higher education (Harman & Meek, 2000), there has been no satisfactory method to systematically link the assumptions underpinning the different concepts of quality with the stated purposes of quality assurance and quality improvement and hence the implications of these links for validity in the choice of quality assurance and quality improvement processes.

The paper uses definitions of quality offered by Cameron and Sine (1999), and compares these with the concepts of quality found in higher education in Australia. This comparison will test the adequacy of current Australian conceptualisations of quality in higher education and indicate considerations requiring attention when the concept of quality assurance is applied in an educational rather than a commercial setting. The paper will conclude with a framework relating different concepts of quality to the concepts of 'customers', 'product', 'intended purpose(s)', within of higher education.

Quality in commercial organisations

In commercial contexts, measurement of quality is relative to standards referenced to either an attribute of the product (including how well it satisfies customers, fits its intended purpose, represents value for money, conforms to recognised standards or represents transcendent excellence), or to the overall functioning of systems and process which produce the product or service, including the values, norms and of orientation staff within the organisation at all levels (Cameron & Sine, 1999). Cameron makes use of Juran's terminology and refers to the attribute-of-product-referenced methods as the "little q", and the organisational-functioning methods as "big Q" approaches to quality. In a commercial setting these concepts are generally unproblematic, because the product, or service and the customer are easily identifiable, the intended purpose of the product or service is not a matter of contention. Within higher education, the application of each these concepts is contested. The source of this divergence of opinion arises from philosophical differences concerning the purpose(s) of higher education and hence different judgements about the identity of the 'product' or service and the appropriate relationships between students, universities, academic staff, industry, the professions and government.

Table 1: Concepts of quality (based upon Cameron & Sine (1999))

<i>Concept of quality (C&S)</i>	<i>Definition: "Quality is..."</i>	<i>Example</i>	<i>How measured?</i>
Transcendent	Quality can not be defined but can be recognised	Innate excellence or beauty	Perceived by those who are sensitive cannot be measured.
Product-based	'Unpriced attributes contained in each unit of priced attribute'	Extra desired features (by the customer?) or durability	Measure 'features' exceed expectations
User-based	Fitness for use; Satisfies customers	Fulfils customer expectations	Measure level of customer satisfaction
Production based	Conforms to specifications	Reliable	Measure against what is promised
Value based	Best for price; Best for actual use	Value for money	Efficiency based upon cost per unit
System-based	System to produce services that satisfy customers	Accepted systems for quality assurance adhered to	Check whether systems are in place and adhered to
Cultural	Organisation's culture supports the constant attainment of customer satisfaction through integrated use of training, techniques and tools	Quality as a 'mindset' throughout the organisation in all aspects of work	Examine whether the organisation supports customer satisfaction in an integrated way

Cameron and Sine offer seven different definitions of quality. In the first five of these, they argue that quality is defined as an attribute of the product or service, as measured in different specified ways (Table 1). All the definitions assume the product or service can be clearly identified. In addition, the third, sixth and the seventh definitions (and possibly the second) assume there is a customer who buys the product or service and whose requirements can influence the standard of service provision or of the artefact, and who may be willing to either accept lower standards and pay less or to pay more for a better quality product or for better service. In the third and fifth definition there is an assumption that the product or service should 'fit' its intended use or be adequate for its intended use, and this pre-supposes a shared understanding of the nature of the intended use.

The concept of quality in higher education in Australia

Prior to the application of quality assurance to education, it was assumed 'standards' within institutions could be recognised by academic peers (Anderson et al., 2000) and this implies an understanding of quality akin to Cameron and Sine's, 'transcendent' definition of quality. Since that time, other concepts of quality have been applied to education. In this paper, the main sources of statements about quality in higher education are (Anderson et al., 2000; DETYA, 1998b, 2000a, 2001a, 2001b; Harman & Meek, 2000; Kemp, 1999). Within Australian literature on quality in higher education few documents make explicit what they mean by quality in higher education or acknowledge alternative concepts of quality. One exception is Harman and Meek (2000). They provide an overview of how three different writers have defined educational quality. Firstly they summarise Birnbaum's categories where he found quality was defined by USA college presidents in three distinct ways. The 'meritocratic' group defined quality according to whether the institution conformed to scholarly norms, the 'social' group, according to whether the institution satisfied the needs of important constituent groups, and the 'individualistic' group according to whether the institution contributes to the individual growth of the learner.

Next they summarise Lindsay who suggests the quality may be either referenced to ‘production –measurement’ or to ‘stakeholder satisfaction’. Finally, they outline Middlehurst who developed categories by looking at the ways ‘quality’ was used, and found: quality as ‘a defining characteristic or attribute’ or ‘grade of achievement’, ‘an outstanding performance or achievement’ or ‘fitness for purpose/ performance meets specification’. Harman and Meek judge that the last of these definitions is most satisfactory, but suggest that because of the lack of agreement about purpose and standards, institutions should set their own goals. Table 2 provides a comparison between the definitions discussed by Cameron and Sine and concepts found in the education literature.

Table 2: Concepts of Quality and Standards in Higher Education

<i>Concept of quality (C&S)</i>	<i>Concept of quality in HE</i>	<i>How measured?</i>	<i>Problem posed</i>	<i>Concept of Standards</i>
Transcendent	“Quality as inherent” Anderson’s ‘standards’	Perceived by those who are sensitive cannot be measured.	Unmeasurable, therefore not useable within rational management	Fixed
Product-based	“Quality as exceeding expectations” Middlehurst	Measure ‘features’ that exceed expectations	What product or service does higher education offer and to whom? Whose expectations?	Floating, but implies need to exceed minimum
User-based	“Satisfies customers” “Fitness for purpose” Harman & Meek	Measure level of customer satisfaction. (Fitness for purpose as judged by customer)	Who is the customer? What is the purpose of higher education?	Floating
Production based	“Norm-related” Harman & Meek	Measure against what is promised	What is promised? What is the purpose of higher education?	Fixed against a specification that may not be absolute
Value base	“Efficiency” Harman & Meek	Efficiency based upon cost per unit. (Implicit concept of adequacy)	What is the unit? What is the product? What is the purpose of higher education?	Floating
System-based	“Quality as system” AVCC	Check whether quality systems are in place and adhered to	What is the relationship between quality systems and outcomes? Who is the customer? What is the product?	Floating
Cultural	“Quality as organisation” AVCC	Examine whether the organisation supports customer satisfaction in an integrated way	Who is the customer? What is the relationship between quality organisations and outcomes?	Floating

KEY: Column 1: Cameron and Sine’s concepts of quality. Column 2: aligns concepts of quality from education quality literature in Australia with those of Cameron and Sine. Column 3: suggests the kind of measurement in education appropriate to each concept of quality. Column 4: indicates the questions to be resolved when each concept is applied to education. Column 5: examines whether ‘academic standards’ of degrees are assured within the meaning of each concept.

These formal definitions raise some interesting issues. The differences illustrated by Birnbaum's definitions stem directly from differences in position on the purpose of education. Lindsay's dichotomy between measuring products directly or measuring stakeholder satisfaction parallels some of the distinctions within Cameron and Sine's framework, but replaces the concept of customers with the more complex concept of stakeholders. Some of Middlehurst's categories reflect the everyday usage of quality (as being 'superior' or better than expected) in addition to the technical meaning used in the language of quality assurance.

The literature on the purposes of quality assurance provides secondary evidence, from which definitions of quality can be inferred. According to the brief provided to Anderson et al (2000, 10) the government view of the reasons why Australia needs a quality assurance system are:

- "To protect our educational reputation in respect of both the quality of our educational processes and our standards
- For public accountability purposes, particularly to satisfy the taxpayer that it is getting value for money and that the government subsidies are supporting educational activities of an appropriate standard
- To inform student choice and especially in the light of diversity of offerings and variation in price
- To promote and improve quality processes and outcomes at individual institutions as well as disseminate good practice, leading to overall system improvement" (Anderson et al., 2000)

Taken together, the explicit and implied definitions of quality found in the recent higher education Australian literature, show a predominant concern with "little q" or 'quality as attribute of the product' concepts, (especially measuring standards, reputation, accountability, outcomes and customer satisfaction) rather than "big Q" concerns central to the formal quality assurance processes for universities.

Measurement and standards

Similar concepts of quality are found in both commercial and educational literature. Apart from the first concept of quality, only the norm-related concept and the product-related concepts have any direct relationship to standards. Within the remaining five concept of quality, there is no direct relationship between quality and assurance of academic standards. Thus, many of the current methods of demonstrating quality (including evidence of student satisfaction, course experience questionnaires, graduate destinations surveys, and quality audits) cannot be used as evidence that standards have been maintained. This last conclusion concurs with Thompson et al who asserted that the quality audits in the UK, which are similar in process to those in Australia, can monitor the adequacy of universities' management systems but have no means of monitoring the adequacy of universities' self set goals or standards of achievement (Thompson, Tyler, & Howlett, 1995).

Several writers have acknowledged multiple concepts of quality, but have considered this to be unproblematic, for example, (Cheng & Ming, 1997; Harman & Meek, 2000; Owlia & Aspinwall, 1996). Harman and Meek believed the diversity was beneficial and did not explore what would happen if multiple concepts of quality were used to inform quality indicators. The contribution of Cameron and Sine is the recognition that the definitions are conceptually different and that it is necessary to *choose* a definition of quality. Owlia and Aspinwall (1996, p. 19) attempt to resolve the issue of multiple concepts of quality in education by combining the different measures through a process of weighting the different factors, but this disregards

their fundamental epistemological incompatibility, as illustrated by how standards are determined. Cheng and Tam(1997, p. 30) suggested integrating some or all of the models according to circumstance, but this also ignores incompatibility issues.

Customers, products and purposes in higher education

The table illustrates that the technical concepts of quality, (all concepts except ‘quality as transcendent’), on which quality assurance depends, derive their meaning from being able to identify customers, products and the purpose of what is produced. In higher education the application of these concepts is problematic. Students are the group most often referred to as the ‘customers’ of education, see, for example, (DETYA, 1998a, p. 4; West, 1998). According to Scrabec (2000, p.298), if students were the customers of higher education, in a business relationship, they would determine both the purpose of the product and the standards of its specification. (Scrabec, 2000) argues that students are not customers. The concept of students as customers is also inconsistent with the government’s concept of the role of universities as meeting the needs of industry and the professions (DETYA, 2001a; Harman & Meek, 2000) and with other concepts of the purpose of higher education as being primarily concerned with student development (Pascarella & Terenzini, 1991). Scrabec suggests students are recipients (or maybe purchasers) but not customers, even though some aspects of the relationships may be customer-like (McCollough & Gremler, 1999; Owlia & Aspinwall, 1996).

Are industry and the professions the customers of universities? Some government policy documents could be consistent with this position (ACNielsen Research Services, 1999) and this would imply that students are the ‘products’. However, if industry and the professions were customers, within current government policy this would have implications for the funding of university places as well as the nature of the relationship between universities, the professions and industry. This position would undermine the purpose of higher education as student development and would be inconsistent with the role of universities as cultural institutions and providers of basic research. Although it may be proposed as a future role for universities, it does not reflect the current relationship.

Finally, it might be argued that the government itself is the customer of universities and in some respects this is the most plausible position. It could be consistent with the role of universities as cultural institutions, as providers of basic research and as providers of education that develops the individual potentialities of students. The product of universities would be the services they provide to students, the community and industry and in extending both basic and applied knowledge. Students, communities and industry would be beneficiaries, but not customers. Arguments against this position concern the traditional autonomy of universities, although Anderson and Johnson (1998) suggest the degree of autonomy enjoyed by universities varies different countries. It is however, difficult to conceptualise the government in a simple ‘customer’ relationship relative to universities, because governments in democracies have representative status, and theoretically, represent a plurality of conflicting interests. For these reasons, the concept of ‘customer’ is problematic as a description of the relationship between government and universities and the concepts of stakeholders and beneficiaries are more fitting.

The concept of stakeholders and beneficiaries does not fit easily with commercially derived quality assurance processes. Measuring stakeholder and beneficiary satisfaction requires the ability to make judgements about how to balance conflicting requirements or desires. In these circumstances, it would be appropriate to measure both student and industry satisfaction, but judgements about how and whether to respond to dissatisfactions would depend upon

assessing the balance of the consequences of fulfilling the desires of one stakeholder against the consequences for other stakeholders. An organisation supporting ‘stakeholder and beneficiary satisfaction in an integrated way’ requires all individuals to have a highly sophisticated understanding of the competing functions, roles and purposes of university education and to make judgements enabling them to respond appropriately, by balancing different imperatives. This sometimes necessitates making decisions that will leave some stakeholders dissatisfied, in the interests of either maximising benefit or achieving overriding priorities.

When concepts of quality are applied to stakeholders and beneficiaries instead of customers, the task of deciding whom to satisfy has no simple answers. The task of assessing whether an individual or organisation supports stakeholders’ and beneficiaries’ satisfaction in an integrated way would require a highly complex qualitative assessment. The complexity would mean different people could come to different judgements about the most appropriate response in any given situation.

Summary

The analysis in this paper has uncovered three fundamental problems with the use of commercially derived concepts of quality and quality assurance in the context of higher education. These are:

- One of the major motivations for quality assurance is the requirement to reassure potential education consumers about the ‘quality of educational processes and ...standards’ but many of the current ‘quality indicators’ are unable to do this, because the concept of quality on which they are based does not require the standard of the product to remain fixed.
- The assumption universities have customers is an over simplification that is convenient in making use of commercially derived methods of quality assurance, but does not take account of the complexities of the relationships and purposes of university education. Replacement of the concept of ‘customer’ by ‘stakeholder and beneficiary’ more accurately describes the relationships and purposes in higher education, but increases the complexity of quality assurance processes and the subjectivity of judgements about quality.
- Attempts to integrate or ‘weight’ different concepts of quality are theoretically unsatisfactory because the concepts are derived from different epistemologically incompatible, assumptions, as illustrated by the example of determination of standards.

Conclusions

The paper concludes that it is more appropriate to consider the relationship between the university and other individuals and agencies as being a stakeholder- beneficiary relationship rather than a customer relationship, because this more accurately reflects the nature of obligations in the educational rather than commercial context. This necessitates a more complex interpretation of the relationship between quality indicators, including student or employer “satisfaction” data and claims about quality, and an adaptation of the commercially derived quality assurance methods.

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