Can we measure *excellence* in business studies education?

Mike Hart
Business Management Group
Faculty of Social Sciences
The University of Winchester
Winchester
SO22 4NR
Tel: +44 (0)1962 827323
Email: Mike.Hart@winchester.ac.uk

David Rush
Business Management Group
Faculty of Social Sciences
The University of Winchester
Winchester
SO22 4NR
Tel: +44 (0)1962 827323
Email: David.Rush@winchester.ac.uk

Abstract

Concerns about quality increasingly focus upon the inculcation of a culture of excellence, a term which appears instantly intuitive but which is remarkably elusive to define and even more difficult to measure.

This paper takes a radical approach to the measurement of the culture of quality by developing the concept of an 'intelligently mediated boundary exchange' (IMBEX) An IMBEX occurs when a transaction occurs at the conclusion of a process (e.g. correct exit of a loop in programming).

Keywords: quality culture, IMBEX, transformative quality, QUBE

1. Conceptions of Quality

Quality is a contested concept at the best of times and in the context of applying the term to higher education, it would be fair to say that a disinterested observer could become confused by the multiplicity of approaches deployed. What can be said with a degree of certainty is the fact that concerns about quality have increased as universities have expanded their intakes in recent decades with a declining unit of resource. Becket and Brookes (2005) point to a cluster of factors which feed concerns over quality:

- a growing climate of increasing accountability (following) an expansion in the size of student populations
- an increasingly diverse student population as a result of widening participation initiatives and targeting international markets
- diminishing resources by which to deliver programmes of study
- greater expectations of students as paying customers
- more flexible educational provision at both undergraduate and postgraduate level
- an increase in collaborative provision between institutions

(*Source*: Becket, N. and Brookes, M. 2005)

Officially, however, the UK government position is that such expansion has not had a deleterious effect upon quality:

> Our universities and colleges have been through a dramatic transformation over the last quarter-century as participation in higher education has tripled, and generally have maintained high quality and good value despite a halving of the unit of funding.

(Source, DfES, 2003, Ch. 1 Para 1.4)

Many commentators would now follow the differing conceptions of quality as outlined by Harvey and Green (1993) as follows:

- *Exception* – Distinctive, embodied in excellence, passing a minimum set of standards
- *Perfection* - Zero defects, getting things right the first time (focus on process as opposed to inputs

    and outputs)
- *Fitness for purpose* – Relates quality to a purpose, defined by the provider
- *Value for money* – A focus on efficiency and effectiveness, measuring outputs against inputs. A populist notion of quality (government).
- *Transformation* – A qualitative change; education is about doing something to the student as opposed to something for the consumer: includes concepts of enhancing and empowering: democratisation of the process, not just outcomes.
(*Source*: Harvey and Green, 1993)

Hence *fitness for purpose* was built into the Quality Assurance Agency subject review process in which subject teams were invited to submit self-assessment documents in which progress against the team's own stated objectives could be assessed. The first four conceptions, indeed, reflect the varying interests of external stakeholders including funding agencies and students as potential consumers, as recognised by Owlia and Aspinall (1996). *Transformation*, on the other hand, is more typically associated with quality improvement rather than quality assurance and is more likely to be adopted by internal stakeholders such as university managements. Transformation may be seen as incorporating, to a certain extent, each of the other conceptions of quality

It is important to note that these definitions are not 'free-floating' but are systematically related to the position and world-views of interested stakeholders. Government and funding agencies, for example, have a particular interest in ensuring that expansion has not a deleterious effect upon quality whilst also securing 'value-for-money' for taxpayers:

> "Looking at the criteria different interest groups use in judging quality rather than starting with a single definition of quality might offer a practical solution to a complex philosophical question. Not because it is atheoretical, but because it recognizes and acknowledges the rights of different interest groups to have different perspectives. On the other hand, if we want to find a core of criteria for assessing quality in HE it is essential that we understand the different conceptions of quality that inform the preferences of different stakeholders." (*Source:* Harvey and Green, 1993, p. 29)

Harvey and Green (1993) warn us, though, that 'this is not a different perspective on the same things but different perspectives on different things with the same label' (Harvey and Green 1993, p.10).

2.   A Quality Assurance/Quality Enhancement gap?

When applying models of quality to the higher education sector, attention has been drawn to a discernible gap in approaches to quality. Many external stakeholders (not least, the funding agencies) are concerned to demonstrate a level of *assured* quality. Accordingly, these stakeholders will tend to endorse approaches that in terms of the Harvey and Green (1993) categories indicate *fitness for purpose*, *quality processes* and *value for money.* On the other hand, quality enhancement procedures are often informed by a *transformative* approach in which there is a concern with improving and developing practice through peer review and through the adoption of internally generated (rather than externally given) criteria. One commentator has argued persuasively that there are, indeed, two competing models of quality and tabulates the differences as follows:

Table 1: Quality Assurance and Quality Improved Compared

	Quality Assurance	Quality improvement
Focus	Accountability	Improvement
Philosophy	Instrumental	Transformative
Locus of control	External: management/ government driven	Internal: driven by employees
Motive	Government directives/policies	Organisation's desire for improvement
Social relations	Competitive; directive	Collegial; negotiated
Management style	Authorisation	Consensual
Administrative structures	Centralised, bureaucratic	Devolved, facilitative
Time	Short-term	Longer term
Evaluation	External audit	Peer review
Audience	External stakeholders	Internal stakeholders
Orientation	Past practice	Future possibility
Indicators of success	Quantitative	Qualitative

   Source: Sachs, J. (1995)

Two particular features are worthy of note. The paper by Sachs (1995) indicates the way in which one major Australian University (Griffiths) has attempted to grapple with conceptual issues before implementing their own Quality Improvement (QI) programmes. It is also the case that tabulation of the approaches is a useful heuristic but there may better be conceptualised as a series of continua rather than rigid dichotomies as such. Nonetheless, the point is well made that whilst Quality Assurance (QA) and Quality Improvement (QI) may be driven by different philosophic starting points and stakeholders, it is nonetheless possible, as the author argues, that it is possible to make the two processes complementary.

Similar conclusions are arrived at via a different route in the review of the literature provided by Becket and Brookes (2005). The authors conclude that there is little opportunity for quality in its transformational aspects within the various evaluations used. Their paper documents the way in

which the student experience survey may be utilized to assist in this process. Their analysis also confirms the view that the quality dimensions utilized in the QAA Subject Review examinations conducted in 2000-2001 were primarily concerned with fitness for purpose

After the QAA round of subject reviews conducted in 2000-2001, reports have been prepared which attempt to distil the total of 162 reports in the business and management field (Ottewill and MacFarlane, 2004; Ottewill and MacFarlane 2005)

The authors argue convincingly that whilst the explicit aims of subject review were cast in terms of quality assurance (QA), it was still possible to discern elements of 'pedagogic principles' which informed their judgements. It is argued that the various evaluative teams were operating within an evaluative framework which was implicitly based around notions of *good practice* and *excellence*. After a thorough content analysis, it is these notions that the authors have distilled into the followed principles:

Principle	Application
Flexibility	providing students with as much choice as possible over when, how and what they study strategic thinking particularly with respect to teaching, learning and assessment; student support and guidance; and learning resources
transparency	ensuring that learners are aware of what is expected of them in terms of outcomes; assessed tasks; and how to improve their performance
pedagogic pluralism	using a variety of teaching methods and assessment practices to reflect the multifaceted nature of learning outcomes and diversity of learning styles
learner participation	adopting teaching practices and techniques which stimulate student involvement in the learning process
consistency	in operating processes that impact directly on students (e.g. marking) and quality enhancement
collaboration	between all the various contributors to the student learning experience and those with a stake in the educational enterprise (e.g. employers, professional bodies)
stakeholder involvement	in shaping the curriculum and contributing to quality assurance and enhancement procedures
self-criticism	the need for an evaluative orientation with respect to quality enhancement
embedding of good practice	opportunities and procedures for sharing and disseminating innovative approaches that have proved to be successful and replacing bad with good practice

Source: Ottewill, R. and Macfarlane, B. (2004)

These principles were seen as implicit rather than explicit and are directed at a pedagogic rather than a quality assurance rationale. Nonetheless, this approach will serve as a useful introduction to the difficult quest of arriving at elements of a *culture of excellence* which we seek to delineate and eventually to map, ambitious though this claim might be.

3. Elements of a 'culture of excellence'

Having worked through a definitional minefield, it is tempting to argue that the elusive concept of a *culture of excellence* is easy to recognize but hard to define. In some ways the argument is analogous to discussions that used to take place regarding the grade descriptors for a 'First Class' degree with one school of thought maintaining that a First 'answer' would be recognized when it was encountered but it would be too mechanistic if criteria were used too prescriptively. Nonetheless, certain elements such as *imagination*, *innovation* and *creativity* were often well represented and even interesting concepts such as *intellectual bravery*. The authors have no wish to attempt to compile an authoritative or comprehensive checklist of elements that might be demonstrated in a culture of excellence. What is to be attempted, though, is a drawing together of various elements that may help to throw fresh insights into cultures of excellence before discussing how this might be susceptible to measurement.

Transformations

This concept derives from the seminal works by Harvey and Green (1993) and Harvey and Knight (1996). They argue that the university system must be transformed in order that the experiences of students in higher education be characterised by:

- shifting from teaching to learning;
- developing explicit skills, attitudes, and abilities as well as knowledge;
- developing appropriate assessment procedures;
- rewarding transformative teaching;
- encouraging discussion of pedagogy;
- providing transformative learning for academics;
- fostering new collegiality;
- linking quality improvement to learning;
- auditing improvement.

(*Source*: Harvey and Knight, 1996).

At this point, it is worth remembering the dictum by Harvey and Green (1993) that 'education is about doing something to the student as opposed to something for the consumer.' These words are prescient in view of prevailing orthodoxies that students be regarded not just as *consumers* of the educative process but also as *customers.* The orthodoxy has not gone unchallenged, however, as a group of American academics have argued that there are dangers in accepting the metaphor of 'students-as-consumers' too literally (Cheney, McMillan and Schwartzman, 1997) They argue that the metaphor may have a distancing effect on students, relegating their status to non-participants instead of junior partners in journeys of intellectual discovery.

We may conclude that whilst adequate quality assurance (QA) procedures be a necessary condition for the delineation of a culture of excellence, they do not by themselves guarantee this. Cultures of excellence will be discernible by the degree to which a journey of transformation has been embarked upon.

Quality chains

In her discussion of the implementation of quality in public services, Gaster (1993, p.56) draws our attention to the importance of quality chains arguing that 'almost all services depend in one way or another on other services, as part of the input, throughput or output, and sometimes all three' She argues that the quality or service chain is a key piece of the jigsaw of quality but it is interesting to note that this insight has not been widely appreciated in discussions of quality in the higher education context. Although writing in the context of all public services, Gaster vividly reminds us that where there are deficiencies in the overall provision of services, it is nearly always at the point where services need to interface with each other. The catalogue of child protection disasters within the UK nearly always points to absence of communication flows between key 'players' (social services, education, police) and serves as a dramatic reminder of the potential frailties of service provision. The implications of the 'seepage' of quality at the point at which services need to interrelate have not been

fully appreciated. However, some universities have started to introduce the HE equivalent of the local authority 'one stop shops' where a variety of student needs can be catered for.

One interesting reference to the value of links is provided in advice for tutors new to higher education by BEST (Business Education Support Team). When discussing the use to be made of colleagues, reference is made to line managers, academic colleagues and administrative support staff and new tutors are advised: '*meanwhile, think of your network of relationships in the guise of links in an internal supplier/customer chain; and think of the chain as a driver towards high quality outputs.*' (LSTN BEST 2003) This reminds us that the provision of quality in a higher education context does not just depend upon individual levels of professionalism but a network of working relationships that make their contribution to a quality culture.

4: Intelligently mediated Boundary Exchange Mechanisms (IMBEX)

This concept is an attempt to apply a radically new way of thinking about quality in order to advance our thinking about the constituents of a culture of excellence. The concept is constructed from a number of scenarios in 'everyday life' that illustrate aspects of boundary exchange mechanisms and, for the sake of illustration, will take the form of fragments of conversations

Scenario 1:   *I can't get my programming to work. It seems to perform all right and then get stuck in a loop somewhere*!

(*Comment*: a well known problem when learning to program is to correctly specify the 'exit' conditions so that a series of repeated instructions (' a loop') correctly exits and proceeds with the sequence of instructions after the loop)

Scenario 2:   *My train journey (unlike that I undertook last week) was fine – most of the connections worked fine but in one case I was delayed but managed to catch an alternative train*

(*Comment*: one of the frustrations of undertaking long train journeys is when a delay in one part of the network causes missed connections in subsequent stages of the journey)

Scenario 3:   I'm glad that I chose the course that I did – I did all of the research before hand and I think I have found the right course at the right university for me

(*Comment*: the choice of course can be fraught for intending students as decisions have to be made on the basis of information which may, at best, fail to convey the full nature of the demands of the course in question)

Each of these fragments contain the following elements:
- A sense of progression over time (a journey)
- Decision points made (voluntarily or not) within the trajectory
- Transactions ('boundary exchanges') where one moves from one system to another, sometimes on the basis if incomplete or presumed information

The concept of an IMBEX (**I**ntelligently **M**ediated **B**oundary **Ex**change) draws attention to the fact that much of everyday life is routinised and predictable but there are frequent occasions when we have to take intelligent decisions to make a shift from one state to another. What is the relationship of this concept to a culture of excellence? The argument advanced here is that cultures of excellence may be mapped by tracing out the number and quality of IMBEXes collectively engaged upon by staff (and student) members. We could, for example, paint pictures of two departments but the one which is more actively engaged with stakeholders (research communities, consultancy activities, joint exercises with other parts of the university) and with innovative teaching and learning activities (perhaps derived from attendances at conferences and workshops or even exposure to a developing literature base) exhibits much higher quality than the other.

The concept of an IMBEX helps us better to appreciate the implicit pedadgogic values discerned by Ottewill, R. and Macfarlane, B. (2004) in their content analysis of QAA Subject Reviews in the business and management area. Eight principles (see above) were discernible and the majority of these (*flexibility, pedagogic pluralism, collaboration, stakeholders, embedding of good practice*) convey notions of innovation, intellectual journeys and the ability to be transformative. Quality cultures are those in which constant challenges are made to organizational members as a result of their engagement in research, consultancy and pedagogic communities which are implicitly conveyed to a student community. The point is well made by Ottewill and Macfarlane (2005) who argue that

> ' a model provider of business and management courses would also be one that took steps to maximize the *involvement of all stakeholders*, particularly students, staff, employers and professional bodies, in every aspect of the educational process'

(*Source*: Ottewill and Macfarlane (2005), p. 6; emphasis in the original)

5. Complementary approaches utilizing 'link' analysis

In fields other than traditional quality management, there are complementary approaches which attempt to measure quality by examining the nature of linkages in which an artifact is located. Each of these will be detailed briefly below:

Google's utilization of PageRanks

Although the exact details of the Google algorithm for indicating the popularity of a page remains a commercial secret, the general principles that underlie the algorithm are in the public domain (a technical account is provided in Craven 2005). Google regards every linkage to your page as a 'vote' for that page and assesses both the number and the quality of the linkages in order to calculate a PageRank score. Hence 'higher quality' sources will float towards the top of a search as pages will be listed according to the extent to which search terms are located. Other things being equal, linkages with a higher PageRank score will receive priority.

This innovative algorithm has helped researchers to separate some of the wheat from the chaff in the World Wide Web in which there is no quality control as would be the case of an academic refereed paper. Although subject to some manipulation, the dominance of the Google algorithm owes much to its essential simplicity.

Use of Citation Index (Social Sciences Citation Index)

A citation index is a compilation of all the cited references from journal articles published during a particular year or group of years. In a citation index, it is possible to look up a reference to a work in order to find journal articles that have cited it.   In this way, a rough and ready indication may be made of the extent to which a particular scientific paper is judged to be significant. Of course, there are evident flaws. Groups of colleagues in a research project may regularly cite each others' (or their own) work and this may inflate the index. A work might be cited for its negative impact in that it represents a poor piece of work in the field (although these are generally ignored) Although citation indexes are primarily a tool to be deployed to enable researchers to locate cognate articles, the Research Assessment Exercise (RAE) has utilized citation indexes as an aid for the assessment of the quality of published work. Some information scientists have argued that it will be possible to predict the outcome of an RAE substantially by utilizing citation data (Holmes and Oppenheim 2001; Oppenheim, 1996) whilst others have shown how for a particular discipline (Archeology) the citation index was very highly correlated with the eventual outcome (Norris and Oppenheim, 1993) However there is a degree of suspicion that performance metrics may be too crude an instrument to assess the quality of research and whilst being a useful aid for conventional peer review should not be regarded as a substitute for it. As one biologist has commented 'we develop a pseudoscience of citation analysis, we should remind ourselves that what matters absolutely is the scientific content of a paper and that nothing will substitute for either knowing it or reading it' (Brenner, 1995)

Density of Networks as an index of 'community-ness'

The social anthropologist Ronal Frankenberg set himself the task of first describing and then analyzing a 'morphological continuum' of communities of varying stages of social development (the small fishing hamlet, the mining village, the suburb, the small market town, the metropolitan area) in contemporary Britain (Frankenberg, 1966) In a theoretical appendix, Frankenberg draws upon telecommunications theory to arrive at *density of social networks* as a key indicator of community-ness. When engineers are constructing a network, for example, of telephone lines then building 'redundancy' (or multiple pathways) into the system is one way of securing higher probabilities that a message can be re-routed and will arrive at its destination. Frankenberg suggests that the concept of redundancy used in its technical communications sense can also be applied to the density of social networks in a social setting.

It can se seen from the forgoing discussion that the essential ideas of using a linkage analysis (value chains in public services, Google algorithm, citation indices) or a network analysis (community-ness) have been used in a variety of intellectual disciplines. However, they have not been utilized much, if at all, in the quality management literature which this paper seeks to address. In particular, many quality analyses are essentially static (comparisons with a previous end-point) rather than seeking to systematically incorporate the process of time or a trajectory. The concept of the **imbex** outlined above may serve as a useful mapping tool in assessing progress towards a culture of excellence.

6. Utilising IMBEXes as a departmental mapping exercise

In view of the variety of metrics already developed in the quality field, one might question whether there is a need for yet another. However, the approach to be outlined below does not attempt a precise system of measurement to arrive at points on a scale (say from 1-1000) as utilized in EFQM models of quality so that one can know that one has achieved excellence once a magic threshold has been reached Rather, it is suggested that at a departmental level, staff might usefully attempt to document, weight and then assess the number and quality of the *imbexes* over a period of time.   It is possible that a heuristic diagram such as that provided in Figure 1 may be useful.
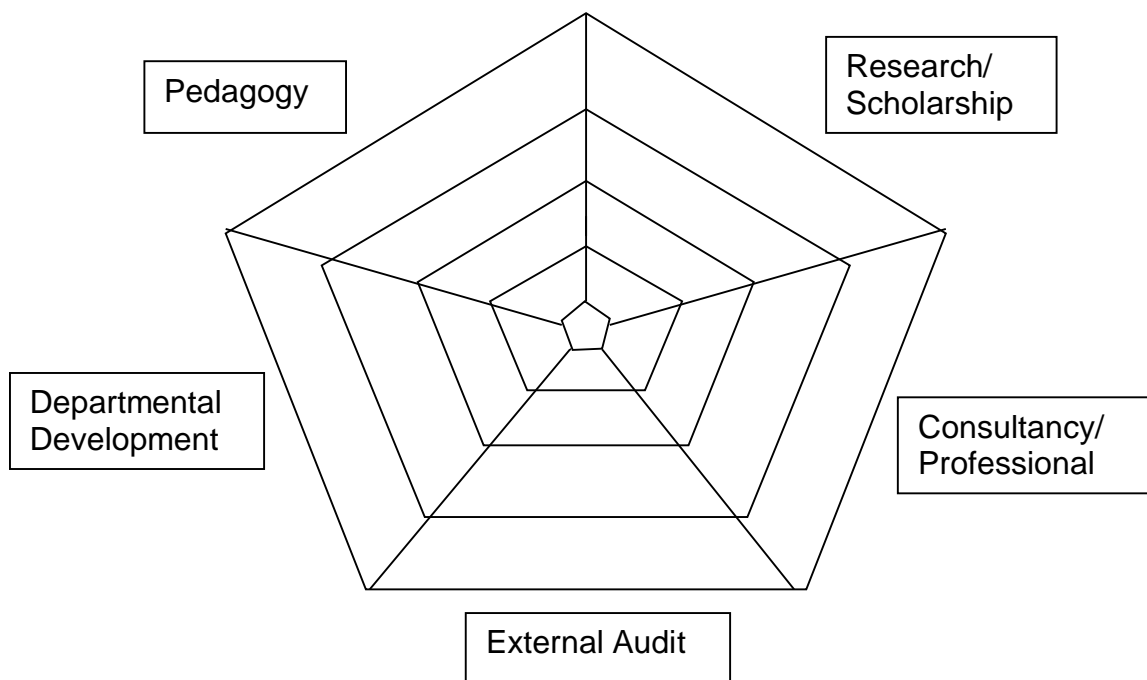

Figure 1: Mapping pentangle for the distribution of IMBEXes at a departmental level

The terms are relatively self explanatory, as follows:

- Pedagogy   Innovations or new approaches developed, tried, evaluated as a way of advancing transformative approaches
- Research/Scholarship   Conference presentations, workshops, publications, individual work of scholarship
- Consultancy/Professional   Links with significant stakeholders in the community including employers, professional groups
- External Audit   The variety of 'league tables' which may be used as external reference points at a departmental level
- Departmental Development   Significant developments (new course provision, significant restructuring of roles) which impact upon a quality culture

It is suggested that quadrants (probably based on quartiles and calibrated according to institutional or national norms) could be used as both a self-assessment tool and also as an indicator of future strategic effort in the quality journey

5. Conclusions

A review of the quality management literature in higher education reveals a divergence of approach between philosophies oriented towards quality assurance as compared with the transformative approach envisaged in quality enhancement. In the search for a delineation of those elements which might be said to constitute a quality culture a new approach has been suggested – i.e. the use of the concept of the *intelligently mediated exchange* or **imbex** . Such an approach has intellectual underpinnings in varieties of network or linkage analysis developed in a diverse range of disciplines. It is suggested that the use of such concepts might help in the task of ascertaining progress in discerning a *culture of excellence* and a mapping tool is suggested which might aid as a heuristic in this mapping process.

This paper derives from a wider investigation into student incorporation into quality management processes undertaken as part of the QUBE (Quality in Business Education) consortium of six UK universities. More information concerning the project may be found on the QUBE website (QUBE, 2006)

References

Becket, N. and Brookes, M. (2005) 'Analysing Quality Audits in Higher Education'
Brookes eJournal of Learning and Teaching, **1** *(*1),January
http://www.brookes.ac.uk/publications/bejlt/volume1issue2/academic/becket_brookes.html!
(accessed: 2nd April, 2006)

Brenner, S. (1995), 'Loose Ends' *Current Biology* **5**(5), 568

Cheney, G., McMillan, J. and Schwartzman, R. (1997), 'Should We Buy the "Student-as-Consumer"
Metaphor?', *The Montana Professor*, **7(**3) Fall
http://mtprof.msun.edu/Fall1997/Cheney.html
(accessed: 6th March, 2006)

Craven, P. (2005), *Google's PageRank explained and how to make the most of it*
http://www.webworkshop.net/pagerank.html
(accessed: 2nd April, 2006)

DfES(Department for Education and Skills(2003) 'The future of Higher Education' (White
Paper)(Cm.5763)
http://www.dfes.gov.uk/hegateway/strategy/hestrategy/foreword.shtml
(accessed: 6th March, 2006)

Frankenberg, R. (1966),*Communities in Britain ,*Harmondsworth, Penguin

Gaster, L. (1993), *Quality in Public Services – Managers' Choices,* Buckingham, Open University
Press.

Harvey, L. and Green, D. (1993), 'Defining quality', *Assessment and Evaluation in Higher Education*,
18(1), pp. 9–34.

Harvey, L. and Knight, P (1996), *Transforming Higher Education,* Buckingham: Open University Press
and Society for Research into Higher Education

Holmes, A. and Oppenheim, C. (2001) *Use of citation analysis to
predict the outcome of the 2001 Research Assessment Exercise for Unit of
Assessment (UoA) 61: Library and Information Management*
http://www.shef.ac.uk/is/publications/infres/paper103.html
(accessed: 6th April, 2006)

LSTN BEST (2003)'Drawing on the resources of your colleagues' in *First Steps for Tutors*
http://www.business.heacademy.ac.uk/resources/support/working/colleagues
(accessed: 4th April, 2006)

Norris, M. and Oppenheim. C, (1993) *Citation Counts and the Research Assessment Exercise V[1}:
Archaeology and the 2001 RAE*
Loughborough University(Institutional Repository)
https://magpie.lboro.ac.uk:8443/dspace/bitstream/2134/293/1/NORRISfinal.pdf
(accessed: 4th April, 2006)

Oppenheim, Charles (1996) 'Do citations count? Citation indexing and
the research assessment exercise', *Serials*, **9**:155-61

Ottewill, R. and Macfarlane, B. (2004) Explicit and Implicit Judgements of Quality: An Analysis of the
QAA Business and Management Subject Review Reports (2000-2001)'
Report for LTSN Business Education Support Team
http://www.business.heacademy.ac.uk/publications/misc/occasional/qaa.html
(accessed: 2nd April, 2006)

Ottewill, R. and Macfarlane, B. (2005) 'The Good, the Bad and the Ugly: Learning the Lessons from Subject Review in Business and Management', *The International Journal of Management Education*, **4**, (3), 3-9.
http://www.business.heacademy.ac.uk/publications/journal/vol4no3/ottewill.html
(accessed: 2nd April, 2006)

Owlia, M.S. and Aspinall, E.M. (1996), 'A framework for the dimensions of quality in higher education', *Quality Assurance in Education,* **4** (2) pp.12-20

QUBE (Quality in Business Education Project)(2006) Website
http://qube.ac.uk

Sachs, J (1995) 'Bridging the Gap Between Quality Improvement and Quality Assurance: A Project at Griffith University'
Australasian Association for Institutional Research, **4**(1), May
http://www.aair.org.au/jir/May95/Sachs.pdf
(accessed: 3rd April, 2006)