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Total Quality Management in the Scottish Universities

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ABSTRACT

This paper focuses on attitudes towards the application of TQM within the Scottish universities. Our study indicates that key personnel, with responsibility for academic quality, had substantial reservations regarding the usefulness and implementation of TQM within an academic environment. This may be partly explained by the obvious confusion which existed in the understanding of the TQM approach, compared to the quality standards approach, such as that of British Standard (BS) 5750 or of the International Standards Office (ISO) 9000, which were equally viewed as inapplicable in an academic context. Despite these reservations, the language of TQM was widely utilised to express institutional mission.

Introduction

Total Quality Management (TQM) is a philosophical approach to the management of organisations, and in particular, to the management of change within organisations. Although originally developed by American management specialists including W. Edwards Deming and Joseph M. Juran, TQM was first successfully applied to production management in Japan, after the Second World War.

Deming and Juran believed that most quality problems were caused by management, rather than by the workers. Their aim was to empower workers and involve them in decision-making; to improve communication between management and employees and encourage a team approach.

Although grounded in statistical analysis of performance, it was an approach which also laid importance on the human element of an organisation ([Deming, 1986](#); [Juran, 1988](#)). Unlike the ISO9000 / BS5750 approach, TQM does not require the documentation of standards against which the product or service will be judged time after time. Instead, it seeks to inculcate an attitude in all employees which prioritises customer satisfaction.

This paper explores the appropriateness of TQM in a higher education context. Specifically, we investigate whether a management philosophy such as TQM initially created to deal with the problems of manufacturing industry — can, or should be, applied within higher education institutions (HEIs).

Previous studies have suggested that higher education is a sector in which individual autonomy and academic freedom are highly valued and where top-down management initiatives may be viewed with deep concern ([Barnett, 1992](#)). Implied in this characterisation of higher education is the partial or complete rejection of TQM methods within HEIs. On the opposite end of the spectrum, some observers have viewed TQM as a means of managing change, in order that innovations can be implemented, while still preserving the traditional values of higher education ([Winter, 1994](#)). Our study incorporates the views of key personnel, in the thirteen Scottish universities, as to the applicability of TQM in that environment and demonstrates confusion between this approach and that taken by the standardised approaches of ISO9000 / BS5750.

The Higher Education Context

HEIs have come to face pressures increasingly similar to private sector organisations. Since the 1992 Further and Higher Education Act, and the UK Government's drive to increase participation rates in higher education, more universities and colleges than ever are competing for the same 'pool' of students. Interest in quality issues and quality management has grown, as each HEI aims for delivery of high quality programmes, and achievement of the highest ratings in the research and teaching quality assessment exercises. These grades are often used in promotional material for departments and institutions, in order to attract high calibre student applications. They have, in many ways, become critical to the overall success, if not survival, of the organisation.

To achieve high ratings, HEIs need robust monitoring systems as well as the total commitment of all their staff, and a culture which supports the idea of continuous quality improvement. This has become one of the incentives for the introduction of TQM type measures. An additional aspect favouring TQM is the fact that universities are currently under pressure to deal with increased student numbers, while at the same time suffering from a reduction, in real terms, of per-capita funding ([Williams, 1993](#)). Hence, efficiency in dealing with large numbers, cost reduction, accountability and value for money have become key issues for today's HEI.

Williams (1993) suggests four possible routes for TQM to enter an HEI:

- (1) Members of university governing bodies, who have experience of TQM in the business world, and seen the benefits which it can bring to an organisation, have stimulated discussion at the highest levels of institutions.
- (2) Those who teach the principles of quality management in business schools and engineering faculties have brought this expertise to bear in developing their own institution's quality policies and mechanisms.
- (3) Explicit pressure from Government has led institutions to pay more attention to quality issues, especially as these relate to funding.

- (4) Existing quality assurance procedures have proved inadequate in coping with the increasingly competitive, market-driven environment in which HEIs now operate. New managerial approaches must be sought which will address these issues.

Management Leadership

Proponents of TQM in higher education have identified a number of pre-requisites for the implementation of this method. Accordingly, TQM has to be management-led. If the senior management of the institution are not committed to this approach, how can they expect to persuade their academic colleagues? In other words, management must be able to see a clear benefit to the institution and effectively communicate this ([Crosby, 1996](#)). Moreover, TQM will only work if there is total workforce commitment to it ([Williams, 1993](#); [Taylor & Hill, 1991](#)).

Not only the academic staff but also the support staff, who contribute to the running of the institution and to the overall student experience. This will require cultural change ([Cousins, 1994](#)). A move away from a quality control approach where staff members react to things once they have gone wrong, towards a more proactive approach, where staff seek ways of continuously improving the quality of our work. It requires a change in the way service provision is perceived, both internally and external to the institution.

Finally, TQM has to rely on robust data gathering and analysis, as a means of monitoring quality and measuring change ([Ashworth & Harvey, 1994](#)). If an organisation is to improve quality, it must have some means of measuring where we are and deciding where we would like to be.

[Lewis and Smith \(1994\)](#) argue that TQM's emphasis on quality-based systems and processes provides a positive framework for integrated institutional decision-making and problem-solving. Their view is that student learning is the core function of universities and that all discussions on quality and quality assurance should be based round this.

[Williams \(1993\)](#) supports the view that one of the most persuasive features of TQM lies in its emphasis on the individual's contribution to the success of the entire organisation. He accepts that academic staff may have divided loyalties — to the institution, their students and fellow scholars — and that these need to be borne in mind when implementing a TQM approach. However, Williams decries the use of the principle of 'academic freedom' as a means of denying such an approach and of escaping from a measure of accountability for the method or content of what is taught or researched.

There are, undoubtedly, problems within any initiative in higher educational institutions which can be perceived as management-led. Moreover, academics may be put off by the evangelical fervour of some TQM proponents and especially when TQM is perceived as bringing in more committee work with no direct professional benefits for individual staff ([Brown & Koenig, 1993](#)). Other problems can arise from the reluctance of staff members to disregard existing boundaries. Writing about the implementation of TQM in 10 colleges and universities around Boston, [Entin \(1993\)](#) found that while senior management were often extremely enthusiastic about the initiative, the reluctance of academic divisions to adopt it was alarming and represented a serious disjunction between market forces and the academic enterprise. Entin concluded that it was essential that both academic managers and faculty were able to see the benefits of adopting a TQM approach, both for themselves and for their students and other customers.

Lastly, [Fry \(1995\)](#) found a major obstacle to the implementation of TQM measures in the lack of ownership by individuals, and institutions, of the changes brought about by the quality movement. In addition, she noted an attitude of cynicism with regard to the motives behind the introduction of TQM. This is similar to the views expressed by [Barnett \(1992\)](#). According to Barnett, the idea of management for quality may be both appropriate and desirable in a higher education environment; however, the idea of the management of quality is one which many academics distrust. Barnett states:

Academic management is more like that of the leadership and direction exerted by an orchestra's conductor than by an army's general. (p. 80)

Workforce Commitment

This takes us on to the next main strand of TQM, namely workforce commitment. The organisational theorists have recognised that the higher an individual rises in the management structure, the more remote she becomes from the actual point of delivery of the service. In higher education, most teaching is delivered by lecturers or postgraduate teaching assistants. Senior lecturers, Readers and Professors will have less class contact time, due to their responsibilities for programme management and research. The Research Assessment Exercises of the 1990s have intensified this split between non-teaching senior staff and unpromoted teaching staff, as both individuals and institutions seek to maximise gains from the RAE by focussing on well-rewarded research activity, rather than 'bread-and-butter' teaching. At the highest levels of the institution, Deans, Vice-Principals and Principals may have no direct contact with students at all.

These developments may make it essential that front-line employees are motivated to always deliver their best. [Sallis \(1993\)](#) has suggested that training and staff development are critical factors in the success of a higher educational institution. This overlooks the importance of support staff. In the front line of student contact are the HEI's telephonists, receptionists, security staff, finance and admissions office staff. Before the student has stepped into a classroom, they are likely to have gained an impression of the institution from the way in which they have been treated by its representatives. One of the main benefits of adopting a TQM approach, within higher educational institutions, may be its emphasis on the role which all staff play in the enterprise and the way in which the actions of one affect the other and, ultimately, impact on the success or failure of the entire organisation. This is an integrative approach to service delivery, which some have argued is not currently visible in higher education institutions ([Williams, 1993](#); [Taylor & Hill, 1991](#)).

One clear advantage of a TQM approach is that it highlights the need for a team ethos ([Taylor & Hill, 1991](#)), while stressing the requirement for training of all the workforce in quality assurance, problem-solving and communication, in order to encourage the involvement of all parties in attaining quality through teamwork ([Pollock & Sutcliffe, 1992](#)). Teams do not operate efficiently overnight. They need to be trained both in the skills of team-working and in the techniques, which they will require to utilise, in their quest for quality enhancement. A cascading programme, starting with senior management and working down the organisation to the final points of delivery, is essential and, at all stages, reviews of progress need to take place ([Pollock & Sutcliffe, 1992](#)). The idea of training for senior management is controversial in an environment where training is generally seen as something for the lower level staff. However it is critical to the successful implementation of a quality culture, based on TQM. The timing of employee training is also critical. Bringing employees in too early, training them and not allowing them to utilise their new-found skills

for a while, has led to teams floundering, a decrease in motivation and the whole TQM initiative running out of steam ([Brigham, 1993](#)).

Because of the importance of teamwork, it may be easier to envisage TQM working in administrative and other support areas, than in academic departments. By and large, university teaching staff do not operate in teams. They work as individuals in creating material for their courses and in delivering these. Despite all the goodwill, talent and effort of individual members of the academic staff, there is seldom a collective sense of obligation towards improvement of student learning. This presents a difficulty for the implementation of continuous quality improvement, since the bulk of the advice from TQM initiatives in industry centres on teamworking as the key to success ([Roffe, 1998](#)). In higher education therefore, mechanisms may have to be put in place which will allow academic staff to work with colleagues. This may include programme boards or subject groupings, which pursue a more collective approach to quality enhancement.

Higher education institutions are hierarchical in the sense that they have a pyramidal structure with a Principal / Pro Vice-Chancellor at the top, followed by Deputy or Vice Principals, Deans of Faculty and Heads of Department. However, the extent to which HEIs are managed centrally varies from institution to institution. Traditionally, the older universities have operated a very decentralised system, with power and responsibility devolved to Faculty and Department level. Heads of Department and Deans were often elected positions from amongst the academic body and such posts were rotated on a 3 or 4 year basis.

The newer universities, by contrast, were more likely to have a centralised administration and management with senior posts appointed, following interview, on a permanent basis. It is the permanency of these management positions which has led to accusations of a more managerial culture existing in the new university sector. However, during the interviews carried out as part of this research, staff from the ancient Scottish universities suggested that their own institutions had moved towards a much more centralised, managed structure and that this was in part a response to national initiatives, such as the TQAs, and the need for these to be managed.

It is likely that it is not the hierarchical nature of the institution which militates against the successful implementation of TQM but the ability of the senior management to effectively communicate the need, and provide the training, for its introduction. TQM requires both top-level commitment and top-down cascading. It also requires the empowerment of staff at all levels and the encouragement of a bottom-up approach, whereby those at the sharp end — the people who have direct, first-hand contact with students — can identify problem areas and seek to offer their own solutions, before serious mistakes are made.

TQM and Culture Change

Trust and co-operation are essential elements in a successful TQM strategy and it is therefore important to create a culture within the organisation which will support such activity. In many organisations, such a culture would take a considerable period of time to develop. There may be considerable mistrust of management to be overcome and questions over the 'hidden agenda' which the TQM approach might be disguising. There may also be a predominant culture of blame, in which staff are reluctant to admit to areas of weakness, and seek resolution of these, for fear of criticism or recrimination. It has been argued that if TQM is to work, senior management needs to drive out blaming and fear and remove obstacles in the way of continuous improvement of quality ([Marchese, 1993](#)). It also needs

to realign the activities and culture of the organisation towards a belief in continuous improvement as a goal for the entire workforce (Thorn, 1991).

Changing an institutional culture is a slow process. The new universities, i.e. those formed since the 1992 Act, have gradually been building up their research profiles from a very low starting point. The majority of their funding comes from registered student numbers, supplemented by externally generated income from consultancy activities. However, they are now competing for a share of the funding available to all universities, based on research quality. For some academic staff, this is a difficult transition, as the job for which they were employed perhaps twenty years ago has now changed out of all recognition.

TQM can assist the process of managing change by making explicit the need for the institution to deliver the highest quality output in teaching, research and applied consultancy, and by training and supporting staff in their altering roles. In this way, change can take place gradually as staff accept the need for continuous improvement in all aspects of their performance.

Some organisational structures may hinder such an approach. Where decision-making is centralised and bureaucratic, this may prevent the institution from dealing effectively with environmental change (Taylor & Hill, 1993). If responsibility for quality is to be transferred down to the point of delivery, then decision-making and accountability must follow. However, for management to loosen the reins of power takes a great deal of faith in the workforce. And for employees to accept responsibility, requires training and support.

Identifying Customers and Objectives

Organisational theorists would suggest that it is far easier to meet the goals one sets oneself than to seek to meet those of one's customers (Marchese, 1993). Yet, the new approaches to quality assurance demand that customers' voices are heard and that their needs are met. In a TQM context, quality is defined in terms of whether it meets the specifications of the customer (Green, 1994). This requires an attitude change with regard to 'who' that customer might be. Is the customer the student or the employer of graduates? Parents or Government paymasters? Sponsors or professional bodies? Or is it society as a whole? (Lin, 1993)

In the manufacturing sector, where TQM was first introduced, there is a multitude of customers. To define the term 'customer' merely in relation to the final purchaser of the product is to take an extremely narrow view. Of course, the purchaser of the product is the customer but so too is the retailer, the wholesaler, the distributor, and every person involved in the manufacturing process who depends on someone else, within the company, carrying out their function without mistake, in order that the next step in the process can be effectively accomplished.

In higher education, do we also have to look for an answer to this question with a single response? Students demand interesting, well-taught courses, which will lead to relevant, professional employment or prepare them for further study. Employers of graduates demand a high degree of knowledge and skills in order that the graduate can swiftly become an effective member of their workforce. Parents, and the Government, who are funding the individual student's higher education, will seek value for money in terms of the resources and facilities which support their studies; reassurance that the quality of teaching and research is of an acceptable (if not, exceptional) standard and a guarantee that jobs will be available for qualified graduates. Sponsors and professional bodies will seek verification

that particular knowledge and skills have been acquired, which will result in exemption from professional examinations.

There are some examples where individuals or organisations have sought to identify the primary customer of higher education. The Engineering Professors' Conference in 1992, for instance, took the view that the primary customer was the student, and that the service which was provided was education ([Burge & Tannock, 1992](#)). This view left out the important element of the student's own contribution to her development, for she is not merely a passive recipient of the service but an active participant in the process. An additional difficulty in adopting an 'industrial' model, and attempting to apply it in higher education, is that certain aspects do not easily translate into such a different environment. In higher education, the raw material is not standardised at a certain level of quality and the academic member of staff cannot reject a student for not being well enough prepared by another lecturer ([Forsyth, 1994](#)).

One way to tackle these difficulties may be better diagnosis, at point of entry, of a student's capabilities and potential ([Williams, 1993](#)). Such diagnosis allows adequate support and, if necessary, remedial action to be taken in order to ensure the student's success on the programme. However, success is ultimately predicated on the student's own commitment to learning and may benefit from a specific form of contract, or understanding, between the university, lecturer and student as to what each can expect from one another ([Williams, 1993](#)). Clarification of rights and responsibilities has been increasing, in the public sector generally, with the introduction of charters and, in higher education, learning contracts. These reinforce the view of student as customer, highlighting the importance of the two-way relationship between teacher and learner in higher education.

[Storey and Doherty \(1993\)](#) accept the view that there are multiple customers of higher education and that these customers all have a part to play in determining the outcome of the 'product'. They suggest that, while the institution may respond to the student's desire for a 'qualification', it may also have to take into account the standards of its validation committee, the requirements of a professional body, the needs of employers, and the expectations of society as to what constitutes 'graduateness'. As we have seen previously, it is this lack of clarity as to who the customers of higher education are, and how assessments of quality should be conducted, which can be the main stumbling blocks to the adoption of a TQM approach. However, it is not inevitable that these problems should limit the areas or applicability of TQM.

Field Study

The findings in this paper come from a wider study on the perceived impact of the TQAs on the Scottish universities. As part of this study, we obtained a perspective on the understanding, and applicability, of TQM within these institutions. A series of semi-structured interviews were carried out, between April 1997 and February 1998, with senior personnel in each of the thirteen universities, who had responsibility for quality issues in learning and teaching.

Each interview consisted of a number of semi-structured questions. In relation to TQM, the interviewees were asked whether they believed that management philosophies, such as TQM, had a place in academic institutions and whether their own institution had gone down such a route. They were also asked a similar question, with regard to the more standardised route of quality assurance, accreditation to BS5750 / ISO9000, which some universities in England, such as Wolverhampton, had already implemented ([Storey & Doherty, 1993](#)).

(a) General views on TQM

When asked about their general views on TQM, and its applicability in the higher education context, some of the interviewees indicated sympathy for such an approach. Responses included the following statements:

I do not think that there is anything about TQM, as a philosophy, which is inimical to it being in higher education. (Director of Quality)

The principles of TQM ... that everyone has a responsibility within the institution. I certainly believe in that. (Vice Principal)

The aspects of TQM which tend to go quite well in universities are the parts which say that you must put the quality checking systems down to the lowest levels, and that has worked quite well. (Vice Principal)

Despite these favourable predispositions, all of the interviewees expressed concern about the operation of TQM in an academic environment. This concern manifested itself in three key areas — the language of TQM, the culture of the executive body, and the threat to academic freedom.

One of the problems associated with the implementation of TQM in higher education is the commercial undertone of the language, or jargon, which is utilised. [Kohn \(1993\)](#) has suggested that such language can have disturbing pedagogical implications. We have already seen that academics can have difficulty with the idea of 'internal' and 'external customers'. One Director of Academic Development argued that:

Academics have gigantic problems about thinking of students as 'customers'. I don't think students are solely customers but I have no difficulty thinking, at times, that students will behave exactly like customers. The more they pay, the more likely they are to behave like customers.

Customer, and customer satisfaction, can seem too commercial and simplistic to describe the relationship between the institution and the student ([Lewis & Smith, 1994](#)). Not only are students one of the customer groups but they can also be viewed as 'partners', 'apprentices' or the 'product' of the system. A Director of Quality stated that:

These are all quite different things and ... that is extremely difficult to operate as a Total Quality situation. Marks and Spencer don't try to say that all their customers are also apprentices to M&S and they will run their quality on the basis of these multiple roles. It makes it more difficult to articulate a coherent, clear quality philosophy.

Accountability, value for money and 'fitness for purpose' are further examples of business language, which is now commonplace in higher education institutions, but which is strongly opposed by many academics, implying limits on academic freedom and creativity and a drive towards standardisation and uniformity ([Lewis & Smith, 1994](#)).

Again, a statement by the Head of Academic Staff Development, at an ancient university, highlights the problems of transposing this language into academia:

There is pretty wide acceptance of quality assurance, which has come from academia itself, but I think that these more management-originated schemes would get a poor reception here. I find a lot of it jargon-ridden and not so appropriate for universities.

The problem with the language and jargon of TQM is that it is a complete turn-off.

(b) The Practice of TQM in the Scottish Universities

From a total of thirteen universities, three of the post-1992 institutions in Scotland had attempted to be proactive in their approach to TQM. One had set up a special department with the aim of raising the concept of quality, in its widest sense, with both academic and supporting staff. This operated for a couple of years, assisting departments, if invited to do so, but not 'bullying people to take part'. This department was subsequently absorbed into another, larger department and its 'champion' retired, with the result that the initiative was largely lost. Another had tried the TQM approach within a non-academic area and reported that it had 'operated reasonably successfully for a couple of years, before it began to disintegrate'. The third had taken a whole institution approach in committing to TQM, but as in the previous examples, had seen this decline and disappear in recent years.

One of the reasons given for this lack of progress was the commitment by senior management to the process and the conflict which might arise as staff were increasingly empowered. The Head of an Academic Development Unit stated:

I think one of the things is that it has to be owned and have enthusiasm for it from the very top and the implications that go with it have to be conceded by the very top. Some of the aspects which they might lose, on their bits of control of power, might be one of the influences that go against giving every player in the system their full responsibility.

A similar Head, with experience of an attempted implementation of TQM within his own institution, supported this view with a suggestion as to why the implementation had failed:

The culture which they tried to introduce through TQM was at slight variance with the executive culture which operated through the university ...

Retrospectively, it appears that the intention to adopt a TQM approach has not followed the basic guidelines for successful implementation, which as we have seen demands both grassroots acceptance and empowerment, and top-level commitment and example. Trust in the institution's staff, and the willingness to devolve both responsibility and power downwards, was a key missing element.

Arguably the most contentious of expressions in the TQM vocabulary is 'right first time'. Advocates of this approach argue that the more an institution can achieve this, the better will be its quality, and the more time can be spent on addressing those aspects the HEI has not yet got right (Ashworth & Harvey, 1995). Adopting a 'right first time' approach, helps ensure that the objectives and methodology have been clearly thought out, to minimise time wasting and prevent unnecessary mistakes (Taylor & Hill, 1991). Critics sometimes interpret this approach as being detrimental to creativity, experimentation and research. The quest for improvement in knowledge is based on experimentation which, by its very nature, does not get it right first time, and therefore many academics can see little practical

application of a TQM approach in their environment. A Director of Academic Development suggested:

There is an important balance in higher education, which is the need to put in place sound, fair, sensible systems for staff and students and their relationship, while at the same time allowing for high levels of tolerance, high levels of diversity and trying to encourage higher levels of individuality and creativity. How do you stop the one thing being the dead hand on the other? And how do you stop the other being a complete destroyer of any reasonable, even-handedness and fairness? ... I would be unhappy if we neutered all innovation and all creativity in universities by going down the quality routes.

This statement has resonance with the view that quality assurance procedures can lead to a checklist mentality ([Barnett, 1992](#)). However, this does not have to be the result of introducing a TQM approach. By encouraging ownership of quality, at grassroots level, we should be encouraging self-reflection, innovation and improvement and not stifling it, as our interviewee suggests might be the case.

(c) TQM versus BS5750 and ISO9000

The interview data clearly demonstrated that key personnel were confused about the various industrial models of quality management, especially between TQM and the British or International Standards (BS5750 / ISO9000). One of the key arguments against the applicability and successful implementation of TQM in the Scottish universities was its perceived mechanistic nature. In response to a question on TQM, a Vice Principal stated that:

The culture would be utterly hostile to British Standards and all that kind of stuff. I wouldn't dream of using those terms. We have other ways that are slightly more acceptable when talking about these things. My objection to TQM is that the system may be wonderful but the product is rubbish.

The Head of an Academic Development Unit said:

I am very much for accountability but the mechanistic approach which TQM has offered hasn't seemed to be very helpful.

These views represent some misunderstanding of the approach which TQM takes towards developing holistic, institutional attitudes to quality assurance and enhancement. This confuses TQM with the very different approach which has to be taken if an organisation wishes to achieve a kitemark for the quality of their systems under British or International Standards. BS5750 is a series of national standards, prepared by the British Standards Institution, which are used in all types of industrial and commercial organisations. BSI ensure that the British Standard is equivalent to its international and European counterparts, ISO9000 and EN29000, and that its registration mark indicates that the quality systems, which have been described and documented, are adhered to. Obtaining registration requires the organisation to analyse each step of the 'production' process and document the procedures to be followed, in order to ensure that the product will be 'fit for the purpose'.

ISO9000 and BS5750 were widely adopted in industry, however there was scepticism as to their applicability in higher education institutions. One perceived difficulty was the achievement of product consistency, when the product was educational, rather than

engineering-based, and could be interpreted in a number of different ways, e.g. the product might be the learning process, student learning or student entitlement (Ashworth & Harvey, 1994). However, BS5750 / ISO9000 does have its advocates in higher education. Day (1990) suggested that the discipline of having to document one's systems was essential in any attempt to create a quality culture, and that this could usefully be used as a marketing tool in higher education. Hale (1991) also saw advantages in the adoption of BS5750 for all university activity, including research and teaching.

The disadvantage of a BS5750 / ISO9000 approach lies primarily in the length of time required to fully analyse and document all procedures and the danger that, once documented, staff might cease to review their ongoing effectiveness. This reflects Barnett's (1992) view that BS5750 is a prime example of quality assurance, where the implementation of systems, regulations and procedures leads to a check-list approach to maintaining quality. While the aim of every higher education institution should be to ensure that everything it does — both academically and administratively — is to the highest quality, the HEI should not rest on its laurels. By adopting the TQM philosophy, such institutions will embark on the never-ending quest for improvement and thereby ensure that the quality of all their operations is systematically reviewed, evaluated and enhanced, within a culture which values teamwork and empowers the individual.

None of the thirteen Scottish institutions in this study had adopted BS5750 for any academic area, and the majority conceded that it had not been considered. Where active consideration had taken place — in two of the post-1992 universities — it had been rejected. One reason given was its perceived incompatibility with a TQM approach, which one institution was trying to introduce at that time, while another was its mechanistic nature. The standardised route was more likely to have been discussed in relation to non-academic, or support, areas such as estates and building, print design services or the university's commercial arm and, in two institutions, had been adopted by such divisions.

A few interviewees also commented on this route being considered by their Engineering departments, particularly in relation to Government research contracts, and one spoke of the need to consider moving towards ISO9000 accreditation for wider commercial reasons. A Director of Quality stated that:

Some research contracts from industry are asking 'are you ISO9000?' If we start losing research contracts because we are not ISO9000, then we will certainly move very quickly in that direction.

However, one of the disadvantages of such accreditation can be its perceived rigidity. The standards route is designed to ensure that set procedures are followed in order that quality may be consistent. It does not encourage the type of experimentation which might lead to quality improvement and as we have seen, in the response to previous questions, there are concerns about the impact which such managerial approaches might have on academic freedom and innovation. If this view persists, in relation to the implementation of TQM, it exists even more in the case of BS5750. In the words of one interviewee, a Director of Academic Development:

You are not addressing the issue if you are just producing the manual. You have a law-abiding population because people actually want to abide by those laws. If you don't have that, you will never have a law-abiding population. Some people see opportunities out of not abiding by them — and then you are in a policing situation.

It remains to be seen whether external influences, such as the need to acquire commercial contracts for research or consultancy, will force institutions to look more closely at the accreditation of their quality assurance procedures, in relation to academic work. However, at the moment, there appears to be no enthusiasm for going down this route.

Conclusion

TQM's philosophy, values and norms are not inherently inappropriate in a higher education context. In a TQM approach, organisational barriers can be overcome by senior management which ensures that a common understanding of the problems facing the institution has been created, and that staff have been trained and empowered. Cultural barriers can be overcome by nurturing a common commitment, amongst academic, administrative and support staff, towards overcoming quality problems, and seeking continuous improvement in everything they do. Encouragement of team-working and improvement of internal communications are essential.

If TQM has not been successfully implemented in the Scottish HEIs, it is largely because management understanding of, and commitment to, the approach has been inadequate. Senior management have failed to 'walk the talk' and lead by example. They have failed to communicate the fundamental principles and philosophy of TQM throughout their institutions. Instead, a general misconception — that TQM is about systems and procedures and checking — has been allowed to take precedence. Staff have come to see quality assurance procedures as burdensome, time-consuming and adding no value to their academic work. This has created a mind-set which places QA procedures as an end in themselves, when they should be seen as an essential part of a TQM approach.

Quality assurance procedures allow us to gain feedback on our academic provision, in order to enhance and improve its quality. The standards approach, with its carefully documented systems, may run the danger of producing a checklist mentality. Quality standards will be assured but innovation may be discouraged. A TQM approach, on the other hand, fits well with higher education's values. It can be utilised as part of a culture change in which HEIs have a clear focus on their markets and their missions, strive to be the best they can be, and seek to continuously improve on the level of quality they deliver to their many different customers.

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