

CONSTRUCTION'S EXPERIENCES OF ATTEMPTING TO BECOME WORLD CLASS: THE ROLE OF ACADEMICS IN ASSISTING PRACTITIONERS

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The use of quality management in construction is well established. The introduction of initiatives such as Quality Assurance (QA) using ISO 9000 (formerly BS 5750) was for some organisations a requirement imposed by customers. Many organisations have used the formalisation of documents and procedures necessary for third party accreditation (the crux of QA) as a foundation for pursuing 'lean production' initiatives such as TQM, BPR and benchmarking. The paper explores the issues that construction contractors must confront in their efforts to start and then to sustain what are undoubtedly radical programmes of change. In particular, we compare their experiences of implementing quality management to research carried out by Dale & Lascelles (1993) which indicates that there are six levels of TQM adoption. Specifically, we will describe our involvement with a group of quality managers from large contractors in the West Midlands. As a result of the more demanding requirements of clients in the wake of Latham, the group is now increasingly attempting to learn and apply lessons for improvement derived from other industries, particularly manufacturing. As part of the change process, we, as academics, are increasingly being looked to for advice on how to transfer the lessons and knowledge from the other industries.

Keywords: Change, construction, quality management, TQM.

INTRODUCTION

The introduction of quality in construction has been reported widely in recent years (McCabe *et al* 1995; McCabe, 1996a: 589-598; McCabe *et al* 1997). In these initiatives, the initial objectives of organisations introducing quality management are to document and then make improvements to their processes; eventually they may hope to emulate the example of so-called 'excellent' organisations. In the long term, the companies may aspire to become World Class. However, the use of QA alone to satisfy client requirements has not always been welcome (Chevin, 1991:48; Walsh, 1995:92). Partly in response to dissatisfaction with 'formal' approaches to quality (QA), and partly due to customer pressure, construction organisations are attempting to supplement their early systems-based approaches with continuous improvement initiatives such as TQM. The desire is to produce organisational change which provides benefits similar to those experienced by other industries, most notably manufacturing.

Lascelles and Dale (1993) report on research carried out by the UMIST Quality Management Centre. They describe a typology they have developed for the 'six levels of TQM adoption'. These levels are: uncommitted, drifters, tool-pushers, improvers, award winners, and world class. They stress that the generalised descriptions which

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they provide are not the stages through which an organisation *must* pass, 'rather they are characteristics and behaviour which organisations display in relation to TQI (Total Quality Improvement)' (*ibid*:285). What is of interest to us here are the descriptions of the characteristics of the stages. How representative are these of organisations trying to 'Become the Best' (the title of the chapter in which Lascelles and Dale report)? In particular, how do they relate to the experiences we have had when working with construction contractors?

The structure of the paper is as follows: first, we outline the typology produced by Lascelles & Dale; next, we discuss our involvement with a group of quality managers from Midlands construction companies, describing the evolution and work of the group over the past three years; finally, we outline some of the benefits to us and challenges we have faced as a result of our involvement.

THE SIX LEVELS OF TQM ADOPTION

1. *The Uncommitted* are, according to Lascelles and Dale, those organisations which have implemented ISO 9000, and which utilise some quality management tools and techniques. However, such organisations will have achieved this much 'almost certainly as a reaction to customer pressure' (*ibid*:286). They will regard quality effort as a contractual obligation; a cost which must be absorbed.
2. *The Drifters* are organisations which will have attempted to implement TQM. They are characterised as finding the 'going tough', and 'initial enthusiasm will have worn off and management will be considering ways by which the process may be revived' (*ibid*:287). Lascelles and Dale warn that Drifters are unlikely to succeed because quality improvement is 'perceived as a strategy, not a process' (*ibid*:288). Significantly, they also stress that 'Management... have undue high expectations of ISO 9000... and fail to distinguish the difference between meeting the standard and TQM' (*ibid*).
3. *Tool-Pushers* are organisations which have been operating quality improvement for a significant amount of time (three to five years). Lascelles and Dale suggest that tool-pusher organisations will be looking at the criteria of quality awards such as the EFQM (European Foundation for Quality Management), or the British Quality Award for assessing their quality programmes. These criteria, they advise, will 'provide an indication to senior management of what is involved in TQM' (*ibid*:289). Nonetheless, they suggest, such organisations can be characterised as 'short-termist' and 'looking for the latest panacea' (*ibid*:290). Typical of tool-pushers, they argue, will be an impression of improvement, but 'under the surface [there] is still a 'fire-fighting' culture' (*ibid*:291).
4. *Improvers* are organisations where real progress is being manifested. There will have been a cultural change, and a commitment to continuous improvement by the senior management 'through leadership and their... personal actions' (*ibid*:291).

Other characteristics of improvers are:-

- a) Long-term education and training will be the norm;
- b) Employees at every level are involved;

- c) Competitive benchmarking will have been commenced;
- d) 'A leadership culture will be starting to emerge' and 'quality improvement champions will exist' (*ibid*:292);
- e) There will be greater trust between the different hierarchical levels of the organisation;
- f) 'The preoccupation with numbers will be diminishing' (*ibid*).

Improvers, whilst having made progress, will need to concentrate efforts because 'TQM is still not internalised throughout the organisation, and the process is not self-sustaining' (*ibid*). For the organisation to progress, Lascelles and Dale advise that TQM must now become something which is of 'prime strategic importance' (*ibid*).

5. *Award Winners* are organisations where the effort towards improvement is significant enough to allow them to be able to compete for international or national quality prizes. Lascelles and Dale describe such organisations as exhibiting 'Total Quality maturity' (*ibid*:293). The characteristics of this maturity are:-

- a) Leadership which is 'not dependent on the commitment and drive of a limited number of individuals' (*ibid*).
- b) Achievement of empowerment, measurement of 'real' progress, and strategic benchmarking at every level.
- c) A culture change where TQM is 'viewed sincerely by all [organisational members] as a way of managing... to satisfy and delight customers (internal and external)'.

Whilst being an award winner is highly desirable, and extremely difficult to attain, it is the next set of characteristics which signal the ultimate level of TQM adoption.

6. *World-Class* organisations are those where there is 'total integration of quality improvement and business strategy to delight the customer' (*ibid*:294). Such organisations go beyond 'just' winning an award. They will be a culture where every person is continuously searching for opportunities to improve, and as a result 'increase customer satisfaction through all [of the] networks of process streams' (*ibid*).

Lascelles and Dale indicate that, until recently, world-class status has been regarded as the preserve of Japanese organisations. However, Western organisations have learned from Japan, and, in particular, regard the pursuit of customer satisfaction as a prime strategic objective.

Their typology is directed at an 'organisational' level—and it clear to see that by this they mean (senior) 'management' level. As we shall describe below, the picture is considerably more complicated at the lower levels of the organisation (i.e. middle management) where the quality managers work.

A COMPARISON OF THEORY AND PRACTICE IN THE ADOPTION OF TQM

The authors are privileged to be members of a group which includes fifteen quality managers from construction organisations which meet on a regular basis. This group met initially to discuss the challenges and problems they faced in implementing QA.

The group was formed in 1994, with the aim, to quote from the minutes of its initial meeting, of “meeting and discussing QA issues as they affect us both within our individual businesses and as an industry”. From 1994 to late 1996, the group met approximately six times a year discussing issues on an *ad hoc* basis. In late 1996, approximately two years into its ‘life’, the group moved to meeting on a monthly basis and introduced an official charter as a result of members’ decisions to re-focus the group’s efforts on a more formal basis. The charter has been endorsed by a director of each participating company, giving the company’s representative authority to partake in future activities of the group at her/his discretion.

Having been part of this group since its foundation, we have reported elsewhere (McCabe et al 1995, 1996a) how the original reason for the group’s formation can be seen as one of ‘comfort’. At the earliest meetings, the managers reported their feelings of isolation, and regarded themselves as being the ‘lone-voice’ of quality in their organisation. We have also reported previously (McCabe et al 1996b) how, for many of the managers involved in the group, their first exposure to quality management had been in achieving ISO 9000 registration for their company as quickly as possible. Having achieved this, of particular concern to these managers was how to go further down the ‘road to quality’ in the absence of clear commitment from senior management. The opportunity to come together to share these concerns and develop their thinking was therefore attractive and enthusiastically supported.

Since its formation, the group has undergone a transition in its mode of working which has been the result of *shared learning*. In effect, the members have unconsciously become a learning organisation. Sadler describes this as an arrangement where ‘the activities of the organisation as a whole are more or less continually monitored to provide feedback which is then used as a basis for learning how to improve performance’ (1995:123). It is our belief that the group has progressed through a number of distinct stages during this transition:

1. Formation
2. Argument about purpose
3. Stability and objective-setting
4. Confidence
5. Maturity

Here, we will do no more than note the similarity of these stages to Tuckman’s group life cycle consisting of forming, storming, norming and performing (See Handy 1985:172). Below we discuss these stages in more detail.

1. Formation

The first meeting of the group was very informal; it could hardly not be as it was held in a pub. At this meeting, a decision was made that there was enough interest for a more formal meeting to be held in one of the quality manager’s offices. It is at this point that we became involved. The academic interest came as a result of ‘hearing on the grape-vine’ of the formation of this group and in this respect, the opening was entirely opportunistic. Our ‘passage of entry’ was not, however, easy. There were concerns among some of the potential members concerning how we might be of assistance; as one pointedly asked, “What can academics do to assist us?” As we shall see later, negotiating a role for ourselves in order that a mutually beneficial relationship might ensue posed a significant challenge. Luckily, in the early days of

the group, the feeling amongst the majority was that we could 'do less harm than good', and as a result we were allowed to attend the initial meetings.

What was immediately apparent to us was the relatively basic level of thinking concerning quality-related issues among the group members. This is not, we stress, a criticism of these managers: given, we were told, that many of them had not volunteered for their job, but had simply been 'spare' at the time that senior management had decided (or had been compelled) to pursue ISO 9000 registration, it was unsurprising that many of them were unfamiliar with, for example, many of the so-called 'Japanese quality tools'. We were determined, in our association with these managers not to fall into what Vaill describes as the 'fallacy of the condescension syndrome' (1974:81) and, as we quickly learnt, our purpose was, like the rest of the members, unclear. However in the longer term, the opportunity to work with these managers as they developed their skills has provided a wealth of insights and data on such topics as the commitment of construction organisations to the various 'levels' of quality, the relationship between senior and middle managers, the difficulties of being a 'change agent' and the methods managers use to bring about cultural change.

Here, most clearly we saw evidence of the 'forming' stage of the group: indeed, at this point the members functioned more like a set of individuals than a group. Many of the early meetings were devoted to clarifying the objectives of the group, and, indeed, for establishing reasons for continuing to meet. With reference to the characteristics of TQM adoption suggested by Lascelles and Dale and described above, most of the organisations represented by the members could be described as being at level one, *uncommitted*. However, we would suggest that the very fact that these managers were now participating in such a group displayed some of the characteristics of Lascelles & Dale's second level, though at the outset of the group (nearly three years ago), very few could be accurately described as having the full set of *drifter* characteristics.

How, therefore, in this climate of uncertainty and unfamiliarity could we develop a research profile that was both useful to the group members, as well as maintaining the academic standards that would be expected of us when we came to publish our findings? An early discussion that occurred in the group concerned the role and purpose of 'formal' quality systems. Were they an end in themselves, merely a stepping stone towards TQM, to be used and then discarded or could the two, so to speak, cohabit peacefully? As a result of the debate that ensued, we were able to offer our services as 'honest brokers', and agreed to canvas the views of individual members on this topic, as well as to relate them to the ever-growing body of literature on quality management. We therefore volunteered to draw up, administer and analyse a questionnaire of the members to find out what they saw as being 'the way forward' in quality management in their organisations, and thus to determine some kind of future agenda for the group. This opportunity provided us with a reason for justifying our existence. It also enhanced our reputation with some of the members who had a somewhat jaundiced view of academia. There were, however, unintended consequences which we believe were the advent of the next stage in the group's transition.

2. Arguments about purpose

From its earliest days, the group had no desire simply to become a 'talking shop' as one member put it. The intention all along had been action-oriented. However, what initiatives should they pursue? In the beginning, the group were unable even to agree what they should discuss, let alone what they should seek to achieve. A particular

problem, resonant of the characteristics of Lascelles & Dale's *drifters* came to light, whereby it seemed that there were different, and possibly unrealistic expectations about the degree of improvement that ISO 9000 could deliver. The group, at this point became somewhat polarised into those who saw QA as the only objective in quality management, and those who saw it as a 'stepping stone' to TQM.

This is similar to the 'storming' phase of group formation, where, as Handy (1985:171) describes it "Most groups go through a conflict stage when the preliminary, and often false, consensus on purposes [...] is challenged and re-established. [However] if successfully handled, this period of storming leads to a new and more realistic setting of objectives, procedures and norms". The findings of the questionnaire were useful in re-establishing the group's purpose. We were able to refer the group to the findings, and to those from the literature which indicated that whilst TQM was a long term goal, QA was a necessary starting point. Hence, the group decided that an excellent starting point for their work would be to investigate and discuss what 'good QA was'.

3. Stability

The group spent the greater part of the next year discussing the individual experiences of QA using ISO 9000. What we found interesting was that despite the intention that the standard be a common benchmark for quality systems, most members could interpret any of the clauses in very different ways. A crucial aspect of this was in the different emphases members placed on the procedure-writing process that is at the heart of the ISO 9000 system. Some organisations expected the quality manager her/himself to write the procedures when the system was first set up, and review them when, for instance non-conformances dictated. However, it was pointed out by other members that in doing so, there was little or no involvement in the process by those who would be subject to those procedures on a daily basis. In short, there was no ownership of the quality system by anyone but the quality department. Thus, in other organisations, procedure writing was the task of the 'process owners', on the assumption that they would hardly write themselves a procedure that they would not, or could not comply with. The function of the quality manager in these organisations was to act as an advisor and to provide a link between different process owners, ensuring that procedures were produced, and recorded in a standard format.

Other important themes that emerged both in these discussions and in other research settings were a) that the members felt isolated, with little active support from those at operational level; b) that senior managers regarded QA as simply about achieving registration; c) that opportunities to improve by education and training as a result of QA were being ignored. The last of these provided an opportunity for a more detailed and comprehensive questionnaire to be commissioned by the group. The questionnaire was used to survey employees in the respective member organisations concerning their academic experience of quality management. Some of the findings have been reported elsewhere (McCabe, 1996b). Probably the most disquieting one was that 91 percent of respondents thought that quality management was either not taught at all, or taught very badly. This, we accepted, cast a poor reflection on us as academic representatives. It did, however, prove to be yet another turning point in the group's development, providing it with opportunity to use the information from the survey to input to Government construction quality initiatives.

4. Confidence Building

As a result of the survey of members' employees, the need to make representations about the education of students of construction became a prime objective of the group. Fortunately, an opportunity for this arose via the DoE consultative document, which eventually produced the influential publication *Constructing Quality* (DoE 1995). The group were able to agree on a statement which drew on the findings of the research we had carried out for them. It was a defining moment where the group were willing to go public. The submission of a joint statement, in the name of the group gave them further confidence to continue. Talking to the group members, many told us that such a submission would have been unthinkable early on in the group's life. In order to maintain this momentum, the group decided to draw up, and then collectively sign a formal charter, with a view to further publicising its work.

At this stage, the group began to discuss problems of a more sensitive nature. One problem many of the members regularly describe is that though themselves they feel that much more can be achieved by quality management, particularly TQM, than they originally envisaged, they now regard their senior managers as being the biggest impediment to progress. In a similar manner to stage three of Lascelles and Dales' description of TQM adoption, they tend to regard their superiors as only interested in 'quick-fixes'. TQM, with its requirement for long-term cultural change, is, according to the managing director of the organisation for which one quality manager works, "All right for manufacturing where there is stability, but inappropriate for construction." Thus, widely reported among those to whom we talk is the opinion that the greatest impediment to organisations on the road to TQM is not the 'technical' issues, but the 'cultural' ones, those that involve making the transition to being *improvers*. As we report elsewhere (Crook *et al* 1997a, b), this transition requires rhetorical, political and social skills which, although available to all competent members of society, are not similarly developed nor similarly deployed by all.

5. Maturity

Despite the problem of lack of commitment from senior management discussed above, there is a genuine desire among the members to continue to develop the work of the group, such that it has a voice at national level. Increasingly, our role in the group, as academics, is being realised, allowing joint development of research projects with the twin aims of practical utility to members and academic credibility. Some of the members see the collaboration as an opportunity to pursue avenues which will allow them to attempt to enhance their own role within their respective organisations, and to create the culture change that is needed for their companies to embrace TQM.

One of the activities which the group has dedicated itself to in the last year is in developing a code of 'best practice' for the procurement and use of suppliers and subcontractors. Within the group, it is felt that this has been a particularly valuable exercise. It has allowed the group, and ourselves, to understand and share the wide variety of attitudes and methods that exist and that are employed by group members for this task. The group's members now share the belief that a pooling of resources is needed for the development of any best practice. Thus, although any particular organisation's process for subcontractor procurement may have strengths and weaknesses, the integration of the best parts of different sub-processes will create a robust system that all can use.

What has been interesting is that the best practice model has been discussed and developed based on the self-assessment criteria contained in the EFQM (European

Foundation for Quality Management) model of business excellence. This may be because some of the group's members are assessors for this award, and thus are able to advise the rest of the group in what is required. Hence, despite the fact that the members' organisations are a long way from being capable of competing for such an award, the fact that such discussion is taking place in these terms perhaps demonstrates that there will be a long-term move by the group to 'higher' levels of TQM adoption.

A CONSIDERATION OF THE DEVELOPMENT OF THE GROUP

What we have reported here is the development of a group of individuals who came together with a shared purpose. This purpose, to discuss quality management and share experience, has led them to reflect on their own approaches, and in many cases, to learn from others. During the process of such reflection and learning there has been a marked change in attitude among many of the members. Some suggest that prior to joining, they believed that QA was the only method of quality management; a view that only a tiny minority would now express.

The group have also developed their position on quality management specifically, and in their approach to management, especially change management, more generally. One of the members told us after a recent meeting

“When I first started in this group, I thought that my job was to administer procedures. I knew no better Now I realise that my job is about people, and in assisting them, by quality, to do their job better. Three years ago I would have said that TQM was crap. Now I understand what it is about, I believe it is essential if construction is to improve.”

The language used has also altered. Now members' talk is not of how to 'force people to adhere to procedures', but of 'facilitation', 'enabling' and 'empowering' Additionally, there is discussion of concepts such as benchmarking, transfer of lessons from other industries, becoming 'change agents', and in how to deal with recalcitrant senior managers. The views also tend to be that whilst leadership must come from the 'top', real change will be generated by those at the bottom. This agrees with sentiments expressed those who eschew so called 'planned approaches' to managing change, and instead advocate 'emergent approaches' (see McCabe et al 1996b).

As academics, our role has not been explicit, certainly it has not been one of showing 'them the light'. The results of the survey we carried out showed that we are hardly in a position to do so! What we have done is been willing to engage with the concerns of the practitioners who make up the group. We have talked to them, attempted to empathise with their concerns, and most importantly, listened to what they have to say. As a result, we have been able to benefit from the learning experience. We are better able to appreciate the methods by which quality managers attempt to manage transitions in their respective organisations. And this has great relevance to recent academic discussions of the nature and purpose of management research. For instance, Thomas suggests that if we (as academics) wish to develop a better understanding of management, 'then one obvious line of attack is to study the activities of those who spend their working lives managing' (1993:47).

CONCLUSION: IS WHAT WE HAVE DONE 'PROPER' RESEARCH?

What is the purpose of this rather anecdotal account of our experiences? What we have tried to demonstrate is how research carried out in a highly participative manner, how research where there is a high degree of co-ownership can provide useful insights into (in this case, quality) management. Research of this type, in which there is shared ownership, blurs the boundaries between academia and practice. Above all, it demonstrates that we are all, academics and practitioners alike, highly sophisticated 'practical theorists'. However, the purpose of and criteria governing our investigations differ. We have previously (Seymour *et al* 1996) used a customer-supplier metaphor to highlight that the requirements of different forms of enquiry are very different. However, in much of the methodological literature and in much published work, that does not seem to be recognised.

Let us be clear: we did not have a formal method for carrying out the work reported above, and it would be untruthful to report the results as if we did. All we can do is reinforce our suggestion (Seymour *et al* 1996) that context-invariant standards for judging research be abandoned (but this is in no way an endorsement of loose, impressionistic studies). We have no space to discuss them here, but we see 'ethnomethodological indifference' and 'unique adequacy', the twin research policies of ethnomethodology (Garfinkel 1984; Garfinkel & Weider 1992: 175-206) as providing a useful set of criteria against which academic accounts of management might be assessed. In brief, these suggest that any setting "already possesses whatever as methods methods could be of [observing], of [recognizing], of [counting], of [collecting], of [topicalizing], of [describing] it, and so on" (Garfinkel & Weider 1992:182). Thus, the methods that members use are methods for and of that setting, and they are uniquely adequate for describing that setting. However, these methods are largely unstudied. Our most recent research (of which preliminary findings are reported in Crook *et al* 1997a, b) is therefore attempting to study the methods that some of these quality managers use.

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