
The links between organisational learning and total quality: a critical review

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This paper investigates the possibility of combining the fields of organisational learning and total quality to produce combined concepts, methodologies, tools and techniques, which will give increased business benefits and employee emancipation. To focus the study the field of organisational learning is primarily limited to that of the learning organisation and total quality is taken as an umbrella term for a range of mechanistic change initiatives. A critical review of the definitions, historical contexts through the lens of critical theory reveals the underlying mechanistic organisational assumptions of total quality and the more organismic or people-related assumptions of the learning organisation. A conceptual case is then established for fundamentally integrating both methods to form a holistic framework from which integrated methodologies, tools and techniques can be devised. Two existing models are compared and contrasted to test the validity of the proposed conceptual case. The conclusion to the paper invites those working in the areas of the learning organisation and total quality to rise to the challenge and initiate the steps to create these transforming methods.

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Introduction

Two distinct areas, among others, have developed in the management literature which from a cursory review would appear to have more in common than they have in distinctiveness. These are the fields of organisational learning (OL) and total quality (TQ).

A considerable number of organisations and universities have developed expertise in both of these fields of study over a number of years. What is surprising is that these developments have occurred with little synergy between the fields of study, either in academic publications or in industrial applications.

Conversations with colleagues in a number of universities and organisations, and surveys of the literature, have revealed a similar disturbing trend. It would appear that both academia and industry are taking a limiting polarised view of OL and TQ management and not obtaining the benefits of linking both fields.

There are a number of questions that must be faced if progress is to be made in combining aspects of these fields in a way that is consistent with sound academic philosophy and in a way that will produce increased business improvement. These questions are already being asked openly in organisations that have struggled in applying both OL methods and TQ methods separately. For example, what are the underlying relationships between the approaches? An argument that arises from this question concerns the hierarchical order – is there a pedagogy here or is TQ a subset of OL or vice-versa. Also related to this issue is the perception that future development will result in either TQ or OL having all the answers. Questions also arise on differences and similarities; are the differences contradictions that cannot be reconciled? Does this result in organisational areas not being covered by either of the

approaches? Another area of concern is people issues – are either of the approaches more suited to people development than organisation development (assuming there is some separation in these issues).

These questions are really constituent elements of a key question which asks – can OL and TQ be combined in some conceptual framework and resultant practical methodology, to improve organisational and people performance in the widest sense of the word.

In attempting to address some of these questions this paper will conduct a critical review of OL and TQ and their possible linkages using a proposed conceptual framework which is tested by comparing existing model for TQ and OL.

First there is a brief definition of both OL and TQ to limit the remit of the study and avoid dilution of the effectiveness of the conclusions and recommendations resulting from the scope being too wide. This section is followed by an investigation of the historical development and a critical review of the underlying assumptions of the fields and their linkages or lack of them. Following which there is a discussion on integrated conceptual frameworks using existing model comparisons and finally some conclusions and recommendations are made, in the form of a challenge to those working in the fields.

Definitions and characteristics of organisational learning and total quality management

To limit the current study and hence increase the specificity of the outcomes and conclusions, OL will be considered within the context of the learning organisation (LO). Easterby-Smith (1997) describes the LO as the applied area of OL, it is this “applied” description that results in the LO being taken as the most relevant area of OL for the present study. It is extremely difficult, if not impossible, to precisely define the LO. Handy (1978) defines five major attributes:

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- 1 It has a formal way of asking questions, seeking out theories, testing them and reflecting on them.
- 2 It is properly selfish, clear about its role, its future and its goals, and is determined to reach them.
- 3 It is constantly re-framing the world and its part in it (quality circles at their best are an example of such recurrent re-framing).
- 4 It cultivates the concept of negative capability, where disappointment and mistakes are accommodated as part of the learning whole.
- 5 It is a caring organisation, in that it wants everyone to learn, and it bends over backwards to make that obvious.

While the style is typically Handy, the overall themes are consistent with those of Zuboff (1988) who defined the learning organisation as “one of its principal purposes is the expansion of knowledge – not knowledge for its own sake (as in academic pursuit), but knowledge that comes to reside at the core of what it means to be productive”. Learning is not something that requires time out from being engaged in productive activity; learning is at the heart of productive activity; learning is the new form of labour.

Both of these descriptions, rather than definitions, have a strong practical link (e.g. references to quality circles and production) and consider the concept of the LO as a practical approach to organisation effectiveness rather than esoteric and nebulous. This is articulated by Senge (1990) who views the LO as a construct for the business organisation.

Pedlar *et al.* (1991) state that “a learning company is an organisation that facilitates the learning of all its members and continuously transforms itself”. The idea of continual transformation echoes Handy’s description and is central to the LO concept. (The comments by Pedlar *et al.* (1991) about the differences between a learning organisation and a learning company are unhelpful and serve only to cause confusion between public and private sector definitions.)

Considering these descriptions/definitions/themes of the LO it is interesting to consider and compare them to the definitions of TQ.

For the purposes of this paper, TQ management is defined as a holistic philosophy embracing concepts such as business process re-engineering, benchmarking, total productive maintenance, etc. While not dwelling on the quality control definitions here, it is worthwhile remembering that early TQ definitions while developing on from quality control and quality assurance definitions still retained some of those characteristics, for

example, the definition of TQ as: “Fitness for purpose”, Juran (1988), is very much fixed on the “product quality” domain.

Further development led to definitions which included people and customer aspects along with continuous improvement and a typical resultant definition is: “Quality is defined by the customer. The customer wants products and services that throughout their life meet their needs and expectations at a cost that represents value” (Dale and Cooper, 1992).

The European quality model (EFQM, 1997) incorporates TQ within a business excellence framework which includes most aspects of the business, e.g. leadership, policy and strategy, people management, resources, process management, people satisfaction, customer satisfaction, impact on society and business results. Such a definition/description firmly removes TQ from the “programme or initiative” arena and firmly defines it as a “way of doing business”.

Despite the wider developments of definitions as described above, TQ in the opinion of many, in reality remains associated with mechanistic tools and techniques associated with change management. Zairi (1994) attempts to balance the argument by describing TQ as “is essentially a whole array of techniques, management principles, technologies and methodologies which are put together for the benefit of the end customer...”

Broadly speaking, definitions of TQ have remained somewhat mechanistic and while the European quality model and other quality models have developed much wider frameworks, these have not always been reflected in actual TQ practice. The question arises, can the fields of TQ and the LO, as loosely defined and described above, be combined in a single definition and description to achieve the combined (and even multiplied) business benefits that come from each respective field.

Binney and Williams (1996) in contrasting the mechanised “top down” TQ style change programme with the “bottom up”, “self-directing” approach more akin to the LO, have looked at the analogies of the organisation as a machine and as a living organism. While their analogy is rather cliched, their views that TQ with its more mechanistic style and the LO with its activities, feelings, emotions and discovery, can be combined within organisations to produce multiplicative business benefits is a view shared by the author.

In summary, this section has taken a cursory look at definitions and descriptions of TQ and OL which has shown a recent convergence in the definitions (more TQ towards LO

than vice-versa), but that there is a long way to go before practical results can be achieved. Perhaps the TQ definitions have evolved towards the LO definitions more than vice-versa because TQ is a more established field and has been applied more and hence its limitations have been more widely accepted, resulting in the need for a new development. This is reflected in the fact that there is much more critical literature on TQ than on the LO – and in no way should be taken as implying that the LO is the more appropriate field.

The historical context

While there are many contributory elements to the current differences and similarities between TQ and the LO, perhaps one of the most significant is that of the historical development of each of the fields. It is not the intention here to give an historical treatise, but rather to isolate those critical points in the historical development of each field which gave rise to their distinct identities.

Pre-nineteenth century examples of TQ are found in such things as ancient inscriptions in tombs, for example, Egypt and South America. The ongoing development and sophistication of the inscriptions demonstrate the basis of TQ – commitment from the top (probably slave-master), personal accountability (usually a mistake meant death!), customer satisfaction and continuous improvement. This is also reflected in the middle ages development of craftsmen guilds and hallmarks for such items as gold, etc. (Sanderson, 1995). The spread of these methods across widespread geographical areas and their adaptation in different cultural environments represents some aspects of organisational learning, however, emancipation of the workplace was sadly lacking.

A notable but isolated, pre-twentieth century, combination of both fields came through Carnegie. He pioneered the development and ongoing improvement of mass steel production centred in Pittsburgh, while at the same time helping to establish the Pittsburgh University as a centre of learning for social and scientific development.

The twentieth century brought a mechanistic view of organisations and production in particular. Peppard (1995) points out that business process re-engineering/TQ owes much of its current ethos and structure to this historical period with its particular background. The scientific management principles of the early part of the century espoused by Taylor (1947) gave rise to succeeding related themes, such as information and control theory (1930s) and work study

and operations research in the 1950s, 1960s and 1970s. The recent era of TQ in the 1980s and 1990s as an umbrella for BPR, TPM, cell manufacturing, etc., has its roots in this ancestry. This has resulted in the “tool and technique” approach to much of the quality efforts with a focus on business efficiency. However, to claim as Drummond (1995), that TQ is the “apotheosis of scientific management” and that TQ is really an extension of Taylorism is a gross simplification of the facts and in particular wrongly defines TQ as limited to quality of design and process capability. While these are central tenets of TQ the above section on definitions points out that TQ has developed a much wider philosophy.

The Hawthorne studies in the 1920s gave rise to much of the socio-technical theory of the 1950s and the succeeding themes of organisation development and soft systems of the 1960s and 1970s. While TQ has obtained much of its broader definition from these areas, it is contended that they have been more of an “add on”, rather than the root cause of TQ development. This has given rise to the current state of TQ founded on an historical mechanistic basis but gradually developing a social/people/soft skills focus from this other historical pathology. It is this path which has led to the field of OL, and the LO in particular, in the 1980s and 1990s.

Historically the main protagonists of the mechanised theory of organisations were from an engineering background while those supporting the social/soft systems development side have been primarily from a sociology background. While this is a considerable generalisation, it is still true in many universities and organisations today. The author had experience of working once with two sociologists who had been given the responsibility of implementing TQ in an aerospace engineering company. The results, 18 months later, were predictable – improved morale, better working conditions, increased education, but little improvement in business processes and results. Conversely, a small design and manufacturing company tried to implement TQ using production engineers from the line, again the results were predictable – short-term unsustainable process improvements with very little “buy in” from berated employees.

Examples in the literature of early tentative combinations of the fields (albeit in a different guise), is shown by Pirsig (1989), who stressed the importance of people and machines and the harmony that can be achieved between both. Such an approach promotes the idea that TQ and the LO can be linked by drawing a relationship between people and their experiences (at work in this

context) resulting in "inner directed learning" which produces "outwardly directed innovation" or business improvement (Leesem, 1992). Zuboff (1988) points out that intelligence must be brought back to the workplace and that the automated mechanised work force of yesteryear must be replaced with the informed and intelligent technological workplace of tomorrow. Such approaches outline the challenge facing TQ and the LO and invites a combined response. Any such combined response must lay aside the ghosts of the past historical development, otherwise any new resultant approach will be but an "add on" which is insufficient to meet the quantum leap demands of industry with regard to cycle time, cost and quality, and the increased need for employee satisfaction at work.

The above discussion gives perhaps the perception that the field of the LO is much younger than of TQ. If this were so it could be seen as implying that TQ is possibly more sophisticated owing to its longer existence, or that the LO has more potential as it is relatively only in its infancy. In reality, the basic ethos of both approaches have been around for sufficient time (in various guises) for these differentiating effects to be minimised. Although the more recent prominence of the LO would suggest it is filling an apparent "gap", or epistemological shift, not sufficiently filled by TQ.

The contribution of critical theory

Critical theory and perspectives is a useful framework to use in considering the links between the LO and TQ fields for two main reasons. First, the vast majority of the literature on TQ and the LO deals with the description of the respective methodologies and their applications and is, therefore, mainly concerned with making these methods "work" rather than considering their underlying assumptions and limitations. Critical theory takes a new perspective by looking at the weaknesses and limitations of these methods as evidenced in a number of failed applications and asks the question: Why? Rather than demanding yet more advocacy and blind faith. Second, critical theory is concerned with the purposefulness of individuals and work process relationships (Alveson and Willmott, 1992). It looks at management-related fields of study, not just as a technical function but also as a socio-political phenomena. This closely parallels the current attempt to look at links between TQ (more technical and mechanistic) and the LO (more sociological).

Critique of TQ

In applying critical theory to TQ one must consider why there is a continuing record of failure (as well as success) in terms of industrial applications. Is it possible that some of the underlying assumptions regarding TQ and organisations and change management are in fact flawed and need new perspectives?

Braganza and Myers (1995) identified five critical areas in regard to successful BPR implementation. One of these is commitment to the change project. This is not only commitment from the top, but throughout the organisation, especially in middle management. Also, when non-consensus decisions were taken, the chances of failure were much higher. TQ assumes that commitment at all levels can be achieved, yet in most organisations this remains patchy as individual agendas will always be super-imposed on organisational goals.

Another point is changing roles and systems. While it may be desirable to change these to remove non-value-added activities, shorten cycle times and improve other organisational performance measures, the effect on the individuals concerned is often treated as a secondary effect. However, this "secondary effect" often results in large-scale disruption to the change project and often its ultimate failure. Thus, while TQ philosophy is built on improving business performance measures and changing roles and systems to suit, it has not integrated the personal ambitions and desires of the individual who perform these roles and are affected by these systems. This is the missing but essential link discussed in Pirsig (1989).

A third point was changing culture, attitudes and behaviours. All too often it is assumed that mechanistic changes brought about by a change project (such as TQ) will ultimately result in the fundamental change in these factors (albeit with a time lag). However, as Peters and Waterman (1982) point out, employees only respond quickly to change when the new culture proclaimed is one to which they can relate to, share and ultimately shape. The TQ assumptions concerning cultural change are at best shallow and ignore the enormous complexity of organisation culture and its historical roots (Kerr and Slocum, 1987). These themes are echoed by Towers (1993) who points out that "cultural change is not easy, not only does it involve structural re-arrangements but demands personal commitment". The TQ movement must ask "why personal commitment?". Corporate culture is more often a detriment than a boost to the change initiative and that the most difficult aspect of re-engineering is dealing with fear and anxiety throughout the

organisation. This issue cannot be bulldozed by yet more technical methods – a different perspective is required. Communication, trust, risk taking, empowerment and learning, are key missing ingredients (save for some of the usual rhetoric on these subjects).

Kottler (1995) states that a key reason for failure in change initiatives is “not anchoring changes in the corporation’s culture”, he states that change only sticks when it becomes “the way we do things around here ... when it seeps into the bloodstream of the corporate body”. Thus, unless desired behaviours are rooted in social norms and shared values, they are subject to degradation as soon as the pressure for change is removed. A purely mechanistic approach cannot adequately address this issue. Collins (1994) talks of the lack of balance between control and quality of working life in TQ and points out that the TQ philosophy has made simplistic assumptions regarding the cultural side of TQ as pointed out in the above discussion.

“Expert views” in *Management Today* (1993), further develop the above and describe a “failure to manage the people side of the process”. However, this disassociation of people and process is also unhelpful as both are intrinsically related. Longenecker and Scarzero (1996) identifies a number of key lessons to avoid failure in TQ implementation, one of which is that long-term improvement is predicated on systematically addressing the “human side of quality”. While this is true in a number of cases it again makes the underlying assumption that people and process can somehow be separated.

In a survey on TQ implementation, Redman (1995) has shown that management commitment was seen as a much greater problem than trade union and employee commitment, which could indicate that management were selective in implementing and adopting TQ principles. Thus, while TQ espouses empowerment, it must be realised that in most organisations the manager/employee relationship remains hierarchical, often resulting in lip service being paid to empowerment. Wilkinson and Willmott (1994) inquire if this is not coercion without formal structure?

Rees (1996) concludes that rather than empowerment there has been a reorganisation of control. Employees obtained some greater autonomy and discretion over immediate work but invariably there was an increase in overall managerial control. This view is echoed by Drummond (1995) who fears that in some respect TQ has duped employees into accepting aspects of Taylorism (although this is slightly overstated).

Critique of the LO

To state that the LO has all the answers that TQ failed to obtain is simply not the case. Many attempts to apply the LO models have failed in the authors experience with many different types of organisations because it remains an aspirational concept with a lack of practical grounding. This is essentially the conclusion of Sohal and Morrison (1995) who point out that LO principles such as experimentation with new approaches, learning from experiences, past history and best practices and transforming knowledge are best realised by grounding them in TQ mechanisms. This, however, assumes that these TQ mechanisms have sufficient “flexibility” to digest the infusion of LO principles which is usually not the case as the very mechanistic nature of these techniques preclude such an integration.

Coopey (1994) points out that the underlying assumptions of the LO in some cases have a naive approach to organisational reality (perhaps one reason for this is the lack of “engineering type” input discussed under the historical section). Typically the LO ignores the intense political activity within an organisation which usually represents itself in control mechanisms (usually hierarchical and empowerment restricting). In other words, it may also take mechanistic changes as well as sociological changes to remove these barriers. Also the LO’s concept of empowerment throughout the organisation must be modified by the reality that employee empowerment would be much more limited than that of managers. The language of the LO can be distorted and used by senior managers to safeguard their greater empowerment (this is using the LO as an ideology counter to increased employee emancipation). Easterby-Smith (1997) widens this issue by inquiring whose interests are actually served by the LO. Binny and Williams (1996) likening the LO to a living systems metaphor, points out that a limitation of the assumption that “organisations flourish as they allow their people to develop to their full potential” is that it is simply not true. There must be some form of mechanistic control to align the employees aspirations with the organisations goals. They go on to raise the tantalising possibility of devising a new metaphor beyond the “mechanistic” and “living systems”, or as in our case TQ and the LO, that combines both fields and achieves the advantages and synergistic advantages of both.

Having briefly looked at TQ and the LO from a critical theory perspective, one is left with the conclusion of Alvesson and Willmott (1996) that “instrumental activities” and “ideological and cultural” phenomena must

be studied concurrently if change initiatives are to have increased success. This is in agreement with Robey *et al.* (1995) who showed that re-engineering change initiatives were more successful when the underlying principles of the LO were observed during design and implementation. The conclusion must be that TQ type change philosophies and their ensuing methodologies, tools and techniques must be fundamentally redesigned and overlaid with the principles of the LO to ensure that the aspiration of increased business success is fully consistent with the socio-political aspirations of the workforce. This is not an easy task but one that must be grasped as competitive business pressures increase and the socio-political aspirations of western civilisation also rapidly increases with demands to get lifestyle satisfaction from work as much as from church and leisure activities. Taylorism and mechanistic methods with a thin veneer of "people" rhetoric will not suffice. What will the new resultant methodologies, tools and techniques look like and, who will develop them? The answers to these questions lie beyond the scope of this paper, but the answers must be shortly forthcoming if the overall forces of change in organisations is to be increased or even sustained.

Conceptual frameworks

So far the need to link TQ and LO methodologies and principles at a fundamental and practitioner level to produce a significant improvement to business performance and employee satisfaction has been discussed. It is now necessary to identify an acceptable conceptual framework before more detailed intertwining of the fields can take place.

Much of the literature on conceptual frameworks essentially focuses on learning styles in situational contexts. These include a number of variants on the learning cycle from plan-do-check-act to thinking-deciding-doing-reflecting (Swieringa and Wierdsma, 1992). Burgoyne *et al.* (1994) describe the "double loop" of effectiveness and efficiency. Senge (1990) constructs a series of pyramids dealing with systems thinking, personal mastery, mental models, building shared vision and team learning. On the other hand, Peppard and Rowland (1995) speak of the organisational pillars of customer-people-process-technology.

While all these are useful in illustrating aspects of the LO and TQ, respectively, what appears to be lacking is a conceptual framework linking TQ and LO in terms of

organisation transformation (as distinct from organisation description).

An initial high level conceptual framework is proposed as shown in Figure 1.

Model comparisons

Figure 1 depicts the proposition that there is an interaction between TQ and the LO, and that the interaction can be loosely expressed in terms of business efficiency (largely but not exclusively TQ), and business proficiency (largely but not exclusively LO). To test the proposition existing proven TQ and LO models were compared and contrasted.

Method

The European quality model, summarised in the Appendix (EFQM, 1997) was taken as representative of TQ and the learning company questionnaire model, summarised in the Appendix (Burgoyne *et al.*, 1994) was taken as representative of the LO.

The methodology to ascertain the relationship between the learning company and the TQ approaches to business improvement involved comparing and contrasting these two models. The following steps were then carried out:

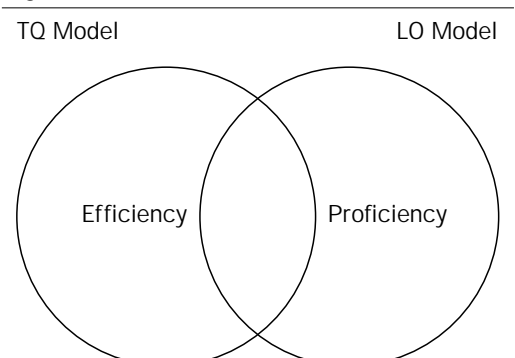
- 1 For each characteristic of the LO model, the main corresponding criteria and criterion parts in the EFQM model were identified.
- 2 For each of the nine criteria of the EFQM model, the corresponding number of similar references in the LO model were identified.

Results

First, each characteristic of the LO model was compared with the EFQM model to find the number of corresponding references and the main reference. The results were shown in Table I.

Figure 1

Interaction between total quality and learning organisation



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These results show that the characteristics of the LO model most frequently referred to in the EFQM model are learning approach to strategy, participative policy making, in-formatting and reward flexibility. Key areas of pro-active-related learning as described under the characteristics of inter-company learning, learning climate and self-development opportunities for all, are not covered to any large extent by the EFQM model.

Further investigation of the elements of the EFQM model criterion parts which are most referred to in the comparison showed that they are the more pro-active elements of the model. These parts cover policy and strategy effectiveness, relevance of reviews, communication effectiveness and information management effectiveness, control and review. Also covered is the business process definition, selection and resolution of business process boundary issues.

These results indicate that the LO model maps onto some elements of the EFQM model and that these elements are primarily the proficiency rather than the efficiency-related elements of the EFQM model.

As described in point 2 under the method section, each of the nine criteria of the EFQM model were compared with corresponding references in the LO model. The results are shown in Table II.

These results indicate first that the LO model does not cover results (in any respect) but does correspond to the “enabler” section of the EFQM model and as previously discussed, primarily the proficiency-related parts of the “enablers”.

Also evident from the results is that people management, resources (mostly information handling) and policy and strategy cross-referenced most frequently in the EFQM model. Once again these are the areas within which

Table I

Learning organisation model characteristic	Number of corresponding European quality model references
1. Learning approach to strategy	23 (mainly criterion part 2e)
2. Participative policy making	23 (mainly criterion part 2d and 3e)
3. Informatting	26 (mainly criterion part 4b and 4d)
4. Formal accounting and control	16 (mainly criterion part 4a and 4b)
5. Internal exchange	12 (5a and 5d)
6. Reward flexibility	25 (1c and 3c)
7. Enabling structures	8 (3c)
8. Boundary workers as environmental	10 (2b)
9. Inter-company learning	3 (1e)
10. A learning climate	0 (0)
11. Self-development opportunities for all	2 (3b)

Table II

European quality model criteria	Number of corresponding references in LO model
Leadership (enablers)	21
Policy and strategy (enablers)	31
People management (enablers)	40
Resources (enablers)	40
Processes (enablers)	14
People satisfaction (results)	0
Customer satisfaction (results)	0
Impact on society (results)	0
Business results (results)	0

proficiency-related business improvement activity mostly occurs.

The overall findings, therefore, verify that Figure 1, and its underlying proposition is indeed a valid conceptual framework. Thus, each model had distinct but complementary strengths including some overlap in regard to proficiency and efficiency.

Further development of the conceptual framework

Although there is benefit in applying both of the models separately and combining the assessment-based results, there is a danger in generalising this approach. Conceptual frameworks built on applying TQ and LO methods concurrently to organisational transformation (as shown in Figure 2) do not produce “double” the benefits, rather they can create confusion, foster the idea of “initiativitous” and generally create “change overload” among management and employees (one must also consider that several other initiatives could also be concurrently underway). The author can think of a number of cases where such confusion has been generated resulting in a mass of data, frenetic activity and little positive transformation. On one such occasion, all talk of transforming action was masked by an interminable discussion on why there were TQ methods and separate LO methods resulting in both being ineffectively applied at the same time within the organisation concerned.

Figure 3 reflects the reality of many organisational transformations. For example, Short Brothers plc (Bombardier) started a TQ programme in 1987, primarily involving manufacturing and then after considerable success started to widen the approach to involve LO principles in the 1990s including an increased involvement from human resources. That is, TQ-related initiatives succeed in the initial

Figure 2
 Applying TQ and LO methods concurrently to organisational transformation

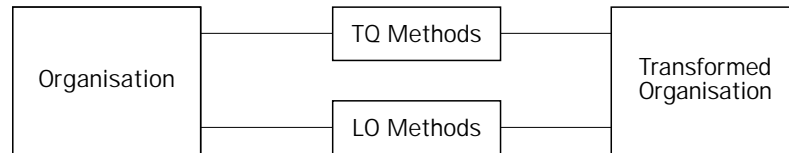


Figure 3
 The reality of most organisational transformations



partial organisation transformation and this results in fertile ground for the more organic application of the LO principles to achieve further transformation. This can also be seen in organisations such as Rover and ICL who, having had successful TQ departments, have now developed groups concerned with LO principles. While this is laudable and reflects reality and the gradual “buy-in” to change by many organisations it is contended that Figure 4 describes a conceptual framework to substantially accelerate the transformation process while ensuring that people and process are systematically intertwined.

It is contended that the methodologies, tools and techniques which fundamentally unite TQ and LO principles in a marriage to produce a super breed of organisation transformational approaches, do not yet exist or at the very most have been developed in an *ad hoc* and low key manner (e.g. quality circles and learning sets (Revans, 1980)).

Conclusions and recommendations

The study has shown that while the underlying assumptions and descriptions/definitions of TQ and the LO are different there are opportunities for business and employees in the convergence of the fields. Although the fields have followed different historical

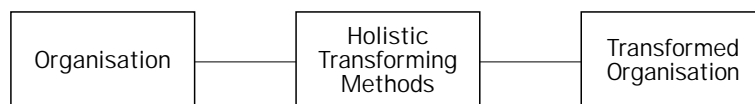
development paths, there has been a recent convergence borne out of mutual respect, realisation of complementary differences and the need for synergy due to the increasing demands of business pressure and employees’ need for increased emancipation.

This combination of the LO and TQ fields can come at a conceptual methodological and tool and technique level. It is recommended that a new suite of methods tools and techniques can be developed based on the conceptual framework presented that fundamentally combines the principles of TQ and the LO. These methods, tools and techniques should incorporate both the “mechanistic” and “living systems” approaches to business processes. They should be applied first to a pilot study of a small number of organisations who have applied either TQ or LO principles and who have come some way along the transformation pathway to see if they can “add-value” beyond the existing transformation frameworks.

Senge (1995) describes the necessary new approach as the “third wave” after the initial “waves” of TQ and the LO and points out that the “tools” of this new approach have not yet been developed.

The challenge of developing the new holistic methodologies, tools and techniques is a challenge to everyone involved in business transformation and represents an

Figure 4
 Acceleration of the transformation process



-TQ & LO principles combined
 -efficiency and proficiency

opportunity to make a contribution considerably in access of the summation of separate current TQ and LO contributions.

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Appendix: total quality and learning organisation models

This appendix gives a brief description of the European quality model and the learning organisation questionnaire model. Full descriptions of the models are contained in the respective references referred to earlier in the paper. The methods for using and applying these models are not discussed.

The European quality model (or European business excellence model)

The model consists of an "enablers" section and a "results" section. These sections are in turn supported by a series of relevant questions (EFQM, 1997). The enablers and the associated sub-sections are summarised as follows.

- 1 Leadership:
 - visible involvement in leading TQ activities;
 - a consistent improvement-oriented focus;
 - team and individual recognition;
 - provision of resources and support for TQ activities;
 - involvement with customers and suppliers;
 - external promotion of TQ activity.
- 2 Policy and strategy:
 - how the business plan is based on the principles of TQ;
 - how policy and strategy is based on relevant information;
 - how business plans are derived from strategic objectives;
 - how policy and strategy plans are communicated;
 - how policy and strategy plans are regularly reviewed and updated.
- 3 People management:
 - how TQ in people management is accomplished;
 - how skills and capabilities are maintained and developed;
 - how individuals and teams agree targets and review performance;
 - how everyone is involved in TQ and how employees are empowered;
 - how effective "top down" and "bottom up" communication is achieved.
- 4 Resources:
 - management of financial resources;
 - management of information;
 - management of suppliers, materials, buildings and equipment;
 - management of the application of technology.
- 5 Processes:
 - how processes critical for business success are identified;
 - how the organisation systematically manages its processes;
 - how process performance measures are used to set process targets;
 - development of process improvement methodologies;

- how the organisation implements process changes.

The "results" section is summarised as follows.

- 6 Customer satisfaction:
 - the customers' perception of the organisations products, service, etc.;
 - additional measures relating to customer satisfaction.
- 7 People satisfaction:
 - the employees' perception of the organisation;
 - additional measures relating to people satisfaction.
- 8 Impact on society:
 - the community's perception of the organisation's impact on society;
 - additional measures relating to how the organisation impacts society.
- 9 Business results:
 - financial measures of the organisation's success;
 - non-financial measures of the organisation's success.

The learning company questionnaire model

This model consists of five characteristics of the learning organisation which are subdivided in 11 key aspects. These key aspects are in turn broken down into a series of questions (Burgoyne *et al.*, 1994):

- 1 Strategy:
 - learning approach to strategy;
 - participative policy making.
- 2 Looking in:
 - informing;
 - formative accounting and control;
 - internal exchange;
 - reward flexibility.
- 3 Structures:
 - enabling structures.
- 4 Looking out:
 - boundary workers as environmental scanner;
 - inter-company learning.
- 5 Learning opportunities:
 - learning climate;
 - self-development for all.