A METHOD FOR GROUP ENQUIRY INTO COLLECTIVE LEARNING

Theme: Methodology

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Abstract

This paper introduces a method for research into collective learning through group-based enquiry, and discusses applications of the approach to the study of organizational learning. The paper makes a contribution to knowledge about the methods used to research collective learning. A group enquiry method is used to help find a solution to a key problem in small to medium-sized enterprises (SMEs), the difficulty of acquiring, integrating and applying collective learning and knowledge successfully to sustain growth. The method is seen as particularly appropriate because it addresses two key issues concerning organizational learning in SMEs – the time available for collective learning and the nature and impact of collective knowledge. The method assists in the application of contextually appropriate tools for knowledge development; generating a better understanding of the differences between the concepts of individual learning and organizational learning; and in understanding and applying the collective as well as individual knowledge that has been generated within and between enterprises. The potency and effectiveness of this method is in its ability to raise difficult organizational issues about (e.g.) emotion, power and leadership in a collective way.

Introduction

In this paper we describe a method for group enquiry into collective learning. The approach depends on capturing collective knowledge in small to medium sized firms (SMEs) with the aid of an on-line, group interactive technology called Teamworker®. The method is designed to develop collaborative learning by reducing individuals' anxieties about how and whether to contribute to collective knowledge. It explores the emotional content of experience by surfacing the assumptions, real or not, on which experience is based. The importance of aiding group knowledge building within groups is not a new theme, however, the use of on-line technology of the type described in the paper is quite novel. We have developed and tested, in a field setting, a practical approach to encouraging collective learning in employee groups. Organisational members have often found it difficult to engage with such processes in practice. We assert that an employee group, supported by this technology can produce an environment for the development and utilisation of collective knowledge and learning. We see this as important because, in practice, organizations have tended to focus on individuals' knowledge and learning rather than the collective knowledge generated by individuals working together.

An assumption we have concerning the relationship between learning and organising can be summarised in the following idea: 'learning processes are intrinsically social and collective and occur not only through the imitation and evaluation of individuals… but also because of joint contributions to the understanding of complex problems' (Teece and Pisano, 1998). This paper is a study of employees' perceptions of their situation, *as experienced*, and of the social and political engagement that is shaped by, and shapes, individual and collective perceptions. The on-line process reported in this paper is one way to capture the interplay between individuals and collectives in 'the concept of a community of learners' (Cullen, 1999). Such perceptions may be expressed in the tacit and explicit rules of behaviour, in informal conventions and assumptions governing both reflection and action within groups, in decision-making procedures and in characteristic patterns of authority and leadership. Of equal interest are the processes through which awareness of other people's perceptions, and ones own, are

transmitted, and through which divergent views are assimilated into agreed courses of action in the organisation (Minkes et al 1994). It is in the context of such issues that group support systems may provide a way forward as a catalyst for collective knowledge and learning.

One of the key values in the method we propose is that it provides an immediately viewable survey of opinions within an organization and can be the basis of 'here and now' discussions of the reasons for differences that emerge. (Gear et al, 2003). Such knowledge can be the basis for collective learning, provided that the process is suitably designed to contain the anxieties that inevitably arise around learning and change (Coutu, 2002). Our method generates collective representations of individual thoughts, feelings and issues, as a basis for the revision of existing organizing practices and strategies. For the directors or senior managers, who may commission the use of this method, it can open up a channel of communication providing insights into the way the company, its leadership and its operation are perceived by employees as a whole. Such knowledge is useful but can also be uncomfortable, and is not always seen as desirable by senior managers, or staff in general.

Organizational Learning and SMEs

The study of organizational learning in SMEs is important because the focus of learning in this sector has been on the development of the skills and knowledge of individual entrepreneurs rather than on the organizational designs for learning that might sustain and develop successful business activity. There is currently a need to provide empirically informed ideas about collective learning in SMEs in order to support SMEs in creating organizational designs and approaches to development that can encourage collective learning. There has been no research (we know of) that has attempted to highlight ways in which small enterprises might organize in order to promote collective learning and to further organization-wide knowledge development.

The SME sector has been somewhat neglected by OL researchers (Hendry, Arthur and Jones, 1995) and there are few empirical studies of organizational learning in SMEs. The emphasis in existing research has been on identifying the 'single loop' nature of learning in SMEs, which involves the utilisation of existing knowledge as a basis for improving the efficiency of current operations. Chaston, Badger and Sadler-Smith (1999) maintain that this is not the most appropriate learning style for SMEs, because they frequently have to exploit new knowledge to evolve new practices and operational frameworks, utilizing their main advantage over larger organizations, which is their ability to adapt more rapidly to changing circumstances. Various authors assert the need to develop a culture of continuous learning and knowledge integration, which goes beyond characteristic forms of management development (Choueke and Armstrong, 1998; Wyer and Mason, 1998). The focus of learning in SMEs is on informal, on-the-job learning rather than formal externally provided courses, since this is more in line with what small organizations want, or can afford. 'Learning occurs in an opportunistic and informal way and knowledge is generally tacit rather than explicit. Formal training is used infrequently and formal planning or evaluation is rarely relevant' (Anderson and Boocock, 2002).

One study of SME learning by Gibb (1997) suggests that success relates to the ability of the enterprise to learn and adapt, in a creative sense, from the key agents with whom the SME interacts. Gibb's research suggests that 'double loop' learning arises from an improvement in

learning within the network that surrounds SMEs, creating "an active learning organization within a stakeholder environment" (Gibb, 1997:25). The study supports the importance of further research aimed at shifts away from knowledge located primarily in the individual, owner-manager towards learning based on a broader, collective knowledge of the business. That is, away from the very genus on which the organization was founded.

Leaders and managers in small organizations have tended to rely on the idea of implementing the best practices of other, similar firms. While the idea of best practice reassures managers that wheels do not have to be reinvented, it can also detract from the need to analyze and understand the specific context within which knowledge is being applied. The same practices have different effects or are interpreted differently in one organization compared to another, and there are many recipes available which claim to be best, so it is sometimes difficult to know which 'best' one to follow:

> *What works in one department or one organization may not work in another, not simply because the context is different, but also because the best practice template which is transferred cannot capture all of the knowledge involved in actually making it effective. Thus, templates and practices presented as best will be interpreted differently in each context of application. Indeed, in many cases, what is considered to be best practice in one context may be deemed unworkable in another… (Newell et al, 2002: 182).*

Focus on best practice can be a diversion from the firm's own knowledge. Best practice is, in part, an avoidance of asking about the state of knowledge within this organization – the knowledge there is, as well as the lack of it. The identification of existing knowledge also raises anxieties about what is not known, and this is an organizational dynamic that is often ignored. A focus on the best practices of others provides opportunities to externalize both problems and knowledge, to generalize it by detaching it from the emotional and political context within which its specific meaning resides. The most important knowledge is local, and this is not simply internal knowledge but also resides in the various networks of close relations between individuals and organizations (companies). Individual leadership style, approach and behavior, as well as skill development are important, but they are not necessarily the most important factor in SME growth. The most important factors are likely to be in the patterns of relations that support innovation within specific business contexts.

In summary, previous research concerning learning and SMEs suggests that:

- SME learning is currently based on the utilization of existing knowledge and the application of (others') best practice rather than on exploiting new knowledge to evolve new practices and frameworks.
- SME learning is currently concerned more with developing individual knowledge rather than the collective knowledge of the enterprise in its broad stakeholder environment.
- SME learning in the future is likely to be based more on informal learning than formal training.

An additional pressure within this organizational domain is that members of small to medium-sized firms think they have little time available in order to learn. Learning and knowledge development can be seen as a low priority in SMEs, at least in terms of the time

enterprises are willing to invest in learning. Given this, tools for organizational learning, for knowledge development and application, need to be extremely time efficient and explicitly linked to increased productivity in order to be credible with managers. The future challenge for SMEs is in applying time efficient tools for knowledge development; understanding the implications for action of the difference between the concepts of individual learning and organizational learning; and in understanding and applying the collective as well as individual knowledge that has been generated within and between enterprises.

Managers and owners of small businesses are undertaking leadership and management skills training, but the development of all human resources within the enterprise is seen as too expensive or impractical. However, small businesses are an important research site for collective learning because members' relational knowledge and experience (of each other) is often highly developed. Organisational learning is unlikely to occur without explicit links between the human experience of learning and the broader, organisational politics within which the learning experience was created and is contained. Learning is a political as well as a personal experience within an organisation: it serves both a desire for change and a desire not to change. Research into collective learning in SMEs will help to understand the power and political processes that impact on organisational learning within this sector. The identification of organizational politics that seem to characterise aspects of the experience of the people that work within small businesses will help to clarify existing and future organizational designs that constrain learning, or make it possible.

The Teamworker® Approach

The method outlined in the paper is a development of a Group Process Support System (GPSS), comprising both hardware and software, called Teamworker® (see Gear and Read, 1993). The Teamworker® GPSS is based on the use of wireless handsets, one for each person in a group. Teamworker® was used as a method for: capturing data on emotional, political and relational dynamics within SMEs, highlighting collective perspectives on these dynamics, and encouraging dialogue. The approach promoted group enquiry and collective reflection, capturing the interplay between individuals and the organization they are collectively creating.

Teamworker® enables respondents to answer a series of multiple-choice questions; the software displays the responses to each question back to the group in histogram form, reflecting collective knowledge, thinking and opinions on the questions (see Figure 1, below). The system facilitates two ways of operating with participants: in 'group mode', the displays are presented back to the group providing immediate responses to the questions; while in 'survey mode', the feedback may be to the same and/or other groups at subsequent times. Group responses to the histogram displays provide ideas and examples reflecting the differences and agreements to the given questions.

Figure 1: An example question and histogram of responses

8. Staff are 'open' in their communications (e.g. there are few 'hidden agendas').
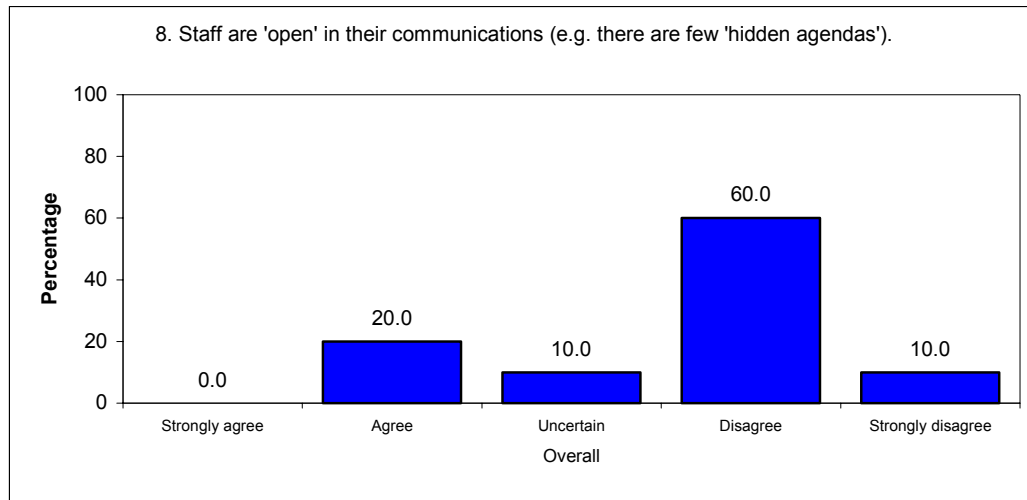
The outputs from groups are recorded for analysis in two ways. The inputs from the handsets provide a record of judgements and feelings. The dialogue is recorded and then transcribed for analysis. These two forms of record, one quantitative, the other qualitative, are seen to complement each other in terms of analysis and conclusions. The quantitative information provides a survey of feelings and opinions from groups, while the dialogue provides insights into the reasons why these views are held or how they change during the discussion.

The anonymity of individual inputs, coupled with the non-intrusive, *low impact design*, of the on-line technology within group sessions means that 'uncomfortable knowledge' (Fineman, 1993), the emotions and politics that underpin learning processes, can emerge in a non (or at least reduced) threatening way. The design of an appropriate set of questions is one aspect to the success of the approach. There are 16 questions in the questionnaire used, each producing a representation of the collective opinions in the groups interviewed. These provide immediate, visible results, shown graphically to each group. The importance of the graphs is that they highlight differences of opinion while maintaining anonymity of response.

The examples in this paper come from a study of SMEs in Wales, UK. In this region, as in other national and regional contexts, the challenge is 'not just to increase demand for more formal training, but to make informal learning more effective' (ELWa, 2002). This means finding new ways of responding to the provision and development of informal learning. Teamworker® is being used here to support the development of informal (collective) learning within the real constraints on learning within SMEs. These are: the time pressures on SMEs, the cost of management and organization development, covering for absence at work, lack of support from senior and/or line management, the availability of appropriate training, and entrenched company culture.

We have found Teamworker® to be extremely time-efficient and contextually relevant. It helped to identify precise and company-specific learning needs (both for individuals and for the companies involved). It revealed the organizational politics that can obstruct learning and change in small companies. It stimulated interest in how informal, on-the-job learning can assist growth.

Example: A Study within a Small Firm in Wales, UK

SMEs make up 98% of all businesses in Wales. The following statistics from a recent report by the Welsh Management Council (2002) elaborate this:

- 98% of businesses in Wales have less than 20 employees, employ 46% of the workforce and produce 36% of total turnover.
- 2% of the businesses in Wales have between 20 and 250 employees, employ 20% of the workforce and produce 21% of total turnover.
- Less than 1% of businesses in Wales has more than 250 employees, employ 34% of the workforce and produce 43% of total turnover.

The research team set up a pilot research project (with funding from the Welsh Development Agency) in eight SMEs in South Wales. The pilot study was designed to capture emotions, assumptions, politics, and processes that reflected collective perceptions/ experiences of organising. The aim of the research was to discover ways of understanding collective learning in SMEs in order to shift the focus of learning in this sector from the development of the skills and knowledge of individuals to the organizational designs for learning that can sustain and develop successful business activity. We were utilising Teamworker® to answer the specific questions: what are the emotional and political dynamics represented in collective knowledge? What encourages collective knowledge and learning to be developed, utilised and sustained in SMEs? How can SMEs better utilise the collective knowledge they generate to help growth?

Technology Manufacturing Ltd (TM).

TM is a manufacturing company employing about 80 staff. The organization manufacture components for a large electronic company and are a part of a network of nine small firms in South Wales and the West of England that service the parent company. Two sections of TM have very different experiences. TMA represents a part of the organization that is seen to be working well, and TMP a part of the organization that has poor working practices and relations.

In TMA, shop floor workers give managers the benefit of the doubt because 'if something is not right, it is discussed'. The process depends on the collective feeling of being able to say what you think. 'We are down to earth and we can speak, you've got to be able to say what you think to each other'. Saying what you think is important, even where no difference is made to a specific issue ('you are involved, that doesn't necessarily mean you have an impact'). The knowledge that underpins this is that an individual or group is asked to do things 'the proper way':

> 'There is a lot of fairness here. You are asked 'do you mind going on a job?' you don't mind being asked, it is when you are told. But if you do mind, you still have to go. The point is you are asked the proper way'.

While in TMA saying what you think gets you 'somewhere' in TMP, saying what you think gets you nowhere: 'when you do suggest something it doesn't get you anywhere... when we have meetings they don't take no notice. The famous saying is that the matter is in hand'.

Meetings are not taken seriously because they do not concern collective knowledge: 'it is not a discussing meeting it is a statement'; 'he doesn't care what you think'; 'meetings are regular but brief, they tend to be one way'; 'you can have your say but they don't take no notice'; 'they make it look as though you've given the answers'. Whatever the histories and actions were that led them to this place, mangers in TMP are caught up in a dynamic whereby their staff members believe that saying what they think is useless. This dynamic has become reinforced over time to the extent that strong opinions have been formed. For example: that 'managers won't even speak, they don't want to listen or even look at you, that's how I feel anyway' and 'if you speak out then they say shut up, just get on with it. You can be talking to them and they walk away'. Also, 'I enjoy coming to work, there is a good crowd on the factory floor, despite upstairs, we have a laugh, you're not supposed to laugh because you can't talk and work at the same time'.

In TMA, if someone makes a mistake then they correct it. There is acceptance that 'nobody's perfect, if someone makes a mistake then they correct it. Sometimes you have to say sorry and get told don't do it like this, but they will ask you first, how did that happen?' In TMP, managers don't make mistakes ('according to them'). 'The higher up the chain you go the greater the denial... they don't like being in the wrong'. 'Upstairs they don't want to know if there's a problem'. In addition, 'it's getting worse over time'. There are feelings about 'them and us' in both parts of the organization. In TMA however, 'everybody feels as if they could go and speak to any of them'. 'They ask us if we got any problems, whether they want to hear them is another thing'. They are bending over backwards to please us because without us they couldn't go on. It takes a long time to learn the skills we've got'. In TMP, 'they make the decisions and that's it', 'there's no trust between us and them'. 'Every time you take up an issue you are more or less knocked down'. 'We are not given a choice, they do not discuss things, everything comes through the grapevine'. 'We are treated as second and third class citizens, they don't think we've got anything worthwhile to contribute'. 'We don't count for anything'. These examples were stimulated through feedback screens, a sample of which is shown below:

Figure 2: four pairs of feedback screens from the sessions with the organisations
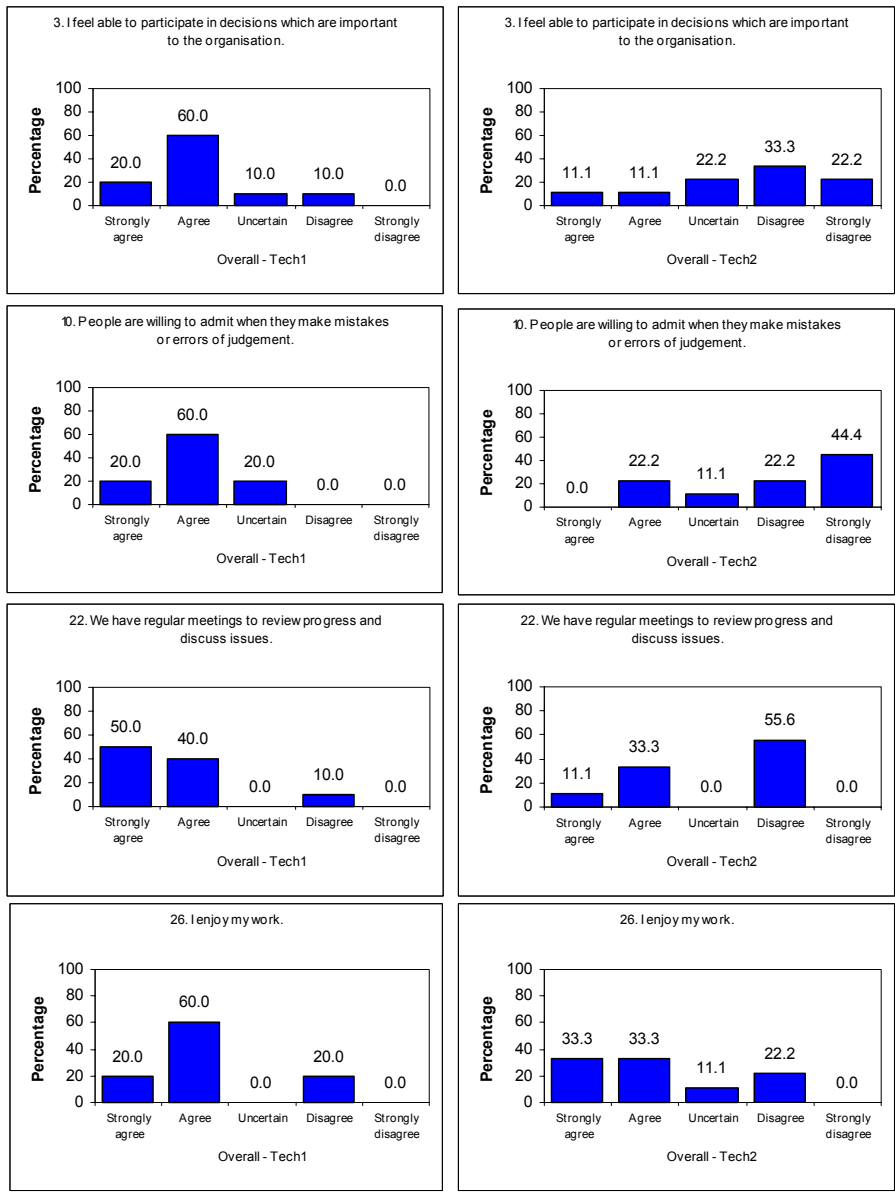
The histogram results show that in both TMA and TMP there were the same contradictions or tensions of feeling and experience. In both parts of the organization, differences are and are not brushed under the carpet, people are and are not willing to make mistakes, conflicts are and are not dealt with openly, there is and isn't trust between staff. There was also the same characterization of 'us' and 'them'. The difference was made when workers felt they were being treated 'properly'.

There are therefore, two fairly simple but important components to collective knowledge in Tech (both parts). First, staff members collectively believe that they should be able to say what they think and feel (and that doing so is going to get you 'somewhere' rather than 'nowhere'). Second, there is a 'proper way' to be treated and asked to do things. These two ideas represent both what is successful about the TMA group and what is problematic about

the TMP group. All organizing practices, strategies and developments can benefit from being informed by these two collective dynamics.

Discussion and Conclusions

(We intend to complete this final section on the basis of discussions at and after the OLK5 conference. What follows is our brief notes and current thoughts about the impact and usefulness of the approach).

The case illustration demonstrates various issues in relation to the acquisition of collective knowledge. In particular, the political and emotional aspects of organizing, themselves a creation of the collective, benefit from a group based approach for their exposure. The approach provides a novel and additional method for collective reflection on organizing dynamics. The methodology which we have described offers the ability to surface emotions that impact on organizing, themselves a result of the way in which an organization has come to operate, provided that a low threat, group based method is adopted. On the basis of our experience in the field, we contend that sessions of the type we describe have the ability to uncover 'uncomfortable knowledge'. It is this form of knowledge, whether individual or collective, that has the greatest impact on the avoidance or limitation of learning and change. Collective knowledge can be utilized within the organization in order to stimulate additional practices and approaches which increase opportunities and possibilities for learning.

What are the implications of the method for the study of collective learning and knowledge generation? How does the paper make a contribution to knowledge about the methods used to research collective learning?

The design of the question set can ensure that the content of learning is focused on an exploration of emotions, the distribution of power, and social relationships in the organization. The mode of operation of the technology, and the design of the group process used in conjunction with the technology, can minimize defensive responses among individuals and within groups. In support of this statement, it is important to note that the individual does have control over what is communicated, even though participating in a group experience. The initial response to each question is input as an anonymous (non-attributed) judgement, appearing as a contribution to an aggregated display. The ensuing debate is then focussed on the reasons, which may underlie the range of opinion that is presented on this display. In particular, the reasons behind displayed differences of opinion are debated in a depersonalized way. During this debate, any declaration of a personally held view is entirely a matter for the individual participant to decide. It is not a requirement of the process. Each stage of this process involves a risk to the individual, but by breaking down the process into a number of stages, the risk at each stage is reduced, and the individual is in a better position to manage their own behavior.

The importance of the method is in the ability it provides to study collective learning and the impact of collective knowledge on an organization. It is also important that this knowledge is seen in terms of the emotions, politics and relations generated by organizing in addition to the more rational attempts at strategic planning and decision making.

In SMEs the method is useful particularly in revealing collective knowledge in organizational setting that are often dominated by the individual entrepreneurs who started the firm.

What is the contribution to organizational learning and knowledge?

- The research contributes to understanding how organizational learning emerges from collective experience and knowledge, how such knowledge becomes the intellectual property of the organization, and helps to understand the barriers to and possibilities for the distribution of collective knowledge. The study therefore adds to an understanding of the difference proposed by Lipshitz and Popper (2000) between 'learning-in organizations' (improving the proficiency of organizational members) and 'learning-by organizations' (changes in norms and procedures).

- Collective learning provides opportunities to understand and (re)organize collective reflection and collective leadership.

Note

The authors would like to encourage an international perspective on this method, as well as to the research on SMEs. We would be happy to talk with other conference participants on the use of the technology within their own research into organizational learning and knowledge.

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