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workplace education**

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Context dependent learning: its value and impact for workplace education

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Purpose – The purpose of this paper is to describe how a management development programme based on situated learning theory resulted in change for individuals, organisational culture and performance. The case study illustrates how new understandings about learning in the workplace and in higher education points towards the need to take account of the context in which learners utilise their knowledge and skills.

Design/methodology/approach – Quantitative and qualitative strategies were used to provide an evaluation of the impact of a management development programme in a group of companies. A questionnaire, focus groups and semi-structured interviews were used to collect data on three cohorts of supervisors and middle managers at different stages of the programme. A triangulated approach was adopted towards data analysis that illuminated a broad and deep change process.

Findings – Positive cultural change was a significant benefit to the host organisation from the training programme. It was apparent that training can move beyond individual development to bring about organisational gains.

Research limitations/implications – Future research might adopt a longitudinal design and facilitate a co-researcher approach using students' learning logs of workplace experiences.

Practical implications – Situated approaches to learning in higher education and the workplace need to be developed further to enhance workplace performance. A proposal is made for “learning consultants” to move between the two environments and facilitate knowledge exchange and improve understanding of the variety of learning contexts in business and educational settings.

The emergence of the global knowledge economy and the increased use of communication and information technology have contributed to the focus for knowledge moving from the university to the workplace (Boud and Solomon, 2001). This case study describes how a management development programme based on situated learning theory (Bennet, 1998; Brown, Collins and Duguid, 1989) affected individuals, organisational culture and performance. Theoretical debates on workplace learning are explored and related to higher education. The implications for the nature of partnerships between the worlds of work and higher education are then discussed.

Models of Learning

Fuller and Unwin (2002) propose five models of learning in the workplace:

- Transmission model

- Experiential learning
- Communities of practice
- Competence or outcomes-based approach
- Activity theory

The 'transmission' model is where workplace experts pass down their learning to subordinates. This reflects the traditional academic disciplinary model of experts and novice learners. A second model sees learning as an informal process that takes place for individuals through their experience of work. Such an approach is promoted at university through work placements, work-related case examples and reflection on practice. The third model, reflecting the concept of communities of practice (Lave and Wenger, 1991), places informal learning in its social setting of work relationships and group dynamics. This is mirrored in academic settings with small group activities and projects. A fourth model identified by Fuller and Unwin (2002: 98) is termed the 'competence-based' or 'outcomes-based approach'. This encapsulates national vocational qualifications (NVQs) and employment focused learning. This, they suggest, does little to prepare employees for change and future roles. These are supported through the development of meta-cognitive skills of problem solving and critical reflection, which are considered the added value of higher education.

The fifth model recognises the benefit of academic learning and also the importance of the organisational context. It is based on the work of Engestrom (2001) which uses activity theory to show how people learn informally and

socially at work but that they can benefit from formal instruction. This instruction is from a teacher or is carried out by individual learners themselves. The case study below illustrates a programme that takes account of both formal instruction and the context of work itself. It is using this fifth model of learning that the relationship between the workplace and university can be developed. Workplace activity can be routine, lead to superficial learning and undermine a culture of innovation. Higher education, in seeking to enhance the autonomy of the learner can promote people's own strategies for learning in the workplace. This fifth model also provides a new way in which to consider the broader relationship between workplace 'learning' organisations and higher education.

Culture, Transfer and Performance

The central characteristic of a learning organisation is a culture that encourages and facilitates learning as a means to continuous transformation. It accepts that performance relies heavily on the intangible, on the motivations and attitudes of participants (Oakley and Krug, 1994, 48). 'Culture establishes a unique set of formal and informal ground rules for how we think, how we behave, and what we assume to be true' (Conner, 1992, 161). If the strong view of culture as a determinant of thought and behaviour held by Conner (1992) is accepted, then culture becomes critical to the learning that takes place. Yet in relation to organisational action it is individual behaviour that is most amenable to change in training programmes.

One particular area of interest has been in individual transferable skills (Leo, 2001). These involve the application of a range of different skills, knowledge and personal traits but have been termed 'process skills' (Annett, 1989, 4). Oates (1992) makes the point that, 'competence in the job is actually a function of how someone puts all the different aspects together in real situations' (1992, 231). This requires 'adaptation', a concept taken directly from Piaget's work, where learning involves a process of the transformation of mental schemata through accommodation to, and assimilation of, environmental stimuli (Piaget, 1954). This suggests limits to the conception of transferable skills, for every situation is to some extent unique.

The context of learning in the workplace organisation and the transferable skills required in higher level critical analysis, reflection and problem solving are the focus of the programme described below. Nonetheless, the links between learning, training and performance cannot be assumed although they often are. A number of studies have pointed to the failure of training to produce more than partial success; as low as 20% transfer into the job context (Baldwin and Ford, 1988; Georgenson, 1982; Newstrom, 1986). Even this limited success rate has been challenged; Myers (1992) concludes from a study of research that there is no evidence that transferable skills transfer, even between similar occupational areas. The process of identifying training needs related to job analysis and business objectives is used to support a transfer of learning into effective performance (Jackson, 1989; Rae, 1991). It is not, however, possible to simply assume, or project, transfer as an outcome from training in transferable skills. For Hamblin (1974) there are five levels of

outcome: reactions, learning, job behaviour, organisational unit and ultimate value. People can enjoy training but it may not transfer to the workplace as described above. The concept of situated learning suggests that the social and environmental aspects will play a significant part in the way in which learning becomes embedded in an organisation and management system.

Research into the impact of a programme of training and development carried out by educators from a university teaching background using situated learning approaches helps to establish whether these activities promote improved performance as suggested by theoretical developments. The onus was on the fifth model of learning described by Fuller and Unwin (2002) with an emphasis upon the use of transferable skills in contexts which managers worked as proposed by Leo (2001). Examples drawn from the participants' workplaces were used in the programme and learning developed through discussion, reflection and problem-solving activities within peer-networks from across the organisational group. Each programme of training sessions took place in monthly blocks on the premises of the host organisation over approximately a year.

Methodology

The organisational setting was a medium sized manufacturing organisation with approximately 2000 employees across a group of companies. The training was arranged for predominantly middle level managers ranging from supervisory shop-floor workers through to professional level staff such as

commercial negotiators, drawing office managers and senior engineers. In an international market place it was considered vital by the senior management that this layer of staff developed knowledge and skills that would contribute to their effectiveness in gaining competitive advantage for the organisation. The endogenous growth and expansion of the group through acquisitions also led to a diversity that suggested a need for corporate alignment beyond the name changes. The external training organisation delivered fourteen two-day management development modules with accompanying follow up exercises for three cohorts of between 40 to 50 staff each. Individual modules covered areas such as leadership, coaching, communication, change, negotiation, presentations, planning, performance and the 'learning leader'. The research focused on the performance impact of the programme and the development of transferable skills within the workplace. The methodology employed used a combination of questionnaire survey, focus groups and in depth interviews. The training was provided to the host organisation over three phases. The first phase started in April 2000, the second in October 2000 and third in October 2001. The survey in November 2001 captured data from all three phases as one was just beginning, another was half way through and the final one completed shortly before data collection took place. 136 questionnaires were sent out to all participants and 70 returned representing more than 50%. The focus groups contained 9 and 8 people respectively from the first two phases who had been selected by the researcher and also by the host organisation on a convenience basis. The 16 interviewees were selected from the survey responses on the basis that they showed a high degree of learning from the training programme. Six in depth studies of individual managers, two from

each phase, were then selected for further analysis to explore the processes and impact related to the training. The managers selected for these in depth studies also reflected different levels of management, the mix of companies in the group and lengths of service. The questionnaire survey provided a quantitative evaluation to establish the overall reaction to the training amongst participants and the other techniques provided more detailed insights into the changes that had taken place. Whilst the triangulation of methods provided a robust cross-sectional design, a more rigorous approach could have employed learning logs from the managers in a joint enterprise of research once they had returned to the workplace. This would have provided a more dynamic and contemporaneous assessment of impact beyond the snapshot taken in this research.

The main issues covered in each of the research methods employed in the study were as follows:

1. Nature of current work
2. Previous work experience
3. Previous training
4. Experience/Recollection of current training
5. Impact of training/learning outcomes
6. Transfer of learning to the workplace
7. Performance change
8. Culture in the workplace

Results

The themes and issues in the results are those clearly triangulated across data and method. No claims are made about the overall impact of the training; rather the issues in relation to learning and performance are explored to develop understanding of theory in practice. Communication was reported as the most significant improvement. This was related to cultural changes in the organisation and improved performance for individuals that had an impact upon their workplaces. Networking and collective problem-solving arose from the training. This allowed the knowledge and culture of different companies to be spread around the group. The most interesting theme that can be traced across the data and methods is the cultural change related to the training itself. This was accomplished as the training came to be representative of the change process in the wider organisation. It also became clear that respondents found the transfer of learning from the training to the workplace difficult due to the existing culture. Where a team or site culture was more positive then transfer was considered easier. The detailed findings from the survey, focus groups and in depth interviews underpinning these results are outlined in the following sections.

The overwhelming majority of the seventy questionnaires returned from the initial survey indicated that some learning had taken place for the respondents in areas such as leadership, communication, and confidence and problem-solving. Nineteen responses referred to leadership with one saying that they *"did not agree with all the theory as I believe that it depends upon the manager"* but that he learned that *"a leader will lead people to new situations"*.

Ten responses mentioned communication including handling "*conflict*", "*negotiation*" and "*people skills*".

The overwhelming majority of respondents described a positive impact from the training. Forty-one questionnaires gave a response that again included references to communication. This was put into practice after the training modules in a variety of ways. "*Modified monthly presentations, shorter and more tuned and specific*".

Two questions in the survey asked about the intangible and tangible benefits of the training for the participant and the company. Many of the sixty seven replies were general and detailed examples limited. The overwhelming response indicated that these participants considered that there had been some benefits to themselves and the company with responses such as confidence and morale as well as efficiency or cost-savings. One response talked generally about "*managing available resources better but there is room for improvement*". Another said simply "*business is quicker in meetings*".

It is at the level of culture that nine respondents noted a significant difference. For one person it was a case of "*people will pull in the same direction as the training*". Seven respondents referred to the benefits of having contact with other managers and learning how other people addressed problems. One person described "*listening to others and gaining ideas/experience*". Another person described the result as "*better team working skills across departmental boundaries*".

Three questions in the survey related to the issue of transfer. There were sixty four responses to these questions. There was an approximate balance between respondents who considered the transfer of learning from the training to the workplace was easy or difficult. Clear themes emerged explaining the differing opinions. Transfer was difficult because of time and workload issues as well as for cultural reasons. Transfer was easy where the team was receptive again suggesting a cultural theme. Finally, there was the theme of the training itself that was regarded as having made transfer easy. A number of people considered transfer to be both easy and difficult,

Depending upon the circumstances at work the easy/difficulty varies. Some are very easy others are very difficult. Easier where culture of the area/people where the change was tried was receptive and already headed part way down the road.

The final area of the questionnaire results covered the area of culture at the different sites and companies within the group. In particular questions were asked about whether the participant's manager spoke with them before or after the training. Forty-three of the seventy respondents indicated that their manager did not speak to them about the training beforehand or afterwards. Furthermore an additional twelve indicated that their manager spoke to them only beforehand or only afterwards. There was diversity in the overall responses of different sites to the training. By far the most positive culture was found within one part of the group. Here managers spoke with their staff about the training and appeared to support its aims. In other sites there was less

support for the training in terms of the established culture. This was mirrored in the importance respondents perceived of the importance of the training to the organisation as a whole. Forty-two of all the respondents thought the training was important or very important but this was greatest in proportional terms in the most culturally positive area (13 of the 14 participants in that area). Here most explanations for this importance suggested benefits for the company's future.

If people adopt culture, production should increase and morale and satisfaction should prevail.

The focus groups developed themes seen in the survey. In the first one a participant described the training as "*involving and encouraging the team a lot more*". The participants recognised how important communication was to managers. One described how "*there is no communication between businesses in the group. Each business is autonomous*". The training provided an opportunity for people from different parts of the group to talk with each other and build on their respective strengths. One participant gave a practical example of the benefits of the training. He had completed the module on negotiation and realised that it was about interpersonal skills. He looked at the process more closely and reflected upon it. He said that subsequently he achieved a better result in a specific negotiation because his evaluation improved and he stood his ground after reflection. The change for the company was described as a cultural one with the training acting to both represent and facilitate the change.

In the other focus group a participant said the training made him "*stop and think before I take any action*". This reflection was also combined with greater communication with his team as well as his manager. He was aware of a feedback process in this communication. Problems with other areas of the site were now discussed and resolved. This was considered to be especially important because the introduction of cells within the production process had reduced communication. Other significant impacts were described as follows.

Training encouraged me to give people in my team more responsibility... The guys want to take this responsibility. It's easier for the team leader.

The culture has been affected by the training. It is more active. People are more open to suggestions, more calm.

The issue of transfer to work was discussed. If people were "*on board*" and "*not cynical*" then it was easy. The fact that two senior managers from the site were at the training was regarded as positive and helpful.

The interviews gave rise to six in depth studies, one of which is illustrated here. Dave joined the host organisation 2 years ago. He started as shop floor engineer and became team leader of 12 engineers at the beginning of 2001 and completed the training programme later that year. Dave said that during the training he discovered his own strengths and weaknesses. He put into

practice motivational briefings, coaching plans for individuals and thought that his team building and leadership skills had been enhanced. Dave felt that the training had a very significant impact upon him and came at the right time. It elevated people's personal sense of importance and ability. It included the benefit of meeting other employees from the rest of the group of companies. He used the notes from the training programme as a resource for his work. For Dave, *"the workshops are an excellent mix of practicality and theory"*. The workshops on management and leadership proved most useful. Dave needed staff to work extended hours including weekends to complete outstanding work. Using leadership and motivation skills staff worked above their normal day and their 'effectivity' (a measure of efficiency) also improved over the year from 60 to 80% in some areas. Dave felt that the staff were badly in need of leadership. The culture was about doing things tomorrow. Using the skills he gained he was able to drive them to achieve better results. He himself has also become more efficient and effective through the use of time management skills.

Dave acknowledged that there had been a new senior management team in place. This contributed towards a change in the local culture that was supported by his own development. Transfer from the course was, however, still a challenge for Dave as the complexities of everyday work limited opportunities for direct application. He also stated that the training was very important to the company. As a relative newcomer to the host organisation he became aware of a negative company culture and a reputation for antiquated

management techniques. The training was perceived as part of a process of change.

Overall, the impact of the training as traced by the survey, focus groups and in depth studies was reflected in the workplace with new ways of working and more open communication cultures. Team members were more involved in processes and there was a greater willingness to meet company needs. This was facilitated by managers who used knowledge from the programme in ways which took account of real workplace issues and problems. Managers from across the group of companies also found benefits in shared problem solving and support.

Discussion

The benefit of gaining transferable skills for the development of managers indicates a crucial area in theoretical and practical terms for organisations. The skills of self-reflection, implementing plans and problem-solving become part of a process of critical analysis in which judgements are made upon organisational problems and plans implemented which deliver business outcomes. The demands of the workplace in a challenging business environment suggest that such skills need to be contextualised on the basis of changing work settings and everyday demands. The development of employees, particularly middle level managers, provides a crucial link between the corporate and organisational cultures and therefore the capacity of the whole organisation to respond to change in the external business

environment as a result of technological or industry transformations. The impact of the training on individuals is, however, related to the impact that those individuals make upon the culture of learning in the organisation.

Organisational culture reflects the fabric of the organisation and provides a context in which thoughts, behaviours and assumptions are established. Situated learning theory provides a link between culture and learning theory with its emphasis upon social and physical characteristics of learning environments. Learning is culturally related and therefore the learning environment in the company is crucial to understanding the impact made by the programme. The impact of the formal training upon middle managers will be significant for the company as they model, on a day to day basis, for most staff the rites, rituals and practices that become a significant part of what employees identify with their experience of the company. The results of the research suggest a cultural improvement as a result of the training programme with performance-related benefits. The learning outcomes of networking and collective-problem solving can be seen as ways in which a more innovative culture is being promoted by the training. The culture of the training became a vehicle for influencing the culture of the wider organisation. The training represented where the company was showing it wanted to go in its future developments.

DiBella, Nevis and Gould (1996) suggest that organisations, as social systems, inevitably learn. They consider that the capacity to perform depends upon how knowledge is acquired, shared and utilised. The context of the

organisation is clearly related to the cultural capacity to learn. Situated theories of learning suggest an approach that moves beyond individual and collective development into the context of the learning organisation. It is here that workplace and educational learning organisations can benefit from the insights of theory and practice in this area.

The fifth model of learning proposed by Fuller and Unwin (2002) and the results of this case study suggest a more context drive approach to formal instruction and everyday learning. In the classroom, the culture of groups can explicitly be identified as a cultural factor in academic and work-related projects. The situated and formal aspects of learning provide insights into the environment for exploring knowledge in practice. Within staff groups both at work and in education the everyday practices and languages provide rich data for managers, teachers and learners themselves to identify the process of changing demonstrable performances. This is important for educational and workplace practitioners who experience change on an ever increasing basis mirroring the demands that learners will also face in their workplaces.

Conclusion

Learning theories have developed in ways that appear to have significance for individual and collective learning in organisations. The emphasis upon situation and context provides a broader and yet deeper way in which everyday learning in higher education and the workplace can be understood. Training programmes can take this into account by training for transfer and

recognising the continuous state of change found in the contemporary organisation. Transferable skills provide a means by which individuals can develop within this context. Yet these skills have a situated nature which will impact upon their performance. Quite unexpectedly positive cultural change appeared to be a significant benefit to the host organisation from the training programme. This had performance benefits that were apparent when in depth interviews took place. Training can therefore move beyond individual development to bring about organisational gains. The benefit of situated and context driven approaches which focus on transferable skills appears to be its cultural impact. This may result from considering the learner in their changing learning environment rather than simply as an isolated individual.

For the university, changes in learning theories in use have challenged traditional transmission models of learning based on lectures and staff-focused seminars. The benefit, in the changing world of higher education, has been a focus on the learning needs of a more diverse range of students. This has promoted learning at a time of increase numbers, with new learning technologies and a demand to prepare students for work. This study suggests that the learning theories now found in higher education may be used to underpin learning in work based training programmes with benefits for students, workers and both forms of learning organisation. It also suggests, as the educators who undertook this development programme found, that relationships between the world of work and university can be developed for mutual benefit.

Learning in work and learning in the university have contextual differences but the approaches to learning are becoming increasingly similar. Theory suggests the need for formal instruction but also an awareness of the significance of situated aspects of learning. The activity based model discussed by Fuller and Unwin (2002) based on Engestrom (2001) suggests a need for knowledge and experiences of that knowledge in the practices of the learning context. Teachers in the classroom or business consultants in the workplace might more appropriately be called 'learning developers' or even 'learning consultants' recognising the importance of autonomy for the learner. A greater interchange between higher education and the workplace will allow practical knowledge to benefit from critical development and engagement with diverse learning contexts. The calls by government for a transfer of knowledge from the university to the world of work may, in practice, result in knowledge also flowing from the workplace context to the university.

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