On-Line Learning, Role-Play and Reflection to Encourage Professional Insight through Knowledge Transfer on a Work-Based Professional Educator Programme

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Abstract

This paper examines the use of on-line learning, role-play and reflection within a work-based professional learning course for Further Education (FE) lecturers at the University of Aberdeen, Scotland and discusses whether knowledge, both tacit and explicit, is transferred among group participants, encouraging professional insight into the issues discussed. The activity forms part of a programme entitled "The Teaching Qualification Further Education" (TQFE) which is designed for lecturers wishing to re-skill or bring their knowledge bases and practices up-to-date. The students undertake a tripartite arrangement involving themselves, the university and the workplace.

We examine the results of an investigation into the experience of both learners and tutors on an on-line workshop involving an anonymous, synchronous role-play activity and continuous reflection on current thoughts and beliefs in respect of quality in education. Feedback was gathered via on-line comments, semi-structured telephone and face-to-face interviews, and on-line questionnaires. In total, sixty-six lecturers from four colleges, together with four e-moderators took part.

The results show that participants begin their studies with pre-conceived notions of both the issue to be discussed and of on-line learning environments in general but by sharing information and knowledge, attitudes to both the topic area and the learning environment can be altered. This includes the transfer of both tacit and explicit knowledge from participants from different subject areas. The examination also revealed issues relating to the potential for inequality and over dominance of individual participation.

Keywords: Knowledge Transfer, Group Learning, On-line Role-play, Continuous Professional Development.

INTRODUCTION

The issue of the transfer of knowledge from those who have the knowledge, to those who do not, is high on the agendas of both academia and government. The current UK knowledge transfer initiatives evidence such importance, and it is clear that both the university sector and organisations are keen to participate in this. In addition to this, the continuous debate on the value and importance of tacit knowledge and its convergence to explicit knowledge remains vibrant. Whilst the study detailed below is a small study within the knowledge transfer debate, it does help to provide some further evidence of the value of knowledge transfer in continuous professional development.

The use of on-line role-play and reflection as methods of learning fits with the increasing use of technology in learning environments and as sources of learning. In the case of this project, we included an anonymity aspect to the role-play activity. Advocates of anonymity in role-play suggest that it allows all learners to have an equal voice in the learning environment, and the less confident to ask questions, however, issues such as dominant individuals, lack of familiarity with the learning environment or technologies, and emotional restrictions still appear to have an effect, despite the anonymous aspect.

Reflection played a large part in the study as participants were encouraged to post considered responses to paper articles and participant comments. The research team were interested to see if the use of on-line, anonymous, synchronous, reflective role-play would assist in developing professional insight through knowledge transfer between individual participants.

DESCRIPTION OF THE APPROACH

A qualitative study was undertaken during the academic year 2007/8 to investigate the experiences of four groups of learners engaged in a role-play activity addressing the issue of quality in Further Education. The student participants, sixty-six in all, were lecturers representing a range of Scottish FE colleges. Four tutors, each facilitating the activity for a small group of around fifteen students, also participated. Data were obtained from on-line comments, on-line questionnaires, and interviews with students and tutors.

The study centred on four, single, on-line, synchronous workshops, each of three hours' duration. The on-line environment used WebCT as the learning platform, and the role-play took place via a discussion forum. Prior reading of an electronically supplied book passage provided the initial stimulus to the participants. The passage from "Zen and the Art of Motor Cycle Maintenance" is designed to get the students thinking about quality issues and how they feel about it.

The workshop began with a discussion (non-anonymous) on the aspects from the paper that centred on the quality issues that arose in the article. The students were encouraged to discuss what they saw and were not influenced by any predetermined opinion of the tutor. The idea of this was firstly to get the participants involved, secondly to ensure that all participants and the system were on-line and working, thirdly to provide a comfortable beginning to get them sharing their own thoughts and feelings on the quality issue, and fourthly to allow them to begin experiencing the perspectives of others. The quality issues in relation to teaching and learning from the reading were not obvious and this allowed the participants to enter into comparative and opinionated interpretation of the passage. Responses from the students to the paper were quite diverse, ranging from love to hate and from understanding to confusion.

Having completed this first task, the students were then either, allocated to a team and a role by the e-moderator, or allocated to a team and allowed to choose their own role. That role related to someone who would have an interest in the quality aspect of a further education college, and each participant was able to respond anonymously within his or her assigned role. The roles were:

- ❖ College manager

- ❖ Lecturer
- ❖ Student
- ❖ Support staff (own choice of category)

At this point all contributions were made anonymous in order to assist in making the participation more comfortable and for them to be able to respond freely, without fear of recrimination as they were asked to make comment on quality within their own college and the Further Education sector in general. The idea was that they should adopt the stance on quality that they might anticipate the particular role chosen to take, and then debate the quality issue amongst themselves. They were expected to comment on the quality issue using whatever explicit knowledge base they had or indeed from a tacit base using an emotional or gut instinct perspective. They were instructed not to look at any other group's activity until the end. On completion of this task, each group could then examine the comments made by other groups and compare and contrast the discussions.

As has been the case in other on-line, anonymous role-play situations (Bell, 1998; Chester and Gwynne, 1998; Freeman and Capper 1999; Pilkington and Walker, 2003), anonymous on-line role-play appears to allow a greater depth of discussion to take place. It also allows for greater interaction between peers to be achieved, creates the opportunity for a diversity of opinion and facts to be revealed, and to provide all participants with the ability to have a voice. It was hoped that this would follow for our on-line anonymous role-play and reflection and that a deeper range of discussion would ensue than might have done had the issues been discussed openly in class. The team also hoped that the anonymity would allow participation from even the most introverted student. In addition, by adopting roles other than their normal roles, we believed that the participants would be better placed after the role-play to appreciate the viewpoint from another or a number of other perspectives. The reflective aspect of having to consider the comments from their own and other perspectives and respond to these was also to play a big part in the knowledge enhancement side of the activity.

The amount of tacit and explicit knowledge that would be used within the workshop and role-play would be measured by examining the comments made by the students within the activity, from the semi-structured telephone interviews held with a sample of four students and four tutors, and the on-line questionnaires completed by forty-six of the sixty-six participants. The request to complete the questionnaires was of a voluntary nature and our analysis was, therefore based on the 69.7% of the participants who chose to complete

the questionnaire and 100% of the tutors. The four students who underwent the telephone interviews were also volunteers and this number was restricted due to the availability of the participants during the period when the interviews took place (holiday period). In view of the good response to the on-line questionnaires, we believe that this was not detrimental to this investigation, although a larger proportion of the students would have been preferable.

TACIT AND EXPLICIT KNOWLEDGE

There is much ongoing debate as to whether it is possible for tacit knowledge to be transferred from one person to another. Some would argue that it is not possible and others that it is, although it is usually with some difficulty and perhaps with limitations (Blair, 2005, Wenger et al, 2002). In 1967, Polanyi differentiated between tacit and explicit knowledge. He described tacit knowledge as being personal, context specific, hard to formalise and communicate, and explicit knowledge as transmittable in a formal systematic language. Accordingly, Polanyi's argument was that the informed guesses, hunches and imaginings that are part of exploratory acts are motivated by passions but are not necessarily in a form that can be stated in formal terms. (Smith/Polanyi, 2009; Smith 2003) It would appear that Polanyi considered personal feeling and commitments important in what we know, and that there is strong emphasis on dialogue within communities and on the strength of opinion.

Wenger, et al (2002) suggest that the, "…tacit aspects of knowledge are often the most valuable" as they consist of expertise and deep understanding. They suggest that in order to share tacit knowledge there requires to be "…interaction and informal processes such as storytelling, conversation, coaching and apprenticeship of the kind that communities of practice provide". This emphasises the importance of dialogue and the interactive side of knowledge sharing.

Nonanka and Takeuchi (1995) suggest that creating new knowledge is not simply a matter of processing objective information but depends on tapping highly subjective insights, intuitions, and hunches. They suggest that there are four basic patterns for creating knowledge, which are not to be considered separate but intertwined and complementary: tacit to tacit (Socialisation), explicit to explicit (Combination), tacit to explicit (Externalization) and explicit to tacit (Internalization). This again emphasises that

knowledge creation relies on more than objective information and that there is a subjective element involved.

According to Ledford and Berg (2008) explicit knowledge has been defined as "a kind of information that is made available to certain people for a specific purpose" and as "knowledge that can be codified in a tangible form". They suggest that this enables explicit knowledge to be easily transferred, accessible and easily stored, and so there is "… a reduction in opportunity for loss of explicit knowledge… " They suggest that tacit knowledge is generally referenced as knowledge that is inside people's heads and is therefore inexpressible. They define tacit knowledge as, "… the innovative concepts and functions that internally exist within individuals prior to transfer." This latter definition appears to contradict the earlier expression of inexpressibility but does introduce an aspect of innovativeness and indeed the ability for transfer.

KEKMA (2004) suggests that explicit knowledge is information and skills that are easily communicated documented and conveyed to others, i.e. formally expressed and transferred whilst tacit knowledge is the personal knowledge in people's heads which has not been written down or documented and largely gained through experience and influenced by beliefs, perspectives, and values. He expresses the fact that tacit knowledge usually requires some joint or shared activity in order to transmit it. Personal (tacit) skills such as expertise, gut feel, subjective insights, and intuitions are not easily communicated and documented but this definition allows some discussion on the ability for tacit knowledge to be communicated and documented and consequently suggests that it is possible.

The on-line workshop and anonymous role-play allowed such interaction, innovativeness, joint venture, dialogue and subject opinion the opportunity to occur but the question for us that arises from this, is whether professional insight was gained by the students using knowledge transfer, and if so, by which type?

ON-LINE LEARNING, ANONYMOUS ROLE-PLAY AND REFLECTION

According to Bell (2001) anonymous role-play, "makes role-play an emotionally safer and lower risk activity than fact-to-face role-play" and as such one might expect participants to open up more easily and share knowledge or opinion. In addition, according to Chester

and Gwynne (1998) in examining computer-mediated communication, it is useful for allowing users to use their potential as "thinkers and transmitters of ideas".

Within the results of the interviews with the four students who had undergone the workshop/role-play and reflection activity it was suggested that the explicit knowledge transfer came in the format of discussion of issues such as politics and the rules and regulation of the colleges concerned, i.e. factual issues that were discussed. One student suggested that adopting the roles contributed to seeing the 'bigger picture' of the issue being discussed, whilst another added that the discussion allowed others to add opinion and beliefs. This added to the reality of the discussion, "the workshop was almost getting us to say step aside, think of how other people think – think about how people feel". They confirmed that they learned about the topic, i.e. of quality and of wider aspects but reflection was hampered by lack of time.

In examining the results of the questionnaires, it would appear that the best thing about the role-play was the anonymity of it but the 'honest opinion and discussion' and 'lack of inhibition' that it allowed, as well as the ability to 'see things from other angles and learning from others' was considered highly valuable. Approximately 51% of the students mentioned this.

As far as the tutors were concerned, issues that were high on their agenda in relation to knowledge transfer, were that they saw 'real honesty in the posts'. They felt that the 'potential' of the workshop overall needs to be explored further and the role-play has 'real potential for learning'. Although the tutors thought initially that the workshop had not changed student views of quality, they accepted that the students did now have better awareness of the issues and much wider perspectives because of the discussion that occurred. They accepted too that discussion occurred because of the anonymity of the role-play and one suggested because of the 'socialisation' of the students.

This latter comment needs to be considered alongside a comment from another tutor who suggested that in at least one of the groups observed, over-dominant individuals had influenced the discussion and the participation of others during the on-line activity, including the role-play, even if to a lesser effect than they would have done in a face-to-face situation.

Whilst students' appeared generally to miss the point of the reading on quality, through the reflection on the reading in conjunction with their peers' views including the tutors' views, students did eventually see the wider point of the quality issue and to appreciate other points of views in relation to this much more. The tutors also felt that all students understood by the end of the session that everyone has a contribution to make to the issue of quality, irrespective of who they were and what their job role was. They also saw that quality is important and that everyone should be concerned with quality not simply those with direct responsibility for it. In other words, the students did engage with the topic throughout the session. Some students said it was a 'powerful experience' and that they 'had learned a lot'.

Explicit knowledge transfer was also evident where experienced group members offered help to those less experienced in IT and where support of each other was given on the day for those not so confident with computers. It was also evident when co-tutors helped manage the technical problems.

Tacit and explicit knowledge transfer was evident where students were working together, rather than individually, either through the sharing of information or from the sharing of feelings, emotions, gut instinct or experiential knowledge or behaviour. There was also the fact that at least one tutor felt that the activity worked well because groups had been encouraged to be sociable and work together prior to this activity and this workshop was 'an extension of that encouragement'

The depth of discussion on the article was good which also represented evidence of knowledge transfer of both types of knowledge. Explicit knowledge (a skill) was also being used and learned via the actual practice of having to use the technology. The initial activity of reading and discussing the article was acknowledged, by both tutors and students, as a valuable and vital aspect of the workshop. This allowed students to get comfortable with the learning environment and to begin to appreciate the aspect being discussed, which in this case was quality in Further Education.

One question asked of the students who answered the questionnaire was, 'what was the most significant thing you have learned from engaging in the on-line role-play?' Twenty (44%) thought that this related to being able to appreciate others views and multiple perspectives, sharing thoughts and learning more, and getting confirmation from the contributions of others of one's own feelings and views. One student said "We learn

more when sharing thoughts". Another stated surprise at, "How differently various people feel about the quality topic - the depth of feeling that people were willing to express in this format" A further student said that "the amount you share and gain in terms of opening up your mind to what other people's opinions are. It's really helpful to confidence levels I think" Another said, "It gave an insight into different perspectives that I had not considered before". These statements clearly show the significance of tacit knowledge transfer.

CONCLUSIONS

The findings reveal a huge diversity in responses to the activity. Learners' emotions before the activity ranged from 'confident' to 'panic'. Afterwards they overwhelmingly stated that 'anonymity' was the best thing about the activity, suggesting that it 'loosened inhibitions' and allowed 'unfettered expression of thought'. At the same time, some respondents admitted trying to guess the identity of participants, and commented on role-playing with varying degrees of conviction and engagement. Some participants may even have refrained from playing any part in the activity, hiding behind their anonymity. For tutors issues of control in a synchronous anonymous role-play were highlighted, and issues of preparation and facilitation were raised.

Although this study revealed the diversity of learners' responses to on-line learning and role-play, there was a generally positive attitude towards it and especially the anonymity aspect, but there was also the recognition of the potential for inequality in participation. A number of issues which need to be considered by activity designers and facilitators also emerged such as how best to prepare participants, when and how much to intervene, and how to control an anonymous learning experience.

Many of the questions asked of the participants related to issues other than knowledge transfer, however it was clear that both tacit and explicit knowledge transfer did occur during the workshop overall, and within the role-play in particular.

The exact amount of tacit knowledge compared to explicit knowledge cannot be computed from the information gleaned from this study but the qualitative statements made by the participants related more in the main towards the tacit side of knowledge than to the explicit i.e. rarely did the students use a factual or statistical basis upon which to base their comments. Instead, gut instinct, perception and feelings contributed to the debate on quality.

Reflection was hampered by the lack of time given throughout the activity to consider and construct meaning from the continuous debate as participants were being asked to respond in a relatively short time span. The whole activity lasted 2 ½ hours with the role-play taking up perhaps 1 ½ hours of that time.

Other evidence of knowledge transfer came from the peer support being given where students were working together in the same room or college or where the co-tutor of the team was available for assistance. This was especially true of the technical knowledge required to use the on-line environment effectively. This was clear evidence of explicit knowledge transfer.

Participants were able, in the main, to enter into the mindset of their assigned role-play character. There was criticism though from some participants that the comments made by them were not coming from 'own opinion' but rather from assumptions, or simply perceptions of standpoints, of particular roles. They also thought that better preparation for the role-play would have allowed research into the roles to occur which might have made the interaction and the discussion more realistic and factual. Having said that, most of the participants whether they had entirely entered into their roles or not , reported coming away from the activity with a 'wider perspective' of quality issues in Further Education colleges, and felt able to take and transfer some of this back into the working environment. The anonymous aspect of the role-play was felt to facilitate honesty and risk-taking, while at the same time e-moderators reported a minority tendency to use the anonymity to engage in dominant behaviour.

The on-line workshop, including the role-play and the reflection, proved to be an opportunity where, for those people who were motivated, it revealed honest and candid thoughts and ideas, which reflected both the tacitness of some knowledge and the explicit nature of other knowledge. Due to the anonymity aspect, tacit knowledge, not normally recognised as acceptable knowledge or as transferable knowledge, was able to be realised and shared between all group participants. Referring back to the categories of knowledge transfer identified by Nonanka and Takeuchi (1995) it would appear that the tacit to tacit (Socialisation), the explicit to explicit (Combination) and the tacit to explicit (Externalisation) did occur, however, it is less clear from this study whether the explicit to tacit (Internalisation) aspects occurred.

Whilst it would be inappropriate to generalise from such a small example, the study provides hope for the future for on-line role-play and reflection within this course to enable participants to gain greater awareness of issues and gain professional insight into issues of interest and of importance through tacit and explicit knowledge transfer from peers and tutors. As the tutors and students suggest, this aspect should be explored further to ensure that this concept is developed to its full potential.

REFERENCES

Bell, M. (2001). 'On-line Role-Play: Anonymity, Engagement and Risk' *Education Media International*, accessed 3/2/09 at http://ww.tandf.co.uk/journmals, p.8

Blair, M. (2005). 'Accreditation of Lifeplace Learning: Achieving academic qualifications utilising Lifeplace Learning, including work-based and work place learning, as a valid part of the Scottish higher education curriculum'. *Unpublished doctoral thesis,* Glasgow Caledonian University, Scotland

Chester, A. and Gwynne, G. (1998). 'On-line Teaching: Encouraging Collaboration through Anonymity', *JCMC,* accessed 3/2/09 at http://jcmc.indiana.edu/vol4/issue2/chester.html p.3

Freeman, M.A. and Capper, J.M. (1999). 'Exploiting the web for education: An anonymous asynchronous role simulation' *Australian Journal of Educational Technology, 1999,* accessed 12/2/09 at http://www.ascilite.org.au/ajet/ajet15/freeman.html

KEKMA, (2004). 'What is Knowledge Management' accessed 19/3/09) at http://www.kekma.com

Ledford, B.C. and Berge, Z. (2008). 'A Framework for Tacit Knowledge Transfer in a Virtual Team Environment' *Journal of Knowledge Management Practice, Vol. 9, No. 2, p.3* (accessed 9/9/09)

Nonanka, I. and Takeuchi, H (1995). *The Knowledge-Creating Company: How Japanese Companies Create the Dynamics of Innovation*, Oxford: Oxford University Press, Inc.

Pilkington, R.M. and Walker, S.A. (2003). 'Facilitating debate in networked learning: Reflecting on on-line synchronous discussion in higher education' *Instructional Science,* 31:41-63, 2003, Netherlands: Kluwer Academic Publishers 2003

Pirsig, R.M. (1974). *Zen and the Art of Motor Cycle Maintenance,* New York, Morrow

Polanyi, M. (1967). *The Tacit Dimension*, London: Routledge and Kogan Paul

Smith M (2009). 'Polanyi, M. Tacit Knowledge and the Ecological Crisis' accessed 3/5/09 at http://smith2.sewanee.edu/courses/341/341Lectures/341.01.polanyi-ecology.html

Smith, M.K. (2003) 'Michael Polanyi and tacit knowledge' *The encyclopaedia of informal education*, accessed 20/4/09) www.infed.org/thinkers/polyani.htm,

Wenger, E. McDermott, R. and Snyder, W.M. (2002) *Cultivating Communities of Practice,* Boston; Harvard Business School Press.