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Sanders, Gail (2010) Towards a Model of Multi-organisational Work-based Learning: developmental networks as a mechanism for tacit knowledge transfer and exploration of professional identity. Learning and Teaching in Higher Education (4-1). pp. 51-68. ISSN 1742-240X

EPrint URI: <http://eprints.glos.ac.uk/id/eprint/3882>

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Towards a Model of Multi-organisational Work-based Learning: developmental networks as a mechanism for tacit knowledge transfer and exploration of professional identity

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ABSTRACT

This paper is based on the experience of a multi-organisational work-based learning degree programme run by Sunderland Business School which has produced some remarkable and unexpected results in terms of the learners' academic, personal and career development. The programme was built on a three-part model of tacit knowledge transfer designed to make use of learners' work experience and knowledge in the context of a taught academic programme.

Fundamental to the model was the formation of action learning sets through which students from varied organisations explored work-based enquiries, shared ideas and engaged in dialogue and debate. Evaluation of the programme suggests that these learning sets were a key factor in its success, promoting effective active learning.

An additional hypothesis explored in the paper is that the programme model created an environment in which learners were able to clarify or redefine their professional identity, promoting clearer contextualisation for their learning.

The paper closes with a dilemma that encourages further reflection on the relationship between work-based learning and traditional pedagogical practices.

Introduction: what's so different about work-based learners?

These guys are sharp. They can work out a deal in their heads quicker than our trained accountants can. Some of them are on close to £100,000 a year – but none of them have formal

qualifications. They are the guys who spent all their years at school looking out of the window because the teachers bored them. If you come in here and just lecture to them and get them to write loads of reports and essays they'll switch off.

The training manager of a large organisation with whom we were working to develop an in-house staff development programme for his account managers thus put into words one of the key challenges that many of us face today in modern higher education. What exactly were we trying to develop through this proposed programme? Knowledge? They already knew what they needed to know to be successful in their chosen career. Skills? Ditto. Employability? They didn't seem to need too much help from us there. What value could we add, and, just as importantly, *how* would we do it? These people were clearly very successful learners within their own environment.

It is scenarios like these that can raise questions about the agenda to encourage more people into higher education. Highly experienced people are being urged to 'upskill' and could end up on formal academic programmes where they too could spend much of their time metaphorically 'looking out of the window'. But pedagogical practices have had to change to keep pace with the continuing drive to ensure that higher education is more 'relevant' to employment, and now across the sector we are seeing a fundamental mindshift away from the imposition of curricula on others to a realisation that significant learning is taking place within organisations and a willingness to map this against desired learning outcomes (Johnson, 2000). How this translates into academic provision can vary widely. The University for Industry defines work-based learning as:

... independent learning through work. It is a self-managed process supported by learning contracts, Higher Education and work-place mentors and various types of learning and guidance materials. It leads to a family of Continuing Development Awards (certificates, diplomas, initial and postgraduate degrees depending on the level) in the National Qualification Framework. (University for Industry, 1999, cited in Johnson, 2000)

Within this broad definition 'work-based learning' awards have evolved into a number of forms, ranging from those that are achieved largely through accreditation of prior learning (APL) or experience (APEL), through to work-based learning as a major constituent of a programme of study where students are full-time employees and most of the research-based fieldwork is carried out in the student's own workplace (Gray, 2001). At Sunderland Business School, we have

found the former model to be particularly relevant to the development of corporate programmes designed for specific clients (for example, the large organisation referred to in the scenario at the start of this section). However, we have still found significant demand for more 'traditional' programmes from people in employment for reasons ranging from lack of support or development opportunities from their employer through to a desire to develop outside their existing field of employment. For many of these learners, a lack of confidence means that independent study is not desirable and they seek the support of a cohort-based programme of study. Nevertheless, these learners are already experienced, knowledgeable and largely successful in their own field despite having few or no academic qualifications, but this had not been acknowledged in our traditional offering to them, which was simply a reduced version of our full-time undergraduate degree taught two evenings a week over five years. Not surprisingly, the programme suffered from high drop-out rates and complaints that it was not relevant to the learners' needs.

This paper describes the development of an alternative model for the delivery of our part-time business and management undergraduate degree that was designed to better meet the needs of these learners by offering a taught programme that incorporates work-based learning as a means of valuing and using learners' existing knowledge base.

The tacit dimension

The underpinning philosophy for our new programme was a move away from an input model to one where we could use the learners themselves as a resource. This 'open' programme could potentially have a significant advantage over our corporate programmes in that the cohorts would be from different organisations, offering the opportunity to share and explore a much wider range of experiences and approaches. However, given the recognition that much of the learners' knowledge gained through experience would be tacit, our challenge was to develop a mechanism through which this could somehow be shared effectively.

Tacit knowledge has also come under increasing scrutiny over recent years because of its acknowledged importance to organisational success. In today's world, where explicit, codified knowledge rapidly becomes obsolete, tacit knowledge about business environments, industry patterns and company abilities is a resource that can provide significant competitive advantage for organisations (Kogut & Zander, 1993). In a business environment where markets are constantly

shifting and technologies develop almost by the minute, it is the companies that successfully create new knowledge that survive. Nonaka (2007) argues that whilst much of this new knowledge creation happens serendipitously, Japanese companies have adopted a more managed approach. Central to this is the recognition that creation of new knowledge is not simply a matter of processing objective and explicit information. It depends on accessing and utilising the tacit resource in the organisation – the often highly subjective insights of employees – and making them accessible to the organisation as a whole.

Despite this acknowledged value of tacit knowledge to organisations, there are limitations on its usefulness which stem largely from the fact that its development is contextual. An individual who possesses tacit knowledge of one particular organisation may become what Baumard describes as 'territorialised' (Baumard, 1999). That is, their knowledge and therefore their strategic approach to management is bounded by the cognitive map that they have created within that context, which can be a barrier to the creation of new knowledge in different situations. Individuals too may encounter barriers when moving to alternative jobs, finding it difficult to adapt to very different cultures and approaches.

These ideas began to form the foundation for the development of an educational experience that offered real value to our experienced part-time learners and their employers by tapping into their tacit knowledge, promoting its sharing amongst learners from different organisations, thus expanding the boundaries of their knowledge and transforming it into useable explicit knowledge within the context of the formal academic qualification.

Modelling tacit knowledge transfer in the higher education context

Sharing and transferring tacit knowledge is not going to be simple; by its very nature it cannot easily be articulated. However, by considering how tacit knowledge develops and transfers it is possible to construct a model upon which the educational process can be based. We considered three transfer processes:

- tacit to tacit;
- tacit to explicit;
- explicit to tacit.

Tacit to tacit: development of tacit knowledge is a *social* process. Individuals acquire tacit knowledge from one another without the use of language (Baumard, 1999). It requires intense personal experience and happens most effectively when the learner is immersed in action using as many senses as possible (McNett *et al.*, 2004). Transfer occurs not through dialogue but through action and observation. Our programme therefore needed to involve learners in active collaboration. As our mechanism for this we chose to organise the learners into action learning sets to work together on real work-based issues.

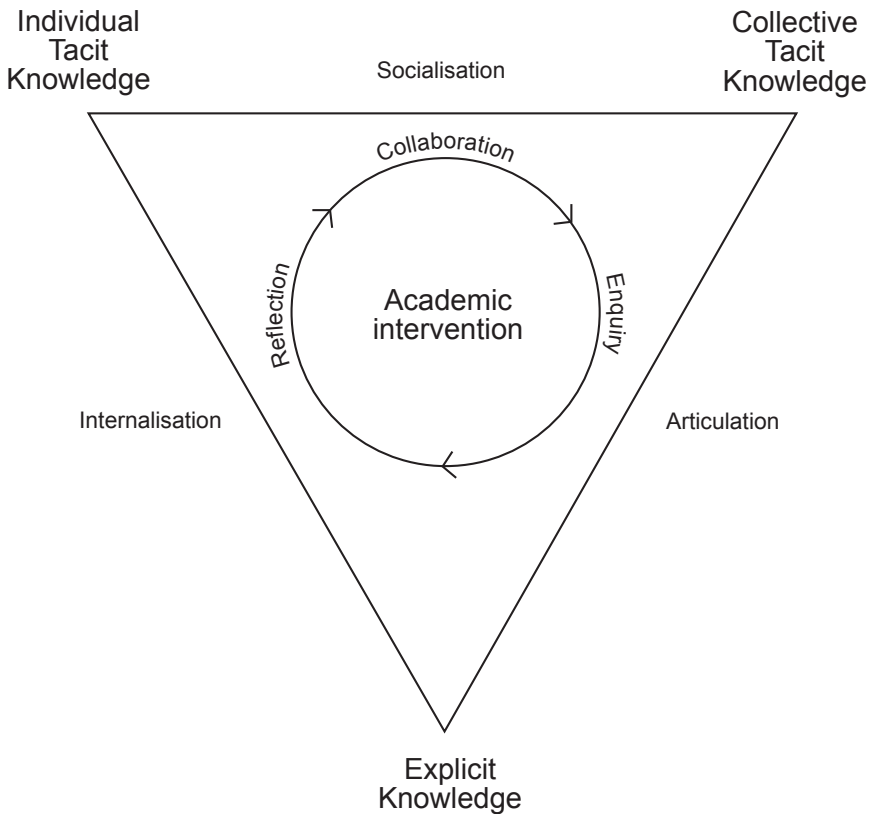
Tacit to explicit: the conversion of tacit knowledge into explicit knowledge is effected through *articulation* (Baumard, 1999). For example, discussion about the way a problem should be tackled will gradually tease out tacit knowledge to form a strategy or plan of action. This is similar to the production of 'mode 2 knowledge' which is produced through a process of continuous negotiation through problem-working contexts. It follows that by engaging our learning sets in collaborative enquiry around complex problems or scenarios, tacit to explicit transfer could be facilitated.

Explicit to tacit: the knowledge transfer loop is only complete when individuals can take newly-acquired explicit knowledge and *internalise* it in order to broaden, extend and reframe their own tacit knowledge (Nonaka, 2007). Only when the knowledge becomes internalised will that individual be able to access it without conscious thought and reference to codified explicit knowledge; it simply becomes part of the toolkit with which he/she is able to do his/her job. Internalisation can be encouraged through a process of reflection on action. Formal processes of reflection therefore had to be core to our programme and we did this through a structured and assessed personal development strand across all levels.

Socialisation, articulation and internalisation were the three essential elements in our efforts to harness the power of tacit knowledge; however, we have already seen that development of tacit knowledge happens within context. Most commonly the context is the employer organisation. A programme for learners from multiple and varied organisations in which we wished to extend the knowledge development beyond individual organisational boundaries needed to provide the context itself. Here we saw the academic content providing the 'hook' for our three essential processes. The traditional teaching and learning process was turned on its head, starting with

what the learners already know and building on that foundation. The process is represented diagrammatically in Figure 1 below.

Figure 1: Conceptual model for the development of a programme of work-based learning



The model formed the basis for the pedagogic practice upon which the structure of the new programme was designed.

Programme structure

The BA Applied Management programme was designed to replace our traditional part-time undergraduate provision, which was a simplified version of the modular programme offered to our full-time undergraduates. We wanted a programme that was based on our three-process model and which would have high workplace impact.

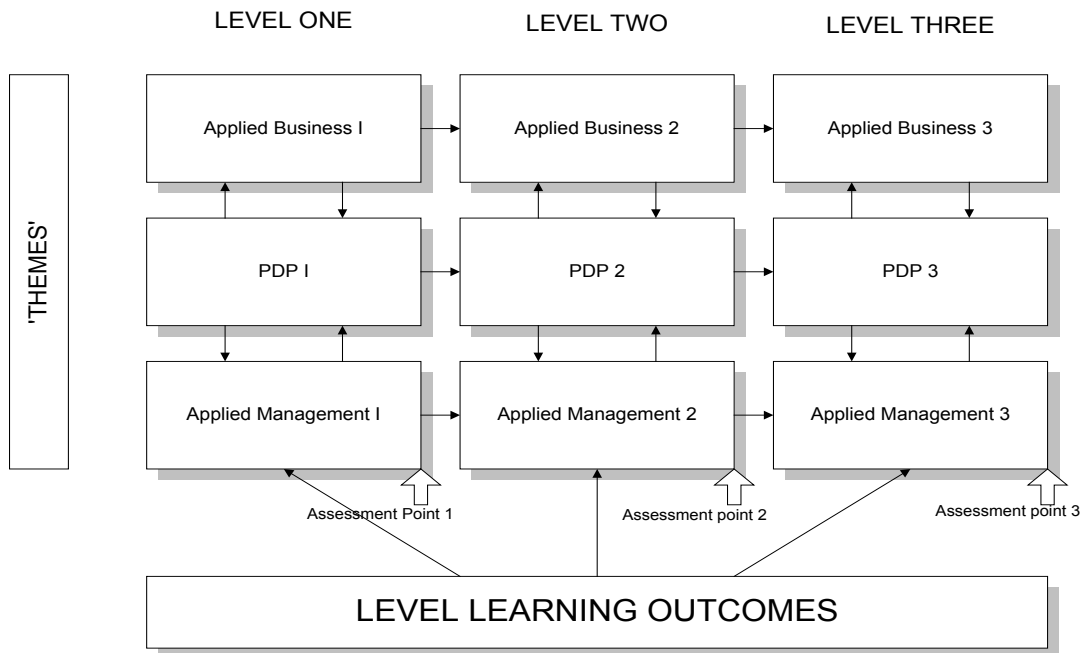
This immediately moved us away from the traditional discipline-based approach to course design. Our target learners were already used to dealing with complex situations, so teaching them in discrete packages of finance, marketing and so on would not be meaningful to them.

The first task was therefore to design a structure that would as far as possible mimic the complexity of working life and target the key locations where tacit knowledge was developed and utilised. We discarded the modular structure (in all but name) and designed the programme around three themes, 'Business', 'Management' and 'Self', modelled on Wagner's 1987 conceptualisation of tacit knowledge as practical know-how with three dimensions: managing tasks, managing people, and managing oneself. Each contributed 40 credits to each level of study. Management of people and resources was encompassed in the 'Management' theme, whilst the technical and theoretical knowledge required for managing in a business context was covered in the 'Business' theme. Subjects covered within these two themes were aligned as closely as possible with the requirements of the Quality Assurance Agency (QAA) General Business and Management benchmark statements, though some flexibility was used to ensure that we did not dilute the overall ethos of the programme. (We were keen to avoid the traditional 'input' model that taught every single aspect of the benchmark statements, when we were trying to build upon the fact that our target learners already would have knowledge in some or all of those areas.)

The 'Self' theme was to form the capstone subject for the programme and took the form of Personal Development Planning (PDP), providing a focus for integration and reflection on the other themes and offering a formal structure for learners to plan and action their own development in the context of the learning acquired throughout the programme.

The structure of the programme is shown diagrammatically in Figure 2.

Figure 2: Structure of the BA Applied Management programme (note: Levels One, Two and Three refer to FHEQ Levels 4, 5 and 6)



The QAA *Framework for Higher Education Qualifications* (FHEQ) guided the learning outcomes for each theme at each level of the BA programme; however, one of our aims was also to encourage learners’ development through the levels by escalating and expanding their outlook within their organisations and beyond in order to break from Baumard’s ‘territorial’ knowledge. This additional focus for each level was defined as shown in Table 1:

Table 1: Differentiation by programme level

Level one	Learners focus on their own self-development and self-management and are required to contextualise their learning within their own organisation.
Level two	While continuing their own self-development, learners also study the management of others and of resources within a wider business environment, contextualising their learning both within their own organisation and other, contrasting, organisations.
Level three	At this level learners are required to shift their focus from tactical to strategic, looking at the management of business as whole entities within the wider business environment. Self-development continues, but this, too, develops a more strategic focus and learners are encouraged to plan for their future careers and study.

Teaching, learning, assessment and programme delivery in practice

In the Business and Management themes, programme delivery takes place in formal workshop sessions one day per month. Learning is enquiry-led, so in preparation for these sessions learners work on work-based tasks or investigations and are required to collate their work to be used as the 'raw material' for each workshop. Contact time with tutors is then used to discuss, reflect, share and expand on learning, and to consider how academic theory relates to the work that they have done. Learners complete follow-up tasks in their learning sets, through which they are required to articulate their knowledge and consider different viewpoints and approaches. Thus, this system of collaborative enquiry forms a mechanism for socialisation and articulation, moving our learners through the *individual tacit* > *collective tacit* and *collective tacit* > *explicit* elements of our conceptual model.

The final stage of knowledge transfer that we are seeking to achieve is internalisation, that is the *explicit* > *individual tacit* transition. In our programme the 'self' theme provides the mechanism. Throughout the programme learners maintain a portfolio of their reflections on their learning, personal and emotional development. This is supported by an academic 'coach' who is familiar with the learner's work environment as well as their academic work.

One other element of the programme is vital to the success of the reflection process: the assessment regimen. We have found that the traditional modular structure has not been conducive to true reflection, particularly with learners who return to education after a long gap and who are unfamiliar with the language and system of higher education; presenting summative assignments to such learners after only six or eight weeks have elapsed can only heighten fears and anxiety. In the BA in Applied Management, summative assessment takes place only at the end of each year, and the main emphasis throughout the programme is on formative work and feedback (though this is formally managed through both a learning log and a reflective task log, both of which contribute towards the learner's final grade). Thus, we provide learners with the opportunity to learn from mistakes and to develop their understanding from feedback free from the fear of being formally marked for everything they produce. Our focus is the 'exit velocity' of our students, not how well they can write a report six weeks into the programme.

Has it worked?

We trialled our programme with a pilot cohort of 27 students. Very quickly a few left because either they could not adapt to the learning process or because of difficulties at work; however, those who remained (22) were successful beyond any of our hopes. In particular, feedback gathered through Nominal Group Technique indicated levels of meta-learning that had never been observed on a cohort-wide basis at this level. The technique works by each participant making comments freely about the programme by 'nominating' his or her priority issues, and then ranking them on a scale (see Table 2).

Table 2: Nominal group items arranged in descending order of points allocated by learners in first cohort, as a response to the prompt 'Things I have gained from doing this course'.

Item	Score	%	Cumulative %
Learning set contact	77	48	48
Increased understanding of my organisation	19	12	60
Being more reflective	11	7	67
Only opportunity to do a degree	7	4	71
Taking a more objective approach to problems	6	4	75

Other outcomes that were raised by learners, though they did not come out with top ratings when scored by the whole group, were nevertheless just as encouraging, and indeed unique for part-time feedback. Take, for example:

Improved self-belief

Being more contemplative

Being able to apply learning

Causing real visible improvement to my organisation.

Learner satisfaction was supported by performance results: of 22 completing the pilot year, five gained overall marks in excess of 70%.

Employer feedback has also been impressive, for example:

Since Nicola commenced this course her management input has exceeded all expectations.

X made a presentation to our bank manager on my behalf which was very impressive and undoubtedly above my own capabilities!

This course has proved extremely valuable, not only to our employee, but also to the future of our company.

Discussion

The structure of the BA Applied Management programme was based on tacit knowledge transfer and the model designed to achieve this led to an active learning approach which is acknowledged in the literature to be more successful at promoting deep learning than the traditional input models of education.

Johnson (2000) cites Cusins' (1995) four elements of action learning:

- experiential learning;
- creative problem solving;
- organisation of relevant knowledge;
- co-learner group support;

and argues that the vehicle for action learning is the learning set where students discuss their own particular issues with their peers. Gray (2001) also emphasises the importance of the learning set to work-based learning, pointing to research that demonstrates that learning in this way is transforming, transferable and long-term. He argues that the most common form of learning from others takes place through forms of collaboration and consultation within working groups and that people learn through seeking help and advice from people within their own organisation and from wider professional networks. Learning sets were indeed particularly valued by the BA Applied Management students as we have seen, and seem to offer a strong explanation for the success of the programme. However, at the

Business School we had been using action learning sets extensively across a range of programmes, particularly at postgraduate level, yet none had produced quite the results that we were seeing here.

To find the reasons for this success we need to look at the discrete difference between this programme and our other forms of provision. Starting firstly with the learning sets, we had deliberately structured them in a way that we felt would best promote the sharing of different ideas and approaches; we mixed people from small and large organisations, public and private sector, with long experience and with limited. A result of this was that when we asked them to address given enquiries as a group, it was inevitable that there were many different viewpoints expressed and many of the discussions became heated and very involved. The students truly engaged when their firmly-held opinions were challenged. The realisation that solutions to problems were not clear-cut initially caused discomfort and dispute, but gradually groups were able, through dialogue, to come to some consensus, which often meant group members realigning their own ideas.

This process corresponds to Dewey's ideas about learning as a process rather than learning as a product. For Dewey, enquiry is initiated by the disruption of habitual function and is set in motion by the individual being put into a state of what might be called bodily need, from which he or she seeks relief (Halliday & Hager, 2002). As students were confronted with alternative approaches, they were forced to reconsider their 'territorialised' solutions and engaged in more genuine enquiry from that state of discomfort – differing quite noticeably from other programmes where often students were simply 'going through the motions' of tackling problems in order to meet the requirements of an assessment.

This argument leads directly to the next proposition for the success of the programme. It became very evident from the first cohort that learners were undergoing a transformation that went beyond acquisition of new knowledge; reflective diaries maintained as part of the PDP modules indicated that many were transforming in terms of how they saw themselves and in how they made sense of the professional world. The learning set enquiries were clearly forcing members to confront their own established ideas but, more than that, individual behaviours started to change quite markedly in many cases. Cases from two different cohorts may be used to illustrate this point, as follows.

Case 1

A mature woman joined the programme after many years of work experience at a middle-management level. Despite performing well academically and getting on well with her learning set, throughout the first year she caused problems in class, acting belligerently and objecting to most of the things she was asked to do.

The turning point came at the end of the first year when she did a presentation in front of the class about the personal development planning work that she had done. She described a tale of an abused past that had destroyed her self-esteem and made her believe that she was not capable of achieving anything worthwhile. The reflective process had somehow helped her to unlock all of this and recognise that these were artificial barriers to learning. She explained how she felt that she could now put all of that behind her because the process had restored her self-belief. She achieved a first-class degree in three years and moved within the same organisation from a clerical to managerial role.

Case 2

There was a man in his early thirties who, after nine years service with the Army, found it difficult to get a job. He eventually found work as a production line supervisor in a chicken-processing factory, managing a staff of mainly eastern-European immigrant workers. His approach to management was to shout, and if his subordinates didn't respond he would shout louder.

When he joined the programme, his academic work was poor and he seemed unresponsive to both tutors and members of his learning set; he would not engage in discussion even though he attended classes and learning set meetings without fail. No amount of effort in trying to encourage him to participate seemed to work. Then, after about six months, something changed and he began to engage. He later explained to me that a particular incident had been the turning point. One Friday afternoon, he was having one of his regular shouting matches with his manager and he stormed out with the

Case 2 (continued)

intention of going home. On his way to the car park, he thought about his learning set colleagues and things they'd been discussing about management, and realised that they would have approached the situation very differently. So he returned to his manager's office and apologised (much to his manager's surprise, apparently). From then on, he decided to adopt a positive and proactive approach and to tackle head-on those things that he found uncomfortable or frightening. So, for example, he tackled his fear of public speaking by taking a training course and volunteering for any group presentations that his learning set had to make.

Despite the fact that he had seemed to be disengaged from the learning set process, he had been observing and learning, and it was only his fear of speaking in public that had stopped him from taking a more active part. Three years on, after graduating, he is in a senior role supporting the expansion of a different section of his company. He keeps in touch and openly acknowledges that it was his experience on the programme that changed his approach and opened up new doors for him.

Further reference to literature suggests that this extent of personal and professional transformation may not be unusual. In their essay on work-based learning, Halliday & Hager (2002) discuss the work of several researchers that have linked working practice and learning with personal motives and beliefs that contribute towards an individual's identity, and explain the importance of identity providing the context within which individuals form judgements. This prompted a re-evaluation of what we thought we were doing in our work-based programmes. In terms of contextualised learning, this places an emphasis on the *workplace or organisational* context; however, it may be that the most important context is *the self*.

Professional identity has been defined by Schein (1978) as:

the relatively stable and enduring constellation of attributes, beliefs, values, motives and experiences in terms of which people define themselves in a professional role.

Recent work has moved away from this somewhat fixed notion to suggest that professional identity is dynamic and develops over time through processes such as the exploration of possible new identities (Ibarra, 1999), or the ability to use feedback about the self and increase levels of self-awareness (Hall, 2002). Dobrow & Higgins (2005) suggest that an important mechanism for these processes is the developmental network. They define these networks in terms of both range and density, arguing that high range-low density networks are more conducive to development of professional identity than low range-high density networks. The latter network is one that might be formed within a single context, where all members of the network know each other (for example, within a single organisation). In high range-low density networks individuals are drawn from a range of contexts such as employers, educational institutions and professional associations, and would not necessarily know each other.

Dobrow & Higgins suggest that if the density of the individual's development network increases such that it becomes more insular, the result is a decreased sense of clarity in professional identity, whereas if density decreases and their network broadens, there is greater engagement in exploration of professional identity resulting in greater clarity.

The practical implications of all of this are, firstly, that greater clarity of professional identity has been associated with both objective and subjective career success (Hall, 2002; Ibarra, 1999), the argument being that when an individual is clear about their professional identity, they are clear about the beliefs and values through which they define themselves in their professional role. Secondly, a high range-low density network gives the individual access to a much greater variety of information and resources as well as greater cognitive flexibility (Higgins, 2001), and people may be able to improve their careers by changing their developmental networks (Dobrow & Higgins, 2005).

Following these lines of argument I would suggest that processes used in the BA Applied Management programmes have effectively provided our learners with a new developmental network of decreased density and increased diversity via learning sets; this, coupled with the highly reflective nature of the PDP module which encourages learners to explore attributes such as values and beliefs, has facilitated clarification of learners' professional identities and has improved their subsequent success.

This proposal is supported by a model of professional identity development in teachers (Beijaard *et al.*, 2004) that bears striking

similarities to the model upon which we built our programme. Both models contain the common aspects of personal and practical tacit knowledge, self-reflection and sharing of personal knowledge through discourse.

The concept of professional identity is of growing interest to researchers, especially in particular fields such as teaching and health. Careers within business and management are often less clearly defined than in some other professions, so there is value in exploring how behaviours in this field are developed and what constitutes 'professionalism'. The BA Applied Management model offers the potential for us to explore this further with our work-based learners.

A dilemma

Not everything that can be counted counts, and not everything that counts can be counted.
(Einstein)

The BA Applied Management programme has offered an alternative route to a formal qualification for learners with considerable experience and for whom traditional modes of higher education do not work well. By using learners' knowledge itself as a resource we have been able to engage learners, given them alternative perspectives, encouraged them to value their own knowledge and provided a mechanism whereby some of that 'hidden' tacit knowledge becomes explicit. Serendipitously, we have provided a mechanism for exploration and development of professional identity that can help students to better contextualise their learning. But therein lies a dilemma. Returning to our conceptual model, we can see that explicit knowledge forms only a fraction of the learner development in this scheme; however, traditional modes of academic assessment in higher education tend only to measure explicit knowledge. A test that measures ability to solve academic problems will result in a low probability in predicting job-related performance compared with predicting academic performance (Sternberg & Wagner, 1993). By its very nature, tacit knowledge is difficult to measure (though researchers continue to try – see, for example, *Insch et al.*, 2008). It follows that if we have designed a programme that is fundamentally based on the use, development and transfer of tacit knowledge, with only a fraction of that knowledge transferring to explicit, traditional academic assessments will not provide a true measure of learner achievement.

This has certainly been a feature of the BA in Applied Management. Whilst we have made assessment as practical as possible in the form of portfolios and in-company projects, and many learners have been awarded excellent marks, there are many who we know have progressed and developed far beyond what their academic grades imply.

Does it matter? Learners are generally happy with the programme, results are good and employers say they are delighted to see immediate return from employees engaged on the programme. We have seen many of our graduates go on to better things in their employment after completing the programme. One learner summed up what she felt the programme had given her when she said:

I can feel my brain grow!

We are still looking for the alternative methods of assessment that might help us to better reflect that growth – autobiographical narratives are particularly promising in terms of the professional identity aspect – but meanwhile, the programme continues to attract learners who would not otherwise have engaged with higher education and who, with few exceptions, see tangible benefits to their career.

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