Connecting Management Learning with Change Experiences: Revisiting HR Manager Education

Finian Buckley
Kathy Monks

The Learning, Innovation and Knowledge Research Centre
DCU Business School
Dublin City University
Glasnevin
Dublin 9
Ireland
link.dcu.ie
Connecting Management Learning with Change Experiences: Revisiting HR Manager Education

FINIAN BUCKLEY
KATHY MONKS

ABSTRACT
The effectiveness of traditional management education programmes, particularly those emanating from university business schools, has been questioned (e.g. Willmott, 1994; Clarke, 1999). Central to these critiques is the recognition that the pedagogic models underpinning much of contemporary management education are frequently incongruent with the needs of learning managers and the continuous change environment in which they operate. This paper describes the developmental outcomes of 45 HR managers undertaking a specifically designed management education programme premised on an adult learning model (Knowles, 1990) and set in the context of continuous organizational change (Weick and Quinn, 1999). The learning experienced fostered the development of meta-abilities (Pedler, 1994; Butcher, 1997), expanded perspective taking and the evolution of double-loop learning approaches to real life organizational change. Quantitative evidence of these meta-developments are presented and conclusions for management learning in rapid change environments are offered.

Key Words: Management Learning; Change Management; Meta-abilities.
A REVIEW OF THE LITERATURE

Management Education
There have been many criticisms levelled against management education and there is now a body of research which questions many of its traditional assumptions, although often from very different standpoints (e.g. Alvesson and Wilmott, 1992; Wilmott, 1994; Management Learning, 1996; French and Grey, 1996; Burgoyne and Reynolds, 1997). There is also a good deal of evidence that many individuals and universities are experimenting with new approaches to management education (e.g. Thompson and McGivern, 1996; Stansfield, 1996; Boyatzis, et al., 1995).

French and Grey (1996) attempt to identify, from the many competing views, two broad perspectives on management education. The first is the view that the content and methods of management education may need to be radically altered in order to provide managers with the ability to work effectively in a very complex and rapidly changing world. The second is that management itself is an illusory activity and therefore management education must abandon any pretensions it may have had to provide managers with management skills. They suggest that both these perspectives, the first now quite common, the second quite rare, “arise within the context of the assumption that management education stands in a more or less functional relationship to management practice” (1996:3). But that this assumption can be, and has been subjected to critical scrutiny (Wilmott, 1994).

If the first, more common perspective is accepted, then fundamental questions are raised about how to alter management education. Again there are many differing ideas on how this might be accomplished and these range from individually based attempts at the level of a course to more major programme level actions (Stansfield, 1996; Boyatzis et al., 1995). Central to debates on management education is the concept of how managers learn.

The Learning Manager
Traditional models of learning (behaviourist and cognitive) have focused on how the learner accrues the particular knowledge or information sets (typically declarative knowledge) and from this emanates a set of behavioural actions or skills which are representative of the learning which has taken place. In fact, best teaching practice has led to the objective definition of discreet learning outcomes and course syllabi outline an incremental and sequenced progression toward the achievement of learning objectives (e.g. Schuell, 1986; Schwarz, 1971). This approach to learning appears to be most successful when the knowledge/skills to be learned are self-contained, proximal and have direct and unambiguous points of application.

The area of management education is a field in which successful learning transfer has frequently been questioned. Mintzberg (1989) identified a good part of the traditional MBA programme as being devoted to the training of specific techniques,
that are free from context and he suggests that there is little evidence that the skills and abilities developed have any real or actual translation in practice.

Clarke (1999) reviews the evidence from several large studies of management education programmes and concludes that the effectiveness of these programmes is highly questionable. Among the reasons posited for their ineffectiveness is that many programmes deliver packaged learning which transfers well to areas of low complexity but the reality of most contemporary organizations is that they are highly complex and sophisticated environments which do not respond to simplistic or stylised solutions (Willmott, 1994).

If we are to conceptualise modern organizational functioning as existing in an environment of continuous change, then our profile of the successful contemporary manager would necessarily include a crucial spread of competencies (see, Antonacopoulou, & Fitzgerald, 1996). These would include the ability to be open to change, to improvise, innovate and to retranslate organizational experiences (Moorman & Miner, 1998). Some writers suggest that these "crucial" competencies are those that in some way drive the other competencies. For example, Butcher et al (1997) refer to "meta-abilities" while Pedler et al (1994) use the term "meta-qualities". These are the "personal, acquired abilities which underpin and determine how and when knowledge and skills will be used" (Butcher et al., 1997, p.11) and the "situation-specific skills needed in particular circumstances" (Pedler et al., 1994, p. 24). Pedler identifies these as creativity, mental agility, balanced learning habits and self-knowledge, while Butcher suggests that they include cognitive skills, self-knowledge, emotional resilience and personal drive.

Aram and Noble (1999) extend this thinking when they state that learning is not purely a rational, intellectual process, but is a complex and sophisticated process which is dependent and participative, and that it is also a social and emotional experience. Their view is that contemporary management education needs to take account of the complexity of the environment in which managers find themselves functioning and any personal evolution in learning must involve reflection and participative sense-making with other actors in that situation. In effect, they identify a need to progress to meta-level thinking rather than perceiving organizational change as a single-loop sequence. Clarke (1999) also calls for management educators to recognise the importance of developing these higher order meta-abilities in managers rather than relying on the traditional staid packages of knowledge and skills delivered by many courses which many managers find do not transfer to the workplace.

This meta-level approach is supported by the work of Lessem and Palsule (1999) in their evocation of the ‘knowledge creating ecology’ approach to contemporary management learning. This approach stresses that there is a necessary evolution from individually based management learning and knowledge acquisition toward a knowledge creating ecology.
Adult Learning and Management Learning
This perspective is reflective of the work of Knowles (1990) in his expansion of his theory of Adult Learning. He indicates that adult learners possess significantly different needs and requirements to child or adolescent learners. Among the differences that Knowles (1990: 57) identifies as significant are:

- Adult learners need to know why they need to learn something new before they engage with it;
- Adult learners self-conceptions differ from younger students in that most adults see themselves as responsible for their own decisions, thus self-directed learning involves a decision for self development;
- Adult learners bring a vast amount of life experience to any new learning environment, this experience needs to be seen as a resource and needs to be incorporated into the learning process;
- Adult learners tend to have a ‘life-centered’ approach to learning rather than a subject oriented approach;
- Adult motivation differs from younger students in that it has a strong applied aspect, where selfconcept/self-efficacy issues are overcome with the a strong real-life orientation.

Knowles’ development of what he refers to as an Andragogical Model of learning, contrasts significantly with the traditional Pedagogical model. Andragogy differs from pedagogy in that it emphasises self-directed inquiry in a collaborative learning environment with a problem-centered approach utilising experiential techniques.

[Insert Figure 1 about here]

Figure 1 attempts to summarise Knowles’ contrasting of the andragogic approach to learning with the traditional pedagogic approach. The distinctions are further accented when the differences reviewed under some of the central concepts in any learning environment, such as philosophy, change agent, learning climate, communication style, and structure of the learning experience. The andragogic approach to learning appears to offer a more grounded yet holistic model of development which has very relevant applications for professional and management learning. However, to be of real value such a model needs to fit to more than just the learning manager but must be sympathetic to the environment in which learning takes place, that is the organization.

TOWARDS A MODEL OF (ADULT) MANAGEMENT LEARNING IN AN ORGANIZATIONAL CHANGE CONTEXT
Lawler (1992) refers to modern decentralised organizations with flat structures and fluid processes, as requiring more mature and developed employees and managers. He
identifies these complex firms as ‘high-involvement organizations’ which, by
definition, require high-involvement managers to guide their functioning. Stacey
(1996) expands upon the complexity of the adaptive strategies required by
contemporary managers working in such high-involvement organizations. These
organizations are characterised by lower levels of certainty and agreement than
traditional organizations. Weick & Quinn (1999) recently suggested that historically,
firms faced episodic change prompted by specific internal or external factors. This
form of change differs from that experienced by many contemporary organizations
facing an on-going plethora of variations and retranslations which appear to supersede
the apparatus of planned change. They identify these organizations as experiencing
continuous change, or experiencing “a series of fast mini episodes of change” (1999: 377).

Aram & Nobles’ (1999) prescription for management learning in the fast changing
contemporary organization, sees effective managers as needing to move from
traditional knowledge acquisition and abstraction models of learning toward
experiential learning, which is self managed and developmental in direction.
Lengnick-Hall & Sanders (1997) build a case for management learning and education
to focus on the self-development of learners in order to foster the necessary self-
direction, empowerment, confidence and sense of personal responsibility to function
effectively in such high-involvement organizations (see, also Senge et al., 1994).
There is a growing acceptance that this form of self-development does not occur in
isolation but is inherently linked to changes occurring in the learner’s immediate
environment. Sternberg, Wagner, Williams and Horvath (1995) highlight this when
speaking about the development of tacit knowledge in the workplace and others such
as Lave & Wenger (1990) stress the social aspect of such learning describing the
creation of “communities-of-practice” where participants share this tacit knowledge
through developmental dialogue.
Cullen (1999) further highlights the importance of a manager learning and developing
within a group context as this leads to group development and ultimately,
organizational development and learning. In this way, managerial learning and
organizational development and change/learning become inextricably linked. Figure 2
maps the differences, in a number of key areas, between relatively static and
continuous change organizations.

[Insert Figure 2 about here]

The message from Figure 1 is that realistic adult learning requires mutuality and
collaboration in an environment where experience is the tool for problem setting. This
has resonance with features of Figure 2 where change oriented organisations require
knowledge sharing in a collaborative climate with an emphasis on development. This
suggests a number of linkages between managerial learning and organisational change
and development (see Figure 3). The conceptualisation of the linkages between these
two areas is based on the work of Knowles (1990), Stacey (1996) and Weick and Quinn (1999). From the work of Knowles comes the comparison of pedagogical and andragogical approaches to learning; Stacey has applied complexity theory to organizations while Weick & Quinns’ (1999) compare episodic and continuous organizational change. The juxtaposition of the two contrasting learning perspectives and the differing organizational models provide an insight into the evolution of contemporary managers and their learning needs. This suggests that modern managers require substantially different competencies from their predecessors. As the concepts under the Andragogic and Continuous Change Organization headings demonstrate, managers need to approach learning and management from a more developmental and supportive disposition. This contrasts with the controlling orientation of the traditional Static Organization and the Pedagogic perspective on learning.

The evolution of a more developmental style is premised on managers first becoming aware of their reflexive or current dominant style and thereby understanding that differing approaches are possible. The building block is self-awareness, from which alternative perspectives can be discussed, shared and experimented with.

[Insert Figure 3 about here]

In effect, the development of the meta-level abilities already described (Pedler et al., 1994; Butcher et al., 1997) facilitates a shifting of perspectives and enables the reframing of organizational scenarios.

It is the role of management education to ensure that managers can become involved in such a sense making process and provide the opportunity for applied re-evaluation and experimentation.

In summary, if management education is to help managers to learn and develop effectively, then the focus of learning must begin with the development of the meta-abilities of self-awareness and self-development.

Such self-development must begin with an understanding of how the individual's own learning takes place (metacognition), before moving to review work based issues and problems as a learning template (situative learning) in a group environment (social and community-of practice model).

PUTTING THEORY INTO PRACTICE

The Design and Delivery of the Course

Evidence from a survey of members of Institute of Personnel and Development (IPD) Ireland in 1996, supported the claims in contemporary Human Resource (HR) literature which suggested that the role of the traditional HR professional in Ireland was changing radically. 50% of survey respondents indicated clearly, that they required re-education which would equip them with the skills and competencies to manage the change facing their organizations.
The authors and colleagues set about developing a postgraduate programme to respond to these needs. It was decided, to adopt an andragogic model and to focus on self-development as the driver of change and development. These themes provided both a foundation and a coherent philosophy that permeated the ways in which learning was to be experienced on the programme. Relevant modules were developed by a team of academics and practitioners from a wide range of backgrounds. Lecturers focused on the andragogic model (Knowles, 1990) and operated in a ‘problem-posing’ rather than ‘banking’ model (Freire, 1972). Lecturers began with the manager’s experience and expertise and saw dialogue rather than teaching as the most effective vehicle for learning. Such a combination of factors challenged managers to reconsider their traditional approaches to problems and issues. In many cases the modules provided managers with a new language and, as a result, a new way of reframing a problem or issue within their work organization. The first year of the two year part-time programme, is in essence, an ‘unlearning’ (Hedberg, 1981) stage.

Assessment of learning on the programme was developed to reflect Knowles’ model of adult learning, thus no examinations were utilised. All assessments were grounded on real life organizational scenarios and the majority required collaborative group input and presentation. This allowed a clearer focus on learning dynamics rather than the content alone being central (Ramsden, 1986).

**Participants**
The new programme was aimed directly at practising HR managers in Ireland. To date, 45 managers have completed the programme. The managers were employed in a wide variety of public, private and third sector organizations with a minimum of five years experience. The age range of the cohort was between 28 and 50 years.

**Tools and Methods Employed to Develop Meta-abilities**
Table I identifies some of the tools employed during the course of the programme to develop the meta-abilities, such as learning to learn, self-reflection and perspective analysis (Butcher, 1997; Pedler, 1994) which have been identified as critical to the process of the evolution of self-awareness and development.

| Insert Table 1 about here |

Many of the tools employed are chosen as they also have direct relevance to managers’ working roles and the resulting meta-cognitive development releases participants to approach change in their organizations with a more eclectic portfolio of knowledge, skills and abilities.

**Measurement of Meta-abilities**
Programme participants were asked to complete Williams’s (1999) Professional Style Questionnaire (PSQ) which seeks to identify managers dominant professional style
under the headings identified in Table 2. Participants were asked to complete the questionnaire identifying their style before commencing on the programme and again at the completion of the programme. Based on the supporting work of Aram & Noble (1999), Butcher et al, (1997) and Pedler et al.,(1994) the change to a developmental style of managing was perceived as being reflective of a significant evolution of meta-abilities as it requires a paradigmatic shift in management orientation. Williams’s questionnaire is a forced choice questionnaire where participants must allocate 3 points between a pair of behaviours (one developmental, one controlling) giving the highest score to the behaviour which best reflects their own work behaviour. The total between the two linked statements must be 3.

Williams identifies that each style (developmental versus controlling) has its place in modern management but it is clear that in organizations facing complex and often unstructured change, a developmental style fosters participative organizational learning. In essence the developmental style is reflective of a more advanced meta-ability approach to framing organisational issues and processes.

RESULTS
Table 3 indicates clearly that participants demonstrated a clear evolution in terms of professional style, increasing their Developmental Styles significantly over the period of the programme. This gain in developmental style orientation is mirrored by a decline in use of Controlling Style behaviours over the same period.

It is not suggested that a controlling management style is without virtue, but as indicated earlier, managers in high-involvement and continuous change organizations require a broader repertoire of behaviours to cope and adapt in that diverse climate (see, Aram & Noble, 1999).

While the mean scores indicated in Table 3 display the positive increments in developmental style (which necessarily reflect a decrease in use of controlling style – although not elimination), the statistical significance of this evolution is displayed in Table 4 below.

These results indicate that while there was positive development in all the developmental areas, this change was statistically significant across four of the dimensions. The dimensions in which change was most evident were the Change-Risk and Freedom-Choice dimensions.
The data indicates that participants have begun to change their approach to change and now see change as a challenge and are open to the risks involved and are excited by the process. Also disappearing is their old reliance on a highly structured organisational environment, being replaced by a freer approach to change and more organic and diverse involvement of employees. Rigid systems and approaches are replaced by responsive and flexible approaches to problems. Opportunities are seized rather than feared.

**DISCUSSION AND CONCLUSION**

The programme does appear to have had a profound influence on the adoption of a developmental style of managing of the 45 managers participating. It is not possible from this particular study to ascertain whether one element of the programme design was more valuable than any other in producing these outcomes. This short-coming indicates the difficulty of measuring concepts such as self-awareness and self-development. As many participants embark on their learning journey from very different starting points making quantitative assessment of change quite problematic. Future research should also focus on measuring work colleagues perception of the new styles and behaviours these managers are exhibiting in their work settings.

In the model we presented in Figure 3 at the beginning of this paper, we identified the linkages between an andragogic model of learning and the continuous change organization. The fact that managers in contemporary organizations require fundamentally different types of knowledge, skills and abilities from their predecessors was highlighted. The research also suggests that there is value to be gained from linking what appear to be very disparate literatures in an attempt to understand management learning. While management learning appears to be gathering momentum as a discipline area in its own right (e.g. Burgoyne and Reynolds, 1997), there may be dangers in losing sight of the fact that managers are still fundamentally adult learners who must survive within an organisational context.

The study is limited as, to date, only 45 participants have completed the programme. Our preliminary results indicate that management education - the process of change through learning - may be a very effective vehicle in equipping HR managers to deal with change. However, we suggest that the process of education has to be very carefully managed and that traditional approaches which simply provide HR managers with more HRM knowledge through examination based programmes may no longer be a relevant delivery mode nor an effective vehicle for management learning.

**REFERENCES**


# TABLES AND FIGURES

## Table 1 Tools to develop Meta-abilities

<table>
<thead>
<tr>
<th>Tool</th>
<th>Meta-abilities developed</th>
</tr>
</thead>
<tbody>
<tr>
<td>Personal Learning Journal (Learning Log)</td>
<td>Reflective capacity, Understanding of emotions in individual and team activities, Understanding of self</td>
</tr>
<tr>
<td>Learning styles development (Honey and Mumford, 1992)</td>
<td>Understanding of learning style and applicability in different situations, Learning-to-learn, Self-knowledge.</td>
</tr>
<tr>
<td>1. Teamworking – two residential weekends</td>
<td>Insights into own behaviour and others’ understanding of that behaviour; Experience and understanding of team dynamics; Charting team development and evolution; Self Awareness and self-knowledge.</td>
</tr>
<tr>
<td>2. Team projects</td>
<td></td>
</tr>
<tr>
<td>3. Team reviews Belbin (19811995)</td>
<td></td>
</tr>
<tr>
<td>4. Team Development Diary</td>
<td></td>
</tr>
<tr>
<td>Manager’s Self-Development (Pedler et al., 1994)</td>
<td>Self-knowledge; Self development Balanced learning habits</td>
</tr>
<tr>
<td>Professional Styles Questionnaire (Williams, 1999)</td>
<td>Self-knowledge at work. Developmental models</td>
</tr>
<tr>
<td>Systems thinking (Sense, 1994), Creative thinking (de Bono, 1992)</td>
<td>Mental agility; Creativity; Perspective shifting; Adaptive decision-making</td>
</tr>
</tbody>
</table>

## Table 2 Professional Style development Behaviours

<table>
<thead>
<tr>
<th>Controlling Styles</th>
<th>Developmental Styles</th>
</tr>
</thead>
<tbody>
<tr>
<td>* Giving direction and seeking control</td>
<td>* Communicating encouragement and/or reassurance</td>
</tr>
<tr>
<td>* Acting in a unilateral, single-minded, assertive way</td>
<td>* Being participative and involving in relationships with others</td>
</tr>
<tr>
<td>* Acting in a careful, cautious way, aimed at securing stability and certainty</td>
<td>* Showing a need to change, challenge, risk and excitement</td>
</tr>
<tr>
<td>* Preferring a structured environment and disciplined approach to work</td>
<td>* Preferring conditions of freedom and scope for personal choice</td>
</tr>
<tr>
<td>* Behaving in ways which reflect consistency and a concern for doing things ‘right’</td>
<td>* Operating in a adaptable, responsive and flexible and opportunistic way</td>
</tr>
<tr>
<td>* Preferring to operate largely as a ‘solo player’ with space, privacy and freedom from interruption</td>
<td>* Preferring the noise, ‘buzz’ and company of a team or work group</td>
</tr>
</tbody>
</table>
Table 3 Mean scores of participants on the two PSQ Dimensions before and after programme

<table>
<thead>
<tr>
<th>Developmental Style</th>
<th>Before</th>
<th>After</th>
<th>Controlling Style</th>
<th>Before</th>
<th>After</th>
</tr>
</thead>
<tbody>
<tr>
<td>Communication</td>
<td>16.5</td>
<td>17.3</td>
<td>Directive-</td>
<td>13.5</td>
<td>12.7</td>
</tr>
<tr>
<td>Encouraging</td>
<td></td>
<td></td>
<td>Organising</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Involving-Responsive</td>
<td>18.7</td>
<td>18.1</td>
<td>Single-minded-</td>
<td>13.3</td>
<td>11.9</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Assertive</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Need to Change, Risk, Challenge</td>
<td>12.1</td>
<td>16.3</td>
<td>Careful, Security</td>
<td>17.9</td>
<td>13.7</td>
</tr>
<tr>
<td>Freedom &amp; Choice</td>
<td>15.2</td>
<td>18.2</td>
<td>Structure,</td>
<td>14.8</td>
<td>11.8</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Discipline</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Adaptive, Opportunistic</td>
<td>16.7</td>
<td>18.3</td>
<td>Consistency, right way</td>
<td>15.7</td>
<td>14.2</td>
</tr>
<tr>
<td>Team approach</td>
<td>15.6</td>
<td>17.5</td>
<td>Solo player</td>
<td>14.4</td>
<td>12.5</td>
</tr>
</tbody>
</table>

Table 4 Wilcoxon Signed Ranks Test of Difference in Developmental Style

<table>
<thead>
<tr>
<th>Z - Value</th>
<th>Significance</th>
</tr>
</thead>
<tbody>
<tr>
<td>1 Communicating Encouraging</td>
<td>-1.6</td>
</tr>
<tr>
<td>2 Involving Responsive</td>
<td>-1.6</td>
</tr>
<tr>
<td>3 Change-Risk</td>
<td>-5.5</td>
</tr>
<tr>
<td>4 Freedom-Choice</td>
<td>-4.6</td>
</tr>
<tr>
<td>5 Adaptive Opportunistic</td>
<td>-3.0</td>
</tr>
<tr>
<td>6 Team approach</td>
<td>-2.8</td>
</tr>
</tbody>
</table>

NS = Not Significant

Figure 1: Andragogic versus traditional Pedagogic approach to adult learning

<table>
<thead>
<tr>
<th>Climate</th>
<th>Pedagogic model</th>
<th>Andragogic model</th>
</tr>
</thead>
<tbody>
<tr>
<td>Authority oriented, Formal, Competitive</td>
<td>Mutuality, Respectful, Collaborative, Informal</td>
<td></td>
</tr>
<tr>
<td>Philosophy</td>
<td>Newtonian, Linear, One right answer,</td>
<td>Confucian-Complexity Theory, Edge of chaos, No one right answer</td>
</tr>
<tr>
<td>Change Agent</td>
<td>Teacher as Expert</td>
<td>Teacher as collaborator, Fellow-learner, Facilitator</td>
</tr>
<tr>
<td>Structure</td>
<td>Formal, Subject centered, Directed and assessed by teacher</td>
<td>Informal, Learners experience as resource, Mutual diagnosis, Mutual evaluation</td>
</tr>
<tr>
<td>Communication</td>
<td>One-way, Restricted, Authority driven</td>
<td>Open-flow, Collaborative, Trusting, Empathic</td>
</tr>
</tbody>
</table>
### Figure 2: Typical Dynamics of Static versus Continuous Change organizations

<table>
<thead>
<tr>
<th>Climate</th>
<th>Static Organization</th>
<th>Continuous Change Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Management</td>
<td>Task centered, Individual, Formal,</td>
<td>Flexible, Broad roles, High levels of Responsibility,</td>
</tr>
<tr>
<td>Philosophy</td>
<td>Suspicious</td>
<td>Functional collaboration</td>
</tr>
<tr>
<td>Change Agent</td>
<td>Prime mover creating change</td>
<td>Sense-maker, Schema sharer</td>
</tr>
<tr>
<td>Structure</td>
<td>Formal, Rigid, Hierarchical, Defined Roles</td>
<td>Flexible, people-centered, Decisions by problem-solving,</td>
</tr>
<tr>
<td>Communication</td>
<td>Uni-directional, Power inequity, Repression</td>
<td>Open system, Personal development, Mutual sensemaking</td>
</tr>
</tbody>
</table>

### Figure 3 Andragogic-Continuous Change model fit

<table>
<thead>
<tr>
<th>Pedagogic model</th>
<th>Static Organization</th>
<th>Andragogic model</th>
<th>Continuous Change Organization</th>
</tr>
</thead>
<tbody>
<tr>
<td>Climate</td>
<td>Authority oriented, Formal, Compete</td>
<td>Mutuality, Respectful, Collaborative, Informal</td>
<td>Flexible, Broad roles, High levels of Responsibility, Functional Collaboration</td>
</tr>
<tr>
<td>Philosophy</td>
<td>Newtonian, Linear, One right answer</td>
<td>Confusion, Complexity Theory, Edge of chaos, No one right answer</td>
<td>Empowered, Learning and Development oriented, Open system</td>
</tr>
<tr>
<td>Change Agent</td>
<td>Teacher as Expert</td>
<td>Teacher as collaborator, Fellow-learner, Facilitator</td>
<td>Sense-maker, Schema sharer</td>
</tr>
<tr>
<td>Structure</td>
<td>Formal, Subject centered Directed &amp; assessed by teacher</td>
<td>Informal, Learners experience as resource, Mutual diagnosis &amp; evaluation</td>
<td>Flexible, People-centered, Decisions by problem-solving,</td>
</tr>
<tr>
<td>Communication</td>
<td>One-way, Authority driven</td>
<td>Open-flow, Collaborative Trusting, Empathic</td>
<td>Multi-directional, Open system, Democracy</td>
</tr>
</tbody>
</table>

© 2003, LInK, Finian Buckley and Kathy Monks
Contact: Finian.Buckley@dcu.ie