

Research Memorandum

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Re-thinking Management Education: From cognition, to action, to learning

Inaugural Lecture, 12 March 2007

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Abstract

This research memorandum is the transcript used in the inaugural lecture given at the University of Hull on 12th March 2007. The lecture is presented in two parts. Part I begins with an introduction to cognitive style, a psychological construct from within the domain of individual differences psychology. This is discussed in relation to its potential influence on student performance in management education. Part II focuses on more macro aspects of management education. It begins by considering the historical context of Business Schools and the ways in which management education has evolved (generally for the worse). This is followed by an evaluation of the state of management education today. Its relevance is challenged and various connections are questioned, for example, between theory & practice, management education & career success, and scholarship & management practice. Drawing on theories associated with learning, knowledge, and achievement, the lecture then moves on to argue for doing radically different things in the medium term, and for completely re-thinking the management education provision in the longer term.

Keywords

Management education; management knowledge; cognitive style; action learning.

PREAMBLE

Shortly after being awarded the title of Professor it was brought to my attention that I needed to deliver this inaugural lecture so I decided to speak to some colleagues about the expectations of such an event. The responses were resounding and unanimous. “You need to speak about what you are known for”. I thought about this and decided that I should indeed say a little about my past research interests but it would be more interesting to focus on an important aspect of the future too. My talk today is therefore presented in two parts.

TODAY’S TALK

I will begin by sharing some of my research interests by describing the findings of a small project that was published a few years ago (Armstrong, 2000) and which focussed on a micro aspect of management education. This touches on the ‘Cognition’ part of my speech title and has some bearing on Part II of my talk where I will focus on more macro aspects of management education; covering the ‘Action’ and ‘Learning’ aspects of my speech title. This second part is more oriented towards the future and explores the reasons why some of the leading thinkers in the field are calling for Business Schools to radically re-think the whole of their management education provision.

PART I: RESEARCH INTERESTS

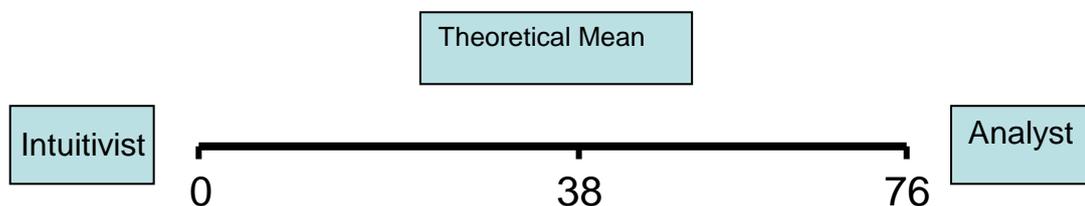
Let me now contextualise the first part of my talk. Between 1995 and 1999 I studied for a PhD at Leeds University in the field of organisational behaviour with a specific interest in a psychological construct known as cognitive style. The PhD was inspired partly by an introduction to organisational psychology whilst studying for an MBA as a practicing manager, and partly by my interests in individual differences in human behaviour that I observed in the workplace. The title of my PhD was “Cognitive Style and Dyadic Interaction: A study of Supervisors and Subordinates Engaged in Working Relationships”. The outcomes of this work led to two separate strands of research. The first is concerned with the influence of cognitive style on various aspects of Organisational Behaviour including mentoring (Armstrong et al, 2002), leadership (Allinson et al, 2001), group processes (Armstrong and Priola, 2001; Priola et al, 2004), gender (Hayes et al, 2004), culture (Armstrong, 2006), and career management (Armstrong and Sadler-Smith, 2006). The second strand has considered the effects of cognitive style on various aspects of management education. Before I share one of these studies with you let me first of all say a little more about what is meant by the term cognitive style.

COGNITIVE STYLE

Characteristically, we each differ in the ways that we perceive situations in the world around us, and in the way that we think, organise, process, and

evaluate information (Witkin et al., 1977). These differences affect the way individuals solve problems, make decisions, and relate to other people (Armstrong, 1999). Consistent differences in these characteristics from one individual to another have come to be called cognitive styles.

A number of psychometric instruments have been developed for measuring an individual's cognitive style and the one that informed my own research is the Cognitive Style Index developed by Allinson and Hayes (1996). The instrument is a self report questionnaire with 38 items. It takes 10-15 minutes to complete, and yields a score between 0 and 76 as indicated in the diagram. A score of zero represents a dominant preference for intuitive approaches to thinking, organising and processing information, and making decisions. A score of 76 represents a dominant preference for analytic approaches.



I should stress at this point that cognitive style is not dichotomous. People do not fall into one category or the other because it is a continuous scale. My research in this field, however, does focus on how individuals at extreme ends of this continuum interrelate in a work environment. The study I will share with you today was about exploring how individual differences in cognitive style affects performance in the context of management education (Armstrong, 2000). First though, let us explore what is meant by intuitive and analytic cognitive styles.

Analytic versus Intuitive Cognitive Styles

Individuals with a dominant preference for intuitive styles of thinking tend to take a broad perspective on a problem, and get an overall 'feel' for it, before reaching a conclusion fairly rapidly. In the work context, an intuitive person would tend to be nonconformist, their thinking being based on impulsive synthesis and lateral reasoning. They prefer rapid, open-ended approaches to decision making, relying on random methods of exploration and work best on problems favouring a holistic or 'big picture' approach. Individuals with a dominant preference for analytic styles of thinking tend to take more of a logical, step-by-step approach before deciding on a solution after a period of reflection. In a work context analytic individuals tend to be compliant and their thinking relies on logical sequences and vertical reasoning. They prefer a structured approach to decision-making, applying systematic methods of investigation. They work best on problems favouring a detailed rather than a holistic approach. These extreme styles reflect a particular way of thinking. Neither one is generally preferable to the other; nor is there a relationship

between cognitive style and overall ability or intelligence. Certain styles may be better suited to particular types of task however.

Physiological Perspectives

I should draw your attention to a metaphor that has been used to describe these different psychological types. The metaphor stems from early research that sought to draw a connection between neurophysiology and cognitive psychology and suggests that different thinking styles may be due to differences in left/right hemispheric specialisation of the brain. The left cerebral hemisphere was believed to be specialised for primarily analytical, rational, and sequential information processing, whereas the right hemisphere was believed to be specialised for primarily intuitive, holistic and simultaneous information processing. Early research using encephalographs has been superseded using more advanced Functional Magnetic Resonance Imaging (fMRI) techniques and it is now known that the left brain, right brain analogy is a gross over-simplification. The metaphor continues to be used however.

Mintzberg (1989), an internationally renowned academic in the field of management, adopted this metaphor in a Harvard Business Review article published in 1976 called "Planning on the Left Side, Managing on the Right". In that article he argued that important policy and strategy level processes required to manage an organisation rely to a considerable extent on the faculties identified with the brain's right hemisphere such as hunch, synthesis, and intuition. He argued that the analytic community is more suited to management at the middle operational levels of most organisations, and that they take their lead from intuition. He suggested that organisational effectiveness does not lie in the narrow minded concept called rationality but in a blend of clear headed logic and powerful intuition. He elaborated on this point in a later article called "Coupling Analysis and Intuition in Management" (Mintzberg, 1989).

Influence of Cognitive Style on Performance in Management Education

It is within this context that I undertook a research project involving 731 students studying for their final year of an undergraduate management degree. On the basis that cognitive style and overall intelligence are unrelated, my opening hypothesis was that there would be no significant relationship between students' overall degree classifications and their preferred cognitive styles.

In a unit of study called Business Policy and Strategy, however, students were required to synthesise issues relating to the global environment in order to understand an organisation as it moves through time and to develop appropriate strategies. Students taking this module were required to synthesise elements from other units of study in order to evaluate how they should contribute to the overall purposes and aims of an organisation as a whole. There is evidence which suggests that success in policy and strategy level processes depends on management thinking that is more relational, holistic and intuitive than ordered, sequential and analytical (Mintzberg, 1989). One would expect intuitive thinking styles to be consonant with this type of

managerial function. It was therefore hypothesised that the more intuitive a student's cognitive style, the higher will be his or her Business Policy and Strategy module grade.

Conversely, where tasks require careful planning and analyses of information to solve detailed problems, or where logical, reflective and linear approaches are required for long term solitary tasks, students with a strong analytic cognitive style are likely to excel over intuitive students. The latter would be more inclined to think holistically because of the difficulty they experience in separating-out a situation into its constituent parts. This led to a third hypothesis that grades achieved for two modules of study deemed to be consonant with this style of thinking would be higher for analytic students. The first module was a research project whose criteria stated that it must be an individual piece of research, which is problem solving in nature, requiring detailed and systematic collection and analysis of data. Students were expected to demonstrate careful evaluation of primary and secondary data, and to progress through various stages over a nine month period in a logical and linear fashion through careful planning and scheduling. Similar requirements were placed on these students for a second module of study entitled marketing planning.

Findings

The major findings of the study were that students whose dominant styles were analytic significantly outperformed others not only for modules of study deemed to be consonant with that particular style of thinking, but also for those modules believed to be more suited to students with a dominant orientation to intuitive processes. An even more startling finding was that those with strong analytic cognitive styles also achieved significantly higher overall degree grades.

This leads to a potentially serious dilemma because some authors (e.g. Taggart et al, 1985; Simon, 1987) have argued that intuition is favoured over analysis where key managerial processes are involved. Mintzberg (1989, p49) who has contributed most about the nature of managerial work says:

The key managerial processes are enormously complex and mysterious (to me as a researcher, as well as to the managers who carry them out), drawing on the vaguest of information and using the least articulated of mental processes. These processes seem to be more relational and holistic than ordered and sequential, more intuitive than intellectual; they seem, in other words, to be most characteristic of right-brain activity.

Conclusions and Implications

If potential employers are seeking to recruit management graduates who possess, metaphorically speaking, these right brain skills, then existing methods of teaching and learning in Business Schools might reasonably be questioned. This research suggested that our methods of teaching and assessment suffer from an orientation bias favouring individuals whose dominant cognitive styles are analytic. Assessment criteria in most Business

Schools are based on the expectation that essays and assignments will demonstrate a systematic analysis and evaluation of theory resulting in cogent, structured, and logically-flowing arguments. Whilst analytic students may prefer structured situations like these that are impersonal in nature, they are unlikely to be suited to intuitive students who tend to have a predominantly social orientation, favouring interpersonal situations that allow interaction, and more creative approaches to problem solving. Assessment methods need to be entirely independent of an orientation bias favouring one style of thinking over another, or they should at least ensure that equal amounts of analysis and intuition are assessed during the learning process. We might refer to this as a whole brain approach. Alternative forms of assessment that may appeal to the intuitive learner include poster sessions, video production, debating, role play, group-work with oral presentations, and so on. If our assessment of ability is biased in favour of those able to use their analytical skills more effectively, then employment selection criteria based, for example, on degree classifications may favour the wrong type of candidate in some circumstances.

Perhaps this orientation bias towards analytical ways of thinking is more deep-rooted as we shall explore in Part II of my talk which moves us from this micro, to a more macro perspective of management education.

PART II: RE-THINKING MANAGEMENT EDUCATION

Let me now introduce you to a debate that questions the whole relevance of management education. Whilst various management theories might seem compelling, it has been argued that there is a significant gap between those theories and how they might usefully be applied to practical work-based situations. This perceived 'disconnect' between theory and practice is aptly encapsulated in a quotation given to me by an anonymous reviewer commenting on some of my recent research work. The quotation is from a former Chief Executive Officer of ITT, who said:

You cannot run a business, or anything else, on a theory. Theories are like those paper hoops I remember from the circuses of my childhood. They seemed so solid until the clown crashed through them. Then you realised that they were paper-thin and that there was little left after the event; the illusion was gone. In more than 50 years in the business world, I must have read hundreds of books and thousands of magazine articles and academic papers on how to manage a successful business. When I was young, I used to absorb and believe those theories and formulas propounded by professors and consultants. Their reasoning was always solid and logical, the grains of wisdom true and indisputable, the conclusions inevitable. But when I reached a position in the corporate hierarchy where I had to make decisions which governed others, I found that none of these theories really worked as advertised. Fragments here and there were helpful, but not one of those books or theories ever reduced the operation of a business, or even part of one business, to a single formula or an interlocking set of formulas that I could use.

This reminds me of my own experiences as an R and D manager in the electronics industry studying for a part-time MBA in the early 1990s. I too experienced difficulties in applying the knowledge and theories acquired to my daily experiences as a manager. There has been an intense debate among the world's leading thinkers in the field over this issue. They speak of a relevance gap between rigorous academic research, and the application of that research in the world of the practising manager (Starky and Madden, 2001). There have also been calls for more relevant teaching approaches designed to attend to the needs of managers spanning over 25 years (e.g. Argyris and Schon, 1974) but despite this, management education is still in a parlous state according to many (e.g. Grey, 2004). This debate has intensified over recent years and some have suggested that we are now on the verge of a paradigm shift in management education (e.g. Whetten, 2007), and this may be evidenced by the number of Business School reforms being conducted around the world. I will give an example of one such reform later in my talk. To shed further light on this debate it is helpful to consider the origins of Business Schools.

Historical Context

Most of the early Business Schools were located in the United States and began on a positive note around the turn of the twentieth century (Mintzberg, 2004). Their roots are usually traced back to the Wharton School at the University of Pennsylvania when a Bachelors degree in Business was initiated in 1881 by Joseph Wharton, an American business man. Somewhat ironically, as you will hear later, he criticised the 'learning by doing' approach common in colleges at that time in favour of a more structured and theoretical approach (Sass, 1982). This criticism was to be echoed nearly 80 years later in two landmark studies which were to change the face of management education. Shortly afterwards, in 1898, Chicago University opened its Business School. In 1902, Birmingham University was the first to offer a Business Degree here in the UK.

The first Master's Degree in management appeared at Dartmouth College's Tuck School of Business. This school was established in 1900 by Edward Tuck, an international financier and philanthropist (Friga et al, 2003), at a time when there was explosive growth in commerce and industry. In 1908, Harvard Business School launched the first Master's Degree entitled 'Master's Degree in Business Administration', otherwise known as the MBA. Stanford followed suit in 1925. By 1915, there were approximately forty Business Schools in the US and 1-year later the American Association of Collegiate Schools of Business, otherwise known as the AACSB, became the accrediting agency. The number of Business Schools then increased by five-fold to nearly 200 by 1925. Interestingly, most business professors at that time were either practising or retired corporate managers who focused on sharing lessons learned in the workplace (Friga et al, 2003).

Business Schools Need to be More Academic

This 'trade school' approach to management education continued until the 1950s when massive reforms took place aimed at making Business Schools more academic, research based, and ... analytical – like many other academic programmes at universities (Schmutter, 1998). These reforms coincided with a dramatic increase in demand for professional managers in post world-war 2 economies. Major driving forces behind these reforms were two landmark studies in the 1950s by the Ford Foundation (Gordon and Howell, 1959) and the Carnegie Corporation (Pierson, 1959), commissioned in North America. By today's standards, the Ford Foundation alone dedicated more than 250 million dollars to this effort (Friga et al, 2003). Essentially both of these studies argued that to give Business Schools more respectable academic underpinnings, they needed to shift their strategies to be more research focused and less vocational (Schlossman and Wechsler, 1998). Both reports called for the careful recruitment of staff whose credentials should include academic research. This gave rise to more rationale, analytical decision making approaches as the key to management education (Bach, 1959). The professionalization of management teaching that ensued caused the domination of business functions such as finance, marketing, law, management science, and so on, but interestingly, not management per se (Armstrong, 2005). These reforms encouraged a scientific model of management education (Bennis and O'Toole, 2005). The strategies and structures of business schools today are almost identical to those established in the 1950s as a result of those two landmark studies.

According to Ivory *et al* (2006) The British Institute of Management which was founded in 1948 assembled a committee to address aspects of management education because interests had begun to gather momentum there too (Tiratsoo, 1998). However, it wasn't until the early 1960s that business education really began to gain momentum in the UK following the Robbins report in 1963 which called for two postgraduate Business Schools to be established. Shortly afterwards, a centre for business education was created at Warwick University and then two new Business Schools were founded within the universities of Manchester and London. These were both modelled to a considerable extent on the revised US model (Ivory et al, 2006). By the 1970s, management education was being provided by 237 different institutions in the UK (Tiratsoo, 1998).

Consequences

Following these reforms, most leading universities now treat Business Schools as seriously as other long-standing schools. Their focus has switched from being vocational trade schools to being schools which conduct rigorous scientific research and adopt scientific principles to underpin the management education process. Some have argued vehemently, however, that the pendulum has swung too far from the trade school paradigm and that it is now necessary to strike a balance between scientific rigor and practical relevance (Bennis and O'Toole, 2005, p98). In their *Harvard Business Review* article entitled 'How Business Schools Lost their Way', Bennis and

O'Toole argue that this scientific model is predicated on the false assumption that business and management studies are an academic discipline like chemistry or physics when they should be viewed as a profession like medicine or law schools. In their pursuit to educate practitioners and to create knowledge through research, these schools deliberately engage with the outside world. Faculty members are expected to be first rate scholars, but not to produce studies at arms length from actual practice which is so often the case with business schools. They argue that business schools professors know a lot about academic publishing, but few have ever worked in a real business. It is difficult to imagine a professor of surgery who has never seen a patient. In many medical schools, members of teaching faculty are often practising doctors. According to Bennis and O'Toole, no business school curricula reform will work until the scientific model is replaced by a more appropriate one rooted in the requirements of a profession - where the focus shifts towards integrating knowledge and practice.

The State of Management Education Today

According to Chia (2005), the reforms which resulted in the domination of specialised business functions and the adoption of this scientific approach to problem solving have led to a functional 'silo type' disciplinary mentality (e.g. Marketing, Finance, HRM, Operations etc). Mintzberg (2004) eloquently captures the consequence of this when he says, "As businesses work valiantly to bust down the walls between their silos, business schools work valiantly to reinforce them" (p32). He goes on to argue that these phenomena that characterise the curriculum lead to the passive ingestion of 'inert' ideas that pass for management education. In an address made at Cambridge University in 1912, Sir Alfred North Whitehead, mathematician and Professor of philosophy of science and philosophy of education said that "Above all things, we must be aware of 'inert' ideas, that is to say ideas that are merely received into the mind without being utilised, or tested, or thrown into fresh combinations. Education with inert ideas is not only useless; it is above all things, harmful – *Corruptio optimi, pessima*" (Whitehead, 1929). He made similar assertions at a later address given to Harvard University Business School in 1929 (Whitehead, 1929).

Let us also consider some recent quotations from the literature with regard to the state of management education today - and ask ourselves how much more damning could this be?:

- Too focused on "scientific" research, business schools are hiring professors with limited real-world experience and graduating students who are ill-equipped to wrangle with complex, unquantifiable issues — in other words, the stuff of management (Bennis and O'Toole, 2005).
- Management Education is in a parlous state (Grey, 2004).
- Business education equips potential managers with the tools to talk about practice rather than producing managers who are competent practitioners (Armstrong, 2005).

- Bad management theories are destroying good management practice (Goshal, 2005).
- The future of Business Schools is in doubt because its research and teaching missions are compromised – perhaps fatally (Starkey and Tempest, 2005).
- Engineering graduates are more likely to be managing others than management graduates after 5 years! (CEML Report).

Summarising the State of Management Education Today

In an article even more damning than Bennis and O'Toole's, Pfeffer and Fong (2002) reported their findings of a significant empirical study into management education which suggested that neither possessing a management degree, nor the grades achieved correlated with career success. They also presented data supporting earlier views (Starkey & Madan, 2001) that there is little evidence that business school research is influential on management practice, calling into question the professional relevance of management scholarship. They suggest that whilst business schools and business education have been a huge commercial success, there are substantial questions about the relevance of their educational product and doubts about their effects on both the careers of their graduates and on management practice. Some have suggested that business schools place too much emphasis on teaching students sets of analytical tools, leaving them with the false perception that management problems can be defined as neat technical packages (Raelin, 1995). We might draw some parallels here with the first part of my talk today.

Whilst there have been lots of questions raised in the literature, few have attempted to provide any concrete answers. So, the six million dollar question is – what should we be doing differently?

Learning, Knowledge, Achievement

I was pondering over this question during a recent visit to Australia when I was walking through the campus of the University of Queensland on my way to a meeting in the Business School. Over the door of the social sciences library I noticed the motto of the University – 'Scientia ac Labore' – which apparently translates as "through knowledge and hard work". Beneath this motto were the words Learning, Knowledge, Achievement. Whilst we may all agree that knowledge is a product of learning, it does not necessarily follow that newly acquired knowledge leads to achievement. Indeed, we have just heard that this seems not to be the case with most business school graduates. Nor does it follow that hard work will lead to achievement either. What if they learn the wrong things? Furthermore, what if they learn those wrong things in the wrong ways which is what Mintzberg (2004) suggests is happening in management education. Perhaps our students learn the wrong things in the wrong ways because we teach them the wrong things in the wrong ways? To explore this proposition further I would like to explore the concept of knowledge in a little more detail.

Knowledge and its Part in Management

I would like to distinguish between two forms of knowledge. Explicit knowledge is that which can be articulated, codified, stored in certain media, and is easily communicated to others through documents, procedures, manuals, and so on. Tacit knowledge is knowledge that people do not know they have (Forsythe et al., 1998), and it cannot be understood through direct articulation or introspection (Cooper and Sawaf, 1996; Morgan, 1986) due to its tacit nature. It can, however, be inferred from actions and statements (Forsythe et al., 1998).

The origin of the construct of tacit knowledge is often attributed to the science philosopher, Michael Polanyi, who described it in his famous quote “we can know more than we can tell” (1966, p4) but its true roots can be traced back to the ancient Greeks in phronesis (Baumard, 1999). Tacit knowledge cannot easily be shared, it is knowledge that is personal, profound, non-scientific and “generated in the intimacy of lived experience” (Op cit, p 53). Fukami (2007) also traced its link to the ancient Greeks by drawing on the concept of ‘wisdom’ defined by Aristotle as the integration and transformation of knowledge such that it may be interpreted and applied within a given context (management for example). Wisdom can also be thought of as the embodiment and transformation of knowledge into human experience (Pfeffer and Sutton, 2000), thus helping to close the gap between knowing and doing. In considering whether wisdom can be taught in business schools, Fukami (2007) draws on Aristotle’s three types of knowledge associated with wisdom. Episteme (science) is theoretical knowledge that can be dispensed in the classroom. Techne (skill) is the knowledge of making which a craftsperson would have (craft). Phroneses (art) is practical wisdom which represents the ability to interpret and adapt knowledge to a particular context, situation or problem. In this sense, practical wisdom can be thought of as tacit knowledge. Fukami claims that business schools focus too much on disseminating codified knowledge and information and neglect the development of tacit knowledge (Fukami, 2007). Knowing what to do is not enough, we need to help facilitate the conversion of knowledge into action (Pfeffer and Sutton, 1999).

Tacit Knowledge

Robert Sternberg and his colleagues (e.g. Sternberg et al, 2000) at Yale have perhaps done more research than anyone in the field of tacit knowledge in the context of management. Their preferred term is ‘Practical Intelligence’ defined as context specific knowledge about what to do in a given situation, or class of situations. It is something that is acquired from experience working on practical, everyday problems, with little support from formal training or direct instruction. It has trivial correlations with measures of cognitive ability. However, their studies have demonstrated significant correlations between tacit knowledge and managerial performance and success (Sternberg et al., 2000) and that tacit knowledge is what differentiates experts from novices (Nestor-Baker, 1999).

The over-arching question is if tacit knowledge is what distinguishes successful managers from others, how do we facilitate its acquisition? Some have argued for more innovative approaches to teaching, learning and assessment that require a radical androgogical shift from tutor-driven teaching to near total participation and engagement of the learner - where students take significantly more responsibility for their own learning, and where there are higher levels of participation in social practice. Institutionalising such approaches in the face of the existing teaching paradigm, however, remains a significant challenge. But the alternative is to continue to provide formal learning in organised, time-limited, and structured ways, emphasising analysis and technique. The consequence are that we will continue to produce management graduates who display analytic detachment to the detriment of insight (Hayes and Albernathy, 1980) - and who engage in too much of a scientific approach to problem solving and managing (Mintzberg, 2004).

Doing Different Things - medium term

Useful innovations have evolved from a group of scholars dedicated to the improvement of management learning, but their uptake has been limited. Many of these are based around 'Action Learning', 'Experiential Learning', or 'Problem Based' learning approaches. Problem based courses start with problems rather than with the exposition of disciplinary knowledge. Learning consists of real problems and groups work through projects with assistance from tutors or even work-based mentors. The learner poses the questions and discovers potential answers at the risk of making mistakes. Tacit knowledge is acquired through exposure and interaction with a work environment.

Simulations of different types are most often used to conduct learning interventions that focus on experience. Notwithstanding that simulations may sometimes be the only viable option, there can be no real substitution for proper work-based problem scenarios where students take ownership of sense-making processes, where they have to prioritise and resolve a fuzzy chaotic world devoid of any sort of order, so akin to managers' daily experiences. Developing work-based problem scenarios into our curricula where tutors and work-based mentors are involved would not only enhance the learning process but would also be helpful for developing relationships between business schools and businesses, and for developing new links between research and practice. Work-based problem scenarios can cover a wide spectrum of activities including sandwich courses, placements, field-work, post-course work placements, and so on.

Service learning is another approach which is sensibly aimed at dealing with real world problems and real world needs (Kenworthy-U'Ren and Peterson, 2005). It affords students opportunities to attempt to apply theory they learn in the classroom to those real-world needs. Service learning differs from other forms of action learning in the sense that projects are developed within the context of the non-profit world. During a recent visit to a very forward-looking University in Mexico I was delighted to see that every management degree

student has to carry out 400-500 hours of service work in the local community and this forms an important part of the learning and assessment process.

Classroom as organisation is another example of experience based learning that engages students with the skills, attitudes, and knowledge of management. The classroom organisation produces and sells a product. The type of business is determined by the students who write a business plan, and develop the necessary procedures for insuring active participation of all organisational members needed to control the business. The process includes preparing students for job interviews by requiring them to submit a CV and cover letter to the Senior Manager. They are then interviewed for the announced positions, and the course begins. The various departments and managerial positions include Chief Operating Officer, Chief Finance Officer, Manager of Production, Marketing, a company secretary and so on. The capital to run the business is raised by the students and the business is expected to make a profit, pay dividends, and make a charitable donation to an organisation of their choice. This serves as a means of demonstrating corporate social responsibility. Here is a quote from the designer of such a course (Roger Putzel, at St Michel's college in Vermont – www.XBForum.com):

A senior manager (the teacher) creates an organisation with a mission. Programmed tasks are divided, creating departments, and the opportunity to talk about departmentalisation. The senior manager delegates responsibility for execution to the participants and then sits back to let the participants run the organisation. It doesn't work. It doesn't work for the same reasons that real-world organisations don't work. People don't do what other participants ask them to do. Participants experience a modicum of the chaotic reality whose chill presence disturbs the sleep of every senior manager. They feel the weight of their responsibility for leading other participants to achieve their assigned objectives. They appeal to the senior manager to assume control. The senior manager steadfastly delegates. It doesn't work. But when classroom as organisation doesn't work, it does work. Disorder creates opportunities for learning, and theories and concepts of management offer excellent diagnostic tools for understanding what is going on and for making the organisation more effective. The modicum of chaos motivates and provides the opportunity for people to learn the fundamentals of management: setting and reaching objectives, rational decision making, functional authority, effective delegation, how to recover from failure, the necessity of communicating, and above all, continual learning from experience. Learning from reading, coaching, and making mistakes, each department learns to run its own aspect of the organisation and sees how its function ties into the whole.

To summarise, some useful innovations are emerging in the field of management education but examples are sparse.

Do Things Differently – radical long term reforms

More radical thinkers have argued that it is time to break down the silos and put old paradigms out to pasture. Most business school curricula remain compartmentalised by discipline such as marketing, finance, operations etc., which might have been sensible when careers were characterised by vertical advancement in a single field, within a functionally divided bureaucracy. However, careers now cross boundaries of function, organisation, industry, cultures and political borders. Some have therefore argued that management education should change accordingly by re-designing them in such a way that it is organised around the key constituencies that a manager needs to engage in order to be effective. Many schools are now beginning to take steps towards a more integrated curriculum but none have done this on the scale of Yale Management School's bold revision.

Yale School of Management

Joel Polodney, Dean of Yale's management school has been responsible for breaking down traditional management disciplines in their courses in much the same way that contemporary organisations blur the distinctions among management functions. Yale now teach the way managers must function to achieve success in a much more integrated way. At the heart of their new curriculum is a series of 8 courses called "organisational perspectives" which are structured around roles a manager must engage in to solve problems. These roles are called the innovator, the operations engine, the employee, sourcing and managing funds, the investor, the customer, the competitor, the state and society. Learning activities include: stock market simulation games; mentoring initiatives involving more mature students and staff as mentors; and international exposure through 2 weeks study abroad in one of 8 destinations. Here they meet business, government, and non profit organisation leaders, engage in cultural activities, and complete a study project. This is followed by a placement in industry. Students are free to take classes in other schools such as architecture and law. There is a significant involvement of Chief Executive Officers and senior managers in industry who bring to bare real life cases to elements of the course.

In order to achieve these radical changes, Yale had to completely dismantle their previous offerings over a 2-year period. After announcing the new curriculum, which started in September 2006, their yield of students increased by 21% from the previous year. According to Jeffrey Pfeffer, a frequent critic of management education, this change is the most important thing that has happened in his 27 years at the school. He is quoted as saying "this makes students more responsible for their education and potentially engages them more profoundly and more deeply".

I don't have the knowledge or the time in this talk to explore these particular changes in more detail, but I do expect business schools around the world will be doing similar things in the future. If they don't, then we will continue to see the staggering statistics which led to Bennis and O'Toole's (2005) assertions that we are currently:

- Failing to impart useful management skills
- Failing to instil norms of ethical behaviour
- Failing to prepare leaders
- Failing to lead our graduates into good management careers

Future Challenges

Institutional inertia theory suggests that universities will be slow to change given internal politics and past successes. The overall consensus is that change will come slowly, particularly given the massive infrastructure and current incentive programs currently in place. However, according to Lyman Porter the comfortable period for business schools since the end of WW2 is over. Almost none of the casual practices, procedures, and assumptions about what we should be doing and how we should be providing education are likely to survive the next two decades (Porter, 2000).

There is a void of literature on the topic of exactly what future business schools will look like however, although O'Toole who recently co-authored the article called 'How Business Schools lost their way' in the Harvard Business Review with Bennis has agreed to write the final chapter of a *Handbook of Management Learning, Education and Development* that I am developing for Sage Publications with a colleague in Denver University. The title of that chapter is 'Future perspectives of management education', and I am looking forward to receiving that in a few months time.

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