

Has technology highlighted the importance of an effective balance between art and science in management pedagogy?

Dr Stephen J Pratt,
*The College Swansea University Bay Campus
Swansea U.K. SA1 8EN*

ABSTRACT: It seems contradictory that given the plethora of academic management courses available there seems to be a continued issues relating to the lack of talent. The inability of management to ensure effective project delivery or respond to constantly changing business environments is a constant, vexing, challenge. It postulated that management course place too much focus on identifying and acquiring quantitative assessment criteria rather than qualitative. Should the focus of management course have greater focus more on the qualitative analysis of strategic risk.

I. INTRODUCTION

Management is about the effective utilisation of resource. Knowing how best to use what is available whilst recognising any shortfalls or gaps in the resource base is key to effective management. As in many areas of business quality is key making the right decisions indeed making good decisions are based on having good and accurate data. Too often management performance is formula based. In this way assessment of management performance is based on setting the right criteria, including key success factors, along with good effective managerial control procedures. Effective management is about the articulation and implementation of a strategy which in turn requires an eclectic set of skills that is able to respond to the demands in an agile manner. Objective setting, planning, organising and ensuring effective control tend to be the main focus of human resource management as efficiency is the utopian aim of any organisation. Whereas the main concern of organisations in this current, technology driven, fully wired (both technically and socially) market is gaining and retaining the talent upon which a successful corporate strategy depends. Even if the talent can be clearly defined and secured, what skills do management need to ensure they are effective, and retained?

Invariably discussions in commerce are focused on the issues and associated difficulties with the management of latest technology products and support services, from a technical perspective, which are generally appreciated and surprisingly unchallenged. However the complex issues of managing possibly esoteric, emotionally vulnerable, high-demand, highly-charged, highly-educated, highly-valued people which are business critical doesn't get the same focus, or urgency. Short-term technological focus is driven by the desire to secure immediate commercial benefit whilst avoiding potential failure from insecure installation and operation. This is to the detriment of long-term implementation of managerial practices that aim to avoid disillusionment wherever possible. The ability of employees to actively contribute to organisational effectiveness of a business makes far more commercial sense that simply improve motivation. Too often the response to situational recovery invariably culminates in management approaching the changing environment in a destructive, problem solving manner which can be demotivational and draining on all of those involved. Whereas a more constructive, creative managerial approach to solutions to possible impending issues can be rewarding and motivational. Creating a more positive workplace is effective and productive, and not just in a monetary way. Increased productivity materialising in either new products, or improved service changes or even process re-engineering. Whatever the benefits the focus is more on the purposeful change which encompasses more than financial criteria.

II. NOTHING NEW

The recognition and value of a more creative approach was first highlighted after the first industrial revolution. Effective management of available resources is about quality, and like all aspects of quality, there are two components: quantitative and qualitative. . The former being much easier to define and measure than the latter. But it is the latter that makes the former easier to assess and improve upon. As Towne(1986) reported the growth of business demanded a more professional, formalised approach to management. It was during this stage with the establishment of Wharton School (late 1800s), Tuck School of Business (1900) and Harvard Business School (1908) the need for formalised management training to replace the *ad hoc*, on the job training was recognised. Indeed Joseph Wharton, founder of the Wharton School of Finance and Economy at the University

Of Pennsylvania was concerned that people were not capitalising on opportunities and realise their potential Joulle & Spillane (2015). So why emphasise the importance of the 'art' components in managerial skill set again when the debate regarding the scientific and humanistic characteristics of management, and their relative importance, is not new. As reported by Joulle & Spillane (2015) the contrast of importance goes back as far as the 1800s when the first management school, *Ecole Speciale de Commerce et d'Industrie*, was formed in Paris in 1819. The debate between Roux(1800), for the scientific position, and Say(1803), for the humanistic side, favoured the need for the more formal assessment of industry which was formalised by Taylor(1911), Taylor(1972). However, two reviews of business schools in 1959 were quite dismissive of such programmes, highlighting the lack of study in the art of analysis, reasoning and balanced judgement. Indeed Livingston(1971) argued that an educated manager is not the answer: from depth comes respect.

Pfeffer(2002), Donaldson (2002) and Ghoshal(2005) poured more negativity on the value of MBAs, which were seen as the panacea for ineffective management. But the reality is that managers are not acting in isolation simply trying to defeat their competitor in some macho-competitive event, rather team players interacting with others to achieve the best result. Management should not be easily automated with decisions being based on cold analytical algorithms. This was highlighted by corporate disasters in early 2000s were, to some extent, a result of the inadequacies of extant MBA programmes Podolny(2009), Mintzberg(2004). Consideration of much wider factors are required enabling the thought process to develop from management to leadership with the inclusion of more emotional intelligence enabling social compromise, a factor necessary in organisational management Mintzberg(2009).

Technology clearly has had an impact on commerce and society, in equal measure. The mechanistic process founded on the work of Taylor(1972), which was essential for the post-industrial revolution correctly, identified the role and responsibility of management in securing effective use of human resource has formed the basis during the post-industrial era. The evolution of managerial processes to harness the benefits of effective teaming and reaping the benefits of adopting a more softer approach was essential when the beneficial corporate traits of organic cultures were recognised. In many ways the plethora of information offered by current technology has been to the detriment of the evolution of qualitative assessment (Pralhad(1999)). Managerial practices have not evolved, in a dynamic way, to harness the diversity of information sources to effectively develop supporting working practices that will maximise employee involvement.

Managing- Processes : Given the importance and recognition placed on creating working environments where design thinking (Salunhe(2018)) can thrive, the question is should the teachings' of management practices be scientific or artistic based? Or a more balanced combination of them? It is postulated that management practices in current technology-focused commercial markets have a tendency towards quick solutions. Too often there is a focus on solutions that highlight agile criteria in response to the need for flexibility in meeting the responses of an impatient, technology savvy, consumer base. The adoption of a hard, more mechanistic approach, will undoubtedly be suited to organisations that are looking to provide cost effective alternative solutions in a highly competitive market where control is scientifically managed. The provision of unique solutions where ingenuity relies on effective deductive reasoning requires a subtle, but different managerial approach. Surely the atmospheric focus of any senior management process has to be at finding the risks, rather than quick solutions. Encouraging team members to identify unique innovative ideas for product lines, or their application or production, focuses on achieving success through risk analysis. The quality of the outcome depends on the quality of the risks identified, which in turn depends on the quality of investigation undertaken. This process itself cannot be prescriptive. Management need to identify, develop and nurture flair and creativity in the workplace if they are to capitalise on the acquired talent Mello(2015).

The concept and value of operating in small teams is not new and certainly widely recognised as being effective. The formation of the Special Air Service (SAS) was founded on the principles espoused by Gubbins(1939) in manual on 'The Art of Guerrilla Warfare General Principles': note the particular phrase 'art'! The success of small groups secretly disrupting the mobility of large enemy movements during World War II in Europe was based on the ability of the British Army's Special Air Service (SAS) groups working within the geography, culture and social infrastructure of the community. Gubbins(1939) highlighted the importance of having relevant information in making key decisions: bad information gives rise to bad decisions. The parallels with small entrepreneurial business is relevant. Making effective decisions means there needs to be good analysis, based on good data. Being able to adapt to changing circumstances in an effective manner is key. SAS efficiency depends on discipline, quality decision making and small groups where dependency is based on a

family culture and respect is based on meritocracy rather than aristocracy. Too often large corporate strategies are based on setting unambiguous objectives and self-control creating a corporate citizenship of intrapreneurs operating in a decentralised, disjointed manner.

Managing – People : Managing people is notoriously difficult. The difficulty of managing in a technology driven market place introduces another layer of complexity as the application of developed products and associated services becomes increasingly competitive. This forces management to re-think how best to achieve the next step, whatever that is. Technological advancements necessitate the need to extend thinking beyond simple marketing criteria and consider the wider aspects of social use of products addressing personal and environmental concerns through lateral experimentation and experimentation Powers(2018). The automation of industrial processes necessitated the need for rigour, and fairness, in managerial control procedures to accrue maximum benefit from investment made in the underlying technology through measured objective setting and performance assessment. Productivity and staff rewards are managed cooperatively to assure the effective operational performance between man and machines. But as the complexity increases there needs to be a more dynamic way of ensuring effectiveness through the pursuit of quality Liedtka(2018). Design thinking assists with the process of developing bespoke, pertinent solutions in a more organic manner. The quality of the final solution or deliverable very much depends on the quality of analytical work undertaken. Effective teaming, utilising deductive reasoning based on quality information, is the basis of ensuring that quality evolves. The whole process can only emanate quality if the underlying principles of critical thinking are embraced and embedded throughout the evolutionary design thinking process (Cappelli(2008)). There is no doubt that there has been a change since the late 1990s and early 2000s with a change in language used: Less focus on standards, measurement, results, etc and more focus on empathy, social impact, motivation. In fact there has been a move away from the discipline of management towards the importance of an element of ethereal leadership skills which clearly has value when developing a more corporate social responsibility focused agenda.

Managing –Technology : Successful management of the use of technology and its application does not necessarily benefit from having systems being developed in software languages which function of having a high-level of abstraction. Depending on the effective use of technology to support business processes is potentially a risk if their idiosyncratic nuances are not clearly understood. Too often the development of applications is one-step removed from reality and obscures understanding and context of knowledge which makes a quality design, and subsequent problem resolution, more difficult. The ability to de-clutter the thought processes provides the clarity of vision necessary to provide an innovative design solution where creativity is an important factor Shalley(2017). As Spinellis (2018) highlights differential debugging requires detail: Assessing the disparity between situations requires context as well as knowledge to understand the extent of variation and the true values being considered. Relying on automated design and debugging tools is insufficient and does nothing to develop the inherent knowledge necessary to develop quality analytical skills within the team. The success of any root-cause analysis technique depends on the quality of the methodological approach taken, and the subsequent data mined from that exploratory exercise. Management approaches to developing in-house skills need to be adaptive, one-size does not fit all.

Managing – Solutions : The evolution of managerial approaches in manufacturing have successfully harnessed the benefits of team working in conjunction with just-in-time supply chain management enabling corporations to adapt to a much more agile approach to product development in flexible markets. The skills of the team being crucial to success. A more recent example of mechanisation is back-office work and formalising it into call centres. Although functionally simple, many were operationally fraught when outsourced with many processes having to be re-engineered to retrieve brand position. Problems that were encountered were mainly around the culture, knowledge and personal skills of the eclectic team, rather than procedural. The value of team and its contribution to such business processes has been recognised through the work on creating business eco-systems Sako(2018) to avert the negativity associated with potentially repetitive, mundane office tasks. Like many managerial concepts the aim of business eco-systems is a response to provide the working environment in which people realise potential opportunities of being part of value-creation team: Working collaboratively together whilst balancing potential competitiveness between team members. The recognition of the need for a major shift in managerial mindsets is now key if we are to create those working environments that are required to exploit the power offered by technology. The immediate deployment of employees to work-from-home using extant technology at the beginning of the Covid-19 pandemic is an example of ‘best-fit’ working. Although a desirable working condition for some employees it was for many when the home-working environment was not conducive to well-being for individuals and/or their families. Coping with potential information overload is

required if quality analysis is to be undertaken. In particular the adjustment of working within the technological constraints of working from home took some time as highlighted by Pan(2020).

Securing Skills – A Pragmatic Approach : Recognising the need to get ahead of the curve is one thing, defining the requirements going forward on a strategic basis is another. Many espouse the importance of organisations identifying and securing key skills necessary to develop and implement a successful business strategy in an ever increasingly demanding global environment. Although the requirements for each business will vary according to its industry, understanding the impact and interaction of often complex issues of, say, technology and ethics necessitates the development of ubiquitous skills. Obviously within a complex and forever changing business and social environment. Proponents of Design Thinking Liedtka(2018), Mello(2015), Powers(2018), Knight(2020) and Salunhe(2018), for example, advocate the benefits of developing the skills and operational infrastructure to support the processes of: Inspiration – setting of objectives, purpose and operational framework. Ideation – realisation through divergent thinking. Implementation – prototyping and testing. Even though these skills may be evident in employees the success of any new innovative approach burgeoning depends on organisational and personal impediments relating to the fear of failure. Management and employees need the skills and confidence to be able to work in a non-prescriptive format, which is exactly what organic organisations are supposed to be. Underpinning this is the need to develop those cognitive skills to not only understand the mechanics of data mining, but have the skills necessary to seek and value quality knowledge. Those that consider ethnographic research to underpin design theory in developing innovative solutions are dependent on qualitative assessments. Academia is, at least at present, the basic feeder mechanism for young talent. Having a degree or masters qualification is no longer sufficient evidence of quality. The applicability, passion and desire need to be established if the fundamental skills are to be of any value to individual, society and commerce. Technological advancements has meant that commercial developments are inextricably linked to social wellbeing which places a more collective responsibility on finding a better solution.

Role of Academia : The balance between quantitative and qualitative needs to be reconsidered. Tertiary educational programmes in business and management culminated in an arts degree rather than today's science version. Although the final categorisation may not be significant the content may be and needs to be constantly reviewed to ensure that it reflects the demands the industry expects from its potential leaders. Too often the importance of the art element is forgotten with the focus on measurement and performance. However the recent Covid-19 pandemic, and the resultant need to redress working relationships, has highlighted the need to consider 'softer' side of management and its importance in all aspects of employee and customer satisfaction which are key to recovery. The pandemic, and related fallout, has highlighted the need to agile, flexible management techniques and not the overengineered approaches predominant in most organisations Cappelli(2020). The situation is exacerbated as the dependency on previously installed technology has highlighted additional issues previously not envisaged. Technology was employed on the basis of adding-value, rather than a highly critical, dependent element of the corporate infrastructure. As a consequent the development and operation of management degree schemes needs to be dynamic and involve industry, both employers and employees, to ensure the balance is right.

Graduate products : The value of any tertiary educational experience is not clear and too often gets directly associated with employability. However if we were to focus on employability how do we address the disillusionment and potential disengagement of good graduates once they have managed to secure a good position. Kruger(1999) academically expressed what is common folklore in that intelligence is not the same as learning and developing specific skills that motivate the individual through real world application. The inability to apply the knowledge gained, in a meaningful manner, can result in individual loss of confidence from which nobody benefits. The desire is to produce graduates who are adaptable and be able to transcend to the real world in which organisations have to operate in a painless and successful manner. In doing so graduates should be equipped with the tools and necessary skills to overcome any potential despair and disillusionment that potentially benefits no one, certainly not the employer. Obviously not everyone will be corporately successful, or indeed want to be, but as long as their expectations are managed and fulfilled then that is a good outcome.

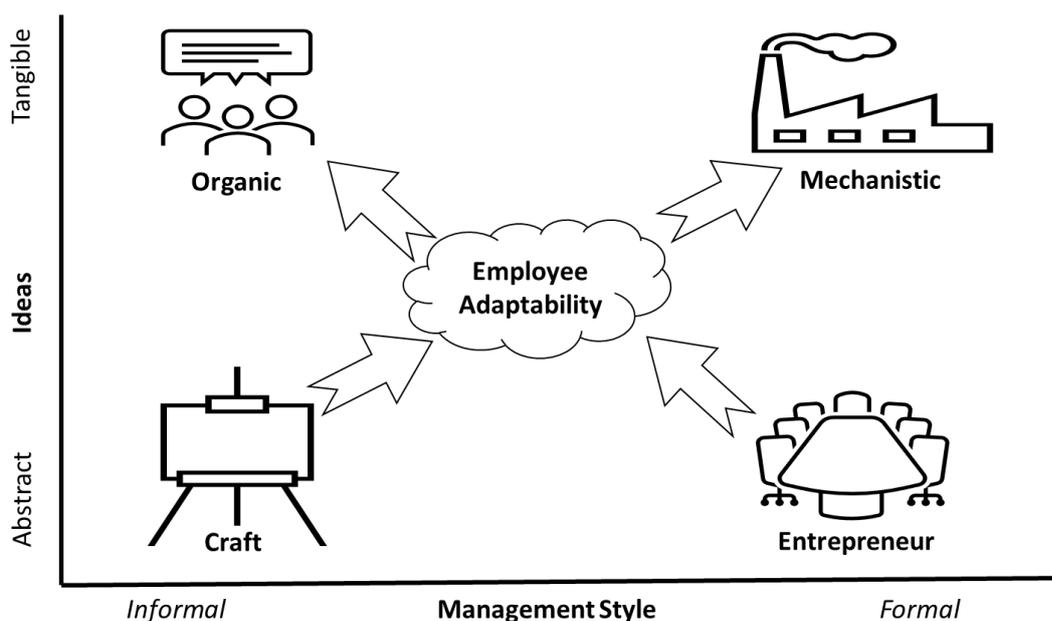


Figure 1

The process of education needs reflection. Given the volume of potential students that need to be educated there is a tendency to look at digital technology to assist if not replace conventional procedures. Not just volume, there is some benefit in using technology to supplement traditional lecturing techniques. Adopting a more procedural, almost algorithmic approach is acceptable in areas of rote learning, but it does not help in areas where creativity, innovation and ideation are required for a more agile approach that is required for today's market. There needs to be an environment that nurtures adaptability, where experimentation and exploration of ideas and alternative practices is actively encouraged (Figure 1). This is essential in a global market (Scherer(2009)). If those graduating need to be more fulfilled once employed and they begin their chosen career, and contribute more effectively, then the curriculum and mode of delivery needs to be effective. If technology is used then it should be used to complement academic engagement, not replace it. The curriculum needs input from commerce, from both employers and current employees to reflect the gamut of issues that need to be addressed Pratt(2019). It is essential that management theory does not become too academic and viewed as being too superior and isolationist in its application.

Importance of involvement : Management is an evolving discipline that needs to cater for the unexpected, or at least better prepare those who will be exposed to a demanding environment. As the complexity of commercial environments grows management effectiveness needs more than just 'measurement'. It needs another set of criteria which is being defined here as 'art'. Managerial roles in all disciplines need an aspect of artistic flair which may be more rounded than the development of entrepreneurial spirit. Ensuring that any new approach to managerial practices needs to be grounded. In this way much can be gained from industrial involvement or at least into academic programmes. The involvement of senior corporate managers is beneficial for their awareness and appreciation of the issues involved (Christensen(2003)). Figure 2 depicts the interconnection between academia and commerce. Business paradigms are developed from the recognition of business operational issues using extant theoretical developments. These are then suitably adapted to assist entrepreneurial developments in the commercial world. The quality of paradigm development and subsequent commercial application being heavily dependent on the available cognitive skills at both managerial and operational levels within the organisation.

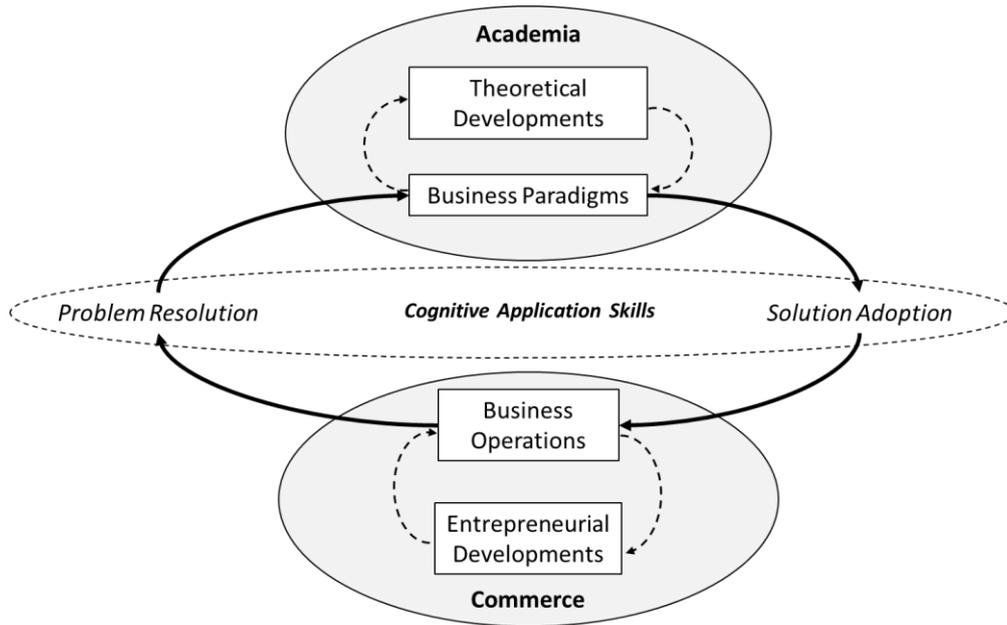


Figure 2

It is postulated that to demonstrate the relative merits of cognitive thinking alone is insufficient. There needs to be a passion and desire in order for any methodology to be effective. To be able to avoid the potentially damaging effects of the hysteresis loop (Pratt(2019)) we need to ensure that there is sufficient human resource available, of the right quality to sustain a measured approach to global commercial and social growth. The quality of application is dependent on the skill sets of management and employees which need to be embedded within academic programmes. One of the frustrations that commerce has is due to the fact that academia works to a different timeframe. Academics do not have the urgency that commercial environments dictate, and probably should not. Academic outputs are measured on qualitative criteria rather than quantitative over a three year, if not more, gestation period.

Process of prediction : Taking a more simplified view at the outset corporate competitiveness relies on closing-the-loop between identifying, defining and realising the skills required coherently and effectively. So the question then becomes what skills and who is responsible for clarifying and producing the talent that is, and projected to be, required. It is conjectured that the 3Es are responsible for successfully determining the founding skills of any future human resources: ie Education, Employers and Employees. Collectively the 3Es have a chance of really getting ahead of the demand curve which will assist in achieving a degree of stability in the skills market. It is a combination that creates a synergistic benefit (consider Figure 3) and can assist with embedding the concepts identified by Hussin(2018). Employers have the problem of securing long-term success through a strategy which relies on being able to acquire the right competitive skills. But defining and nurturing resident talent is difficult with the ever present requirement to ensure short-term success and manage stakeholder expectations. Feeding extant talent management development criteria into future graduate programmes would greatly reduce response times to market needs. Employees need to get involved in individual and corporate growth programmes to assist longevity. This is difficult in commercial environments where short-termism is the preferred individual focus and the employer-employee power balance has shifted towards the valued worker who has critical business skills. Identifying key skill factors that can be fed into future graduate programmes would shorten any delays.

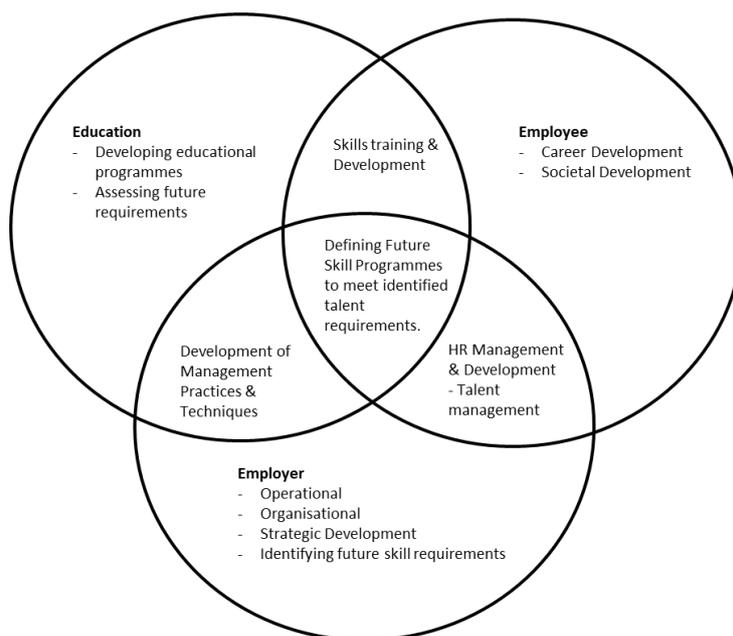


Figure 3

Education needs to be ahead of the curve, developing skills that are forward looking rather than just continuing to impart the principles of best practice. To be able to answer the continual challenge laid at academia of failing to deliver the required skills it needs a clear understanding of corporate expectations to avoid continually working in a blinkered manner. These skills, which will vary according to discipline, need to be underpinned by the knowledge that individual students require to pursue their own personal agenda within a societal infrastructure which is ever changing with global demands. The role of this tri-partite relationship is to be able to understand what needs to be embedded within a 3 to 4 year academic programme. Employers need to be able to identify the types of skill required whilst realising the complexity of providing a working environment that will assist in encouraging staff to operationally utilise the skills they have developed. Clarifying the skills necessary to harness the opportunities technology offers, both commercially and societally, is only part of the discovery mission that lay ahead of us. Employers need to be clear about the benefits, and indeed costs, that are offered if you provide the right working environment. Here the employee contribution is vital if the impact of any restrictive working practices are to be minimised or even eliminated. Assisting in the assurance of best working practice for the future surely is a way of enabling employees to be more than just useful by being valued. Employee involvement in the development of appropriate working practices and skills development requires individuals to go beyond self-interest: The benefits of developing academic programmes and management working practice to realise those skills requires a more altruistic, broad-church, approach. What skills are required at any moment in time as perceived by those who have recently gone through the educational system?

The Approach : Involving commerce in programme development is not new, indeed the role of knowledge and technology management in internships has been recognised as a key source of graduate development (da Luz(2018)). However industrial input has never been more relevant in a fast changing global markets. It has long been recognised that change requires a 'need to change', and the covid pandemic has provided that trigger. Academia needs input from employers, employees and academics to develop programmes that better equip management for future global events. A number of questions come to mind in dealing with the issue of instigating change: How do we get academia to a level that not only achieves societal respect, but also from students and commerce? What is respect and how is it measured? Is getting a job the only criteria for students who invest heavily in their education? How can academia become proactive rather than reactive to ever changing demands of its major stakeholders? How do we manage tertiary educational development programmes that appeases both academic purists and pragmatists? In undertaking a collective, cooperative approach to skills development we may potentially solve part of the ever-present skills shortage problem. The feeder mechanism of extant academic programmes needs to be considered if a key shift in the skills set is to be realised. It is these foundation skills that are learnt by students that underpin current and future skills availability.

The challenges constantly facing academia are how do we identify what skills will be required both short- and medium-term and get them embedded within an educational programme within a useful timescale. This needs to be addressed not only at subject level, but also pan-faculty (see Figure 4). Ensuring that any propositions are not simply knee-jerk reactions to a current hot topic is crucial. The priority must be to secure underlying tenets such as critical thinking skills that support the roles performed at all organisational levels from support staff, through innovative business developers to strategic and operational management. The successful application of theory provides the link to the effective development of potential employees. If we are to achieve any substantial developments in developing future talent then an open, proactive discussion has to begin sooner rather than later involving the 3E collective. We need to create the environment where ideas are not constrained or blurred by short-term objectives. Employees need to participate, acknowledging that investment in the future is imperative for incumbents as well as new entrants. Employers need to allocate time and resources to think way beyond normal operational boundaries (Figure 4).

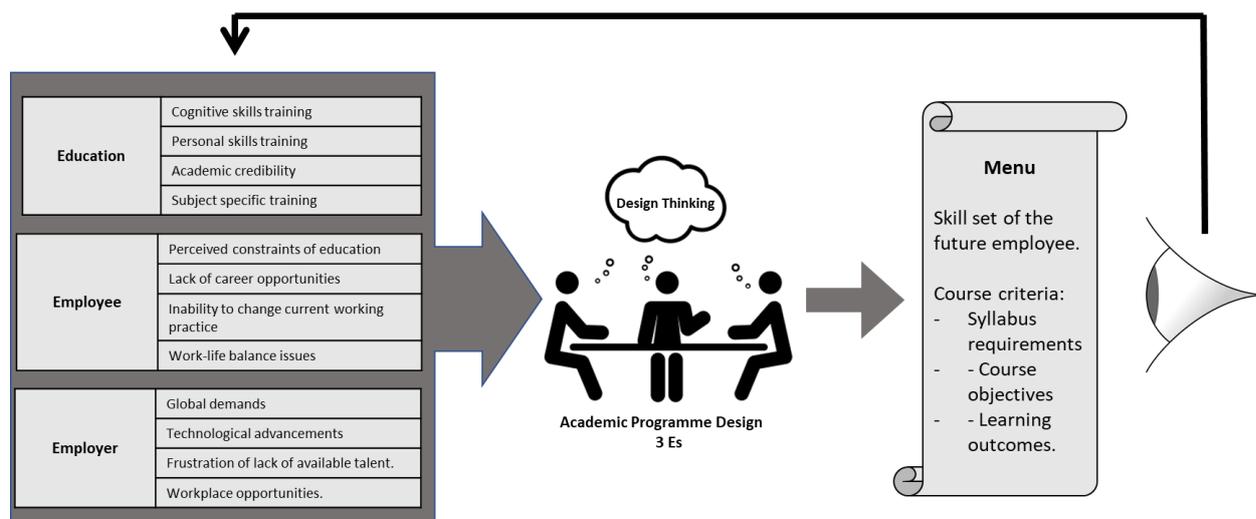


Figure 4

Traditionally the discussion around resource development was directed towards growth. A traditional, linear approach, no longer satisfies individuals. As more people become educated people their expectations become more purposeful, beyond short-term monetary gain. People want to be more lateral in their quest for job satisfaction, something businesses can capitalise upon in developing their corporate strategy. Linking individual and corporate medium - to long-term objectives is a way of maximising joint aspirations on a synergetic journey.

Challenging as they may appear the additional dimension of globalisation drives the desire to ensure the synergism offered by multi-culturalism manifests through corporate services. Traditional management courses need to ensure that not only is multi-culturalism actively endorsed, but the tenets underpinning these cultures are observed and accommodated within operational business procedures. Asian, Arabic, African, Eastern European, etc corporate cultures are changing as is the ever demanding need to become globally acceptable and successful. This being reflected by the changing demographic nature of the countries and the shift to a more globally accepted common denominator of social values. The rate of change in these areas is significant. In the absence of having a cooperative troika academia needs to be proactive in generating the students with the right skill set. The ability to think and analyse without instantaneously turning to internet search engines would be a start. The ability to think, with an element of risk, of potential outcomes is a cornerstone of entrepreneurial, innovative thinkers. Business managers need to seek quality information upon which quality decisions are made. The importance of the relentless search for the 'golden nugget' of data that will make the difference should be uppermost in any pedagogic programme. It's not just business that benefits. Law, medicine, IT, etc all need quality thinkers that acknowledge that information mining is almost an art-form. It is recognised that internet searches are not a panacea, but they are a valid source of information in the search for quality, particularly in a global commercial market. However quality is key, and rewarding students with a qualitative mark should be more valuable than a simple quantitative one is a good start.

Having a multicultural educational environment assists everyone: Domestic students experience first-hand the cultural issues connected with working with international students, and vice-versa. Working in groups they can formulate solutions that encapsulate global factors. Academia can create, or try to create, simulated environments for discussion/exploration, however with industries input these scenarios can be a little more realistic, and hopefully more helpful. Creative thinkers think of alternatives within context. Skills required to produce quality talent include creativity, innovation, free-spirit, analytics and critical thinking. For example in software development the ability to coding alone is insufficient: Solutions need to be designed based on coherent, ubiquitous information including *a priori* knowledge of extant work. The quality of the solution will be dependent on the quality of the analytical methodology undertaken. The cry of the unavailability of good talent needs to be addressed by developing the analytical skills that underpin cranial talent: academic dexterity is a good investment. Teaching people to use tools is not enough. Industry have always been involved in academic institutions, but it needs to be more focused. Technology skills training, and the involvement of technology companies, at primary and secondary educational levels is arguably the right approach. Tertiary education needs involvement from professional services, manufacturing, retail and technology companies to get the breadth of learning necessary.

III. CONCLUDING COMMENTS

Does management focus too much on expediency and not quality of the decision made. Focus has to be on creating the team with the diversity of skills required to provide an eclectic solution embracing a number of skills to maximise the innovative quality required. Management need to create the business environment, or ecosystem, that nurtures that those skills. That starts with being involved in academic programme development. There needs to be a clear, concise consensus on what management skills are required today and the immediate future, and hence what needs to be included in managerial courses. Part of that is the recognition of the importance of quality is key to effective decision making: Making quality decisions are dependent upon acquiring quality information. Bad information results in bad decisions. Recognising the value of the team skills required to unearth key business information is essential. Recognising the value of the acquired individual skills is paramount. The challenges are significant, and ongoing. Academia can take the initiative to develop courses that reflect extant requirements and, more importantly, develop the troika that is necessary for future requirements of both companies and individuals. Those involved in corporate management need to get involved for good business reasons as well societal ones. Everyone needs to step up and be counted. It is conjectured that when seeking to evaluate quality in a managerial context too much focus is placed on ensuring that we have the right data and technological infrastructure to illicit the right information rather than assessing what constitutes a quality decision. It is postulated that effective management should be regarded more of art where the pursuit of quality is engrained in the DNA of managerial decisions. The desire and thirst for quality managerial practices needs to be embedded with the culture managerial courses rather than the desire for quick solutions often regarded a trait of agility. As such managerial courses need to generate the hunger for quality and the supportive cognitive skills needed to cement the managerial role in identifying and managing identified and possibly unforeseen risks that business confront in reality. Academia needs to re-think, and involve practitioners from the real world.

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