

EMERGING PROFESSIONALISM IN A DEFENCE ACQUISITION WORKFORCE

David Moore and Kevin Burgess

David Moore (d.m.moore@cranfield.ac.uk)

Kevin Burgess (k.burgess@cranfield.ac.uk)

Abstract: The past twenty years have seen a growing recognition of the increasing importance of activities such as procurement, logistics and supply chain management across all forms of organisations. A parallel development has been the wide acceptance of the need to develop new skill sets to match these changes. While most commentators agree on the need for greater “professionalism” related to these activities, there is far less consensus on what this term means. This paper will seek to provide greater definitional clarity around “professionalism” and its relationship to an emerging “body of knowledge”. It will then examine how “professionalism” has been developed in a defence context over a twenty-year period (from arms length to procurement and then towards fully integrated acquisition with suppliers). Finally, there is an exploration of the challenges associated with developing defence acquisition staff and assessing their competence against an emerging body of knowledge, which is often located across global supply chains.

INTRODUCTION

Over the past twenty years many activities traditionally carried out by the military have been progressively outsourced to the privately owned defence industrial base (DIB). These changes are in line with the UK government’s adoption of a Neo-Liberal policy framework which seeks to create efficiencies through the greater use of markets. This UK government-wide reform programme is most commonly known as New Public Management (NPM) and as “managerialism” in the literature. NPM’s emphasis on progressively increasing outsourcing has generated a need to expand the skill sets of procurement specialists. The British Government’s experiences of implementing increased outsourcing are examined within a specific department, the Ministry of Defence (MoD), in order to assess the implications associated of increased professionalism.

MoD reforms, in line with the wider government change agenda, included the adoption of a new strategic management framework know

as “Capability Management” (CM). CM is defined as the enduring capability to generate a desired operational outcome or effect, and is relative to threat, physical environment and the contribution of coalition partners (MoD, 2007). CM represented a profound change in the philosophical assumptions which informed the MoD practices. Because CM involved greater dependence on suppliers it required changes to the systems and processes needed to generate strategic alignment with all organisational activities including the inputs from suppliers. The assumption was that these reforms, in respect to outsourcing, would lead to vast improvements in overall performance. Independent assessments of overall performance by bodies such as the National Audit Office (NAO) and the Office of Government Commerce (OGC) as well as private consultants (Gray, 2009) have concluded that the MoD has fallen well short of expectations. For example, the MoD currently has a black hole funding crisis estimated to be £36 billion (Kirkup, 2009). To address this poor performance, all key stakeholders demanded greater professionalism.

While professionalism has many definitions, the key stakeholders defined it as the possession and effective application of commercial skills. The following quote is a typical example of the changes sought: *“Proactive support from HR on policies and arrangements to drive professionalism (in Commercial and other functions) and meet the resource challenge are an essential component of the change needed”* (OGC, 2008, p6). The forces of rapid change, combined with the demands of stakeholders, have meant acquisition has had to start developing into a different sort of professionalism. A second justification for emerging professionalism comes from the interdisciplinary body of knowledge which informs acquisition. Interdisciplinary studies have emergent properties which in turn lead to the continuous creation of new knowledge (Hislop,2009). Finally, the shift in global trends associated with expanding the role of defence into activities has resulting acquisition emerging into a role which carries out a far wider range of activities and has far more responsibilities. What these changes may mean for acquisition are now explored in greater depth.

DISCUSSION

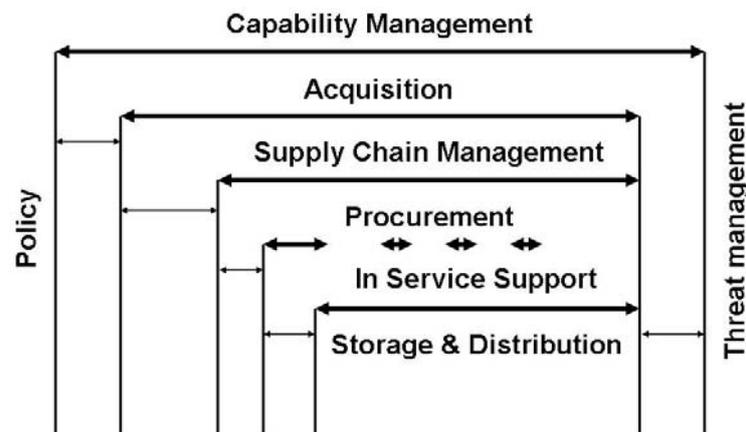
Understanding what is involved in the skills required for defence is explored in three distinct sections. Section one explores what distinguishes defence acquisition from other forms of procurement.

Section two discusses what is meant by professionalism both in general and commercial terms. Section three then investigates if skills other than commercial are required for effective professionalism in defence acquisition.

Distinctive features of defence acquisition

Figure 1 below shows where acquisition sits in relation to the ultimate strategic purpose of the MoD – that is, the generation of capability. The figure highlights the hierarchical order of how all other activities

The place of acquisition in Defence



strategically align and contribute to capability. Within the MoD context, acquisition is defined as one of the major processes which lead to the delivery of capability. Procurement and purchasing are conceptualised as subservient activities within acquisition. Procurement is the end-to end process of market engagement which supports acquisition projects and broader activities, such as goods, services and estates. The term ‘purchasing’ is used to describe low value transactional procurement. Storage and distribution cover basic logistical support. While not illustrated in Figure 1, it is assumed that the activities are carried out in a commercial manner, that is, “in the sense of the function that supports procurement activity including the ongoing management of contracts to the conclusion of delivery” (OGC, 2008, p6.).

Figure 1. Capability Management and Acquisition.

Acquisition is considered more complex than supply chain management (SCM) for a number of reasons. Firstly, delivering military capability is widely perceived as being more complex than delivering the outcomes sought by commercial (and most government) organisations. Generating military capability involves being able to respond to an increasingly wide range of scenarios, often in extremely short time frames; for example, interstate wars, peace keeping, disaster relief and the expanding requirements of security such as providing protection from piracy, cyber-warfare, biological weapons and random bombings on home soil. Former Secretary of State Rumsfeld captured the scope of these difficulties in an address to the US Air Force in 2001 when he stated, "Your task is to defend your nation against the unknown, the uncertain, the unseen and the unexpected" (Hammond, 2009, p8). Secondly, despite the best efforts of government to standardise the economic decision making parameters used across all arms of government, applying them to defence is problematic. Within the simplest of definitions, an effective acquisition specialist would be one who has the required skills to achieve "value for money" (VFM). VFM is the highest order measure of success used by government to assess the effectiveness of its procurement policy (OGC, 2007). Achieving VFM within acquisition involves turning money into maximum military capability through the effective use of markets. VFM is defined as an economic rather than an accounting concept and therefore involves analysis of opportunity costs (Flynn, 2005). VFM within acquisition remains difficult to define in precise terms for a raft of reasons such as the fact that, historically, defence industries and markets have been amongst the most protected from competition by host governments because of links to national sovereignty, jobs and the expenditure of state resources. Defence markets are inherently imperfect because there are few (typically government) customers, served by limited and increasingly consolidated suppliers who are involved in large, long-term programmes. These factors tend to generate incumbents who are insulated from traditional free-market business incentives. Further market restrictions are imposed by not being allowed to source from all available global markets. Thirdly, government creates additional complexity around VFM by assuming multiple and, at times, contradictory roles such as customer, regulator and financier as well as being an agent involved in multilateral relations (Bialos *et al.*, 2009). Fourthly, defence is one of the very few organs of government that has the right, under certain conditions, to resort to the use of lethal force. Fifthly, acquisition has involved an increase in the range of goods

and services provided by a growing number of contractors in order to be able to deliver this force if required. Provision of an expanding range of goods and services creates issues around remaining an intelligent customer while the increasing dependence on contractors creates a burgeoning array of legal complexities. The US government's hiring of the private military company Blackwater which was allegedly involved in activities such as the killing of innocent Iraqi civilians, paying bribes to foreign officials, kidnapping, weapons smuggling and other crimes is a prime example of the potential legal hazards (Sizemore, 2009). Finally, the secrecy provisions afforded defence mean that many staff have to work with partial information and also have to be careful about what sort of information they share. This arrangement is at odds with much of the supply chain literature which advocates openness and transparency in order to build trusting relationships that generate improvements (Sahay, 2003). These secrecy provisions also make it hard for non-acquisition specialists to comment with authority on how to develop and improve the effectiveness of the acquisition community.

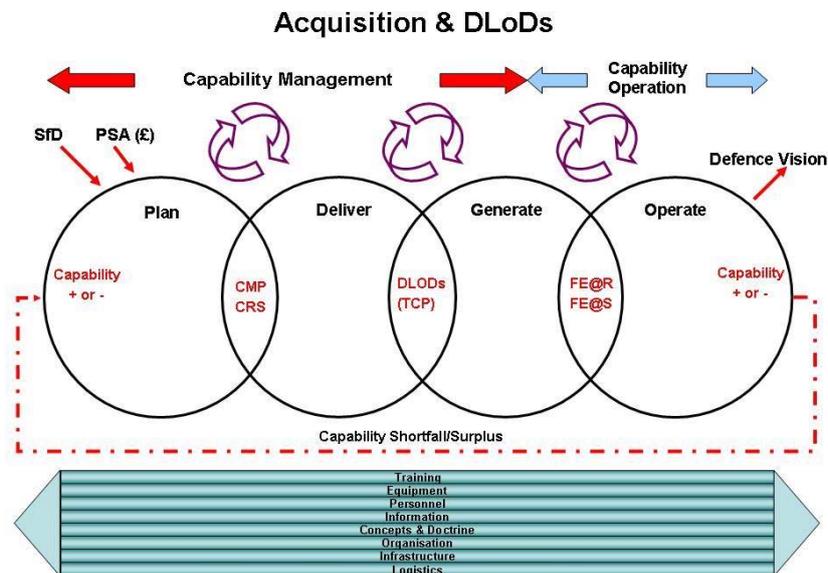


Figure 2. High level acquisition process map.

Figure 2 provides a high level overview of the CM process and adds further weight to the rationale for the increasing complexity associated

with acquisition. The capability management process is itself being continually modified and is therefore best described as an emerging process. The acquisition specialist is expected to be able to work with this dynamic and complex process of multiple interacting variables in a way which delivers maximum capability. Working across such a complex chain also involves being able to relate to and work with different occupational groups – a point which will be discussed in more detail later under multi- and inter-disciplinarity.

An example of just how rapidly the role of acquisition is changing can be found by comparing the two Gulf Wars. In the first Gulf War the US forces had one contractor for every 50 soldiers; in the early part of the second Gulf War the civilian-to-military ratio had increased to one for every ten soldiers (Avant, 2004). In 2009 the ratio of US uniformed personnel to contractors in Afghanistan had risen to one to one, and one to three for the UK (Burgess, 2009). This increasing dependence means that in order to be fully effective, the MoD needs to work in tight, collaborative relationships with suppliers and especially so in theatre. Another factor contributing to the increasing complexity associated with acquisition relates to the purchase of extremely expensive assets featuring sophisticated, advanced technology and involving very long lead times (rarely less than two decades). Currently, more than half of the MoD's expenditure spent externally, and all indicators suggesting the percentage of external expenditure will increase; this raises three key implications. Firstly, identifying and acquiring the sophisticated skill set needed to keep pace with the changes that do not yet appear to have any clear end state has created a strong challenge around defining what is required for professionalism in acquisition. Secondly, managing suppliers in order to achieve primary military tasks is now of very high strategic importance. Thirdly, the increasing roles and responsibilities are such that acquisition specialists need to have both generic process knowledge around core activities such as supply chain management and also content knowledge. In other words, the territory they occupy is so distinct that they already are, or will soon become a specialist profession.

Professionalism

Professionalism is a difficult topic to examine for several reasons. At the definitional level it is used in so many contexts with very different meanings that it is hard to grasp its essence. At a theoretical level it covers a vast body of literature with competing views. To avoid a large detour on this complex topic, in this paper professionalism is used as a

blanket term which covers individuals and groups, frequently known as professionals, who are the keepers and developers of specific “bodies of knowledge” which they sell to various markets. Knowledge is yet another extremely complex topic. Approximately 2500 years ago Plato provided a definition which was widely translated as “justified true belief” (Scruton, 2004, p317). Lack of space prevents a detailed analysis of epistemology beyond making the point that because it is still a strongly contested concept, any definition offered can easily be discredited (Smith, 1998). Sveiby’s (1997) definition of knowledge as “the ability to act” has been chosen as a starting point primarily because acquisition is largely an applied activity, involving what Aristotle would define as “knowing how”. Know how involves mastery of means and can, therefore, be applied to a good or a bad end. Aristotle was also concerned with “knowledge of ends”, or “know what” which he called this “virtue” (Scruton, 2004). Nietzsche took this argument further, claiming that “we must not separate them” (Gane & Piero, 2008, p34.).

Exploration of the role of ethics in respect to acquisition is outside the scope of this paper, beyond making the obvious remarks about the need for all practitioners to comply with business ethics guidelines as defined in government policies and organisational governance and management systems. The reason the discussion has not addressed the “know what” is not because of its irrelevance but, rather, the opposite. “Ethics is so difficult and so various that it is usually treated as a distinct branch of philosophy” (Scruton, 2004, p271). Hoyle and John (1995) claim professions have three distinct aspects, “knowledge, autonomy and responsibility” (p.15). Again, these last two aspects relate to the issues associated with “know what”. Therefore it because the role of “know what” in acquisition is so germane and yet so complex that rather than try to grapple with it in the limited space of this paper it is simply noted as a topic that requires a separate and very detailed discussion.

Figure 3 seeks to provide an illustration of the alignment of different occupational groups, relative to a continuum of knowledge.

Figure 3. Differences in Knowledge to Occupational Types

Professionalism



At the extreme left of Figure 3 are craft guilds and trades groups such as a plumbing or bricklaying. Sitting at the other extreme are the groups known as professions, such as law and medicine. Common to both groups has been a clear ability to either self govern or to strongly influence the regulatory frameworks involved with the jurisdiction and credentialing of their respective bodies of knowledge (Hoyle and John, 1988). The key difference between the extremes is that those at the right have a clearly defined body of theory and ethics which informs practice, whereas those on the left have a clear body of practice. In the middle of Figure 3 are the semi-professions such as nursing and social work (Etzioni, 1969). This category tends to differ from trades and professions in several ways. Firstly, they often do not have a unique body of theory or practice. They tend to borrow bits of practice and theory from others and blend them into a unique combination which makes its own distinct body of knowledge. Secondly, their legitimacy to speak on their knowledge is often contested, especially by the other disciplines from which they borrow concepts. Thirdly, unlike trades and professions which can operate as sole businesses, semi-professions generally need to operate within an organisational structure in order to perform their work. This last point has implications for how far a semi-profession can go in

developing “know what” knowledge, as most modern organisations seek to impose this knowledge through its governance and management framework.

The body of knowledge used and the actions taken by practitioners in acquisition conform to the definition of a semi-profession. Firstly, they are inherently interdisciplinary, drawing from theories such as economics, accounting, law, political science, sociology, psychology, systems theory (engineering and social), operations research, and military international relations. Secondly, while some core elements of the body of knowledge (e.g. finance and contract law) are widely accepted, there is still considerable debate over how these disciplines do and should interact. Finally, defence acquisition, at least in its present incarnation, can only be carried out by either uniformed military personnel or civil servants, operating within the governance and management framework of a large organisation.

If we accept that Defence Acquisition is a semi-profession, developing its body of knowledge is important to it being able to add value by acquiring, refining and perfecting the toolkits and baskets of requisite practice skills. To make these improvements it is first necessary to have a deeper understanding of what informs practice. Without such an understanding it is difficult to extend knowledge through to research or to even pull together what is already known. Codifying and organising knowledge allows greater opportunities to examine and strengthen empirical and theoretical understanding of what works. The speed by which ideas and concepts can be transmitted through education is also enhanced by having a body of knowledge.

The next issue to be resolved, then, is whether the body of knowledge is purely commercial or something else. As defence acquisition performance world-wide has repeatedly and consistently resulted in a pattern of massively overblown budgets and timelines combined with a failure to meet performance expectations by staggering amounts, the case for developing, maintaining and applying basic commercial skills is undisputable. The OGC (2009, p2) states that “Commercial encompasses a wide range of business activities undertaken by an organisation”. The link between commercial and business in this definition supports the case for a business degree being the foundational prerequisite for working in this area. In essence what is being advocated for is in line with the foundation modules taught in most university undergraduate business degrees.

The OGC's Government Procurement Service (GPS) (2009) has done an extensive amount of work in developing a comprehensive methodology around procurement. The methodology can be used for the following purposes:

1. Define the different types and levels of procurement activities which need to be carried out at different levels of responsibilities (refer Table 1).
2. Establish what skill sets are needed at different levels of responsibility. These skills are broken down into three core skill sets with each core then broken down into sub skill sets making a total of nine (refer Table 2).
3. Assess an organisation's maturity level against an assumed ideal in order to make corrections and generate continuous improvement. This is known as the OGC Procurement Capability Review Model and Standards Framework and measures in quite elaborate detail against the nine criteria defined in Table 2.

Table 1. Possible Scope, Scale and Challenge for Procurement Leaders

Criteria	Level 1	Level 2	Level 3
Staff numbers managed/led	A procurement team of less than 20	A procurement team of more than 20 but less than 100	A procurement team in excess of 100
Total procurement spend	A total annual procurement spend of less than £500 million	A total annual procurement spend of between £500 million and £1 billion	A total annual procurement spend of more than £1 billion
Complexity of spend	Procurement spend managed is predominately tactical/operational and not highly technical or commercially complex	Much of the procurement spend managed is tactical/operational but a significant proportion is programme driven, highly technical and/or commercially	The majority of procurement spend managed is programme driven, highly technical and/or commercially complex

		complex	
Impact of spend	Procurement managed has some political, social, market, environmental or cross-Governmental impact	Procurement managed has significant political, social, market, environmental or cross-Governmental impact	Procurement managed has major political, social, market, environmental or cross-Governmental impact
Responsibility for and/or influence over the procurement activities of other Government bodies	Responsibilities are limited to within the core Organisation only	Has some responsibility for influencing the procurement decisions by associated Government bodies outside the Organisation's executive control	Has significant responsibility or accountability for influencing the procurement decisions of associated Government bodies outside the Organisation's executive control
Influence over corporate decision making	Reporting to a Deputy Director or Director or equivalent	Reporting to an Executive Board member or to a Director or equivalent	An Executive Board member or reporting to an Executive Board member or equivalent
Size of Organisation	A Procurement Leader within a small Organisation of less than 1000 staff	A Procurement Leader within a medium sized Organisation of more than 1000 but less than 5000 staff	A Procurement Leader within a large Organisation of more than 5000 staff

Table 2 GPS Procurement Leaders Skills Framework

Core Skill Sets	No.	Sub Skill Sets of Each Core Skill
Leadership	1	Visibility and Impact Leadership
	2	Vision, Aspirations, Business and Policy Alignment
	3	Stakeholder and Supplier Base Confidence Levels
Skills Development and Deployment	4	Effective Resourcing of Procurement Activity
	5	“Intelligent Client” Capability
Systems and Processes	6	Governance and Organisation
	7	Strategic and Collaborative Approach to Market Engagement and Sourcing
	8	Effective Use of Procurement and Programme and Project Management Tools and Techniques
	9	Knowledge and Performance Management.

The authors are satisfied that the skills defined by the OGC in Table 2 should be included in the defence acquisition body of knowledge. As a very detailed description of skills that sit behind the summary headings in Table 2 is publicly available on the OGC website, these skills will not be discussed further. Instead, the discussion turns to the question of whether anything else should be included in the body of knowledge. In terms of the three levels detailed in Table 1, it should be noted that defence acquisition activities would fit primarily under a Level 3 leader. Interestingly it is also about this area that the OGC framework has the least to say with respect to what skills are required; some categories even have been left totally blank. The NAO (2009) has attempted to address the gap with a report entitled “Commercial skills for complex government projects”. While useful in an incremental sense, the report does not offer any clear advances in fleshing out the key skill requirements. The prior OGC quote which linked professionalism with commercial also made reference to “other functions” but did not define them. The GPS Procurement Leaders Skills Framework document makes reference under the heading Leadership Qualities to interpersonal skills and then goes on to specifically ***“No attempt has been made to incorporate these interpersonal skills into this Framework, as they will reflect the specific and cultural needs of the individual Organisations”*** (bold and italics in original document, 2009, p4) . This quote appears to make two points around the limitations of what is meant by commercial and where it can be applied. Firstly, it acknowledges the importance of

interpersonal skills and that the commercial skills tool kit does not explicitly cover how they should be developed. Secondly, those interpersonal variables alter within wider contextual factors such as organisational structure and culture. The inclusion of these two points may help clarify what “other functions” the OGC is referring to in the phrase “Commercial and other functions” (refer p.2 of paper). What still remains unclear is whether further skills are required and what they might incorporate. The Dreyfus and Dreyfus (1980) model of skills acquisition, as shown in Figure 4, is now employed to assist in identifying what else might fit in under “other functions” (beyond commercial) and if these functions are sufficiently distinctive to warrant acquisition having its own body of knowledge. This model was chosen because detailed studies of human learning indicate that people go through several phases in learning. This model has standing in the literature and, because it captures five distinct models of human learning, it maps well to the key stages of development required by defence acquisition practitioners.

Level	Attributes
Expert	Professional with high levels of tacit knowledge. Problem solving deliberation is not based on calculated problem solving but rather on critical reflection over intuitive hunches. Highly context dependent.
Proficient Performer	Prior actions and experience have helped the individual develop a specific perspective. Spontaneous interpretation and intuitive judgement. Deep intuition interacts with analytic decision making to achieve performance. Heavily context dependent.
Competent Performer	Experts who exhibit thinking and behaviour that is rapid intuitive , holistic, interpretative and visual. Context becomes increasingly important and individual involvement in solving problem and developing plan
Advanced Beginner	Personal experience via trial and error. Largely but not exclusively context – independent. Increased use of analytic skills with explicit, verbally formulated facts and rules.
Novice	Facts, rules and context-independent, common in University education.

Figure 4. Dreyfus and Dreyfus Model of Skills Acquisition.

Skills beyond commercial

Novice

In the model “novice” is the lowest level, or entry point. The individual ideally advances through the four subsequent levels to that of “expert”. For reasons already discussed, acquiring a business degree represents the best option for a Defence Acquisition novice to have acquired the foundation skills. In line with the requirements of a semi-profession, the course content is multidisciplinary. Multidisciplinarity involves a non-integrative mixture of different disciplines (Augsburg, 2005). The training delivery method is generally such that the student acquires knowledge of the foundational disciplines, usually in a one-discipline-at-a-time approach. While it would be highly desirable for students to learn in a manner which better integrated the disciplines, there is also reasonable evidence to suggest that at undergraduate level single discipline delivery learning is the most effective way of acquiring knowledge. Learning to work across disciplines appears to be more effective when carried out in a workplace environment. To that end, industry can play a role in augmenting undergraduate learning by offering internships and vacation employments. Having work experience exposure helps the post graduate accelerate the speed of skill development including working across disciplines. Industry and university partnerships if well constructed also appear to offer ways of accelerating skills development. For example, this type of partnership was used in 2008 with Griffith University, in Australia. The entire cohort of 24 business graduates (with a supply chain major) were placed in a single corporation but across different organisational locations within a complex supply chain which was core to the business involved. The students then had to jointly generate a report for the organisation on how to make improvements. The benefit of this approach was that the corporation received a report that it could use to make strategic improvements and the learning process for the students replicated the reality of working in supply chains. The students had to work in an interdependent manner and across disciplines and organisational entities in order to complete the report. They also gained a big picture appreciation of the issues involved in supply chains rather than being lost in a particular function in a supply chain. Irrespective of what approach is used in a work environment with novices, they will generally require a highly structured environment to acquire skills (Gibson, 2010).

For reasons already mentioned, there is wide agreement that the body of knowledge to be acquired by the novice is what is defined as

“commercial”. However, because the focus of this paper is on acquisition as distinct from procurement, it will be argued that for the next four levels the requirements of the body of knowledge move well beyond what is generally considered under the term commercial. It is assumed that all staff in acquisition will be rotated through a series of work place experiences and activities which would make them competent at Level 1 and Level 2 roles as defined in Table 1. Specialist educational courses from universities and professional associations such as the Chartered Institute of Purchasing (CIPS) and the Chartered Institute of Logistics and Transport of the United Kingdom (CILTUK) are also seen to be helpful in supporting skill enhancement at Level 1 and 2 roles. These providers appear to understand that the more recent the knowledge the more relevant and valuable it is. For instance CILTUK sponsored a research study entitled Logistics Worker Skills for the Information Age (Butcher, 2007). Adult learning principles would suggest the best contribution that these providers could make to support accelerated learning is to offer greater flexibility in delivering targeted modules as and when required rather than having to pass different grades of predefined coursework. Under this approach the specific external course content is sought by the student as and when they discover a need through their workplace activities. The limitation of this form of educational process is that no matter how well the provision of explicit codified knowledge is done it will always be in lag mode to knowledge being developed in practice. The key point here is that from the novice level onwards, the critical skills needed to accelerate the development of an effective acquisition specialist will increasingly move away from the explicit knowledge of formal education and towards the tacit knowledge generated through on-the-job learning. That this learning is often acquired through informal processes creates several difficulties for advancing the acquisition body of knowledge.

Advanced Beginner

Because Defence Acquisition involves buying large complex assets it also involves working in a project team. At present the MoD transitions novices (graduates with limited work experience) to advanced beginner through their involvement in a project team where they have to work in a more interdependent environment with other disciplines. While understanding the mechanisms of project management is a useful skill in this context, the main emphasis is on developing the interpersonal and social skills needed in order to work in and learn with others who do not share the same core beliefs and assumptions. Because the MoD still uses a team leader as a final decision point, the advanced beginner is learning

to work in a multidisciplinary manner. Ideally advanced beginners learn how to work in ways which increase the team's knowledge. However, because they also work to targets around time, cost and performance then should a dispute between disciplines arise which cannot be easily resolved, the team leader simply imposes a solution. While an efficient solution from a task perspective the downside in terms of skills development is that it does not necessarily result in discipline specialists altering their position, acquiring different understandings or generating new knowledge. The MoD is conscious of this issue but has resorted to its traditional solution of providing ever more access to off work site training. While there are many benefits in staff having access to external courses that dispense information in a timely manner, the deep understanding of practice that is being sought to accelerate progression in acquisition capability requires that far more emphasis be placed on teaching on the job. This involves greater efforts around making the tacit explicit, encouraging the challenging of accepted ways and building trusting relationships which support learning (Russell and Luoughran., 2007).

Competent

The duties and responsibilities carried at the competent level equate to the Level 3 defined in the OGC's schema in Table 1. To effectively carry out these responsibilities requires a very large increase in the type of skills used, as well as the depth of proficiency. It is the level at which acquisition strategy is implemented with suppliers. Performance at this level is measured by key stakeholders (Parliament, NAO, media, suppliers, community) and to access overall organisational performance. Ideally, staff at this level need to be able to not only deliver on key organisational outputs but at the same time develop their subordinates in social and technical aspects of acquisition. While corporate governance and management systems are in place to reduce risk, many of the risk mitigation strategies that are implemented have to rely in part on the ethical integrity (know what) of individuals concerned. Because they also have to report to programme boards as well as negotiate with suppliers and other key stakeholders, they need to possess intellectual agility to alter their working style to suit the requirements of different contexts.

Different contexts are common at this level because the successful delivery of large, long-term, technologically sophisticated projects involves working with an array of stakeholders, often with different needs and goals. The primary reporting responsibility on these projects is to the programme boards. Programme boards operate at a very high level

and are few in number (approximately 30 and reducing). The outcome sought by programme boards is to manage a range of projects in order to maximize capability. This involves working in an interdisciplinary manner where individuals are able to put aside their narrow organisational interests and work together in creative and innovative ways (Repko, 2008). Therefore, “know how” at this level requires being able to work in both multidisciplinary and interdisciplinary ways depending on the context of either leading a team or reporting to a programme board. This is no small feat as the prefix “inter” is taken to mean that there is a space and it is contested. The obligation is now on how to be an “integrator” and develop something that creates new results from integration and adds to knowledge (Repko, 2008). The concept that interdisciplinary ways of working have emergent properties in respect to knowledge creation is widely recognised (Flood, 1999).

The importance of being able to work successfully with other disciplines cannot be overemphasised. The complexity of large projects means that, even with extraordinary abilities, an individual could never hope to master all the disciplines involved. For these reasons, staff operating at the “competent” level also need to have an understanding of how social systems, composed of different disciplines, goals and even world views, come together and learn. This topic has most commonly been covered in organisational learning and complexity literature which stresses that different disciplines have emergent properties in terms of knowledge creation. This emerging knowledge is seen to be a prime driver of innovation which should help deliver the improvement sought by entering long term partnering arrangements with suppliers (Flood, 1999). The literature provides a strong theoretical basis for seeing “emerging professionalism” not just in terms of things happening to procurement staff and forcing them to emerge into a new form, but rather that competent level staff are actively involved in facilitating social processes in order to generate, capture and use, in innovate ways, the emergent knowledge gained from collaborative, interdisciplinary work. The ability of the acquisition practitioners to generate and capture emergent knowledge is, in the opinion of the authors, the single most fertile field available to progress the body of knowledge.

The challenge for the competent level is that the most valuable knowledge is generated through informal processes and in specific contexts. Because the knowledge is predominantly tacit in nature, it is difficult for even the most dedicated practitioner to articulate it in a way that makes it easy for others to acquire. While no simple solutions exist,

it is suggested that including an educational responsibility component in the role at this level would have several benefits. Firstly it desirable to have staff at this level who understand on the job learning so that they can accelerate the development of their own staff in terms of acquisition. Secondly, being actively involved in such a process might also enhance understanding of how to speed up learning. Thirdly, this process could be used to enhance the exchange of best practice ideas across communities of practice (Cox 2005) involved in similar large projects. Finally, involvement in these activities could enhance the ability of educational providers to transmit more leading edge knowledge in a timelier manner. This last point suggests there is need to develop industry-university partnerships with long term dedicated research programmes focused on capturing knowledge developed in the workplace in order to improve the overall body of knowledge.

Business ethics are important at every level of the Dreyfus and Dreyfus mode. However, they assume a greater significance from this level on. To achieve the complex tasks required here involves giving the individual greater freedom, which then creates other risks for the organisation. Unfortunately, where large amounts of money are involved the chances of corruption increase considerably. Across the world, defence customers and suppliers have a fairly shabby record in respect to bribery and corruption. BAE, the UK's largest military manufacturer, has recently paid out over US\$400 million in fines in connection to a range of bribery scandals in 2002 involving several countries (Pfeifer and Lemer, 2010). The high secrecy associated with military contracts further limits transparent scrutiny and provides a spur for opportunistic behaviour. The business ethics literature makes it clear there are limits as to how effective educational programmes can be in managing this form of risk (Michalos, 1995).

Among the raft of other complexities that the practitioner encounters at this level is the highly political nature of defence contracts. The contracts are often linked to supporting local industries and can easily attract media attention. Therefore, in addition to all the other skills previously mentioned, the acquisition specialist at this level also needs to have a great deal of political and media awareness. Once again, many of the skills and competencies just listed fall outside the normal range of being strictly commercial.

Proficient

Only a few individuals will make the transition from project leader to programme board member (there are currently two in the MoD). The proficient level person has to deal with a vast array of complex political, economic and social tradeoffs. With so many variables, staff at this level need to be able to access all sorts of disciplines in order to gather the different types of information needed for complex decision making. They also need to be able to work effectively with colleagues at equal levels in ways which avoid turf wars around resources and priorities. Furthermore, they are required to have a very good understanding of a wide range of other policies, such as defence and foreign office policies, in order to ensure their decisions take account of the wider contextual variables. Having a deep understanding of the governance and management framework used by the MoD is required not only for compliance purposes but also for the purposes of critiquing policies in order to make recommendations and suggest changes that can generate improvements. The two most useful skill sets to be acquired for this level would be political science and policy analysis.

Expert

The final level of “expert” is most likely to be found in someone managing at the portfolio level in the MoD. As only two portfolios exist in the MoD, these would be very senior people with a great depth of knowledge and understanding of all aspects of defence including the national defence strategy, national security, joint force operations, international alliances, international supplier bases, and government policies and decision making machinery. The majority of skills required to carry out this role can be found in the vast body of leadership literature. From an acquisition perspective, their role should be concerned with setting up systems and processes which ensure succession planning in a manner that not only covers off replacement planning without loss of knowledge but which also develops skills sets for long term requirements. The primary responsibility of the expert in acquisition should be to increase the sustainability of the organisation by passing on their wisdom, knowledge and experience to the next generation. They should also improve the organisational systems and process which support all acquisition activities. The measure of how well they do this job should be that they are no longer needed. Getting senior managers to work themselves out of a job, however, has not been proven attractive for many.

From a defence acquisition perspective, the learning required to lead at this level has not been well researched. We would speculate that it is of a trans-disciplinary or post-disciplinary nature (Smith, 1998). However, as there are far more questions than answers for what is required to be effective at this level, the knowledge available at this point in time might best be described as “Socratic Ignorance”.

CONCLUSIONS

This paper explored the implications of emerging professionalism for defence acquisition. It demonstrated that present domination of an exclusively commercial perspective for defence acquisition was not entirely adequate due to the imperfect nature of defence markets, the uncertainty around the range of scenarios, the use of large scale lethal force and the secrecy provisions. NPM reforms combined with changes to global defence strategies to include activities such as security have also meant that defence acquisition has to work in far more markets, in very collaboratively partnering arrangements with suppliers as well as have to engage in greater interagency coordination, than was previously the case. The introduction of the Neo-liberal agenda into government policies and practices, followed by the failure of the MoD to achieve VFM in acquisition, has created an urgent need for a professionalism based on the effective use of commercial skills. However, the analysis conducted with the Dreyfus and Dreyfus skills model demonstrated that more than commercial skills were required. In particular there was a need to have well developed interpersonal, social facilitation, educational and interdisciplinary skills. The interaction of all these factors has resulted in an emerging professionalism for defence acquisition.

Because the factors impacting on defence acquisition are themselves evolving in a rapid and unpredictable manner, it is difficult to foresee what these changes will mean for defence acquisition in the long term. As it presently stands defence acquisition has a weak identity and is supported by a body of knowledge heavily steeped in commercial principles. However, provided that the acquisition community of practitioners and researchers can find ways of capturing the knowledge being generated in the workplace there is every reason to be optimistic that professionalism within the defence acquisition area can continue to grow and better define its own distinct body of knowledge. This optimism is not meant to suggest that progress will be an easy matter. Working with tacit knowledge generated by interdisciplinary activities poses many daunting challenges. Finding systematic ways of

disseminating practitioner knowledge to the wider acquisition community is even more challenging. However, the urgent and increasing need among practitioners to gain more understandings and insights in order to meet the demands of professionalism mean there are few options but to find better ways of engaging with these issues. Failure to do so will almost certainly mean that the body of knowledge will be strongly contested by others. Furthermore, it will mean that practitioners will not be able to develop their skill sets in line with the pace of change being imposed on acquisition. The stark reality is that there is no viable option but to expand the research agenda in the hope of finding ways by which defence acquisition practitioners can more rapidly gain mastery of their emerging professionalism.

REFERENCES

Augsburg, T (2005). *Becoming Interdisciplinary: An Introduction to Interdisciplinary Studies*. Kendall Hunt Publishing, Dubuque, IA.

Avant, D. (2004). "The Privatization of Security and Change in the Control of Force," *International Studies Perspectives*, 5, pp 153-7

Bialos, J., Fisher, C.E., Koehl, S.L. and Mossberg, C.L. (Eds) (2009) *Fortresses and Icebergs: The Evolution of the Transatlantic Defence Market and the Implications for the US National Security Policy*. Centre for Transatlantic Relations, Washington. D.C.

Bullough and Gittain (2001)

Burgess, K (2009). Moving from procurement to acquisition. International Symposium on Defence General-purpose Materials Acquisition , Wuhan, China

Butcher, T. (2007) *Logistics Worker Skills for the Information Age*. Chartered Institute of Logistics and Transport. Hull University, UK.

Cox, Andrew (2005). "What are communities of practice? A comparative review of four seminal works.". *Journal of Information Science* 31 (6): 527–540.

Dreyfus, S.E. and Dreyfus H.L. (1980) *A Five-Stage Model of the Mental Activities Involved in Directed Skill Acquisition*, California University, Berkeley Operations Research Center

Etzioni, A. (1969). *The Semi-professions and their organisations: Teaching, Nurses, Social Workers Social Workers*. Free Press, New York

Flood, R. L. (1999). *Rethinking the Fifth Discipline: Learning within the Unknowable*. Routledge, London

Flynn, S. (2005). *Economics for Dummies*. Wiley Publishing, New York

Gray, B. (2009) *A Review of Acquisition for the Secretary of State for Defence: An Independent report by Bernard Gray*. October 2009, available at http://www.aof.mod.uk/aofcontent/downloads/gray/gray_report.pdf (Accessed: 17 March, 2010)

Gibson, T. (2010) University-Industry collaboration to accelerate interdisciplinary learning. FINPIN Conference, (25-27 April). Joensuu, Finland.

Hammond, G (2009). Transformation – An Assessment, in *Crosscutting Issues in International transformation: Interactions and Innovations among People, Organizations, Processes and Technology.*, Derrick Neal, Henrik Friman, Ralph Doughty and Linton Wells II (Eds), Centre for Technology and National Security Policy, Washington DC.

Hoyle, E and John, P.D. (1995) *Professional Knowledge and Professional Practice*. Wiley Publishing, New York

Kirkup, J. (2009) MoD cuts helicopters and jets in cash crisis. *Telegraph*, 15th December, 2009

Michalos, A.C. (1995) *A pragmatic approach to business ethics*. Sage Publications, London.

Ministry of Defence (2007) *Through Life Capability Management* (internal document).

National Audit Office (2009) *Opinion Pieces on improving commercial skills for complex projects*. HC 962. http://www.nao.org.uk/publications/0809/commercial_skills.aspx (Accessed 17, March, 2010)

Office of Government Commerce (2007). *Procurement Efficiency and Value for Money: Efficiency Measurement Guidelines*.
<http://www.procservice.com/library/ogc-procurement-efficiency-amp-value-for-money-measurement.html> (Accessed 17 March, 2010)

Office of Government Commerce (2008). Procurement Leaders Skills Framework,
http://www.ogc.gov.uk/learning_and_development_procurement_skills_and_competences.asp (Accessed 18 December, 2009)

Repko, A.F. (2008), *Interdisciplinary Research: Process and Theory*. Sage, London

Russell, T. and Loughran, T. (2007). *Pedagogy of Teacher Education: Values, Relationships and Practices*. Routledge, New York, NY.

Sahay, B.S. (2003) Supply chain collaboration: the key to value creation. *Work Study*, Vol 52, Iss.2. pp 76-83

Scruton, R. (2004). *Modern Philosophy: An Introduction and Survey*. Pimlico, London

Smith, M. (1998) *Social Science in Question*. Sage, London

Sizemore, W. (2009) "Lawsuit Now Accuses Xe Contractors Of Murder, Kidnapping", [Norfolk Virginian-Pilot](#), July 2.

Sveiby, K.E. (1997). *The New Organisational Wealth: Managing and Measuring Knowledge-base Assets*. San Francisco, CA, Berrett-Koehler.

Pfeifer, S. and Lemer, J. (2010) Financial Times Online 5th February.