# The Perceived Characteristics of 'Knowledgeable' by UK MOD Procurement Function Staff 

Robert A Allen<br>Centre for Defence Management and leadership<br>Cranfield University<br>Robby.allen@cranfeld.ac.uk<br>Simon Renfrey<br>Centre for Defence Management and leadership<br>Cranfield University<br>simon.renfrey@cranfield.ac.uk


#### Abstract

A neglected aspect of the nature of expertise and knowledge is how personnel in public procurement are perceived. The purpose of this paper is to examine the characteristics of procurement staff who are perceived to be knowledgeable and those who are not. Fifty-eight UK Ministry of Defence procurement function staff completed an online survey. The study shows that how procurement personnel are regarded by colleagues is inclined towards ascribed attributes and this paper presents a delineation of those attributes to allow for greater understanding. An awareness of the perceptions of others has practical importance for procurement personnel and managers as it allows for the better understanding of how they are perceived and in doing so empowers them to build on strengths and identify areas for improvement. The study's originality lies in the provision of an important insight into how staff within a complex and usually difficult to access public sector procurement environment are perceived by their colleagues.


## Keywords

Perception, Expert, Knowledge, Procurement, Defence

## 1. Introduction

Those that are perceived to be knowledgeable are often afforded the name 'expert'. However, Evetts et al., (2006) suggest that expert and expertise are relational notions where to be an expert always means to be an expert in contrast to non-experts. Although Nichols (2017) dramatically describes a skepticism towards experts as 'the death of expertise', citing factors such as layperson access to the myriad of knowledge on the internet, he notes that our modern society cannot function without reference to and belief in them. People can act on these beliefs, for example, in choosing to hire the services of individuals regarded as more expert than others (Yates and Tschirhart, 2006). The expectation then is that personnel who are in positions where their judgment is relied upon, are knowledgeable. In the normal course of business hiring or promoting an individual who is regarded as knowledgeable but who is later found not to be might have financial consequences, but in organisations such as the United Kingdom Ministry of Defence (MOD) the consequences for being regarded as being knowledgeable without the reality of having such knowledge can be catastrophic. This has been demonstrated by high profile cases such as the loss of Nimrod XV230 with 14 servicemen over Afghanistan in 2006 (Haddon-Cave, 2009). This then represents a neglected area of research, namely the perception of those who are regarded as knowledgeable and those who are not.

The aim of this study, part of a wider study on the perception of expertise, is therefore to examine the characteristics of procurement staff in the MOD who are perceived to be knowledgeable and those who are not.

### 1.1 Context: The Organisation under Study: United Kingdom Ministry of Defence

Public procurement involves significant sums of money and is an inherently politically sensitive activity (Schapper et al., 2006). The MOD has the fifth largest defence budget in the world (GOV.UK, 2015) and is committed to meeting the NATO defence spending target of $2 \%$ of Gross Domestic Product (GDP) for the rest of the decade (HM Treasury, 2015). The MOD is British Industry's single largest customer and procurement staff placed approximately 2,300 new contracts in Financial year 2013/2014 with a spend of around £20.4 Billion (GOV.UK, 2015a). Commercial Officers are responsible for procurement within the MOD. They are civil servants placed within project teams in the UK and overseas.

### 2.1 Literature Review

This literature review will begin with an exploration of public sector procurement knowledge before considering its exploitation by the organisation and the individual and complete with an assessment of social perception.

### 2.2 Public Sector Procurement knowledge

Public procurement is in a state of continual evolution both conceptually and organizationally, driven by the mantra 'do more with less' (Thai, 2016). Pressures on public finances since the global financial crisis of 2007 have motivated a reassessment of the role of public procurement that has led to an ever-closer relationship between theory and practice (Flynn and Davis, 2014). Aligned to this has been a push by UK Government Departments to end the days of the 'gifted amateur' in place of a more specialized and professionalized civil service (Brecknell, 2016). However, this is not an easy undertaking because procurement encompasses a great many differing factors, functions and knowledge needs (Callender and Matthews, 2003). Indeed, the commercial function has been described by Lowe (2013, p. 3) as a "dynamic capability within organisations" that has become so through factors such as the processes of globalisation and more complex collaborations. This ever complex and changing world view means that currency of knowledge is paramount. Those such as Giunipero (2000); Humphreys (2001) and Wynstra et al. (2001) have argued that rather than just having a working appreciation of the content areas, procurement professionals need to be able to evaluate procurement influences across a range of discipline areas at a 'professional standard of knowledge'. In other words, it is not enough for procurement professionals to be merely aware of the myriad of subjects that make up the procurement body of knowledge they must have a deeper understanding and ability to apply the knowledge in the course of their duties.

### 2.3 Utilisation of Knowledge

The utilisation of Knowledge in business is essential because it is a fundamental asset of organisations (Eris and Saatchiglu, 2007). Baumard (1999) suggests that organisations work 'intensely' to create and preserve their knowledge whilst Oleksak and Oleksak (2010, p.3) go as far as to describe knowledge as the new oil that is "part, directly or indirectly, of everything we use". Knowledge enables effective action, which in turn drives superior performance and competitive advantage (Nissen, 2011). Holste and Fields (2010) note that the willingness of members of an organisation to share and use tacit knowledge may be dependent on the extent that their contemporaries are trusted as recipients and sources. Levin and Cross (2004) note findings by those such as Pelz and Andrews (1966) and Mintzberg (1973) that suggests that people prefer to turn to other people rather than documents when they are seeking information. In asking for information, the seeker becomes vulnerable to the benevolence of the knowledge source (Lee, 1997). Trust in the individual providing the information has an effect on the perceived usefulness of the knowledge because where the knowledge source's competence is more trusted the seeker is more likely to listen to, absorb and take action on that knowledge (Levin et al, 2004). Gau's (2011) research into the public sector showed that many people did not want to share knowledge with their colleagues because it was their way of protecting themselves. Wilson (2002, p.230) summarises this dilemma: 'If getting promotion, or holding your job, or finding a new one is based on the knowledge you possess - what incentive is there to reveal that knowledge and share it?' However, Stein and Ridderstrale (2001) note that a disadvantage in not articulating knowledge is that an individual may claim to possess knowledge that they do not have or that they are more knowledgeable than they actually are.

### 2.4 Perception

Santos and Garcia (2006, p. 753) define perception as: 'the internal sensation that results from material impression made on our senses'; they suggest that it is the underlying layer that business decisions feed upon from external images, impressions or sensations through one of the senses. Cultural as well as individual existence depends on perceiving (Ittleson, 1973) and an individual can be construed in innumerable ways based upon identity, race, sex, age, emotional state, occupation, religion and so forth (Quinn and Rosenthal, 2012). Of all the influences on our working lives, Mullins (2005) suggests that it is perception that is at the root of all organisational behaviour. Understanding the processes that act to influence the manner in which individuals perceive things and the way they make judgments about other people is critical to the study of behaviour (Dick and Ellis, 2006). Vernon (1962) observes that individuals modify their judgments of perception to conform to the judgment of a social group, or the opinions expressed by others within the group. Indeed, within the organisation, those of knowledge who are regarded as experts are often revered by their peers and protected from outside competitors by a cautious management that considers their superior knowledge as vital to the competitiveness of the organisation (Sie and Yakhlef, 2009). The notion of experts being perceived as relational rather than absolute is described by Evetts et al. (2006). Being regarded as knowledgeable is then a matter of social perception, described by Steers and Black (1994, p. 69) as 'those processes by which we perceive other people.' Steers and Black (1994) present this 'perception of others' in their model (figure 1). This study utilises that part of the Steers and Black (1994) model related to the 'characteristics of the person perceived' to examine the characteristics of those who are perceived to be knowledgeable in the MOD. The remainder of the model will be explored in further work.


Figure 1. Major Influences on Social Perception in Organisations Steers and Black, (1994).

Steers and Black (1994) suggest that the manner in which others assess us is influenced by our individual characteristics, their model noted at figure 1 suggests four categories of personal characteristics: 1) physical appearance, 2) verbal communication, 3) nonverbal communication and 4) ascribed attributes. These are described
at Table 1. For the purposes of this study the researchers have used those four character types to evaluate the characteristics of MOD procurement staff who are perceived to be knowledgeable and those who are not.

Table 1: Characteristics of the Perceived Person. Based upon content from Steers and Black (1994, p. 69-71).

| Characteristic | Description |
| :--- | :--- |
| Physical | Demographic characteristics such as age, sex, race, height and weight. Business <br> suits for those who are perceived to be in positions of power and work clothes for <br> those who are not |
| Verbal Communication | Precision of language use can influence perceptions of sophistication or education. <br> Accent provides evidence for a person's geographic and social background. Tone <br> of voice indicates a speaker's state of mind. The topics of conversation provide <br> further clues. |
| Nonverbal <br> CommunicationHow people behave. Facial expressions: for example, those who smile are thought <br> to have positive attitudes (Secord, 1958). Body Language: examples include sitting <br> up straight and appearing alert versus being relaxed; looking people in the eye <br> versus looking away. |  |
| Ascribed Attributes | Status is ascribed to those such as executives. Those with higher status are <br> perceived to have greater control over their behaviour, more self-confidence and <br> competence. A person's occupation influences the manner in which they are <br> perceived because of the image it conjures in the mind of the perceiver. Personal <br> Characteristics can also have an influence on how people are perceived. |

## 3. Method

### 3.1 Participants

This study comprises a survey of MOD Commercial function staff to determine the characteristics of staff who are perceived to be knowledgeable and those that are not. A total of fifty-eight ( 27 Female, 29 Male and 2 who did not indicate gender) UK Ministry of Defence procurement function staff completed an online survey. The participants were from a range of grades located at MOD Corsham, Abbey Wood and Glasgow. The lowest grade was 'graduate' and the highest Senior Civil Service Grade 1.

### 3.2 Procedure and Questionnaire

Participants each received an email with a link to an online survey. The survey required the participants to provide three words or phrases of their choice that 1) describe someone who is knowledgeable in the procurement function and 2) is not knowledgeable in the procurement function. The request for words did not indicate a particular individual, team, case study or project.

## 4. Analysis

The data from the online survey was exported into a spreadsheet and a copy held by both researchers. In phase one of the analysis the researchers undertook independent thematic analysis; grouping the phrases and words. For instance, 'CIPS' is a procurement qualification and so it was grouped with the phrases and words that referred to 'qualified'. Phase two of the analysis consisted of a cross-comparison of each researcher's findings and where differences had occurred or the words were anomalous the researchers undertook a review of their work before discussing each of the words in order to reach consensus. In the third phase the researchers assessed each word against the Steers and Black (1994) descriptors at Table 1 to determine which description matched the word the MOD commercial staff had provided, again discussing each choice to reach consensus.

## 5. Findings and Discussion

### 5.1 MOD Commercial Function: Characteristics of the Person Perceived

There are 53 characteristics that MOD Commercial Staff have used to describe someone they perceive to be knowledgeable and 51 characteristics used to describe someone who they perceive is not. Table 2 details an extract of the words provided by the MOD commercial officers and characteristic 'type' utilizing the Steers and Black (1994) descriptors at Table 1. The full list of words and character types is provided at Appendix 1.

Table 2 Extract of words or phrases used to describe someone who is/is not knowledgeable

| IS Knowledgeable |  |  |  | IS NOT Knowledgeable |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Word | f | \% | Type | Word | f | \% | Type |
| Experienced | 14 | 8.8 | AA | Novice | 15 | 10.9 | AA |
| Aware-Commercial | 11 | 6.9 | AA | Risk | 9 | 6.6 | AA |
| Competent | 10 | 6.3 | AA | Limited | 8 | 5.8 | AA |
| Professional | 10 | 6.3 | AA | Non-Procurer | 8 | 5.8 | AA |
| Expert | 9 | 5.7 | AA | Inexperienced | 7 | 5.1 | AA |
| Qualified | 9 | 5.7 | AA | Dangerous | 6 | 4.4 | AA |
| Asset | 6 | 3.8 | AA | Liability | 5 | 3.6 | AA |
| Leader | 6 | 3.8 | AA | Insular | 4 | 2.9 | AA |
| Aware-Finance | 4 | 2.5 | AA | Unaware-Commercial | 4 | 2.9 | AA |
| Knowledgeable | 4 | 2.5 | AA | Unaware-Finance | 4 | 2.9 | AA |
| Problem Solver | 4 | 2.5 | AA | Unconfident | 4 | 2.9 | AA |
| Reliable | 4 | 2.5 | AA | Adversarial | 3 | 2.2 | AA |

The majority of characteristics are assigned to those that express ascribed attributes (AA). There is no occurrence of attributes related to physical characteristics. This may suggest that the Civil Service training on equality and diversity has had the effect of excluding these characteristics as a factor in the perception of knowledgeable.

Experience and a lack of it is the overriding factor that affects the perception of whether someone is or is not knowledgeable. The words 'experience, aware-commercial, competent, professional, expert and qualified' are the most commonly used, accounting for $39.7 \%$ of the percentage total of words used. The researchers are aware from their service and interaction with the MOD that experience is likely to refer to time-served. However, along with the assignment of 'expert' status, previous research by those such as Cassidy and Buede (2009) has shown that time served does not guarantee enhanced performance. The use of the word 'qualified' is likely a reference to Membership of the Chartered Institute of Procurement and Supply (MCIPS) or attainment of the Defence Acquisition in Management MSc, which are the principle qualifications currently pursued by procurement staff in the MOD. The study indicates that being new to the function, inexperience and the resultant risk of that inexperience factors high in the perception of someone who is not knowledgeable. It is interesting that the perception of knowledgeable is linked to that of leadership. The inference is that someone who is knowledgeable will also be a leader. The research does not provide an indication of whether that leader will be good or bad, merely that to the mind of the commercial officer the knowledge equates to being a leader in some form. Culturally the MOD commercial function has a greater appreciation of those who lead if they have 'come up through the ranks' and can readily display their commercial knowledge.

The words 'novice, risk, limited, non-procurer, inexperienced, dangerous and liability' are the most commonly used and account for $42.2 \%$ of the percentage total of words used. This suggests that those who are outside of the function are viewed with suspicion. Those who come to the function from industry, from other functions under a conversion scheme or as graduates may struggle initially to convince those they work with or manage that they are capable of leading on procurement projects. The commercial function is by its nature heavily driven by process and procedure; it is a 'steep learning curve' and it takes time to assimilate the range of knowledge required at each grade
progression and in each project. Those that are new to commercial or have failed to assimilate that range of knowledge are likely to be accorded with low regard. They will be regarded as 'dangerous' because the risk of them making a mistake in process, procedure or in negotiation can have serious consequences for the project area they are working within, which in turn affects their colleagues in terms such as timescales and reputation.

### 5.3 Status, Occupation and Personal Characteristics

Steers and Black (1994) suggest that ascribed attributes can be further divided into three categories: Status, Occupation and Personal Characteristics (SOPC).

Table 3 - Summary of SOPC for those perceived to be knowledgeable

| Number of words use by <br> commercial staff | Status, Occupation or Personal <br> Characteristics (SOPC) | \% of total SOPC |
| :---: | :--- | :---: |
| 18 | Occupation | 38.3 |
| 15 | Status | 31.9 |
| 13 | Personal Characteristic | 27.7 |

Table 3 details that the perceived knowledge of another member of procurement staff was most often indicated by ascribed attributes that related to their occupation (38.3\%). Being perceived to be experienced, commercially aware and 'professional' who is competent and has an awareness of risk associated with the processes of the function is noted as an indicator of someone who is perceived to be knowledgeable. The study shows that in order to be highly regarded an individual must be able to impress upon an observer that they are competent in the occupation. Status is seen as a secondary but important factor in determining perception of knowledgeable ( $31.9 \%$ ). Being perceived as qualified or an expert carries great weight in the commercial staff psyche where such an individual is regarded as an asset to the organisation and colleagues. However, the researcher's experience of the function indicates that 'grade' status does not equate directly to perceptions of knowledge or expertise. For example, there are personnel who are highly regarded for their knowledge and perceived expertise in particular specialist areas such as policy and cost engineering who may not have senior grades. Their status is determined by their demonstrations of knowledge and ability to assist with problem solving more than their grade. Personal characteristics are tertiary ( $27.7 \%$ ) and are headed by words that indicate a reliable problem solver. Commercial officers are presented with a myriad of complex relationship and process issues on a daily basis and, as they are subject to the whim and wane of political influence and customer requirement change; being perceived to act with flexibility and the capability of making and implementing decisions is desirable. Operating in a manner that is ethical is core to the civil service code and so the appearance of it within the list is not a surprise, its absence would have been a concern.

Table 4 - Summary of SOPC for those perceived not to be knowledgeable

| Number of words used by <br> commercial staff | Status, Occupation or Personal <br> Characteristics (SOPC) | \% of total SOPC |
| :---: | :--- | :---: |
| 20 | Occupation | 46.5 |
| 20 | Personal Characteristic | 46.5 |
| 3 | Status | 7.0 |

Table 4 summarises the ascribed attributes of someone who is perceived not to be knowledgeable, they are equally split between those related to occupation and those related to personal characteristics ( $46.5 \%$ ). The data presents a picture of an individual who is perceived to lack experience, with limited abilities in the function and who represents a risk to the organisation and the team. The personal characteristics of an individual who is regarded as not being knowledgeable are given greater weight ( $46.5 \%$ ) than those who are regarded as knowledgeable ( $27.7 \%$ ). Those personal characteristics manifest in being regarded as insular and lacking in confidence, suggesting that to the commercial staff indecision is an indicator of not being knowledgeable. However, one could argue that those who are new to a function are more likely to ask probing questions and explore processes that are often blindly followed by those who have become used to them and no longer challenge them. One might speculate that those that are 'time served' and perceived to be knowledgeable may have just reached a state of acceptance of the state of things and
that a novice could build credibility by securing Commercial outcomes that more senior and experienced staff acknowledge as best practice. This would be especially useful where more experienced colleagues of the novice operating at grades between themselves and the senior officer had advised an easier but less optimal approach.
The study indicates that status is a low factor in regarding whether someone is knowledgeable ( $7 \%$ ); this may be because low status is not generally regarded as an 'attribute'. The word 'novice' occurs more often in this study than any other word ( 15 times) with 'inexperienced' appearing seven times. Its appearance in such numbers further emphasizes the threat felt by personnel who may have to work with an individual whose lack of knowledge might cause delays, disruption or internal and external reputational damage.

### 5.6 Verbal and Non-Verbal Characteristics

Verbal and non-verbal communication does not feature very highly on the list of characteristics. Appendix 2 indicates that those who are perceived to be knowledgeable are outward looking and ready and wanting to receive communication. They are perceived to be open-minded and, through a network, able to accumulate knowledge. However, they may face a challenge to apply knowledge that is not based upon the procurement function in an environment that is constrained by process, procedure, status and hierarchy. Those that are perceived to not be knowledgeable are regarded as disinterested and ignorant and through these characteristics they are seen negatively. They are perceived to be unaware of the need to build relationships and as unsupportive and creators of uncertainty.

## 6. Conclusion

This research represents the first use of the Steers and Black (1994) model (personal communication Allen-Steers, 16 January 2017) and this study has therefore contributed to knowledge by providing a practical application of a theoretical model. The value of this research also lies in the provision of an important insight into how staff within a complex and usually difficult to access public sector procurement environment are perceived by their colleagues. With procurement personnel under increasing scrutiny to provide ever-greater value for money against continued reduction in resources, this research represents a timely commentary on the characteristics of those who are regarded as knowledgeable and those who are not. An awareness of these perceptions is important for procurement personnel and managers as it allows for the better understanding of how they are perceived and by doing so empowers them to build on strengths and identify areas for improvement.

As with all research, this study has some limitations. The study focuses entirely on the UK Ministry of Defence procurement function. The nature of the study means that no claims to generalisation are made; although the sample is taken from across the procurement function in a range of grades and with a range of experience and so one could argue that the sample size indicates that the sample is indicative rather than representational. To provide for a fuller understanding of perception utilizing the Steers and Black (1994) model further research will examine the characteristics of the situation and characteristics of the perceiver.

Proceedings of the 2017 International Conference on Industrial Engineering and Operations Management (IEOM) Bristol, UK, July 24-25, 2017

Appendix 1 - Words or phrases to describe someone who is/is not knowledgeable

| Is Knowledgeable |  |  |  |  | IS NOT Knowledgeable |  |  |  |  |
| :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: | :---: |
| Word | f | \% | Type | S/O/PC | Word | f | \% | Type | S/O/PC |
| Experienced | 14 | 8.8 | AA | O | Novice | 15 | 10.9 | AA | S |
| Aware-Commercial | 11 | 6.9 | AA | O | Risk | 9 | 6.6 | AA | O |
| Competent | 10 | 6.3 | AA | O | Limited | 8 | 5.8 | AA | O |
| Professional | 10 | 6.3 | AA | O | Non-Procurer | 8 | 5.8 | AA | O |
| Expert | 9 | 5.7 | AA | S | Inexperienced | 7 | 5.1 | AA | S |
| Qualified | 9 | 5.7 | AA | S | Dangerous | 6 | 4.4 | AA | O |
| Asset | 6 | 3.8 | AA | S | Liability | 5 | 3.6 | AA | O |
| Leader | 6 | 3.8 | AA | S | Insular | 4 | 2.9 | AA | PC |
| Aware-Finance | 4 | 2.5 | AA | O | Unaware-Commercial | 4 | 2.9 | AA | O |
| Knowledgeable | 4 | 2.5 | AA | O | Unaware-Finance | 4 | 2.9 | AA | O |
| Problem Solver | 4 | 2.5 | AA | PC | Unconfident | 4 | 2.9 | AA | PC |
| Reliable | 4 | 2.5 | AA | PC | Adversarial | 3 | 2.2 | AA | PC |
| Achiever | 3 | 1.9 | AA | S/PC | Disinterested | 3 | 2.2 | VC/NVC | none |
| Attentive | 3 | 1.9 | VC/NVC | none | Ignorant | 3 | 2.2 | NVC | none |
| Aware-Risk | 3 | 1.9 | AA | O | Ineffective | 3 | 2.2 | AA | O |
| Communicator | 3 | 1.9 | VC/NVC | none | Inflexible | 3 | 2.2 | AA | PC |
| Current | 3 | 1.9 | AA | O | Myopic | 3 | 2.2 | AA | PC |
| Ethical | 3 | 1.9 | AA | PC | UnawareRelationships | 3 | 2.2 | VC/NVC | none |
| Flexible | 3 | 1.9 | AA | PC | Acquiesant | 2 | 1.5 | AA | PC |
| Open-minded | 3 | 1.9 | AA/NVC | PC | Biased | 2 | 1.5 | AA | PC |
| Relationshipdeveloper | 3 | 1.9 | VC/NVC | none | Blinkered | 2 | 1.5 | AA | PC |
| Skilled | 3 | 1.9 | AA | O | Hindrance | 2 | 1.5 | AA | PC |
| Adds Value | 2 | 1.3 | AA | O | Incompetent | 2 | 1.5 | AA | O |
| Analyser | 2 | 1.3 | AA | O | Poor-Communicator | 2 | 1.5 | VC/NVC | none |
| Aware-Legal | 2 | 1.3 | AA | O | Unaware-Market | 2 | 1.5 | AA | O |
| Aware-Process | 2 | 1.3 | AA | O | Unprofessional | 2 | 1.5 | AA | O |
| Aware-Product | 2 | 1.3 | AA | O | Unqualified | 2 | 1.5 | AA | O |
| Enabler | 2 | 1.3 | AA | O | Untrained | 2 | 1.5 | AA | O |
| POC | 2 | 1.3 | AA | S | Category manager | 1 | 0.7 | AA | O |
| Role Model | 2 | 1.3 | AA | S | Cautious | 1 | 0.7 | AA | PC |
| Strategic | 2 | 1.3 | AA | S | Detached | 1 | 0.7 | AA | PC |
| Time-Served | 2 | 1.3 | AA | S | Generalist | 1 | 0.7 | AA | O |
| Astute | 1 | 0.6 | AA | PC | Illiterate | 1 | 0.7 | VC/NVC | none |
| Coach | 1 | 0.6 | AA | S | Illogical | 1 | 0.7 | AA | PC |
| Confident | 1 | 0.6 | AA | PC | Indecisive | 1 | 0.7 | AA | PC |
| Credible | 1 | 0.6 | AA | S | Indignant | 1 | 0.7 | AA | PC |
| Effective | 1 | 0.6 | AA | O | Intransigent | 1 | 0.7 | AA | PC |
| EmotionalIntelligence | 1 | 0.6 | AA | PC | Maverick | 1 | 0.7 | AA | PC |
| Influencer | 1 | 0.6 | AA | S | Overqualified | 1 | 0.7 | AA | O |
| Innovator | 1 | 0.6 | AA | PC | Over reliant | 1 | 0.7 | AA | O |
| Manager | 1 | 0.6 | AA | S | Parasitic | 1 | 0.7 | AA | O |
| Meticulous | 1 | 0.6 | AA | PC | Private Sector | 1 | 0.7 | AA | S |

Proceedings of the 2017 International Conference on Industrial Engineering and Operations Management (IEOM) Bristol, UK, July 24-25, 2017

| Multi Skilled | 1 | 0.6 | AA | O | Subjective | 1 | 0.7 | AA | PC |
| :--- | :---: | :---: | :---: | :---: | :--- | :---: | :---: | :---: | :---: |
| Networker | 1 | 0.6 | VC | none | Unaware-Product | 1 | 0.7 | AA | O |
| Patient | 1 | 0.6 | AA | PC | Uncertain |  | 1 | 0.7 | AA/VC/ |
|  | NVC | none |  |  |  |  |  |  |  |
| Practitioner | 1 | 0.6 | AA | O | Unethical | 1 | 0.7 | AA | PC |
| Resourceful | 1 | 0.6 | AA | PC | Unprincipled | 1 | 0.7 | AA | PC |
| Respected | 1 | 0.6 | AA | S | Unskilled | 1 | 0.7 | AA | O |
| Studious | 1 | 0.6 | AA | PC | Unsuitable | 1 | 0.7 | AA | O |
| Supportive | 1 | 0.6 | VC/NVC | none | Unsupportive | 1 | 0.7 | VC/NVC | none |
| Team-Player | 1 | 0.6 | AA | S |  |  |  |  |  |
| Vital | 1 | 0.6 | AA | S |  |  |  |  |  |

Appendix 2 - verbal and Non-Verbal Characteristics of someone who $I S / I S$ NOT knowledgeable

| $\underline{(\mathbf{2})}$ IS Knowledgeable |  |  |  |
| :--- | :---: | :---: | :---: |
|  | Word | $\underline{\mathrm{f}}$ | $\%$ |
| Attentive | 3 | 1.9 | VCpe |
| Comme |  |  |  |
| Open-minded | 3 | 1.9 | VC/NVC |
| Relationship-developer | 3 | 1.9 | AA/NVC |
| Networker | 3 | 1.9 | VC/NVC |
| Supportive | 1 | 0.6 | VC |


| (3) IS NOT Knowledgeable |  |  |  |
| :--- | :---: | :---: | :---: |
| Word | $\underline{f}$ | $\%$ | Type |
| Disinterested | 3 | 2.2 | VC/NVC |
| Ignorant | 3 | 2.2 | NVC |
| Unaware-Relationships | 3 | 2.2 | VC/NVC |
| Poor-Communicator | 2 | 1.5 | VC/NVC |
| Illiterate | 1 | 0.7 | VC/NVC |
| Uncertain | 1 | 0.7 | $\mathrm{AA} / \mathrm{VC} / \mathrm{NVC}$ |
| Unsupportive | 1 | 0.7 | $\mathrm{VC} / \mathrm{NVC}$ |

Key:
AA - Ascribed Attribute, VC - Verbal Communication, NVC - Non-Verbal Communication, S - Status, O - Occupation, PC - Personal Characteristic.

## References

Arljborn, J.S. and Freytag, P.V. (2012) 'Public procurement vs private purchasing: Is there any foundation for comparing and learning across the sectors?' International Journal of Public Sector Management, 25(3), pp. 203-22

Baumard P (1999) Tacit Knowing in Organizations. SAGE Publications (London).
Brecknell, S (2016) ‘Matt Hancock: No more "gifted amateurs" - civil servants must specialise’. Civil Service World.

Callender, G. and Matthews, D. (2004). 'The role of immanence in the future of public procurement'. International Journal of Procurement Conference Proceedings, 3, pp. 227-251.

Cassidy, M and Buede, D (2009). 'Does the accuracy of expert judgment comply with common sense? Caveat Emptor.' Management Decision, 47(3), pp. 454-469

Dick, P. and Ellis, S. (2006). Introduction to Organizational Behaviour. Maidenhead: McGrawHill Education.

Eris ED and Saatcioglu OY (2007) Supply Chain in the new economy: An approach based on Knowledge Management. Proceedings of European and Mediterranean conference on information systems (2007); June 24-26 2007; Polytechnic University of Valencia, Spain

Evetts, J., Mieg, H.A. and Felt, U. (2006). 'Professionalization, scientific expertise, and elitism: A sociological perspective, in: Ericsson K.A., Charness, N., Feltovich, P.J. and Hoffman, R.R. (ed.), The Cambridge Handbook of Expertise and Expert Performance. New York: Cambridge University Press (pp. 105-123).

Flynn, A. and Davis, P., 2014. Theory in public procurement research. Journal of Public Procurement, 14(2), p. 139.

Gau WB (2011) A study of tacit knowledge management in the public sector. Journal of Knowledge Management Practice; vol 12; no 1; March 2011

Gelderman, C.J., Ghijsen, P.W.T. and Brugman, M.J. (2006) 'Public Procurement and Eu tendering directives - explaining non-compliance’, International Journal of Public Sector Management, 19(7), pp. 702-714.

Giunipero, L. (2000), 'A Skills Based Analysis of the World Class Purchaser,' Center for Advanced Purchasing Studies.

GOV.UK (2015a). MOD Statement on Civitas Procurement Report.
Haddon-Cave, C. (2009) The Nimrod Review: An independent review into the broader issues surrounding the loss of the Nimrod MR2 Aircraft XV230 in Afghanistan in 2006.

Holste, J.S and Fields D (2010) Trust and tacit knowledge sharing and use. Journal of knowledge management. Vol 14; No 1; pp 128-140

Humphreys, P. (2001). 'Designing a management development program for procurement executives'. Journal of Management Development, 20(7), pp. 604-623.

Ittelson, W.H. (1973) 'Environment Perception and Contemporary Perceptual Theory'. in: Ittleson, W.H. (Ed.) Environment and Cognition. New York: Seminar Press.

Leach, A. (2013). MOD engages in biggest-ever purchasing recruitment campaign. Supply Management June 2013.

Lee, F. (1997). "When the Going Gets Tough, Do the Tough Ask for Help? Help Seeking and Power Motivation in Organizations." Organizational Behavior and Human Decision Processes, 72(3), 336-363.

Levin, D.Z., Cross, R. and Abrams, L.C. (2004) The strength of weak ties you can trust: The mediating role of trust in effective knowledge transfer. Management Science. Vol 50, No 11 pp 1477-1490

Lowe, D. (2013) Commercial Management: Theory and Practice. Chichester: Wiley Blackwell
Mintzberg H (1973) The nature of managerial work. Harper Row (New York).
Mullins, L.J. and Hicks, L. (2005) 'The Process of Perception', in: Mullins, L.J. (ed.), Management and Organisational Behaviour, $7^{\text {th }}$ edn, Harlow: Prentice Hall, pp. 434-69.

Neal, D and Taylor, T (2006). 'Spinning in dimes: the challenges of introducing transformational change into the UK Ministry of Defence'. Strategic Change. 15(1), pp 15-22.

Nichols, T. (2017). The Death of Expertise: The Campaign Against Established Knowledge and Why It Matters. New York: Oxford University Press

Nissen, M.E., 2010. Measuring Dynamic Knowledge Flows: Implications for Organizational. Managing Knowledge Assets and Business Value Creation in Organizations: Measures and Dynamics: Measures and Dynamics, p. 125 .

Oleksak, M. A. and Oleksak M. M. (2010). Intangible Capital: Putting knowledge to work in the $21^{\text {st }}$ Century Organization. California: Praeger

Quinn, K.A. and Rosenthal, H.E.S. (2012) 'Categorizing others and the self: How social memory structures guide social perception and behaviour', Learning and Motivation, pp. 247-258.

Santos, M.V. and Garcia, M.T. (2006) 'Managers Opinions: reality or fiction', Management Decision, 44(6), pp. 752-770.

Schapper, P.R., Malta, J.N.V. and Gilbert, D.L. (2006) 'An analytical framework for the management and reform of public procurement'. Journal of Public Procurement, 6(1\&3), pp 126.

Sie, L. and Yakhlef, A. (2009) 'Passion and expertise knowledge transfer'. Journal of Knowledge Management. 13(4), pp. 175-186.

Steers, R. M and Black, J. S. (1994) Organizational Behavior 5th Edition, Harpers Collins
Stein J and Ridderstrale J (2001) 'Managing and dissemination of competences. In Sanchez R (ed) Knowledge management and organizational competence; pp 63-76. Oxford University Press (Oxford).

Thai, K. V. (2016) 'International Public Procurement: Innovation and Knowledge Sharing' in Thai, K.V. (ed.) International Public Procurement: Innovation and Knowledge Sharing. New York: Springer, pp. 1-9

Vernon MD (1962). The Psychology of Perception. Harmondsworth: Penguin books Ltd
Wilson, J. (2010). Essentials of Business Research: A guide to doing your research project. London: Sage Publications Ltd.

Wynstra, F., van Wheele, A. and Weggemann, M. (2001). 'Managing supplier involvement in product development: three critical issues'. European Management Journal, 19(2), pp. 157-167.

Yardley, I. and Neal, D.J (2007). 'Understanding the leadership and culture dynamic within a military comntext: applying theory to an operational and business context.' Defence Studies. 7(1), pp. 21-41.

Yates, J. F. and Tschirhart, M. D. (2006). 'Decision-Making expertise', in: Ericsson K.A., Charness, N., Feltovich, P.J. and Hoffman, R.R. (ed.), The Cambridge Handbook of Expertise and Expert Performance. New York: Cambridge University Press, pp. 421-438

## Biography

Dr Robert A. Allen is a Senior Lecturer at the Centre for Defence Management and Leadership at Cranfield University. Dr. Allen holds a Master's of Science degree in procurement from University of Glamorgan and a PhD from the University of South Wales. He is a Member of the Chartered Institute of Procurement and Supply and a Fellow of the Institute of Leadership and Management. He lectures on operations management; procurement and supply chain and organisational behaviour. Dr. Allen entered academia from the UK Ministry of Defence where he served in various posts in the UK and Germany over a 24 -year period.

Simon Renfrey is a lecturer at the Centre for Defence Management and Leadership at Cranfield University. He holds a Master of Science degree in Defence Acquisition Management from Cranfield University and a Masters of Business Administration from the Open University. Simon Renfrey is reading for a PhD researching the issues surrounding the 'intelligent customer' role for public and private sector organisations that have outsourced the provision of key services. He lectures on change management, information superiority and acquisition strategy. Simon Renfrey entered academia after serving for over twenty years in the UK Armed Forces.

