

# Scaling the PEAKS of Project Management Competency

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## Introduction

Many businesses recognise project management as a core business capability, and seek to reap the benefits of proactive and effective management of projects. As a result the problems of defining and measuring competency for project managers are exercising the profession's leading researchers and practitioners alike. Project management is increasingly recognised as being an eclectic discipline, requiring mastery of a vast range of behaviours honed to suit the particular project and organisational context. Project management competency describes those behaviours that facilitate effective project management.

This paper presents two levels of work that support the development of project management competency for individuals. At a theoretical level, aspects of behaviour and performance that separate truly effective project managers from the rest can be defined. At a practical level, it is important to identify and measure individual achievement of project management competencies as a baseline from which to manage development.

The *PEAKS* framework detailed in this paper has been developed to structure the various attributes of competency, and is here applied to project management competency. The framework also suggests methods that can be employed to assess and measure the maturity of the constituent parts of project management competency. *PEAKS* addresses both the theoretical requirement by providing a cohesive and integrative framework, and the practical requirement by allowing assessment of current project management competency by individuals and/or their organisations.

## Introducing the *PEAKS* framework

Competency can be defined as "any aspect of behaviour and/or performance that results in effective and/or superior performance on the job" (Klemp 1980). Many researchers and practitioners are actively working to define competency generally, and some of these are specifically addressing project management competency. These include Boyatzis (1982), Lepsinger & Lucia (1999), Worsley & Docker (2000), and Wang (2001). However as remarked by Morris & Young (2001), there is still considerable 'softness of terminology'. In general use, terms such as knowledge, skill, attitude, ability, capability, aptitude and performance are often used interchangeably with the term competency, causing considerable confusion. In addition, some practitioners use the terms potential competence and actual competence in different ways, while others differentiate between behavioural competencies, job competencies and organisational competencies.

*PEAKS* seeks to resolve this confusion by using clear well-defined terminology, and providing a framework which is capable of addressing the full range of types of competency (Murray-Webster, 2001). The *PEAKS* framework therefore provides :

- Clear definition and distinction of terms defining the elements that comprise competency
- A set of key attributes describing project management competence
- A variety of objective mechanisms for assessing individual levels of the various elements of project management competence

The organisational benefits supported through this approach include :

- Recruitment and resourcing based on overall competency, not limited to qualification or past experience etc.
- Structuring of development opportunities to ensure that investment is made in the most appropriate areas
- A basis for recognition and reward of behaviours that support business goals
- A simple way to communicate those behaviours that are required to achieve the organisation's change agenda

The following fundamental principles underpin this work :

- Competence must be demonstrated and must be observable in a specific context
- Competence is demonstrated through appropriate and effective behaviours
- Behaviour is influenced by a subtle combination of personal characteristics, experience, attitudes, knowledge and skill

### **PEAKS Structure**

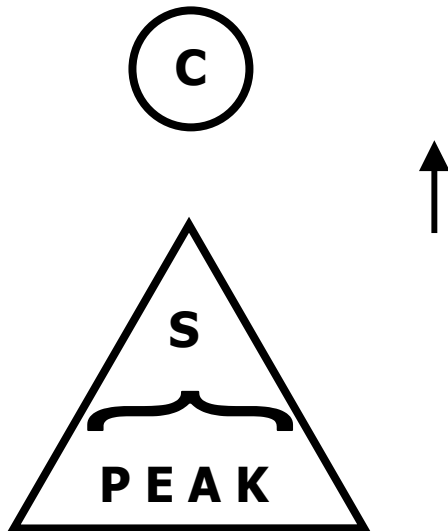
The *PEAKS* framework is structured in a way that clearly separates and defines the 'raw materials' of competency. This is achieved by distinguishing five component elements, then defining each unambiguously in a way which allows them to be assessed objectively, and finally recombining the elements into an overall assessment of project management competence.

The *PEAKS* acronym captures the understanding that competence requires the presence of five elements, namely Personal Characteristics, Experience, Attitudes, Knowledge and Skill. These must all be present for true competence to exist, whether this is in project management or any other area. The five elements are each defined and described in Table 1, with specific examples relating to project management.

<b>PEAKS element</b>	<b>Description</b>
<b>P</b> ersonal Characteristics “Who am I?”	Personal characteristics are <u>natural preferences and traits</u> . These tend to form the basis of a person’s natural reactions to situations. Some may change over time through personal development or gaining experience, but in general they are not easily influenced by traditional training. Some personal characteristics indicate an individual’s aptitude for project management. Examples relevant to project management include: self-confidence, pragmatism, or the need to be organised and to organise.
<b>E</b> xperience “What have I done?”	Experience must be <u>acquired</u> as the outcome of practising project management or working within projects. It is not only acquired in formal paid jobs, but can be obtained in other life contexts. Experience does not simply equate to time spent in a project environment, but is measured by relevant achievements. The assessment of experience will <u>always be relative to the needs of a specific organisational requirement</u> , for example: experience of relevant organisational policies, procedures and methods; or experience of project start-up & definition processes.
<b>A</b> ttitudes “How shall I respond?”	Attitudes are <u>chosen responses</u> to situations. Some attitudes may be deeply rooted, representing core values for that individual, but they nevertheless represent a choice. Other attitudes may be more malleable. Attitudes differ from personal characteristics in that they are situational responses rather than natural preferences or traits, and chosen attitudes may therefore differ depending on the context. Examples may include an attitude that planning is important, a concern for stakeholder needs, or commitment to ethical behaviour.
<b>K</b> nowledge “What do I know?”	Knowledge is <u>learned, often theoretically via traditional training, or can be gained on the job</u> . It includes familiarity with the widely-held principles about a particular subject, and the way those principles should be applied to best effect. Examples of project management knowledge areas are contained in the bodies of knowledge for the major project management professional organisations and in related standards and guidance documentation.
<b>S</b> kills “How ably do I apply...?”	Skills are learned, but must be <u>learned experientially</u> . They are more accurately described as being the skilful application of P, E, A and K as described above. For example the skill of planning (i.e. the ability to plan effectively) requires (as a minimum) : a personal characteristic to need to be organised and to organise; experience of planning, relevant planning tools and methods; an attitude that planning is important; and knowledge of how to plan scope, time, cost, quality etc.

**Table 1 : The Five Core Elements of Competency**

Figure 1 illustrates diagrammatically the relationships between the *PEAKS* elements, showing that the four basic elements of Personal Characteristics, Experience, Attitudes and Knowledge form a foundation, but these must all be applied with Skill in order to produce the appropriate behaviours associated with Competence.



**Figure 1 : Relationship between *PEAKS* elements**

*PEAKS* is a general competency framework, with wider applicability than just project management. However to enable it to be used in practice to assess competence, it is necessary to define each of the five *PEAKS* elements more fully, specifically in relation to the particular field of competence being addressed. Table 2 (at the end of this paper) presents a sample set of *PEAKS* attributes for each element as applicable to the project management discipline. This sample set is presented for illustrative purposes only, and should be reviewed and customised by any organisation wishing to use *PEAKS* in practice, in order to cover the specific areas of project management competency relevant to their business. The attributes suggested in Table 2 highlight the eclectic and complex nature of project management. This can give rise to some paradoxical sets of requirements, for example project managers need to be willing and able to take decisions and control change, whilst being equally willing and able to delegate and allow team members to take responsibility.

### **Assessing individual project management competency using *PEAKS***

The concept of maturity is important when assessing individual levels of competency using the *PEAKS* framework. This is because the components of project management competency which really make a difference to effective project management are not usually either categorically present or definitively absent. They will be present in degrees, and most (other than some personal characteristics) can be developed in some way.

A range of assessment mechanisms are therefore needed to fully assess P, E, A, K and S and to observe whether competent behaviour is being demonstrated.

The most effective mechanisms rely on the attainment of objective evidence, and are not based entirely on self-perception. Such mechanisms might include :

- Examinations or tests requiring selection of right/wrong answers
- Questionnaires designed to reveal individual preferences
- Behavioural event interviews, describing actual events and behaviours deployed
- Observing behaviours through job simulation and/or role play
- Review/audit of actual project processes and documentation

Table 3 suggests mechanisms which might be most appropriate to assess each *PEAKS* element, together with possible routes for developing what is required for improved competence.

<b>PEAKS element</b>	<b>Assessed by...</b>	<b>Improved/Developed by...</b>
<b>Personal Characteristics</b>	<ul style="list-style-type: none"> <li>• Behavioural events interview</li> <li>• Personality/Preferences tests</li> <li>• Emotional Intelligence profiling tools</li> <li>• Self-reflection</li> <li>• 360° feedback</li> </ul>	<ul style="list-style-type: none"> <li>• Consistently modified personal choices, supported with developing the person 'inside' through coaching. [Note that some personal characteristics are inherent or innate, and may not be amenable to development.]</li> </ul>
<b>Experience</b>	<ul style="list-style-type: none"> <li>• Interview</li> <li>• CV review against organisational needs</li> <li>• 'Desk-top' simulations</li> <li>• Observation on the job</li> <li>• Demonstration of relevant achievements</li> <li>• Project review/audit</li> </ul>	<ul style="list-style-type: none"> <li>• Working in a relevant project mode</li> <li>• Job rotation – different experiences</li> <li>• Structured career path</li> </ul>
<b>Attitudes</b>	<ul style="list-style-type: none"> <li>• Behavioural events interview</li> <li>• Observation</li> <li>• Self-reflection</li> <li>• 360° feedback</li> <li>• Case study/scenario-based assessment</li> </ul>	<ul style="list-style-type: none"> <li>• Different personal choices, perhaps preceded by coaching or mentoring, with suitable regular feedback and reinforcement</li> </ul>
<b>Knowledge</b>	<ul style="list-style-type: none"> <li>• Examination or testing via : <ul style="list-style-type: none"> <li>• Multiple choice questions</li> <li>• Essay questions</li> <li>• Scenario analysis</li> </ul> </li> </ul>	<ul style="list-style-type: none"> <li>• Self-directed learning, including reading, discussion etc.</li> <li>• Training courses (classroom or distance/electronic learning)</li> <li>• On the job learning</li> <li>• Attending seminars, conferences etc.</li> <li>• Participation in professional bodies</li> </ul>
<b>Skills</b>	<ul style="list-style-type: none"> <li>• Role play</li> <li>• Job simulation</li> <li>• Observation</li> <li>• Project review/audit</li> </ul>	<ul style="list-style-type: none"> <li>• Training courses with experiential learning</li> <li>• Coaching</li> <li>• Working with 'role models'</li> </ul>

**Table 3 : Assessment and improvement methods for each PEAKS element**

A 'maturity model' approach can be used with the *PEAKS* framework to indicate a level of attainment of the element in question from a range of possible levels, along with an identified path to achieve higher levels. This allows those using *PEAKS*, whether individuals or organisations, to benchmark current competence against an agreed framework, and also to set defined improvement targets by

aiming to achieve the next level of maturity. Proposed maturity levels for each *PEAKS* element are given in Table 4.

<i>PEAKS</i> element	Level 1	Level 2	Level 3	Level 4
<b>Personal Characteristics</b>	Unsuited	Neutral	Well suited	Ideal
<b>Experience</b>	Inexperienced	Moderate	Appropriate	Extensive
<b>Attitudes</b>	Antagonistic	Neutral	Supportive	Promoting
<b>Knowledge</b>	Novice	Improver	Proficient	Expert
<b>Skills</b>	Layman	Apprentice	Practitioner	Master

**Table 4 : Maturity levels for each *PEAKS* element**

Each element is defined with four possible levels of maturity, where Level 1 represents a starting position. At Level 1 a person does not possess the required attributes associated with competence. Level 2 indicates that sufficient attributes are present to support a basic level of competence, with Level 3 defining good competence. The highest level in the *PEAKS* framework, Level 4, is presented as a stretch target and represents the highest degree of maturity and competence.

It is unlikely that a single individual will be at the same maturity level for all five elements within the *PEAKS* framework. For example a person embarking on a career in project management may display suitable personal characteristics and attitudes, but will not have attained the required experience, knowledge or skills to be fully competent. The pattern of strengths and weaknesses revealed by assessment against the *PEAKS* framework will however indicate areas requiring improvement and development, and the next level within the model defines attainment targets for each element. An organisation or an individual may set an overall goal to reach Level 3 in all *PEAKS* elements, as part of a personal development plan or career strategy.

An example of the recommended maturity model approach to assessment is presented in the following section, addressing project management knowledge – the K of *PEAKS*.

### **Example assessment approach for project management Knowledge**

Typical methods currently used for assessing project management knowledge fall into two categories :

- ‘Examination’ based – where there is one ‘right’ answer and one or more ‘wrong’ answers.
- Self-assessment based – where the respondent provides their opinion of their level of project management knowledge.

Each of these existing approaches has strengths and weaknesses. Examination based models with single ‘right’ answers are easy to administer and interpret, but cannot adequately reflect the complexity of the subject. Self-assessment based models are easy to develop but are inherently biased by the optimism or pessimism of the respondent.

To overcome these weaknesses, a *PEAKS* knowledge indicator has been developed which takes a different approach. A multiple-choice questionnaire is used to assess knowledge across a range of knowledge areas (currently 25). Each question has five possible responses but only one of these is ‘incorrect’ – mapped to a knowledge level of *Novice*. Other answers represent a basic or partial answer, a good answer and an advanced answer, mapped to knowledge levels of *Improver*, *Proficient and Expert* respectively. A ‘Don’t know’ option is also provided, which is mapped to the *Novice* knowledge level. This approach indicates the degree of ‘maturity’ of project management knowledge, rather than just testing ‘right or wrong’.

An output report can be generated which outlines the level of knowledge in each of the 25 knowledge areas as indicated by the answers chosen. These results can then be used to provide a valuable input

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for self-reflection, discussion and planning of development activities to take individuals from their current level of project management knowledge to the desired level.

## Conclusion and summary

The *PEAKS* framework presents a simple definition of the key attributes of project management competency, allowing current levels to be assessed on a pragmatic basis. *PEAKS* makes a significant and original contribution to the field of competency assessment by pulling together commonly-used terms and concepts into a coherent framework that is easy to understand and apply.

Individuals or organisations wishing to improve effectiveness of their project management need to be able to measure current capability and to define improvement targets. The maturity-model structure associated with the *PEAKS* framework allows diagnosis of the current position against each *PEAKS* element. It also defines next-level 'targets', which allows improvement to be planned and provides a foundation for measurement of progress. This maturity approach requires creativity and time to implement, but is significantly more objective and meaningful than other approaches based on self-assessment or examination.

Early indications are that organisations will find this pragmatic approach both valuable and cost-effective, since *PEAKS* allows them to assess their project management staff against agreed criteria, set bespoke targets for improvement rather than a single solution for all, and measure progress towards enhanced project management competence.

## References

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this quest. These include maturity models for assessing organisational project management and risk management, as well as individual project management competency.

**Table 2: Sample Attributes for each PEAKS Element**

Personal Characteristics (natural preferences/traits)	Experience (acquired)	Attitudes (chosen responses)	Knowledge (learned)	Skills (learned experientially)
<b>CHANGE</b> Seeks out and is comfortable with change	<b>PROJECT PROCESSES</b> Start-up and definition processes	<b>ORGANISATION/PROJECT</b> Willing to champion a cause or mission and own the outputs	<b>ORGANISATIONAL CONTEXT</b> Project environment & context	<b>PROJECT PROCESSES</b> Define project requirements
Appetite for uncertainty (risk appetite)	Planning processes	Prepared to serve the aspirations of the organisation regardless of personal agenda	Project processes & phases	Plan projects
Enjoys problems	Executing processes	Willing to play at organisational politics	Business benefits & project objectives	Estimate and forecast
<b>THINKING</b> At ease with prioritisation & decision making	Controlling processes	Supportive of organisation/project values and desired culture	Project organisation - structure & roles	Monitor projects
Critical thinking	Closure processes	Concern for stakeholder needs	Programme management	Control projects
<b>FOCUS</b> Need to be organised and to organise	Professional responsibility	Planning is important	<b>SCOPE, QUALITY, RISK AND VALUE</b> Stakeholder and value management	Close projects
Need to deliver results/achievement oriented	<b>BUSINESS PROCESSES</b> Managing stakeholders	Concern for quality and safety	Quality & regulatory management	<b>COMMUNICATION</b> Obtain information/interview
Pragmatic	Relevant quality & regulatory standards	Concern to learn from experience – Improvement focus	Risk management	Communicate in writing at all levels (business, technical, relevant language)
<b>DRIVE</b> Self-driven and tenacious	Strategic analysis and choice	<b>PERSONAL VALUES</b> Concern for ethical behaviour	Process review	Communicate verbally at all levels (business, technical, relevant language)
Self-confidence which is independent of the external context (self-sustaining)	Business analysis	Team approach – willing to rely on the experience & qualities of others	<b>TIME AND COST</b> Appraisal techniques for evaluating options	Facilitate
Sustained energy and enthusiasm	Marketing and new business acquisition	Willing to let others grow and develop (self-actualise)	Estimating	<b>LEADERSHIP</b> Influence – empowerment without control
<b>LEADERSHIP/TEAM MANAGEMENT</b> Seeks out face to face communications	Problem solving	Willing to listen	Time scheduling & phasing	Managing information (gathering, assessing, integrating, organising & documenting)
Charismatic and inspirational	<b>LEADERSHIP/TEAM MANAGEMENT</b> Negotiation and conflict resolution	Possibility thinker ('can-do' attitude)	Budgeting & cost management	Critical thinking and rational decision making
Intuitive and sensitive to the needs of others	Leading and managing people	Assertive (win/win approach)	<b>HUMAN &amp; MATERIAL RESOURCES</b> Management of internal & external project resources	Building, leading and motivating teams to ensure commitment, respect and loyalty
Adaptable (behaviours and approaches)	<b>SECTOR/ORG/TECHNOLOGY</b> Relevant policies, procedures, methods and culture	Prepared to take appropriate risks (risk attitude)	Contract law	Resolve conflicts
Integrity	Relevant tools (project management and information processing)	Prepared to take responsibility, even if official authority is weak	Team management & team working	Transfer knowledge (coaching, mentoring, training)
Able to handle anxiety of self and others effectively	Relevant information technology	Professionalism	Leadership	Establish effective working relationships
<b>SELF-MANAGEMENT</b> Self-controlled	Relevant data and/or knowledge management		Negotiation & conflict management	Network effectively
Self-awareness and regulation (part of Emotional Intelligence)			<b>CONTROL AND COMMUNICATION</b> Project communication needs & methods	Manage self development
			Change & configuration management	Counter threats and realise opportunities
			Measuring project performance & business benefits	Balance conflicting stakeholder expectations
			Earned value management	<b>BUSINESS PROCESSES</b> Resource & capacity planning
			Project administration	Control budgets
			Project management planning	