# Competency

Knowledge alone is not enough! To be effective in any sphere of life you need to be capable of applying knowledge effectively to achieve the desired outcome; this is competency. However, to be really effective you not only need to be capable of being competent, you need to be willing to act, to use your capability effectively. Effective (ie, competent) managers need to know what should be done, have the skills to do the work and be willing to actually do the work.

- Knowledge without the capability to make use of it is useless.
- Capability without knowledge is non-transferable a person knows how to do what they do but no more (*monkey see – monkey do…*).
- Attitude, ie, the willingness to apply your knowledge and capability to the benefit of the organisation/project is the key element for success.

Knowledge + Capability + Attitude = Competence
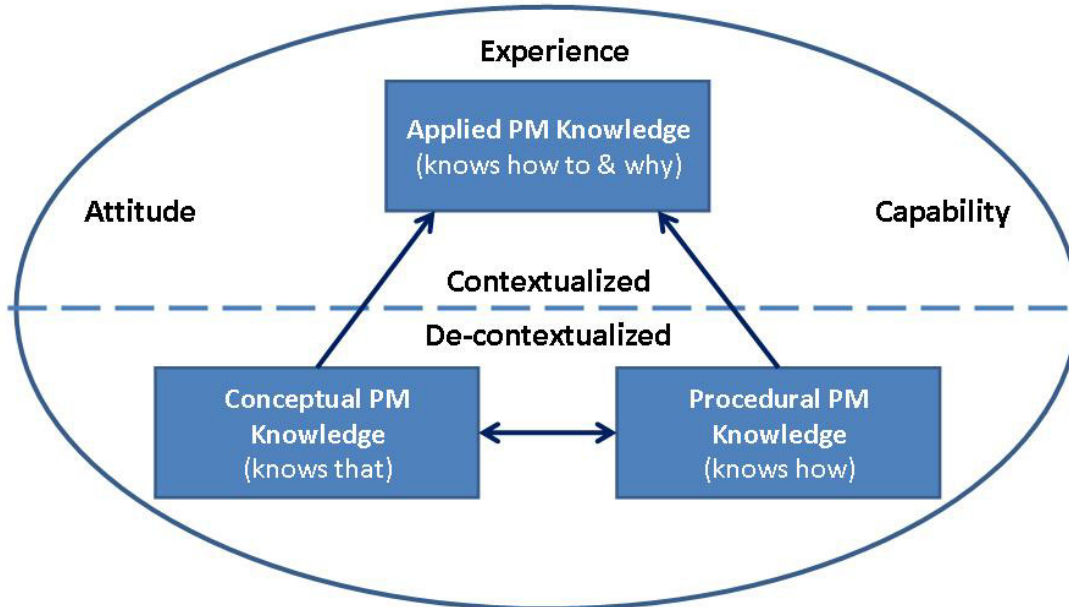
Project management knowledge falls into three parts:

- Conceptual knowledge is learned from a book and forms the core element of examinations such as the PMP and CAPM[1] (ie, a knowledge of generally accepted good practices that are applicable to most projects most of the time).
- Procedural knowledge takes the conceptual 'theory' and places into a methodological framework; the conceptual idea can be applied using tools or techniques.
- Applied knowledge uses these two knowledge underpinnings to support the logical application of the knowledge within a specific context. The abstract theory and procedures are able to be adapted and applied in a specific work context. Being willing and able to actually apply the knowledge is the shift from knowledgeable to competent. This level of knowledge is enhanced by previous experience

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[1]   For more on the **PMI credentials of PMP and CAPM** see: https://www.mosaicproject.com.au/

or support from a mentor to assist in making the best adaptations for the desired outcome. Relevant experience means the necessary decisions[2] and trade-off required to adapt to the current circumstance are more likely to be correct, more often.

Putting this into context, project managers agree that having an effective schedule is important and also know they need knowledge of CPM theory (the conceptual knowledge). Knowing how to enter data into their scheduling software correctly and generate reports is procedural (or process) knowledge. Then applying this knowledge to produce a realistic and achievable schedule for a specific project makes the knowledge useful in the current context of the project (the knowledge has been appropriately applied). However, simply creating a schedule is not sufficient – the project manager then needs to willing and able to make effective use of the schedule if it is going to add value to the project delivery process. Competency in scheduling is demonstrated by the use of the schedule to achieve a beneficial outcome for the project!

Dreyfus & Dreyfus in 'A Five-Stage Model of the Mental Activities Involved in Directed Skill Acquisition' proposed five levels of competency:

1. Novice: Rule-based behaviour, strongly limited and inflexible

2. Experienced Beginner: Incorporates aspects of the situation

3. Practitioner: Acting consciously from long-term goals and plans

4. Knowledgeable practitioner: Sees the situation as a whole and acts from personal conviction

5. Expert: Has an intuitive understanding of the situation and zooms in on the central aspects.

The expected competency level will be different depending on where the project manager is and should be based on the question, *'what level of competence will be needed for this project?'* Different types of project will require different levels of competency and therefore different levels of project manager[3].

The KSA Model

KSA is a similar concept to the model above that also recognises the multi-faceted aspect of competence. KSA = **Knowledge, Skills and Abilities**. In this model *skills* are closely aligned with *capability*, and *ability* with *attitude*. Examples of elements within the KSA model are:

- **Knowledge**
  - Educational Background
  - Certification
  - Health & Safety
  - Knowing how to use a PM tool such as Microsoft Project
  - Compliance to regulations

- **Skill**
  - Communication
  - Technical skill
  - Stakeholder management
  - Cost management
  - Time management

- **Ability**
  - Result oriented
  - Problem solver
  - Commercial acumen
  - Agility
  - Work under pressure

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[2]   For more on **decision making** see: https://www.mosaicprojects.com.au/WhitePapers/WP1053_Decision_Making.pdf

[3]   For more on **project typology** see: https://www.mosaicprojects.com.au/WhitePapers/WP1072_Project_Size.pdf

The PEAKS framework

Developed by Dr Ruth Murray-Webster and Dr David Hillson, the PEAKS framework includes:

- Five essential elements that contribute to competence
- Specific attributes under each element, describing competence in a particular role
- Assessment mechanisms for each attribute

The five PEAKS elements are:

- **Personal characteristics** ("Who am I?") - natural traits/preferences that are essential for the role
- **Experience** ("What have I done?") - relevant personal time spent practising this role or a similar role
- **Attitude** ("How shall I respond?") - chosen responses to situations encountered in the role
- **Knowledge** ("What do I know?") - facts, principles, processes that are learned through formal training and education or on-the-job
- **Skill** ("How do I apply the other elements?") - putting it into practice and learning through experience

To develop a PEAKS framework, you first define the required attributes under each of the five elements, then for each job role determine the level of maturity that is required for each attribute.

Assessing Competence
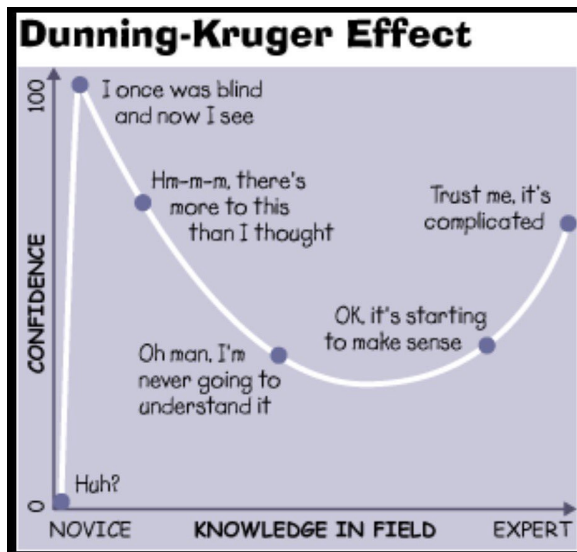
Confidence should never be confused with competence. Confidence is frequently a symptom on not understanding the situation fully. This is called the Dunning-Kruger effect, which is a cognitive bias in which people of low ability have illusory superiority and mistakenly assess their cognitive ability as greater than it is. Expert's are more aware of the full set of complexities and what can go wrong, as well as how to get it right most of the time. Competent people know the risks and know how to manage them[4].

The definition and assessment of competency is based on a defined structure. First, there are three basic elements within the project management competency framework:

- **Technical competencies** – what you do or produce (*knowledge* and *skills*). Technical competences are aligned with the traditional project management disciplines, cost, time and quality management and a set of technical methods that are used to prepare and execute projects.

- **Contextual competencies** – how you work within the organisation / environment (*experience* and *skills*). Contextual competences are associated with the context of the project, its connection with its

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[4]   For more on **Dunning-Kruger** see: https://en.wikipedia.org/wiki/Dunning%E2%80%93Kruger_effect

environment and the link between the project and the performing organization through sponsorship, procedures, portfolio and programs.

- **Behavioural competencies** – how you operate in the workspace and interact with people (*personal characteristics* and *attitude*). Behavioural competences have to do with the way people act and behave in situations of: leadership, conflict[5], communication, and personal development, including ethical aspects[6].

Then each element of competence is assessed in terms of:

- **Knowledge;** what you know (tested by exams).

- **Skills;** the capability to effectively apply the knowledge in the workplace and the artefacts produced. PMI have introduced the Talent Triangle® to describe the three key skill sets needed by project managers[7]:
  - o Technical project management – the technical aspects of performing the role of project, program or portfolio manager.
  - o Leadership[8] – the ability to effectively lead your project team.
  - o Strategic and business management – the ability to work within the organisation to deliver better outcomes for the organisation.

- **Attitude**; how willing or effective you are in applying the skills, measured by your ability to accomplish things.

This is normative competence and is the structure of PMI's Project Manager Competency Development Framework and virtually every other professional competency framework including those developed by the AIPM, IPMA and GAPPS.

However, these frameworks date back to the industrial age where task repetition was common and one could learn the best-in-class approaches and emulate these to deliver new tasks. In the 'age of knowledge' this is probably not sufficient, competent project managers in the 21st Century need to grow beyond normative thinking and embrace transformative practice. Project management competence is shifting from a process view towards autonomy; self reference and group self organisation. These qualities empower professional project managers to perform well despite prevalence of complexity and rapid change. They develop customised solutions for each new, unique, occasion; implementing the new solution requires the use of existing knowledge but will also generate new knowledge.

This constructivism theory has a basic assumption that each time you perform a new activity you build on your existing knowledge to acquire new insight and competence, and consequently engage in continuous learning. To be really effective, the organic 'on-the-job' learning should also be reinforced with the acquisition new information from journals, innovative courses, discussions with colleagues and participating in communities of practice.

Consolidating the new learning into tangible and useful knowledge needs reflection (to understand what has been learned) and possibly the assistance of a mentor[9] to help unlock the complex factors needed to grow within yourself, develop creative solutions, and find new ways to succeed.

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[5] For more on **conflict management** see: https://www.mosaicprojects.com.au/WhitePapers/WP1041_Managing_Conflict.pdf

[6] For more on **ethics** see WP1001: https://www.mosaicprojects.com.au/WhitePapers/WP1001_Ethics.pdf

[7] For more on the **PMI Talent Triangle®** see: https://www.mosaicproject.com.au/exam/ccr/talent-triangle/

[8] For more on **leadership** see: https://mosaicprojects.com.au/WhitePapers/WP1014_Leadership.pdf

[9] For more on **mentoring** see: https://mosaicprojects.com.au/Training-PM-Coach.php

Yesterday's competence is the foundation on which you can build tomorrows, but relying solely on yesterday's skills is insufficient! Competent project managers know they need to keep learning and developing. This is driven by attitude!

Personal Attributes

A study by Dr. Paul D. Giammalvo[10] identified the essential attributes that are reliable predictors of the success of a Project Manager. Attributes translate into attitude! The core attributes are:

1. **Takes Initiative** - a self starter.
2. **Enthusiastic** - Able to motivate[11] and energise those around them;
3. **Finance/Business** - A "natural head" for business.
4. **Wants to lead**
5. **Analytical** (but not overly so) - Able to gather enough facts to make sound business and technical decisions, but not succumb to *paralysis by analysis*.
6. **Handles Autonomy** - Able to take the initiative, and be enthusiastic, but also able to figure out what needs to be done and when. These people do ***not*** have to be told what to do nor when to do it.
7. **Wants Challenge** - Tends to be impatient and easily bored and wants to attempt difficult tasks.

Personal attributes that are highly detrimental to success, ie, it is unlikely that people with these characteristics would succeed as project managers at all include.

1. Defensiveness
2. Rebellious autonomy
3. Impulsiveness
4. Rigidly meticulous
5. Rigidly organised
6. Evasive
7. Fast but imprecise
8. Dogmatic
9. Harsh.

The key characteristics of a project manager[12]

Most effective project managers (from their supervisor's point of view) are:

Conscientious – sticks to deadlines, completes jobs, perseveres with routine, and likes fixed schedules

Vigorous – thrives on activity, likes to keep busy, and enjoys having a lot to do

Controlling – takes charge, directs, manages, organizes, and supervises others

Socially confident – comfortable with strangers and likes to put others at ease

Evaluative – critically evaluates information, looks for potential limitations, and focuses upon errors

Persuasive – enjoys selling, changes opinions of others, convinces with arguments, and negotiates

Behavioural – analyses thoughts and action, psychologically minded, and likes to understand people

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[10] Behavioural Profiles of Successful Project Managers, a pilot research study by Dr. Paul D. Giammalvo of PTMC/APMX and John Suermondt of Harrison Assessments.

[11] For more on ***motivation*** see WP1048: https://www.mosaicprojects.com.au/WhitePapers/WP1048_Motivation.pdf

[12] See: ***What characteristics make a good project manager?***: https://mosaicprojects.wordpress.com/2011/10/18/what-characteristics-make-a-good-project-manager/

The traits that make a good project manager are quite different to the attributes of a competent planner and scheduler as defined in Mosaic's core scheduling paper *The Roles and Attributes of a Scheduler*[13].

Personality

Personality exists in every person. It can be defined as *"The particular combination of emotional, attitudinal, and behavioural response patterns of an individual"*. These are determined by genetics and hereditary factors (*nature*) combined with the effects of up-bringing, culture, environment and experience (*nurture*). It is unknown what the relationship of these two factors is to a perceived personality. There is a large amount of research around personality and its relationship to leadership. Therefore, a reasonable extrapolation would be to assume based on the links made between leadership and project management it may be possible to find a relationship between personality and project management leadership, but leadership is only one function of the project management and effective managers work with their personality. My feeling is an effective project manger is a construct:

- The foundation is underpinning project management knowledge – if the manager does not understand the value of project management processes and procedures his/her projects are more likely to fail.
- This knowledge needs to be able to be used – the person needs to be capable of applying project management knowledge effectively towards delivering a successful project outcome.
- The person's capabilities have to be used effectively; this is behavioural competence and is the real measure of a successful project manager. Knowing what needs to be done in theory, being capable of effectively applying the theory in practice and being willing to actually do the work, and do it well.
- Personality is the icing on the cake – the right personal attributes will make achieving the desired outcomes easier for the project manager to achieve. Personality and behavioural competence are likely to be closely linked but do have quite different perspectives. However, personality alone is useless; if the underpinning project management competencies do not exist then personality is irrelevant.

Assessing Employees, Credentials -v- Competency

No single assessment process is ever going to provide a guarantee of a person's suitability for employment in a particular organisation. Holding a PMP demonstrates knowledge, other assessments are competency based; nether on their own provide the complete answer.

Competency is demonstrated in a specific a time and location. There is no guarantee the competent person will perform as well in a different setting with different people, cultures and relationships. Whereas, the disadvantage of a knowledge-based assessments is that there is no indication if the person can apply the knowledge effectively in the workplace. But,employers need competent employees[14]!

The most important element for success, both from an individual's perspective and the employer's perspective is the right attitude, founded on personal attributes. However, both employers and employees need to be careful to avoid misplaced confidence; confidence should never be confused with competence. Most Australians are only too aware the saying 'she'll be right mate' usually indicates a significant problem.

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[13] The **Roles and Attributes of a Scheduler**:
https://www.mosaicprojects.com.au/PDF-Gen/Attributes_of_a_Scheduler.pdf

[14] For further discussion see: https://mosaicprojects.wordpress.com/2010/01/29/the-value-of-your-pmp-qualification/