

# Using the National Qualifications Framework for Competency Development in a Public Sector Organisation

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In today's corporate climate where "restructure" is an almost annual occurrence, organisations have become proficient at developing new strategic policy statements and identifying core competencies needed to achieve these goals. However, the issue of identifying current competencies, gaps in competencies and the ability to develop new competencies is still an area where organisations struggle to achieve success.

For organisations attempting to tackle these issues there are a multitude of challenges that need to be met, including, where to begin. When Rail Infrastructure Corporation (RIC), the public sector owner and maintainer of the rail infrastructure in New South Wales, Australia, identified one of their core competencies as project management they approached the University of Technology Sydney for assistance. Under the guidance of Dr Lynn Crawford and her team they were able to design, build and implement a comprehensive assessment and development process.

The foundation for the RIC programme is the Australian National Qualifications Framework. The framework provides a consistent and stable platform from which to build auditable, compatible and defensible development processes. By utilising the specific research conducted by Dr Crawford in the area of project management competency a generic framework of competency assessment and development was designed and built to enable RIC to uniformly and consistently identify, assess and develop new competencies across all domains.

## **Background**

In order to be able to implement a successful professional development program within RIC the field of project management competency needed to be developed. Prior to 1997 limited work had been done in the field and as yet the concept of competency based assessment in the field of project management was in its infancy. The first government endorsed competency standards for project management were the Australian standards, endorsed by the Australian National Training Authority in July 1996.

In 1997, at the University of Technology, Sydney, Dr Crawford began her research into the development of a competency based assessment profiling process for project managers. This research was completed under the auspices of an Australian Research Council Grant, in collaboration with industry and project management professional associations from around the globe. The results of this research included the development of individual profiles and benchmarks of project management knowledge and use of practices, as well as a general framework for competency assessment and development, job design and selection of project personnel for improved project performance.

In the absence of globally developed and accepted standards, the research used the:

- PMBOK® Guide as the basis for assessment of levels of PM knowledge
- Australian National Competency Standards for Project Management (1996) as the basis for assessment of levels of use of PM practices

Participating organisations have received internationally benchmarked organizational competency profiles which they have used in assessment and development of the project management competence of their organization and their people. Participating project personnel have received individual competency profiles that provide feedback and guidance for professional development.

The two main instruments in the Project Management Knowledge and Practices Assessment process were developed and tested with a sample of over 350 project personnel, primarily from Australia, USA and the United Kingdom. These two instruments, described in more detail below, formed the basis for the professional development program implemented within RIC.

### ***1. Assessing Project Management Knowledge***

This is a test, which uses the PMBOK® Guide as the knowledge standard. It is intended to identify the extent of a person's knowledge of formal project management processes and terminology as common understanding of meaning and use of terms, tools and techniques is vital to effective working within and between organisations, on projects.

The instrument includes 45 multiple choice questions grouped under the headings of the nine knowledge areas: Integration, Scope, Time, Cost, Quality, Human Resources, Communication, Risk and Procurement.

### ***2. Assessing Use of Project Management Practices***

Self-assessment against the Australian National Competency Standards for Project Management (ANCSPM) provides a picture of the extent to which respondents use formal project management practices. The Competency Standards are written at three levels against the Australian Qualifications Framework (AQF). The three levels at which the Australian National Competency Standards for Project Management are written (AQF Levels 4, 5 and 6) generally equate to the following project management roles:

AQF Level 4: Team member or specialist

AQF Level 5: Project Manager of well defined projects

AQF Level 6: Manager of multiple or complex projects; strategic role

The final stage in the development of the competency based assessment model was to web-enable the tools and build a support structure around them to enable organisations around the world to utilise the framework. This was completed in 2002.

## **Implementing a Professional Development Program**

The development of the competency assessment framework and the assessment instruments then leads on to the implementation of a professional development process based on the competency assessment model as was done in RIC.

For each individual assessed and profile is created and used as the basis for developmental recommendations

The PM Knowledge and Practices feedback is being used by organisations to assess and recognize the project management competence of their workforce and to identify areas of project management knowledge and practice in which there is:

- **Need for training and development**
  - By large groups of individuals – leading to in-company courses
  - By small groups or individuals – leading to investigation of courses offered externally
- **Need for development of corporate project management practices or methodologies to encourage and support use of practices**
- **Need to provide individuals with appropriate work experience, mentoring and coaching**

The profiles also assist in identifying those individuals who are able to act as mentors and coaches.

The web based Project Management Competency Assessment process includes a Professional Development Report that assists individuals in interpreting results and offers suggestions as to ways in which they might choose to develop their project management skills and knowledge based on their individual profile.

Some organisations have begun using this PM Knowledge and Practices assessment process as one of a number of inputs to the recruitment and selection process. However, while the reliance upon self-assessment for the use of practices profile has proved generally satisfactory for developmental purposes, these results need to be treated with considerable caution in a recruitment context. The use of a Project Management Skills Assessment Interview, as outlined below, as part of the recruitment process, perhaps for pre-qualified applicants, can overcome this limitation.

### **Project Management Skills Assessment Interviews**

Reliance on self assessment, necessary in the interests of cost efficiency, was always considered a potential weakness of the process. As part of the ongoing research, an extension to the process was commenced.

The intention was to develop a well documented and replicable process for Project Management Skills Assessment Interviews, to be conducted by trained workplace assessors, enabling individuals and organisations to choose between reliance on the self assessment and opportunities for feedback and verification by an independent third party

This research has been completed and successfully implemented with 120 project professionals. This stage of the competency assessment process results in a detailed report delivered to the individual outlining their current level (AQF) of performance for each of the performance criteria within the Australian National Standards for Project Management Competency. The report also guides the individual as to the level of evidence they have or are likely to have in the near future for the purpose of workplace assessment and recognition of competence.

This report not only validates a candidate's perception of their skills and experience but also provides a detailed gap analysis and bridging mechanisms. It also provides detailed individual developmental advice and guidance.

## **Case Study: Rail Infrastructure Corporation**

### ***Background***

Rail Infrastructure Corporation (RIC) is the current public sector owner and operator of the New South Wales (NSW), Australia, rail network infrastructure. They are responsible for 8700 kilometres of rail tracks, more than 5000 rail bridges as well as signalling and communications over the entire network. This network supports over 900,000 passenger journeys each day as well as over 220,000 tonnes of freight movements.

The operator of the rail network in NSW was fragmented in 1996 to improve efficiencies. In 2001 four of the fragments were re-amalgamated to form Rail Infrastructure Corporation (RIC), which today has the charter of ensuring safety throughout the network by providing an integrated service to all users. To achieve this RIC has become a project oriented organisation.

Following the amalgamation of the independent organisations into one unit a number of challenges were identified. One of the core competencies needed to achieve success in meeting these challenges was Project Management. The strategic needs identified included:

- enhance corporate PM capability
- provide opportunities and support for development of good PM skills
- provide the PM system, methodology and tools to assist people managing projects
- demonstrate good PM skills
- ensure an auditable process

To achieve these aims a research agreement with the University of Technology and RIC was formed to research the current competencies within RIC and develop an ongoing process of assessment, development and recognition of project management competence within the organisation.

### ***The RIC Process***

Following an intensive year of investigation into the then current PM practices within RIC a customised professional development programme for project management was developed based on the Project Management Competency Assessment Framework developed by Dr Crawford. The process is as follows:

1. Setting the baseline
2. Assessing PM competence
3. Identifying the gaps
4. Agreeing on developmental targets (between individuals and managers)
5. Developing professional development plans (PMPDP)
6. Establishing developmental resources
7. Monitoring progress

Setting the baseline was achieved through assessing 150 current project personnel at all levels of project involvement. From this a clear picture was achieved of the current competencies being applied within the different components of RIC.

The next stage of the development process is the ongoing assessment of PM competencies within the organisation. Using the model of competency assessment developed by Dr Crawford (Fig. 1.1), Threshold Performance Assessment was identified as suitable for the RIC situation. Using the combination of web-technology, work place assessor interviews and human resource infrastructure a balance between, cost effectiveness, ease of implementation & maintenance and rigour was achieved.

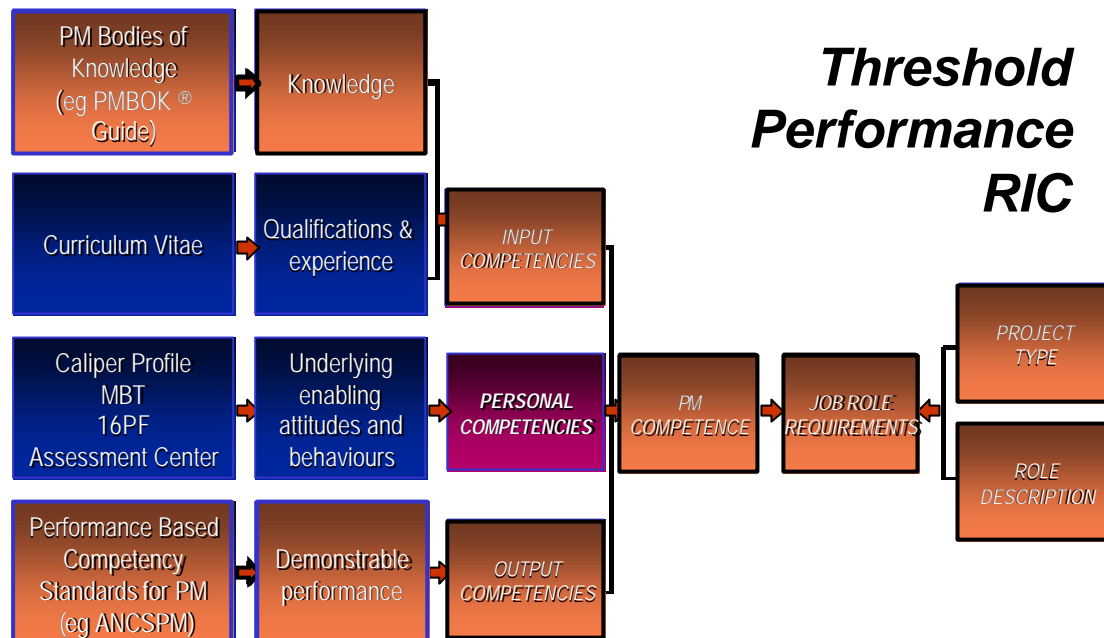


Fig 1.1

The outputs of the assessment process include feedback on the individual's,

- current competencies
- desired competencies
- relationship to international benchmarks (gathered from global studies conducted by Dr Crawford)

all of which provide the inputs into the professional development process.

Once gaps in competencies are identified a process of professional development planning is begun. This process is supported by a range of human resource infrastructure including customised manuals and information packs for both those seeking development and those individuals, such as supervisors, whose support is required. There are also information hotlines and intranet information repositories to aid the individuals in creating their development plans. For an assessment and development process such this, a large number of stakeholder groups need to buy in to the process, including, management, individuals, human resource departments, unions, board members and many more. The process developed at RIC has required a number of new facilities to be created but also leverages off current infrastructure where available to maintain cost and time efficiencies.

There are a number of development options recommended in the output from the assessment process. Each individual is then required to decide which ones they are interested in pursuing and obtain management approval. These options include:

- Individual Reading/Study
- Web Based Support

- Training
- Mentoring and Coaching
- Work Experience
- Internal Accreditation

At RIC the most efficient delivery mechanism for these development options was to use their internal training organisation termed the “RIC College”. This college is a government approved, Registered Training Organisation (RTO) which is able to provide accreditations within the Australian National Qualifications Framework (NQF). There are many advantages of locating the RIC Project Management Development process within the AQF including, providing value to employees by offering nationally recognised qualifications, providing an auditable and justifiable development & training programme and allowing the RIC vocational education to directly link in with university level education thereby providing a platform for articulation to be developed.

### ***Going Forward***

Assessment of project management competency is only part of the competencies that are required in any given job role. The framework used to assess and develop project management competency within RIC can be used to assess and develop any number of other competencies including, safety, technical, specific RIC project management methodology etc. The goal for the future is to outline for each job role a range of competencies which can be assessed and included in the professional development process at the RIC College.

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