

Purpose

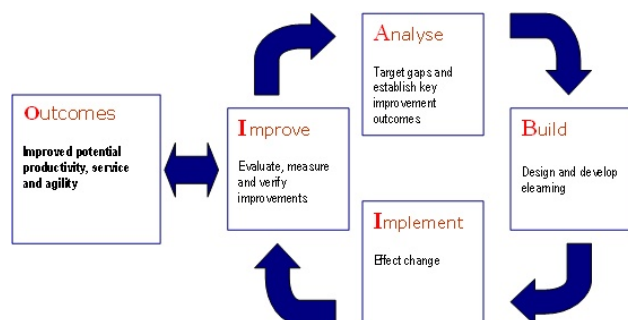
This document is a Competency Analysis Guide provided to assist those undertaking competency and capability analysis as part of training needs or skills audit processes.

This is a guide and can be tailored to suit the needs of an enterprise or can serve as a point of reflection for those engaged in defining how learning will support processes associated with assessment, position profiling, performance, and talent management.

Context

This Competency Analysis Guide needs to be placed in context. Analysis is one part of what can be a much larger process encompassing competency-based training. Figure 1 below outlines this process and possible steps. This Guide covers the first part of the four part ABII (Analyse, Build, Implement and Improvement process).

Figure 1: The ABII design process¹



The key activities within the Analyse phase is to preserve the strategic focus on:

1. Business need and outcomes
2. Reducing cost and time to competence
3. Suitability of interventions
4. Linkage of any intervention to the required skills, competencies (in all their forms and format) and/or capabilities
5. Promote qualification outcomes
6. Maintain linkages with overall governance processes
7. Avoid duplication and rework on either competencies or content designed to outcomes.

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Icons

This guide is prepared as a learning document with supporting information. The following icons are used to access further information on each topic.



Tips



Traps

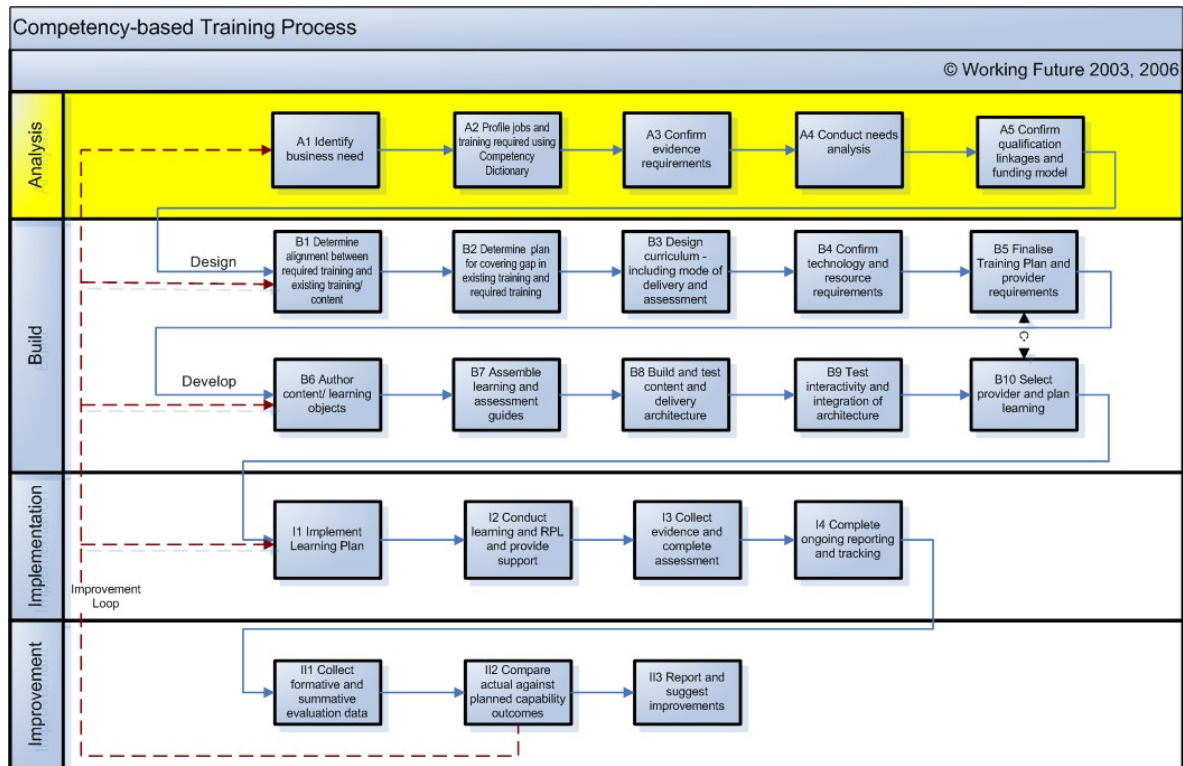
¹ Bowles, M (2003, revised 2007) *Elearning Implementation Process Manual*, Unitas Knowledge Centre: Sydney.

The CBT Process

Implementation of any learning or instructional strategy requires a systematic process. In any organisation it is essential this process be tied business outcomes, as well as learning outcomes.

Conceptually the competency-based training (CBT) design process for an enterprise can be based on the well established Systematic Curriculum and Instructional Development (SCID) process. This Guide applies to the yellow shaded area shown below in the first part of the ABII process.

Figure 2: The CBT Design Process



A1 Identify Business Need

The Analysis Phase is vital as it drives well planned learning that delivers strategic value-add within a sustainable, continuously improvement process. The impetus for the business need may include:

1. Response to business/HR drivers, include:

- Compliance/legislative need
- Improved employee satisfaction/value proposition
- Workforce/Job redesign
- Change imperatives
- New roles
- New hires
- Career planning
- Talent review
- Skill gaps
- New technology or processes
- Failure of existing training interventions

2. Assessed need, including via:

- Questionnaires
- Interviews (by trainer/ assessor with those doing the work)
- Interviews by peer or coach with those doing the work (i.e. in a performance appraisal session)
- Unstructured interviews by manager with those doing the work
- Observation of those doing the work
- Records of performance
- Contrast the latest position descriptions and industrial agreement/ awards with competency standards
- Assessment Centre for occupation/ group
- Expert data collection sessions
- Audits of team work for specific outcomes over time
(See Attachment 1)



- Use position descriptions, performance management tools, KPIs, Process Maps, quality systems, checklists, procedure manuals, diagnostic ratings, training programs, job analysis forms, skills audits, occupational analysis data, occupational and industry classification data, performance improvement targets award descriptions and such like to establish competencies at a level of work and equivalent Australian Qualification Framework level (or comparable national recognition system)
- Don't reinvent the wheel: Benchmark other companies and thoroughly check to see if the same problems/issues have been resolved successfully with a known approach or learning/content solution
- Remember that content that delivers performance and business improvement has an intellectual property value. If properly accounted for this value can make training activity an investment in knowledge growth rather than a cost centre.



- Don't make competency analysis and training a solution for a problem related to other strategic or wider HR matters
- Not all content and existing learning will 'fit' learning needs being identified. Often it is a mistake to try and force-fit 'legacy' content and curriculum when new approaches are required.

A2 Profile Jobs and training required using the competency dictionary

The 'currency' of the competency analysis and subsequent learning interventions must be detailed in the enterprises' competency dictionary.

There are many definitions or 'currencies' for the learning and performance outcomes. It is strongly recommended that a 'capability-competency' lexicon used be done systematically. This may be a model provided by an academic or business consultant, or an approach adopted at a national or enterprise level. All learning, assessment and, in some cases, performance and talent management tools and content should be tied to a lexicon or dictionary of competencies. The more these are not recorded or lack consistency the greater the opportunity for duplication and increased costs, both in the development and future maintenance costs.

Often companies have three main types of competencies – One may be the scaled behavioural competencies or capabilities (about the values, traits, and/or the person and their behaviours, leadership capability and talent). The second may be technical and functional competencies drawn from the national frameworks that are based on occupational standards (about the task performed to a standard required at a level of employment tied to the Australian Qualification Framework). The third set of descriptors may be simple skill statements.

The process is as follows:

1. Mapping the competencies into the industry areas (business, mining, aviation, logistics and transport, etc), the occupation, job families, and, if possible, professional and functional groupings
2. Identify the level of work and comparable qualification level
3. Validate and access the capabilities and competencies on the enterprises' dictionary (competency database)
4. If they are new or national competency standards not on the competency database source competencies off the national training information system (in Australia see the www.ntis.gov.au) or import them using an agreed authoring and approval process
5. Import leadership and management capabilities, national competencies and skills into a position
6. Where a competency, skill or capability has a relationship with another descriptor ensure they are mapped and the relationship noted on the competency database
7. Use the competencies to profile positions
8. Use the competencies to profile people



- When this process is completed for an area not previously mapped ensure the
- Using national competency standards will promote the ability to credit competency against formal qualifications that are internationally recognised. Training based on these competencies can often offset costs as government incentives and existing training recourses can be accessed.
- Some competencies can appear in different Training Packages.
- Ensure you choose the package most relevant to the occupation and the future career stream



- Don't try and 'force' an alignment between a behavioural capability that sounds the same as a national competency but in fact deal with different outcomes
- Packaging competencies to deliver a qualification may not be possible for a single position. Often competencies will be drawn from different qualification levels or even from different industry Training Packages.
- Competencies are usually described in a manner that is not intended to limit their application. The headers may appear general but do not try to modify them to be specific to the actual task or job. This limits portability and we will end up with thousands of competencies. As later steps occur evidence descriptions and training will be tailored to outcomes that are specific to a given job.

A3 Confirm evidence requirements

Once competencies have been tied to a position, function or given set of work outcomes it is possible to tie competency to a number of outcomes. Assessment of competence is a critical aspect of not just learning but also performance, compliance and talent systems.

Behavioural competencies and capabilities often have their own established psychometric and related evidence gathering and assessment processes.

However, occupational competency requirements tie assessment to learning and recognition processes. Recognition is where on attainment of a competency a credential is issued by a Registered Training Organisation (RTO). This may be a statement of attainment (part credit towards a qualification) or a qualification.

Every national competency standard has a unit heading and a specification for the acceptable standard including in sub components called elements and performance criteria. Each unit of competency also has an evidence guide. The evidence guide can be used to determine what activities are required to assess the elements and cover all the performance criteria/indicators.

1. Confirm the elements and performance criteria for the relevant unit of competency
2. Confirm the evidence requirements that indicate formative (progressive) and summative (overall) outcomes the assessment process must cover
3. Align work based or enterprise activities that cover the performance criteria and evidence requirements established in the unit of competency
4. Specify evidence that covers both national competency standards and enterprise performance and compliance requirements
5. Validate* the relevance of competencies to a position, team or function. This is done by undertaking validation exercises where site visits, critical incident interviews or competency analysis is undertaken within the actual workplace

* **Validity** within this context is broadly concerned with the competency standard actually relating to the performance and setting the evidence required to assess attainment of the standard, as specified within a work context.



- Work with the segment/business users
- Not all the evidence requirements for a national competency standard will be covered by Qantas activities.
- Often assessment and evidence can span more than one element or, indeed, more than one competency. This is called holistic assessment where a number of 'stand alone' outcomes can be assessed through completion of a higher order activity.
- Be prepared to accept some national competencies cannot be made to fit Qantas business needs. As such future learning and development may be required to attain a full qualification.
- Check with supervisors or subject matter experts to confirm how the evidence is framed/described
- Don't try and specify a learning outcome/curriculum. The evidence is a target instructional designers will use for that purpose later in this process.



- Be aware underpinning knowledge is often overlooked in typical learning and performance coaching sessions. This means the person may be competent performing the task once, or with supervision but cannot sustain such performance.
- Do not always assume evidence of performance and compliance equate to learning or visa-versa.
- Where work-based tasks or existing learning don't cover the full aspect of a national competency standard it a major breach for any RTO to ignore this gap and still grant a competency.

A4 Conduct needs analysis

The aim of training needs analysis (TNA) can be crudely stated as the identification of the current competencies of people and any gap that may exist between current competencies and those required for work or personal development needs.

TNA can establish a systematic set of priorities and planned learning interventions that can help individuals, teams, organisations and industries set out what it is that they need to learn.

Assuming the previous step A1 is completed accurately and the identification of business need has already triggered a focus on required outcomes this step refines our understanding of the training people and teams need.

1. Publish position descriptions with competencies off the database
2. Use the evidence guides for the competencies targeted to a position(s)
3. Develop a recognition of prior learning (RPL) process to give an initial insight into who holds competencies for a position. This is done by working with a sample of positions (if it is a larger work group) and assessing what competencies have already been acquired through work, learning or life experience.
4. Confirm competency gaps for sample
5. Group needs: Consider which positions/functions typically have acquired the competencies or have not acquired the competencies to the required standard. Why? (i.e. has previous training program been successful?, do some positions not get the required training?)



- Work with the segment/business users
- If possible start to engage with a likely training provider to complete this exercise.
- Ensure the RPL process is based on later processes to be used by RTOs or accredited providers.
- Brief the individuals involved and ensure they understand the preliminary aspects of the process.



- The initial RPL sample testing is not the full exercise a training provider (RTO) would undertake when the learning is implemented. It is undertaken to confirm individual skill gaps. It also serves to add weight to the validity of the competencies
- Keep the RPL records. It is a formal process and can later be used to ensure those individuals involved have their competencies recognised formally.
- Assuming prior training has delivered competencies and not testing to see if individuals completing that training are actually competent.

A5 Confirm qualification linkages and funding model

Where national competency standards have been accessed government incentives may exist.

1. Confirm the competencies, national qualification and/or relevant Training Package
2. Align qualification and competency levels with levels of work (i.e. grade, position level. etc.)
3. Determine learning and career pathways from the qualification and competencies
4. Establish the most relevant accreditation and recognition – i.e. choosing a traineeship, apprenticeship or related programme
5. Establish availability of government incentives/funding for training. One site in particular, the [Australian Apprenticeship Training Information Service](#) provides information regarding availability of apprenticeship and traineeships by
 - Training package
 - National qualification
 - Location
 - Job/Occupation
6. Establish alternative finding sources, i.e.
 - Regional development
 - Skills initiatives
 - Content development
 - E-learning infrastructure
7. Report processes and requirements for accessing funding. In most cases funding cannot be applied for until an RTO has been appointed and individuals selected to complete the learning.



- If the competencies come from more than one Training Package examine which qualification best fits the Qantas needs. This may vary with:
 - Assessment: Evidence and assessment is more focussed on Qantas business outcomes
 - Packaging: some qualifications allow competencies from other Training package to be imported. This may suite Qantas' needs
 - Funding: If the same business outcomes are met one qualification may be eligible for funding in a given location or time
 - Content: National Tool Box or other learning object development work may be done and accelerate the design and reduce cost of developing learning materials
 - Providers and content: Qantas may have quality providers and content in existence for one set of competencies.



- Chasing funding at the determinant of business and individual outcomes
- Retro-fitting competencies to a courses that already exists rather than business outcomes.

Overall Resources for the Analysis Phase



References and Links (Australia)

- [Training Package Development Handbook](#) (revised 2006)
- [AQF Qualifications described](#)
- [National Training Information System](#)
- National Centre for Vocational Education Research <http://www.ncver.edu.au/publications>
- Bowles (2005) [Workplace Learning and training and competency needs analysis](#) linked to Frontline Management qualification
- [TAACMQ501A Develop training and/or assessment organisational policies & procedures](#) linked to workplace trainer and assessor qualification
- [The learning needs analysis tool kit](#)
- Big Dog's [Instructional Design Systems Approach](#)
- Ruggieri, DM (2003) '[How to perform Training Needs Assessment](#)'
- TAADES501A Design and develop learning strategies linked to workplace trainer and assessor qualification

Tool 1 Confirming business needs

The following table outlines some of the common forms of analytical methods used to determine competency profiles based on business needs. The columns indicate the relevance of the methods to different scopes – i.e. coverage of individual, segment or organisational needs.

Analytical Methods	Individual	Segment	Qantas
DACUM – is a group technique normally used to assist Develop A Curriculum . This technique has been widely used to assist define competency profiles for occupational areas and industries. An expert group of job holders or managers of the job holders are convened into a group to define the nature of a particular job area. A number of such meeting indifferent locations may be required to achieve a complete profile for an industry or major sector. However a facilitator of such meetings can record results and orient the group towards the types of knowledge and skills that define a job. This technique also ensures relationships between jobs and jobs within a process or production or service delivery are considered together. The DACUM may have some initial information of a job area to consider (and this has been shown to assist many DACUM groups) but it is not unusual for occupational analysis information to be ignored to permit groups a 'greenfields' approach to defining jobs.		√	√
Delphi – This is a group technique dealing with forecasts of projected competency or skills sets that are placed into an iterative process whereby groups consider, modify and eventually gain consensus on the final descriptions for a job, occupation or such like.		√ mostly very large companies	√
Inventory comparison – This approach assumes some form of descriptions of tasks or skills and knowledge exist. The inventory may be mapped into competencies and permit existing jobs to be profiled against all the available descriptions in the inventory. Gaps are recorded and added to the core inventory. Thus the inventory expands and helps reshape how existing jobs and occupations are defined.	√	√	√
Direct observation and checks – May cover a range of techniques and approaches. This basically involves using a predetermined tools to survey or compare the directly observable performance of one individual against benchmarks or standards established for all people performing similar job roles or tasks. Such tools may include: <ul style="list-style-type: none"> • Job analysis tools • Skills audits • Behaviour profiles/ descriptors • Competency profiles • Skills tests • Job roles 	√	√	
Information search – Such approaches can vary widely. However all rely upon establishing an analytical basis for defining the given job, task, or performance area under review. This information is usually used to shape applied research or group techniques. The information may be sourced from such areas as: <ul style="list-style-type: none"> • Statistical profiles • Questionnaires and surveys • World wide web • On-line search data bases • Training and education curriculum • International competency profiles of occupations • Etc. 		√ somewhat	√
Focus Groups – Is a meeting of people with agreed (pre-meeting) and related perspectives on the given job, task, or performance area under review. The group agree on performance outcomes for the area covered and identify barriers or problems associated with attaining this performance. The group is facilitated in a manner whereby key issues are isolated and methods to address these performance problems determined. A series of focus groups may be required to give different perspectives or to address skills issues or system problems. The		√ very large companies only	√

groups are usually informally structured with formal reporting of findings by the facilitator.			
Functional analysis – Functional analysis is very useful when major enterprises or sectors analyse traditional occupational and job structures to derive ‘families’ of related functions or roles. A process of benchmarking and validation can then be used at other levels (sectors, locations, organisations, or individual level). The aim being to identify the functions and roles of particular jobs and job families. Functional analysis usually will involve other competency research approaches such as interview, group work, or data analysis techniques.	(√)	√	√
Critical incident – May be either a group technique or a means to survey an individual. A basis for surveying tasks or skills and knowledge is devised and then individuals performing those tasks are surveyed as they perform. Descriptions are tested and indicators refined to map superior and inferior performance outcomes. This technique relies very heavily upon those performing the job actually assisting define task performance.	√	√	√
CODAP – Comprehensive Occupational Analysis Programs were developed to analyse occupational data across a large range of subjects. It is heavily reliant on questionnaires and surveys and helps provide data computers can then process to detail break downs of occupations and how they are demarked by a cluster of tasks resident in the sample/ population surveyed.		√ mostly large companies only	√