



AUSTRALIAN
CONSTRUCTORS
ASSOCIATION

Training Needs Analysis

A Guide for the Construction Industry



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ABOUT THIS GUIDE

The purpose of this guide is to assist you with assessing whether your organisation's employees, contractors or workers have the adequate knowledge, skills, qualifications, licenses and mandatory requirements to perform their job function safely, effectively and efficiently.

This guide will provide you with samples and a process to assist in the identification, analysis and conduct of a Training Need Analysis (TNA) with the outcome of developing a robust work, health and safety or equivalent occupational health and safety training matrix or general training matrix.

HOW THIS GUIDE IS ORGANISED

This guide outlines:

- Why it is important to conduct a regular TNA,
- How to conduct a TNA,
- An introductory statement for each step, a process flow, as well as templates to record and collate the analysis,
- A description of each of the four levels of a TNA,
- Sample templates that can be amended to suit your organisation,
- Reflective questions to consider when working through a TNA,
- Example working training matrix tool.

WHAT IS A TRAINING NEEDS ANALYSIS?

Analysis: The study we do in order to figure out what to do. - Allison Rossett & Kendra Sheldon (2001).

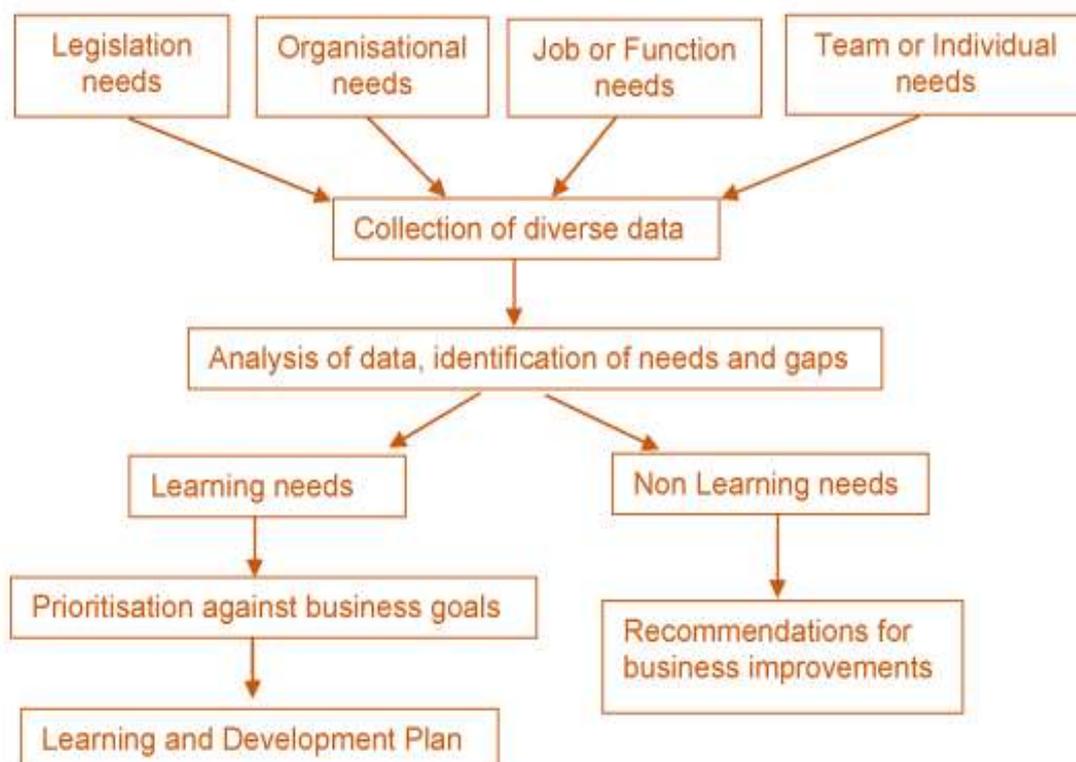
A Training Needs Analysis (TNA) is the process used to identify the training and development needs of your employees (all trades, professions, employees and contractors), so that they can carry out their job effectively, safely and efficiently, and develop their careers (sucession planning).

The TNA considers the skills, knowledge and attributes (behaviours) that your people need and how to identify and develop them effectively. The outcome of your TNA should be a robust learning and development plan, based on identified requirements and linked to organisational, team and individual objectives.

When carried out effectively, a TNA will have many positive effects for your organisation, teams and individuals, as the training which follows as a result of the TNA should be relevant and meet their development needs.

THE TRAINING NEEDS ANALYSIS (TNA) PROCESS

The TNA process is about gathering information to identify gaps between job knowledge and skills required now or for future employment needs and the current knowledge and skills of an employee or group of employees. It starts with collecting information against the four levels of needs (legislation, organisation, job and individual needs). Once the information has been collected, it is then analysed using a variety of sample templates (located in this document). The needs/gaps are identified and categorised into learning opportunities or non-learning opportunities as per the diagram below.



THE 4 LEVELS OF NEEDS ANALYSIS

A TNA covers four levels of needs. These are inter-linked and using this structure will help ensure a balanced analysis that takes into account the big picture as well as the specific needs of an individual(s).

At one end of the scale, a TNA can mean a comprehensive analysis of all training and development needs across an entire organisation to meet their strategic goals. A TNA can also be used to analyse the legislative and regulatory requirements of a role as well as the skills, knowledge and attributes required to successfully meet the role. It can also be used to provide a detailed analysis of one individual's training and development requirements as outlined below.

1. LEGISLATIVE ANALYSIS

This relates to legislative and regulatory requirements, including tickets of competency, licenses and qualifications that the construction industry requires. This level also incorporates information about new legislation or regulatory requirements that impact on an organisation, project, person and job.

2. ORGANISATION ANALYSIS

This relates to the needs of the organisation or company as a whole, identifying where training should be used to achieve organisational goals, objectives, targets and business planning. This level views training needs in the context of what an organisation needs.

3. JOB ANALYSIS

This relates to the needs of specific jobs within an organisation and uses information about jobs to develop standards of performance that identify the necessary licenses, legislative and regulatory requirements, knowledge, skills and attributes to achieve the desired standards of performance. This level views training in terms of jobs which together make up an organisation.

4. PERSONAL ANALYSIS

This relates to the needs of individuals within an organisations and the adequacy of their competency level to perform their job requirements. This level views training in terms of individuals who collectively make up the organisation.

Regardless of what level of analysis you are performing, the questions you will need to answer include:

- Does a performance problem exist?
- Does the individual know how to do their job?
- Does the individual know the standards required for their job?
- Does the individual know the systems, processes and forms required?
- Does the individual know the legislative, regulations or codes that impact their work?
- What are the training related parts required for their job?
- What are the gaps if any?
- Why is there a gap?
- What are the causes of the gap?
- What are the consequences of the gaps?
- What content is required in the training?
- What are the consequences of not identifying and implementing the training?
- Is there a training need?
- What are the parameters of the problem, need and tasks?
- What are the most important areas to deal with first?

This TNA guide will take you through the steps and provide you with templates to take you through the four levels of analysis and provides you with sample templates to assist you in the process.

COLLECTING DIVERSE DATA

A variety of methods are used to collect information about jobs, as no one way of collecting data is perfect. A combination of several methods may be used to ensure accurate information collection. Some of these methods are discussed below.

JOB PERFORMANCE

In this method, the job analyst (person responsible for analysing the job) actually performs the job in question. The analyst therefore receives firsthand experience of all aspects of the job including physical hazards, social demands, emotional pressures and mental requirements. This method is useful for jobs that can be easily learned. It is not suitable for jobs that are hazardous or for jobs that require extensive training.

TASK OBSERVATION

This method requires the task analyst to observe the worker(s) doing the job. The tasks performed, the pace at which tasks are completed, the working conditions and other factors are observed during a complete job task cycle. During observation, certain precautions should be taken, such as:

- The analyst must observe average workers during average conditions,
- The analyst should observe without getting directly involved in the job,
- The analyst must make note of the specific job needs and not the behaviours specific to particular workers, and
- The analyst must make sure that he obtains a proper sample for generalisation.

This method allows for a deep understanding of job duties. It is appropriate for manual, short period job activities as well. It is important to note that the methods fail to take note of the mental aspects of a job role and this is where consideration for various external factors such as fatigue and stress need further analysis.

CRITICAL INCIDENTS

The Critical Incident Technique (CIT) is a qualitative approach to job analysis used to obtain specific, behavioural focused descriptions of work or other activities. Here, the job holders are asked to describe several incidents based on their past experience. The incidents collected are analysed and classified according to the job areas they describe. The job requirements will become clear once the analyst draws the line between effective and ineffective behaviours of workers on the job. The critical incidents are recorded after the events have already taken place, both routine and non-routine. The process of collecting a good number of incidents is a lengthy one.

INTERVIEW

The interview method consists of asking questions to both incumbents and supervisors/foreman/managers in either an individual or a group setting. The reason behind the use of this method is that job holders are most familiar with the job and can supplement the information obtained through observation. Workers know the specific duties of the job and supervisors are aware of the job's relationship to the rest of the organisation.

Caution must be exercised when using this interview method. The interviewer must be trained in proper interviewing techniques. It is advisable to use a standard format to focus the interview to the purpose of analysis.

Although the interview method provides opportunities to elicit information sometimes not available through other methods, it has limitations. First, it is time consuming and therefore costly. Second, the value of data collected is primarily dependent on the interviewer's skills and may be faulty if they put ambiguous or unclear questions to workers. Lastly, interviewees may be suspicious about the motives and may distort the information they provide. For instance, if seen as an opportunity to improve their employment positions, workers may exaggerate their job duties.

QUESTIONNAIRE METHOD

The questionnaire is a widely used method of analysing jobs and work. Here, the job holders are given a questionnaire aimed at collecting relevant job-related information. After completion, the questionnaires are analysed.

The success of the method depends on various factors. The structured questionnaire must cover all job related tasks and behaviours. Each task or behaviour should be described in terms of features such as importance, difficulty, frequency, and relationship to overall performance. The job holders should be asked to properly rate the various job factors and communicate this on paper.

The questionnaire method is highly economical as it covers a large number of job holders at a time. The collected data can be quantified and processed through a computer. The participants can complete the items leisurely. Designing questionnaires, however, is not an easy task. Proper care must be taken to see that the respondents do not misinterpret the questions. Further, it is difficult to motivate the participants to complete the questionnaires truthfully and to return them.

DEFINING: KNOWLEDGE, SKILLS, ATTRIBUTES AND COMPETENCIES

For the purpose of this guide the terms knowledge, skills, attributes and competencies are defined:

KNOWLEDGE refers to a body of information that a person needs in order to perform a particular job. It can include the completion of university or nationally recognised vocational qualifications, trade certificates, licences and tickets, knowledge of how to perform particular job tasks (i.e. procedural knowledge), or knowledge of rules and regulations, e.g. understanding and following Safe Work Method Statements (SWMS) or conducting a risk assessment using risk scoring or risk ranking.

SKILLS refer to the observable behaviours a person needs to carry out work tasks. Skills are usually gained through previous or current job experience or vocational training.

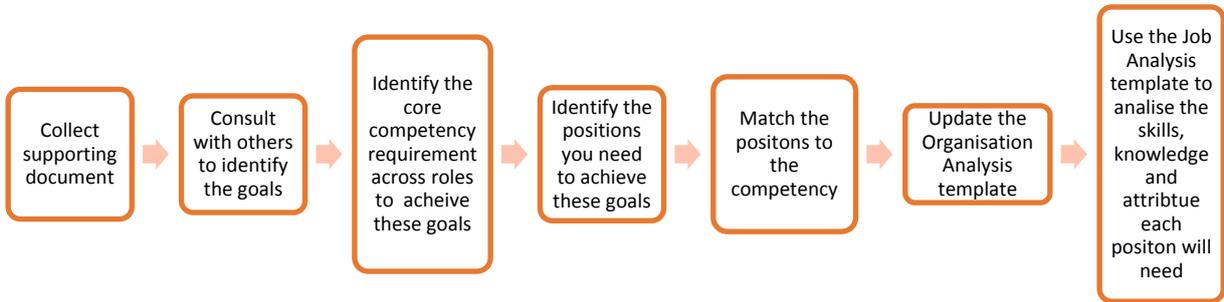
ATTRIBUTES refer to the physical or mental capabilities or aptitudes required by the person in the job. Attributes are an individual's potential to develop the necessary skills for the job, and most skills require usually one or more associated or underlying abilities. Other Attributes include values, interests, attitudes, or personal style needed by the person in order to cope with the conditions of the job. It may also include the tools and equipment used while performing the job, or special certifications that the worker should have.

COMPETENCY is the capability to apply or use a set of related knowledge, skills, and abilities required to successfully perform "critical work functions" or tasks in a defined work setting. Competencies often serve as the basis for skill standards that specify the level of knowledge, skills, and abilities required for success in the workplace as well as potential measurement criteria for assessing competency attainment.

McIntyre, Bucklan, & Scott, 1995; Spector, 1996

HOW TO ANALYSE DATA AND IDENTIFY NEEDS/GAPS

Organisation Analysis:

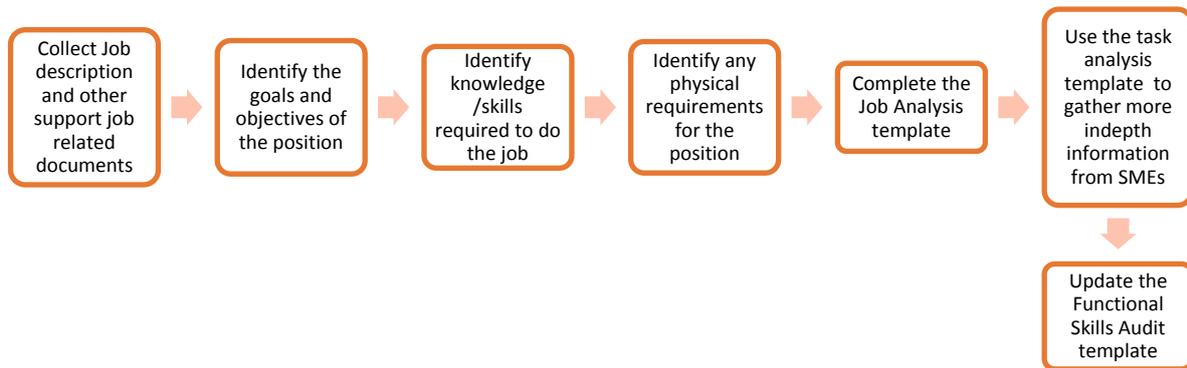


The purpose of the Organisation Analysis Template is to identify and record what skills / knowledge are required to enable the organisation to meet its objectives / vision.

SAMPLE ORGANISATION ANALYSIS TEMPLATE

Organisation Strategic Goal:	Departmental/Project Goals					Team Goal					
O = high X = low	Core competency	Core competency	Core competency	Core competency	Core competency	Core competency	Core competency	Core competency	Core competency	Core competency	Core competency
Position											
Position											
Position											
Position											
Position											

JOB & LEGISLATIVE ANALYSIS



The purpose of a job analysis template is to document the requirements of a job and the work performed. The purpose of a task analysis template is to document the skills, knowledge standard performance and legislative requirements required to complete a task safely and on time.

SAMPLE JOB & LEGISLATIVE REQUIREMENTS TEMPLATE

Date:		Prepared by:	
Title:		Department:	
Understanding the job			
Goals and Objectives of the position			
Knowledge/Skills/Attributes required			
Legislative and regulatory requirements			
Additional requirements			
Core Competencies	Essential	Significant	Learn on the Job
Circle and attach the evidence you used to conduct this job analysis.			
Position descriptions	Industry best practice information	Performance review documents	Legal and regulatory information
Other (please specify)			

PERSONAL SKILLS ANALYSIS



The main purpose for conducting a skills audit is to identify the skills and knowledge that the organisation requires, as well as the skills and knowledge that the organisation currently has.

The purpose of a TNA is to identify and document any knowledge or skills gaps an employee has and identify ways of addressing these gaps

The Learning and Development Plan documents the how, when and where this training will take place.

Some questions to ask during this stage :

- What do you want to get from your work?
- What are your strengths?
- What areas would you like to improve?
- Where would you like more responsibility?
- What is preventing you from developing as you would like?
- Which interests or talents would you like to develop?
- How do you like to learn?
- What skills or experience would allow you to feel more confident at work?

SAMPLE POSITION SKILLS AUDIT TEMPLATE

Employee Name:							
Qualifications:							
Position Title:							
Competency	Description	Self-Assessment by employee			Validation of Competency		
		Have Now	Need Now	Required in Future	Date	Initials	Evaluation Method (see keys below)

Please use the following Evaluations Method keys :

O	Observation
D	Demonstration
W	Written Test
Q	Qualification
C	Certificate

SAMPLE TRAINING NEEDS ANALYSIS TEMPLATE

Employee Name:						
Position Title:						
Purpose:						
Major job tasks for the position	Training/skills development required?		If yes identify what training needs exist.	How will this be achieved? (e.g. on the job, external training)	When?	Who to organise? Training provider?
	Yes	No				
What do we want to achieve in the period ahead?						
Where can you/we see your career moving in the next two years?						
How are we going to make this happen?						
What will you need from the company to assist you to reach your career goals?						

SAMPLE LEARNING AND DEVELOPMENT PLAN

Organisation goal	Knowledge and skills required	Who will participant	Learning and development activities	How will this be evaluated	Cost	Date

TNA CHECKLIST

Your Training Needs Analysis should consider the following:

- Is it a training need or an organisational systemic issue?
- Know what your organisation, project and team is trying to accomplish in general and in alignment to organisational business plans/objectives/visions.
- Know the history of training within the organisation.
- What needs are being addressed by the training?
- Are there any recent process or procedure changes?
- What are the legislative and regulatory requirements that must be adhered to? (By job function and organisationally)
- What resources are available to conduct the training?
- Who needs to be trained, how often and what is the priority?
- Who can serve as subject matter experts?
- How will the training be conducted?
- Are there budget constraints or an allocated budget?
- Which companies provide training if an external provider will be used?
- What are the knowledge, skills, and abilities?
- Review Job Descriptions and Organisational Charts.
- Undertake a review process with key stakeholders.
- Develop a communication strategy with key stakeholders.
- Agree and endorse with sign off on the TNA.
- Convert the TNA to a matrix which is easily understood by all stakeholders and can be easily audited.