

Safety Training Needs Analysis

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Research into successful safety programs has proven the necessity and importance of properly structured safety training for supervisors and managers. It is not unusual in private industry in Australia for newly-appointed supervisors and managers to receive up to 5 days of safety training.

The following outlines one company's approach to supervisor and manager training.

Hazard Identification / Risk Assessment / Hazard Control	4 hours	For all levels of personnel
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Types of hazards
 Practical exercise recognising hazards
 Risk assessment-practical and theory using probability, consequence and exposure
 Practical and theory of hazard control using the hierarchy of controls

Introduction to Occupational Health and Safety	1 day	For leading hands, supervisors and managers (mandatory course to be promoted to a supervisor)
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Company safety policy and procedures
 Supervisors responsibility for safety
 Common law principles as they apply to safety management
 Workers compensation and rehabilitation
 Statutory obligations of supervisors

Accident Investigation	2 days	For members of accident investigation teams, leading hands. Supervisors and managers (mandatory course to be promoted to a supervisor)
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Size of the accident problem
 Myths & misconceptions about safety
 Influence of design on accident causation
 Cause versus essential factors
 Theory and practical (including practical exercises) application of Geoff McDonald Accident
 Reference Tree-Trunk method of accident investigation

Introduction to Occupational Health	1 day	For supervisors and managers (mandatory to be appointed as a senior supervisor)
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History of occupational health and industrial hygiene
 Occupational health principles
 Chemicals control
 Toxic hazards in industry
 Methods of control of occupational health problems (eg. audiometric testing, noise testing, dust testing and control, control of radiation hazards, RSI, back care)
 Supervisors role in occupational health

Management developments in occupational health & safety	1 day	For the senior management team at an operating location)
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Latest Occupational Health and Safety developments-employer association, union, A.C.T.U., and legislative trends

Significant Occupational Health and Safety issues in the company and emerging trends

Advanced safety techniques (eg. auditing, fault-tree analysis, Hazop, safety communications, job safety analysis)

Analysis of the effectiveness of the sites current safety approach

The National Occupational Health And Safety Commission (Worksafe) have developed generic health and safety competencies for “front-line managers”, these competencies would seem a natural starting point for anyone developing safety training programs for supervisors and managers.

Research has proven the effectiveness of structured training needs analysis as a basis of designing learning events for all levels of staff. It is a bit like baking a cake, for the safety training cake to taste superbly you must identify the ingredients so you can put them into the mix. In the safety area, management and safety personnel can provide some insight into course content but for effective training this insight must be backed up by structured training needs analysis. A training need exists when there is a gap between what is required of a person to perform their duties competently and what they actually know that enables them to do so (Kroehnert, 10). Generally the training needs analysis will highlight the subject matter needed to be covered during the instruction The knowledge gained by the participants will help to increase their level of ability and allow them to perform their tasks at an acceptable level.

For structured training programs to be effective they must meet a number of conditions. Three of these conditions are (Drummond, 2)

1. That skills to be acquired by those attending the training are identified before the training is started
2. The end results of the training must be identified before the training starts
3. There must be a work-based benefit as the result of the training

In other words there must be a need for the training before the training begins. T.N.A. ensures only necessary training occurs and is directed towards an identified need. Information must be gathered from a variety of sources. A careful analysis of the data collected from each source is required to clearly show

1. The job
2. The desired standards of performance in each job
3. Whether differences in performance standards or shortfalls in knowledge, skills or attitudes can be overcome by training
4. The performance standards of the individual or group
5. The skills, knowledge and attitudes of individuals and groups carrying out their jobs relative to the work being performed

Care must be taken to ensure that the cause of the training gap-the real need-is identified, and reaction is not just made to a symptom of the need.

For the analysis to be successful, four basic elements are necessary (Drummond, 6)

1. Identified training needs must be supported by evidence for the need
2. There must be commitment, support and participation by senior management towards the analysis and its results
3. There must be total support, participation and co-operation by department and section heads towards obtaining the data for the analysis
4. There must be support by all levels of management for the training programme that results from the analysis

The analysis of organisational problems may reveal that a training solution is required but training may not necessarily be the best fix. It is necessary to ask what causes the problem or situation.

The following model is a representation of a six step process of identifying training needs (Australian Institute of Training & Development).

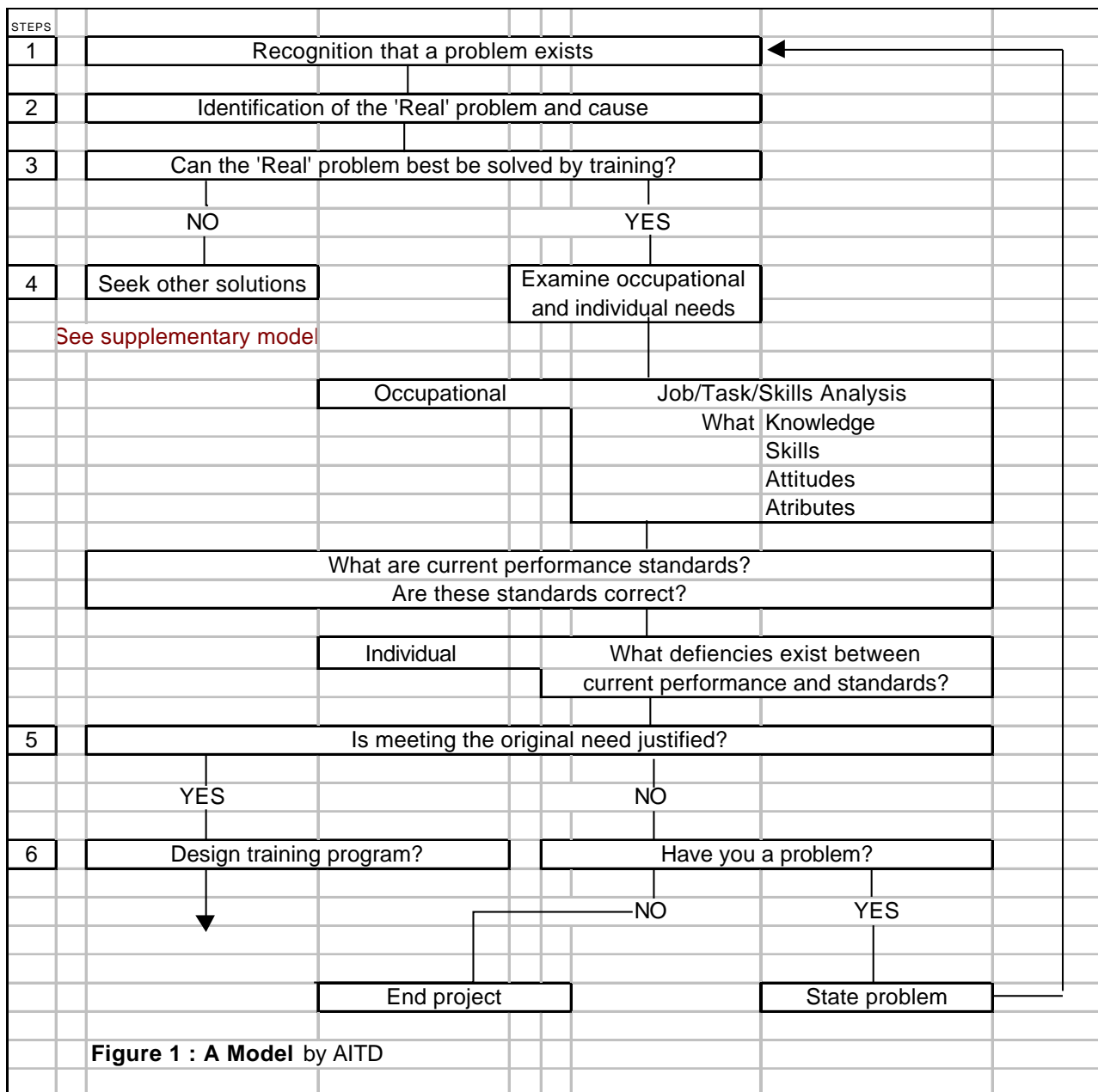


Figure 1

(Source : AITD Six Step Process Of Identifying Training Needs)

A training needs analysis is a vehicle of change(Drummond, 7) T.N.A. may be seen as a threat by some and as with anything which brings about change it is essential to involve as many people as possible and keep everyone informed about progress. To overcome these concerns the T.N.A. should be conducted in a series of well-defined steps

1. Discussions with senior management
2. Establish the T.N.A. objectives and schedule
3. Identify the sources of information
4. Establish the data collection method
5. Schedule the collection of information
6. Analysis of the data & identification of training needs
7. Development of training objectives
8. Develop the training plan
9. Prepare the T.N.A. report.

The T.N.A. report must cover the following points (Drummond, 12)

1. The training needs identified
2. Which individuals or groups have the identified training needs

3. Facts which support the needs
4. The training needs objectives
5. A proposed training plan
6. An estimate of the costs of training
7. A time-span for the training
8. Cost benefits of the training
9. Those needs which exist the cannot be overcome through training

The following is a simple approach to training needs analysis that has been endorsed by the Q.U.T. Faculty of Education To carry out a safety training needs analysis form groups of 5 - 10 of your target groups and lead them in the training needs analysis (the number of groups you facilitate must be representative of the total numbers in the target group) In some cases a structured questionnaire can be used to gather information instead of facilitating large numbers of groups.

Define the safety components (existing and desired) and standards of performance of the work the groups carry out

Brainstorm the KNOWLEDGE,
SKILLS and
ABILITIES (ATTITUDES) required to do the job to the required standard

Design the learning event to meet the identified SKILLS,
KNOWLEDGE and
ABILITIES (ATTITUDES)

A general guide to sample size for different staff numbers is as follows (Drummond, 20)

TOTAL STAFF NUMBER	SAMPLE
6 or below	100%
20	40 – 50%
50	20 –30%
100	20%

Training needs analysis is one of the basic tools of the effective learning facilitator, without it's use your training will be at best informed guesswork.

References

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 Drummond, Ken, (1993) *Training Needs Analysis*, Gull Publishing, Coolum Beach, Qld.,
 Kroehnert, Gary, (1993) *Basic Training For Trainers*, McGraw Hill Book Company, Roseville, N.S.W