NSW Mining Statutory Positions Training Process Improvement Review Project

Learning Best Practice Guide

REGISTERED TRAINING ORGANISATIONS

The NSW Mining Statutory Positions Training Process Improvement Review Project[1] is an industry driven, collaborative response to the low success rate of candidates for the examinations conducted in NSW for Statutory Positions. This issue is a significant contributing factor to the identified skills shortage for Statutory Positions in the Coal Mining, Metalliferous Mining and Quarrying sectors of the Resources & Infrastructure Industry in NSW, putting mine sites and production targets at risk.

This initiative is being carried out with funding provided by the NSW Department of Education and Communities, Industry Programs, through the Skills Enhancement Program with advice from the Project Steering Committee. Contributions have also been made to the project from the NSW Minerals Council, NSW Department of Trade, Investment, Regional Infrastructure & Services and SkillsDMC.

1   Appendix 1 provides an overview of the stages of the Project

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Introduction

The NSW Mining Health and Safety legislation requires Certificates of Competence for the following 9 Statutory Position roles, which involve both oral and written exams:

two (2) for metalliferous mining/extractive/quarrying operations[2]:

1. production manager for an above ground mine

2. production manager for an underground mine

seven (7) for coal operations[3]:

1. manager of an open cut mine

2. manager of a mine

3. mine electrical engineer

4. mine mechanical engineer

5. deputy

6. under manager of a mine

7. examiner of an open cut mine

Candidates for these exams have typically successfully completed relevant, and often pre-requisite courses before attempting exams (e.g. a degree or diploma in mining engineering from a university, Diploma of Surface Operations Management or Certificate IV in Underground Coal Operations)[4]. Yet, the success rate for the Statutory Positions exam is quite low, especially for the oral exam, which can only be attempted after success at the written exam.

Even though the exams cover similar knowledge and skills that are addressed in the courses, between 2008 and 2010, only 59% of candidates were successful at both the written and oral exam[5].

Given the low success rate, the NSW industry is concerned about the resulting shortage of qualified people for these roles and took part in an industry – and government-funded research project to investigate the reasons and ways of improving the success rate of candidates. This project was called the *NSW Mining Statutory Positions Training Process Improvement Review Project*. (abbreviated as the *NSW Statutory Positions Project*)[6].

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2   Clause 109 of the Mine Health and Safety Regulation 2007

3   Clause 162 of the Coal Mine Health and Safety Regulation 2006

4   Information on exam requirements, including pre-requisites can be found at the NSW Department of Trade and Investment website:
    http: www.resources.nsw.gov.au/safety/consultation/coal-competence-board/qualifications

5   Calculated from statistics on number of candidates taking exams and number of successful candidates across the 9 positions during the years 2008-2010 as obtained from the NSW Department of Trade and Investment website

6   **Appendix 1** provides an overview of the stages of the Project. A full report of Stages 1 and 2 of the project can be accessed at:
    www.skillsdmc.com.au/file_manager/NSW_Mining_Statutory_Positions_Training_Process_Improvement_Review_Project.pdf

Key Factors

The *NSW Statutory Positions Project* identified the following factors as key to successful completion of both the pre-requisite courses and the Statutory Position exams:
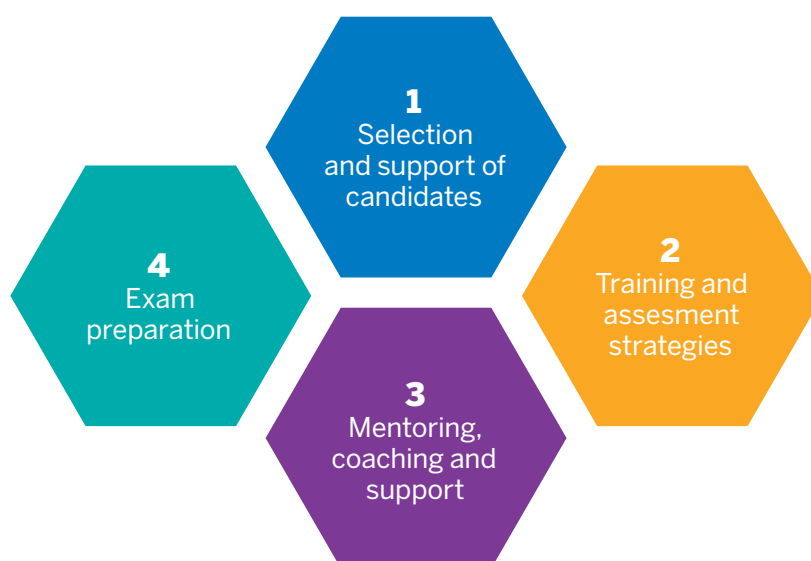
Based on these four key factors, Learning Best Practice guides have been produced for the three groups having the most impact on success rates – **Registered Training Organisations (RTOs), Employers,** and **Candidates**. In addition to these four key factors, two additional factors have been identified for RTOs, and have been included in Section C:

a. trainers, and

b. liaison with employers.

This guide has been developed for:

- Registered Training Organisations (RTOs) providing courses that are pre-requisitesfor candidates attempting exams for Statutory Positions;

- Trainers employed by RTOs providing training, assessment, exam preparation and other support; and,

- Mentors/coaches working with RTOs.

The guide draws on the experiences of trainers, managers, candidates and examiners, and provides practical tips for dealing with the issues commonly faced by those training or mentoring candidates preparing for exams.

As well as improving the quality of training and outcomes for learners, this guide also aims to assist RTOs in demonstrating compliance with a number of requirements under the AQTF/NVR standards7, for example:

- industry consultation (AQTF S 1.2, SNR 4.2, 15.2)

- currency of industry skills (AQTF S 1.4, SNR 4.4, 15.4)

- meeting workplace and regulatory requirements (AQTF S 1.5, SNR 4.5, 15.5)

- establishing and meeting needs of clients (AQTF S 2.1, SNR 5.1, 16.1)

- engaging with employers and other relevant parties (AQTF S 2.4, SNR 5.4,16.4).

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7   NVR standards replace the AQTF standards and can be accessed at *http://www.asqa.gov.au/about-asqa/national-vet-regulation/national-vet-regulation.html*

Key Factors

1.0 Selection and support of candidates

1.1 Selection and Foundation Skills

Why is this an Issue?

- Most trainers identified pre-requisite skills and knowledge development as critical to improving success rates.
- Candidates admitted that they underestimated the level of 'foundation skills' required to complete the qualification and exams (e.g. reading, writing, oral communication, computer skills).

The roles and responsibilities of a Statutory Official require them to not only have significant knowledge about a number of key areas but also the skills to apply this knowledge to a range of practical issues and high risk situations. Examiners therefore have high expectations and will not issue anyone with a Certificate of Competence to be a Statutory Official unless they are satisfied that the person is fully able to perform the duties and maintain the safety of their area of responsibility.

In reality, RTOs and trainers have little say in the selection of potential candidates for Statutory Positions. While the onus of candidate selection falls to employers and candidates themselves (e.g. where the candidate is doing the course without employer support), RTOs can assist in the selection process by advising people involved in the selection process of course requirements and any pre-requisites that should be considered as preparation for undertaking the course.

Where selection processes are being used by employers, there is currently little or no assessment of candidates' 'foundation skills' (such as reading, writing and oral communication, and computer skills) which are key to success. An RTO may be able to assist employers in this area by helping them to develop clear criteria, and provide employers with clear information and some basic assessment tools for 'foundation skills'. An RTO should be very familiar with Employability Skills and Associated Non Technical Skills (ANTS), and be able to assist employers to understand and apply these skills to their selection processes.

Associated Non Technical Skills (ANTS) are one of NSW Mine Safety Advisory Council's key tools for delivering the mining industry's 2009 CEO Summit vision to build the capacity of the NSW mining and extractives industry. There are five Associated Non Technical Skills:

1. Communication
2. Situation Awareness
3. Decision Making
4. Leadership
5. Teamwork.

Assisting employers to understand and apply 'foundation skills', Employability Skills and Associated Non Technical Skills will enable the RTO and trainer to identify general 'foundation skills' gaps, as well as issues with individual learners, and to develop learning and assessment strategies to address these 'foundation skills' gaps as part of the course.

1.2 Candidate Commitment

Most candidates say that the process to become a Statutory Official is not easy. It requires a clear understanding about the nature of study and exams and a willingness to put in a significant effort to learn and prepare.

RTOs can assist by advising candidates and employers of the commitment needed to complete the qualification and sitting for the exam. The advice could include:

- financial cost of the qualification and exam fees
- time needed to complete the qualification
- time commitment needed to study for exams.

The study required may cause great strain on a candidate's family/personal life, and rotating rosters/weekend/night shift will only add to those stresses. It is very important that a candidate is encouraged to take steps to understand the study commitment involved, and obtain the support of:

- family
- work colleagues
- mine/quarry management
- specialists where appropriate (e.g. HR personnel at their mine/quarry).

All this is done on our own time. I spend 3-4 hours a night on this, work a 10-hour day, travel 1 hour, cook tea, mow lawn, do the shopping, etc – not much time to sleep, is there?
Open Cut Examiner candidate

Another key issue to consider is the study skills of candidates. They may not have studied for some time. The RTO and/or trainer may be able to assess this issue by seeking information at enrolment of prior study undertaken, or being alert to any late assessments being submitted. The RTO and/or trainer should be aware of signs that this is an issue, and offer advice, support and assistance.

Examples of effective support strategies include:

1. ensuring candidates have a realistic understanding of time commitment and necessary foundation skills
2. making sure they have clear goals and a study plan
3. helping candidates to identify strengths and weaknesses
4. assisting to obtain mentors/coaches
5. integrating foundation and study skills as part of the course
6. monitoring progress, and providing timely feedback.

Key Factors

1.0 Selection and support of candidates

Checklist for RTOs - Selection and support of candidates	
Ask yourself:	Things to consider

For sponsored candidates – are employers using effective selection processes?	• Can I offer assistance to employers in the selection process?
	• Can I offer specific expertise in:
	  – Foundation skills?
	  – Employability skills?
	  – ANTS?

For unsponsored candidates – do they understand the requirements?	• Should I offer pre-course assessment in:
	  – Foundation skills?
	  – Employability skills?
	  – ANTS?

For all candidates – do they understand the study and skill requirements?	• For all candidates – do they understand the study and skill requirements?
	  – Foundation Skills requirements?
	  – Time commitment?
	  – Resource requirements?
	  – Other areas?
	• Do I have processes to ensure that candidates:
	  – Have an understanding of time commitment?
	  – Have a realistic study plan?
	  – Identify strengths and weaknesses?
	  – Have clear goals?
	  – Obtain mentors/coaches?
	  – Have their progress regularly monitored, and receive timely feedback?
	  – Are coached in study and foundational skills?

Key Factors

2. Training and assessment strategies

The training/assessment strategies used by RTOs typically have the following features:

- delivery of the RII Training Package qualifications (and predecessor Training Package qualifications) required to meet the examination requirements

- delivery of modules following the structure of Units of Competence in the Training Package qualification (i.e. a module for each Unit of Competence)

- apart from past exam papers, there are few other resources available to assist with exam preparation.

Examiners report that candidates are weakest in some content areas and their ability to apply knowledge and skills to specific situations. The key ones they identified were:

1. knowledge and application of legislation, and
2. knowledge and application of mine ventilation principles (for underground Statutory Positions).

Knowledge and application of legislation is a key component of all Statutory Position exams. RTOs address legislation during training in one of three ways:

a. a legislation module at the beginning of the course

b. integration of legislation into the "technical" modules

c. a combination of 1. and 2. above.

Candidates must be able to describe the statutory or legislative framework in which NSW coal mines are operated. Some candidates could not apply this in scenarios presented, e.g. the requirements for dealing with certain notifiable incidents.
Undermanager examination panel report – May 2011

The most effective training and assessment strategy for the legislation area involves:

- providing an overview of key legislation and basic legal concepts (duty of care, reasonably practical, "hierarchy of legislation and guidance material", etc), as well as

- integrating legislative requirements into all relevant aspects of the course, as well as

- learning and assessment activities such as case study examples, as well as

- linking the learning and assessment activities to the requirements of the Statutory Position exams.

Training in legislation subject should be better linked to real life requirements.
Open Cut Examiner candidate

The Trade and Investment NSW website[8] is a useful resource to assist with exam preparation. This could be supplemented by the development of relevant case studies which specifically address a candidate's ability to apply knowledge of legislation.

8 http://www.resources.nsw.gov.au/safety/consultation/coal-competence-board/qualifications/coal/coal

Key Factors

2. Training and assessment strategies

Prior to most Statutory Position exams, the examiners conduct an Information Session, which provides information on their expectations, and feedback on past exams. This is useful to candidates, and others involved in preparing candidates, including:

- trainers, and
- mentors/coaches.

Undermanager's Certificate of Competence Information Sessions conducted by the DPI have to be the best start to preparation as it gives a clear expectation of what the examiners are looking for.
Undermanager candidate

Details of these Information Sessions are sent to all candidates who have applied to undertake the exams, as well as RTOs delivering pre-requisite courses.

For some Statutory Positions (e.g. Deputy, Undermanager) knowledge and application of mine ventilation principles is a critical component of the role, and is therefore a key component of the exam. Consistent comments from recent past examination reports indicate that candidates are inadequately prepared in this area.

A significant proportion of candidates who failed the oral examination were once again found to be not yet competent in relation to de-gassing using either auxiliary fans and/or brattice ventilation, and the principles and practices involved in ventilation generally. Without a strong grasp of the fundamentals of ventilation, particularly in reference to ventilation within a panel, candidates cannot be expected to be deemed competent.
Deputy examination panel report – May 2011

Useful resources have been developed by the Coal Competence Board outlining both content and skill expectations of examiners. These examination guides, for each of the seven (7) coal Statutory Positions, are available on-line[9]. RTOs and trainers could:

1. make candidates aware of these Examination Guides, and encourage them to access and apply the information contained in them

2. ensure that they are familiar with these Guides, and can provide guidance to candidates on the expectations of examiners, and

3. integrate requirements outlined in these Guides into learning and assessment strategies.

The trainer made too many assumptions that we knew the information on ventilation.
Deputy candidate

A common criticism from examiners is that candidates lack the ability to apply what they knew to specific situations. Effective learning and assessment strategies enable candidates to apply what they have learnt to real-life situations, and in this way also assist them to demonstrate their competence to examiners. These could involve learning methods such as problem-solving scenarios, simulations, role plays, projects, etc. which focus on the candidate's practical skills in areas such as:

a. detecting changes and interpreting the meaning of those changes (ANTS – situation awareness)

b. analysing a situation and developing an appropriate response (ANTS – situation awareness and decision making)

c. involving team members in hazard identification and control (ANTS – team work)

d. taking into account legal and operational factors (ANTS – decision making)

e. identifying hazards and prioritising risk (ANTS – decision making)

f. developing and communicating a clear plan (ANTS – decision making and communication)

g. organising people in a crisis (ANTS – leadership).

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9   *http://www.resources.nsw.gov.au/safety/consultation/coal-competence-board/qualifications/coal/coal*

Examiners will typically aim to assess a candidate's ability to solve a workplace-based problem.
Examination Guide – Certificate of Competenceto be a Manager of an Open Cut Mine – p 8

In summary, good practice training/ assessment strategies and meeting employer, candidate and examiner expectations involves RTOs considering the following:

- using the most effective training and assessment methods, such as:
  - real-life scenarios
  - examples from the candidate's workplace
  - integration of the Health and Safety Management System (HSMS) from the candidate's workplace
  - guiding candidates to plan what they wish to learn from visits to other mines (a "log-book" page is included in the Examination Guides, and is a useful resource for planning and recording the outcomes of visits to other mines)[10].

- ensuring that resources used are current, up-to-date and relevant to the training by:
  - using current mine plans and current mine Health and Safety Management System (HSMS) documents
  - when using publicly-owned resources, provide feedback to the resource owner so that the resources can be upgraded and improved
- developing appropriate resources learning activities dealing with the area of legislation
- integrating Statutory Position exam requirements into the learning process – e.g. by using past exam questions and practical, problem solving scenarios as part of the course
- integrating Employability Skills and ANTS into training and assessment
- understanding the expectations of examiners and targeting candidate preparation to meet these expectations
- (for the applicable underground Statutory Positions) ensuring that candidates understand and can apply the fundamentals of ventilation, particularly in reference to ventilation within a panel.

These best-practices do not necessarily involve doing any additional units. Trainers should incorporate "Foundation Skills" and "ANTS" into existing units.

10   A sample log book is included in each of the Examination Guides. These can be accessed at:
      http://www.resources.nsw.gov.au/safety/consultation/coal-competence-board/qualifications/coal/coal

Key Factors

2. Training and assessment strategies

Checklist for RTOs - Training/assessment strategies, resources	
Ask yourself:	**Things to consider**
Are the training/assessment strategies the most appropriate for enabling candidates to demonstrate their ability to apply their knowledge and skills in real life situations?	• Structure of modules – do they need to follow the Units of Competence? • Integrated assessment approaches? • problem and scenario based assessment approaches? • Learner-focused delivery methods?
Are the training/assessment resources: a. the most appropriate for this type of training? b. up to date?	• Publicly-owned or owned by the RTO? • Need for updating current or development of additional publicly-owned resources? • Currency/relevance of resources? • Integration of past exam questions into training and assessment?
How effective are the current learning processes and resources for: a. legislation? b. ventilation (where applicable)?	• Separate module or integrated approach? • Links to the requirements of the Statutory Position exams? • Guidance provided to candidates?
How effective are the current learning processes and resources for: a. Employability Skills? b. Associated Non Technical Skills (ANTS)?	• Understanding of requirements for ANTS in the Statutory Position exams? • Recognition of ANTS competencies gained through employer courses? • Integration of ANTS into existing modules – possibly through simulations and role playing? • Separate modules addressing ANTS?

Key Factors

3. Mentoring/Coaching

Why is this an Issue?

- Mentoring/coaching is consistently identified (by candidates, trainers, examiners) as the critical factor in success at the Statutory Position examinations.

- Yet, trainers typically have little if any contact with workplace coaches or mentors involved in preparation of candidates for the Statutory Position exams.

- Workplace mentoring/coaching is:
  - generally unstructured
  - often organised by the candidate, utilising the time and goodwill of work colleagues
  - sometimes organised and coordinated by the employer
  - rarely organised or coordinated by the RTO.

The terms Mentoring and Coaching are used interchangeably in the mining/extractive industries, but do have different meanings:

- **Mentoring** focuses on the person, their career and support for individual growth and maturity

- **Coaching** tends to be job-focused and performance oriented.

Because these two terms are used interchangeably and in different ways, this Guide will use the term mentoring/coaching.

Without coaching most candidates will have difficulties passing the exams.
Examiner

The main roles of mentors/coaches are to assist candidates to:

1. bridge the gap between theory and practical application during coursework, and

2. prepare for the exams.

There are a variety of models of mentoring/coaching used to assist candidates, including:

- workplace mentors/coaches, either organized by:
  - the employer or
  - the candidate

- the RTO's trainer performing the role of mentor/coach (typically used where the candidate is not supported by their employer)

- an external mentor/coach (typically the external person would be a very experienced senior Statutory Official, or a past examiner), either organiSed by:
  - the employer or
  - the candidate.

Coaching focuses on the exam rather than them having to fit it in with work and personal commitments.
RTO Trainer

Candidates, employers, trainers and examiners consistently reported that they found workplace mentoring/coaching is:

- generally unstructured

- often organised by the candidate, utilising the available time and goodwill of work colleagues, or using their trainer as a coach

- sometimes organised and coordinated by the employer – either using internal Statutory Officials or external experts

- rarely organised or coordinated by the RTO.

Coaching/mentoring "...takes away the fear" "...is very critical"
Candidates

A more disturbing finding from the research is that where the mentoring/coaching occurs in the candidate's workplace, RTO trainers generally have little or no contact with the mine-based coaches or mentors. This results in a lack of structured integration of the class-room and on-the-job training components.

Key Factors

3. Mentoring/Coaching

Given the criticality of the mentor/ coach role, the ways that an RTO could facilitate mentoring/coaching include:

1. ensuring that all candidates have a qualified and committed mentor/coach – this may involve providing a mentor/coach where one is not available in the workplace

2. ensuring that mentors/ coaches understand their role/ responsibilities by developing resources or a series of workshops for workplace mentors/coaches. This will ensure that the mentor/coach is prepared for the requirements of the role,

3. establishing the communication with the mentor/coach at the beginning of the training of candidates and include this in the Training Plan[11]

4. providing mentors/coaches with a formal process involving a Training Plan or check sheet of areas to be covered during the mentoring process targeted to key areas identified for an individual or across the qualification

5. ensuring that there is a clear understanding of the interface between classroom and on-the-job training, and the mentor's role in on-the-job training (this should be detailed in the Training Plan)

6. ensuring that there is a clear understanding of roles/ responsibilities for exam preparation (this should be detailed in the Training Plan) establishing processes to ensure that communication is established and maintained between trainers and all coaches/mentors

7. identify progress of learning for all candidates, and make additional resources/mentors available for additional individual support as required

Employers may need guidance from RTOs to assist them to select appropriate mentors/coaches, and to train them in their role/ responsibilities. Key selection criteria may include current knowledge of:

*   training provided by RTOs, including the requirements of the RII Training Package qualification

*   mining processes, hazards and management of risks and how legislative requirements affect mine processes

*   examination processes, materials and methodologies (a requirement may be to attend Examiner Information Sessions)

*   the role and responsibilities of a Statutory Official.

The candidate gets direction and support that is relevant to the subject they are learning and it is someone they can turn to.
Employer sponsoring candidates

It is important for the RTO's trainer to communicate with the mentor/ coach and monitor progress against a Training Plan. Information gained from this can be used to develop strategies to close gaps in knowledge and evaluate amount of actual time spent in the mentoring process to aid future candidates.

Use of a log book may also assist the mentoring/coaching process, and provide a useful record when preparing for the exams. Examiners report that a log book can be useful for the candidate during the oral exam to demonstrate to examiners the amount of practical experience the candidate has obtained[12].

Examples of best practice Mentoring/ Coaching:

*   A senior Statutory Official at a mine performing the role of workplace mentor/ coach, as part of their accountability to develop employees.

*   Employers hiring an external past examiner to perform the role of mentor/coach.

*   Regular communication between the trainer and mentor/coach.

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11   An example of a Training Plan can be accessed at:
     http://www.training.nsw.gov.au/training_providers/apprenticeships_traineeships/training_plans/index.html#Download_the_new_Training_Plan
     This example is for apprenticeships in NSW, but could be adapted for Statutory Position training.

12   A sample log book is included in each of the Examination Guides developed by the Coal Competence Board.
     These can be accessed at: *http://www.resources.nsw.gov.au/safety/consultation/coal-competence-board/qualifications/coal/coal*

Checklist for RTOs – Mentoring/Coaching	
Ask yourself:	**Things to consider**
How do I ensure that all candidates have a mentor/coach?	• Workplace mentor/coach • External mentor/coach • RTO provides mentor/coach
Do employers need assistance in selecting mentors/coaches?	• Selection processes for mentors/coaches
Do mentors/coaches need training in their roles/responsibilities?	• Understanding of roles/responsibilities • Use of the Training Plan • Mentor's role in on-the-job training • Roles/responsibilities for exam preparation • Communication processes between trainer and mentors/coaches
Do I have a Training Plan and communication process with all mentors/coaches?	• Communication processes between trainer and mentors/coaches • Review of progress against Training Plan

Key Factors

4. Preparation for Statutory Position Examinations

Why is this an Issue?

- Some RTOs focus only on delivery of the VET qualification, and do not provide examination preparation.
- Examiners have strongly expressed the view that RTOs and their trainers need to develop learning and assessment strategies which provide targeted and effective preparation for the examinations (both written and oral).

The main customers of an RTO delivering training for a pre-requisite qualification for the Statutory Positions exam:

1. the candidate for the Statutory Positions exam, and
2. the employer of the candidate, especially where the employer is funding the costs of training and exam preparation
3. indirectly, the Statutory Positions examiner who assesses the RTO's graduates.

Most candidates and employers expressed the view that RTOs did not typically acknowledge the expectation of both customers that the course offered would enable candidates to successfully gain both the vocational qualification and the certificate of competence to be a Statutory Official.

RTOs may see their role as solely to train and assess a candidate as competent against the requirements of the particular Training Package qualification being delivered. Yet, the critical requirement in Training Packages is to develop competence. This does not just involve developing knowledge, but also involves the following key aspects of competence:

- the ability to apply, demonstrate the knowledge and skills in a workplace context
- Employability Skills as identified in the Training Package.

I had to organise meetings, visits and mock orals for myself.
Undermanager candidate

Developing competence involves the four (4) Dimensions of Competence:

1. Task skills
2. Task management skills
3. Contingency management skills, and
4. Job or role environment skills.

Examiners are looking for all four Dimensions of Competence, and a review of their comments reveals dissatisfaction with candidates' demonstration of all, or some, of these dimensions, which may in turn point to gaps in RTOs' training and assessment strategies.

In addition, part of meeting the requirements of RTO registration, is the requirement to establish and meet the needs of clients (AQTF S 2.1, SNR 5.1, 16.1).

Most individual trainers understand the expectations of their customers (the candidates) and take it upon themselves to prepare candidates for the Statutory Positions exams, generally using their own resources, or publicly resources such as past written exam papers and examiners reports.

Better structure in training geared to sitting for exams is needed.
RTO trainer

However, RTOs are largely leaving this to individual trainers, rather than developing training and assessment strategies and materials focusing on the practical application of skills and on exam preparation, and may need to consider strategies such as:

1. developing a high level understanding of the purpose and content of the Statutory Positions exams and how they relate to the competencies in the VET course

2. ensuring learningand assessment resources develop candidates' practical skills and understanding of work requirements e.g. scenarios based on DTI Safety Alerts, Safety Bulletins and other resources on the DTI website such as Electrical Engineering Safety Information Sheets – e.g. learning exercises to discuss the significance of incidents, how lessons learnt can be applied to their and other mine sites, and possible areas which may be covered in Statutory Positions exams

3. providing information to trainers, candidates and mentors/coaches of resources available and where to find them – e.g. Examination Guides, past exam papers and examiners reports available on the NSW Dept of Trade and Investment (DTI) website.

There needs to be a better link between course content and exam – course needs to be more relevant to exam.
Examiner

4. developing additional resources to assist exam preparation – e.g. assessments linked to the requirements of the exams, individual and group exercises to prepare candidates for oral exams, etc.

5. using Examiner's comments listed on the DTI website as a tool for gap analysis in training, assessment and exam preparation

6. ensuring that all trainers attend Examiners information sessions, and encourage candidates and mentors/coaches to attend

7. ensuring that, as a minimum, the following exam preparation practices are followed:

   – visits to other mines, with structured objectives and recorded outcomes

   – setting past written exam questions as part of course assessment, and

   – conducting practise oral exams

8. ensuring that trainers liaise with mentors/coaches to identify:

   – candidate weaknesses

   – gaps in training and knowledge

   – strategies and responsibilities to address gaps.

Key Factors

4. Preparation for Statutory Position Examinations

Checklist for RTOs – Preparation for Statutory Position examinations	
Ask yourself:	**Things to consider**
Do I understand my customers and their expectations?	• Candidates • Employers • Others?
Is my training and assessment aimed at: • only the Training Package ("pre-requisite") qualification? • preparation for the Statutory Position exams?	• RTO standards met? • Customer expectations met? • Evaluation of exam results
Do I provide exam preparation resources to trainers, or leave it to their initiative?	• Publicly available resources • Need for additional resources • Resources based on DTI Safety Alerts, Safety Bulletins and other resources on the DTI website
Do I have specific strategies to ensure trainers are current with exam requirements?	• Provide resources to trainers • Require trainers to attend examiners information sessions • Monitor and evaluate trainers and their outcomes

Do I ensure that trainers liaise with mentors/coaches regarding exam preparation?	• Communication protocols to identify:
	  – candidate weaknesses
	  – gaps in training and knowledge
	  – strategies and responsibilities to address gaps

Do I have the minimum exam preparation methods in place?	• Mine-site visits • Past written exam questions as part of course assessment • Conducting practise oral exams

Key Factors

Additional Factors – RTOs

a. Trainers

Why is this an Issue?

- RTOs commonly focus on ensuring Trainer/Assessor competencies are current (as per AQTF/NVR requirements) but rely on trainers to maintain their currency of technical competencies.
- Some RTOs leave course content and delivery largely to the trainer, with little monitoring or evaluation of trainers and outcomes.
- Most trainers have little if any contact with workplace coaches/mentors assisting candidates to prepare for the examinations.

The quality of trainers is a key aspect of the success of candidates at the Statutory Positions examinations. Quality of trainers involves three aspects:

1. Qualifications – RTOs should ensure the trainers delivering Statutory Positions training have the required qualifications as a trainer/assessor and as a Statutory Official
2. Technical competence – in the subject matter being taught; can be determined by assessing the person's industry experience – both number of years and the type of experience (e.g. different types of mining operations, range of roles/responsibilities). and
3. Currency of industry skills/ knowledge.

My trainer was a big influence in me passing both of the exams at the first attempt, if you were prepared to put in the work he would challenge your answers and get you thinking the way you needed to succeed in the exams.
Open Cut Examiner candidate

The current training is not encouraging candidates to think as an Undermanager.
Undermanager examiner

Determining currency of industry skills/knowledge is a challenging aspect of the quality of trainers. A trainer may have the required qualifications and be technically competent at a particular time, but may not be up to date with latest industry developments and practices. RTOs need to have clear requirements for trainers to develop and maintain current competency/knowledge in all four of the following areas:

1. training and assessment competencies
2. relevant vocational competencies at least to the level being delivered or assessed
3. demonstrate current industry skills directly relevant to the training/assessment being undertaken, and
4. continue to develop their vocational education and training (VET) knowledge and skills as well as their industry currency and trainer/assessor competence.

Specific strategies that an RTO may use to address these requirements could include:

- courses/seminars to maintain industry technical competence and industry developments (recent incidents, process/ technological change, etc)
- keeping up to date with examination requirements and processes – e.g. by attending Examination Panel Information Sessions.

Key Factors

Additional Factors - RTOs

> **Examples of best practice regarding trainer's technical competence:**
>
> 1. trainers working in a Statutory Position for a number of shifts each year
>
> 2. trainers actively involved in reviewing or auditing elements of a mine's HSMS
>
> 3. trainers delivering "refresher training" for Statutory Position holders employed by specific mines
>
> 4. trainers involved as casual examiners in the oral exams for some Statutory Position exams – this maintains current knowledge of exam requirements.

A structured maintenance of competence program for all trainers delivering and assessing Statutory Position training allows RTOs to meet their compliance requirements as well as ensure the quality of their staff and training. Elements in a structured maintenance of competence program could include:

- upgrading trainer/assessor qualifications to meet latest NVR/AQTF standards

- validation and sharing of resources and learning strategies between trainers

- participation in professional association activities (e.g. attendance at Continuing Professional Development activities, courses, etc.)

- courses/seminars to maintain knowledge of industry technical and other developments (recent incidents, process/technological change, etc)

- requirements for mine-site visits, and/or

- keeping up to date with examination requirements and processes, including attendance at Examination Panel Information Sessions.

The trainer provided a whole range of information electronically throughout the course as well as advice on exam techniques and how to set out your answers and make the most of the time you have.
Deputy candidate

This information can be used to inform how training is allocated, e.g. having one trainer deliver all modules in a particular qualification or having specialist trainers deliver or co-deliver specific modules.

To ensure that training is consistent and transferable between different trainers and different locations, RTOs should actively monitor and evaluate trainers and their outcomes by:

- monitoring course content, delivery and assessment, and

- evaluating trainer effectiveness, including results of candidates undertaking the exams.

> **Examples of best practice regarding training consistency:**
>
> 1. providing accepted resources for trainers to use and distribute
>
> 2. providing set course syllabus complete with documented assessments
>
> 3. evaluating trainer effectiveness – may include obtaining results from Statutory exams and investigate differences in results.

Key Factors

Additional Factors – RTOs

Checklist for RTOs – Trainers	
Ask yourself:	**Things to consider**
How do I ensure that I have the best quality trainers for Statutory Position training?	• Candidates • Employers • Others?
How do I ensure that trainers for Statutory Position training maintain their currency/competence?	• Trainer/assessor requirements • Industry technical competence • Examination requirements and processes • Professional development • Information sharing
Do I need to have a structured maintenance of competence program for trainers?	• Upgrading trainer/assessor qualifications • Resource and learning strategies sharing between trainers • Professional association activities • Mine-site visits
How do I ensure that training is consistent and transferable between different trainers and different locations?	• Provide resources to trainers • Require trainers to attend examiners information sessions • Monitor and evaluate trainers and their outcomes
Do I ensure that trainers liaise with mentors/coaches regarding exam preparation?	• Monitor and evaluate trainers and their outcomes • Monitor course content, delivery and assessment • Validation, moderation
What is the best use of trainer expertise?	• One trainer delivers all modules • Specialist trainers deliver specific modules • Co-delivery/assessment

Key Factors

Additional Factors – RTOs

b. RTO Liaison with Employers

Why is this an Issue?

- Employers generally have little say in the electives delivered by the RTO and some employers found current delivery is not flexible enough
- In most cases, employers are not engaging RTOs on the basis of a Training Plan
- There is no formal evaluation of training effectiveness.

Employers often state that they want more flexibility to be offered by RTOs in training delivery. Selection of electives in training qualification is also an area where employers want to have a say.

Even though "flexible delivery" is a great concept, there are practical constraints to providing flexibility in training delivery, which may not be clearly understood by employers or RTOs.

For example, electives which can be offered by an RTO, have to take into account:

1. the packaging rules in the Training Package qualification[13]
2. the requirements which the Mining Competence Board may specify for the units of competence required for a qualification to be accepted as meeting the requirements to sit for the Statutory Positions exam[14]
3. the ability of an RTO to offer a wide range of electives, which may mean, if all electives are able to be chosen, having small numbers undertaking some electives.

RTOs therefore must maintain currency of the Training Package, its requirements as well as the specified requirements of the Mining Competence Board, and be able to communicate these to candidates and employers.

It is possible for individuals to choose electives in the diplomas that do not directly prepare them for their operational management role
Employer – metalliferous/ extractive sector

RTOs reported that there was great value in liaising with employers to ensure, as far as possible, these practical constraints are understood and to negotiate course delivery that suits both the employer and candidates by:

- developing an understanding of the employer's business (in particular shift and roster arrangements) and constraints/ opportunities that this provides for training delivery
- negotiating training delivery which best meets the needs of candidates and employers
- selecting appropriate electives which meet the requirements of:
  - the packaging rules for the Training Package qualification, and
  - the Mining Competence Board
  - the practicality of delivery by the RTO, and
  - the needs of candidates and their employers.

There is often a lack of understanding of the roles that the RTO and employer should be performing in the learning process. This is a critical issue for candidates for the Statutory Position exams, as the learning occurs in the classroom (delivered by the RTO) and in the workplace (typically by mentors/ coaches).

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13   Current information is available at *www.training.gov.au*

14   Current requirements can be accessed in the current Application Forms for each Statutory Positions exam in the *Mining qualifications and competencesection* of the NSW Department of Trade and Investment website: *http://www.resources.nsw.gov.au/safety/consultation/coal-competence-board/qualifications*

The most effective way to define these roles and the responsibility for the components of learning is to have some form of contract. This could be a formal contract, but could also be adequately addressed in most cases by a letter or basic "memorandum of understanding". Whatever the form used, the contract needs to define how each party is accountable for:

1. off-the-job learning and assessment (e.g. RTO responsible for all classroom training and the issuing of the RIIO9 qualification)

2. on-the-job learning and assessment (e.g. the employer-appointed mentor/coach responsible for application of the theory to the workplace; RTO responsible for organizing visits to other mines)

3. preparing candidates for exams (e.g. RTO responsible for preparation for the written exam, the employer-appointed mentor/coach responsible for preparation for the oral exam)

4. communication and reporting (e.g. specific communication at specific intervals, liaison of RTO trainers with mentors/coaches)

5. monitoring and evaluation (e.g. determine quality indicators to be applied and monitored throughout, and who is responsible for the evaluation processes).

Examples of best practice - RTO Liaison with Employers:

1. a contract between the RTO and employer outlining roles/responsibilities, and monitoring progress

2. RTO providing to employers and candidates a written Training Plan containing details of class-room training and learning activities on the job, including organized visits to other mine sites.

As noted earlier, mentors/coaches are critical to the success of candidates, and regular liaison between trainers and mentors/coaches is therefore essential in sharing information about candidates' progress. As part of the terms of engagement between RTOs and employers, RTOs need to establish processes to ensure that contact is established and maintained between trainers and workplace coaches/mentors assisting candidates to prepare for the examinations.

RTOs and employers noted/reported that there is often confusion in roles/responsibilities, which works to the detriment of the candidate. To avoid this, they recommended that contracts need to be very clear on:

• the accountabilities of each party for preparing candidates for examinations

• the availability of workplace mentors/coaches – RTOs need to ensure that mentors/coaches are assigned to a candidate or group of candidates before the course commences.

The best way to manage training involving both classroom and on-the-job learning components is to use a Training Plan. This needs to be a different document to the contract referred to in the previous section. The Training Plan involves employers in planning and monitoring of training and should identify:

1. how training is delivered
2. the on-the-job application of classroom training
3. liaison between trainers and workplace mentors/coaches
4. how candidates prepared for the exams, and
5. any learning issues and how they will be addressed.

RTOs need to work with employers to specifically address Associated Non Technical Skills (ANTS). As stated above, examiners are assessing candidates on ANTS competencies, and RTOs need to develop effective training and assessment strategies for this area.

Employers quite often have programs in place which provide candidates with ANTS competencies. This may involve an internal supervisor skills development program, or attendance at a course such as a Frontline Management Program. Therefore, RTOs need to work with employers to recognize where ANTS competencies have already been gained by particular candidates, and not repeat training/assessment in ANTS competencies for these candidates.
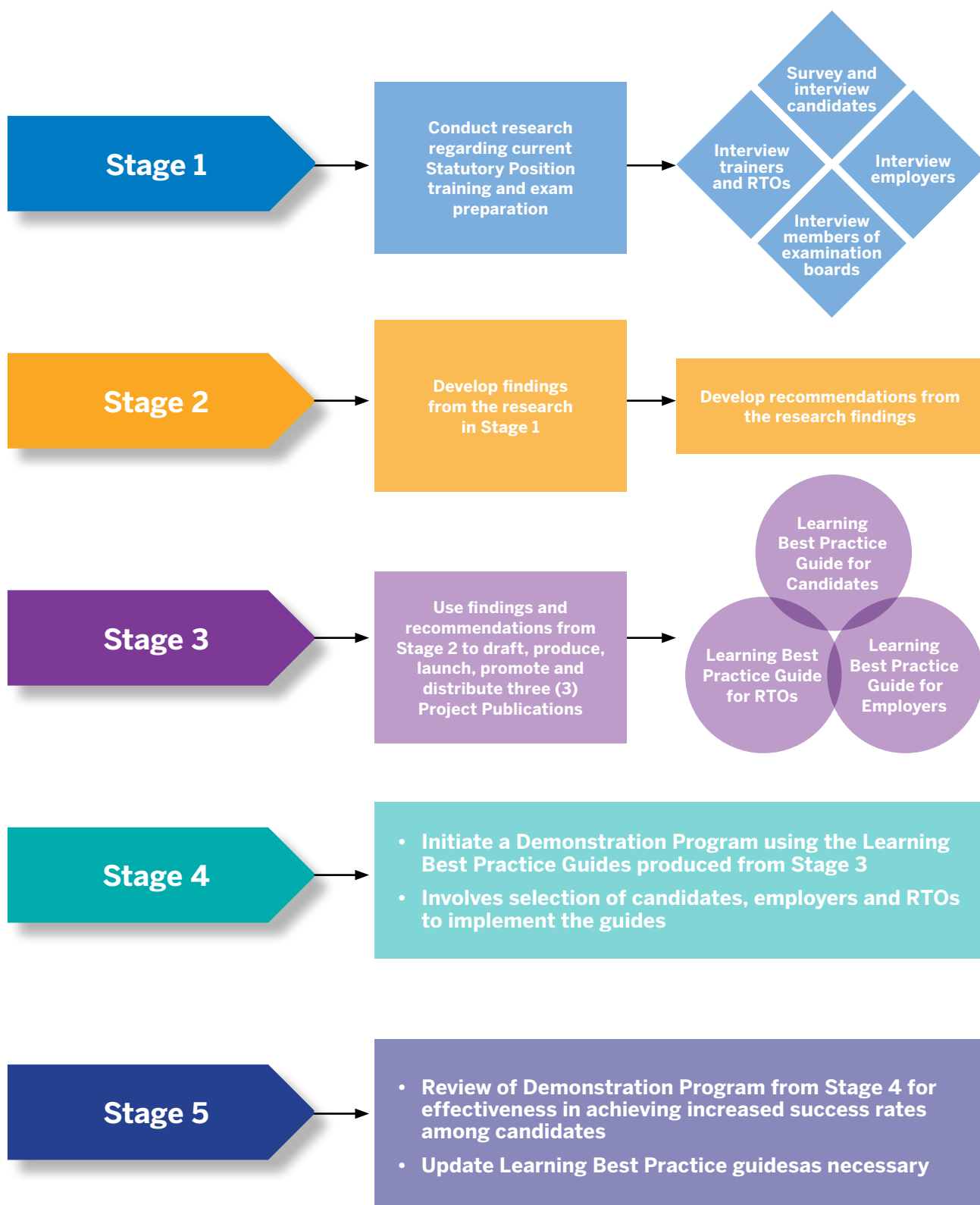
Key Factors

Additional Factors - RTOs

Checklist for RTOs - Liaison with Employers	
Ask yourself:	**Things to consider**
How do I offer flexible delivery to my customers? What are the customer's constraints? What are the feasible options for delivery?	• Shift/roster arrangements • Needs of employers • Needs of candidates • Delivery options
Am I offering appropriate electives?	• Packaging rules in the training package qualification • Requirements of the mining competence board • Preferences of employers and candidates • Practicality of offering a range of electives
Do I have effective communications with employers of all candidates?	• Understanding of the employers business • Understanding of training delivery • Selection of electives • Roles and responsibilities
Do I have a contract with employers of all candidates?	• Off-the-job learning and assessment • On-the-job learning and assessment • Preparing candidates for exams • Communication and reporting • Monitoring and evaluation
Is there clear accountability for exam preparation?	• Written exam • Oral exam.
Is there a workplace mentor/coach for each candidate?	• Liaison between trainer and mentor/coach • Use of a training plan to assist communication
Has the Training Plan been made available to the candidate's employer and mentor/coach?	• How training is delivered • On-the-job application of classroom training • Liaison between trainers, mentors/coaches • How candidates are prepared for the exams • Any learning issues and how they will be addressed
Have I discussed ANTS training and assessment strategies with each candidate's employer?	• Recognition of employer courses and existing competencies

Key Factors

Appendix 1

Overview of NSW Statutory Positions Project

Stage 1 → Conduct research regarding current Statutory Position training and exam preparation →

- Survey and interview candidates
- Interview trainers and RTOs
- Interview employers
- Interview members of examination boards

Stage 2 → Develop findings from the research in Stage 1 → Develop recommendations from the research findings

Stage 3 → Use findings and recommendations from Stage 2 to draft, produce, launch, promote and distribute three (3) Project Publications →

- Learning Best Practice Guide for Candidates
- Learning Best Practice Guide for RTOs
- Learning Best Practice Guide for Employers

Stage 4 →
- Initiate a Demonstration Program using the Learning Best Practice Guides produced from Stage 3
- Involves selection of candidates, employers and RTOs to implement the guides

Stage 5 →
- Review of Demonstration Program from Stage 4 for effectiveness in achieving increased success rates among candidates
- Update Learning Best Practice guidesas necessary

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