



**THE RIGHT SKILLS ► A PROVEN ADVANTAGE**

**ITA COMPETENCY ASSESSMENT FRAMEWORK  
DISCUSSION PAPER**

**AUGUST 2007**

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# ITA COMPETENCY ASSESSMENT FRAMEWORK DISCUSSION PAPER

## PURPOSE

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This paper outlines the principles governing use of competency assessment in ITA-approved industry training programs, compares historical apprenticeship models with current trends toward increased use of competency assessment, defines key elements of competency assessment, and poses questions for industry consideration. Appendices describe best practices gleaned from other jurisdictions.

The paper is intended to inform discussion at the September 6, 2007 stakeholder consultation regarding issues, roles and responsibilities related to competency assessment. It is a companion piece to other workshop materials which define competency assessment and describe a range of assessment models.

## PRINCIPLES:

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- ITA has legislated accountability to set and maintain standards for industry training and credentialing.
- ITA supports the use of competency assessment as a valid tool to measure achievement of performance standards required for industry training program completion and/or qualification challenge.
- ITA recognizes that there are a variety of valid models/methods of competency assessment, and that industry is best-positioned to determine on a program-specific basis the most appropriate model/method.
- ITA further recognizes that industry should define program-specific pre-requisites for Assessor training and designation.
- ITA's role relative to competency assessments includes approving competency standards developed by industry, but human resources and budget constraints limit ITA's ability to fund or administer competency assessments for program participants or challengers.
- ITA's role relative to competency assessors includes development and delivery of training, evaluation, and designation for assessors, and maintenance of a registry of designated assessors. Program-specific qualifications (prerequisites) for assessors will be defined by industry on a program-specific basis.
- Competency assessment, where used in an ITA-approved Industry Training Program, must meet assessment criteria outlined in section 3.1 of ITA Program Policy PP1000, and will be governed by ITA Standards Specifications for

Competency Assessment and Assessor Designation (currently under development).<sup>1</sup>

## **BACKGROUND:**

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### **Historical Time-based Apprenticeship System**

Historically, BC Apprenticeship was characterized as a time-based training system wherein participants completed required work hours and technical training levels as a condition of certification. The final sign-off and recommendation for certification by the sponsor/employer was a proxy for formal competency assessment. With notable exceptions such as hairstyling (standardized practical exam) and welding (log book), very few Industry Training Programs contained formal practical assessment of competency as a requirement for program completion or certification.

### **Increasing Trend Toward Competency Assessment**

There is increasing support from industry to incorporate formal competency assessment into program outlines for new and updated training programs. The Marine, Heavy Industrial and Crane Industry programs are examples with significant reliance on competency assessment. It is important for ITA and industry stakeholders to understand the implications of increased use of competency assessment and agree on their respective roles and responsibilities within the ITA competency assessment framework.

### **Moving Forward within a Competency Assessment Framework**

In May of 2007, the ITA Board Approved a Workplace Competency Assessment Policy which defines high-level principles related to workplace competency assessment<sup>2</sup>. Because ITA has legislated accountability to set and maintain industry training standards, a Competency Assessment Framework must further define ITA and industry standards for assessment and for assessors as well as the respective roles of the ITA and industry. This requires clarity amongst stakeholder around definitions of competency assessment, the models available, and the standards requirements for assessment tools and for assessors to ensure the validity of competency assessment as a legitimate measure of skills within the program outline.

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<sup>1</sup> Section 3.1 clarifies that assessment tools must test against the skills profile and competencies in the program outline.

Paragraphs 4 & 5 are particularly relevant. Paragraph 4 reads: "Assessment tools and processes measure cognitive, practical and other relevant capabilities and are rigorous, relevant, and meet peer review standards. For formal workplace competency assessment, the proponent must present a model that is consistent with the ITA Standards Specifications, and include an administration plan for the proposed competency assessment that is both functionally and financially sustainable and consistent with ITA policy PP1015, Workplace Competency Assessment." Paragraph 5 reads: "There is an identified process for regular review of the skills profile, competencies and assessment tools with substantial industry input to ensure maintenance of quality and standards, as well as relevance to industry needs."

<sup>2</sup> ITA Operations Policy PP1015, Workplace Competency Assessment, is attached.

**Key Definitions:**

**Assessor:** Evaluator of competence based on observation and gathering of evidence based on the learner's practical application of knowledge through demonstrated performance as opposed to evidence of learner's theoretical knowledge demonstrated through oral or written examination.

**Candidate:** the person subjected to a process of assessment wherein they demonstrate evidence of achievement or non-achievement of specified competencies.

**Competency:** demonstrated ability to apply knowledge to perform and manage tasks and duties to the standard defined by industry and expected in employment.

**Competency Standard:** an evidence-based, industry-determined specification of performance which defines the knowledge and skills required to effectively fulfill the job requirements of the trade as defined in the NOA and associated ITA approved program outline. Competency standards are comprised of units of competency, which are themselves made up of elements of competency together with performance criteria.

**Competency-based Training:** Training which develops the knowledge, skills, and abilities required to achieve competency standards.

**Competency-based Assessment:** Observation, gathering and judging of evidence of performance in order to determine whether or not an individual has achieved competency standards. Competency Assessments take place in a variety of settings, but generally they occur at the workplace, at a school or training institution, or at a specialized testing facility.

**Formative Assessment:** Assessment that takes place during the process of learning and teaching.

**Performance Criteria:** Specific, measurable statements identifying the skill level required to meet the outcome, confirmable through evidence.

**Quality Assurance:** The process of ensuring that the degree of excellence specified is achieved.

**Summative Assessment:** Assessment for making a judgment about achievement of program requirements (exit-level outcomes). This is carried out when the candidate is ready to be assessed at the end of the program of learning and determines eligibility for certification.

**How Does ITA Depict the Competency Assessment Framework as it Exists Today?**

*Three Basic Program Models:*

Although work-based training remains an important component in a competency-based Apprenticeship program, there is no prescribed work-based training time requirement. The length of work-experience required to achieve competency is variable. Generally the theoretical component of the program (school-based levels of technical training) is prescribed, as is the requirement to provide evidence that specific competency standards have been achieved. The work-based training time is dependent on the apprentices’ skills progression and proof of competency rather than elapsed time on the job.

Traditional Time-based Apprenticeship:

The typical time-based apprenticeship is comprised of a theoretical (school-based) component meant to facilitate theoretical competence, and a prescribed term of work-based (on-the-job) training component.

Theoretical Standards	Theoretical Assessment Tools	Work-based Standards	Work-based Assessment Tools	Outcome	Examples of Programs
Provincial / National Standards	Standard Level and Certification Exams	Employer-Specific Standards	Final Employer Attestation	Individual has met Provincial/National standards for theoretical knowledge and employer-specific standards for practical competency	Carpentry  Cook

Competency-based Apprenticeship

A competency-based apprenticeship has no prescribed work-based training time requirement, and is generally comprised of a theoretical (school-based minimums) component and provision of evidence that specific competency standards have been achieved.

Theoretical Standards	Theoretical Assessment Tools	Work-based Standards	Work-based Assessment Tools	Outcome	Examples of Programs
Provincial / National Standards	Standard Level and Certification Exams	Provincial / National Standards	Formal Practical Competency Assessment	Individual has met Provincial / National standards for theoretical knowledge and Provincial / National standards for practical competency	Mobile Crane Operator  Marine Mechanical Technician

**The Competency Assessment Framework as a Matrix:**

Competency Assessment in Industry Training is best described as a matrix comprised of 3 main program models, and 4 pathways to certification. Most ITA apprenticeship training programs reside in the lower left cell of the matrix; but the trend is for increasing numbers of programs to migrate upward and rightward moving from pure time-based into hybrid or competency-based models and from block training pathways into other pathways along the continuum.

<b>COMPETENCY-BASED</b>		<ul style="list-style-type: none"> <li>• Mobile Crane R(X4programs)</li> <li>• Boom Truck (X4 programs)</li> </ul>		<ul style="list-style-type: none"> <li>• Marine Mechanical Technician (X5dorsements)</li> </ul>
<b>HYBRID</b>	<ul style="list-style-type: none"> <li>• Tower Crane</li> <li>• Bricklayer <b>R</b></li> <li>• Industrial Electrician <b>R</b></li> <li>• Marine Repair Technician</li> </ul>	<ul style="list-style-type: none"> <li>• Residential Construction Framing Technician</li> </ul>	<ul style="list-style-type: none"> <li>• Welder <b>R</b> (X3)</li> </ul>	<ul style="list-style-type: none"> <li>• Heavy Equipment Operator (X6e)</li> <li>• Asphalt Paving Laydown Technician (X5e)</li> </ul>
<b>TIME-BASED</b>	<ul style="list-style-type: none"> <li>• Modular Delivery: Glazier <b>R</b> (X8modules)</li> <li>• Lather Wall&amp;Ceiling <b>R</b> (X4m)</li> <li>• Drywall Finisher(X3m)</li> <li>• Plasterer (3m)</li> </ul>		<ul style="list-style-type: none"> <li>• Automotive Service Technician 1, 2, 3, 4 <b>R</b></li> <li>• Parts &amp; Warehousing Person</li> <li>• Partsperson 1, 2, 3 <b>R</b></li> <li>• Logistics &amp; Distribution Person 2, 3</li> <li>• Horticulture Technician</li> <li>• Landscape Horticulturist</li> <li>• Production Horticulturist</li> <li>• LMI: Bench, Circular File, Sawfitter</li> <li>• Planermill Maintenance Technician 1, 2</li> <li>• Rig Tech 1, 2, 3 <b>R</b></li> </ul>	<ul style="list-style-type: none"> <li>• Automotive Painter <b>R</b> (X1e)</li> </ul>
<b>MODEL</b>	<b>TRADITIONAL</b>	<b>SPECIALIZATION</b>	<b>PROGRESSIVE CREDENTIAL</b>	<b>ENDORSEMENT</b>
<b>PATH</b>				

As industry proposes competency assessment as a component of new or updated industry training programs, a number of questions must be answered. Some of these questions are posed on the following page.



## **ELEMENTS FOR ACHIEVING SUCCESS**

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**The aims of the ITA in developing competency assessment standards and assessor standards are to:**

- Promote quality, consistency, accuracy and fairness in the assessment and awarding of trades qualifications
- Ensure high and consistent competency assessment standards across all programs and regions
- Provide a basis for continued confidence in ITA-issued qualifications

**Critical elements for achieving success:**

- Common adherence to standards
- Consistency in assessment practices
- Reliability of assessment evidence
- Sufficiency of performance competence evidence
- Commitment of employers
- Professional status of assessors

## **QUESTIONS TO CONSIDER:**

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- 1. In a competency-based program model, what role does employer/sponsor sign-off play?**
- 2. For programs which currently use sponsor final sign-off and recommendation for certification as the proxy for a more formalized competency assessment, how will employers feel if a form of 3<sup>rd</sup> party or external assessment is a requirement for completion/certification?**
  - When ITA introduced a requirement that recommendation for certification must be signed by a qualified individual (in most cases a certified tradesperson or equivalent), a number of employers/sponsors were unhappy that they or their staff could no longer perform sign-off if they were not qualified.
- 3. What type of assessor qualifications should form a standards specification for ITA – designated assessors?**
  - There are different types of competency assessment tools, some of which can be performed on-the-job by employers/supervisors, and others which could be delivered by external 3<sup>rd</sup>-part assessors on the job site, at a training institution, or at a specialized assessment centre.
- 4. How will an adequate pool of assessors be recruited, trained and designated, retained, compensated and supervised?**
  - Against what standards should ITA approve assessors?  
ITA will develop and deliver and fund an assessor training course for individuals who meet industry-determined program-specific criteria (prerequisites); and will designate and maintain a registry of approved assessors.
  - Industry will set program-specific criteria (e.g. certification requirements, experience and time-in-trade requirements, specialization, etc.)
- 5. How will industry manage the system so that cost-recovery does not present a significant barrier to candidates? Should ITA have a role in approving fees for service?**
  - Competency assessment requires greater investment of time and money than group administration of written theory exams which can be invigilated by persons with no program-specific expertise. It is assumed that where formal 3<sup>rd</sup> party

assessments form a component of a training program or certification challenge that there will be a fee for service fully or partially paid for by the candidate.

- 6. Who performs quality control? Should Industry take responsibility for auditing performance of work-based training and assessment at the work site?**
- 7. If specialized assessment centres/equipment are required, how will this be funded?**
  - ITA has funding constraints which will limit funding for actual performance of assessments of capital improvements of purchases for delivery of assessment services.

# **APPENDIX 1**

## **Best Practices Related To Competency Assessment**

## APPENDIX 1

### Best Practices Related To Competency Assessment

#### Defining What Can Be Assessed

- Assessment is restricted to tasks and performance criteria contained within the competence standards comprising the Training Program. Strict definition and adherence to performance criteria are critical to ensure the tool measures how well work tasks must be performed, removing subjectivity and bias.

#### Elements Required for Good Quality Assessment

- **Fairness:** All candidates must be able to pursue the assessment equally, and activities must be reasonable and not designed to “catch people out”;
- **Transparency:** The link between competency standards, training and assessment should be completely visible;
- **Equal Access:** Employers, candidates, assessors and quality controllers must all have equal access to uniform training and assessment processes based on defined learning outcomes and measurements; Methods used should be straightforward, readily arranged, and not interfere unduly with work or learning activities.
- **Validity:** Competency Standards against which performance is assessed define the task which must be done and the standard of performance that must be demonstrated. Standards of performance will typically include required quality, quantity, time limits, efficiency and safety measures and so forth.
- **Reliability:** Tools should not be ambiguous or provide room for interpretation. Consistency must be maintained across a program, an industry, and across all regions of the province. Performance criteria are consistently interpreted and measures, and verified through a quality control process. Transferability across regions should be ensured to remove barriers to progression of candidates who move during training.
- **Appealable:** An appeal process is built into the quality control.

#### Good Quality Evidence<sup>3</sup> Should Be:

- **Direct:** Assessment activities will simulate, as closely as possible, conditions of actual workplace performance.
- **Authenticated:** The assessor will verify that the work being assessed is attributable to the candidate without outside assistance.

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<sup>3</sup> Evidence of competency can be gleaned in a number of valid ways and could include observation check sheets completed by assessors, supervisors, and/or peers; copies of work records, activity sheets, work plans, schedules, company reports; photographs or videos of finished work; samples of finished work; workplace log books; and so forth.

- **Sufficient:** Evidence will be adequate to establish with confidence that performance to the required standard could be repeated with consistency.

**Good Quality Assessment Should Be:**

- **Systematic:** Planning, recording and reporting will be rigorous.
- **Open:** Candidates will understand the assessment process and criteria to be applied, and can contribute to planning and accumulation of evidence.
- **Consistent:** Given similar circumstances, the assessor would make the same judgment a gain, and the judgment will be similar to judgments that other assessors would make.

# **APPENDIX 2**

## **Best Practice Related to Competency Assessor Standards**

## **APPENDIX 2**

### **Best Practice Related to Competency Assessor Standards**

#### **Assessor Pool:**

- Criteria should clearly identify the pool of individuals from which assessors can be drawn, including any restrictions on who can perform assessments. (For example if trainers, teachers, sponsors or co-workers are utilized as assessors, are there restrictions regarding evaluation of their own students, employees or colleagues due to conflict of interest concerns?)

#### **Assessor Accreditation Criteria and Competency Standards:**

- Requirements for trade-related training and experience as well as assessment-related training and experience should be clearly defined.
  - Typical Trade-specific requirements would include the following categories: a required number of years experience in the field; currency of experience; a qualification at one level higher than that the individual is assessing; current registration with any applicable licensing or regulatory body; recommendation by employer or industry or other industry requirements.
  - Assessment-related requirements include, but are not limited to completion of assessment methodology and management training; a prescribed amount of assessment experience; or other related skills such as communication skills, planning, administration and basic information systems expertise, and so forth.

#### **Term and Maintenance of Accreditation:**

- The term of accreditation (e.g. specified time period or permanent qualification) and any requirements for maintaining accreditation should be clearly defined.

#### **Quality Assurance:**

- A quality assurance mechanism such as a performance review should be incorporated into the assessment process.



# **APPENDIX 3**

## **ITA OPERATIONS POLICY PP1015 – WORKPLACE COMPETENCY ASSESSMENT**



**APPENDIX 3**  
**ITA OPERATIONS POLICY PP1015 – WORKPLACE COMPETENCY ASSESSMENT**

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**ITA OPERATIONS POLICY**  
**PP1015**  
**V-31.May.07**

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**POLICY:           WORKPLACE COMPETENCY ASSESSMENT**

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This policy defines ITA's role relative to the assessment of workplace competency standards specified in ITA-approved Industry Training Programs.

**1.0 Definition**

For the purpose of this policy, workplace competency assessment means a formal assessment of a practical nature that is conducted at the workplace, and is a program completion requirement approved by the ITA.

**2.0 General**

The nature of workplace and competency-based assessment will vary program-to-program, based on industry's determination of the validity and practicality of particular assessment tools and methodologies as measures of competency.

ITA supports rigour in workplace competency assessment. This requires consistency in performance criteria and measurement within each industry training program.

**3.0 Principles**

Where workplace assessment of competency is an approved component of an Industry Training Program the following principles will apply:

- Industry (represented by ITOs where they exist) is best positioned on a program-by-program basis to recommend
  - assessment tools and methodology
  - qualifications for workplace assessors and methods for recruiting, training, and accrediting workplace assessors
- Industry proponents are responsible for development of sustainable, industry-administered competency assessment mechanisms (including an assessment fee schedule) for ITA approval
- Industry, registered Sponsors, and the ITA share responsibility for administration and enforcement of assessment standards.
- A register of approved assessors will be maintained by the ITA.

**4.0 Funding of Workplace Assessment of Competency**

The ITA has a role in development of assessment tools and approving standards for assessors. Where assessor training is a requirement, the ITA will fund this training.

The ITA is willing to work with industry on assessment activities within existing funding constraints.

Approved: 31.May.07

Updated: