

Session 4.0: Certification Scheme



Components of a Competence Based Certification Program



Determine Knowledge, Skills, Attributes (KSAs)

- Job/Task Analysis or Practice Analysis
 - Identify Tasks
 - Identify KSAs
- Content Outline
- Survey validation

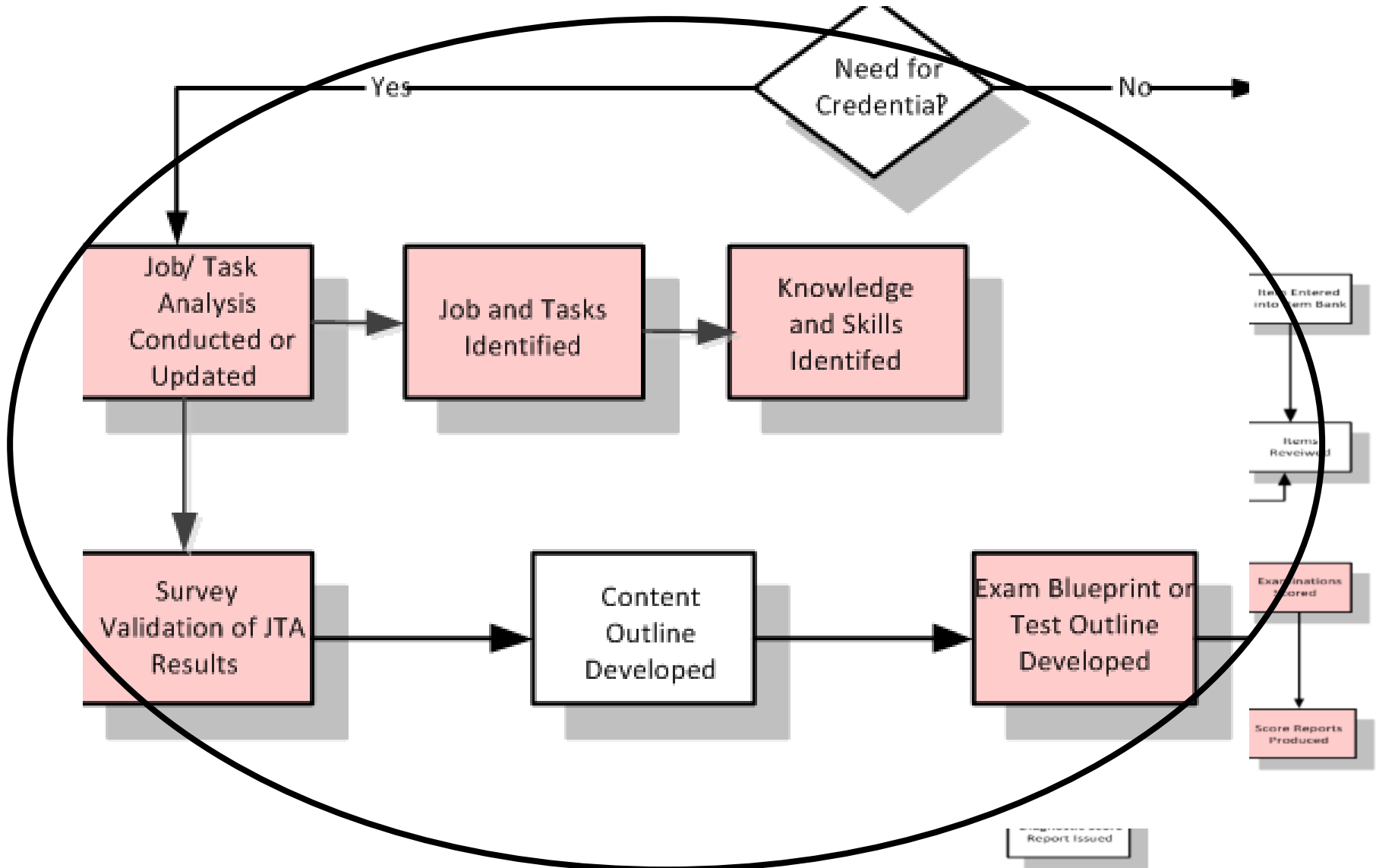




First step

Defining the Competencies

Certification Program Examination Development and Administration





Job Analysis

Job Analysis

- Job Analysis – method(s) used to identify the tasks and associated competence.
 - Note 1 to entry – Methods generally involved analysis of the associated tasks, knowledge, skills or abilities that constitute competence as required by the scope of work.
 - Note 2 to entry – Job analysis provides the basis for the validity of any assessments used in issuing credentials.
 - Note 3 to entry – Other terms for job analysis are job-task analysis, practice analysis, performance analysis and role-delineation study.
- From ISO/IEC 17027: Conformity assessment
 - Vocabulary related to competence of persons used for certification of persons

JTA Focus Group Meetings



14 December 2017

IDENTIFY TASKS AND COMPETENCIES



Survey

Indicate your behaviour by ticking the appropriate

How many of your car journeys involve

Never

times per week

the journey

Task list and Competencies Available

Accreditation Body (AB) Assessor Specifications and Content Outline

Job Description: An assessor is an individual who performs an assessment of a conformity assessment body (CAB) for an accreditation body (AB) against an accreditation standard or normative document by reviewing documents and conducting onsite visits and/or observing conformity assessment body (CAB) activities.

Domains/Tasks	
Domain 1: Planning Assessment Activities	
Task 1: Determine and/or Confirm Assessment Resource Needs	
Task 2: Create the Assessment Plan	
Domain II: Conducting a Document Review	
Task 1: Review the Accreditation Application	
Task 2: Assess the Conformity Assessment Body (CAB) Documents	
Domain III: Conducting an Onsite Assessment (Office, Witness, Inspection, Surveillance, Re-accreditation)	
Task 1: Conduct an opening Meeting	
Task 2: Assess the Competence of the Conformity Assessment Body (CAB) against Accreditation Requirements	
Task 3: Conduct Preparatory Meetings	
Task 4: Conduct a Closing Meeting	
Task 5: Create a Written Assessment Report (draft, final, interim, summary, etc.)	
Domain IV: Conducting Post Onsite and Reporting Activities	
Task 1: Communicate with the Accreditation Body (AB)	
Task 2: Verify the Effectiveness of the Corrective Actions	
Domain V: Developing Professional Competence (knowledge, skills and abilities)	
Task 1: Demonstrate Professional Behaviors	

Develop Examination Blueprints or Specifications

- Examination blueprint or specifications
- Item Specifications (Types of test items, performance prompts, essay questions, MC questions, etc.)
- References
- Assessment type
- Assessment format



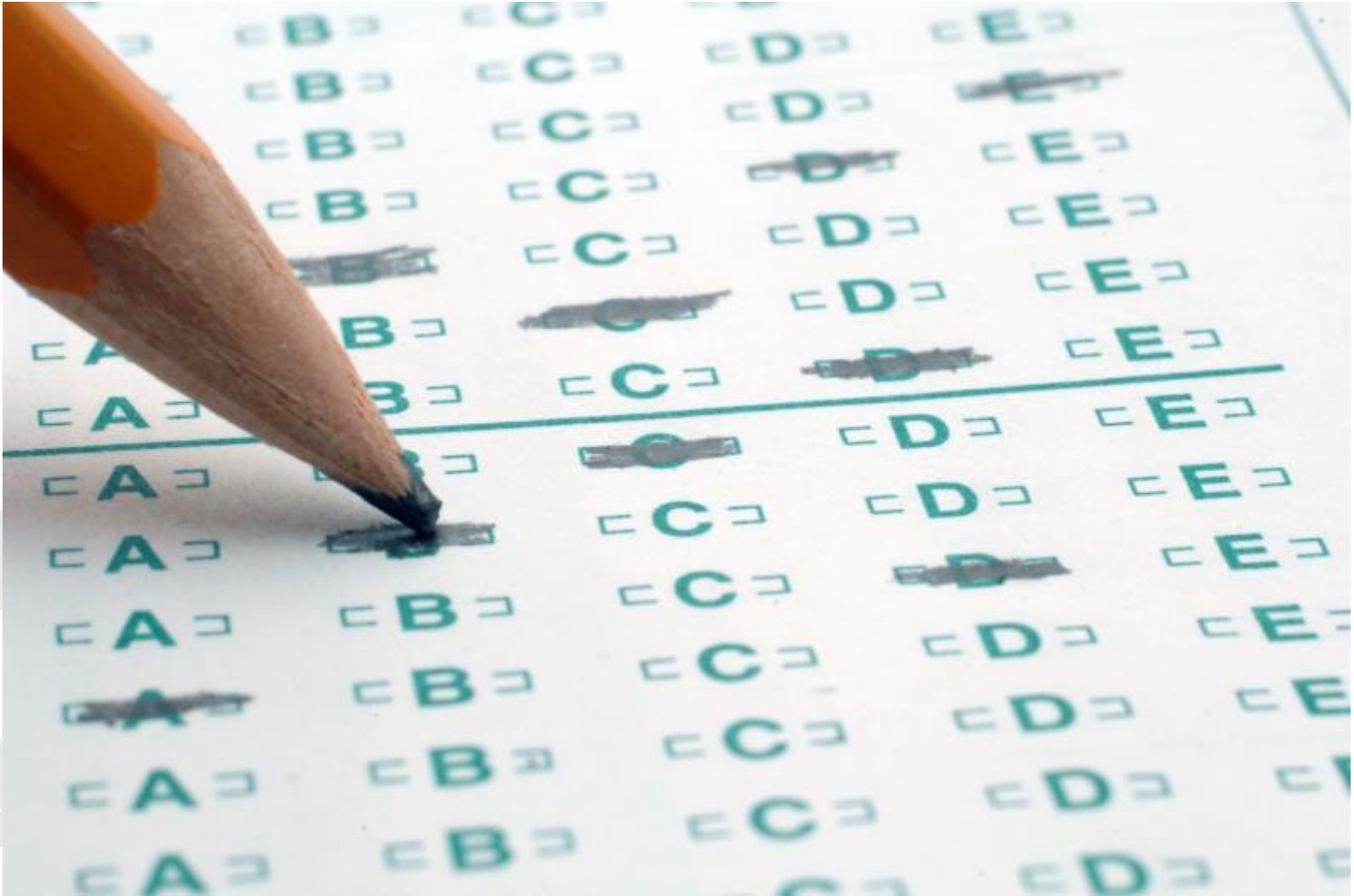
Determine Eligibility Criteria

- Sufficient so that candidate has fair opportunity for success
- Not unduly or unnecessarily restrictive
- Place qualifications you will not be measuring during the examination process
- Must be based on data/criteria



Develop Objective Assessment Process

- Determine best way to objectively measure competence of candidate against the KSAs identified during the Job/Task Analysis process.



Develop Test Questions

- Performance Prompts
- Scoring Rubrics
- Multiple Choice items
- Item Banking systems



Norm Referenced Examination



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Criterion Referenced Examination



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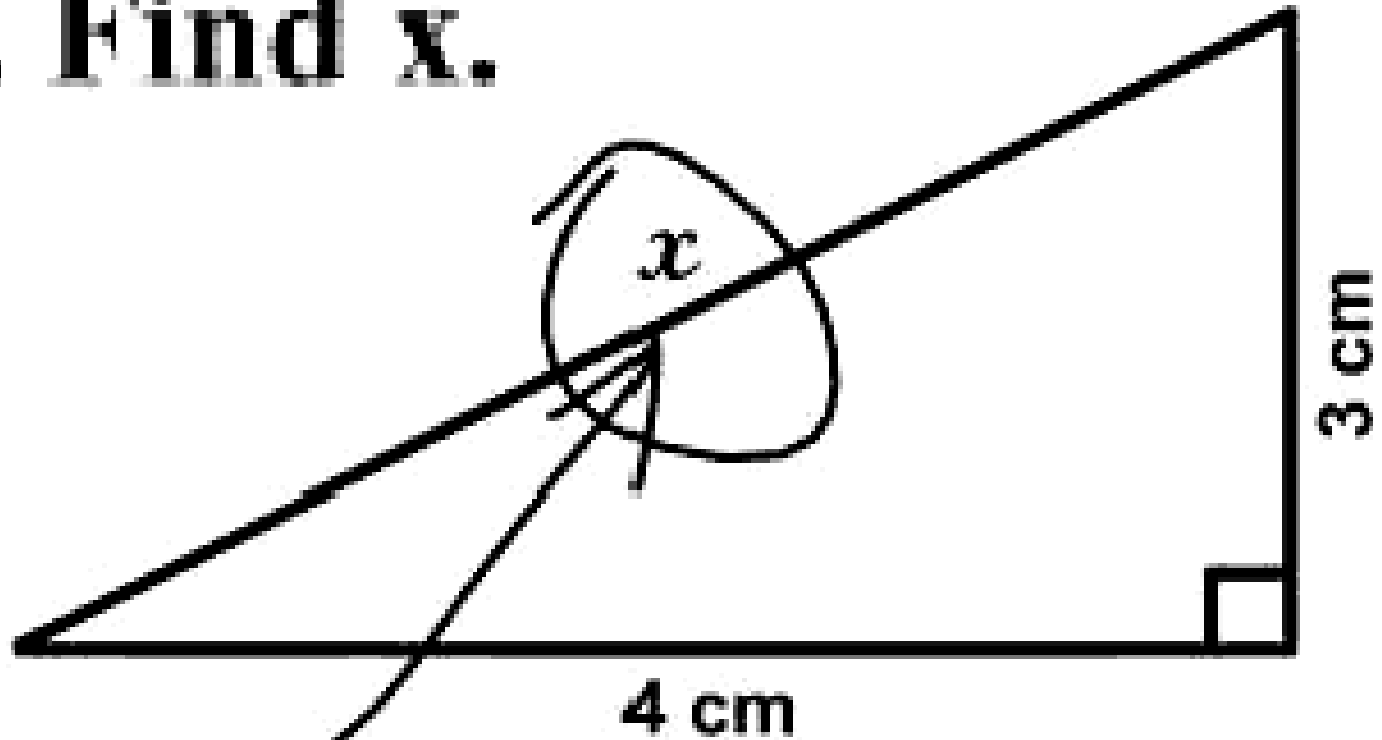


Develop the Assessment



**DOES YOUR
EXAMINATION
MEASURE
WHAT YOU
THINK IT
MEASURES?**

3. Find x .



Here it is

PETER

1.21

4c) Expand

~~$x^2 + 2x - 2$~~

$$(a+b)^n$$

Very young Peter

$$= (a + b)^n$$

$$= (a + b)^n$$

$$= (a + b)^n$$

etc...

Develop Test forms

- Create Forms
- Establish passing standard
- Standardize graders/raters
- Equate additional forms



Passing Score Study



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Create Administration policies and Procedures

- Paper vs computer
- Windows vs open
- Exam site conditions (manual)
- Instructions for administrators and proctors
- Allowed/not allowed materials



Create Program Policies and Procedures

- Eligibility policies and procedures
- Recertification policies and procedures
- Retake policies and procedures
- Ethics policies and procedures
- Disciplinary policies and procedures



Post-Examination Processes

- Item Analyses
- Candidate comments
- Poorly performing items
- Regrades/rescores
- QC checks of process

	TOT	HCP	NET
178	2910	6429	
158	2742	6038	
3	35	72	
10	18		
143	3582	280	
8	149	2457	
3	35		
14			

Update Item Banks

- Statistics
- Edits
- Create new forms
- Create new items
- Update references



Defend Certification Program

- Defend exams
- Candidate review policies and procedures
- Conduct candidate reviews



Respond to complaints and issues

- Respond to complaints



Competence is not. . .

- Completion of a training/education program.
- Providing evidence of work experience.
- Qualifications provided.

- Competence can only be determined by objective verification.



ISO CASCO Scheme Document



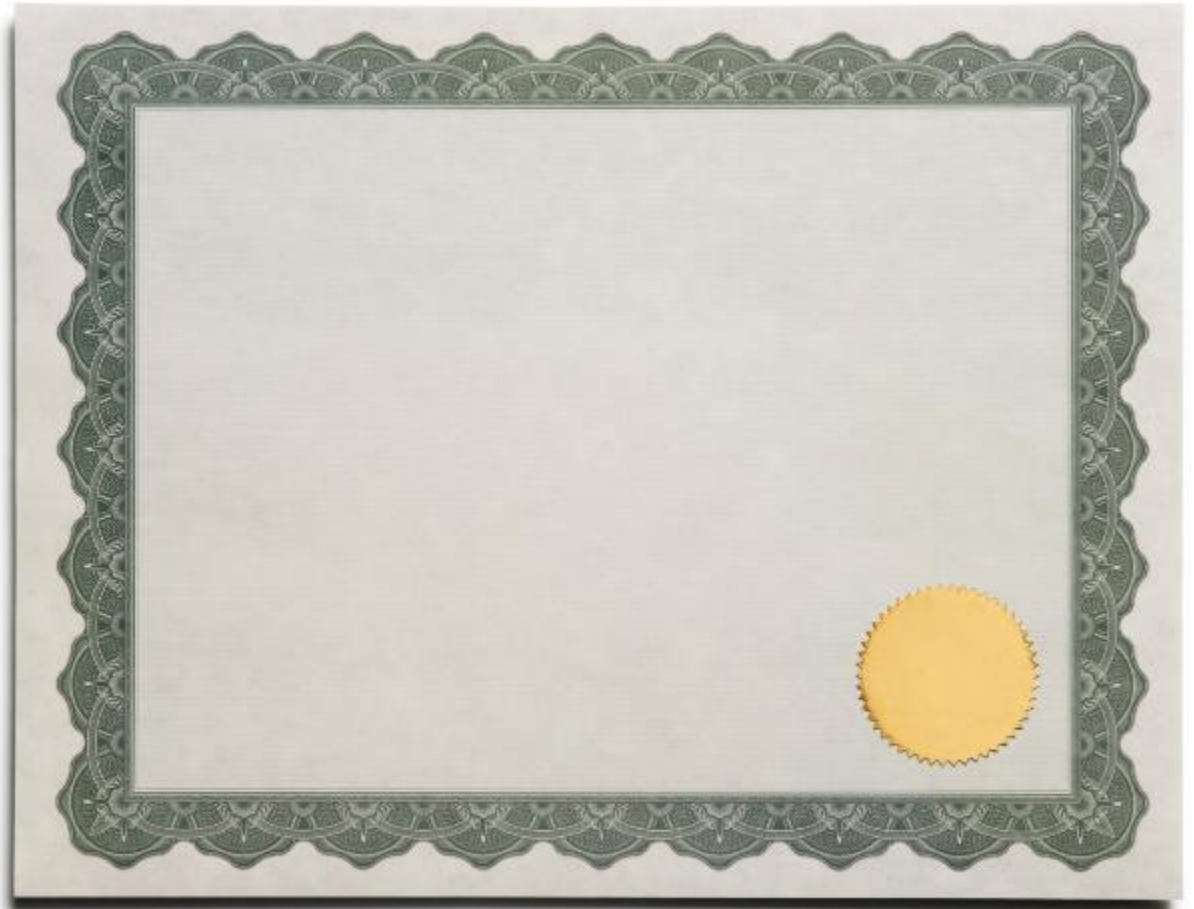
CASCO

**How to develop
schemes for
the certification
of persons**

Guidance of ISO/IEC 17024

Certification Scheme

8.1 There must be a certification scheme for EACH category of certification.



Certification Scheme Must Contain the Following:

8.2.a Scope of certification

8.2.b Job and task description

8.2.c Required competence

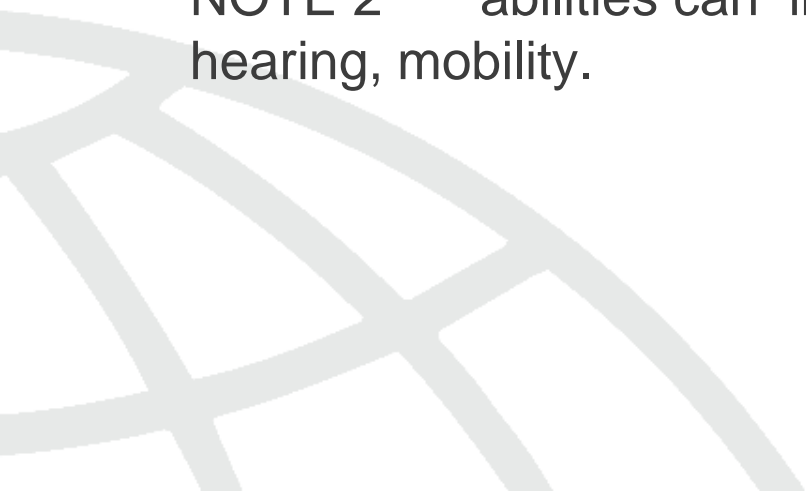
8.2.d Abilities (when applicable)

8.2.e Prerequisites (when applicable)

8.2. f Code of conduct (when applicable)

NOTE 1 A code of conduct describes the ethical or personal behaviours required by the scheme.

NOTE 2 abilities can include physical capabilities such as vision, hearing, mobility.



Certification Scheme Must Include the Following

8.3.a Criteria for initial certification and recertification

8.3.b Assessment methods for initial certification and recertification

8.3.c Surveillance methods and criteria (if applicable)

8.3.d Criteria for suspending and withdrawing certification

8.3.e Criteria for changing the scope or level of certification (if applicable)



The Development of the Scheme Must Include:

8.4.a the involvement of appropriate experts

8.4.b the use of an appropriate structure that fairly represents the interests of all parties significantly concerned, without any interest predominating

8.4.c the identification and alignment of prerequisites, if applicable, with the competence requirements

8.4.d the identification and alignment of the assessment mechanisms with the competence requirements



The Development of the Scheme Must Include:

8.4.e a job or practice analysis that is conducted and updated to
identify the tasks for successful performance,
identify the required competence for each task,
identify prerequisites (if applicable),
confirm the assessment mechanisms and examination content,
identify the re-certification requirements and interval.

NOTE Where the certification scheme has been developed by an entity other than by the certification body, the job or practice analysis might already be available as part of that work. In this case, the certification body can obtain details from the scheme documentation for verification.

Scheme Requirements

8.5 The certification body shall ensure the certification scheme is reviewed and validated on an on-going systematic basis.

8.6 When the certification body is not the scheme owner of a certification scheme it implements, the certification body shall ensure that the requirements contained in Clause 8 of this International Standard are met.



Questions resulting from Survey



- **Clause 8.2 d) – Aptitude vs. abilities vs. competence**
 - **Aptitude:** natural tendencies, innate capacity, talent
 - **Ability:** capacity to perform an activity (ISO/IEC 17027: 2.1)
 - **Attribute:** inherent characteristic of a person (example, visual acuity, sensitivity to others, openness) (ISO/IEC 17027: 2.10)
 - **Competence:** ability to apply knowledge and skills to achieve intended results (ISO/IEC 17024: 3.6)

Questions resulting from Survey



- ***Role of Scheme Committee***

Questions resulting from Survey



- ***Responsibility of the CAB and relationship with external committees***
 - CAB is responsible for all external committees that fall within the scope of the scheme (except for external committees that are associated with an external scheme owner)
 - However CAB is still responsible to ensure a scheme it uses meets the requirements of Clause 8 regardless if there is an external scheme owner (clause 8.6)

Questions resulting from Survey



- ***Definition of a Scheme Owner***
 - Person, organization or body who is the developer and maintains the certification scheme for persons.
 - Could be external to the CAB
 - For example Government or Industry Association
 - NOTE: ISO is not a scheme owner

Questions resulting from Survey



- ***Responsibility of Scheme Owner versus Responsibility of CAB***
 - Scheme Owner is responsible for the scheme.
 - CAB that chooses to use a scheme for which it is not the owner must have permission to use the scheme
 - CAB that chooses to use an externally owned scheme and seeks to meet ISO/IEC 17024 must ensure that the requirements of Clause 8 are met.

Questions resulting from Survey



- ***Dealing with Schemes based on ISO or other national standards not meeting Clause 8***
 - Clause 8.6 applies in this case (external scheme owner)
 - The CAB is still responsible for ensuring that the requirements contained in Clause 8 are met.
 - CABs may need to do additional activities to bring the scheme into compliance.

Questions resulting from Survey



- **Review and validation of a scheme, Systematic and Ongoing definition**
 - Schemes should be updated on some systematic, ongoing basis.
 - Frequency will depend upon the industry/content of the scheme and changes to the industry or practices.
 - IT schemes change very frequency and would need to be updated very often (yearly, etc.) while other schemes such as welding might not change very often so could be updated every 10 years or so.

Questions resulting from Survey



- **Certification Schemes with no recertification or extremely long recertification periods**
 - No recertification is not allowed.
 - Extremely long recertification periods
 - Recertification should correspond to updates in the scheme
 - How does the CAB ensure the continuing competence of the certified person?
 - If using ongoing surveillance could be acceptable (See 9.6.3).

Questions?

