

Cynthia Woodley

- Convener of ISO CASCO WG30 (ISO 17024)
- Member of ISO CASCO WG21 (ISO 17021-2)
- Member of ISO CASCO Chairman's Policy Committee (CPC)
- Member of IAF WG for ISO 17024
- Member of IAF WG for Assessor Competency
- ISO/IEC 17024 Assessor for American National Standards Institute (ANSI) and Standards Council of Canada (SCC)
- Member of ANSI's International Conformity Assessment Committee (ICAC)
- Member of ANSI Board of Directors
- Vice President, Professional Testing Inc.
- Psychometrician

Competence - Definition

- ISO/IEC 17024 – 2 - Demonstrated ability to apply knowledge and skills to achieve intended results
- ISO/IEC 17024 - Demonstrated ability to apply knowledge and/or skills as defined in the certification scheme for persons

Competence – Standard Definition

- Demonstrated ability (or capacity) to apply knowledge, skills, abilities and traits in performing a task.



Competence – Standard Definition

- *Demonstrated* ability (or capacity) to *apply* knowledge, skills, abilities and traits in *performing a task*.
 - *Demonstrated* – means it has been observed
 - *Apply* – means that it isn't just having the knowledge, skills, abilities and traits but USING them
 - *Performing a task* – means not just any knowledge but knowledge related to doing something

Competence versus Competency

- Competence relates to the person (demonstrated ability to apply KSAs)
- Competency/competencies relates to the KSAs. Competencies are the knowledge, skills and attributes needed for competence or competent performance.

Competence – some concepts

- Competence is the major characteristic that determines the performance of a person.
- Performance of most tasks requires the simultaneous or sequential demonstration of multiple competencies.

Competence – some concepts

- Competence is required to do a job correctly, but someone might be competent and not use their competence on the job.
- A person can have the knowledge and skills to be competent but external factors (unavailability of drugs or equipment for example) might result in incompetent behavior.
- Being competent does not mean the person will always perform competently.

Knowledge, Skills, Abilities and Traits

- Four important components to competence.
- All of these are needed for competence.

Skills

- Skills are the capacity to perform certain mental or physical actions.
- A person's skill is a function of both knowledge and the strategies used to apply knowledge.
- Skills are actions.

Abilities

- Abilities are attributes that a person has inherited or acquired through previous experience.
- Abilities are the capacity to do something.
- Abilities are gained or developed over time.

Traits



- Traits are personality characteristics of qualities.

How to Achieve it?

- To verify competence, it **MUST** be measured against a standard of performance.



First Step

- Must define what competencies we want to measure.
- What is the performance? What are the tasks? And what are the knowledge, skills, and attributes associated with those tasks?

Define Performance

- To identify what competencies should be measured, an occupational analysis is conducted.
- Occupational analysis is also called a job/task analysis or a practice analysis.

Example Task with KSAs

Task	Knowledge	Skills	Attributes
Create a written assessment report (draft, final, interim, summary, etc.)	Accreditation requirements	Comprehensive and concise report writing	Attention to detail
	Appropriate documentation of findings	Drawing appropriate conclusions	Organization
	Assessment reports and reporting techniques	Reporting accurately and objectively	Good Judgment
	Describing conformities and non-conformities	Synthesizing information	Objectivity
	Local terminology use consistent with normative documents		

Measuring Competence

- Competence can be measured at various levels of performance:
 - Novice or entry level
 - Expert or mastery level
- Thus competence must be defined in terms of a standard of performance, identified during the Job/Task Analysis study.

Competency- Based Assessments

- Not just a set of examinations.
- Basis for certification of competence.
- Is carried out as a process in order to collect data/evidence about the demonstrated capacity to apply KSAs with respect to a specific task or set of tasks.

Competency- Based Assessments

- These tasks may be associated with a profession, a job, or an occupation, or may be associated with a subset of a job, or even a hobby.
- Different assessments measure different things.
 - Written tests can assess abilities, traits and knowledge but cannot assess skills, which require the physical performance of some actions

Competency- Based Assessments

- A competence model of measurement involves identifying the tasks and the associated KSAs needed to perform the tasks and . . .
- An independent assessment to ensure that the person has the KSAs required to competently perform the task.

Competence versus Qualified

- “Qualified” often used interchangeably with “competence”
- Not the same. “Qualified” means one has met the qualifications.
- Having met the qualifications is NOT the same as having demonstrated the competence to apply KSAs

Competence versus Qualified

- Education and Experience are qualifications that contribute to the learning and obtaining of KSAs.
- To measure competence, just conduct an assessment of competence.

Competence-Based Assessment

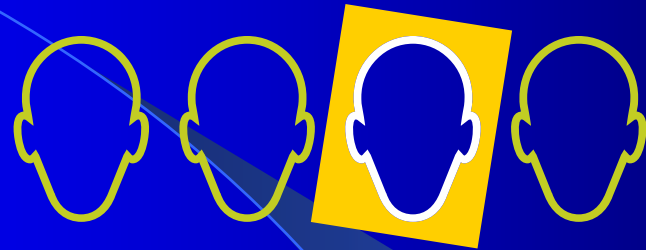
- Is not a diploma that certifies prior studies.
- Is not a measure of years of experience.
- It is Proof of a verified competency based on a well defined standard.

Measuring Competence

- Regardless of whether a component of personnel certification or for some other reason, measuring competence requires:
 - Systematic process to ensure that what is being measured is what is intended to be measured (validity).
 - The measurement measures consistently (reliability).

Competent forever?

- Competence is not permanent.
- It can be lost, therefore a good competence assessment program will have ongoing activities to measure competence:
 - Surveillance and recertification to ensure that the person maintains competence.



Professional Testing



Professional Testing