JTA vs CTA

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Purpose

Job Task Analysis (JTA) is done to discover the task/subtask structure of a job. *Cognitive Task Analysis* (CTA) is done to discover the *decision-making processes* and *mental models* which are embedded in job tasks. Thus, CTA is an optional extension of JTA. CTA is particularly useful when:

- Tasks include *ill-structured problem-solving*, such as design, management, decision-making, diagnosis and troubleshooting or strategy.
- Far transfer (ability to do tasks not included in training, or not yet defined, or with volatile content) is important.
- JTA shows that many similar tasks with a common knowledge base need to be learned efficiently.

CTA can be used for many of the same purposes as JTA, but because of its greater level of effort, it is usually applied to high-value skills at any level of an organization. Thus, JTA and CTA are often complementary. Both can be done at varying levels of detail.

Both types of analysis are used for:

- Training needs analysis (Gap analysis)
- Workforce competency modeling
- Performance measurement
- Career planning
- Compensation structures
- Certification systems
- Selection systems

However, the two types of analysis yield radically different solutions for each of these applications.

What the Analysis Shows

There are a great many techniques, both for JTA and CTA. Here are some generalized comparisons, but note there is substantial variability among techniques.

	JTA	CTA
Focus of the analysis	Observable Behavior	Thought Processes & Knowledge
What is analyzed	Actions	Decisions
What is described	Conditions, Actions, Criteria	Inputs, Processes, Outputs, Decision rules, Cognitive Strategies, Metacognition

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Underlying knowledge analysis	KSAO: knowledge, Skills, aptitudes, other	Mental models