

NOTES ON ANALYTICAL/CONCEPTUAL THINKING¹

Spencer and Spencer's *Analytical and Conceptual Thinking Scales* measure practical or applied intelligence: the degree to which a performer does not accept a critical situation or problem at face value or as defined by others, but comes to his or her *own understanding* at a deeper or more complex level.

Observation and/or **information seeking** are necessary prerequisites. These scales do not directly measure basic intelligence (although a certain IQ level may be a threshold requirement for each scale level), but rather the individual's tendency to apply that intelligence usefully to work situations, to add value to performance in a given job. These scales measure a combination of ability and motivation.

Analytical Thinking

Analytical thinking² entails understanding a situation by breaking it apart into smaller pieces, or tracing the implications of a situation in a step-by-step causal way. It includes organizing the parts of a problem or situation in a systematic way; making systematic comparisons of different features or aspects; setting priorities on a rational basis; identifying time sequences, causal relationships, or If → Then relationships.

There are two dimensions to the *Analytical Thinking Scale*: (a) **complexity** (the number of different causes, reasons, consequences, or action steps included in the analysis, ranging from simple list-making to complex, multilayered analyses), and (b) **breadth** (the size of the problem analyzed).

Common behavioral indicators of analytical thinking:

- Sets priorities for tasks in order of importance.
- Breaks down a complex task into manageable parts in a systematic way.
- Recognizes several likely causes of events, or several consequences of actions.
- Anticipates obstacles and thinks ahead about next steps.
- Uses several analytical techniques to identify several solutions and weighs the value of each.

¹ From *Competence at Work: Models for Superior Performance*, by Spencer and Spencer.

² Also called *thinking for yourself, practical intelligence, analyzing problems, reasoning, planning skill*.

Conceptual Thinking

Conceptual thinking³ entails understanding a situation or problem by putting the pieces together, seeing the large picture. It includes identifying patterns or connections between situations that are not obviously related; identifying key or underlying issues in complex situations. *Conceptual thinking* involves using creative or inductive reasoning to **apply existing concepts** or to **define novel concepts**.

There are two dimensions to the *Conceptual Thinking Scale*: (a) **complexity/ originality of the thought processes** (ranging from “using basic rules of thumb” at the lower end of the scale to “creating new theories that explain complex situations” at the higher end of the scale), and (b) **breadth** (the size of the problem analyzed).

Common behavioral indicators of conceptual thinking:

- Uses "rules of thumb," common sense, and past experiences to identify problems or situations.
- Sees crucial differences between current situation and things that have happened before.
- Applies and modifies complex learned concepts or methods appropriately.
- Identifies useful relationships among complex data from unrelated areas.

³Also called *use of concepts, pattern recognition, insight, critical thinking, problem definition, ability to generate theories*.