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# Analytical Thinking

## Definition

Must be able to identify and define problems, extract key information from data and develop workable solutions for the problems identified in order to test and verify the cause of the problem and develop solutions to resolve the problems identified.

**Key Words:** Problem Analysis; Data Analysis; Judgment.

## Behavioral Indicators:

1. Collects information and data.
  2. Extracts relevant data in order to identify possible causes for the problem.
  3. Critically examines issues by breaking them down into manageable parts.
  4. Analyses information to determine and ascertain the most likely cause of the problem.
  5. Identifies the logical, factual outcomes based on the data, information and analyses conducted.
  6. Identifies action to prevent the problem from occurring partially or totally.
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## PROFICIENCY LEVELS: Analytical Thinking

### LEVEL I

- Undertakes a process of information and data collection and analysis for integration purposes.
- Identifies and makes sets of information and determines their relationships.
- Codifies this data to detect trends and issues in the data and information in a logical and factual manner.
- Makes logical deductions from data.
- Identifies a solution for resolving the problem.

### LEVEL II

- Collects all the relevant information and data needed to address the problem.
- Organizes, classifies and synthesizes the data into fundamental issues.
- From the information, identifies the most probable causes of the problem.
- Reduces the information down into manageable components.
- Identifies the logical outcomes from the analyses of the data collected.
- Identifies the options and solutions for addressing the problems analyzed.

### LEVEL III

- Collects, integrates and analyses all relevant data and information and reduces that information down to manageable components and/or charts, diagrams or graphs.
  - Identifies a number of solutions to complex problems integrating findings from several different disciplines, identifies and evaluates the various options developed and selects the most effective solution.
  - Draws logical and objective conclusions from the data and validates them as the prime cause and contributing causes.
  - Identifies a number of solutions to the problem by identifying and evaluating the various options developed and selects the most effective solution.
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