Development Suggestions for Analytical Skills

Suggested Readings

Title	Author	Learning Mode
The Thinker's Toolkit: 14 Powerful Techniques for Problem Solving	Morgan D. Jones	Book
Creative Problem Solving (4th edition)	Donald J. Treffinger, Scott Isaksen, and K. Brian Stead-dorval	Book

Activities

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1. Establish an informal network of colleagues who can provide help and advice to each other when problems arise.

2. Before reaching a decision make sure that all involved agree on the problem definition. Before you begin to solve the problem, identify the data that you need to reach a solution and how to obtain that data.

3. Schedule time into your day to work on problems. Keep a record of problems as they arise to identify recurring ones.

4. Stay on top of developments and trends in the external and organizational environment so that you can make decisions in anticipation of changes.

5. Consider multiple-decision alternatives, including the worst-case scenario for each decision. Consider all the solutions to the problem that you can think of before you begin to evaluate them.

6. Use interviews, observation and surveys to pinpoint problems. Invite contributions from others and be willing to listen to and discuss their ideas.

7. Create a climate in which your employees can raise problems and issues in front of each other at meetings and feel at ease in doing so.

8. Hold group workshops to explore different perspectives of problems. Use various problem-solving techniques -- brainstorming, root cause analysis, Pareto analysis, histograms and other problem-solving tools.

Development Suggestions for Analytical Skills, *continued*

9. Sometimes the problem facing an individual or organization is not as clear-cut as it seems at first glimpse. To determine the nature of the problem, follow these steps:

    - Label the problem with as broad a phrase or word as possible. (Example: Our problem is customer dissatisfaction.)
    - List all the factors contributing to this problem.
    - Rank each factor for its potential negative effects, from the most damaging to the least.
    - Consider which factors are easy to change, which are difficult to change, which changes are beneficial, and what factors are necessary to address at all costs.
    - Experiment with changing the rules of the game. For example, if cost was no object, how does this change the situation? If human resources were bottomless, would the problem still exist? Re-examining the problem from a different perspective can help define its true nature.

10. Effective problem solving consists of four components. If any of these steps in the problem solving processes is missed, the solution settled on will almost certainly not be the best possible. To come up with the best solution every time, follow these steps:

    - Take the time to identify the problem and its parts.
    - Develop a range of potential solutions; don't discard ideas because they seem improbable.
    - Determine which solution is most effective by examining possible solutions against criteria and comparing results.
    - Enumerate all the steps, in sequence, which must be followed in order to implement the solution. (http://www.concepsys.com)