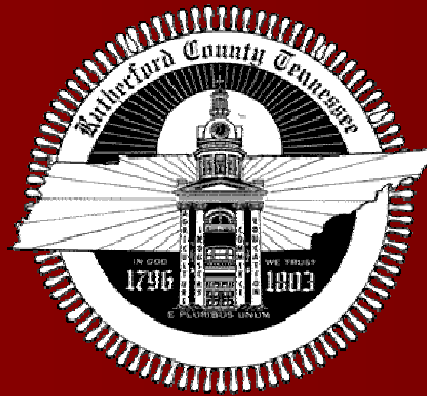


Problem-Solving

Get Sharp



Agenda

Training Objectives:

- Understand key terms in problem-solving
- Discover steps to accelerate your learning
- Learn the types of questions you will need to master
- Develop problem-solving techniques

Key Terms

- Problem-Solving
- Critical Thinking
- Creative Thinking
- Strategic Thinking
- Decision-Making



Problem-Solving

- Involves using higher-order thinking skills to effectively handle and critically work out realistic solutions to problems.
 - Is a basic skill or tool that is needed by employees for workplace demands
 - Includes a complex set of cognitive, behavioral, and attitudinal components
 - Can be a multiple-step process



Critical Thinking

- Involves examining the meaning and significance of what is observed or expressed.
 - Is a useful skill in making careful considerations during problem-solving
 - Involves objectively and thoughtfully examining evidence before making judgments
 - Requires logic, reasoning, clarity, credibility, accuracy, relevance, depth, significance, and fairness.

Creative Thinking

- Involves exploring ideas, generating possibilities, and looking for many right answers rather than just one.
 - Thinking creatively allows individuals to have the ability to accept change and newness, a willingness to play with ideas, and a flexibility in their outlooks
 - Is an important mode of thinking when trying to solve problems

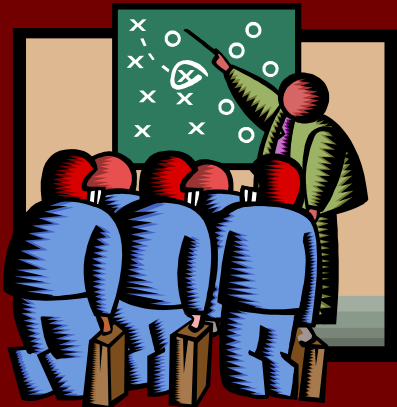


Positive Attitudes that Lead to Creativity

- 1.) Curiosity
- 2.) Challenge
- 3.) Constructive Discontent
- 4.) Believing most problems can be solved
- 5.) Understanding that problems can lead to improvements
- 6.) Seeing the good in the bad

Strategic Thinking

- Involves assessing a program in relation to its mission, its future goals, and the external environment.
 - requires examining whether a program is "doing the right things" in order to achieve its mission
 - means having an end goal or vision in mind and developing plans to reach them



Characteristics of Strategic Thinking

- There is a focus on:



- long-term rather than short-term outcomes
- the “big picture” and underlying systems
- critical and creative thinking
- leverage and gaining a maximum advantage

Decision-Making



- Involves identifying & choosing alternatives based on the values and preferences of the decision maker.
 - When making choices among alternatives, we want the decision that:
 - 1) Has the highest chance of being successful or effective
 - 2) Best fits with our needs, goals, desires, and values
 - Decisions can be simple or complex

Types of Decisions

1.) Decisions about whether or not

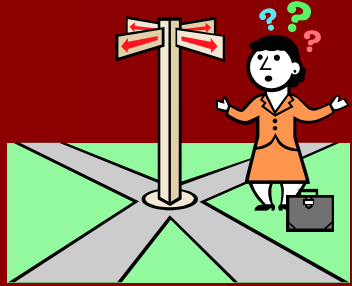
- involves yes/no, either/or decisions
- make decisions by weighing pros versus cons

2.) Decisions of which

- involves choosing the best alternative among a set of decisions

3.) Contingent decisions

- depend on certain conditions being met



Decision-Making Steps

- 1.) Identify the decision that needs to be made and possible goals to reach.
- 2.) Gather up information.
- 3.) Generate a list of alternative solutions.
- 4.) Rate the alternatives.
- 5.) Examine the risk of each alternative.
- 6.) Make the decision.

How to Accelerate your Learning for Problem-Solving

In order to accelerate learning, one must acknowledge their *personal learning style*, maximize their *intelligence* and their ability to acquire and *remember information*.



Determine your Learning Style

- Knowing your learning style can help you capitalize on your strengths and play down weaknesses
- Learning is dependent on our senses to process information
 - There is often a tendency to use certain senses over others



Determine your Learning Style

- Three Learning Basic Learning Styles:
 - 1.) **Visual:** learning through “seeing”
 - Ex: Diagrams, illustrations, pictures
 - 2.) **Auditory:** learning through “hearing”
 - Ex: Verbal lectures
 - 3.) **Kinesthetic:** learning through “doing”
 - Ex: Hands-on learning
- Find your learning style at:
<http://people.usd.edu/~bwjames/tut/learning-style/>

Gardner's Multiple Intelligence Theory

- Howard Gardner conceived of 8 different intelligences.
 - There are many different ways for people to demonstrate intellectual ability.
 - If we are aware of our most highly developed intelligences, we can make optimal use of them at work.

Eight intelligences: Linguistic, Logical-mathematical, Spatial, Bodily-kinesthetic, Musical, Interpersonal, Intrapersonal, Naturalist



Gardner's Multiple Intelligence Theory

- 1.) Linguistic intelligence = "word smart"
- 2.) Logical-mathematical intelligence = "number/reasoning smart"
- 3.) Spatial intelligence = "picture smart"
- 4.) Bodily-Kinesthetic intelligence = "body smart"



Gardner's Multiple Intelligence Theory Continued...

- 5.) Musical Intelligence = "music smart"
- 6.) Interpersonal intelligence = "people smart"
- 7.) Intrapersonal intelligence = "self smart"
- 8.) Naturalist intelligence = "nature smart"



Develop your Memory Skills

- Memory involves recalling information that you have learned or experienced.
 - Can be short-or long term; meaning that some information is stored for different amounts of time
 - There are tips and exercises that can be used to improve memory

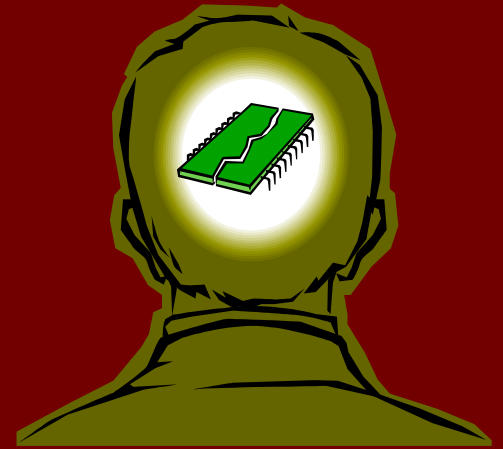
General Methods to Improve your Memory

- 1.) Pay attention and do not multi-task
- 2.) Tailor information to your learning style
- 3.) Utilize your senses
- 4.) Relate information to what you already know
- 5.) Organize information
- 6.) Rehearse information frequently and "over-learn"
- 7.) Be motivated and maintain a positive attitude

Mnemonic Devices to Improve Memory

Devices that can be used:

- 1.) Visual images
- 2.) Sentences
- 3.) Acronyms
- 4.) Rhymes
- 5.) "Chunking" information, which is to categorize information into smaller sections that are easier to remember



Types of Questions Involved in Problem-Solving

There are three basic types of questions:

- 1.) Open-ended
- 2.) Closed-ended
- 3.) Leading



Open-Ended Questions

Open-ended: is designed to encourage a full, meaningful answer using the subjects own knowledge and feelings

- Allows for a free response and can be perceived as a less threatening type of question.
- Example: Can you tell me what you think of your relationship with your boss?

Closed-Ended Questions

Closed-ended: is designed to encourage a short or one word answer, such as "yes" or "no."

- These questions require short responses, and thus save time. However, responses may then be more incomplete.
- Example: Do you get along well with your boss?

Leading Questions

Leading: designed to subtly prompt the responder to answer in a particular way.

- These questions can be problematic as they can result in false or slanted information.
- Example: Tell me how this problem arose?
(this assumes that there is a problem and that you were involved in it arising)

Problem-Solving Techniques

- Problem-solving techniques are similar to those with decision-making, although there is usually a final best solution, and thus more clarity.
- This is not a linear process, and steps can be repeated or reordered if necessary
- This technique is most useful for complex problem-solving and difficult decisions



Problem-Solving Techniques Continued...

- Seven steps for problem-solving can be carried out.



1.) Identify the issues

- Be clear about what the problem is

2.) Understand everyone's interests

- It is important to take the perspective of all that are involved to generate the best solution

Problem-Solving Techniques Continued...

3.) List possible solutions

- Brainstorm and use creativity to come up with ideas on how to solve the problem

4.) Evaluate the options

- Consider the pros and cons for given solutions

5.) Select an options or options

- Determine what is the best option and provides the most balancing solution to the problem. Consider also whether several solutions could be combined.

Problem-Solving Techniques

6.) Document any agreements

- if working in a group, note the agreement among members about solutions

7.) Implement, monitor, and evaluate solutions



Becoming Aware

- To be an effective problem-solver, you need to have self-awareness about your:
 - Thinking processes, decision-making skills, learning style, intelligence, memory and information acquisition, and problem-solving skills and techniques



Test Your Knowledge

- After completing this module, a supplemental quiz should be taken in order to *receive credit* for the training.
- Follow the link below: