Creative and Critical Thinking Techniques

Creative Thinking

- **Creative thinking** involves…
  - ☐ Thinking of many possibilities
  - ☐ Using different points of view
  - ☐ Thinking of new and unusual possibilities
  - ☐ Generating many alternatives

Also called brainstorming or divergent thinking

Adapted from Isaken and Treffinger, *Creative Problem Solving: The Basic Course*, 1985.

Creative Thinking

Types of Brainstorming or Creative Thinking

Free Wheeling

- Group members call out ideas spontaneously
- Scribe records the ideas as they are put forth

Round Robin

- Leader or scribe asks each member, in turn, for an idea
- Members may pass on any round

Slip Method

- Leader asks members to write ideas on small slips or index cards
- Ideas are collected, recorded, and organized

Creative Thinking

- Creative or divergent thinking **GROUND RULES—**
  - **DEFER JUDGMENT** Keep an open mind to all possibilities
  - **SEARCH FOR MANY IDEAS** Emphasize generating a large quantity of ideas for later analysis
  - **ACCEPT ALL IDEAS** Include ideas that may appear strange or impractical
  - **MAKE THE GROUP "STRETCH"** Go beyond obvious, practical, and safe ideas
  - **TAKE TIME TO LET IDEAS SIMMER** Allow the group time to think and digest the ideas
  - **SEEK COMBINATIONS OF IDEAS** Encourage the making of new associations
  - **DO NOT ATTACH NAMES TO IDEAS** Avoid making the ideas personal

Critical Thinking

- **Critical thinking** involves…
  - ☐ Comparing and contrasting many ideas
  - ☐ Improving and refining promising alternatives
  - ☐ Challenging the merits of an idea
  - ☐ Reducing the list of ideas through discussion and analysis
  - ☐ Preparing to select a course of action

Critical thinking is also called convergent thinking

Critical Thinking

- Critical or convergent thinking **GROUND RULES**—
    - **BE DELIBERATE** Take the time to be thorough and systematic in the analysis
    - **BE EXPLICIT** Attempt to be clear and specific during the analysis
    - **AVOID PREMATURE CLOSURE** Be sure to give ideas fair consideration
    - **DO NOT AVOID TROUBLE SPOTS** Bring difficult issues into the open for discussion
    - **BE ANALYTIC** Do not be afraid to use tools that help the group analyze and display data