Critical Thinking . . . and Decision Making
What is Critical Thinking?

➤ Thinking that is:
  – Purposeful
  – Reasoned
  – Goal directed
  – *Deliberate*
  – *Before you act!*
Why is Critical Thinking Important?

- Leaders are depended upon to sift through data and develop reliable information.
- Because knowledge plus new information is new knowledge.
- New knowledge is used in decision making and problem solving.
- Pace of change and complexity of healthcare market demands innovation and creativity in approaching decision making and problem solving.
Critical Thinking is Dependent on Knowledge

- Ability to learn is both inherited and acquired through experience
- Intelligence and thinking can be improved
  - but . . . remember
- Our experiences, training, prior knowledge, and philosophy affect *how we learn and how we think.*
There was a farmer, had a dog and BINGO was his name-o. B – I – NGO, B – I – NGO, B – I – NGO, and BINGO was his name-o.

Was BINGO the name of the farmer or the dog? Why?
Critical Thinking
Relies on Knowledge & Experience

- Your experience, training, and education argue this to be so, but is the other answer possible?
Research indicates cognitive skills can be taught and improved.

Persistent attitude is a determinant of successful learners and critical thinkers.

Cognitive skills transfer to numerous settings encountered by adults.

Tacit knowledge increases with age.

Success depends upon learning from experience.
Critical Thinking (Learning)

5 years experience is not the same as 1 year’s experience repeated 5 times.
Differentiate decision making and problem solving processes from those of a more critical and thoughtful nature.

Understand the differences between critical and routine thinking.

Pursue the improvement of your critical thinking skills

Understand how to improve your creativity
Critical thinking

Common Mistakes
Critical thinking (Common Mistakes)

- Not knowing when to stop thinking.
- Not knowing when to stop generating new ideas.
- Not knowing you are talking yourself out of changing.
- Researching and generating more details than necessary.
- Missing the opportunity to act quickly.
- Acting too quickly without enough information.
- Acting without feeling!!!!!!!!!!
Critical thinking

Common Traps and Barriers to Success
Critical thinking (Common Traps)

- Ignoring rules of thumb
  - Don’t put the cart before the horse.
  - Skate to where the puck will be. - W. Gretsky
  - Think first, act second.
  - Measure twice, cut once.
Critical thinking (Common Traps)

Thinking too big!

Pinkie: Gee, Brain, what do you want to do tonight?
Brain: The same thing we do every night, Pinkie.
Try to take over the world!
Critical thinking (Common Traps)

- Failure to seek disconfirming evidence
  - Looking only for support of my ideas or my opinion.
  - Success has many fathers, but failure is an orphan.
Overconfidence

- We are better than those others that failed.
- Those others didn’t do it our way.

Find a Devil’s advocate!
Critical thinking (Common Traps)

- **Entrapment**
  - Too focused on a single solution, or historical methods to be able to think through the problem.
Critical thinking (Common Traps)

Only one solution!

and . .

- It won’t work that way!
- We have never done something like that before.
- It won’t work here.
Components of Critical Thinking

Decision Making

Problem Solving

Creativity
Components of Critical Thinking

Decision Making

What is it?
Critical thinking
(Decision Making)

- Decision making is basically the act of making a choice between alternatives.
Critical Thinking (Decision Making)

- Decision Making Model
  - Deciding to make a decision
  - Framing of the decision
  - Identifying Alternatives
  - Reframing of the decision
  - Evaluation of the alternatives
  - Choosing a decision
  - Acting upon and evaluating the decision
Critical Thinking (Decision Making)

- Decisions are generally based on
  - our education and training
  - personal experiences
  - values
  - opinions
  - fears
  - likes
  - and dislikes
Critical thinking
(Decision Making)

- Would you like pie or cake for dessert?
- Do you want to buy some girl scout cookies?
- Would you like to pay your co-pay by check or credit card?
Critical thinking (Decision Making)

- You have 4 applicants to serve as your personal assistant. Who do you hire?
  - Ginger, Mary Ann, Gomer Pyle or Barney Fife
But there are times when we need to make a decision that is outside of our comfort zone. What can we do to make these types of decisions easier?
Advice from others with different experiences.
Critical thinking – Decision making

- Choice from a menu of options

- What movie do you want to see?
  A. Superman Returns
  B. Gone with the Wind
  C. Texas Chainsaw Massacre
  D. Chicago
Case studies with similar decisions and issues.

- Situations that require you to select the best alternative from a set or range of alternatives.
Case Study: Hiring the right employee

Subject Area: Human Resource Management

Problem: Hiring Decision

You have been advertising for a bio-med equipment engineer for two (2) months and you now have two (2) applicants who meet the qualifications. You have interviewed both applicants and find that they can both do the job, but also that Applicant A is a better fit in the work group, lives locally, is available sooner, and has more related experience than Applicant B.
Critical Thinking (Decision Making)

However, applicant A has spent the last 18 months in an alcohol rehab program. He has notified you of this on his application and during his interview. He has excellent references from the rehab program, but will be restricted to working no more than 40 hours per week for the next year, but this salaried position routinely requires 50 – 55 hours per week to meet the needs of the job.

What are the issues and what do you do?
Components of Critical Thinking

Problem Solving
Problem solving is more complex than decision making.

- Problem solving necessitates analysis of the situation with critical review of multiple and different issues, possibilities, and solutions based on information presented.
Critical Thinking
Decision Making vs Problem Solving

- **Decision Making**
  - Select from a set of known alternatives.
  - Information readily available.

- **Problem Solving**
  - Multiple goals and ways to solve.
  - Information generally lacking.
  - Tailor approach to the situation.
Don’t rush to a decision without thinking through the problem.

How many cubic feet of dirt are there in a hole 1 foot wide, 1 foot long, and 2 feet deep?

None!
Carefully evaluate the full scope of the problem. Don’t be confused by semantics.

How far can a dog run into the woods?

1/2 way
Critical thinking (Problem Solving)

- State goal in explicit terms and consider multiple solutions.
- Gather additional information to increase the volume of possible solutions.
- Select the best strategy.
Critical thinking (Problem Solving)

- Work backwards from possible solutions.
- Simplify
- When there are multiple options, explore one at a time.
- Brainstorm
  - In case studies, insert yourself into the problem.
- Analogies and Metaphors
How do you put a Giraffe in the refrigerator?  
How do you put an Elephant in the refrigerator?  
The Lion King is hosting an Animal Conference. All the animals except one attend. Which one does not attend?  
You must cross a crocodile-infested river. How do you manage it?
Three salesmen arrive at a hotel looking for rooms. Only 1 room is available and the hotel manager is away on a dinner break.

The desk clerk tells them the room has 3 beds, and the rate is $30 for the night. They agree and pay $10 each.

Later, the manager returns and when he learns what has happened, tells the desk clerk he should have discounted the room to $25. He then gives $5 to the bell boy to return to the men.
The bell boy reasons that it is very difficult to split $5 among three men, so he pockets $2 and gives each man $1, resulting in a total rate of $9 each for the three guests with a total cost of $27 for the room.

In summary, the amount paid was $30. After the refund, the men paid a total of $27 plus the $2 pocketed by the bell boy making $29. What happened to the other dollar?
Critical Thinking (Problem Solving)

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Components of Critical Thinking

Creativity
Critical Thinking

➢ To be effective in making decisions, or solve problems in today’s environment and be able to plan for tomorrow, there must be some amount of creativity included in the decision or problem solving activities.
What is creativity?
- Is it only naturally occurring – a gifting at birth, or can creativity be acquired over time through education and/or experience?

Do circumstance affect the development or exercise of creativity?
Critical Thinking (Creativity)

- What is Creativity?
  - It is seen in . .
    - Art, Music, Literature, Architecture
    - Film, Theatre, Cartoons
    - Computer Software, Video games

- But, how would you define creativity?
Creativity doesn’t listen to discouragement

- Walt Disney
- Fred Smith
- Frank Gordy

Creativity isn’t compromised by disabilities.

- Stevie Wonder & Ray Charles –
Critical thinking (Creativity)

Creativity doesn’t give up with failure.

➢ Thomas Edison –

Creativity isn’t age or education dependent.

➢ Bill Gates, Steve Jobs, Michael Dell –
Creativity gives you the added edge to make tomorrow different from today. It is the mechanism for introducing emotion and feeling into the thought process.

Creativity is tonight’s dreams incorporated into tomorrow’s decisions, planning, and actions.
Critical Thinking

- Critical Thinking is an active process of combining creativity with decision making and problem solving while also being cognizant of not over thinking and/or acting without reason.
Critical Thinking

- Critical thinking is a blending of rationale decision making, cautious problem solving, and creative thought.
Critical Thinking
– questions to take home

- Are the decisions you make based on critical thinking before you act, or do you think after you have acted?

- Do you think that a critical thought process could enhance your job performance?

- Why is it important for you to develop a critical thinking focus?
Critical Thinking
– questions to take home

Thank you - have a great day!