Creative Problem Solving

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Today’s Agenda

• Understand Barriers to Creativity & Creative Solutions
• Practice Intentional Creativity & Problem Solving Techniques
What’s on your mind?

- Cost Containment
- Labor Scarcity, Clinician, & Physician Satisfaction
- Payors, Regulatory Impact & Compliance
- Performance Metrics
- Patient Safety & Satisfaction
“Imagination is more important than knowledge.”

- Albert Einstein
What IS Creativity?

Ability to produce something new through imaginative skill, whether a new solution to a problem, a new method or device, or a new artistic object or form. The term generally refers to a richness of ideas and originality of thinking.

the ability to form a picture in your mind of something that you have not seen or experienced

the quality of being new and different in a good and appealing way
Why is creative problem solving important?
Creativity and the Brain

The Neuroscience of Creativity, Graham, K., The Creativity Post, Published: December 3, 2012
Neuroplasticity

The brain's ability to change and adapt as a result of

- learning, experience and memory formation, or
- damage to the brain

As we gain new experiences, some connections are strengthened while others are eliminated.

The environment plays an essential role in the process and genetics also has an influence.

SYNAPSES

2,500  15,000  7,500
Your Brain is Dynamic

- Leader
- Inventor
- Teacher
- User
Super Brain Credo: How the Mind Relates to the Brain

1. The process always involves feedback loops.
2. These feedback loops are intelligent and adaptable.
3. The dynamics of the brain go in and out of balance but always favor overall balance.
4. We use our brains to evolve and develop, guided by our intentions.
5. Self-reflection pushes us forward into unknown territory.
6. Many diverse areas of the brain are coordinated simultaneously.
7. We have the capacity to monitor many levels of awareness, even though our focus is generally confined to one level (i.e., waking, sleeping, or dreaming).

8. All qualities of the known world, such as sight, sound, texture, and taste, are created mysteriously by the interaction of mind and brain.

9. Mind, not the brain, is the origin of consciousness.

10. Only consciousness can understand consciousness. No mechanical explanation, working from facts about the brain, suffices.
Feedback Loop: The Ladder of Inference

I take Actions based on my beliefs
I adopt Beliefs about the world
I draw Conclusions
I make Assumptions based on the meanings I added
I add Meanings (cultural and personal)
I select "Data" from what I observe
Observable "data" and experiences (as a videotape recorder might capture it)

The reflexive loop (our beliefs affect what data we select next time)
Brain Exercises
HAMLET
WORDS
NO  NO

CORRECT
20 = (v) \sin (35) + 0.5 (-9.8)(159^2)

V^2 = (\sin (159^2))
What do these words correlate?

1. LOCK — PIANO
2. SHIP — CARD
3. TREE — CAR
4. SCHOOL — EYE
5. PILLOW — COURT
6. RIVER — MONEY
7. BED — PAPER
8. ARMY — WATER
9. TENNIS — NOISE
10. EGYPTIAN — MOTHER
11. SMOKER — PLUMBER
Blocks and Barriers to Creativity

- Fear
- Stress
- Limiting beliefs
- No Fire
- External Factors – “Killer Phrases”
Barriers to Creativity: Killer Phrases

“Sensible women do not want the right to vote.”
President Cleveland in 1905

“Who the ‘heck’ wants to hear actors talk”
Henry Warner in 1927

“Groups with guitars are on their way out.”
Decca Records in 1962

“There is no reason for an individual to have a computer in his/her home.”
Computer Manufacturer in 1977
Top 2 Killer Phrases

“Yes, but . . .”

and

“We have tried that before…..”
Barriers to Creativity: Group Think

Causes

• A dominating or persuasive leader or voice
• A high level of group cohesion
• Intense pressure from the outside to make a good decision

Symptoms

• Rationalization –
  • “Make it work”
• Peer Pressure –
  • “Get on board”
• Complacency –
  • “Whatever you think”
Exercise

Random Word
Problem Solving Steps

1. Defining the problem
2. Generating alternatives
3. Evaluating and selecting alternatives
4. Implementing solutions
Defining the Problem

5 Whys

- Determine the problem quickly
- Simple to use

Root Cause Analysis

- Determine what and why
- Physical causes
- Human causes
- Organizational causes
5 Whys Exercise

At your table, reveal a problem you are facing at work.

Ask 5 whys

Take turns problem sharing and asking WHY?
Creative Problem Solving: Ask Questions

1. Why have we always done it that way?
2. Does anyone actually look at that form?
3. Why do I have to sign this form?
4. Why do we need a task force for this?
5. Why do I need a hard copy of this?
Step 1: What’s the problem?

- What doesn’t work, is painful or unpleasant?
- Who is impacted?
- Why solve/ change now?
- What is gained by solving/changes?

- Specifically identify issue, its effectives, its source
- Name ALL people, process, outcomes & the impact (negative & positive)
- What force makes this issue relevant NOW
- What gains & losses can happen by changing?
Step 2: What can we do about it?

• What doesn’t work? Is painful or unpleasant?
• Who is impacted?
• Why solve/ change now?
• What is gained by solving/changing?

• Brainstorm Solutions
  Gather or Adopt New Perspectives

Create without fear!
Fishbone Diagram: Employee Turnover

Economy
- Availability of higher paying jobs

Performance of the Organization
- Repetitiveness
- Challenge
- Danger
- Perceived Importance
- Sense of Accomplishment
- Status

Organizational Culture
- Reward system
- Strength of leadership
- Org's ability to foster employee sense of commitment
- Org's ability to foster employee sense of shared goals

Unrealistic Employee Expectations
- Job not clearly explained during interview process

Personal Reasons
- Family situation
- Desire to learn new skill or trade
- Unsolicited job offer

Employee Turnover

Information source for this fishbone diagram: http://www.sigmaassessmentsystems.com/articles/empturnover.asp

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Creative Problem Solving

- Network outside of your industry
- Bring staff, clinician, physicians (diverse business partners) together to look at a problem from a different perspective
- Share business problems with trusted advisors outside of your industry – 5 whys?
- Look to nature, recreational reading/activities
- Journal
Optimal Creative Times

- Performing monotonous chores
- Listening to a church sermon
- Waking up in the middle of the night
- Leisure activities – going for a walk outside
- Falling asleep or waking up
- Commuting to work
- Showering
Summary

- Open your mind, try something different
- Be aware of your feedback loops and self-induced limitations
- Share your problems with trusted friends and advisors,
- Ask Why?
- Move outside of comfort and routine