CPS and PM
Essential Slides

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Exhale

Objectives

Build the skill set, tool set, and mind set of creative leadership and project management competencies

Strengthen collaborations to establish new respite programs for caregivers of the elderly

Equip participants to apply CPS and PM principles to lead the project proposal process in support of new respite programs for caregivers of the elderly

Increase team synergy and performance and to foster a work climate that draws maximum potential from each team member - FourSight
Creative Problem Solvers

Openness to Novelty
Being able to entertain ideas that at first seem outlandish and risky

Tolerance for Ambiguity
Being able to deal with uncertainty and to avoid leaping to conclusions

Tolerance for Complexity
Being to stay open and persevere without being overwhelmed by large amounts of information, interrelated and complex issues, and competing issues

Operational Terms

Creativity
Novelty that’s valuable and useful

Innovation
Capturing the value of creativity and bringing it to life
Creative Problem Solving (CPS) is a structured process for solving problems or finding opportunities especially when you want to go beyond conventional thinking and arrive at creative (novel and useful) solutions.

**The Dynamic Balance**

**Divergent Thinking**
A broad search for many diverse and novel alternatives. **NOVEL**

**Convergent Thinking**
A focused affirmative evaluation of alternatives. **USEFUL**

[Diagram showing balance between divergent and convergent thinking]
Divergent Thinking

Divergent thinking is a process of generating multiple ideas, solutions and possibilities on demand. In this process, individuals or groups become deliberately creative and open themselves up to breakthrough thinking.

Divergent thinking is a broad search for many diverse and novel alternatives.

Follow the rules!

Groundrules for Divergent Thinking:

- Defer judgment
- Strive for quantity*
- Build on other ideas
- Seek novelty

*Wedding pictures!
Divergent Thinking

**Ideate**
Broad search for multiple and varied novel and useful solutions

**Clarify**
Formulate or reframe the challenge in multiple and varied ways in order to decide what problem will be solved

Creative Questions

**How to (H2)**

**How might (HM)**

**In what ways (IWW)**

**What might be all the (WMBAT)**
**Formating Creative Questions**

I can’t access my ticket without Internet access!

- Statement starter *(How might…)*
- Owner *(I)*
- Verb *(get)*
- Object *(Internet access?)*

**How might I get Internet access?**

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**Convergent Thinking**

Convergent thinking involves the delicate task of judging and making decisions. Done right, fledgling and underdeveloped ideas that might otherwise be overlooked or dismissed stand the chance of being developed into robust and brilliant solutions.

Convergent thinking is a focused affirmative evaluation of alternatives.
The Creative Process (Problem)

Clarify    Ideate    Develop    Implement

- Exploring the vision & identifying the challenge
- Generating ideas
- Transforming solutions & bringing ideas to life
- Exploring acceptance & formulating a plan

Groundrules for Convergent Thinking:
- Apply affirmative judgment
- Be open to novelty
- Be deliberate
- Stay on course
Clarify: Exploring the Vision

**Purpose:** Develop a vision of a desired outcome.

**Cognitive Thinking Skill:** Visionary and Wishful Thinking
Articulating a vivid image of what you desire to create.

**Affective Skill:** Dreaming
Imagining as possible your desires and hopes.

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Exploring the Vision

**objective**

Desired State

- It be great if...
- I wish that...
- Wouldn’t it be nice if...

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Clarify: Identify the Challenge

**Purpose:** Identify the gaps that must be closed to achieve desired outcome.

**Cognitive Thinking Skill:** Strategic Thinking
Identifying the critical issues that must be addressed and pathways needed to move toward desired future.

**Affective Skill:** Sensing Gaps
Become consciously aware of discrepancies between what currently exists and is desired or required.

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Formulating Challenges

**objective**

Well Defined Problem

- How to...? In what ways might...? How might...? What might be all the...?
**Ideation: Exploring Ideas**

- **Purpose:** Generate novel ideas that address important challenges.
- **Cognitive Thinking Skill:** Ideational Thinking
  - Producing original mental images and thoughts that respond to important challenges.
- **Affective Skill:** Playfulness
  - Freely toying with ideas.

**Develop: Formulating Solutions**

- **Purpose:** Move from ideas to solutions.
- **Cognitive Thinking Skill:** Evaluative Thinking
  - Assessing the reasonableness and quality of ideas in order to develop workable solutions.
- **Affective Skill:** Avoiding Premature Closure
  - Resisting the urge to push for a decision.
Implementation: Exploring Acceptance

**Purpose:** Increase the likelihood of success and buy-in.

**Cognitive Thinking Skill:** Contextual Thinking
- Understanding the interrelated conditions and circumstances that will support or hinder success or acceptance.

**Affective Skill:** Sensitivity to Environment
- The degree to which people are aware of their physical and psychological surroundings.

Implementation: Formulating a Plan

**Purpose:** To develop an implementation plan.

**Cognitive Thinking Skill:** Tactical Thinking
- Devising a plan that includes specific and measurable steps for attaining a desired end and methods for monitoring effectiveness.

**Affective Skill:** Tolerance for Risks
- Not allowing yourself to be shaken or unnerved by the possibility of failure or setback.
The goal is to *force a connection* between two totally unrelated things, *the prop* and *the problem*, to stimulate thinking and create more ideas. These new ideas are often more novel and unusual.
Word Dance: Musical Chairs with Words

Divergent tool to generate substitute phrases, nouns, verbs for alternative meaning-making and representation.

Story Boards aka Vision Boards

- Locate a piece of paper and write your idea somewhere as a header starting with... It would be GREAT or I WISH...
- Fold in half length wise and then in thirds
- Label your boxes 1 – 6, starting in the upper left and ending in the lower right
- In box #1, draw the current reality
- In box #6 draw the desired vision
- In boxes 2 - 5, generate (in pictures) actions to get you to the desired outcome

Exploring the Vision
Stick’em Up Brainstorming

- Grab a marker and Post-it pad
- Write your idea on a Post-it
- Say your idea out loud so that others can hear it
- Hand your Post-it up to Teresa (facilitator)
- One idea per post-it

Let’s go for 20 ideas in three minutes

Stick’em Up Brainstorming... with Ideaboardz

- Open the link
- Read the prompt
- Click on the
- Write your idea on a Post-it
- Hit enter
- One idea per post-it

Let’s go for 20 ideas in three minutes
# Let's Practice with IdeaBoardz

At Home Learning

It would be great if learning is the "get home model" of rich, productive, developed thinking skills and positioned students for what comes next.

1. Open the link
2. Read the prompt
3. Click on the Post It
4. Write your idea on a Post-it
5. Hit enter
6. One idea per post-it

Let's go for 20 ideas in three minutes

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# Stick'em Up Brainstorming...with Mural

- Open the link
- Read the prompt
- Click on the Post It
- Write your idea on a Post-it
- Hit enter
- One idea per post-it

Let's go for 20 ideas in three minutes
Highlighting lets you narrow from many to a few good options.

**Hits** lets you choose ideas that are especially interesting, promising, compelling, intriguing, innovative or on-target.

**Clustering** organizes your hits into groups, categories or themes.

**Restating** captures the essence of the cluster.
Brainwriting – Write 3 and GO

1. Write down the creative challenge
2. Write three ideas
3. Get a new sheet
4. Read the creative challenge
5. Read the ideas
6. Add/build on ideas
7. Get a new sheet
8. Repeat
SCAMPER: A mnemonic (tool) that helps generate ideas

Pluses, Potentials, Concerns, Overcoming Concerns (PPCO)

01 Pluses
Find value in the idea – express what you like about it.

02 Potentials
What opportunities might be possible if the idea worked? (It might…)

03 Concerns
Present issues as creative questions to invite new thinking. (H2, HM, IWW, WMBAT)

04 Overcoming Concerns
Brainstorm ways to overcome stated challenges.
**Assisters and Resisters**

**Assisters**
- Who might help make this work?
- How might we enlist their help?

**Resisters**
- Who might this rub against?
- How might we overcome their resistance?

**Paired Comparison**

Paired Comparison is a convergent tool for narrowing choices that are quite different from one another, if decision criteria are subjective, or if you don't have objective data to use for your decision. The tool allows for full membership participation and helps builds consensus.
Card sort is a convergent tool that helps you compare, rank and prioritize. It can be used to rank requirements, ideas, solutions, creative questions or criteria. Card sort also helps you to generate group consensus. This tool is best suited for prioritizing up to 15 options.
**CARDSORT**

Card sort is a convergent tool that helps you compare, rank and prioritize. It can be used to rank requirements, ideas, solutions, creative questions or criteria. Card sort also helps you to generate group consensus.

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**Sequencing**

<table>
<thead>
<tr>
<th>What’s being done?</th>
<th>Who will do it?</th>
<th>By when?</th>
<th>Support/Report?</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Short Term Actions</strong></td>
<td>•</td>
<td>•</td>
<td>•</td>
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<tr>
<td><strong>Intermediate Actions</strong></td>
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<td>•</td>
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<tr>
<td><strong>Long Term Actions</strong></td>
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</tbody>
</table>
New Tool: Evaluation Matrix

A tool to generate criteria in order analyze promising ideas, options or solutions. Accommodates objective and subjective criteria. Provides direction. Another systematic way for building consensus while making choices.

Project: A temporary endeavor undertaken to create a unique product, service or result

— PMI
Processes & Knowledge Area

- Initiating
- Planning
- Executing
- Monitor & Controlling
- Closing

<table>
<thead>
<tr>
<th>Integration</th>
<th>Resources</th>
</tr>
</thead>
<tbody>
<tr>
<td>Scope</td>
<td>Communications</td>
</tr>
<tr>
<td>Schedule</td>
<td>Risk</td>
</tr>
<tr>
<td>Cost</td>
<td>Procurement</td>
</tr>
<tr>
<td>Quality</td>
<td>Stakeholder</td>
</tr>
</tbody>
</table>

I saw Scott’s car quickly ram Carl’s rear passenger side.

Estimate Resources

- **Analogus (Top Down)**
  - Using actual information from a similar activity on this or another project.

- **Parametric**
  - Using historical information on linear or scalable activities.

- **Three-Point Estimates** (PERT: Program Evaluation & Review Technique)
  - Estimating averages of worst-case (P), best-case (O) and most realistic (R) estimates.

- **Bottom Up**
  - Using a separate estimate for each activity and aggregating up.

Highly accurate… time consuming and labor intensive.
Organizational Process Assets (OPAs)

The plans, templates, processes, policies, procedures, lessons learned and knowledge base specific to, developed and adopted by, and used by, the organization.

Enterprise Environmental Factors (EEFs)

The internal, external, tangible, intangible factors influencing the project...conditions outside the control of the project team.
Input Tools & Techniques Output (ITTOs)

What do I need before I can....

What will I have when I am done...
What am I trying to achieve....

What is the best/most appropriate tool or technique I should use...

Process Groups

What & How

PLANNING

Why

INITIATING

Do it

MONITORING & CONTROLLING

Did it

EXECUTING

CLOSING
### Process Groups

- **Initiating**: Authorizing the project
- **Planning**: Defining and refining project objectives
- **Executing**: Coordinating people and resources to carry out the project
- **Controlling**: Ensuring objectives are met and adjusting when needed
- **Closing**: Formulizing the acceptance and closure of the project

### Knowledge Areas

- **Integration Management** is the coordination of all elements of a project - tasks, resources, stakeholders, managing conflicts between different aspects of a project and making trade-offs between competing requests and evaluating resources.
- **Scope Management** ensures a project’s scope is accurately defined and mapped. Did we build the right thing?
- **Schedule Management** is the listing of activities, deliverables, and milestones within a project.
- **Cost Management** is the process of estimating, allocating, and controlling project costs.
**Knowledge Areas**

- **Quality Management** is the degree to which the project fulfills requirements and satisfies the needs for which it was undertaken…Did we build the thing right?
- **Resource Management** identifies, acquires, and manages the resources needed for the successful completion of a project.
- **Communication Management** is a collection of processes that help make sure the right messages are sent, received, and understood by the right people.

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**Knowledge Areas**

- **Risk Management** works to increase the probability and/or impact of positive risks and to decrease the probability/impact of negative risks in a project.
- **Procurement Management** supports the purchase and acquisition of products, services or results needed from outside the project team.
- **Stakeholder Management** is the process by which systematically identify stakeholders; analyze their needs and expectations; and plan and implement various tasks to engage with them.
Thank You!
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