Growing the Lean Community
An LAI Plenary Conference

Creativity and Adult Learning Principles
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Creativity and Adult Learning Principles

Who: Participants in LAI Lean Learning Break-out Session

What: Presentation and exercises on adult learning principles

When: Tuesday, April 11, 2001

Where: LAI Plenary, Cambridge, MA

Why: Lean Learning depends on an understanding of adult learning principles

Expected Outcomes:

- Understanding of adult learning principles
- Exercises and activities useful to explore adult learning principles and foster creativity
Overview (45 min.)

- **Introduction**
  - Overview and expectations (2-3 min.)

- **Adult Learning Principles and Training Delivery**
  - Selected adult learning principles (7-10 min.)
  - Customer pull and training delivery (5-7 min.)

- **Creativity**
  - Core concepts (2-3 min.)
  - Creativity exercises and applications (15-20 min.)

- **Conclusion**
  - Action implications (3-5 min.)
Adult Learning Principles and Training Delivery
Form small groups of 2-3 people – you will be assigned as either a “mass production” or a “lean enterprise” group

- **Mass production groups:**
  - Describe the adult learning associated with a mass production system
  - What underlying assumptions are being made about adult learners in this case?

- **Lean Enterprise groups:**
  - Describe the adult learning associated with a lean enterprise system
  - What underlying assumptions about adult learners are being made in this case?
Adult Learning Principles

- Learners bring life experience
  - The goal is not to “teach,” but to provide frameworks and exercises that provide new insights or perspectives into existing experience

- People learn in different ways
  - Provide a mix of presentation, discussion, exercises – with visual, auditory, and experiential learning

- Lessons must be practical and useful
  - Ensure the sessions are concise and accessible – Provide practical examples and drive follow-on applications

- Learning should be fun and engaging
  - Never use humor . . . Never ask people to analyze situations or data . . .
“It was Aristotle who said excellence is not a singular act, but a habit. You are what your repeatedly do.”

➢ Shaquille O’Neal, MVP Acceptance Speech – 1999-2000 season
A Training “Pull” System

- What would a “pull” training system look like?

- What types of training and organizational learning can be readily run on a “pull” basis?

- What types of training and organizational learning are difficult to run on a “pull” basis?

- What are the implications of this analysis?
Creativity
Why Creativity?

- What are examples of some of the most creative ideas of the 20th century?
  - What do these ideas have in common?
  - What is do these ideas not have in common?
  - Why might we ask both questions?

- What roles does creativity play in the aerospace industry?
The Nature of Creativity

- Why are children naturally creative?

- What happens to that creativity as we become adults?
  - What do we lose in this process?
  - What do we gain?

- What are the implications?
Creativity Barriers and Enablers

Barriers

- Assumptions
- Routines/Habits
- Skepticism
- Resources
- Rules

Enablers

- Assumptions
- Routines/Habits
- Skepticism
- Resources
- Rules

How can this be so? What are the implications?
Creativity Process

- Agree on the FOCUS
- Explore OPTIONS
- Organize the ideas into CATEGORIES
- Explore gaps and patterns to deepen UNDERSTANDING
- SELECTION of implications and actions that might not otherwise have been considered

What pattern do you notice regarding these steps in the process?
Goal: Demonstrate “out of the box” thinking

Process:

✓ Teams of 3-5 people
✓ Brainstorm list of creative ways that a piece of paper can be used to illustrate the principles of flight
✓ Select the option most likely to elicit “oos” and “ahs” of appreciation from others in this room
✓ Prepare a presentation/demonstration on this option
✓ Present your idea to the full group
✓ Assess the implications of this exercise
Applications for Lean Learning

- What are examples of applying adult learning and training design principles to lean learning?

- What are examples of not taking into account adult learning and training design principles when it comes to lean learning?

- How do you interpret these data (from both questions)?
Have a Safe and Successful Journey
Goal: Think creatively about the future of the aerospace industry

Process:

_teams of 2-3 people

Brainstorm list of unique capabilities of this industry and its people

Brainstorm creative ways to target or channel the talent and energy

Organize these into categories -- notice patterns

Select ideas that might be presented to senior leadership