

Creativity and Innovation in Organizations and Work (DYN692) Class 1 Summary

Date: 1.11.12

Finger Painting

Finger paint a class logo – using someone else's finger.

Mini-lecture: Creativity and Innovation in Organizations and Work

A Brief History of Organizations

- Not really a central part of life until the 20th century.
- Four models for modern organizations: Church, state bureaucracy, modern army and the mass production factory
- literally designed to stamp out Creativity and Innovation.
- Even still, 6-sigma...

Operations World different from Creative World

But somehow we need to put the two together

IDEO: The Deep Dive (video and discussion)

IDEO is the world's foremost product development firm. How do they do it?

1. Establish the goal: Redesign the shopping cart to come up with an improved product that

would serve the same function (better) at comparable cost.

2. Break up into teams to perform "anthropological research"
 - a. Discuss problems of current design with "experts" – users (consumers and store managers) and workers (store workers)
 - b. Experiment with different conditions
 - c. Filmed actual use
 - d. Observed problems, difference between professional shoppers and average shoppers
 - e. Conducted library research on "problem areas" (e.g., safety, theft)
3. Return to share observations. *Deep Dive* -- Brainstorm ideas. Company mottos:
 - a. encourage ideas
 - b. defer judgment
 - c. one conversation at a time
 - d. stay focused
 - e. build up ideas
4. "Adults" meet to ensure the process is on track or make corrections (e.g., ensure that the perspective of store owners is represented)
5. Vote on ideas, focusing not on those that are "cool," but rather those that are *buildable*.
6. Identify "need areas" (safety, theft, locomotion, convenience)
7. Break up into (four) teams to build partial prototypes, each focused on a specific need area.
8. Integrate the best attributes from each partial design into a single design
9. Build, test and verify complete prototype
10. Make subsequent adjustments

Handouts: (1) IDEO Process/Methodology (2) Fast Company, Ideo's David Kelley on "Design Thinking" (3) Transcript, Nightline, ABC "The Deep Dive: One company's secret weapon for innovation"

Three approaches to innovating (mini-lecture)

Teleological approach

Examples: Idealized Design

Idealized Design was developed at *Bell Labs*, the source of many innovations over several decades, until they were run into the ground by high-flying *Lucent Technologies*. It was popularized, systematized and broadly applied by Russell Ackoff [Note 3], who has taught in this program. Idealized Design begins with an understanding of:

- Goals – ends expected to be attained within the course period
- Objectives – ends we expect to attain sometime after the course ends, but towards which we expect to make progress
- Ideals – ends that we believe are not attainable, but towards which progress is possible.

Ideals lay at the heart of idealized design. Three steps are involved [Note 4]:

(1) Identify purpose

Reflect on your goals, objectives and ideals. Explain why you are here. Why give up your evening(s) and pay substantial tuition?

(2) Specify desired properties

Given your goals, objectives and ideals what are the desired properties of the course?



(3) Design the system

How to best achieve goals and objectives given time and resource limitations?

Methodology & Basic Principle: Participative Design

We often assume that experts alone are qualified to design a complex system or product. Although experts may have specialized knowledge, they are not generally in a position to say what a system, product, or syllabus *ought* to be. Design should be focused on the system stakeholders – only they know their goals, ideals and potential. [Note 5]

Handout: Ackoff “Ends Planning 1: Idealized Design” (Ch 5 of [Creating the Corporate Future](#))

Feeling/Emotion/Heart-Directed approach

Example: Appreciative Inquiry

Appreciative Inquiry attempts to improve organizational functioning based on two premises: (1) organizations change in the direction in which they inquire so it is important to ask the right questions. (2) workers know their own processes better than anyone. Janitors know how to clean; machine operators come to understand their machines, etc... By appreciatively inquiring about direct workers' knowledge, managers and leaders from all levels can improve processes. In the case of course design, you are the ones with that knowledge.

Handout: Cooperrider, DL and S Srivastva (1987). [Appreciative Inquiry in Organizational Life. Research in Organizational Change and Development. Greenwich, CT, JAI Press 1: 129-169.](#)

Observing/Empirical/ Eye-Ear-Nose-Directed approach

Example: IDEO, Lead User Innovation

MIT professor Eric von Hippel found that product users are the source of much -- if not most -- technological innovation. No matter how well a manufacturer knows how to make a scientific instrument or whatever one makes, it's not the manufacturer who is using it. Users, in particular *lead users*, discover unforeseen uses and adapt it for novel applications. The most successful manufacturers listen to their customers. Often they need do nothing more than make what the lead users themselves design.

The first step that IDEO took after establishing their goal was to consult and observe users. They especially observed lead users (professional shoppers) to see how shopping can be done more efficiently. In the case of course design, you are the lead user.

Handout: von Hippel “Development of Products by Lead Users” (Ch 2 from [Democratizing Innovation](#))

Games

Electric Company

Person 1: “A”; Person 2: “B”; All: “A-B ta-dada” named for the 1970s children's educational television series from whence it comes. It should be easy and fun to say just *anything*, no need for rhyme, alliteration, creativity, cleverness, PC or even to make sense. And it is easy and fun ... for children, but it can be challenging and uncomfortable for adults. Improv performers use it as a warm-up for spontaneity and for listening skills,

allowing something to roll out of the mouth when it's time instead of thinking about what's the right thing to say. It's often difficult for adults because of the extent to which we engage in self-censorship, often even without awareness, and thus a task that should be quick, rhythmic and fun becomes slow, awkward and painful.

Enemy-Defender

Introductions

Poems and letters

Interview questions

Next Class

Assigned Reading:

Mihaly Csikszentmihalyi, *Creativity: Flow and the Psychology of Discovery and Invention* (1996, HarperCollins)

Discussion Topics:

- The Systems Model of the Creative Process - The Creative Personality
- Creative Flow & Creative Surroundings - The Work of Creativity
- Creative Lives: Early Years, Adult Years, Creative aging
- Creative Domains: the Future, the Workplace
- Enhancing Personal Creativity

Supplemental Reading:

Jeff Mauzy & Richard Harriman, *Creativity, Inc.: Building an Inventive Organization* (2003, Harvard Business School Press)

