



*American Creativity Association
International Conference 2007*

Winning with Innovation

Lecturer

Brad Fregger



The Role of Effective Leadership

***Effective leaders are more capable of dealing with
a changing situation***

***Effective leaders naturally achieve creative
environments***



Characteristics

- **Committed to the goals of the organization**
- **Highly principled, ethical, can be trusted**
- **Able to find, recruit, and motivate the best people**
- **Able to build and maintain critical business and personal relationships**
- **Able to create an environment where people can excel**
- **Genuinely curious about how others think and the ideas/opinions they have**



Characteristics

- ***Sensitive to cues concerning potential problems and opportunities***
- ***A lack of ego around problem-solving and decision-making***
- ***Not afraid to make the tough decisions, but only after deep consideration***
- ***Highly intuitive and not afraid to trust those feelings***
- ***Extremely creative, not afraid to consider impossible ideas***



Characteristics

- ***Willing to take risks, especially when the situation warrants it***
- ***Willing to embrace the unexpected and the resulting possibilities***
- ***Willing to accept responsibility for one's actions (or inactions) and the results***
- ***Compelled to effective mentoring, to pass on skills and philosophies***
- ***Uses centering techniques for relaxation and heightened awareness***



Curiosity

“It is impossible to overstate the importance of curiosity. Only through curiosity do we gain understanding and therefore solve problems and resolve conflicts.”

Secret 6

***A Human Characteristic
Essential for Effective Leadership
Shows Respect for the Individual
The Key to Gaining Understanding***



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Gaining Understanding

With Curiosity:

Honestly Interested

No Ego Involvement

Lack of Elitism or Prior Judgments

***The other person has a better chance of knowing
you honestly care about what they believe or
feel ... that you will take their concerns,
ideas, and suggestions seriously.***



Two Stories

Dennis' Golf Story (Sink the Putt Problem)

Make It Look Real Story (Water / Golf Course)



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The Nature of Creativity

***We are naturally creative; this is a
basic survival characteristic.***

***The environment can limit, even eliminate,
this natural tendency.***

***Regardless, we are all born with the
capacity to create.***

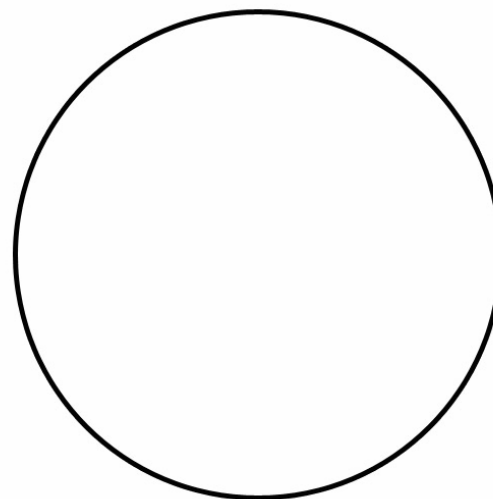
We can rekindle our and others' creativity.



Enhancing Individual Creativity?

Group Exercise

Cut the pie into eight pieces using three or fewer cuts.

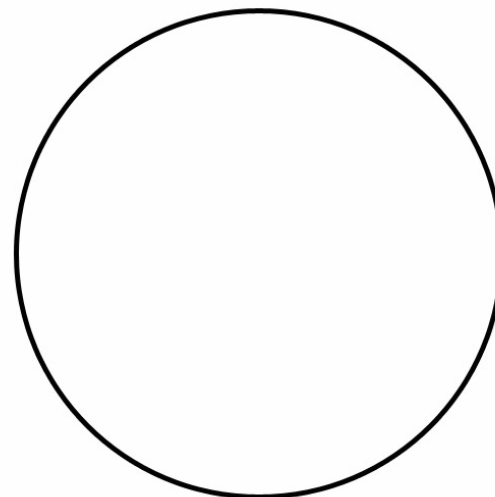




Enhancing Individual Creativity?

***Objective: To get at the assumptions
that inhibits our creativity.***

***Discuss: Did you make some
assumptions about what the pieces
needed to look like?***





Enhancing Individual Creativity?

Group Discussion

***Does this exercise enhance individual
creativity?***

If so, how?

If not, why not?



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The Atari Experience

There was a great need to foster creativity in our game developers (software engineers).

NLP and Robert Dilts

Determining Effective Strategies

Enhancing Individual Creativity

***From Subconscious Competence
to Mastery***



Defining Creativity

“Creativity is thinking up new things. Innovation is doing new things. ... Innovation is the practical application of Creativity.”

3m saying

***Creativity isn't beginning from scratch,
from a blank sheet.***

***Creativity isn't developing a new skill like,
“thinking out of the box,” or any other tricks.***



Creativity is ...

Innovation (old becomes new)

Embracing the unexpected

Being curious

Being disciplined (limits, deadlines)

Retaining your childlike wonder

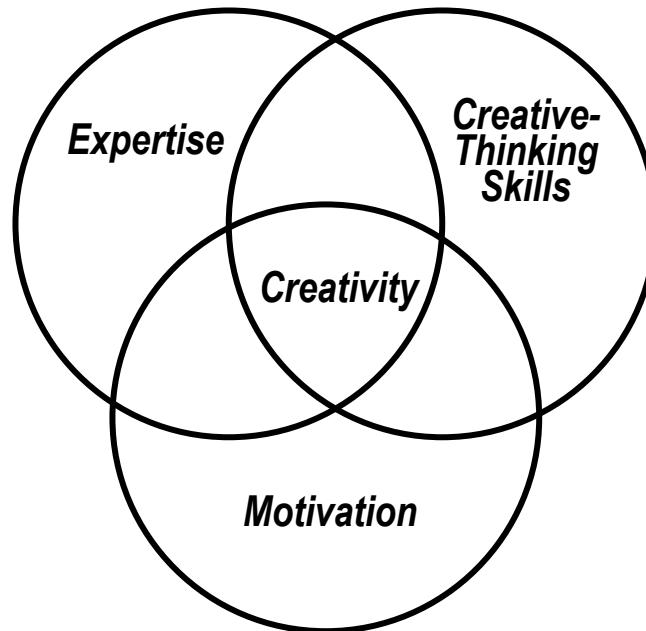
“When we’re little kids, we’re filled with wonder ... a lot of people lose that ... magic renews that wonder.”

Doug Henning



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Three Components of Creativity



Source: Teresa M. Amabile, "How to Kill Creativity," Harvard Business Review, September-October 1998, 77-87



Three Components of Creativity

“Within every individual, creativity is a function of three components: expertise, creative-thinking skills, and motivation. Can managers influence these components? The answer is an emphatic yes—for better or worse—through workplace practices and conditions.”

*Managing Creativity in the Workplace
Harvard Business Essentials*

Expertise

“is, in a word, knowledge—technical, procedural, and intellectual.”



Three Components of Creativity

Creative-Thinking Skills

“Creative-Thinking Skills determine how flexibly and imaginatively people approach problems. Do their solutions upend the status quo? Do they persevere through dry spells?”

Motivation

“Not all Motivation is created equal. An inner passion to solve the problem at hand leads to solutions far more creative than do external rewards, such as money. This component—called intrinsic motivation—is one that can be most immediately influenced by the work environment.”



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Successful Strategies

*“Believe in the capability of the subconscious ...
it can perform miracles.”*

Take time away, do unrelated tasks

Regain your natural curiosity

Seize the moments of inspiration

***Embrace surprises, coincidence,
synchronicity, serendipity***



How Intuition Works

(Paper – How Intuition Works)

Do we only use 10% of our mind?

Our 5 senses do not filter.

The subconscious mind receives all the data supplied by our senses, analyzes it to determine how critical it is, filters out that which is not critical, and brings the critical data to the attention of our conscious mind.



How Intuition Works

The subconscious controls what we perceive.

Hypnosis

Where did she come from?

The subconscious has a strong tendency to not let us perceive that which would threaten our current belief system.



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How the mind works

***The subconscious receives and
analyzes all of the data.***

“It works like human intuition.”

The subconscious mines the data it receives for unknown relationships and then delivers that information, at the appropriate time, to the conscious mind as realization, insight, or inspiration ... intuition.



Achieving Creative Environments

***“Our environment can limit, even squelch
this natural tendency.”***

Respect & Trust are Key

Seize and Celebrate the Moments

Encourage Time Away From the Task

Discover Their Passion

***Know the Difference Between “Differently”
and “Wrong”***



Achieving Creative Environments

Ask enabling Questions:

Why?

What if?

What are we doing?

What are we trying to accomplish?

Embrace diversity

Face fears

***“The unvoiced fear is a block to creativity,
the faced fear a stimulus.”***



Achieving Creative Environments

The Paradoxical Characteristics of Creative Groups

Beginner's Mind → Experienced Mind

“A team needs fresh, inexperienced perspectives as well as skilled expertise. Bringing in outsiders is often a useful way to provide the necessary balance of perspective.”

***Managing Creativity and Innovation
Harvard Business Essentials***



Achieving Creative Environments

The Paradoxical Characteristics of Creative Groups

Freedom → Discipline

“Your team must work within the confines of real business needs—and in alignment with your companies strategy. But it also needs latitude—some degree of freedom to determine how it will achieve the strategy and address the business needs.”

***Managing Creativity and Innovation
Harvard Business Essentials***



Achieving Creative Environments

The Paradoxical Characteristics of Creative Groups

Play → Professionalism

“Creativity thrives on playfulness, but business must be conducted professionalism. Provide time and space for play, but clarify the appropriate times and places.”

***Managing Creativity and Innovation
Harvard Business Essentials***



Achieving Creative Environments

The Paradoxical Characteristics of Creative Groups

Improvisation → Planning

“Plan your project carefully but remember that projects do not always go as planned. Encourage team members to look for ways to turn unexpected events into opportunities. Keep plans flexible enough to incorporate new or improved ideas.”

***Managing Creativity and Innovation
Harvard Business Essentials***



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Critical Principles

The Need for Discipline

“Creativity without discipline is chaos.”

There are always limitations

***Ultimately the creative process
must pay dividends***



Critical Principles

The Role of Conflict in the Creative Process

(Stephen & Me)

“An exceptional team is a diverse group of exceptional individuals, each exhibiting initiative, courage, and integrity. Diversity is the Key.”

Secret 2



Critical Principles

The Need for Flexibility

Management

Peers

Team Members

(Dell Computer Story – 24/7)



The Importance of Innovation

Within organizations, it is critical that creativity results in innovation (ideas to products).

To help us understand Innovation ...



What is Innovation?

Macro Definition

- ***New Ideas that eventually raise the quality of life for people and our environment***
- ***A basic human trait***



What is Innovation?

Connections – James Burke

- ***Knowledge and discovery are born from interdisciplinary connections***
- ***The Knowledge Web at www.k-web.org***



What is Innovation?

Business Decision

***Innovation = Invention + Commercialization
of Product or Service + Market***



Methods of Thinking about Innovation

***Improving
Associating
Stimulating
Challenging Assumptions
Combining Technologies***



3M Culture

- ***Stretch goals – 30% of annual sales from new products***
- ***A tolerance for tinkers – The 15% rule***
- ***No one succeeds alone***
- ***Collaborate with customers***
- ***Divide and grow – follow the technology***
- ***Culture of change***



3M Culture

- ***No preferred approach to innovation***
- ***Technology is a shared resource***
- ***Appropriate organizational structure***

It is adaptable to your business!



Innovation Culture

Three Components

***Innovator
Management
Processes***



Innovation Culture

Innovator

Creative

Pursues broad interests

Problem solvers

Self-motivated and energized

Strong work ethic

Integrity

Lifetime learner



Innovation Culture

Management

Clear vision and strategy

Intellectual capacity

Maturity and judgment

Developing people

Customer orientation

Global perspective

Inspires and empowers others

Business health and results

Ethics and integrity



Innovation Culture

Processes

Technology innovation

Product innovation

Process innovation

Priority programs

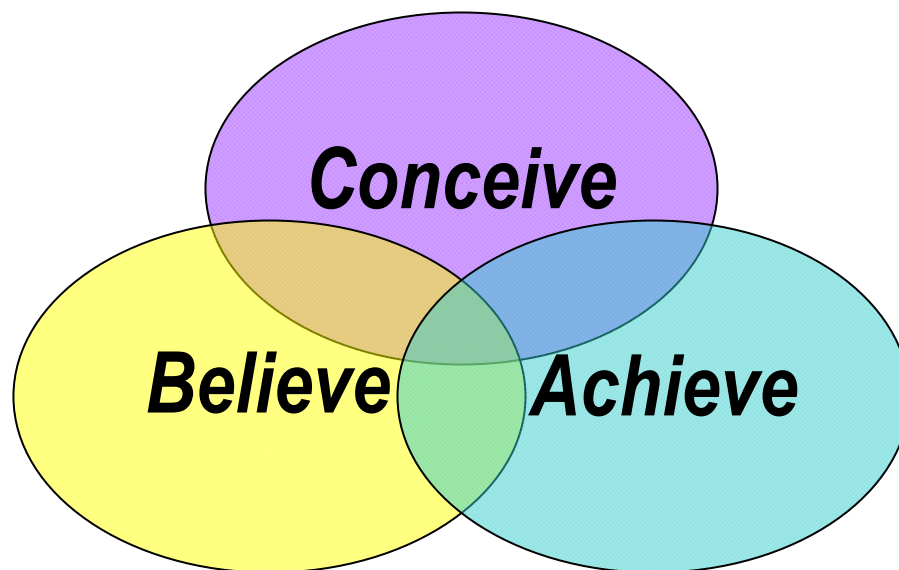
Six Sigma

Leadership development

Change management

More ...

Innovation Culture



Roles, tasks, actions, and outcomes are critical to these stages of innovation.



Conceive

The Role of the Innovator

TASKS

ACTIONS

OUTCOME

Inventing

Acting on a creative idea

Persistence with faith

Internal reward system

Problem-solving – struggling

Protecting ideas

Groundswell momentum

Validation by peers



Conceive

The Role of Management

**TASKS
ACTIONS**

***Supporting
Tolerance for tinkers
Balances conflicting requirements
Designs and supports technical initiatives
Provides shared resources
Benevolent blind eye
Fosters creative activity
Knows all phases of the innovation process
Builds alliances
Nurtures innovation
Organization ability***

OUTCOME



Conceive

The Role of Processes

TASKS

Creative imagining

ACTIONS

Exploring problems for solutions

Developing technology incrementally or leapfrogging

Understanding a different use for current technology

OUTCOME

Random, messy experimenting



Believe

The Role of the Innovator

TASKS

ACTIONS

OUTCOME

Promoting

Collaborating – to talk it up

Networking – to solve problems

Building of cross-functional teams

Initial understanding of customer's unarticulated needs

Establishes project milestones

Cross-fertilization of problems and solutions

Customer interaction

Visiting wizards – sharing with the community

Rewards and recognition



Believe

The Role of Management

**TASKS
ACTIONS**

Taking the long view
Loose-tight management style
Patient money
Tolerant mistakes
Champion reasonable and informed risk-taking by team
Coach innovators to fully develop, document, and sell
Expects results – manages performance
Reward and recognize innovators
Explore patent potential

OUTCOME

Fuzzy front-end
Establishes formal resources
Corporate grants and priority funding



Believe

The Role of Processes

**TASKS
ACTIONS**

Organizing

Team development

Engaging customer in formal process such as DFSS

Participating in technical forums

Giving formal recognition to innovators

OUTCOME

***Fundamental steps accomplished in structuring
product innovation***



Achieve

The Role of Innovator

TASKS

Assists in product commercialization

ACTIONS

Problem-solving

Ensures quality control process

Leads technical audit

Expands product documentation

OUTCOME

Completion of product development



Achieve

The Role of Management

TASKS

ACTIONS

Leads projects through to commercialization

Establishes cross-functional business unit

Sets strategic and operational goals

Oversees business planning, including financial evaluation

Leads project and management reviews

Ethically allocates resources

OUTCOME

Top-level decision to proceed with commercialization

Knowledge transfer



Achieve

The Role of Processes

TASKS

Identify high-potential projects

ACTIONS

***Apply a process methodology, such as Six Sigma
Corporate review and approval***

OUTCOME

***Commercialization
System to ensure reliability and quality
Culture of change
Robust environment for innovation***



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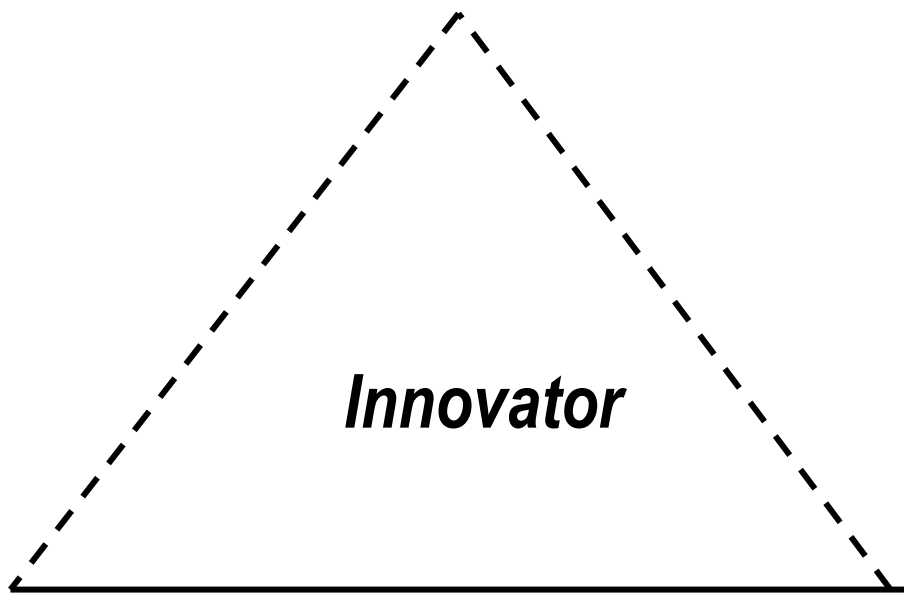
Mentoring

Mentor

Innovator

Sponsor

Champion





Conclusion

***“Innovation is not found in the middle of the status quo.
... ‘Innovation always starts at the edge.’”***

***“Out there on the edge, the landscape is uncertain
and unstable. The edge is rife with risks.
But, the edge ‘is also home to the
beginning of the future.’”***

From a 3M study of creativity and innovation



Embracing the Unexpected

“Many times things only work out because something happens that you never planned on. The effective leader always celebrates the surprises.”

Secret 8



The Importance of Surprises

Seattle's Dale Chihuly

The Greatest Glass Artist of the 20th Century

*"I love how every time these doors open
you're presented with another surprise."*

Can you imagine a businessman saying,

***"I point them in a direction, then let them loose.
I love how the outcome is always a surprise."***



The Role of Luck

SimCity Story

Dryken and the Wall Street Journal

How does this happen?

Create the opportunity.

Prepared to take advantage of it.



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The Luck Factor

Dr. Richard Wiseman

Maximize Chance Opportunities

Lucky people are skilled at creating, noticing, and acting upon chance opportunities. They do this through a strong network, adopting a relaxed attitude to life, and being open to new experiences.

Listen to Your Lucky Hunches

Lucky people make effective decisions by listening to their intuition and gut feelings. They also take steps to actively boost their intuitive abilities -- for example, by meditating and clearing their mind of other thoughts .



The Luck Factor

Expect Good Fortune

Lucky people are certain that the future will be bright. That expectation becomes a self-fulfilling prophecy because it helps lucky people persist in the face of failure and positively shapes their interactions with other people.

Turn Bad Luck Into Good

Lucky people employ various psychological techniques to cope with, and even thrive upon, the ill fortune that comes their way. For example, they spontaneously imagine how things could have been worse, they don't dwell on the ill fortune, and they take control of the situation.



Coincidence/ Synchronicity

Do you know the Difference?

Coincidence

Christmas Dinner

Synchronicity

Eastern Religions

Dr. Gene Shoemaker



Serendipity

The Princes of Serendip

What's needed

Plan

Out of Control

The Outcome is Better

3M - Post It Notes

Mile High Comics



Miracles

“I don’t believe in miracles, I depend on them.”

Beth Pole

Ian’s Story



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That's All Folks