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## Innovation and Intrapreneurship: Essential Skills for Pharmacy


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## Conflicts of Interest

❖ I have nothing to disclose or any conflicts of interest in respect to this presentation

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## Learning Objectives

- ❖ Define the terms innovation and intrapreneurship.
- ❖ Describe opportunities for pharmacists and pharmacy technicians to develop innovation and intrapreneurship skills.
- ❖ Discuss applications of innovation and intrapreneurship skills for health care.

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## Think, pair, share

1. Think...
  - a. How do you define innovation?
  - b. Why innovation is important in your practice?
  - c. Would you call your department innovative?
2. Pair and share with someone else
3. Report out to the large group

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'Genius is 1% inspiration, and 99% perspiration'

- Thomas Edison

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To have a great idea, have a lot of them.

Thomas A. Edison

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## Common paradigms

- ❖ People are born creative  
*~80% of creativity can be learned and acquired*
- ❖ Creativity is a trait  
*Set of behaviors*
- ❖ Good ideas come from a flash of insight  
*Only after cognitive effort and then incubation*
- ❖ I only have to be creative occasionally  
*Innovators practice their skills everyday*
- ❖ Innovators are Steve Jobs, Mark Zuckerberg, Thomas Edison..  
*Most innovations come from teams. Doesn't have to be tech.*

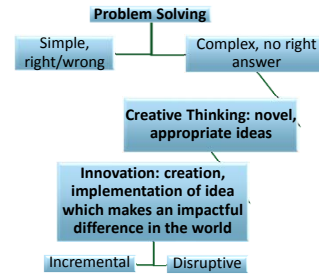
Sawyer K. Zig Zag: the surprising path to greater creativity, 2013

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## What is innovation?



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## Creativity

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## Individual Brainstorming Activity

- How many uses can you think of for a paper clip?
- Write down your answers for 2 minutes



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## Now lets compare

- Everyone stand up
- We will go around the room sharing our answers. Cross out your answers when they have been announced. Sit down when all of your uses have been announced.
- To start, eliminate all of the following answers:
- Earrings, piercing, ring, hair clip, key chain, fishing hook, ornament hook, cufflinks, bookmark, zipper pull, money clip, sculpture, toothpick, twist tie, needle, chip clip, button, eye glass frame

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## Incomplete Figure Test

- Torrance Test of Creative Thinking (ITCT) was developed in the 1960s by psychologist Ellis Paul Torrance
- Sought to identify a creativity-oriented alternative to IQ testing
- Instructions
  - Grab a sheet of paper

<http://99u.com/articles/7160/test-your-creativity-5-classic-creative-challenges>

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## Incomplete Figure



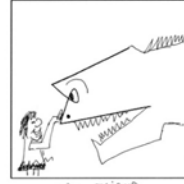
<http://99u.com/articles/7160/test-your-creativity-5-classic-creative-challenges>

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## An example



<http://99u.com/articles/7160/test-your-creativity-5-classic-creative-challenges>

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## An example



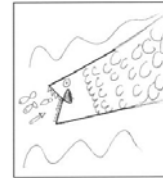
<http://westmountain.blogspot.com/>

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## Another example



<https://raicecreativekids.com/2013/01/25/the-incomplete-figure-creativity-test/>

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## Riddles

- Riddles pose a question to which initially there seems to be no easily discernable answer
- Then the answer arrives and the answer makes complete sense
- These are used to measure creative problem solving potential, or *convergent thinking*
  - As opposed to many right answers in the last problem, there is only ONE right answer

<http://99u.com/articles/7160/test-your-creativity-5-classic-creative-challenges>

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## Do schools kill creativity?

Are you a life long learner?  
Are you prepared to be wrong?

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## Creative Confidence

- ❖ Creativity is the most sought after trait in leaders today
- ❖ Due to education and social norms, many of us have lost our creativity
- ❖ Fears that hold back our creativity
  - Fear of messy unknown
  - Fear of being judged
  - Fear of the first step
  - Fear of losing control
- ❖ Following certain steps can unlock creativity and will help you develop other facets of your life

Kelley T and Kelley T. Reclaim your creative confidence. *Harvard Business Review*, December 2012



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## Innovation



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## Innovation

- ❖ Definition: the act or process of introducing new ideas, devices, or methods
- ❖ "Without change there is no innovation, creativity, or incentive for improvement. Those who initiate change will have a better opportunity to manage the change that is inevitable."

-William Pollard

[www.brainyquote.com](http://www.brainyquote.com): [www.Merriam-webster.com](http://www.Merriam-webster.com)



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## Innovators DNA

- ❖ Interviewed innovative entrepreneurs
  - Understand how they developed their successful ideas
  - Contrast them to other executives
- ❖ In the most innovative companies, senior executives do the creating themselves – it is not delegated
- ❖ CEOs of most innovative companies spend 50% more time on specific activities than do others
- ❖ Innovation can be taught and developed – it is not inherent

Dyers, J. H., Gregerson, H. B., & Christensen, C. A. (2011). *Innovators DNA*. New York: *Harvard Business Review*.



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## Innovators DNA

- ❖ Associating
  - Ability to connect unrelated issues from central fields
  - Connections are easier to make the more diverse our knowledge and experience is
  - The more ones tried to learn new and diverse information, the easier associating becomes
- ❖ Questioning
  - Frequently ask questions to challenge status quo
  - Questions to ask are: why, why not, and what if?
  - Thinking about different alternatives leads to discoveries

Dyers, J. H., Gregerson, H. B., & Christensen, C. A. (2011). *Innovators DNA*. New York: *Harvard Business Review*.



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## Innovators DNA

- ❖ Observing
  - Preferred to do this to understand your customer needs
  - Make sure to also observe current operational practices
  - Minor details might be the most important
- ❖ Experimenting
  - Need to create interactive experiences and prototypes
  - This process allows for a better understanding of the product's strengths and weaknesses
- ❖ Networking
  - Consciously meet new people have new experiences

Dyers, J. H., Gregerson, H. B., & Christensen, C. A. (2011). *Innovators DNA*. New York: *Harvard Business Review*.



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## Innovators DNA

- ❖ Five common behaviors ('discovery skills') in the most innovative entrepreneurs
  - Associating
  - Observing
  - Questioning
  - Experimenting
  - Networking
- ❖ These skills can be learned through practice
- ❖ Requires creative intelligence

Dyers, J. H., Gregerson, H. B., & Christensen, C. A. (2011). Innovators DNA. *New York: Harvard Business Review*.

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## Discovery Skills Examples

Innovation..	Some strategies
Knowledge	Read a book, join a list serve
Experience	Join or create a team, project
Questioning	Spend 15 min a day asking "what if" and "why" questions
Associating	Get outside of pharmacy. Go to other fields seminars, literatures, field trips..
Experimenting	Try something new, reflect on what happens
Networking	Hold idea meetings with creative people
Observing	Observe a problem you are trying to solve
Creation	Make something, have someone critique, make it again

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## Kaizen Process

1. Define problem
2. Document current situation
3. Visualize ideal situation
4. Define measurement targets
5. Brainstorm solutions to the problem
6. Develop mini-experiments and solutions
7. Implement, measure, and analyze results
8. Gather insights
9. Create action plan, communication plan, and sustaining plan

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## Now that we understand innovation

- ❖ How do we get started?
- ❖ Where do we apply these skills?
  - Our pharmacy department?
- ❖ Who should lead innovation within the department and profession?
- ❖ What about the all of the risk?

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## Intrapreneurship

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## Applying Innovation

Entrepreneur	Intrapreneur
Works for self	Works for an organization
Success defaults to the individual	Success defaults to the organization
Failure – individual held accountable for losses	Failure – organization held accountable for losses

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## Intrapreneurship

- ❖ Entrepreneur:
  - "a person who organizes and manages any enterprise, especially a business, usually with considerable initiative and risk"
- ❖ Acting like an entrepreneur within a larger company
  - "intra" – internal
  - "preneurship" – willing to try new things

[www.investopedia.com](http://www.investopedia.com); [www.dictionary.com](http://www.dictionary.com)

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## Intrapreneurship – Characteristics

- ❖ Self-motivated & proactive
- ❖ Ability to "think outside the box"
- ❖ Risk-taking
- ❖ Leadership
- ❖ Takes initiative, even within the boundaries of a company

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## Why does pharmacy need innovation and intrapreneurship?



Changing roles for pharmacy

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## Innovation Thoughts

- ❖ Each of us have the capacity to be creative and innovative
- ❖ Even if your departmental culture is outside of your ability to change:
  - We need to expose our learners to this process
  - Each of us can make recommendations on how to improve activities within the workplace
  - Be willing to lead the implementation

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## Starting Innovation and Intrapreneurship

- ❖ Find areas needing improvement
  - Continual complaints or need of service recovery
  - Frequent discussion topics
- ❖ Understand from other industries strategies for success
- ❖ Creatively think of ways to make it better
  - Do this away from work and busy activities
  - Allow for free association and don't stop after a few good ideas
- ❖ Test your ideas and refine as needed
- ❖ Don't be afraid of failure or conformity of ideas to tradition
- ❖ Continue to refine and share widely

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## Guidelines for Brainstorming

- ❖ Decide upon a goal (e.g. most motivating idea)
- ❖ Don't criticize – yourself or others
- ❖ Go for quantity
- ❖ Headline your idea
- ❖ Build on the ideas of others
- ❖ Have only one conversation at a time
- ❖ Stay focused on the topic
- ❖ Encourage wild ideas
- ❖ Write down EVERY idea
- ❖ Be visual

IDEO – A design and consulting firm

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## Innovation opportunities within pharmacy

- ❖ Medications, devices, and information systems
  - New drugs or delivery (traditional pharmaceutical sciences)
  - Computer programs and other information system improvements
- ❖ Practice models
  - New ways to utilize pharmacists
  - Innovative business models to justify activities
- ❖ Pharmacy residency
  - Unique ways to justify new positions
  - Developing novel methods to train
- ❖ Creating standards of care
  - Working within the state / nationally to take new activities and disseminate them to other settings (implementation sciences)

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## Intrapreneurship within Health-System Pharmacy

- ❖ Creation of a business plan for new pharmacy services
  - Allows for leveraging new resources
  - Requires accountability and return on investment
- ❖ Identification of better ways to operationalize services
  - Utilizes creativity to identify novel methods
  - Requires to organize people and processes for impact
- ❖ Seeking improved ways to manage departmental finances
  - Creating an agile department that can take advantage of new opportunities and pivot as necessary
- ❖ Depending on what is the solution, always consider intellectual property opportunities and publication

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## Strategies to Overcome Current Problems

- ❖ Embrace the opportunity mindset
- ❖ Become an assumption assaulter
- ❖ Think ahead of the curve
- ❖ Cultivate the culture
- ❖ Fortify the idea factory

- ❖ "Innovation is everybody's business"

Robert B. Tucker – AACCP 2016

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## Conclusions

- ❖ Creativity, innovation and intrapreneurship are skills that are as important today in health care than ever before
- ❖ Each of us can be creative and innovative in mindset and actions
- ❖ Innovation is a skill we need to utilize in our schools of pharmacy and profession (be an example first)
- ❖ We need to share as there is so much we can learn from each other
  - No one has the corner on innovation and innovative ideas

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## Recommended Readings

- ❖ Ten Types of Innovation – Larry Keely
- ❖ 101 Design Methods – Vijay Kumar
- ❖ Group Genius / Zig Zag – Keith Sawyer
- ❖ Innovators Prescription – Clayton Christensen
- ❖ Business Model Generation / Value Proposition Design – Osterwalder
- ❖ Creative Confidence – Kelley and Kelley
- ❖ Innovation and Entrepreneurship – Peter Drucker
- ❖ Diffusion of Innovations – Everett Rogers
- ❖ The Tipping Point / Outliers – Malcolm Gladwell

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