

2019 Conference on Innovative Higher Education Pedagogy



Fostering Pedagogical Innovation and Excellence

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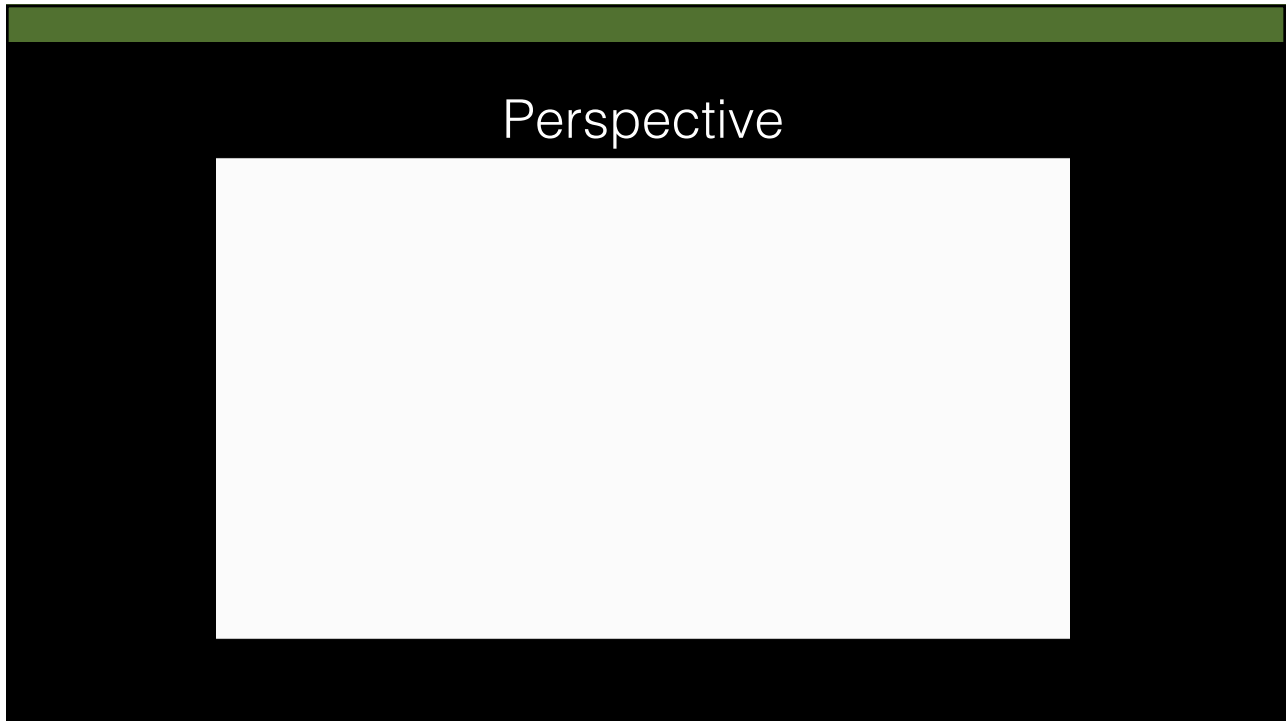
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Anticipation Guide

Directions: Agree, Disagree, or Edit as needed.

1. Anyone can teach.
2. Anyone can learn.
3. Anyone can innovate.

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Innovation is the action required to create new ideas, processes, or products which when implemented lead to positive effective change.

Marc Chason, Motorola Labs

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Innovation pairs ideas with action....It's not enough just to have a good idea. Only when you act, when you implement, do you truly innovate.

Tom Kelly, IDEO

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Innovation is creating new value. Value is the key word, stressing the difference between innovation and invention.

Victor Fernandes, Natura

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Three Attributes of Innovation

Create New → **Implement** → **Positive Outcome**

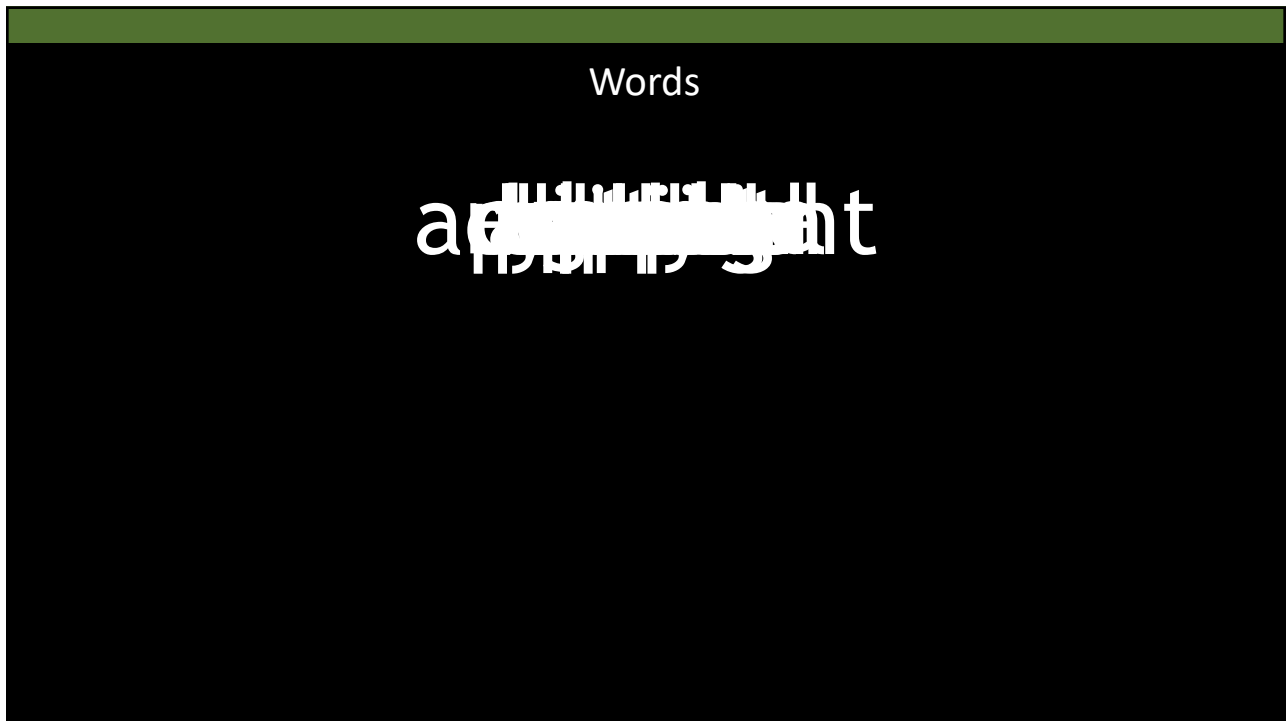
Innovation is not magical, mystical, or metaphysical.

Innovation is effortful.

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“a” or “f” Pleasant

Incidental	5 D	10 B	7.5
Intentional	5 C	10 A	7.5

5 10

D C B A

When this experiment is over,
you will be asked to recall
the words on the list.

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Debrief

1. Knowledge is **actively constructed**.
2. Knowledge construction (learning) **takes time**.
3. **Intent to learn** is only important if it leads to increased active construction.
4. Powerful **instructional strategies** need not be complicated.

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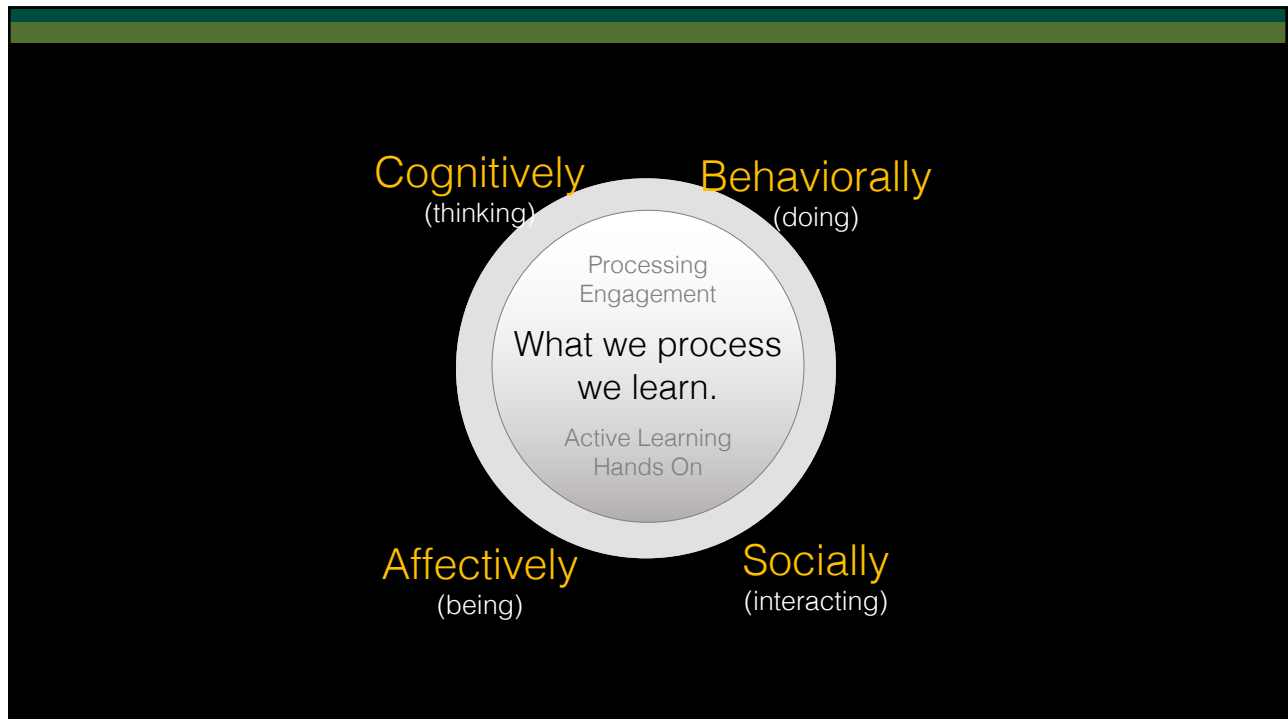
Processing

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Debrief

1. Knowledge results from processing.
2. Processing takes time.
3. Intent to learn is only meaningful if it results in increased processing.
4. Powerful instructional strategies need not be complicated.

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6 Principles of Deep and Flexible Learning

1. Learning through **practice at retrieval**
2. Learning through **varied tasks** and **purposes**
3. Learning at the **principle** level
4. Learning **awareness** and **control** (metacognition)
5. Learning in response to **developmental feedback**
6. Learning embedded in **prior knowledge** and **experience**

(Fullen, Quinn, & McEachen, 2018; Samuels-Peretz, 2017; Zheng, 2018)

Clarity 

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Clarity



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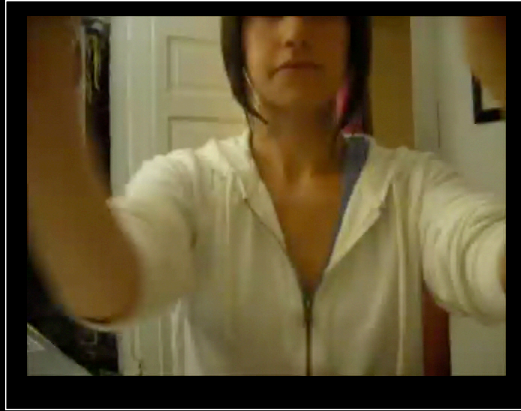
Oral Explanations

Learning Environment: Students create clear and coherently organized **10-15 minute videos** that reflect the student's **understanding** of the current topic under discussion, plus an **application** to their lives.

Learning Artifact: Students **analyze** and **interpret** readings, notes, and discussions; **organize** concepts and ideas; **apply** to a life issue; **create** an oral explanation.

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Oral Explanation



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Oral Explanation

Grading: Each Oral Explanation is worth 100 pts and will be assessed using the following criteria:

- | | |
|---|--------|
| 1. Organization | 20 pts |
| a. are introductions and conclusions used effectively? | |
| b. do the expressed ideas follow a logical progression? | |
| c. are explanations and applications provided? | |
| 2. Clarity of Thought and Expression | 20 pts |
| a. are the ideas expressed well, well thought out, and integrated? | |
| b. are there clear and logical transitions between ideas? | |
| c. are correct grammar and syntax used? | |
| 3. Essential Content Explanation | 30 pts |
| a. does the content of the explanation accurately reflect the addressed constructivism? | |
| b. does the explanation explain, rather than just list, the main concept components? | |
| c. is the content of the explanation free from personal interjections? | |
| 4. Essential Content Application | 30 pts |
| a. is a problem, issue, or situation explained clearly? | |
| b. are concepts from the texts and class used to address the cited problem? | |
| c. is the application thorough, meaningful, and appropriate? | |

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Oral Explanation

- ✓ 1. Learning through **practice at retrieval**
- ✓ 2. Learning through **varied tasks** and **purposes**
- ✓ 3. Learning at the **principle** level
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A Reading in Quotes

Learning Activity: Students read a quote from a recently read article and provide an **explanation** of the quote and **integrate the quote** into a large discussion of the article.

Learning Processing: Students **recall** the article, **analyze** the meaning of the quote, **integrate** the quote into a discussion-based narrative of the article, and orally **explain** the meaning and integration of the quote.

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A Reading in Quotes

- ✓ 1. Learning through **practice at retrieval**
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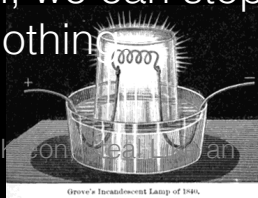
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1. Build On Others

Edison didn't "invent" the light bulb. If we're free from the burden of trying to be completely original, we can stop trying to make something out of nothing.



Davy
1802



Grove
1840



Edison
1880s

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2. Work Hard, Don't Aha!

Journalists have always asked me what the crucial idea was or what the singular event was that allowed the Web to exist one day when it hadn't before. They are frustrated when I tell them there was no Eureka moment...it was a process of accretion.

-- Tim Berners-Lee (1999)

(Duncker, 1945; Bowden, 1997; [TED 2005 Talk](#), James Watson; Roff, 2019; Oyster & Roff, 2019; Tik et al. 2018)

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3. I'm Stuck! Walk Away.

Response Fixation → Take a Break → ↑ Problem Solving

↓
Low Load Mental Activity

- Breaks work by processing divergent tasks, forgetting fixation
- More preparation before a break → ↑ problem solving
- A longer break → ↑ problem solving

(Gilhooly, et al., 2014; Kohn & Smith, 2009; Segal, 2004; Sio & Ormerod, 2009, 2014)

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4. Don't Wait, Do It

Do it, fix it, try it.

-- Waterman & Peters

In Search of Excellence (1982)

Don't worry, be crappy.

-- Guy Kawasaki, Apple Engineer

TEDxBerkeley (2014)

**Give them the third-best to go on with;
the second best comes too late,
and the best never comes**

-- Robert Watson-Watt, Air Ministry, UK

A **TEDxKC** Talk – Diana Kander

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5. Focus on Progress

Innovation is about making things better,
not making things perfect.



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6. Principles of Deep Learning

1. Learning through **practice at retrieval**
2. Learning through **varied tasks** and **purposes**
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(Fullen, Quinn, & McEachen, 2018; Samuels-Peretz, 2017; Zheng, 2018)

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To innovate
is to make things better.

1. Build on Others
2. Work Hard, Don't Aha!
3. I'm Stuck! Walk Away
4. Don't Wait. Do it.
5. Focus on Progress
6. Principles of Deep Learning

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A Reading in Quotes

1. **Reading Quotes:** Read the article and extract one quote per student (20 Ss, 20 Qs), numbering the quotes in order.
2. **Quotes Selection:** Mix up the order of the quotes and have students select a quote randomly.
3. **Quote Understanding:** Students have time to read and understand the quote, including talking to class mates, before getting/standing in a circle.
4. **Read, Explain, and Integrate:** Each student explains his/her quote in order, also providing a link to the developing narrative.
5. **Clarification:** Following each explanation, the instructor provides any needed clarifications or follow-up questions

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