

# Integrating Learning, Memory, and Experience

## Fostering Deep and Flexible Knowledge

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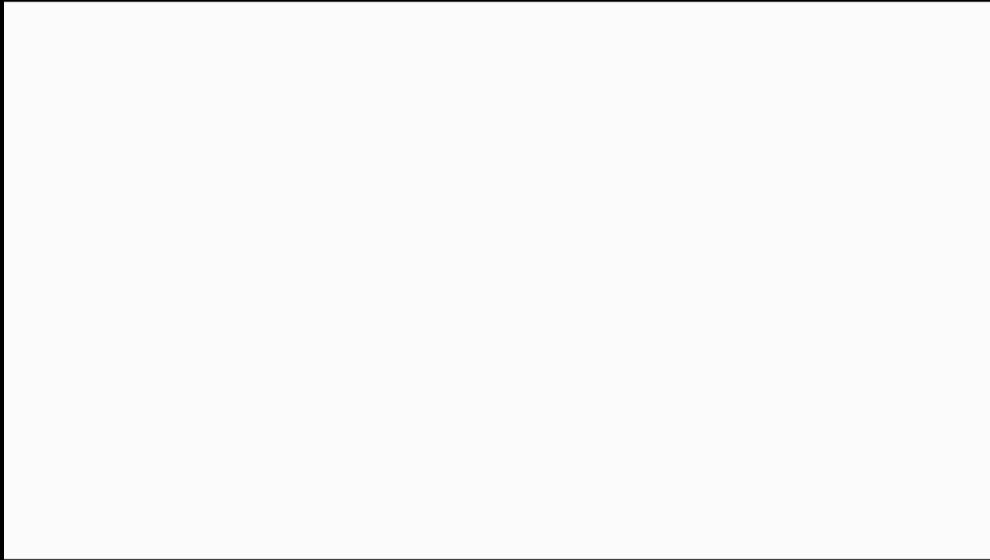
## Anticipation Guide

Directions: Agree or Disagree or Edit.

1. Anyone can teach.
2. Active learning in students is fostered by note taking and discussions with fellow students.
3. Technology allows teachers to teach more powerfully, more efficiently, and with less effort.

Perspective →

## Perspective



## Learning: Part I



Words →

Rest Snore Sound  
 Tired **Sleep** Bed Comfort  
 Awake Eat Wake  
 Dream Slumber Night

## Activity Debrief

1. Meaning is **constructed** during experience.
2. Construction results from **processing**.
3. Knowledge is **organized**.
4. When specifics are lost, **meaning remains**.
5. **Strategies** are used to function more effectively.
6. We can **assess** the effectiveness of our thinking.



## 6 Principles for 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**

(Engle, 2006; Halpern & Hakel, 2003; Mariano, Doolittle, & Hicks, 2009; Wagner, 2006)

25/5 →

# Processing



# Instructional Strategies I



Fostering C, B, S, & A Processing

## 25-Word Summaries

**Learning Environment:** Students create clear and coherently organized **25-word summaries** that reflects the **essential meaning** of the current reading.

**Learning Artifact Processing:** Students **analyze** and **interpret** a reading, lecture, video, movie, activity, or experience in order to **extract** the essential meaning and **compose** a 25-word summary.

**Learning Assessment:** 25-word summaries are assessed using a **scoring guide** focused on organization, clarity of thought and expression, and delineation of a core message.

## 25-Word Summaries

**Grading:** Each Chapter Summary Statement is worth 50 points and will be graded using the following criteria:

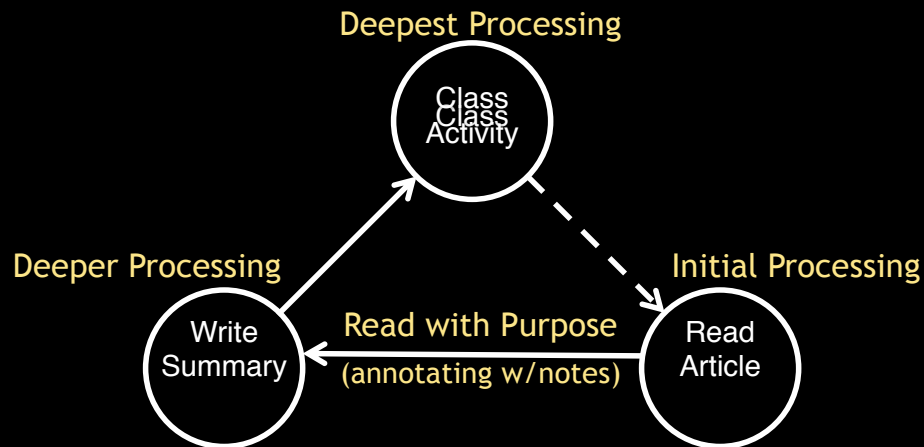
- |  |        |
|--|--------|
| 1. Structural Format   | 10 pts |
| a. Is the summary 25 words or less?  |        |
| b. Is the summary a coherent sentence, or sentences?                               |        |
| c. Does the summary avoid a simple listing of concepts, terms, or themes?          |        |
| 2. Clarity of Thought and Expression   | 15 pts |
| a. Are the ideas expressed well, well thought out, and integrated?                 |        |
| c. Does every word in the summary have a meaningful purpose?                       |        |
| d. Are correct grammar and syntax used?  |        |
| 3. Delineation of Core Message   | 25 pts |
| a. Does the summary accurately reflect the reading's central or essential message? |        |
| b. Are the reading's central or essential messages fully integrated?               |        |
| c. Does the summary reflect an understanding of the reading?                       |        |

Plus Developmental Feedback



with Dragon Dictate

## 25-Word Summaries



## 6 Principles for Deep and Flexible Learning

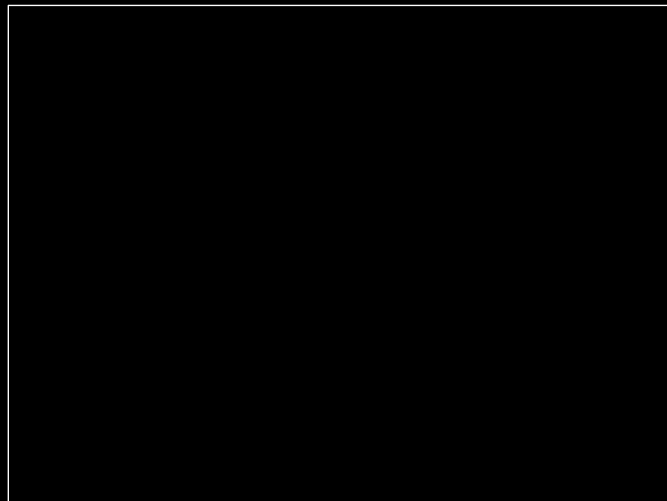
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# Integrated Instructional Design



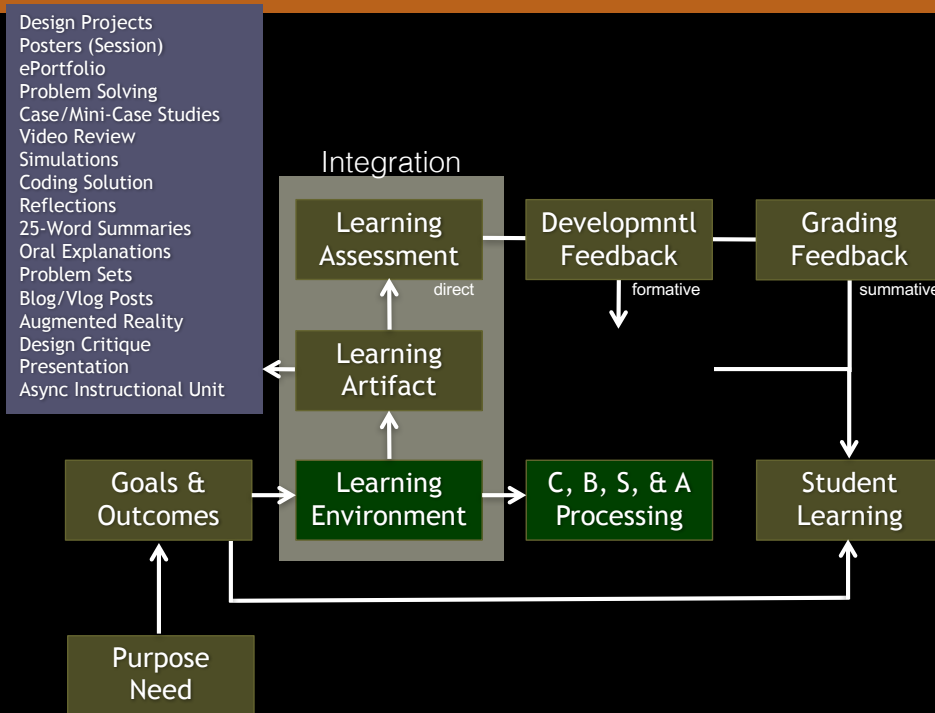
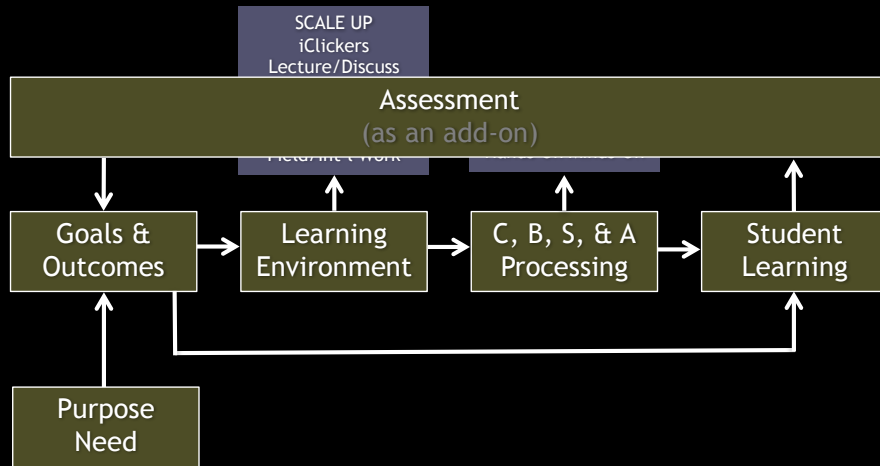
Clarity →

## Clarity





# Processing & Instructional Design



# Learning: Part II



Car MT →



## Multitasking: The Myth

- Tapscott, 1998
  - multitasking
- Frand, 2000
  - “multitasking way of life”
- Prensky , 2001
  - “digital natives accustomed to the twitch-speed, multitasking “

## Multitasking: Did we know?

“The greater the number of objects to which our consciousness is simultaneously extended, the smaller is the intensity with which it is able to consider each.”

Hamilton, Mansel, & Veitch

1861

## Multitasking

1. To what was pledged allegiance?
2. What country is mentioned in the passage?
3. For what does the flag stand?
4. The flag symbolizes how many nations?
5. What deity was mentioned in the passage?

Task A      Task B      Task C

2 to 60 by 2

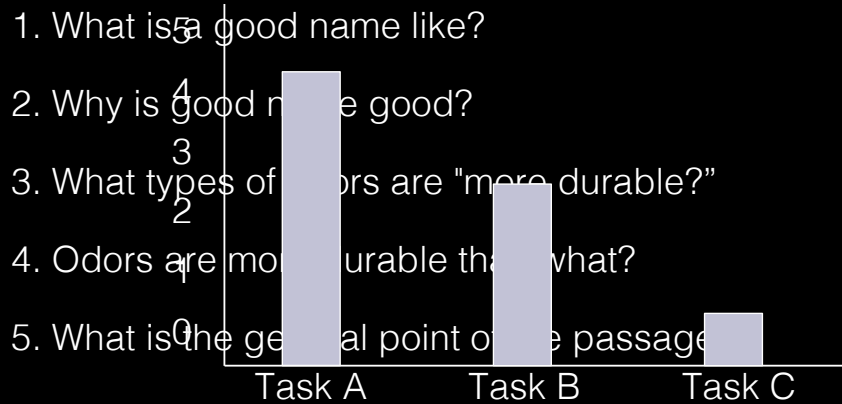
## Multitasking

1. What are we urged to do in the passage?
2. What was the original name of the drink?
3. What was the subsequent name of the drink?
4. How many alcoholic liquids are mentioned?
5. What was distilled in the passage?

Task A      Task B      Task C

5 to 100 by 5

## Multitasking



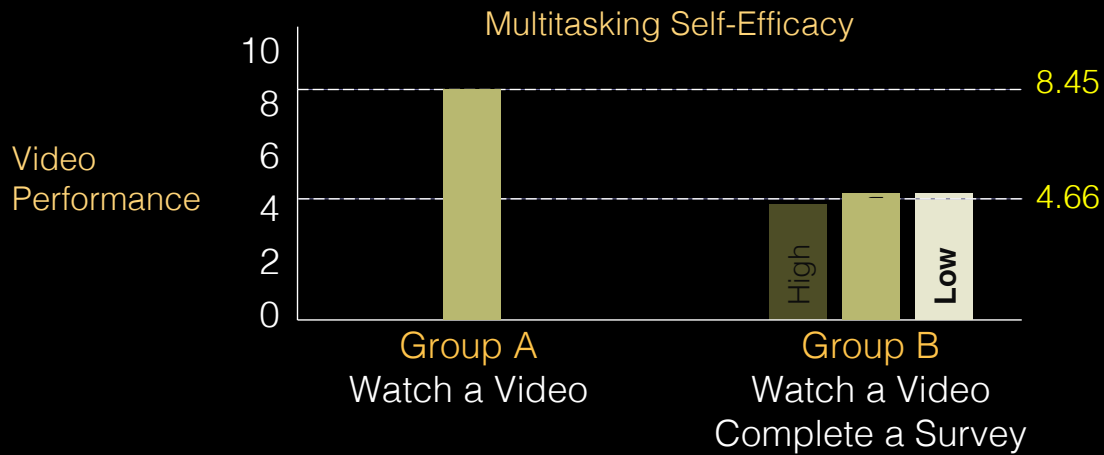
100 to 2 by -7

## Multitasking: Research, Research, Research

- ↑ MT with laptop → ↓ retention & class performance
- ↑ MT while studying → ↓ class performance
- ↑ laptop MT → ↓ performance by multitasker (11 %)
- ↑ laptop MT → ↓ performance by nearby peers (17 %)

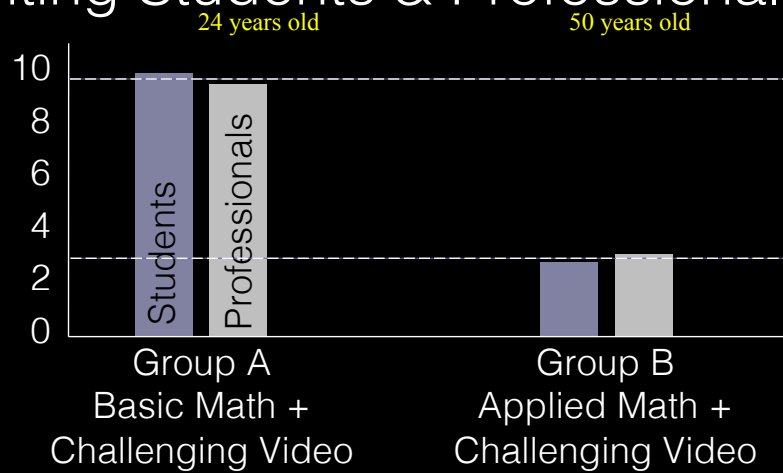
(Judd, 2013; Junco & Cotton, 2011; Sana, Weston, & Cepeda, 2012; Wu, 2017; Zhang, 2015)

## Multitasking Self-Efficacy & Performance



Doolittle, Terry, Watson, & Adams (2018)

## Accounting Students & Professionals



Negangard, Ozlanski, Pyszoha, & Doolittle

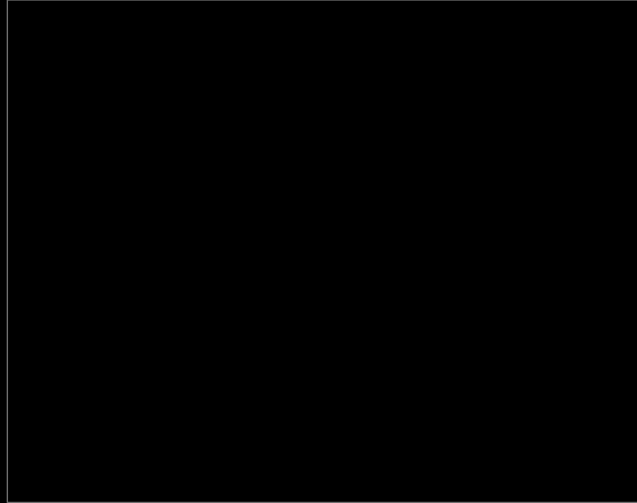


## Instructional Strategies II



Fostering C, B, S, & A Processing

## Fostering Processing (Reading) is a Challenge



## 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.

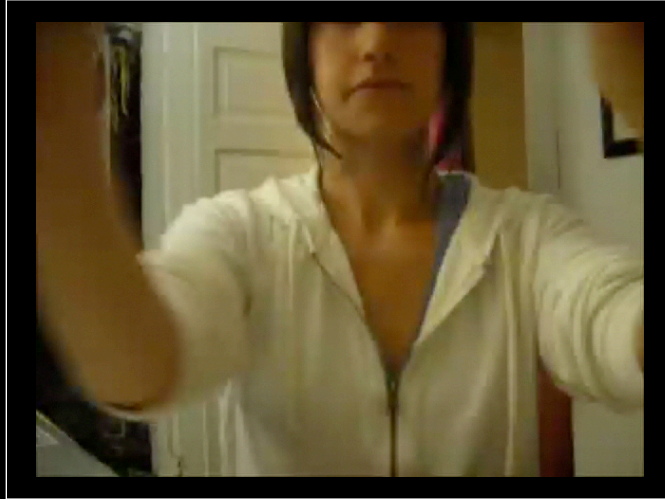
**Learning Artifact Processing:** Students analyze and interpret readings, notes, and discussions; organize concepts and ideas; apply to a life issue; create an oral explanation.

**Learning Assessment:** Video are assessed using a scoring guide focused on organization, clarity of thought and expression, essential content explanation and application.

Example →



## Explanation



## Oral Explanations

**Grading:** Each Oral Explanation is worth 100 pts and will be graded 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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Final Knowing or Id →



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## 7 C's of Internal Motivation

1. Choice
2. Caring (interest/value)
3. Control
4. Challenge
5. Collaboration
6. Competence
7. Curiosity

