

2019 Spring Workshop: The Missing Link
Tennessee Tech University

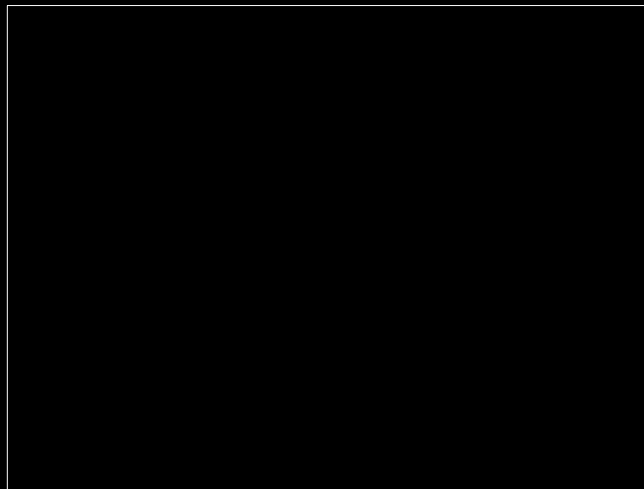
Integrating Learning, Memory, & Experience

A Focus on the Fundamentals

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Clarity







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**

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

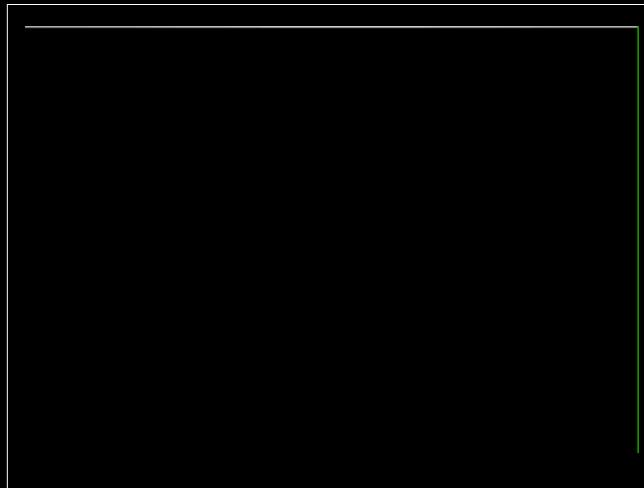
Learning and Memory

What we process
we learn

Cognitive Processing	Behavioral Processing	Social Processing	Affective Processing
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Practice at Retrieval	Vary Tasks and Purposes	Principle Level	Awareness and Control	Developmental Feedback	Prior Knowledge & Experience
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Processing





Instructional Strategies I

25-Word Summaries

Learning Environment: Students create clear and coherently organized **25-word summaries** that reflects the **essential meaning** of the current reading, lecture, video, movie, activity, or experience.

Learning Artifact: 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.

25-Word Summaries

A Sample (after reading an article):

Through developing, implementing, and assessing model-eliciting activities, engineering faculty members' beliefs and decisions about teaching, learning, and assessment shift from teacher-centered toward student-centered.

[23 Words]

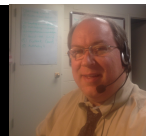


25-Word Summaries

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

- ✓ 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**

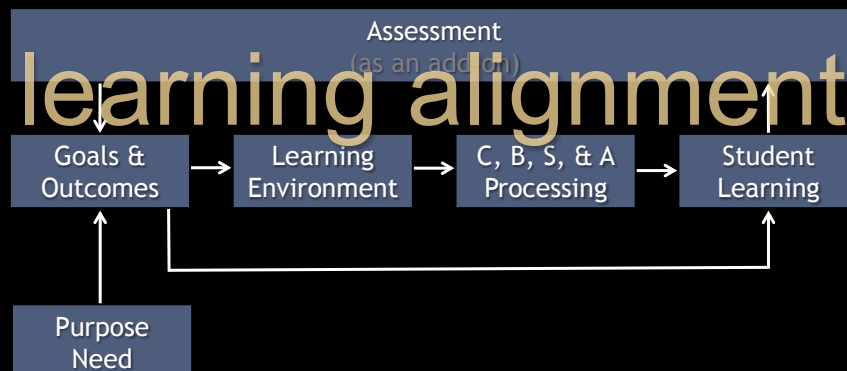
Instructional Design w/Embedded Assessment

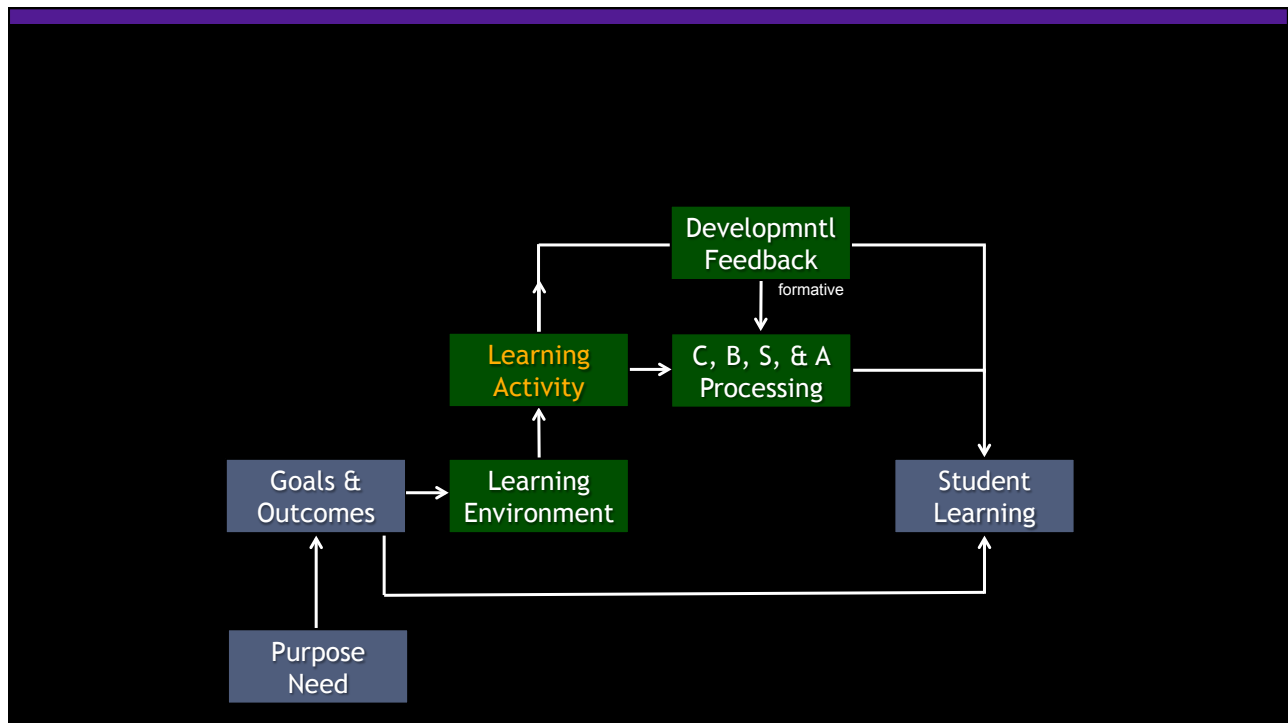
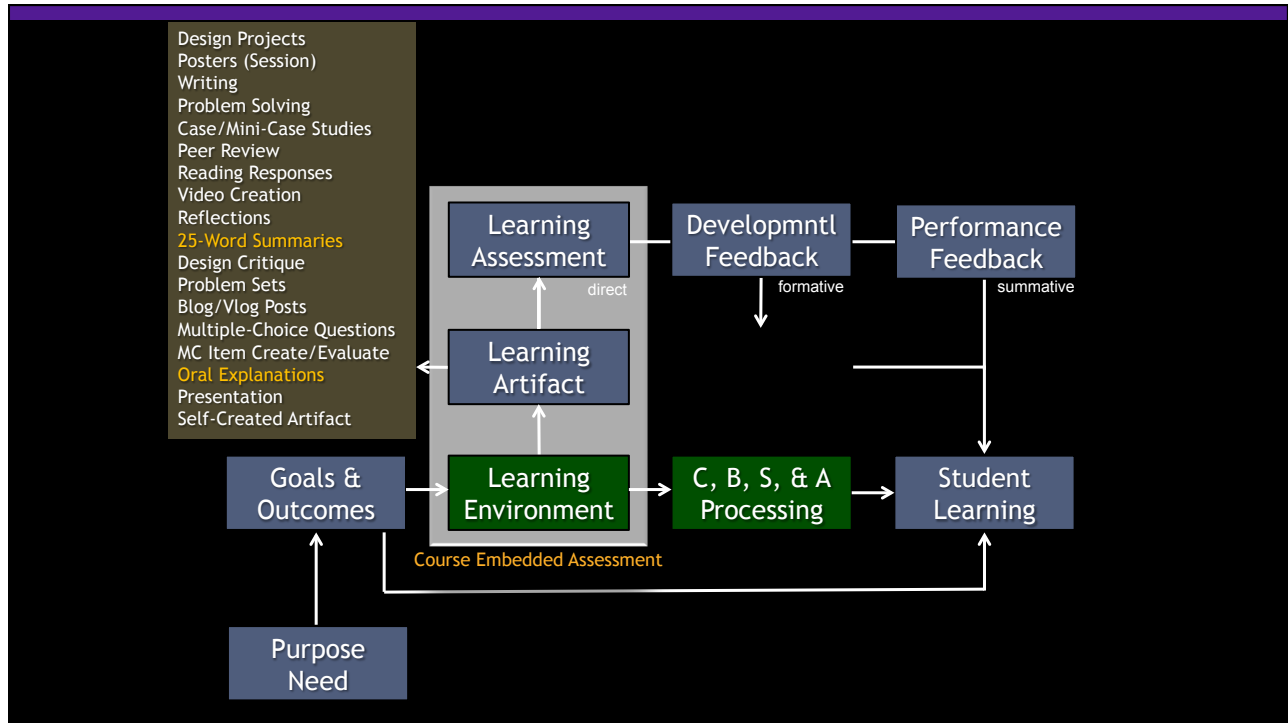


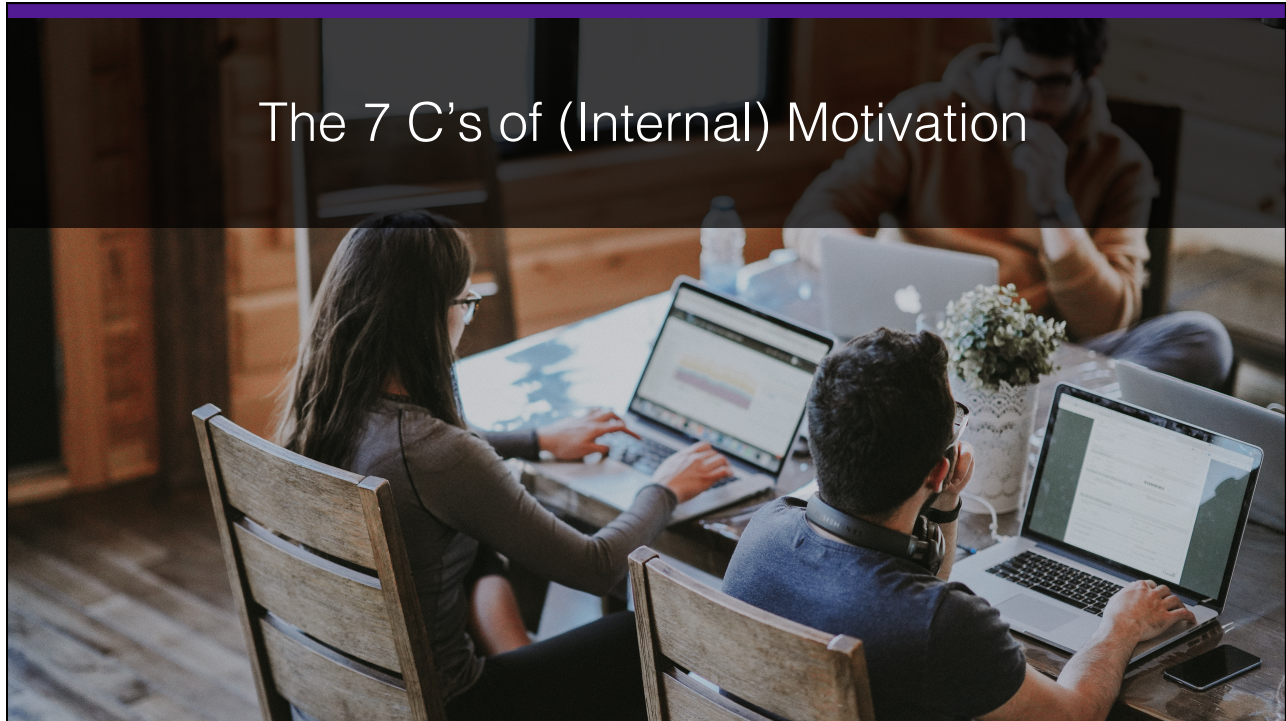
Use Instructional Design to Herd Your Cats



Instructional Design w/Embedded Assessment

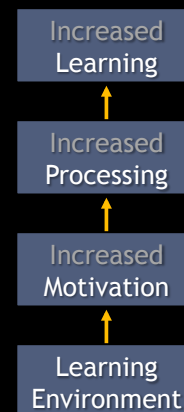


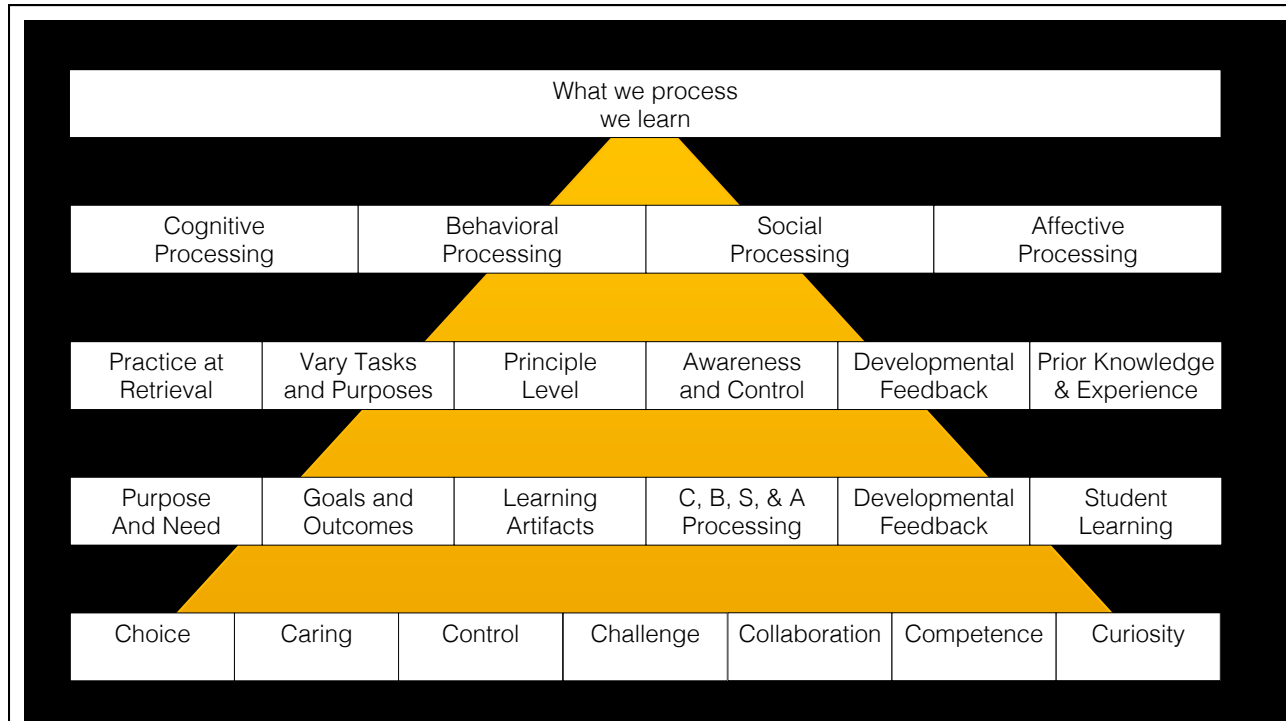




The 7 C's of (Internal) Motivation

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





25-Word Summary

Directions: Reflect, analyze, and interpret where we've been the past 45 minutes, extracting the essential meaning(s), then organize your thoughts, and write a 25-word summary.

(thinking; talking; writing)

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