



TEXAS WOMAN'S
UNIVERSITY

2024 PRIME Academy
August 14, 2024

Processing Guide
Peter Doolittle, Virginia Tech

I. Introduction

- a. Anticipation Guide
 - 1. Strategies that foster active learning include: case studies, lectures, and experiments.
 - 2. Effective active-learning instruction makes learning more effortful, collaborative, and engaging.
 - 3. We learn more from doing than reading, and more from reading than listening (doing > reading > listening).

- b. What do you remember?

“I say moreover that you make a great, a very great mistake, if you think that psychology, being the science of the mind's laws, is something from which you can deduce definite . . . methods of instruction for immediate schoolroom use. **An intermediary inventive mind must make the application, by using its originality.**”

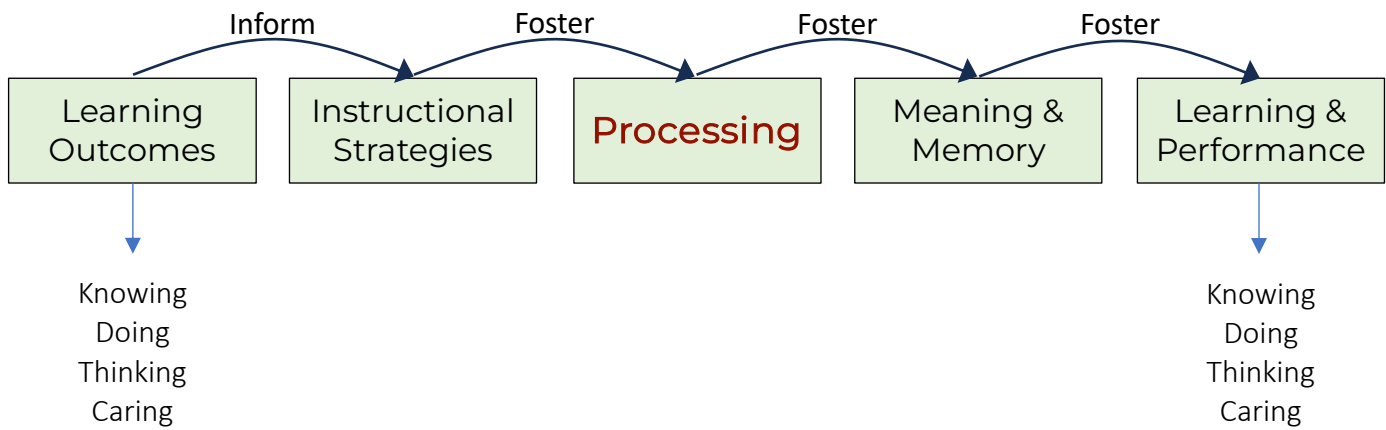
- William James, 1899, *Talks to Teachers* (p. 10)

Go Boldly

II. Active Learning

a. What is active learning?

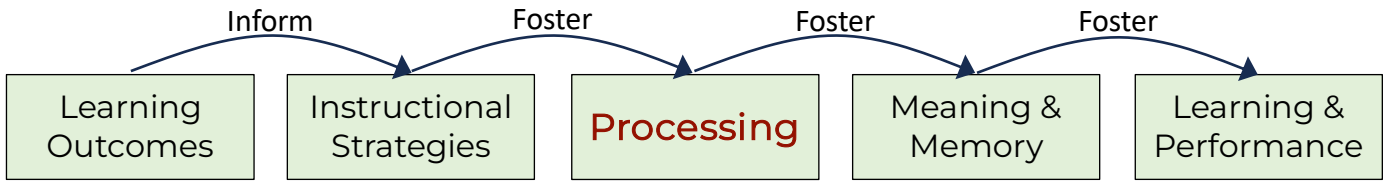
b. A Processing Model of Active Learning



c. An Active Learning Activity

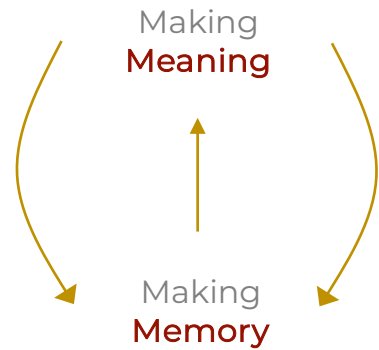
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|-----|-----|-----|
| 1. | 11. | 21. |
| 2. | 12. | 22. |
| 3. | 13. | 23. |
| 4. | 14. | 24. |
| 5. | 15. | 25. |
| 6. | 16. | 26. |
| 7. | 17. | 27. |
| 8. | 18. | 28. |
| 9. | 19. | 29. |
| 10. | 20. | 30. |

Learning occurs to the extent that processing fosters
meaning and memory.



III. Meaning and Memory

a. Meaning and memory



b. What is meaning?

- Activation
- Recognition
- Attention
- Emotions
- Organization
- Reorganization
- Contextualization
- Socialization
- Inferencing
- Prediction
- Reflection
- Abstraction
- Application
- Generalization
- Integration
- Adaptation

c. Meaning and memory

d. Memory Consolidation

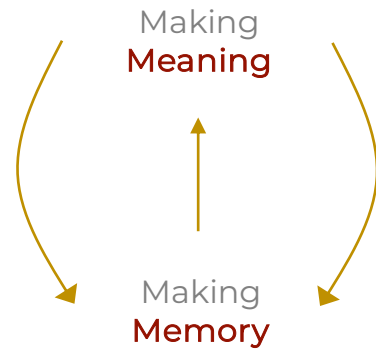
Immediate Memory
(initial encoding)

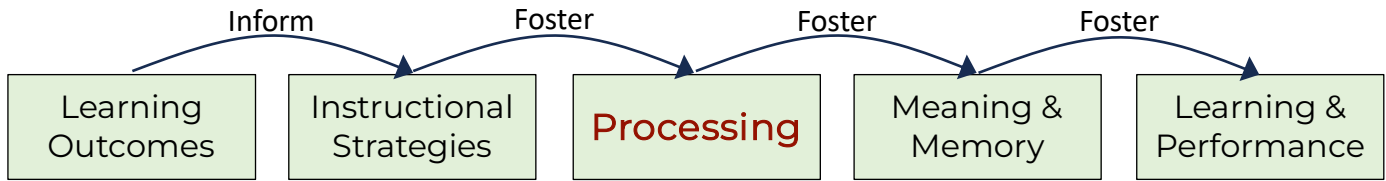
Synaptic Consolidation

Systems Consolidation

e. Memory Reconsolidation

f. Explain the relationship between meaning and memory.





IV. Cognitive Processing

a. Meaningful Learning

b. Elaborative Learning

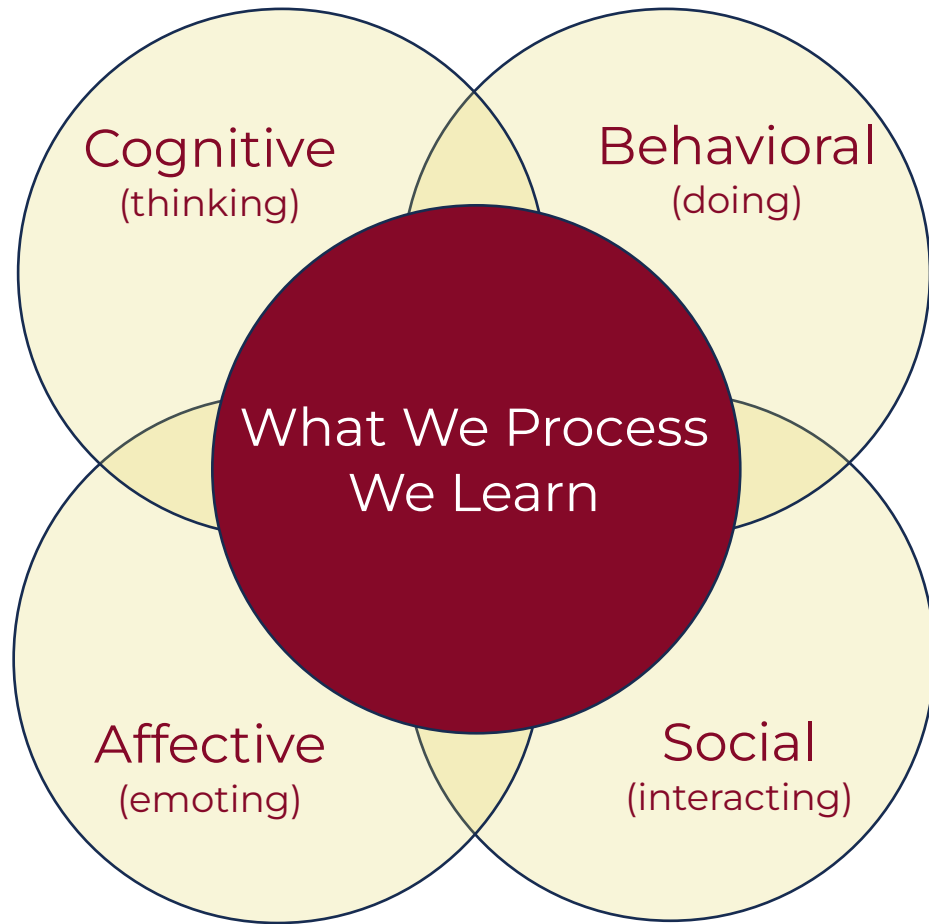
c. Integrative Learning

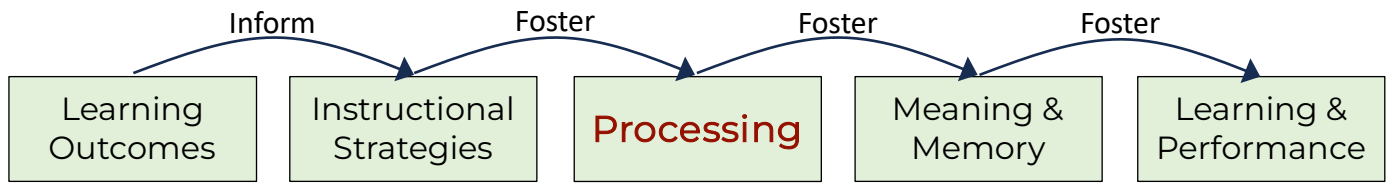
d. Retrieval Practice

e. Spaced Practice

f. Generative Practice

g. Interleaving Practice





V. Instructional Strategies

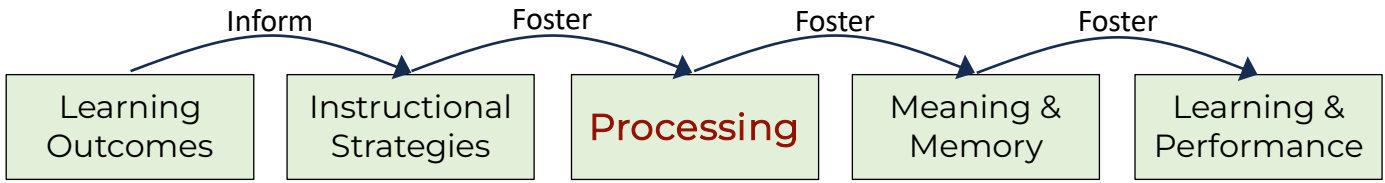
- a. What's one of your favorite instructional strategies?

- b. Why do you like it?

- c. What cognitive processing does the strategy foster?

- d. How does that cognitive processing foster meaning making?

- e. What do you do that fosters memory making?



SWBAT explain the similarities and differences b/t STM, WM, & LTM.

Define Terms
25-Words Summary
Think-Pair-Share

Next Class Activity
Think-Pair-Share

Retrieval Practice
Spacing Practice
Generative Practice
Interleaving Practice

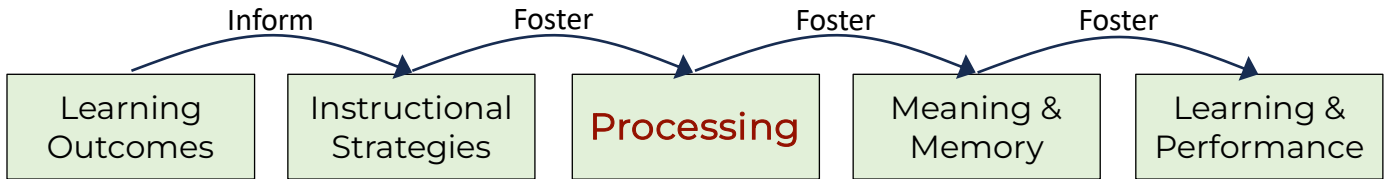
Wakeful Rest

Activation
Recognition
Organization
Application

Initial Encoding
Consolidation

Student explains the similarities and differences b/t STM, WM, & LTM.

Exam #2 Study Guide
On Exam #2



VI. Surprise

X. Closure

