HOW LEARNING HAPPENS AND WHAT IT MEANS FOR EFFECTIVE TEACHING

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WHAT IS "LEARNING?"

- As educators, we all want our students to learn. But what does it mean when our students "learn"?
  - Think individually for a minute, and jot down a few ideas about what "learning" means to you.
- Learning occurs when ***experience*** causes a relatively ***permanent change*** in behavior or knowledge.
- How is this different than "memory"?
  - Think individually for a minute, and jot down a few ideas about how "learning" and "memory" are different.
- From a cognitive perspective, learning and memory are the same. But from a pragmatic perspective:
  - learning involves **depth**, **connection**, and **meaning;**
  - Memory involves **surface repetition.**

WHY IS LEARNING BETTER THAN MEMORIZATION?

- **Effective learning is correlated with:**
  - **Higher levels of intrinsic motivation;**
  - **Higher achievement levels;**
  - **Higher retention rates;**
  - **More successful social and emotional awareness (Jones & Kahn, 2017)**
    - **Setting goals, building relationships, managing behavior**

SO HOW DO WE GET STUDENTS TO LEARN AND NOT MEMORIZE?

- MAKE CONNECTIONS (BETWEEN PIECES OF INFORMATION, BETWEEN INFO AND STUDENTS, BETWEEN INFO AND OTHER COURSES, ETC.)

- **Organization of information**

  - Our knowledge is organized in a connectionist web. Presenting and retrieving information in an organized way aids learning.

- **Practice**

  - Rehearsal using varied techniques (both in class, out of class, for assignments, and for assessment) aids learning.

- **Elaboration**

  - We must practice in the correct way; elaborating on information builds connections and aids learning.

- **Meaningfulness**

  - Information that is meaningful, relevant, personal will build connections.
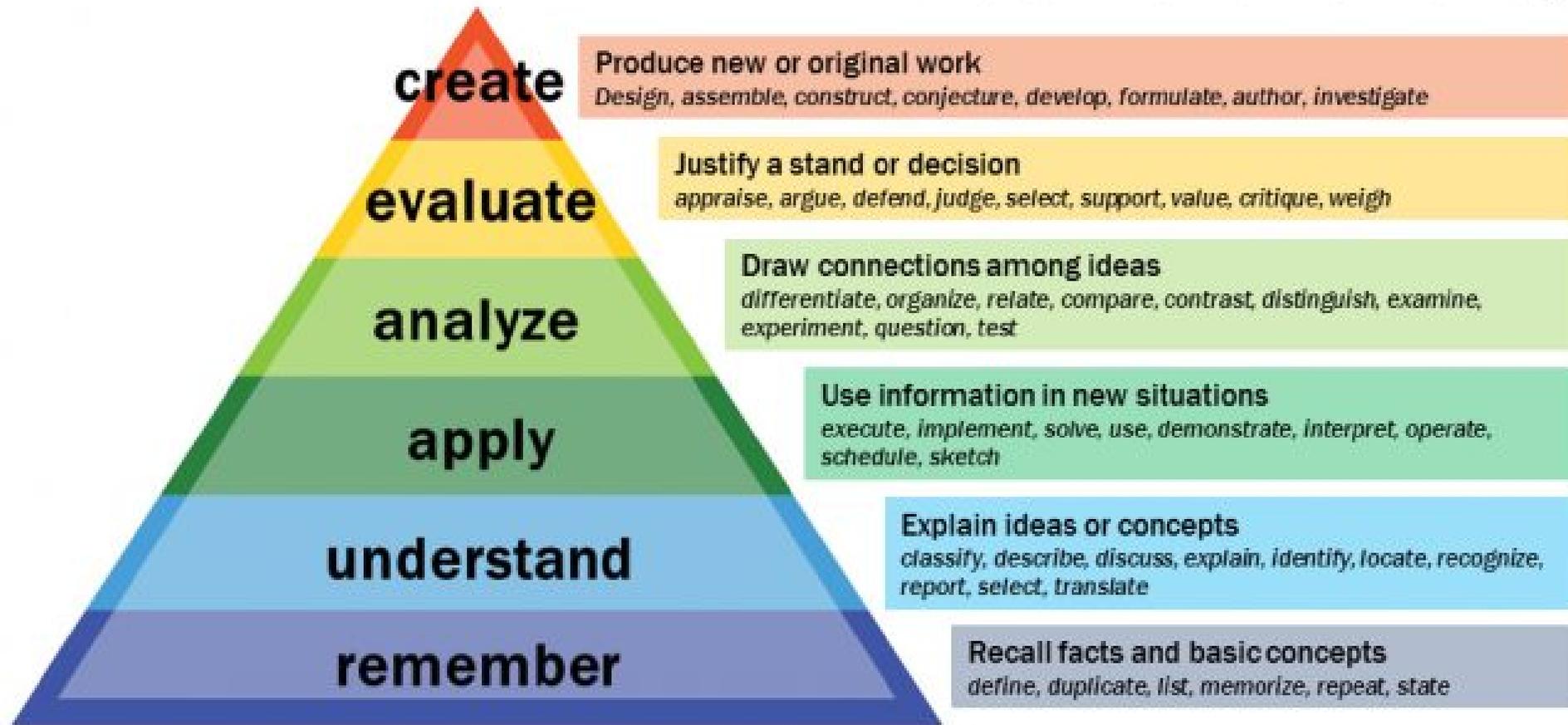
HOW ELSE DO WE GET STUDENTS TO LEARN AND NOT MEMORIZE?

- **Self-efficacy**
  - This is one's confidence in their competence to successfully complete a task.
  - Is one of the strongest predictors of achievement
  - Has 4 sources, 3 of which educators influence: *mastery experiences*, *vicarious experiences*, *social persuasion*, and interpretation of physiological arousal

- **Social interaction**
  - Working collaboratively allows learners to:
    - Hear multiple viewpoints;
    - Gain additional practice;
    - Build broader connections.

THINK-PAIR-SHARE

- Handout 1
- Think: Thinking of your current practices with students, what do you see that you already do that incorporates these major factors?
- Pair: Partner up with a neighbor, and discuss how you already incorporate these ideas.
- Share: Whole-group discussion of ways that you already incorporate these factors.

MODIFICATION(S) OF CURRENT PRACTICE

- Handout 2

- Using the material(s) you brought today, begin taking notes on Handout 2 of modifications you could make to your current practice to align with the information presented today.

- I will be available for consultations during this time.

QUESTIONS?

SELECTED REFERENCES

- Ambrose, S.A., Bridges, M.W., DiPietro, M., Lovett, M.C., & Norman, M.K. (2010). *How Learning Works: 7 Research-Based Principles for Smart Teaching.* John Wiley & Sons: San Francisco, CA.

- Jones, S.M. & Kahn, J. (2017). The evidence base for how we learn: Supporting students' social, emotional, and academic development. *The WERA Educational Journal, 10,* 5-20.

- Woolfolk, A. *Educational Psychology (14th ed.).* Pearson: New York, NY.