Flip it! Using Flipped Classroom Strategies for Student Success

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Welcome!

- Learning is…
- Defining what we mean by flipped…
- Benefits of flipping
- Approaches to flipping
- Reflect once more on learning….
- Questions??

Learning is…

- "a relatively permanent **change in knowledge that occurs as a result of experience**. Knowledge is reflected in the organism's behavior, but the important thing is that learning changes the individual's fund of knowledge."
  - **Elaboration principle**….let's concrete that learning…

Dweck, C.S. (2006). *Mindset: The new psychology of success.* New York: Random House.

Take into account….

- The magical number 7….

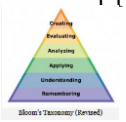
Miller, G.A. (1956), The Magical Number Seven, Plus or Minus Two: Some Limits on our Capacity for Processing Information. Psychological Review, 63, 81-97.

Some best practices in terms of Teaching & Learning…..

- **Space out** the assignments, and reiterate often… Have students revisit concepts that have already learned or mastered.
- **Alternate between solved examples and problem sets.** --- Concrete their learning!
- **Use words and graphics.**
- **Merge the concrete with the abstract.** Tacking a new idea onto a mastered concept can help students effectively learn and remember…Chunking!
- **Testing does promote learni**ng…but don't get all traditional…
- Help students **allocate their time well**….give robust feedback!
- **Ask Deep explanatory questions**….understanding, not just memorization…

National Center for Education Research in 2007 (Pashler et al., 2007; see also Bransford et al., 2000; Graesser, 2011)
Pashler, H., Bain, P., Bottge, B., Graesser, A., Koedinger, K., McDaniel, M., & Metcalfe, J. (2007). *Organizing instruction and study to improve student learning* (NCER 2007-2004). Washington, D.C.: National Center for Education Research, Institute of Education Sciences, U.S. Department of Education.
Tulving, E., & Craik, F. I. M. (2000). The Oxford handbook of memory. Oxford: Oxford University Press.

What is flipping?



Bloom's Taxonomy (Revised)

- There are three approaches to this method of instruction:
  - ➢Flipped Classroom
  - ➢Inverted Classroom
  - ➢Peer Instruction

Lage MJ, Platt GJ, and Treglia M (2000). Inverting the classroom: A gateway to creating an inclusive learning environment. *The Journal of Economic Education* 31: 30-43.
Walvoord, B.E., and Anderson, V.J. (1998). *Effective grading: A tool for learning and assessment*. San Francisco: Jossey-Bass.
Crouch, Catrell and Mazur E. (2001). Peer Instruction: Ten years of experience and results. *American Journal of Physics* 69: 970-977.

Benefits of flipping

- Meet **diverse** learning preferences….
- **Significant Learning Gains**… (Deslauriers et al., 2011)
- Students can learn to **self-correct,** take **control** of their learning….(Brown et al., 2000).

» **….and feel safe asking questions of their faculty and peers…. thus may be more engaged…**

Bransford JD, Brown AL, and Cocking RR (2000). *How people learn: Brain, mind, experience, and school*. Washington, D.C.: National Academy Press.
DesLauriers L, Schelew E, and Wieman C (2011). Improved learning in a large-enrollment physics class. *Science* 332: 862-864.

Approaches to flip online

The Syllabus Flip

- Advanced students, upper level courses…
- Time is provided at the beginning of the term…
- All students contribute, Faculty fills the gaps…

Attribution: UAF eLearning

Approaches to flip

- More time on Discussion….
  - Padlet….can also create debates!
- Quizzes… same principle as Discussion, but more focused…
- Assignment types/topics…Students direct these…
- Student to student grading--- Yes you can do that!

Remember Learning is…

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Questions?

Attribution

Brame, C., (2013). Flipping the classroom. Vanderbilt University Center for Teaching. Retrieved [August 10, 2016] from http://cft.vanderbilt.edu/guides-sub-pages/f lipping-the-classroom/.

Bransford JD, Brown AL, and Cocking RR (2000). *How people learn: Brain, mind, experience, and school.* Washington, D.C.: National Academy Press.

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