HOW DO OUR STUDENTS LEARN?
A Cognitive Psychological Model for Information Literacy Instruction

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STUDENT-CENTERED TEACHING
Understanding our students from their perspective: how they learn, what motivates them, what interests them. Then we tailor our instruction accordingly.
WHAT ARE WE AIMING FOR?
WHAT IS LEARNING?

“[T]he primary goal of education is to promote...a change in the learners knowledge.”

-Mayer and Wittrock, 2006
How will your instructional decisions **optimize** the opportunity for students to **learn**...skills and content?

- Doyle, 2011
MEASURES OF LEARNING
MEASURES OF LEARNING RETENTION
How can I teach material to students so that it best facilitates the retention of information I’m presenting?
MEASURES OF LEARNING RETENTION TRANSFER
How can I teach material to students so that it best facilitates their ability to transfer information across domains?
COGNITIVE SCIENCE

STUDY OF
[Students] are more alike than different in terms of how they think and learn.

-Willingham, 2009
COGNITIVE SCIENCE
COGNITIVE SCIENCE + STUDENT-CENTERED LEARNING
Cognitive Science + Student-Centered Learning + Information Literacy
5 PRINCIPLES for information literacy
Principle 1:

Create a Problem Context
Students are more likely to pay attention if they see the relevance of instruction.
Providing *conditional knowledge* helps to promote *transfer*.
ASSIGNMENT
ASSIGNMENT

+ STAGE IN RESEARCH PROCESS
PROBLEM TO BE SOLVED
Principle 2: Limit Learning Outcomes
...A state of affairs where an individual’s efficiency in using information in their work is hampered by the amount of relevant, and potentially useful, information available to them.

-Bawden and Robinson, 2009
Minimizing content maximizes retention.
Principle 3: Build a Narrative
The human mind seems exquisitely tuned to understand and remember stories — so much so that psychologists refer to stories as “psychologically privileged,” meaning that they are treated differently in memory than other types of material.

-Willingham, 2009
Teaching thorough narrative maximizes retention.
We tell ourselves stories in order to live.

-Joan Didion
Principle 4

Focus on “Deep Structure”
Deep structure is the inherent meaning of something.
Teaching to **deep structure** facilitates **transfer**.
Principle 5:

Active learning is the practice of deep structure.
As far as anyone knows, the only way to develop mental facility is to repeat the target process again and again and again.

-Willingham, 2009
Practice facilitates retention. Deep structure facilitates transfer.
ASSIGNMENT PROMPT

Write a researched argument 10 pages in length, on a topic related to the subject matter we have been studying. Early in your research process you must identify within your topic area a problem, question, or controversy that requires from you a contestable thesis statement supported by your own critical thinking. Use the introduction of your paper to engage your reader's interest in the problem or question you plan to address, showing why it is both problematic and significant. The body of your paper should be your own contestable response to this question made as persuasive as possible through appropriate analysis, argumentation, and use of evidence.

Possible approaches to your paper may include:

- Problematizing a particular tv show, movie, advertisement, novel, comic, clothing brand, beverage, etc. that incorporates the representation of tattoos in some capacity;
- A deeper reading/analysis of one of the texts that we have covered in class;
- Compare and contrast two different texts, such as one text from class compared to an outside text of your choosing, or compare two different texts from class.

By Tuesday of next week, you will submit to the instructor a prospectus of your proposed paper. Your prospectus consists of two components: the introductory paragraph of your paper and an annotated bibliography. The introductory paragraph should describe the problem or question that you plan to address and shows why the question is (1) problematic and (2) significant. The introduction should also state a clear, argumentative thesis. In addition, you must provide an annotated bibliography of five scholarly secondary sources that you plan on using in support of your argument. At most, two of these scholarly sources can be from class materials. Your annotations should consist of 2-3 sentences that briefly describe the argument of the cited material and how it supports/relates to the thesis of your paper.
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CONTINUUM OF TASTINESS

Eating ramen. Every day.
For four years.

In-N-Out Burger

PB&J Sandwich

Truly Delicious

Truly Lousy
CONTINUUM OF RELIABILITY

Least Reliable

Articles Not Based in Research

“Popular” Articles Based in Research

Peer-Reviewed Articles

Most Reliable
CHALLENGES & OPPORTUNITIES

We're Ready!
For the Challenge of Tomorrow

Let's Do the Job ... Together!
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QUESTIONS?

