CEP913 Psychology and Pedagogy of Mathematics
Fall 2007
Raven McCrory, Instructor
Schedule of readings and assignments

Class #1: Wednesday, August 29
1. Introduction

Assignment 1: *Statement of Interest* due; see Assignment 1 on Angel.
Assignment 2 is Benny, and nothing written is due.

Class #2: Wednesday, September 5
2. Thorndike and mathematical knowing as the formation of bonds

Weekly Analytic Summaries (WAS): Every week, you are asked to write an analytic summary of the readings.
Assignment 3, found on Angel, explains what I expect you to do for your Weekly Analytic Summaries.

Class #3: Wednesday, September 12
3. Brownell and mathematical knowing as meaning making

Assignment 4: Research question and justification due, along with IRB certification. 
See Assignment 4 on Angel.
Class #4: Wednesday, September 19
4. Wertheimer and productive thinking
   Required: pp. 1 – 123; Optional: Rest of book.

Class #5: Wednesday, September 26
5. Skemp and instrumental-relational understanding

Class #6: Wednesday, October 3
6. Resnick and the psychology of math for instruction

Assignment 5: Research proposal due. See Assignment 5 on Angel.

Class #7: Wednesday, October 10
7. Conceptions of mathematical knowledge


Optional: Another conception of understanding


McCrory


**Class #8: Wednesday, October 17**

Midterm Exam

**Class #9: Wednesday, October 24**

9. Recent views on conceptual and procedural knowledge


Optional: Additional readings on conceptual and procedural knowledge:


**Assignment 6**: Research protocols due – interview, observation, survey or whatever instrument(s) you plan to use. See Angel for assignment 6 details.

**Class #10: Wednesday, October 31**

10. Teacher’s conceptions of student’s thinking


Optional readings: If you are interested in student thinking and how teachers' make sense of it:


Class #11: Wednesday, November 7

11. Teachers' beliefs and conceptions of mathematics


Optional Readings (if you are interested in studying teachers' beliefs):


Class #12: Wednesday, November 14
12. Mathematical knowledge and the Math Wars

Optional readings: If you are interested in the “Math Wars”

No class on November 21: Happy Thanksgiving!
We will make up the class during our exam period.

Class #13, November 28
13. Other perspectives.
Council of Teachers of Mathematics with a perspective from Beatriz D’Ambrosio.


Optional readings: If you are interested in Anna Sfard’s work:

- Sfard, A. (2001). There is more to discourse than meets the ears: looking at thinking as communicating to learn more about mathematical learning. *Educational Studies in Mathematics, 46*(1/3), 13-57.

**Class #14: Wednesday, December 5**

14. Knowledge for teaching mathematics


**Assignment 7:** Research project paper due. See Angel for Assignment 7 details.

**Class #15: Exam period, Tuesday December 11, 3-6 pm,** Raven’s house, followed by dinner. Details to be announced. During this class, you will present your research project, AERA-style (10 minute presentation followed by 5 minutes for questions).
List of assignments
All written assignments are due by class time, in your individual drop box. *I greatly appreciate assignments turned in early, especially the weekly summaries, for it gives me time to read them before class.*

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