ED 21/PSYCH 21: EDUCATIONAL PSYCHOLOGY

Fall 2011

Class: Tuesday 7-9:45pm

Lang Center Keith Room

Labs: To be announced

Materials Center and

Pearson 222, Ext. 8611

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Office Hours: Mondays and Tuesdays 1:30-4:30

and by appointment

**Course:**

This course in Educational Psychology is designed to provide students with a representative sampling of work in learning and development that has particular relevance to pedagogical practice. We will operate with a flexible workshop-like format to address the following questions:

1. What does our prior experience tell us about learning and development? And, what does it suggest about teaching?
2. How and why might we learn?
3. What are some indicators of learning?
4. What might influence the way in which one learns?
5. How does all of this information affect the way in which we think about teaching?

The course is designed to accommodate differences in interests and purpose; students are encouraged to consider seriously their own expectations and to self-structure the general assignments, papers, and lab work in a manner consistent with these goals.

Moodle access for this course is found at <http://moodle.swarthmore.edu/>. (For assistance with Moodle, please see <http://clickables.moodlerooms.com/spaces/steps/manuals/joule/>.)

If you believe that you need accommodations for a disability, please contact Leslie Hempling in the Office of Student Disability Services, located in Parrish 113, or e-mail lhempli1 for an appointment to discuss your needs and the process for requesting accommodations. Leslie Hempling is responsible for reviewing and approving disability-related accommodation requests and, as appropriate, she will issue students with documented disabilities an Accommodation Authorization Letter. Since accommodations may require early planning and are not retroactive, please contact her as soon as possible.

**Course Requirements:**

The course involves the following:

1. Class preparation, participation, etc. (10%)
2. Lab work and Paper 1 (25%)
3. Lab work and Paper 2 (25%)
   * 1. Reflections and Final Paper (40%)

Students should have available time for lab work (TBD) until mid-November.

*Class Preparation, Participation, etc:* The expectation for class preparation, participation, etc. is that you will come to class prepared to engage seriously in the day's activities. All classes are required. They will provide an elaboration on the readings. This will always mean that you need to come to class having completed the readings and thought about the questions on the handout. It should never mean that you have no further questions or criticisms regarding the material, nor that you should hesitate to raise these.

*Lab Work:* You will be involved in lab work once a week until the middle of November. Lab work for this course will involve classroom-based data collection as well as lab sessions, as announced. You will have input into scheduling. There are two parts to the lab. Part 1 consists of observations that include an analysis of the classroom as a community of practice, consideration of supports for student learning, the range of individual and cultural differences and how these are met in the classroom, pedagogical content knowledge specific to your certification area, and developing abilities to engage in goal setting and decision making. Part 2 consists of identifying and researching questions in collaboration with faculty members in the Soundings Classroom using quantitative and qualitative methods. You will (a) ask a research question, (b) develop familiarity with SPSS, and (c) write a lab paper, due November 30. (See Two Papers, below.)

*Two Papers:* In lieu of a mid-term exam, students are expected to write two papers. These are due October 4 and November 29. It is integral to your synthesis of the content of this course that the papers be completed on the dates they are due. The opportunity for peer collaboration and feedback is formally built into your work on these papers.

The topics of the two papers are described below. Remember that these are *your* papers. It is assumed that their specific focus will be something you consider worthwhile.

Paper 1, Due October 4: First, on the basis of your observations in the Soundings classroom, identify three different issues that arise in providing feedback to learners, including consideration of the developmentally appropriate ways in which pupils’ intellectual, social, and emotional needs are addressed, and pedagogical content knowledge (make this specific to your certification area if you are planning to teach). Your assignment this week is to write a paper in which you compare and/or contrast how at least two of the researchers whose work you have read for this class would analyze/discuss these issues. You do not need to use direct quotes to support your discussion but do include references to the page numbers of the text to indicate the sources of your attributions to both the authors/researchers and the transcript (i.e., Tobias, p. 300).

After you complete your paper, exchange it with *two* other people in the class and provide each other with detailed comments. Then, turn in the first drafts of the papers, the comments from your classmates, and your revised copy. Time yourself well here.

Paper 2, Due November 29: Based on your lab work in which the pedagogical content knowledge of your certification area is used to address the range of ways in which the developmentally appropriate expectations for students’ individual differences and cultural needs are met, including supports that are and could be in place to support student learning and their developing abilities to set goals for themselves and make decisions, write a collaborative lab paper in which you: (a) state the problem being researched; (b) say why this problem is important in light of the literature you read for this class; (c) tell what you did to answer the question and summarize your finding(s) (tables are fine); (d) indicate how these finding(s) confirm, extend and/or refute the literature you cite and your statement about the research addressed as addressing an important problem; and finally (e) consider the implications of your findings for further research and practice.

*Reflections and Final Paper:* The final paper for this course is your working theory of instruction. It should convey your understanding of the developmental needs of students, the forms of instructional and pedagogical content knowledge supports that they need, and include your reflections on the class work each week.

Following your reading and note taking each week, you should jot down some thoughts about: (a) those aspects of the readings that pique your curiosity, surprise you, seem complex, leave you uncertain, etc. and (b) the links you see between the questions of the week’s reading assignment, class discussions, the readings, and laboratory work.

The final copy of your paper is due before or at the time of the scheduled exam – no extensions will be granted. This paper should lead you to rethink material covered during the semester. You are to draw out connections between your "working" theory of instruction (including ways to support productive participation/productive disposition) and the ideas of the authors you've been reading throughout the term. (In other words, cite others on whom your ideas build, with whom you concur, etc., demonstrating that you are not only familiar with the readings from this course, but that you have synthesized them into a coherent framework.) Your reflections on your own growth and insights during the course should be included as a particular case of the points you make. Your reflections and notes can be included either in the text of the paper or as an appendix. Presumably the principles that you have identified will inform the organization and development of your paper.

You are encouraged to exchange papers with others for feedback. If you have not completed your paper at the time of the exam, plan to use the exam period to complete it. There will be no extensions.

**Texts Available in Bookstore (assigned articles and chapters are available through *Moodle* and/or *Blackboard*):**

Faber, A. & Mazlish, E. (1995). *How to talk so kids can learn at home and at school.* New York: Fireside (Simon & Schuster).

Hayden, T. (1980). *One child.* New York, NY: Avon Books.

Levy, S. (1996). *Starting from scratch: One classroom builds its own curriculum.* Portsmouth, NH: Heinemann.

Springer, M. (2006). *Soundings*. Westerville, OH: National Middle School Association.

**Topic Outline: At all times we will be considering the following issues:**

1. the role of others in learning and development, including the culture, family, prior schooling, immediate peers, and "generalized others";
2. distinctions between the process of doing work and its completion;
3. applications of findings to both older and younger populations;
4. applications of findings to individual learners, as well as to groups/classes of students.

**The topic outline by date then includes the preceding in the context of the following questions:**

1. What does prior experience tell us about learning and development? And, what does this tell us about teaching? (Week 1 - 9/6)
2. How and why might we learn?
   1. Models of learning and development: Are we craftspersons or snorkelers? (Week 2 - 9/13)
   2. Issues of capacity and domain: Some thoughts on how learning looks and works. (Week 3 - 9/20)
   3. Lenses on learning. (Week 4 - 9/27)
3. What are some indicators of learning?
   1. Synthesis – **First paper due**. (Week 5 – 10/4)
   2. Exploration and choice.(Week 6 – 10/18)
   3. Planning, strategy use, problem solving. (Week 7 – 10/25)

(d) Metacognition, representational competence. (Week 8 – 11/1)

1. What might influence the way in which one learns?
   1. Creativity, intelligence, achievement. (Week 9 – 11/8)
   2. Interest and learning. (Week 10 – 11/15)
   3. **Week 11 – 11/22 –** Lab Paper sharing, class time extended.
   4. **Week 12—11/29—Lab Paper**
2. How does all of this information affect the way in which we think about teaching? (Week 13 – 12/6)

Reflections and final paper

**Your reflections and your final paper are due at the time of the scheduled exam for this course (or you may sit and work on it during the slotted exam time). No extensions will be granted.**

**Topic #1: What does prior experience tell us about learning and development? And, what does this tell us about teaching?**

Week 1 (9/6)

There are two goals for today's class:

1. To give you an opportunity to browse the course content, instructor, class members, books, etc. so that your decision to participate or not may be informed, and
2. To encourage you to think about what and how you think we learn and develop. What does this say about how you can self-structure your learning, how you might best be taught, and what you might do in your work with another (others)?

**Topic #2: How and why might we learn?**

Week 2 (9/13)

1. MODELS OF LEARNING AND DEVELOPMENT:

ARE WE CRAFTSPERSONS OR SNORKLERS?

*Readings:*

Hayden, Brown and Campione, and Yamuchi and her colleagues each raise different points about learning. We will begin class by looking carefully at *One Child* and then move on to consider the lenses for thinking about the processes involved in learning as depicted in Brown and Campione chapter and the Yamuchi, et. al., article. Be prepared!

Hayden, T. (1980). *One child*. New York: Avon Books. **(Bookstore and EMC.)**

Brown, A.L. & Campione, J.C. (1994). Guided discovery in a community of learners. In K. McGilly (Ed.), *Classroom lessons* (pp. 229-270).  Cambridge, MA: MIT Press. **(Moodle)**

Yamuchi, L. A., Wyatt, T. T. R., & Carroll, J. H. (2005). Enacting the five standards for effective pedagogy in a culturally relevant high school program. In A. E. Maynard and M. I. Martini (Eds.), *Learning in cultural contexts: Family, peers, and school* (pp. 227-245). New York, NY: Kluwer Academic/Plenum Publishers. **(Moodle)**

*Start reading* (if you have extra time this week)*:*

Springer, M. (2006). *Soundings: A democratic student-centered education*. Columbus, OH: National Middle School Association. **(Bookstore and EMC.)**

**To do and ponder**

1. From our discussion last week about whether people are more like craftspersons or snorkelers in the way they learn, find three situations in *One Child* that would support your thinking. Do these pieces of evidence also refute the "opposing" side’s case?
2. Would you say that Sheila learns in a pretty consistent fashion? What aspects of her learning appear consistent to you? Which do not? How would you describe changes (e.g., physical, cognitive, and psychosocial capacities) in her development? What aspects of the learning environment enabled this development to occur?
3. What stands out when you focus specifically on Sheila's learning and development in mathematics and reading/writing?
   1. What are the experiences that children need to prepare them to learn, read, do mathematics, and succeed in school?
   2. How is spoken language supported in the classroom?
4. Considering all of the readings together, what are key principles regarding the way in which adults and peers can interact to support learning? Given differences among the different classrooms described, what are specific considerations regarding interactions for students with special needs? How about those who are English-language learners?
5. What specific implications for instruction can you identify from each of today's readings? (In other words, what things should definitely be part of the way classrooms are run?)
   1. What principles can you identify regarding students’ academic and social behaviors and school success?
   2. What can the teacher do to optimize students’ academic and social success in school?

#### **Reflections**

Remember to take ten minutes to reflect on the readings – this is part of your final paper!

Week 3 (9/20)

(b) ISSUES OF CAPACITY AND DOMAIN:  LEARNING FOR WHAT?

# *Readings:*

Dweck, C.S. (2000). *Self-Theories: Their role in motivation, personality, and development* (pp. 1-28). Philadelphia, PA: Taylor & Francis. **(Moodle)**

Eccles, et al. (1993). Development during adolescence: The impact of stage-environment fit on young adolescents’ experience in schools and in families. *American Psychologist, 48*(2), 90-101. **(Moodle)**

Markus, H. & Nurius, P. (1986). Possible selves. *American Psychologist,* *41*(9), 954-969. **(Moodle)**

Springer, M. (2006). *Soundings: A democratic student-centered education*. Columbus, OH: National Middle School Association. **(Bookstore and EMC.)**

*Recommended reading:*

Bruner, J. (1985). Models of the learner. *Educational Researcher, 14*(6), 5-8. **(Moodle)**

Campbell, L., Campbell, B., & Dickinson, D. (1996). *Teaching & learning through multiple intelligences*. Needham Heights, MA: Allyn & Bacon. **(EMC.)**

Gardner, H. & Walters, J. (1993).  A rounded version.  In *Multiple intelligences* (pp. 13-34).  New York: Basic Books.  **(Moodle)**

Sternberg, R. J. (1999). Looking back and looking forward on intelligence: Toward a theory of successful intelligence. In M. Bennet (Ed.), *Developmental psychology: Achievements and prospects* (pp. 289-308). Philadelphia: Psychology Press.  **(Moodle)**

Williams, W., Blythe, T., White, N., Li, J., Sternberg, R., & Gardner, H. (1996).  *Practical intelligence for school*. NY: HarperCollins. (**EMC.)**

**To do and ponder**

1. Think about two domains (subject, skill area, e.g. sports, math, Latin); how would you describe your disposition for learning in each? Is it the same? Is it productive?
2. What is the same and different between the notions of productive disposition and stage-environment fit?
3. How might feedback or scaffolding that will maximize instructional access for all students be provided? How much information should be provided to allow students to know their strengths and also goals for next steps in developing their skills and thinking—will this differ depending on the skill and/or type of thinking? How?
4. Does your model of learning and development (from Week 1) accommodate differences within individuals across domains? How would you adjust it?
5. How does Springer accommodate individual differences in the context of teaching the whole class?  Are there additional things you would recommend?  What are your concerns or questions?
6. What assessment strategies does Springer employ? Make a list of these and consider how these might be used for progress monitoring.

##### Reflections

Do them!

Week 4 (9/27)

(c) LENSES ON LEARNING

*Readings:*

Faber, A. & Mazlish, E. (1995). *How to talk so kids can learn at home and in school*. NY: Fireside. **(Bookstore.)**

In addition, you will be assigned one author on whom you are to be an “expert” for this class. (This means you can say what he/she/they are talking about in five sentences, provide an example from a classroom situation, and specify three points that the article led you to re-consider about student learning.) This means you will be *very* thorough in your preparation of notes. You are also responsible for knowing the ideas of the other work assigned. Following class, your knowledge of these others’ ideas should feel quite solid. Class for today will be broken into two parts: meetings with Ann early in the week and class time.

Hannover, B. & Kessels, U. (2004). Self-to-prototype matching as a strategy for making academic choices. Why German high school students do not like math and science. *Learning and Instruction, 14*(1), 51-67. **(Moodle)**

Newman, R. (2008). The motivational role of adaptive help seeking in self-regulated learning. In D. H. Schunk and B. J. Zimmerman (Eds.), *Motivation and self-regulated learning: Theory, research, and application* (pp. 315-337). New York: Erlbaum. **(Moodle)**

Nolen, S. B. (2007). The role of literate communities in the development of children’s interest in writing. In S. Hidi and P. Boscolo (Eds.), *Writing and motivation* (pp. 241-255). New York: Elsevier. **(Moodle)**

Renninger, K. A. (2009) Interest and identity development in instruction: An inductive model. *Educational Psychologist, 44(2),* 105-118. **(Moodle)**

Resnick, L. B., Michaels, S. & O’Connor, M. C. (2010). How (well-structured) talk builds the mind. In D. D. Preiss & R. J. Sternberg, Innovations in educational psychology: Perspectives on learning, teaching, and human development (pp. 163-194). New York: Springer. **(Moodle)**

Sansone, C., & Thoman, D.B. (2005). Interest as the missing motivator in self-regulation. European Psychologist, 10 (3), 175- 186.

Wigfield, A., Hoa, L. W., & Klauda, S. L. (2008). The role of achievement values in the regulation of achievement behaviors. In D. H. Schunk and B. J. Zimmerman (Eds.), *Motivation and self-regulated learning: Theory, research, and application* (pp. 169-195). New York: Erlbaum. **(Moodle)**

Zimmerman, B. J. (2008). Goal setting: A key proactive source of academic self-regultation. In D. H. Schunk and B. J. Zimmerman (Eds.), *Motivation and self-regulated learning: Theory, research, and application* (pp. 267-295). New York: Erlbaum. **(Moodle)**

*Recommended Reading:*

Barron, K. & Harackiewicz, J.M. (2000). Achievement Goals and Optimal Motivation: A Multiple Goals Approach. In C. Sansone and J.M. Harackiewicz (Eds.), *Intrinsic and Extrinsic Motivation* (pp. 229-254). San Diego: Academic Press. (**Moodle**)

Schwartz, D. L. & Bransford, J.D*.* (1998). *Cognition and Instruction*, *16*(4), 475-522. **(Moodle)**

Vygotsky, L. (1978). Interaction between learning and development (Chapter 6) and Internalization of higher psychological functions (Chapter 4). In *Mind in society*. Boston, MA: Harvard University Press. **(Moodle and EMC.)**

**To do and ponder**

1. Read the Faber & Mazlish volume, starting at the beginning. Have a conversation with at least one other person who knows you well (not necessarily in this class) before class time about what this book suggests about how you personally might work with another person.

Revisit the question raised in the To Do and Ponder section of the syllabus for last week: how might feedback or scaffolding that will maximize instructional access for all students be provided—what in particular can you say about the role of language in this access (the language of the educator *and* that of the learner)? How much information should be provided to allow students to know their strengths and also goals for next steps in developing their skills and thinking—will this differ depending on the skill and/or type of thinking? How?

1. Backwards-draft the outline of the author(s) for whom you are responsible. Think of at least one concrete illustration of the points that are being made in the article—that differs from those provided in the article. Be prepared to share this with the others in your jigsaw *and*  to address the following in terms of the articles:
   1. What role does each of the authors suggest for the student (organism, subject, etc.) in learning? What role does each author suggest for the teacher (therapist, caretaker, peer-other, etc.)?
   2. How does your reading inform your thinking about the roles of one or more of the following in learning: attention, memory, conceptual knowledge and its formation, reasoning, decision-making, problem-solving, executive functioning, principles and mechanisms of development, intelligence, action, and/or motor control?
   3. Now extrapolate. Thinking about the way you have learned some type of disciplinary content yourself (e.g. math, writing, etc.), what would each author say and/or recommend about your approach? Were you to be teaching a class or tutoring a student, how might each author recommend you proceed? Have some fun with this.

**Class time**

Class today will be organized as an independent jigsaw. Earlier in the week, you will have worked with Ann and those who have also read the assigned articles that you read to share/further develop your summaries, illustrations, and answers to each of the above questions. Then, during class time, you will jigsaw to learn from and think with each other about all of the articles from this week. Enjoy!

## Reflections

What connections are you making? What questions do you still have?

**Topic #3: What are some indicators of learning?**

Week 5 (10/4)

(a) SYNTHESIS

First, on the basis of your observations in the Soundings classroom, identify three different issues that arise in providing feedback to learners, including consideration of the developmentally appropriate ways in which pupils’ intellectual, social, and emotional needs are addressed, and pedagogical content knowledge make this specific to your certification area if you are planning to teach. Your assignment this week is to write a paper in which you compare and/or contrast how at least two of the researchers whose work you have read for this class would analyze/discuss these issues. You do not need to use direct quotes to support your discussion but do include references to the page numbers of the text to indicate the sources of your attributions to both the authors/researchers and the transcript (i.e., Tobias, p. 300).

Week 6 (10/18)

1. EXPLORATION AND CHOICE

*Readings:*

Flum, H. & Kaplan, A. (2006) Exploratory orientation as an educational goal. *Educational Psychologist 41*(2), 99-110. **(Moodle)**

Gladwell, M. (2008). The Matthew Effect (Chapter 1), and The 10,000 – hour rule (Chapter 2). *Outliers* (pp. 15-68). NY: Little, Brown. (**Moodle)**

Katz, I., & Assor, A. 2007. When choice motivates and when it does not. *Educational Research*

*Review,* 19, 429-442. (**Moodle**)

**To do**

List some of your questions about students’ interest, learning, and ability to work with unstructured time in the Soundings classroom and consider what forms of data you would need to identify and implement programmatic revisions. Bring these to class.

Week 7 (10/25)

(d) PLANNING, STRATEGY USE, PROBLEM SOLVING

# *Readings:*

Gaskins, I. W. (1994). Classroom applications of cognitive science: Teaching poor readers how to learn, think, and problem solve. In K. McGilly (Ed.), *Classroom lessons* (pp. 129-154). Cambridge, MA: MIT Press. **(Moodle)**

Heath, S. B. & Roach, A. (1999). Imaginative actuality: Learning in the arts during the nonschool hours. E. B. Fiske (Ed.). *Champions of change: The impact of the arts on learning* (pp. 19-33). The GE Fund and The John D. and Catherine T. MacArthur Foundation. **(Moodle)**

Siegler, R. S. (1996). How children generate new ways of thinking. In *Emerging minds: The process of change in children’s thinking* (pp. 177-217). New York: Oxford University Press. **(Moodle)**

Polya, G. (1945). *How to solve it*. Princeton, NJ: Princeton University Press, pp. xvi and xvii. **(EMC)** Also, check out Polya discussion in archive of The *Math Forum:* [http://mathforum.org/~sarah/Discussion.Sessions/Contents.html](http://mathforum.com/~sarah/Discussion.Sessions/Contents.html).

## *Recommended reading:*

Hull, G. A. (1989). Research on writing. In L. B. Resnick & L. E. Klopfer (Eds.), *Toward the thinking curriculum: Current cognitive research* (pp. 104-128). Alexandria, VA: Association for Supervision and Curriculum Development. **(Moodle)**

**To do and ponder**

1. What constitutes planning, strategy use, and/or problem solving in each of the readings for today? What are some principles that might hold across subject areas?
2. Considering the learning of conceptual knowledge about one discipline (e.g. reading, writing, math), use the readings to elaborate on the relation between the principles you just identified in #1 above, and learner attention, memory, intelligence, and/or motor control.
3. A critical question for teachers is: how much direct instruction should one undertake? Think about this as you do the readings this week. This issue may also be linked to opportunities that students have prior to coming into the classroom, right? What are the “opportunities” that need to be in place for learners to begin generation curiosity questions?
4. Finally, pay close attention to the way in which you plan, use strategies, and problem solve as you work on the Super Detective Problem below. We will use your self-reports as the basis of class discussion.

SUPER DETECTIVE #2

Five women each purchase a household item for use in a different room in their house.

1. Mrs. Simpson does not keep her item in the bedroom.
2. Amy has a television; Mrs. Griggs has a hi-fi.
3. Kylie does not keep her item in the bedroom.
4. Clara does not have a telephone.
5. Mrs. Williams does not keep her item in the kitchen.
6. Kylie keeps hers in the conservatory.
7. Michelle has a bookcase; Mrs. Dingle has a computer.
8. Michelle does not keep hers in the living room.
9. Mrs. Pringle keeps hers in the study; Roxanne keeps hers in the kitchen.

Can you work out the full name of each woman, her item and where she keeps it?

## Reflections

Ten minutes!

Week 8 (11/1)

(e) METACOGNITION, REPRESENTATIONAL COMPETENCE

*Readings:*

Hulleman, C.S. & Harackiewicz J. M. (2009). Promoting interest and performance in high school science classes. *Science 326*, 1410-1411. **(Moodle)**

Lindfors, J. (1991). Language in learning: Teachers and children. In *Children's language and learning* (pp. 286-317). Boston: Allyn and Bacon. **(Moodle)**

Schoenfeld, A. (1987). What's all the fuss about metacognition? In A. Schoenfeld (Ed.), *Cognitive science and mathematics education* (pp. 189-215). Hillsdale, NJ: Lawrence Erlbaum. **(Moodle)**

*Recommended reading:*

The Math Forum’s Bridging Research and Practice Group. *Encouraging Mathematical Thinking*. [http://mathforum.org/brap/wrap/](http://mathforum.com/brap/wrap/).

Lampert, M. (1986). Knowing, doing, and teaching multiplication. *Cognition and Instruction,* *3*(4), 305-342. **(Moodle)** Also, check out the Lampert discussion in the archive of *The* *Math Forum:* <http://mathforum.org/~sarah/Discussion.Sessions/Contents.html>.

Tobias, S. (1990). Introductory physics: The Eric experiment. In *They're not dumb, they're different: Stalking the second tier.* Research Corporation. (pp. 19-43, but it is fine to read more; full copies are on the shelf in the Materials Center.) **(Moodle and EMC.)** Also, check out the Tobias discussion in the archive of The *Math Forum:* <http://mathforum.org/~sarah/Discussion.Sessions/Contents.html>.

**To do and ponder**

1. What methods might you use to:
   1. Work with someone individually who has no background in the topic on which you are working with him/her.
   2. Work with someone who has a lot of background and developed interest on which you are working.
   3. Work with a group that does not have background in the topic and is not in a classroom, e.g., club, a board of a shelter, etc.
2. What are the key elements of a learning environment that facilitates each of the following: encoding, storage and retrieval of knowledge and information for memory, attention, perception, action, and problem solving?

## Reflections

What do you still want to know?

# SPSS Lab I – content TBD

**Topic #4: What might influence the way in which one learns?**

Week 9 (11/8)

(a) CREATIVITY, INTELLIGENCE, ACHIEVEMENT

*Readings:*

Ceci, S. (1990). Mismatches between intelligent performance and IQ. In *On intelligence...more or less*  (pp. 29-44). Englewood Cliffs, NJ: Prentice Hall. **(Moodle)**

Csikszentmihalyi, M. (1991). The condition of flow. In *Flow: The psychology of optimal experience* (pp. 71-93). New York, NY: Harper & Row, Publishers. **(Moodle)**

Gladwell, M. (2009). Late bloomers: Why do we equate genius with precocity? In *What the dog saw (*pp. 295-313). New York, NY: Little, Brown. **(Moodle)**

West, T. G. (1997). Slow words, quick images: An overview. In *In the mind’s eye: Visual thinkers, gifted people with dyslexia and other learning difficulties, computer images and the ironies of creativity* (pp. 9-43). Amherst, NY: Prometheus Books.  **(Moodle)**

### Recommended reading:

Anastasi, A. (1976). Functions and origins of psychological testing, and Nature and use of psychological tests. In *Psychological testing* (pp. 3-44). New York: Macmillan. **(Moodle)**

Feldman, D. H. (1980). *Beyond universals in cognitive development.* (pp. 87-119). Norwood, NJ:

Ablex. **(Moodle)**

Stigler, J. W. Fernandez, C. & Yoshida, M. (1996). Traditions of school mathematics in Japanese and American elementary classrooms. In L. P. Steffe, et. al. (Eds.), *Theories of mathematical learning* (pp. 149-175). Mahwah: Lawrence Erlbaum. **(Moodle)**

**To do and ponder**

1. A key issue to think about is what, taken together, the readings for today help us to think

about in relation to creativity, intelligence, and achievement? How is each defined? And, how can each be misunderstood?

2. In addition, based on the readings for today, attempt to infer answers to the following questions.

Note where you feel like you are getting contradicting evidence.

1. Do you think that the tasks we give people influence whether we identify them as creative? What about whether they are intelligent or whether they are "high achieving?"
2. What is the role of skill or prior knowledge in the assessment of creativity, intelligence and achievement?
3. What is the relation among creativity, intelligence and self-regulation?
4. What does it mean to be creative? Is it possible for young children to be creative?
5. Think of some instances in which it matters to you if someone is more intelligent than another. What are these? What happens if you think about "multiple intelligences?"
6. What purpose does it serve to note that someone is creative or intelligent or an achiever? More specifically, taking achievement (or IQ) as an example, why might one want to know what a student's achievement (IQ) is relative to the others in his or her class, grade, age group, etc.?
7. Are creativity, intelligence, and achievement developmental (do they shift qualitatively as a function of age)? What does this imply in terms of how we might organize classes for younger and older students? What place does metacognition have in such classes? Self-regulation?
8. To what extent are the creativity, intelligence, and achievement of students dependent on the way in which instruction is organized?
9. What is the purpose and intent of standardized assessments?
10. What are the differences between tests of achievement and aptitude? How do the data of each compare to observational data?

## Reflections!

**SPSS Lab II** – content TBD

Week 10 (11/15)

(b) INTEREST AND LEARNING

*Readings:*

Hidi, S. & Harackiewicz, J. (2000). Motivating the academically unmotivated: A critical issue for the 21st century. *Review of Educational Research* *70*(2), 151-179. **(Moodle)**

Kang, M. J., Hsu, M., Krajbich, I., Loewenstein, G., McClure, S., Tao-yi Wang, J., & Camerer, C. (2009). The wick in the candle of learning: Epistemic curiosity activates reward circuitry and enhances memory. *Psychological Science, 20*, 963-973. **(Moodle)**

Lipstein, R. & Renninger, K.A. (2006). “Putting things into words”: 12-15-year-old students’ interest for writing. In Boscolo, P. & Hidi, S. (Eds.), *Motivation and writing: Research and school practice* (pp. 113-140)*.* New York: Kluwer Academic/Plenum. **(Moodle)**

Sansone, C., & Smith, J. L. (2000). Interest and self-regulation: The relation between having to and wanting to. In J. M. Harackiewicz and C. Sansone (Eds.), *Intrinsic and extrinsic motivation: The search for optimal motivation and performance* (pp. 341-372). San Diego, CA: Academic Press. **(Moodle)**

*Recommended reading:*

Charbonneau, M. P. & John-Steiner, V. (1988). Patterns of experience and the language of mathematics. In R. R. Cocking & J. P. Mestre (Eds.), *Linguistic and cultural influences on learning mathematics* (pp. 91-100). Hillsdale, NJ: Lawrence Erlbaum. **(Moodle)**

Hidi, S. (2006). Interest: A motivational variable with a difference. *Educational Research Review, 7*, 323-350. **(Moodle)**

Hidi, S. & Baird (1988). Strategies for increasing text-based interest and students’ recall of expository passages. *Reading Research Quarterly*, 1-24. **(Moodle)**

Hidi, S., Renninger, K. A., & Krapp, A. (2004). Interest, a motivational variable that combines affective and cognitive functioning. In D. Y. Dai and R. J. Sternberg, *Motivation, emotion, and cognition : Integrative perspectives on intellectual functioning and development* (pp. 89-115)*.* Mahwah, NJ: Lawrence Erlbaum. **(Moodle)**

Mandler, G. (1989). Affect and learning: Causes and consequences of emotional interacting. In D. B. McLeod and V. M. Adams (Eds.), *Affect and mathematical problem solving* (pp. 3-19). Springer-Verlag. **(Moodle)**

Pintrich, P. R. & DeGroot, E. V. (1990). Motivational and self-regulated learning components of classroom academic performance. *Journal of Educational Psychology*, *82(1),* 33-40. **(Moodle)**

Zimmerman, B. J. (2000). Self-efficacy: An essential motive to learn. *Contemporary Educational Psychology, 25*, 82-91. **(Moodle)**

**To do and ponder**

1. Based on today’s reading, come up with three issues that you would like to have clarified (e.g., is Kang et. al.’s discussion of curiosity potentially also a discussion of earlier phases of interest development, or situational interest?). Be prepared to explain what you do not understand and why these are issues for you.
2. Review one of the earlier articles/chapters (not Soundings) you read in this course that describes a classroom/workshop context (e.g., Brown and Campione’s Oakland classroom from the first week of class), what makes the classroom “work” for students? What would an analysis of motivation *and* learning in that classroom look like? What would you as a researcher and teacher wish to be able to think about in terms of data you would collect?

3. When is interest of most importance to you as a learner?

4. Based on the readings from today, how do you imagine the interest and achievement relation should be understood? Are they the same? What else would you want to know in order to further think about these questions?

5. Think about the variety of ways that "interest" might be described. Why might some teachers find thinking about student interests problematic? What might you suggest as answers to their concerns?

## Reflections

Do them.

**SPSS Lab III** – content TBD

Week 11 (11/22)

**In class lab-paper sharing; class time extended.**

Week 12 (11/29)

Lab/Paper

Using the study which has been the basis of your lab work, compile a collaborative lab paper in which you, together with your lab group:

1. state the problem being researched,
2. say why this problem is important in light of the literature you read for this class,
3. tell what you did to answer the question and summarize your finding(s) (tables are fine), and
4. indicate what these finding(s) mean in terms of the literature read for this class, your statement about why it was an important problem, and your lab work for this term, if this is appropriate.
5. Finally, consider the implications of your findings for future research and practice. What do they suggest?

This is a collaborative paper/project. The paper copy will be read by Dave Danielle, as well as subsequent generations of Ed Psych students; so keep a copy, etc. for yourself, if you would like one.

Week 13 (12/6)

**Topic #5: How does all of this information affect the way**

**in which we think about teaching?**

*Readings:*

Levy, S. (1996). *Starting from scratch: One classroom builds its own curriculum.* Portsmouth, NH: Heinemann. (Read Ch. 1-3, pp. 1-64. Then, choose to read one of the chapters 4-9. Finally, read Ch. 10-11, pp. 146-177.) **(Bookstore and EMC)**

Simpson, E. (1979). *Reversals: A personal account of victory over dyslexia* (v-40). New York: Washington Square Press.  **(Moodle)**

Valsiner, J. (1984). Construction of the zone of proximal development in adult-child joint action: The socialization of meals. In B. Rogoff & J. V. Wertsch (Eds.), *Children's learning in the zone of proximal development: New directions for child development* (pp. 65-76).San Francisco: Jossey-Bass. **(Moodle)**

*Recommended reading:*

Blumenfeld, P., Soloway, E., Marx, R., Krajcik, J., Guzdial, M., & Palincsar, A. (1991). Motivating project-based learning: Sustaining the doing, supporting the learning. *Educational Psychologist,* *26(3 & 4),* 369-398. **(Moodle)**

Kim, H. L. (2002). We talk, therefore we think? A cultural analysis of the effect of talking on thinking. *Journal of Personality and Social Psychology*, *83*(4), 828-842. **(Moodle)**

Means, B. and Knapp, M. S. (1998). Cognitive approaches to teaching advanced skills to educationally disadvantaged students. In A. E. Woolfolk (Ed.), *Readings in educational psychology* (pp. 74-82). Boston, MA: Allyn and Bacon. **(Moodle)**

**To do and ponder**

There will be four parts to today's class:

1. In the first part of class, we will address the questions you bring to class about the articles. If you don't have questions, be sure to have read them so carefully that you can help others to understand them.

(b) The second part of class will focus on the implications of today’s readings for practice.

• Come up with at least three concrete things (the basis of which is suggested or implied by these authors) that you think most teachers, parents, social workers, therapists, or policy makers – you choose which – would find useful in their efforts to facilitate learning.

• Consider their applicability and needed adaptation for students with special needs such as described in the Simpson and the West readings. Are they also applicable to English-language learners? Why or why not? *Bring these to class.*

(c) During the third part of class, we will consider how we might think about a working theory of instruction:

* What is a theory anyway?
* What purpose does articulating a theory serve?
* How has your understanding of learning and development shifted since September?

(d) During the last part of class you will share your thinking about your outline for the final paper with others; bring a draft outline to class, so that the feedback you receive is useful.

**Final Paper and Reflections**

The final paper for this course is your working theory of instruction. It has two parts. The first includes your reflections on your work during the course. The second is a theory of instruction. Both parts are due at the time of the scheduled exam for this course.

First, following your reading and note taking each week, you were asked to jot down some thoughts about: (a) those aspects of the readings that piqued your curiosity, surprised you, seemed complex, left you uncertain, etc., (b) the links you saw between the questions of the week’s reading assignment, class discussions, the readings, laboratory work, and principles that you identify. If it seemed hard for you to identify links, you were asked to note the source of the difficulty if you could. The goal was that you would be positioned to think about your work in this course by reflecting on it!

The theory of instruction—*your* theory of instruction-- should address the facilitation of productive participation/productive disposition and build on your experience of this class, including your reflections on your work, the “to do and ponder” exercises, readings, class discussions, and laboratory work. It is intended to be a vehicle for both synthesizing material covered during the semester and making it useful. You can cast the focus of the paper as broadly or as narrowly as you would like. It is important that you demonstrate that you have understood the readings of the course. Be sure to cite others on whom your ideas build, with whom you concur, etc., demonstrating that you are not only familiar with the readings from this course, but that you have synthesized them into a coherent framework. Your reflections can be included either in the text of the paper or as an appendix.