

Summer 2013
15:295:580 Section B6 Online
Psychology of Learning

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Goals

The purpose of this course is to introduce a psychological perspective to learning and instruction in classroom contexts. We will examine how people learn and how psychological principles of learning are applied to instruction. Over the course of the semester we will explore theories of learning that have been developed in the education and psychological literatures over time to explain how students learn and how teachers can teach effectively.

This course is designed to help you acquire the following knowledge and skills related to learning and instruction:

KNOWLEDGE:

- of empirical results on learning
- of theories of learning
- of effective instructional practices.

SKILLS:

- diagnosing learning and instructional problems
- analyzing instructional situations
- predicting instructional outcomes
- designing instruction based on theory and research

General Note

Please note that 5-week summer courses are very intense, and this is just as true of online courses as face-to-face courses. If you do not have substantial time to invest in the course during the five weeks it is running, I urge you to wait and take this course at a later time.

Features of an Online Course

An online course differs from a traditional face-to-face course in a number of ways. In particular, for this class:

- A. There is a strong emphasis on student-driven learning. The instructor role is of overall facilitator and coordinator.
- B. You will be able to work at your convenience. But it is important to be seriously engaged at least five days during each and every week. This is quite different from a traditional course, in which it is perfectly fine to prepare the day before, go to class the day of class, and then not think about the course the other five days a week. It is *especially* important during a five-week online course that you work consistently each day.
- C. We focus on asynchronous rather than synchronous activities. This course will--officially--be all asynchronous, except for our one (completely optional) face-to-face meeting.
- D. Students do more of the integrative work than in a face-to-face class. This is likely to support long-term memory development.

Weekly Schedule

The asynchronous discussions require an extended time to reflect on what we have read. Here is a typical schedule:

Each weekly cycle begins on Thursdays.

Before Thursday, complete the readings for that week.

Before Thursday, email me one question about one of the readings that you are interested in discussing. (I will include some of these questions in the discussion questions.)

Thursday through the following Wednesday: Participate in discussions and collaborative problems.

It is important to start promptly. I expect everyone to contribute on Thursday, for example, and on three of the first four days of the weekly cycle (Thursday through Sunday).

Friday: Your weekly individual assignment based on the readings is due.

IMPORTANT NOTES:

1. Some requirements and procedures may be adjusted as we find out how things are working.
2. Be sure to email me or talk to me about problems.

Calendar

This calendar shows the day by day activities and due dates in the course.

Su	M	T	W	Th	F	Sa
		May 28 Intro- ductions. Read for Week 1 discussions.	May 29 Introductions. Read for Week 1 discussions. Submit 1 or more question.	May 30 Week 1 discussions & problems begin. Begin Week 2 readings.	May 31 Week 1 discussions & problems continue.	June 1 Week 1 discussions & problems continue.
June 2 Week 1 discussions & problems continue. Week 1 assign- ment due.	June 3 Week 1 discussions & problems continue.	June 4 Week 1 discussions & problems continue.	June 5 Week 1 discussions & problems end. Complete Week 2 readings. Submit 2 or more questions.	June 6 Week 2 discussions & problems begin. Begin Week 3 readings.	June 7 Week 2 discussions & problems continue. Week 2 assignment due.	June 8 Week 2 discussions & problems continue.
June 9 Week 2 discussions & problems continue.	June 10 Week 2 discussions & problems continue.	June 11 Week 2 discussions & problems continue.	June 12 Week 2 discussions & problems end. Complete Week 3 readings. Submit 2 or more questions.	June 13 Week 3 discussions & problems begin. Class paper proposal due. Begin Week 4 readings.	June 14 Week 3 discussions & problems continue. Week 3 assignment due.	June 15 Week 3 discussions & problems continue.
June 16 Week 3 discussions & problems continue.	June 17 Week 3 discussions & problems continue.	June 18 Week 3 discussions & problems continue.	June 19 Week 3 discussions & problems end. Complete Week 4 readings. Submit 2 or more questions.	June 20 Week 4 discussions & problems begin. Begin Week 5 readings.	June 21 Week 4 discussions & problems continue. Week 4 assignment due.	June 22 Week 4 discussions & problems continue.
June 23 Week 4 discussions & problems continue.	June 24 Week 4 discussions & problems continue.	June 25 Week 4 discussions & problems continue.	June 26 Week 4 discussions & problems end. Complete Week 5 readings. Submit 2 or more questions.	June 27 Week 5 discussions & problems begin.	June 28 Week 5 discussions & problems continue. Class paper due.	June 29 Week 5 discussions & problems continue.
June 30 Week 5 discussions & problems continue.	July 1 Week 5 discussions & problems continue.	July 2 Week 5 discussions & problems continue.	July 3 Week 5 discussions & problems end.	July 4 Holiday	July 5 Week 5 discussions & problems continue. Week 5 assignment due.	

Evaluation

1. Discussions	35%
2. Questions about articles	5%
3. Application problems	10%
4. Weekly assignments	20%
5. Class paper	30%

1. Discussions of readings

Each week, you will discuss the readings. We will focus on:

- Clarifying understanding of the readings. For research articles, this includes the research question, what the method was, what the results were, and whether the authors' conclusions are appropriate.
- Discussing applications and implications of the ideas you have read about.

The minimum requirement for contributing to the discussion is 9 substantive entries (including at least 4 responses) to the discussion threads. Your contributions to the discussions plus the collaborative problems (explained below) should collectively indicate that you have read all the readings.

Evaluation will be based on the number of contributions as well as the quality of your contributions.

Discussions are places to explore and entertain ideas. There should be no presumption that discussants are firmly committed to positions that they are presenting arguments for.

Discussion contributions should adhere to normal rules of English usage, etc.

2. Questions

Each week, by Wednesday at 10 p.m., submit two or more discussion questions about the readings. These should be questions raised by the readings that you would like to discuss.

The URL of the site at which you can submit the form is:

<http://spreadsheets.google.com/viewform?hl=en&formkey=dFRxb0ZIRmMtR1FJdXNuSXd3QmpMZVE6MQ>

If for some reason this form does not work, please email me your questions, and alert me that you couldn't get the form to work.

3. Weekly applications problems

In most weeks, you will work collaboratively as a class on several application problems that afford the application of the ideas in the readings. You will work on Collaborative Problems within eCollege. You should make at least 4 contributions to the group discussion each week (some weeks will require more), and these contributions should begin right away on Thursday and Friday.

Evaluation will be based on the number of contributions as well as the quality of your contributions.

4. Weekly Assignment

Each week, you will submit a 1-2 page written assignment based on the week's readings. You will submit the assignment by Friday of each week (except for Week 1; see the calendar). Each week's assignment will be posted on eCollege.

5. Class Paper

The class paper is to be 15 to 20 pages in length (double spaced, Times New Roman 12 point font or Arial 11 point font). There are a variety of formats from which to choose, so that you can find a topic that is relevant to your interests and of value to your future work. The paper will give you the opportunity to explore an aspect of the course in greater detail or extend a topic to another area. You may also pursue other areas not specifically addressed in-depth in the course (e.g. gender and ethnic differences, portfolio-based assessments, etc.). I am also open to other suggestions, so let me know if you have another idea. The paper is officially due on Friday, June 28. However, because this is a short course, I encourage you to consider effectively extending the length of the term and turning in the paper later. Please send the paper to me via email attachment.

Here are the options for your paper:

a) Research/Theory Review Paper. This is a paper that reviews research on a specific topic related to the course. The paper explores a particular issue in greater depth. The paper also references additional articles and resources on the topic that you have selected. The paper summarizes and introduces the concept under study, highlights the main issues in the field, presents contrasting points of view and debates in the field. In the paper's conclusion, you could apply relevant issues to a real world context, extend the topic to a new setting, or recommend future directions or avenues for research.

b) Design of an instructional unit. This is a paper that applies what you have learned to develop a unit plan for teaching a topic. The paper applies what you have learned to design a unit (a series of lessons) that teaches a set of topics. Part of the paper describes the lessons. You might include an example of a page of materials that you will use and that is grounded in principles of learning and teaching covered in the course. The other part of the paper describes in detail the principles of learning and instruction that have guided the development of the unit. You should explain specifically how the principles of learning and instruction apply to your particular unit. Your coverage of principles of teaching and learning should be broad-ranging, describing how you have taken ideas from throughout the course to develop a unit that you believe will be effective.

Note that your unit doesn't have to be on a traditional educational topic. If you are preparing for a career in counseling, you might prepare a series of workshops on coping strategies for clients, for example. If you expect to be involved with teacher development work, you might design a series of

workshops for teachers on a given topic such as effective inclusion strategies. You might develop a series of workshops to help first-year students how to be successful in the university.

c) Design of a single lesson (or perhaps two lessons). This is similar to the design of a unit, except that you will focus in more detail on the design on one or two lessons (or, alternatively, a one or two hour workshop). Part of the paper describes the lesson or lesson in detail, presenting examples of handouts or any other material. The lesson should be designed so that it is based on principles of learning and instruction you have learned in the course. The other part of the paper describes in detail the principles of learning and instruction that have guided the development of the lesson or lessons. You should explain specifically how the principles of learning and instruction apply to your particular lessons. Your coverage of principles of teaching and learning should be broad-ranging, describing how you have taken ideas from throughout the course to develop lessons that you believe will be effective.

As with the design of the instructional unit, your lesson need not be on a traditional educational topic. You might design a workshop for students on how to study more effectively or how to make career decisions. Or you might design a workshop for teachers on how to teach something more effectively.

d) Evaluation of instruction. This is a paper that presents an analysis and/or evaluation of an existing instructional lesson, pair of lessons, unit, curriculum, software, or the like. Part of the paper describes the instruction you are evaluating. The other part presents the evaluation, with the analysis grounded in principles of learning and instruction. If problems are found, then the paper should include suggestions for improvement. The critique and recommendations for improvement should be broad ranging, taking ideas from throughout the course to formulate your evaluation.

Note: It is not acceptable to use a paper that you have used for another course. However, it is acceptable to do a paper on a similar topic (as long as you take a new perspective and the writing is all new). Please email me if you have questions about this issue.

Here are some guidelines as you write the paper:

- Conciseness – try to write in a simple, clear, and non-repetitive way.
- Completeness and depth - present the necessary amount of detail to support your points. Write as though your audience is not an expert on your topic and in a way that demonstrates depth of analysis of the topic. Bring in psychological evidence and justify your view using psychology, not rumors or anecdotes.
- Independent, balanced judgment – go beyond the information presented by others. Be critical, seeing both strengths and weaknesses and support opinions with your own reasons.
- Attention to professional style and ethics. Quotes must have appropriate references. When paraphrasing you still **MUST** acknowledge the original work. **Plagiarism will be addressed in accordance with the University policy.** Here's a thinking tool to help you decide whether you have quoted inappropriately. Imagine that Google had every word ever written on its servers (all published and unpublished writing, from all of history through this moment). Would a Google search on any extended phrase or clause in your document yield a hit? If so, there is likely to be a problem.
- Critical reading – are you evaluating strengths/weaknesses of the material you are reading? Are you being objective in your discussions of the material?
- If you choose options (b) or (c), your paper should show clear evidence that you are applying ideas from throughout the course.

- On lateness – if you need an extension of time on an assignment please contact me well before the date when the assignment is due.

Netiquette

This is drawn from Palloff, R. M., & Pratt, K. (1999). *Building learning communities in cyberspace*. San Francisco: Jossey-Bass, p. 101.

- a. Check the discussion frequently and respond appropriately and on the subject.
- b. Focus on one subject per message and use pertinent, informative, and not-too-long subject titles
- c. Capitalize words only to highlight a point or for titles. Capitalizing otherwise is generally viewed as SHOUTING.
- d. Be professional and careful with your online interaction
- e. Cite all quotes, references, and sources.
- f. It is inappropriate to forward someone else's message(s) without their permission.
- g. Use humor carefully. The absence of face-to-face cues can cause humor to be misinterpreted as criticism or flaming (angry, antagonistic criticism). Feel free to use emoticons such as :-) or ;-) to let others know that you're being humorous.

Norms

This is an example of norms for participating in constructive controversies. Smith, K., Johnson, D. W., & Johnson, R. T. (1981). Can conflict be constructive? Controversy versus concurrence seeking in learning groups. *Journal of Educational Psychology*, 73, 651-663.

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| <ol style="list-style-type: none">1. I am critical of ideas, not people.2. I remember that we are all in this together.3. I encourage everyone to participate.4. I listen to everyone's ideas, even if I do not agree with them.5. I restate what someone has said if it is not clear.6. I try to understand both sides of the issue.7. I first bring out all the ideas, then I put them together. |
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Although obviously written for younger students, these norms work well for online discussions among adults, too. At the same time, however, let's add these norms:

Critical to the advance of knowledge are:

- a. Criticizing ideas, and having our ideas criticized by others.
- b. Taking up criticism.
- c. Exploring ideas without fully believing them, or without believing them at all.

Reading List

Two important notes:

1. Substitutions may be made for readings on this list. If substitutions are made, they will be announced prior to the day when readings begin. On the day when readings for a week begin, please double check course announcements to be sure that there have been no substitutions.

2. Short readings may be added to the list, as well, to provide additional background material.

Week 1 Readings. Theories of Learning.

Chinn, material on behaviorism and social learning theory

Chinn, Chapter 2. Theories of Learning: Information processing theory, constructivism

Pool, M.M., Koolstra, C.M. & van der Voort, T. H. A. (2003). The impact of background radio and television on high school students' homework performance. *Journal of Communication, 53*, 74-87.

Rogoff, B., Paradise, R., Arauz, R. M., Correa-Chávez, & Angelillo, C. (2003). Firsthand learning through intent participation. *Annual Review of Psychology, 54*, 175-203.

Chinn summary and elaboration of: Sweller, J. & Chandler, P. (1994). Why some material is difficult to learn. *Cognition and Instruction, 12*, 185-223.

Rourke, A., & Sweller, J. (2009). The worked-example effect using ill-defined problems: Learning to recognise designers' styles. *Learning and Instruction, 19*, 185-199.

Week 2 Readings. Prior Conceptions and Learning. Assessment.

Chinn, Chapter 6. Effects of prior conceptions on learning

Chinn, Chapter 7. Self-regulated learning.

Wilson, M., & Sloane, K. (2000). From principles to practice: An embedded assessment system. *Applied Measurement in Education, 13*, 181-208.

Swann, W. B. (1992). Embracing the bitter "truth": Negative self-concepts and marital commitment. *Psychological Science, 3*, 118-121.

Swann, W. B., Jr. (1997). The trouble with change: Self-verification and allegiance to the self. *Psychological Science, 8*, 177-180.

Week 3. Motivation. Classroom management.

Chinn overview on motivation.

Garrett & Chinn, Chapter 11. Classroom management.

Blumenfeld, P. C., Kempler, T. M., & Krajcik, J. C. (2006). Motivation and cognitive engagement in learning environments. In R. K. Sawyer (Ed.), *The Cambridge handbook of the learning sciences* (pp. 475-488). Cambridge: Cambridge University Press.

Dolezal, S. E., Welsh, L. M., Pressley, M., & Vincent, M. M. (2003). How nine third-grade teachers motivate student academic engagement. *Elementary School Journal, 103*, 239-267.

Raphael, L. M., Pressley, M., & Mohan, L. (2008). Engaging instruction in middle school classrooms: An observational study of nine teachers. *Elementary School Journal, 109*, 61-81.

Week 4. Transfer. Teaching cognitive strategies.

Chinn, Chapter 14, Teaching for self-regulated learning.

Collins, A., Brown, J. S., & Newman, S. E. (1989). Cognitive apprenticeship: Teaching the crafts of reading, writing, and mathematics. In L. B. Resnick (Ed.), *Knowing, learning, and instruction: Essays in honor of Robert Glaser* (pp. 453-494). Hillsdale, NJ: Erlbaum.

Langer, J. A. (2001). Beating the odds: Teaching middle and high school students to read and write well. *American Educational Research Journal*, 38, 837-880.

Salomon, G., & Perkins, D. N. (1989). Rocky roads to transfer: Rethinking mechanisms of a neglected phenomenon. *Educational Psychologist*, 24, 113-142.

Stahl, S. A. (1999, Fall). Different strokes for different folks? A critique of learning styles. *American Educator*, 1-5.

Week 5. Collaborative learning, Learning for Understanding, Discussions.

Chinn, Chapter 15, Collaborative learning.

Czuchry, M. (1995). The use of node-link mapping in drug abuse counseling: The role of attentional factors. *Journal of Psychoactive Drugs*, 27, 161-166.

MacArthur, C., Ferretti, R. P., & Okolo, C. M. (2002). On defending controversial viewpoints: Debates of sixth graders about the desirability of early 20th-Century American immigration. *Learning Disabilities Research & Practice*, 17, 160-172.

Moss, J. (2005). Pipes, tubes, and beakers: New approaches to teaching the rational-number system. In M. S. Donovan & J. D. Bransford (Eds.), *How students learn: History, mathematics, and science in the classroom* (pp. 309-349). Washington, D.C.: National Academies Press.

Schwartz, D. L., Bransford, J. D., & Sears, D. (2005). Efficiency and innovation in transfer. In J. P. Mestre (Ed.), *Transfer of learning from a modern multidisciplinary perspective* (pp. 1-51). Greenwich, CT: Information Age Publishing.

Waggoner, M. A., Chinn, C. A., Anderson, R. C., & Yi, H. (1995). Collaborative reasoning about stories. *Language Arts*, 72, 582-589.