Spring 2014

Psychology of Learning (15:295:580)

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Course Description

This course will introduce students to a psychological perspective to teaching and learning in classroom contexts through an overview of principles, issues, and related research in educational psychology. Readings and asynchronous online discussions will interpret and evaluate important theories in the field of educational psychology. Particularly, discussions will focus mainly on how psychological principles and theories are applied in instruction.

Course Objectives

The specific objectives of this course include:

1. To develop your knowledge of teaching and learning; how humans learn, how human memory is thought to work, how motivation play a role in classrooms
2. To consider the impact of individual differences on learning
3. To develop skills of diagnosing learning and instructional problem, analyzing instructional situations, predicting instructional outcomes, and designing instruction based on theory and research.

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.

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.

Weekly Schedule

Schematically, the weekly schedule looks like this:

	Sun	M	T	W	Th	F	S
Discussions	Discussion	Discussion	Discussion for current week begin on Tuesday.	Discussion	Discussion	Discussion	Discussion
Reflection Paper		Due: 8 p.m.					
Question		Due: 9 p.m. Submit one possible discussion question on each of the next week's readings.					
Reading	next week's reading	Complete the next week's reading	Begin reading the next week's readings.	next week's reading	Next week's reading	next week's reading	next week's reading

To reiterate, it is important that you get onto the discussion threads and contribute on at least 5 different days spread out throughout the weekly cycle.

Course Requirement

Required Activities	Due Date	Points Available/% Grade
Discussion of readings	ongoing	25%
Discussions of instructional problems	ongoing	20%
Case analysis paper	2/18	10%
Questions about articles	ongoing	5%
Reflection Paper	ongoing (12)	20%
Final paper	5/12	20%

Grading

Grade	A	B+	B	C+	C	D	F
Points Needed	90+	87	80	77	70	60	<60

1. Discussions of Readings (25%)

Each week, you will discuss the readings within eCollege discussion threads. 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 or more 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. I also expect that you will not simply stop at 9 contributions each week. I hope that your goal will be to participate in meaningful, interesting discussions.

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. *Discussions of Instructional Problems (20%)*

Each week's discussions will also include discussions focused on practical instructional problems that require application of the ideas in the readings. In the fourth week, you will discuss three cases and will submit the paper (see "Case Analysis Discussion and Paper). You will work on Collaborative Problems within eCollege discussion threads. You should make at least 4 contributions to the discussions of instructional problems each week (some weeks will require more), and these contributions should begin right away on Monday. As with the discussions of readings, I expect that you will not just be counting contributions but rather be participating meaningfully in the discussion.

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

3. *Case Analysis Paper (5%)*

In an effort to apply the psychological concepts and principles we encounter in the readings to practical real-world situations, we will analyze 3 case studies in small groups (2/11-2/17). I will provide a framework for you to discuss the case studies in small groups and then you need to submit your conclusions to me by 2/18/2014.

Case 1: The first case will be a special need student's case to be applied a social cognitive theory.
Case 2: The second case study will be four academic strategies that your group needs to rank from the best to the worst that applies cognitive theories to learning strategies.
Case 3: The third case will be a student' artifacts to be analyzed with a social constructivist theory.

Case Analysis Paper : Your paper will include your reflection and conclusion about three cases.
Length: Your paper should be 3 single spaced/ or 6 double spaced pages.
Deadline: **9 PM on February 18 th**.
Submission: You will submit your paper via email attachment.
       Name the file as follows: 580_CASE_ANALYSIS_Yourlastname_Yourfirstname.
       For example: 580_CASE_ANALYSIS_Anna_Lee

4. *Question (Weekly, 5%)*

Each week, by Monday at 9 p.m., submit discussion questions about the readings. The description of activities for each week will give you more specific instructions about how many questions to write and about which readings. These should be questions raised by the readings that you would like to discuss.

The URL of the site at which you 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.

5. *Reflection Paper (Weekly, 20%)*

Each week, you will submit a written assignment based on the week's readings. You will submit the reflection paper by Monday of each week (except for Week 1; see the calendar). Each week's assignment will be posted on eCollege. You will turn the assignment in on a Google doc that I will make available to you. These need not be polished in terms of refined prose, but they should show that you have reflected substantively on the readings and that you have understood them.

Length: Your reflection paper should not be longer than 1 single spaced/ or 2 double spaced pages (but they should be about that length).
Contents: If you try to write about everything in the readings, this will be a challenging task. It works a lot better if you select 2-3 topics that you connect with and/or you have a strong opinion or reaction to and then elaborate on your reflection on those topics. However, in addition to stating your opinion or reaction, substantiate it with examples, evidence, arguments, and or theories that lend support to your main idea. You can think deeper through an idea via these reflections. These are a useful medium to have a one-on-one conversation with me on topics that interest, perplex, and or intrigue you. While these are not formal papers, they are also not meant to be bulleted outlines of the readings. Please do NOT summarize the book chapters or the online discussion.
Deadline: Your weekly reflection papers by 8PM Monday night before starting discussion on the next topic.

For example, discussion for Topic 2: Theories of Learning I begins on 1/28, comments must be posted by 8 PM on 2/2, Sunday, and reflection papers must be uploaded by 8 PM on 2/3, Monday. The topic switches after 8 PM Monday to Topic 3.Please plan time for reading and completing reflection papers as per your work/school schedule. It is better to try and complete the reflection papers over the weekend so you're not struggling to write it last minute on Monday which might be a working day for you.

6. *Final Paper (Weekly, 20%)*

Length: 12 to 15 pages in length (double spaced, Times New Roman 12 point font or Arial 11 point font)

Topic: 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. Due: May 12

Submission: Please send the paper to me via email attachment.

> Name the file as follows: 580_FINAL_PAPER_Yourfirstname_Yourlastname.

> For example: 580_FINAL_PAPER_Anna_ Lee

Here are the options for your paper:

a) **<u>Research/Theory Review Paper</u>**. 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) **<u>Design of an instructional unit</u>**. 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 teachers 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) **<u>Design of a single lesson (or perhaps two lessons)</u>**. 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) **<u>Evaluation of instruction</u>**. 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.

<u>Note:</u> It is <u>not</u> 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.

<u>Paper Guidelines</u>

Here are some guidelines as you write the instructional analysis and the class 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.

Tentative Course Schedule

Class	Topic	Readings	Discussion	Assignment
Week1 1/21- 1/27	Online introductions Introduction to the course and syllabus	**1st online discussion** How can psychology inform pedagogy? What makes a good discussion question? What are different types of facilitation questions?		Read syllabus, complete surveys by 1/27
Week 2 1/28-2/3	Theories of Learning I	Chinn (2011a) Chinn (2011b) Pool et al. (2003) Rourke et al. (2009) Chinn on Sweller	Readings Problems	Reflection Paper 1
Week 3 2/4-2/10	Prior conceptions and learning	Chinn (2011c) Chinn & Samara-pungavan (2001) Watson & Konicek (1992) Swann (1992) Swann (1997)	Readings Problems	Reflection Paper 2
Week 4 2/11-2/17	**Collaborative Case Analysis**	Case study uploaded in Doc-Sharing	Problems	No Reflection Paper **Case Analysis Paper Due: 2/18**
Week 5 2/18-2/24	Self-regulated learning	Chinn (2011d) Zimmerman (1998) Wineburg (1991)	Readings Problems	Reflection Paper 3
Week 6 2/25-3/3	Goals and assessment	Chinn (2011e) Wilson & Sloane (2000) NRC (2005) Furtak & Ruiz-Primo (2008)	Readings Problems	Reflection Paper 4
Week 7 3/4 – 3/10	Classroom management; Motivation I	Garrett & Chinn (2011) Dweck (2010) Mueller & Dweck (1998) Yeager & Dweck (in press)	Readings Problems	Reflection Paper 5
Week 8 **3/11-3/14, 3/24**	Motivation II	Chinn (2011f) Raphael et al. (2008) Blumenfeld et al. (2006)	Readings Problems	Reflection Paper 6
Spring Break: 3/15-3/23				
Week 9 3/25-3/31	Motivation III; Transfer I	Patrick et al. (2001) Schunk (1991) Nokes-Malach (2012)	Readings Problems	Reflection Paper 7
Week 10 4/1-4/7	Transfer II	Bransford et al. (1999) Chinn on transfer Schwartz et al. (2012)	Readings Problems	Reflection Paper 8
Week 11	Constructivism	Rogoff et al. (2003)	Readings	Reflection Paper 9

4/8-4/14		Palincsar & Herren-kohl (1999) Chinn (2011b)	Problems	
Week 12 4/15-4/21	Teaching strategies	Chinn (2011g) Langer (2001) Stahl (1999)	Readings Problems	Reflection Paper 10
Week 13 4/22-4/28	Collaborative learning	Chinn (2011h) King (2002) Nussbaum & Edwards (2011)	Readings Problems	Reflection Paper 11
Week 14 4/29-5/5	Other instructional issues	Czuchry (1995) Waggoner et al. (1995) Bain (2005) Stigler et al. (1998)	Readings Problems	Reflection Paper 12
Week 15 5/6-5/12	This is a week to complete your final paper.		No readings No discussions	**Final Paper Due: May 12**

Reading List

Important notes:

      1. Substitutions may be made for readings on this list. If substitutions are made, they will be announced before that week's 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. Please check with me if you decide to read substantially ahead.

      2. Shorter readings may be added to some weeks to address issues that arise in our discussions.

      3. In some weeks, there are additional online sources posted on eCollege. Each week, be sure to check what is listed under the main activities for that week.

Week 1. Introductory activities.

Because you have not yet had time to complete any readings, we will spend the first week on a variety of introductory activities. Please note that discussion threads will be active this week!

Week 2. Theories of Learning: Behaviorism, social learning theory, information processing theory

Chinn (2011a). Behaviorism and social learning theory
Chinn (2011b). Theories of Learning: Information processing theory (pages 23-48).
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.
Rourke, A., & Sweller, J. (2009). The worked-example effect using ill-defined problems: Learning to
      recognise designers' styles. Learning and Instruction, 19, 185-199.
Chinn summary and elaboration of: Sweller, J. & Chandler, P. (1994). Why some material is difficult to
      learn. Cognition and Instruction, 12, 185-223.

Week 3 Readings.   Prior Conceptions and Learning

Chinn (2011c). Effects of prior conceptions on learning.
Chinn, C. A., & Samarapungavan, A. (2001). Distinguishing between understanding and belief. Theory
        Into Practice, 40, 235-241.
Watson, B., & Konicek, R. (1990). Teaching for conceptual change: Confronting children's experience.
        Phi Delta Kappan, 71, 680-685.
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 4 Theory Review: Three Case Analyses (No Reading)

Week 5 Readings.   Self-regulated learning

Chinn (2011d). Self-regulated learning.
Zimmerman, B. J. (1998). Academic studying and the development of personal skill: A self-regulatory
        perspective. *Educational Psychologist, 33*, 73-86.
Wineburg, S. (1991). Historical problem solving: A study of the cognitive processes used in the
        evaluation of documentary and pictorial evidence. *Journal of Educational Psychology, 83*, 73-87.

Week 6 Readings. Goals and Assessment

Chinn (2011e). The instructional cycle.
Wilson, M., & Sloane, K. (2000). From principles to practice: An embedded assessment system. *Applied
        Measurement in Education, 13*, 181-208.
Furtak, E. M., & Ruiz-Primo, M. A. (2008). Making students' thinking explicit in writing and discussion:
        An analysis of formative assessment prompts. *Science Education, 92*, 799-824.
NRC (2005). Assessment in practice. Chapters from *Knowing what students know: The science and
        design of educational assessment.* Washington, DC: National Research Council.

Week 7.   Classroom Management; Motivation I

Garrett & Chinn (2011). Classroom management.
Mueller, C. M., & Dweck, C. S. (1998). Praise for intelligence can undermine children's motivation and
        performance. *Journal of Personality and Social Psychology, 75*, 33-52.
Yeager and Dweck (in press). Mindsets that promote resilience: When students believe that personal
        characteristics can be developed. *Educational Psychologist*.
Dweck, C. S. (2010). What is school for? Mindset, motivation and learning. *Instructional Leader*, *23 (5)*,
        1-5.

Week 8.   Motivation II

Chinn (2011f). Motivation.
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.

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 9.   Motivation III; Transfer I

Patrick, H., Anderman, L. H., Ryan, A. M., Edelin, K. C., & Midgley, C. (2001). Teachers' communication of goal orientations in four fifth-grade classrooms. *Elementary School Journal, 102*(1), 35-58.
Schunk, D. H. (1991). Self-efficacy and academic motivation. *Educational Psychologist, 26*, 207-231.
Nokes-Malach (2012)

Week 10. Transfer II

Bransford, J. D., Brown, A. L., & Cocking, R. R. (1999). Learning and transfer. Chapter 3 of their book: *How People* Learn. Washington, DC: National Academy Press.
Schwartz, D. L., Chase, C. C., & Bransford, J. D. (2012). Resisting overzealous transfer: Coordinating previously successful routines with needs for new learning. *Educational Psychologist, 47*, 204-214.
Chinn on transfer.

Week 11. Theories of Learning: Constructivism, Sociocultural theory

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 (2011b). Theories of Learning: Constructivism (pages 48-55).
Palincsar, A. S., & Herrenkohl, L. R. (1999). Designing collaborative contexts: Lessons from three research programs. In A. M. O'Donnell & A. King (Eds.), *Cognitive perspectives on peer learning* (pp. 151-177). Mahwah, NJ: Erlbaum.

Week 12. Teaching strategies

Chinn (2012). Teaching for self-regulated learning.
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.
Stahl, S. A. (1999, Fall). Different strokes for different folks? A critique of learning styles. *American Educator*, 1-5.

Week 13. Collaborative learning

Chinn (2011h). Collaborative learning.
Nussbaum & Edwards (2011). Critical questions and argument strategems: A framework for enhancing and analyzing students' reasoning practices.
King, A. (2002). Structuring peer interaction to promote high-level cognitive processing. *Theory Into Practice, 41*, 33-39.

Week 14. Other instructional issues

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.

Bain, R. B. (2005). "They thought the world was flat?": Applying the principles of *How People Learn* in teaching high school history (pp. 179-213). Washington, D.C.: National Academies Press.

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

Stigler, J. W., Fernandez, C., & Yoshida, M. (1998). Cultures of mathematics instruction in Japanese and American elementary classrooms. In T. P. Rohlen & G. K. LeTendre (Eds.), *Teaching and learning in Japan*. Cambridge: Cambridge University Press.

Week 15. Completing paper

There are no readings in Week 15 to give you time to complete your class paper.

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.

> 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.

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.