Summer 2016
Psychology of Learning
15:295:580   Section B1
3 Credits
Online

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Office Hours: by arrangement.	Prerequisites or other limitations: None
Mode of Instruction: ___ Lecture ___ Seminar ___ Hybrid _X_ Online ___ Other	Permission required: _X_ No ___ Yes

Learning Goals

This course is designed to help you acquire the knowledge and skills shown in the following table. (The alignment of the learning goals with the overall learning goals of the LCD Master's degree is also shown in the table. In addition, the table shows how each goal will be assessed.

LCD master's program goals	Course goals	Assessment of course goals
1. Attain mastery of psychological constructs and theories relevant to learning, cognition and development.	1a. Gain knowledge of effective and ineffective strategies for learning and thinking. 1b. Gain knowledge of theories of learning and teaching. 1c. Gain knowledge of empirical results on learning and teaching.	In weekly discussions and problem discussions, you will to explain, evaluate, and apply research through the discussion questions that we pose in class. In your class paper, you will write about theories of and research on reasoning in ways that demonstrate your understanding and your abilities to evaluate and apply the research. Your weekly assignments will also provide information about your mastery of this body of knowledge.
2. Appropriately apply these psychological constructs and theories to educational settings and related applied contexts.	2a. Develop skills of evaluating students' knowledge and strategy use, as well as of evaluating teaching strategies. 2b. Develop skills of planning instruction to promote strategy development.	
3. Achieve skill in the critical evaluation of empirical evidence related to the psychology of education.	3a. Develop skills of learning to read and interpret empirical articles on learning and teaching	In the weekly discussions, you critique the studies you read both methodologically and theoretically. In your class paper, you will critically evaluate the key pieces of evidence that you review as part of your paper.

4. Attain competence in oral and written communication on topics within educational psychology.	4a. Develop skills of writing a literature review or a teaching plan.	In the class paper, you will write either a review of research or a practical paper applying what you have learned to the design or evaluation of instruction.

Course Catalog Description

Introduction to psychological theories of human learning, including behavioral, social, and cognitive theories of learning. Principles of learning, mediation, and transfer as deduced from these theories. Applications to a variety of settings considered, including classrooms and information setting.

Class Materials

Class materials consist of weekly readings that will be posted on eCollege.

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.

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 <u>one</u> **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 <u>discussions</u> and <u>collaborative problems</u>.
        It is important to start promptly. I expect <u>everyone</u> 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.

Academic Integrity Policy

The Office of Student Conduct supervises issues related to violations of academic integrity (see http://academicintegrity.rutgers.edu). Please familiarize yourself with the university policy on academic integrity at http://academicintegrity.rutgers.edu/files/documents/AI_Policy_2013.pdf

<u>Office of Disability Services</u>

Rutgers University welcomes students with disabilities into all of the University's educational programs. In order to receive consideration for reasonable accommodations, a student with a disability must contact the appropriate disability services office at the campus where you are officially enrolled, participate in an intake interview, and provide documentation: https://ods.rutgers.edu/students/documentation-guidelines. If the documentation supports your request for reasonable accommodations, your campus's disability services office will provide you with a Letter of Accommodations. Please share this letter with your instructors and discuss the accommodations with them as early in your courses as possible. To begin this process, please complete the Registration form on the ODS web site at: https://ods.rutgers.edu/students/registration-form.

<u>Calendar</u>
The calendar below shows the day-to-day schedule of classes and assignment due dates.

Sun	Mon	Tues	Wed	Thurs	Fri	Sat
		May 31 Intro-ductions Read for Week 1 Discussions	June 1 Intro-ductions Read for Week 1. Submit 1 or more questions.	June 2 Week 1 Discussion & problems begin. Begin Week 2 Readings.	June 3 Week 1 Discussions & problems continue.	June 4 Week 1 Discussions & problems continue.
June 5 Week 1 Discussions & problems continue Week 1 assignments due	June 6 Week 1 Discussions & problems continue	June 7 Week 1 discussions & problems continue	June 8 Week 1 discussions & problems end. Complete Week 2 readings. Submit 2 or more questions.	June 9 Week 2 Discussion & problems begin. Begin Week 3 Readings.	June 10 Week 2 discussions & problems continue. Week 2 assignment due	June 11 Week 2 discussions & problems continue
June 12 Week 2 Discussions & problems continue	June 13 Week 2 Discussions & problems continue	June 14 Week 2 Discussions & problems continue	June 15 Week 2 discussions & problems end. Complete Week 3 readings. Submit 2 or more questions.	June 16 Week 3 discussions & problems begin. Class paper proposal due. Begin week 4 readings.	June 17 Week 3 discussions & problems continue. Week 3 assignments due	June 18 Week 3 discussions & problems continue
June 19 Week 3 discussions & problems continue	June 20 Week 3 Discussions & problems continue	June 21 Week 3 Discussions & problems continue	June 22 Week 3 discussions & problems end. Complete Week 4 readings. Submit 2 or more questions.	June 23 Week 4 discussions & problems begin. Begin week 5 readings.	June 24 Week 4 discussions & problems continue. Week 4 assignments due	June 25 Week 4 discussions & problems continue
June 26 Week 4 discussions & problems continue	June 27 Week 4 discussions & problems continue	June 28 Week 4 discussions & problems continue	June 29 Week 4 discussions & problems end. Complete Week 5 readings. Submit 2 or more questions.	June 30 Week 5 discussions & problems begin.	July 1 Week 5 discussions & problems continue. Class paper due	July 2 Independence Day Weekend No class
July 3 Independence Day Weekend No class	July 4 Independence Day Weekend No class	July 5 Week 5 discussions & problems continue	July 6 Week 5 discussions & problems continue	July 7 Week 5 discussions & problems continue	July 8 Week 5 discussions & problems end. Week 5 assignment due	

Grading Policy

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

A = 90% or higher
B = 80% or higher
C = 70% or higher
F = 69% or lower

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 <u>4</u> responses to what others have written) 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.

<center>3. Weekly applications problems</center>

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.

<center>4. Weekly Assignment</center>

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.

<center>5. Class Paper</center>

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 26. 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. You will read and cite at least 12-15 articles for the paper in addition to the reading list for class.

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 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.

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.

> 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.

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.

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.
Chi, M. T. H., & Wylie, R. (2014). The ICAP framework: Linking cognitive engagement to active learning
    outcomes. *Educational Psychologist, 49*, 219-243.
Chinn, Chapter 2. Theories of Learning: Information processing theory, constructivism
Kirschner, P. A., & van Merriënboer, J. J. G. (2013). Do learners really know? Urban legends in education.
    Educational Psychologist, 48, 169-183.

Week 2 Readings.   Prior Conceptions and Learning.   Sociocultural Theory.

Chinn, Chapter 6. Effects of prior conceptions on learning
Chinn, Chapter 7. Self-regulated learning.
Rogoff, B., Paradise, R., Arauz, R. M., Correa-Chávez, & Angelillo, C. (2003). Firsthand learning through
    intent participation. *Annual Review of Pscyhology, 54*, 175-203.
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.   Pages 453-476 only.
Scott, S., & Palincsar, A. (2013). Sociocultural theory. Downloaded from
    http://www.education.com/reference/article/sociocultural-theory/

Week 3. Motivation. Transfer.

1. Chinn overview on motivation.

2. Readings by Carol Dweck.

Carol Dweck and her colleagues have developed instructional interventions to promote transfer in motivational beliefs (and the associated motivational attitudes and behavior). We are going to read/view several sources related to this:

   A. Read this short overview, posted online: Dweck, C. S. (2010). What is school for? Mindset, motivation and learning. *Instructional Leader*, *23 (5)*, 1-5.

   B. Read these two short webpages that discuss the Growth Mindset and Brainology:

      http://www.mindsetworks.com/webnav/whatismindset.aspx
      http://www.mindsetworks.com/webnav/program.aspx

   C. View these videos:

      This one provides a glimpse into their "Brainology" curriculum:
   http://www.youtube.com/watch?v=pF5yB31IT5Y

      This one shows some of their research in
   action: http://www.youtube.com/watch?v=TTXrV0_3UjY

   D. Read this teacher's account of her use of Brainology.
         http://community.mindsetworks.com/case-study-shifting-student-mindset-with-brainology

3. View these two talks by Dan Pink:
         http://www.ted.com/talks/dan_pink_on_motivation?language=en
         https://www.youtube.com/watch?v=_mG-hhWL_ug

      If you are interested in this topic, I have included a chapter by Dan Pink's book *Drive*; this is not required.

4. Belland, B. R., KIm, C., & Hannafin, M. J. (2013). A framework for designing scaffolds that improve motivation and cognition. *Educational Psychologist, 48*, 243-270.

5. 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.   Learning through Inquiry. Teaching cognitive strategies.

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

2. Stigler, J. W., & Hiebert, J. (1999). *The teaching gap: Best ideas from the world's teachers for improving education in the classroom*. New York: Free Press. CHAPTER 4: Refining the images.

3. Readings on transfer and some new ways to promote transfer

   A. Read these two blog entries on Schwartz, Bransford, and their method of Preparation for Future Learning.

   http://blog.sciencegeekgirl.com/2008/11/17/why-students-fail-to-transfer-what-they-learn/

   http://blog.sciencegeekgirl.com/2008/11/17/another-example-of-a-preparation-for-future-learning-activity-density/

   B. 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.

   C. Kapur, M., & Bielaczyc, K. (2012). Designing for productive failure. *Journal of the Learning Sciences, 21*(1), 45-83.

4. Mayer, R. E. (2004). Should there be a three-strikes rule against pure discovery learning? The case for guided methods of instruction. *American Psychologist, 59*, 14-19.

5. Read about the Concept-Oriented Reading Instruction (CORI) program:
   Start with this page:
   http://www.cori.umd.edu/research-projects/reading-engagement-project/overview.php
   Then watch each of the two videos that are linked on this page:
   http://www.cori.umd.edu/what-is-cori/classroom-videos.php

Week 5. Collaborative learning, Transfer, Discussions, Formative Assessment, Scaffolds

Chinn, Chapter 15, Collaborative learning.

Cognition and Technology Group at Vanderbilt (1992). The Jasper Series as an example of anchored instruction: Theory, program description, and assessment data. *Educational Psychologist*, *27*, 291-315.
    In addition to reading the article, view this video: Jasper Video   Please note: This may take a few minutes to download so that you can view it. (It takes about 1 minute on my relatively fast connection.)

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

Rinehart, R. W., Duncan, R. G., & Chinn, C. A. (in press). A scaffolding suite to support evidence-based modeling and argumentation. *Science Scope*.

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.

Finally, please read the two brief pieces in the menu on the left: "The Instructional Cycle" and "Formative Assessment."