

CPSE 622 - Thry Lrning + Cogn

Fall 2014

Section 001: 341 MCKB on W from 4:30 pm - 7:00 pm

Instructor/TA Info

Instructor Information

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Course Information

Description

This course prepares graduate students to understand and use theories of learning and cognition to evaluate learning environments and to design and implement effective educational interventions for students of all ages.

Prerequisites

Admission to graduate programs in Special Education, School Psychology, or instructor's permission.

Materials

Image	Item	Vendor	Price (new)	Price (used)
	Open source materials Required by Various			
	No textbook is used for this course. A list of required readings is posted on the Schedule and under Content.			

Learning Outcomes

Intervention Plans Based on Theories

Students will demonstrate skills in developing intervention plans for students and educational environments based on empirical learning theories.

Student Learning Plans

Students will demonstrate competencies in creating learning plans for themselves which will help them succeed in future coursework, tests, and professional exams.

Personal Learning Theory

Students will develop a personal theory of learning which integrates several learning theories and explains how they view learning.

Evaluation and Creation of Learning Environments

- Students will demonstrate skills in evaluating learning environments and providing consultation that incorporate application of learning theories.

Evaluation and Creation of Learning Environments

- Students will demonstrate skills in creating and evaluating learning environments (classroom management, curriculum, and instruction).

Grading Scale

Grades	Percent
A	95%
A-	91%
B+	87%
B	83%
B-	80%
C+	77%
C	73%
C-	70%
D+	67%
D	63%
D-	60%

E 0%

Grading Policy

All assignments are to be submitted at the time and day indicated. All assignments should be typed and follow APA (6th ed.) format unless otherwise directed. According to University policy, assignments will not be accepted after the last day of semester classes.

Attendance Policy

Participants are to attend each class. Unexcused absence will result in 2% deduction from final grade. Excused absences must be cleared with the instructor via email.

The Mission of Brigham Young University Special Education

We maximize the potential of diverse learners with individualized educational needs to elevate their quality of life. We accomplish this by supporting the mission and aims of a BYU education as we integrate teaching, research, and service. Specifically we:

- Prepare competent and moral educators who select, implement, and evaluate research-based effective teaching practices and appropriate curriculum for learners with special needs.
- Prepare master special educators who provide leadership in problem solving and collaborative relationships with professionals and families.
- Add to the knowledge base of special education and related disciplines through research.
- Serve and advocate for learners with individualized educational needs and others who support them.

Course Objectives

Participants will:

1. Develop and explicate personal theories of learning that integrate information from the course and explain how participants view learning.
2. Evaluate school learning activities regarding application of empirical theories of learning.

3. Develop and defend intervention plans for students and clients based on empirical theories of learning and cognition.
4. Create a personal learning plan that will help participants to succeed in future course work or licensure examinations, or to learn a valued skill.

Bibliography

Alberto, P. & Troutman, A. (2009). *Applied behavior analysis for teachers* (8th ed.). Upper Saddle River, NJ: Pearson.

Keller, T. A. & Just, M. A. (2009). Altering cortical connectivity: Remediation-induced changes in the white matter of poor readers. *Neuron*, *64*, 624-631. Also: Science Daily <http://www.sciencedaily.com/releases/2009/12/091209121200.h>

Ormrod, J. E. (2010). *Our minds, our memories: Enhancing thinking and learning at all ages*. Upper Saddle River, NJ: Pearson.

Pugh, K. R., Mencl, W. E., Jenner, A. R., Lee, J. R., Katz, L., Frost, S. J., Shaywitz, S. E., & Shaywitz, B. A. (2001). Neuroimaging studies of reading development and reading disability. *Learning Disabilities Research and Practice*, *16*(4), 240-249.

Shaywitz, S. (2003). *Overcoming dyslexia: A new and complete science-based program for reading problems at any level*. New York, NY: Alfred A. Knopf, Inc.

Willingham, D. T. (2002). Allocating student study time. Massed versus distributed practice. *American Educator*, *26*(2), 37-39, 47.

Willingham, D. T. (2003). Students remember . . . what they think about. *American Educator*, *27*(2), 37-41.

Woolfolk A. E. (2007). *Educational psychology. Active learning edition (10th ed.)*. Upper Saddle River, NJ: Pearson.

Conceptual Framework for this Course

Moral endeavor at Brigham Young University is established upon principles of eternal and unchanging truth contained in the restored gospel of Jesus Christ. Prophets of God proclaim that “all human beings—male and female—are created in the image of God. Each is a beloved spirit son or daughter of heavenly parents, and, as such, each has a divine nature and destiny.”¹ Teaching is a moral endeavor that recognizes and responds to the divine destiny of each student. Moral educators ensure that students master the

knowledge, skills, and dispositions necessary to realize their divine potential for growth and achievement. Therefore, educators:

1. Recognize and cultivate the individual worth of each student
2. Embrace and apply proven educational practice
3. Establish and maintain positive, supportive learning environments
4. Value and enact respectful interpersonal behavior and responsible citizenship.

Four assumptions guide our work:

1. All children can learn.
2. Schools exist to advance student learning.
3. Teachers are accountable for student learning.
4. Accountability is measured by data.

¹ The Church of Jesus Christ of Latter-day Saints (1995). *The family. A proclamation to the world*. Salt Lake City, UT: Author

Assignments

Assignment Descriptions

Personal Theory of Learning

Due: Wednesday, Sep 10 at 4:30 pm

You will develop a tentative theory that reflects your preliminary ideas about how learning occurs. Following our classroom discussion during the first week you will finalize your ideas out of class and submit a two page paper which describes your theory of learning. Your paper should answer three questions:

1. "What is learning?"
2. "How does learning occur?" and
3. "How do you know if learning has occurred?"

Quiz 1: Learning and the brain

Due: Wednesday, Sep 17 at 7:00 pm

Information from 9/10 readings:

- general parts of brain
- structure of cerebrum

- grey matter, white matter
- memory and prefrontal cortex, hypothalamus
- electro-chemical transmission system

Thinking and the Gospel

Due: Wednesday, Sep 24 at 4:30 pm

<http://www.thersa.org/events/rसानimate/animate/rसानimate-the-divided-brain>

Please view the above 12-minute video clip as often as necessary to

accomplish the following:

- submit a 2-3 pg double-spaced paper in which you link some aspect of the presentation to the restored gospel of Jesus Christ.

I will give no more direction than this, but I expect you to think, ponder, and craft a thoughtful paper.

Conditioning

Due: Wednesday, Sep 24 at 7:00 pm

Work with classmate to read, discuss, and answer the questions about the boy and vaccinations (provided in class).

Instrumental conditioning Sam case

Due: Wednesday, Oct 01 at 7:00 pm

Work with your partner to read, consider, and answer the two questions about the case (provided in class).

Quiz 2: Behaviorism

Due: Wednesday, Oct 01 at 7:00 pm

Information from 9/24 readings:

- According to behaviorists, what is it that organisms do?
- The 4 parts of the "task of behaviorism"
- Explain Skinner's "disdain for reference to inner mental or information processing as explanatory causes of behavior." What is Skinner's position?

- What do critics of behaviorism mean when they say "the character of behavior does not depend primarily upon an individual's reinforcement history." Explain this position, using an example.
- Explain Chomsky's contention that behaviorism cannot explain a child's acquisition of language.

Social cognitive theory Doug case

Due: Wednesday, Oct 08 at 7:00 pm

Work with your partner to read, consider, and answer the questions about the case (provided in class).

Memory strategies Amanda case

Due: Wednesday, Oct 15 at 7:00 pm

Work with your partner to read, consider, and answer the questions about the case (provided in class).

Quiz 3: Social cognitive theory

Due: Wednesday, Oct 15 at 7:00 pm

Information from 10/8 reading

- According to Bandura, what is "the essence of humanness?"
-

Bandura maintains that agency refers to acts done intentionally. What does an intention represent?

-

Using an example, explain the difference between an intention and an action.

-

In what ways does forethought "provide direction, coherence, and meaning to one's life?"

-

Once a person has adopted an intention and an action plan, what is the role of self-reactiveness? How does self-reactiveness help evaluate performance?

Quiz 4: Working memory and long-term memory

Due: Wednesday, Oct 29 at 7:00 pm

Information from 10/15, 22 readings

Referring to Baddeley, what are the essentials of the broad theory that defines working memory? (Specific statement)

Briefly explain the dual coding theory of memory.

Explain selective interference and provide an illustrative example.

Differentiate between episodic, semantic, and procedural memory.

How does meaningfulness affect long-term memory? Provide examples contrasting a teacher emphasizing meaningfulness in a learning situation and a teacher ignoring meaningfulness in a learning situation.

Submit classroom observation summaries

Due: Wednesday, Nov 12 at 4:30 pm

See requirements under Content tab, "Observe classroom teaching/learning."

Present intervention plans

Due: Wednesday, Nov 19 at 4:30 pm

See requirements under Content tab, "Create intervention plan."

Quiz 5: Cognitive-developmental theory

Due: Wednesday, Nov 19 at 7:00 pm

Information from 11/5, 12 readings

1. List the two major aspects of Piaget's theory of cognitive development.
2. List Piaget's four stages of cognitive development with one cognitive indicator for each stage.
3. List one notion rejected by constructivists and explain why the notion is rejected.
4. Give an example of learning in authentic context and explain what this has to do with the constructivist theory of learning.
5. Define and explain Vygotsky's zone of proximal development. What does this mean for a teacher's instructional planning?

Personal Learning Plan

Due: Wednesday, Dec 03 at 4:30 pm

Because learning is more meaningful when it is applied to your personal circumstances, you will develop a learning plan for a goal of your choice. This goal should have a meaningful outcome such as passing comprehensive or licensure exams, learning a new habit (for example, healthy eating or exercise), or professional competencies. Your learning plan should incorporate and integrate several learning theories. Several learning theories should be **explicit** in your **learning objective** and in the **strategies** you use to facilitate your learning (headings are a good idea). Your learning plan should include **motivational components** and **transfer of learning** to other settings. Your learning plan should include **means of evaluating** your learning and the effectiveness of your plan.

Final exam

Due: Monday, Dec 08 at 11:59 pm

Research summary presentation

Due: Wednesday, Dec 10 at 7:00 pm

You will read an assigned research article and present a 5-7 minute summary to the class using PowerPoint or a similar program with brief bullet points addressing:

- purpose of study
- study question
- study methods, including sample population
- results and discussion
- connection to class topic for the day

Include the URL for the study somewhere on your PowerPoint

Send a copy of the PowerPoint to the instructor to be placed in a common archived folder for access by your peers. You are assigned a specific class date during the semester for your presentation.

University Policies

Honor Code

In keeping with the principles of the BYU Honor Code, students are expected to be honest in all of their academic work. Academic honesty means, most fundamentally, that any work you present as your own must in fact be your own work and not that of another. Violations of this principle may result in a failing grade in the course and additional disciplinary action by the university. Students are also expected to adhere to the Dress and Grooming Standards. Adherence demonstrates respect for yourself and others and ensures an effective learning and working environment. It is the university's expectation, and my own expectation in class, that each student will abide by all Honor Code standards. Please call the Honor Code Office at 422-2847 if you have questions about those standards.

Sexual Harassment

Title IX of the Education Amendments of 1972 prohibits sex discrimination against any participant in an educational program or activity that receives federal funds. The act is intended to eliminate sex discrimination in education and pertains to admissions, academic and athletic programs, and university-sponsored activities. Title IX also prohibits sexual harassment of students by university employees, other students, and visitors to campus. If you encounter sexual harassment or gender-based discrimination, please talk to your professor or contact one of the following: the Title IX Coordinator at 801-422-2130; the Honor Code Office at 801-422-2847; the Equal Employment Office at 801-422-5895; or Ethics Point at <http://www.ethicspoint.com>, or 1-888-238-1062 (24-hours).

Student Disability

Brigham Young University is committed to providing a working and learning atmosphere that reasonably accommodates qualified persons with disabilities. If you have any disability which may impair your ability to complete this course successfully, please contact the University Accessibility Center (UAC), 2170 WSC or 422-2767. Reasonable academic accommodations are reviewed for all students who have qualified, documented disabilities. The UAC can also assess students for learning, attention, and emotional concerns. Services are coordinated with the student and instructor by the UAC. If you need assistance

or if you feel you have been unlawfully discriminated against on the basis of disability, you may seek resolution through established grievance policy and procedures by contacting the Equal Employment Office at 422-5895, D-285 ASB.

Academic Honesty

The first injunction of the Honor Code is the call to "be honest." Students come to the university not only to improve their minds, gain knowledge, and develop skills that will assist them in their life's work, but also to build character.

"President David O. McKay taught that character is the highest aim of education" (The Aims of a BYU Education, p.6). It is the purpose of the BYU Academic Honesty Policy to assist in fulfilling that aim. BYU students should seek to be totally honest in their dealings with others. They should complete their own work and be evaluated based upon that work. They should avoid academic dishonesty and misconduct in all its forms, including but not limited to plagiarism, fabrication or falsification, cheating, and other academic misconduct.

Plagiarism

Intentional plagiarism is a form of intellectual theft that violates widely recognized principles of academic integrity as well as the Honor Code. Such plagiarism may subject the student to appropriate disciplinary action administered through the university Honor Code Office, in addition to academic sanctions that may be applied by an instructor. Inadvertent plagiarism, which may not be a violation of the Honor Code, is nevertheless a form of intellectual carelessness that is unacceptable in the academic community. Plagiarism of any kind is completely contrary to the established practices of higher education where all members of the university are expected to acknowledge the original intellectual work of others that is included in their own work. In some cases, plagiarism may also involve violations of copyright law. Intentional Plagiarism-Intentional plagiarism is the deliberate act of representing the words, ideas, or data of another as one's own without providing proper attribution to the author through quotation, reference, or footnote. Inadvertent Plagiarism-Inadvertent plagiarism involves the inappropriate, but non-deliberate, use of another's words, ideas, or data without proper attribution. Inadvertent plagiarism usually

results from an ignorant failure to follow established rules for documenting sources or from simply not being sufficiently careful in research and writing. Although not a violation of the Honor Code, inadvertent plagiarism is a form of academic misconduct for which an instructor can impose appropriate academic sanctions. Students who are in doubt as to whether they are providing proper attribution have the responsibility to consult with their instructor and obtain guidance. Examples of plagiarism include: Direct Plagiarism-The verbatim copying of an original source without acknowledging the source. Paraphrased Plagiarism-The paraphrasing, without acknowledgement, of ideas from another that the reader might mistake for the author's own. Plagiarism Mosaic-The borrowing of words, ideas, or data from an original source and blending this original material with one's own without acknowledging the source. Insufficient Acknowledgement-The partial or incomplete attribution of words, ideas, or data from an original source. Plagiarism may occur with respect to unpublished as well as published material. Copying another student's work and submitting it as one's own individual work without proper attribution is a serious form of plagiarism.

Respectful Environment

"Sadly, from time to time, we do hear reports of those who are at best insensitive and at worst insulting in their comments to and about others... We hear derogatory and sometimes even defamatory comments about those with different political, athletic, or ethnic views or experiences. Such behavior is completely out of place at BYU, and I enlist the aid of all to monitor carefully and, if necessary, correct any such that might occur here, however inadvertent or unintentional. "I worry particularly about demeaning comments made about the career or major choices of women or men either directly or about members of the BYU community generally. We must remember that personal agency is a fundamental principle and that none of us has the right or option to criticize the lawful choices of another." President Cecil O. Samuelson, Annual University Conference, August 24, 2010 "Occasionally, we ... hear reports that our female faculty feel disrespected, especially by students, for choosing to work at BYU, even though each one has been approved by the BYU Board of Trustees.

Brothers and sisters, these things ought not to be. Not here. Not at a university that shares a constitution with the School of the Prophets." Vice President John S. Tanner, Annual University Conference, August 24, 2010

Schedule

Date	Topic	Readings
W Sep 03 Wednesday	Introduction Overview of learning	
W Sep 10 Wednesday	Brain Facts	http://www.human-memory.net/brain_parts.html http://www.human-memory.net/brain_neurons.html If link does not work, please copy and paste in browser
W Sep 17 Wednesday	Brain organization and learning	http://www.apa.org/education/k12/brain-function.aspx?item=1
W Sep 24 Wednesday	Behaviorism Classical conditioning Instrumental conditioning	http://plato.stanford.edu/entries/behaviorism/
W Oct 01 Wednesday	School and classroom applications: Purposeful conditioning	http://academic.brooklyn.cuny.edu/psych/delam/53.1/Instr1.htm
W Oct 08 Wednesday	Social Cognitive Theory	http://www.education.com/reference/article/social-cognitive-theory/

Agency
School and
classroom
applications:
Learning from
others

W Oct 15 Working memory <http://www.annualreviews.org/doi/pdf/10.1146/annurev-psych-120710-100422>
Wednesday

W Oct 22 Long-term memory: Storage http://www.human-memory.net/processes_storage.html
Wednesday <http://plato.stanford.edu/entries/mental-imagery/theories-memory.html>

W Oct 29 Long-term memory: Retrieval and forgetting http://www.human-memory.net/processes_recall.html
Wednesday

W Nov 05 Cognitive-Developmental Theory School and classroom applications: Constructing new knowledge <http://www.edpsycinteractive.org/topics/cognition/piaget.html>
Wednesday <http://www.personal.psu.edu/users/w/x/wxh139/construct.htm>

