Cognition, Teaching and Learning

GRAD 961
SUMMER 2013

Instructor:
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May 24- June 30

Description

An introduction to the basic cognitive theories and the application of those theories to classroom instruction. Students will examine the historical relation between cognition and education as well as current application of cognitive theories to the learning process. Basic cognitive skills involved in the learning process will be presented (e.g., attention, effort, encoding strategies, organizational skills). Readings and discussion will focus on teaching strategies that will enhance the use of these cognitive skills and improve learning and teaching effectiveness.

Objectives

This course is designed to provide the participants with a basic understanding of cognitive theories of learning and their application to teaching and student learning. The primary focus of the course will be on the development of teaching techniques that enhance students' use of those cognitive processes that have been shown to be effective in the acquisition of new knowledge.

Overview

This class will be conducted entirely through UNH Blackboard®. You will be assigned readings related to cognitive theories of learning and application to teaching. These readings are organized according to week, and can be accessed through the Content link on the Blackboard page for this course. A Powerpoint® presentation will accompany each set of readings. These materials will provide structure and help you think about and organize the information in the readings.
The course will be broken down into three parts:

**Part I (May 24 – June 2)**
The focus will be on how learning works, how instruction works, and how assessment works in educational settings. The main source for this section of the course will be Richard E. Mayer's (2010) Applying the science of learning. Upper Saddle River, NJ: Pearson. (You will need this book at the start of the course. You can order an e-version, or secure a copy through any other means.)

Order e-version at:

**Part II (June 3 – June 23)**
The focus will be on specific ways teachers can organize instruction and study to improve the learning of their students. A great deal is known about how to improve student learning in educational settings, but that knowledge is not widely applied. Our overall goal in this course will be to provide teachers at the college/university level with knowledge and skills they can use in their teaching to improve student learning and the application and transfer of that learning.


Additional readings will also be assigned.

**Part III (June 24 – June 30)**
The last section of the course will provide personal time for students to develop a brief proposal on an instructional approach that they plan to implement and assess in an upcoming course they will teach.

**Course Structure**
Blackboard is the learning management tool we use for this course. The course is online and asynchronous and organized by [weeks/modules/topics]. The overall course navigation

<table>
<thead>
<tr>
<th>Course Navigation</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Home Page</td>
<td>Regular class announcements regarding assignments, overall class progress or messages and information and reminders about upcoming events or assignments.</td>
</tr>
<tr>
<td>Course Information</td>
<td>The syllabus, course schedule and other key class documents are located here.</td>
</tr>
<tr>
<td>Course Modules</td>
<td>This area contains the weekly Modules. The majority of course content, activities, assignments and participation is located in</td>
</tr>
</tbody>
</table>
### Module Structure

<table>
<thead>
<tr>
<th>Component</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lecture</td>
<td>The primary lecture(s) or media and key concepts.</td>
</tr>
<tr>
<td>Resources (or Review)</td>
<td>Assigned readings or media for review.</td>
</tr>
<tr>
<td>Participation</td>
<td>Every module will have a participation component. This could take the shape of a discussion forum, wiki, blog, collaborate event etc.</td>
</tr>
<tr>
<td>Assignments</td>
<td>Activities and assignments related to Module.</td>
</tr>
</tbody>
</table>

### Course Requirements and Evaluation:

#### I. Presentation and Discussion of Readings (60% of final grade)

As educators, you may have observed that having your students just do the required readings may lead to adequate retention of course material, but it does not necessarily help students think critically about the material or apply it to other settings. This portion of the course is intended to help you gain further insight into the course topics and to consider how you may apply them to classroom settings by hashing them out with your classmates, using the “Discussion Board” component of Blackboard. All class members are required to read all articles and to participate in all on-line discussions.

There will be two parts to each discussion.
Part A: Discussion Questions (40% of final grade)
For each week, I will post one discussion question. All class members will be responsible for at least three postings for each discussion. This is to ensure that the discussions involve multiple interactions and don’t just become a question-and-answer session. See the requirements below for more detail as to how participation will be graded.

Each student is expected to:
• Respond to/answer each question by Thursday of each week.
• Reply to at least two other discussion threads each week initiated by other students
  o Make an effort to respond to threads that have not already been commented on. This ensures that every post is read and carefully considered.

Guidelines for participation in Discussion Boards (Grading Rubric Below)
• Discussion threads should be relevant, thought-provoking, and encourage additional comments by other students.
• It is recommended that you follow up on the comments made to your initial posting; they are likely to contain questions.
• I am looking for quality, not quantity in each posting, but generally, you should be posting more than a couple of sentences.
• You should integrate information from the readings and whatever outside sources are relevant.
• Your postings should be spread out over the time course of the week--that is, posting all comments at once doesn’t count! The goal is to generate an ongoing discussion.
• Although I don’t expect you to obsess over grammar, you should make an effort to use proper grammar and double check for spelling mistakes. It only takes a minute to proofread!
• Most important, remember to respect what others have to say. There will be questions and/or topics that will provoke strong feelings in all of you, and while I don’t expect everyone to always agree with one another, I do expect everyone to be polite and respect others’ opinions.

Part B: Paper Discussions (20% of final grade)
Each student will be responsible for examining one paper in depth. For your paper you should:

1. Summarize what YOU thought were the most important points in the paper. You can expect that your classmates will have read the paper, so you should be able to do this task in a paragraph or less.
2. Present any questions that remain unanswered, or other follow-up questions that should be asked.
3. Describe examples from your own teaching. For example, if your paper focuses on note-taking in the classroom, you can explain what strategies have/have not worked for you. Perhaps you explicitly tell your students
what to write down, maybe you don’t give them any cues at all, or maybe you put the main points on Powerpoint slides. Explain this to the class and why you think it does/doesn’t work well.

4. Each week, students are responsible for commenting on at least one student paper.

One of the best components to this class is learning from your peers. We can do some of this in our Blackboard discussions, but sometimes we just can’t cover it all! This assignment will enable you to learn from your classmates’ experiences. Instructions on how to submit the assignments are presented below.

### Discussion Board Grading Rubric

<table>
<thead>
<tr>
<th></th>
<th>0 Point</th>
<th>1 Point</th>
<th>2 Points</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Promptness and frequency</strong></td>
<td>Does not post; posts marginally.</td>
<td>Postings are late and random.</td>
<td>Postings are early and frequent.</td>
</tr>
<tr>
<td><strong>Grammar</strong></td>
<td>Grammar has not been checked.</td>
<td>Poor grammar or typos are frequent in postings.</td>
<td>Proper grammar is consistently applied.</td>
</tr>
<tr>
<td><strong>Relevance</strong></td>
<td>Postings have no relevance on the topic or assignment.</td>
<td>Some postings are pertinent to topic and assignment.</td>
<td>Postings are consistently connected to the topic and assignment and reflect student’s preparation.</td>
</tr>
<tr>
<td><strong>Expression &amp; Organization of Ideas</strong></td>
<td>Ideas and or opinions are not organized.</td>
<td>Some postings convey clear ideas and opinions. Other postings are lacking in organization or original expression.</td>
<td>Contributions are clearly articulated; reflect understanding of topic, substantive insights and persuasive logic.</td>
</tr>
<tr>
<td><strong>Building Community</strong></td>
<td>Does not participate in learning community.</td>
<td>Irregularly demonstrates initiative in adding to the dialogue and creating community.</td>
<td>Demonstrates consistent initiative in building community through discussion. Demonstrates ‘listening’ to peers and elevates the overall</td>
</tr>
</tbody>
</table>
II. **Final Project (40% of final grade)**

The last week of the course is set aside for students to develop a brief proposal (4-6 double-spaced pages) that:

1. Identifies a learning issue that the student has (or could have) in a course she/he has taught (might teach).

2. Describes how cognitive-based theory could be applied.

3. Describes a cognitive-based instructional intervention that will be used to address the learning issue.

4. Outlines a plan to assess the impact of the instructional intervention.

**Student to Instructor Communication Expectations**

*My Schedule*
I will be active in the Bb class area daily, Monday through Friday. I usually login early in the morning and once in the evening. If you post a question for me in a Forum, anticipate a response within 24-hours or sooner. On Saturday, I may not login at a regular time. If you post late on Friday or anytime Saturday, I might not respond until Sunday morning. Sunday I usually login in the morning or evening.

*How to Reach Me*
Questions related to assignments or learning should first be asked, if possible, in the respective discussion forums. The use of email is reserved for questions of a private nature and or if you would like to schedule virtual office hours or send me an email and I will respond promptly. My contact information is as follows:

   Email: Kelly.peracchi@unh.edu
Schedule & Readings

Part I: Applying the science of learning

Week 1 May 24 – June 2


Part II: IES

June 3 – June 23


(You will find a copy posted in Blackboard)

Week 2 (June 3 – June 9):

Notetaking:


Multimedia


Week 3 (June 10 – June 16):

Test-enhanced learning (quizzing)


Generation effect/Adjunct questions


Critical thinking


Week 4 (June 17 – June 23):

Transfer


Distributed practice


Learning styles


Technical Requirements and Technical Support
See website listings for current recommendations and requirements related to this course - http://unh.edu/eunh/technical-requirements Technical assistance related to Blackboard is available at http://unh.edu/eunh/student-resources

University Disability Accommodations

Academic Honesty and Plagiarism
Students are required to abide by the UNH Academic Honesty policy located in the Student Rights, Rules, and Responsibilities Handbook.

As your instructor, I proactively monitor academic integrity through regular use of tools like SafeAssign and a diversified assessment approach. All work submitted to SafeAssign become a part of a UNH proprietary database. This is actively used to identify future intellectual property theft. Plagiarism of any type may be grounds for receiving an “F” in an assignment or an “F” in the overall course. Plagiarism is defined as “the unattributed use of the ideas, evidence, or words of another person, or the conveying the false impression that the arguments and writing in a paper are your own.” (UNH Academic Honesty Policy, 09.3) Incidents are reported to the school dean and may be grounds for further action. If you have questions about proper citation refer to your department’s writing guidelines. You can contact me at any time on this issue. Additional resources are located below:
http://libraryguides.unh.edu/unhmcitingsources
http://www.library.unh.edu/reference/citation.shtml

Note: This syllabus is subject to change. Students will be promptly notified of any changes.