Psychology of Learning in School and Other Settings CEP 800, Summer 2013

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Course Introduction

Welcome to CEP 800! This course is a required course for all MAET students and for those students completing the NP Endorsement. CEP 800 also fulfills the psychology of learning requirement for students unconnected to teaching in the traditional sense (e.g., nursing students).

Broadly, CEP 800 focuses on developing technology-based instructional interventions that are based on *what* and *how* students *learn* and *know*.

Learning is one of those words that everyone uses and seems to understand. And yet, when pressed for a definition, we realize that defining what exactly we mean by "learning" is not an easy task. Psychologists generally define learning as "a relatively permanent change in behavior that occurs as a result of experience." From this perspective, learning is distinct from performance, which refers to the translation of learning into behavior.

CEP 800 assumes that learning is an "active, socially-mediated construction of knowledge in school, home, community, and work settings." So what is learned, how it is taught and learned, and what learners bring to the setting, all interact dynamically to result in a "relatively permanent change in behavior." Most importantly, this definition also points out that a change in any one of these variables – e.g., changing what learners bring to a setting or changing how something is a taught – will be associated with changes in what is learned. With this in mind, CEP 800 also examines how technology may affect what students learn and how teachers teach. In this way, CEP 800 integrates the psychology of learning in school and other settings with an examination of how technology relates to this process.

Course Overview

CEP 800 is organized into 6 modules, each lasting about 1 week. There is a folder for each module under the "Lessons" tab, which contains all of the pages, assignments, and information for each module. All of the module assignments, including discussion postings, should be completed by the last date of the module in which it is assigned (by 11:59 PM on the modules end date that is). Late work may be penalized, or in cases of unexcused/extreme lateness, it may not be graded. If you run into a problem or unforeseen circumstances arise where you cannot complete the assigned module work within the necessary timeframe, please get in contact with us via e-mail so that we can help. We will certainly be flexible as needed if something comes up, and if you contact us as soon as a problem arises. In general, we will post all grades/feedback

for your projects and assignments in the Angel grade book about one week after the late date of the module (grades for module work and discussions will be done about a week after their due date). See the front page of the course site for "how to run a grade report", or feel free to let us know if you have questions on any of this.

To help you out with getting an overview of the course, we will have all of the modules (the entire course) posted under the Lessons tab right from the beginning of the course. These module folders include the assigned module dates. And - for those who choose to do so, you are free to work ahead. If you choose to work ahead of the assigned module dates please note that in order to maintain consistency in the course, we still stick to our grading schedule of submitting module grades about one week after the end of a module. So if you are working ahead, and have some questions or are looking for early feedback, you can e-mail us with any specific questions or for guidance, if you need. Also, it is important to remember that for every module, you are required to respond (at least once, or more if you choose) to classmates' discussion posts during a specific time period. So if you're working ahead, just remember to stop back to any completed modules to be sure you've participated by posting a response to a classmates.

Main Course Themes of Modules

Module 1: Understanding Student Understanding May 13th – May 19th

The first module focuses on "understanding student understanding". Understanding student understanding doesn't look at the learner in terms of what they haven't learned or what skills they don't yet have. Instead, understanding student understanding is about understanding how students are making sense of the subject matter. What unique insights do they have and what are some of their misconceptions?

Module 1 also introduces the idea of creating powerful learning with digital media. According to the recently revised ISTE student standards, the very first standard is now "Creativity and Innovation." To help our students become more creative, instructors must first create opportunities for creativity in their lesson plans.

Module 2: Powerful Learning Experiences (Part 1) May 20th – May 26th

The title of module 2, "Creating Powerful Learning Experiences" is meant to engage you in thinking about using technology to make learning a truly powerful experience, something that affects our students cognitively, emotionally, and behaviorally. In this way, technology can do more than "excite" your students, it may also inspire them.

Module 3: Learning about Learning May 27th – June 2nd

Module 3 explores different technologies that can help you address gaps or misconceptions in

your students' understanding. You will look at a wide range of technologies including new immersive environments such as simulations or 3-D role-playing environments, as well as smart boards and clickers. You will look at how specific uses of technology can support students with special needs or learning disabilities, evaluating these technologies and the affordances they hold for teaching your students a particular concept.

Module 4: Powerful Learning Experiences (Part 2) June 3rd – June 9th

We began CEP 800 with the assumption that learning is an "active, socially-mediated construction of knowledge in school, home, community, and work settings." After completing Module 3 and reviewing several theories of learning, it should be clear that the above assumption is relatively new. Specifically, it is only during the past 30 years or so that scientists have begun to integrate Watson and Pavlov (behaviorism, reinforcement), Piaget (active learning as adaptation), Vygotsky (social construction), and most recently, cognitive perspectives on situated learning. This integration informs the assumptions that learning involves an (a) active, (b) socially-mediated, (c) construction of knowledge. The goal of Module 4 is to think more deeply about how the different understandings that learners bring to a setting and the different ways in which something may be taught are both associated with changes in what is learned.

Module 5: Evaluating Technology for Teaching June 10th – June 16th

One of the most important things we can do is remain focused on the goal of teaching, namely to address students' misconceptions and gaps in understanding. The goal of Module 5 is to address the question: How might educational technologies address gaps in a way that other teaching strategies might not?

Module 6: Action Research June 17th – Jun 27th

The goal of Module 6 is to bring closure to the various topics brought up during the course. In your final project you will plan, implement, and reflect on a lesson plan in which you use technology to support student understanding and to address misconceptions. This process – more formally known as "action research" – embodies the way we learn and, not coincidentally, is also one of the most effective ways to teach. To help you in this process we will spend time thinking about thinking, or what cognitive scientists refer to as metacognition.

Course Details and Expectations

Course Readings

All readings will be provided as online documents on ANGEL. You will not have to purchase any reading materials for this course.

Assignments

Graded assignments include **12 discussion forums** (60 points total; 30% of grade) and **several projects** (140 points total; 70% of grade). The late work policy applies to all discussion forum posts and projects.

- Discussion Forums Unless stated otherwise, discussion forums typically involve two steps:
 - Posting one original response to the listed question(s) in your group's forum (3 points)
 - Responding to at least one (more interaction is appreciated) base group member's original response (2 points)
- Projects To help students become familiar and comfortable with course expectations everyone will have an opportunity to revise and re-submit their first project (Audio interview) within one week of receiving their grade and the higher score will be recorded.

• Revisions will not be accepted for any subsequent projects.

- Audio interview: Documentation of student understanding (40 points)
- Digital storytelling: Applied learning theories (40 points)
- Evaluation of educational technology (15 points)
- Final "action research" project: Essential questions (5 points), Lesson plan (15 points), Implement and reflect (25 points)

Final Course Grades

Final grades will be assigned as follows, based on the total number of points you earn:

4.0 = 93-100	2.5 = 78-82	1.0 = 63-67
3.5 = 88-92	2.0 = 73-77	0.5 = 58-62
3.0 = 83 - 87	1.5 = 68-72	0.0 < 58

Incompletes

A grade of incomplete will be given only if (1) all completed work is satisfactory (i.e., averages 3.0 or better) **and** (2) there is a valid reason that you cannot complete the course. If you would like to be considered for an incomplete, contact me as soon as possible.

Technology Requirements

CEP 800 extends your competence in using technology tools with which you may already be familiar, as well as learning to use new tools in support of teaching and learning. Access to the following software is required:

- A Web browser (the latest version of Microsoft Internet Explorer, or Mozilla Firefox)
- Productivity tools (word processor, presentation software, spreadsheet, basic image editor, etc., preferably Microsoft Office)
- Audacity (sound editing and recording software; see http://audacity.sourceforge.net)
- External microphone for recording to your computer
- Image editing software (e.g., iMovie or Microsoft Moviemaker these typically come with Macs and PC's respectively, or are a free download)

• We will also work with trial versions of other applications, as well as digital cameras, digital video recorders, and scanners.

Technology Competencies^{*}

Just as utilizing a language creatively requires learning basic word meanings and rules of grammar, learning to use technology to support teaching and learning requires learning the basics of technology. We expect you to bring some of these basics with you and to make significant progress in learning technology. Some of these competencies include the ability to:

- Access your MSU e-mail account and use the AFS storage space available to you there.
- Have a working understanding of key concepts such as file transfer, file formats, client server relationships, protocols, hierarchical file structures (such as nesting of folders and files) and how to access these when designing a web page.
- Move and store files by burning CDs and uploading and downloading files (FTP)
- Construct PowerPoint presentations (and upload them to your web or storage space)
- Understand issues of design and layout as applied to web pages and PowerPoint.
- Scan or digitize images and do simple image manipulation and editing.
- A working understanding of issues around copyright and fair use, security, ethics, etc.
- Evaluate and use some collaborative web-based communication tools, such as blogs, discussion forums, and wikis, for educational communication uses.
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This course will utilize several technologies as we focus on educational ideas and theory related to teaching and learning with technology, however it is not primarily a course about how to learn to build a webpage, use audacity, etc. We require that before e-mailing us directly with a technical question (e.g. things like - How do get audacity to do this...? or How do I insert a picture in PowerPoint?) you first investigate the issue using the many resources around you. This may include asking a friend or colleague from this course or from your work/life. Or it may involve using the "Help" features within the software, or using Google to look for an answer to your question (Google can be your best friend with technical questions). Also, to help with this, we will be posting a Discussion forum for "Technical Assistance" in the course site, which we encourage everyone to use both for asking questions and giving answers. That way everyone in the course, including us, has an opportunity to answer questions and view the answers to previous questions. This creates a great opportunity to practice online digital collaboration, a key "21st century skill", while building a library of questions and answers that will benefit everyone. Technologies come and go, so the most important skill that you can have as a techsavvy person is how to figure out each new technology question you run into yourself. (We will check this forum regularly, but we strongly encourage everyone in the course to do so also. If you can help a peer with an answer to something you know - it's a great way to show an excellent attitude toward collaborative learning and participation skills.

All of that being said, if you have tried everything (Google, asking peers/friends/colleagues, using software help features, and posting in the forum), and still are confused on a software or tech question, please feel free to send a direct e-mail at that point. Note that this is only there for technology-specific questions, if at any point you have other general course-related, or content-

related questions please feel free to e-mail whenever you need. We are putting this e-mail restriction on tech questions only, to ensure that everyone has a chance to learn how to explore and learn about technology by utilizing the resources in the world around them (which is what teachers often must do, after the course ends).

Communication Policy

If you email us, then we will respond as quickly as possible (most likely within 24 hours, except in cases of extremely busy times). If we email you (with a specific issue or question for you – not a general course info e-mail/announcement), then we would like you to respond within 48 hours. If you are unable to respond in that timeframe due to an issue, technological or otherwise, please contact us as soon as you can. If an "out of office assistant" is on indicating that you are unavailable, we will certainly take that into consideration too. When we send e-mail, this will go to your MSU e-mail account. If this is not your preferred mail address, you can simply switch the forwarding settings on your MSU mail to go to that address. You should also be sure that your preferences in Angel are set to go to the e-mail address that you check frequently. Let us know if you have questions on how to do this and we will help.

As the saying goes, "life happens." If you are having difficulty with the course, completing assignments, etc. please email us right away BEFORE things get out of hand.

Code of Conduct

Participation in this course assumes that students will abide by the University's Student Regulations (see Spartan Life: <u>http://www.vps.msu.edu/SpLife/</u>.) Violations of these codes or legal statutes may result in penalty in your course grade or removal dismissal from the course and/or university.

^{*}Note. This set of courses has evolved over the past several years, incorporating the work and thinking of all the people who have taught them. The assignments, activities, and written materials (including the content of this syllabus) were developed by various groups and individuals and subsequently revised and reconfigured to result in the current versions. The course materials thus represent the contributions of Brandon Blinkenberg, Shane Cavanaugh, Chris Clark, Mark Girod, Kathryn Hershey Dirkin, Amanda Hoffman, Matt Koehler, Punya Mishra, Cindy Okolo, Ralph Putnam, Jim Reienke, Cary Roseth, Jack Smith, Aman Yadav, Raven McRory, Leigh Graves Wolf, David Wong, Zach Mural, Sandra Sawaya, and Danah Henriksen.