

THE UNIVERSITY OF  
WINNIPEG

BASICS OF TEACHING

ONLINE

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PACE

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### What is teaching online?

Education has many goals, one of which is responding to the needs of society (Bates, 2000; Eckel & Hartley, 2008). Flexibility and improved access have progressively become important factors to students in choosing their education (Allen & Seaman, 2007; APLU, 2007, Parsad & Lewis, 2008). Online education is increasingly perceived by the public as an effective and efficient means of achieving learning outcomes, on par with those delivered through traditional means (Allen & Seaman, 2010). A key stakeholder to the implementation of online learning is the faculty (Kaginam & Hausafus, 2001, Schrader & Swamidass 2006).

### Principles of Effective Online Teaching

**Be Present & Teach:** Online teaching takes as much nurturing as face to face requires, but in another way. Being present on discussion forums, posting updates, checking-in and utilizing pedagogies specifically for online is essential to a good experience for your students.

**Proactive Course Management:** Once your course is up and running the fun really begins. Actively managing the communications between yourself and the students and the students between each other right off the bat will help in the long run. You will set the tone for the course, and determine the expectations, sharing those frequently will make the experience positive.

**Create A Schedule For The Course:** Although online learning affords all a certain level of flexibility, a schedule will bring a level of stability to the learners. Be specific on due date, when assessment items are expected, when discussion are expected and how many. These patterns will help learners keep on task and provide you with clear check-in points.

**Communications:** Communicate often with short and encouraging messages. This will provide the course with your own feel, and bring a sense of ‘soul’ to the course. Clear

expectations on your response time to student is also crucial, a typical response time would be within 24 hours or sooner – ensure that is communicated early on and clearly.

**Keep The Course Moving:** Always give a sense of moving forward, with providing feedback continually and graded assessments in a timely fashion. This will help students keep on task and focused.

**Quality Content:** Provide students with a variety of content, although PowerPoints may be your go-to for face to face, online allows you to embed rich media and interactivity. Make sure you explain all the assignment expectations very thoroughly to ensure students fully understand what you want.

**Learner Perspective:** Try flipping your perspective when developing your course. Would you find this interesting, easy to use, does it flow properly, am I learning the objectives, is it attractive, is it interesting, and does it make sense?

### [The importance of adjusting pedagogy to an online environment.](#)

The onset of online learning has created a huge impact in the post-secondary education industry. In order to prosper, grow and stay competitive online learning needs to be done in a systematic fashion. This systematic process will ensure that courses/programs developed reflect a similar learning pedagogy, style and in fact meet the objectives and goals of the learning and the learner. The design of a course is key to the success of the learners, ensuring that the learner is at the centre, and in particular with online courses the understanding of the 21st Century learner is congruent to success.

These three particular pedagogical theories were chosen because of their importance, both historically and currently, to the field of instructional design.

#### Behaviorism:

Behaviorism equates learning with changes in either the form or frequency of observable performance. Learning is accomplished when a proper response is demonstrated following the presentation of a specific environmental stimulus. Behaviorism focuses on the importance of the consequences of those performances and contends that responses that are followed by reinforcement are more likely to recur in the future. No attempt is made to determine the structure of a student's knowledge nor to assess which mental processes it is necessary for them to use (Winn, 1990). The learner is characterized as being reactive to conditions in the environment as opposed to taking an active role in discovering the environment.

Behaviorists attempt to prescribe strategies that are most useful for building and strengthening stimulus-response associations (Winn, 1990), including the use of instructional cues, practice, and reinforcement. These prescriptions have generally been proven reliable and effective in facilitating learning that involves discriminations (recalling facts), generalizations (defining

and illustrating concepts), associations (applying explanations), and chaining (automatically performing a specified procedure). However, it is generally agreed that behavioral principles cannot adequately explain the acquisition of higher level skills or those that require a greater depth of processing (e.g., language development, problem solving, inference generating, critical thinking) (Schunk, 1991).

Specific assumptions or principles that have direct relevance to instructional design include the following (possible current ID applications are listed in brackets [ ] following the listed principles):

- ◆ An emphasis on producing observable and measurable outcomes in students [behavioral objectives, task analysis, criterion-referenced assessment]
- ◆ Pre-assessment of students to determine where instruction should begin [learner analysis]
- ◆ Emphasis on mastering early steps before progressing to more complex levels of performance [sequencing of instructional presentation, mastery learning]
- ◆ Use of reinforcement to impact performance [tangible rewards, informative feedback]

Cognitivism:

Cognitive theories stress the acquisition of knowledge and internal mental structures and, as such, are closer to the rationalist end of the epistemology continuum (Bower & Hilgard, 1981). Learning is equated with discrete changes between states of knowledge rather than with changes in the probability of response. Cognitive theories focus on the conceptualization of students' learning processes and address the issues of how information is received, organized, stored, and retrieved by the mind. Learning is concerned not so much with what learners do but with what they know and how they come to acquire it (Jonassen, 1991b). Knowledge acquisition is described as a mental activity that entails internal coding and structuring by the learner. The learner is viewed as a very active participant in the learning process.

Specific assumptions or principles that have direct relevance to instructional design include the following (possible current ID applications are listed in brackets [ ] following the listed principles):

- ◆ Emphasis on the active involvement of the learner in the learning process [learner control, metacognitive training (e.g., self-planning, monitoring, and revising techniques)]
- ◆ Use of hierarchical analyses to identify and illustrate prerequisite relationships [cognitive task analysis procedures]

◆ Emphasis on structuring, organizing, and sequencing information to facilitate optimal processing [use of cognitive strategies such as outlining, summaries, synthesizers, advance organizers, etc.]

◆ Creation of learning environments that allow and encourage students to make connections with previously learned material [recall of prerequisite skills; use of relevant examples, analogies]

#### Constructivism:

Constructivism is a theory that equates learning with creating meaning from experience (Bednar et al., 1991). Even though constructivism is considered to be a branch of cognitivism (both conceive of learning as a mental activity), it distinguishes itself from traditional cognitive theories in a number of ways. Most cognitive psychologists think of the mind as a reference tool to the real world; constructivists believe that the mind filters input from the world to produce its own unique reality (Jonassen, 1991a).

The following are several specific assumptions or principles from the constructivist position that have direct relevance for the instructional designer (possible ID applications are listed in brackets [ ] following the listed principles):

- ◆ An emphasis on the identification of the context in which the skills will be learned and subsequently applied [anchoring learning in meaningful contexts].
- ◆ An emphasis on learner control and the capability of the learner to manipulate information [actively using what is learned].
- ◆ The need for information to be presented in a variety of different ways [revisiting content at different times, in rearranged contexts, for different purposes, and from different conceptual perspectives].
- ◆ Supporting the use of problem solving skills that allow learners to go “beyond the information given” [developing pattern-recognition skills, presenting alternative ways of representing problems].
- ◆ Assessment focused on transfer of knowledge and skills [presenting new problems and situations that differ from the conditions of the initial instruction].

#### Traditional versus Resource Based Learning (Rakes, 1996)

Traditional Learning	Resource-Based Learning
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Teacher as an expert model	Teacher as a facilitator/guide
Textbook as primary source	Variety of sources/media
Facts as primary	Questions as primary
Information is packaged	Information is discovered
Emphasis on product	Emphasis on process
Assessment is quantitative	Assessment is qualitative/quantitative

### Comparing Objectivism and Constructivism

	Objectivism	Constructivism
Main benefit	Cost efficient dissemination of course materials	Deeper understanding and longer retention of materials
Locus of control	Professor controls content and pace	Student centered control of content and pace although professor provides guidance
Education emphasis	Student acquisition of knowledge and facts	Student acquisition of strategies and processes to attain knowledge
Communication	Predominantly from professor to student	Emphasizes professor-student interaction
Relationship to technology	Little need for new technologies	Assimilates new technologies for communication and knowledge discovery into the education process

<i>LEARNER-RELATED SEQUENCE</i>	
<b>Identifiable Prerequisite</b>	<ul style="list-style-type: none"> <li>• Teach a skill required to perform another skill first</li> </ul>
<b>Familiarity</b>	<ul style="list-style-type: none"> <li>• Start with the content the learner has the most experience with</li> </ul>
<b>Difficulty</b>	<ul style="list-style-type: none"> <li>• Begin with the least difficult content before moving to the more difficult ideas</li> </ul>
<b>Interest</b>	<ul style="list-style-type: none"> <li>• Teach the topics that will peak the most interest from the learners</li> </ul>
<b>Development</b>	<ul style="list-style-type: none"> <li>• Ensure the learner has reached the appropriate developmental level before teaching a task or concept. (i.e. A learner must know how many the number 5 represents before being able to write the actual number.)</li> </ul>

Sample Learning Outcomes, Rationales, and Activities. The following table provides examples of learning outcomes, the kinds of learning activities that promote those outcomes, and how the activities could be supported by learning technologies. Retrieved from <http://telt.unsw.wikispaces.net/Selecting+technologies>

Desired Learning Outcomes (What?)	Rationale (Why?)	Relevant Activities (How?)
Information literacy	Exposure to, awareness of ,	Multi-dimensional evaluation
Global practice	contribute to external	Sharing and reviewing online resources
Digital literacy	activity	Connecting with outside experts/communities
Ethical practice	conversations	

Preparation for success	resources	Check for plagiarism
	techniques and approaches	Media making/mashups
	Appropriate referencing	Digital storytelling
	Appropriately equip the 21st Century graduate	Copyright/Creative Commons discussions
	Managing information load	Activities relevant and authentic to discipline
		Embedded activities for generic attributes
		Contextual prompts to evaluate sources
		Problem/case-based learning
		Flexible access to material
Self-directed learning	Negotiate understanding	Project planning and management
Reflective practice	Feedback on the course	Student self-tests
Engaged learning	Reflection on learning	Teacher (& technology) as facilitator of learning
Co-learning	Global practice	Choice of modes and activities
Quality learning environment & experience	Consistency of experience (equity)	Access to technology (eg mobile devices)
		Agreed code of conduct
Giving & receiving feedback	Multiple perspectives	Collaborative writing
	Feedback on performance	Group negotiation and planning



		Assessment of team work
		Review (eg groupwork)
		Publishing
		Reflection
		Collaborative writing
	Negotiate understanding	Group negotiation and planning
	Multiple perspectives	Project planning and management
Working in teams	(for teacher) management of group work	Problem/case-based learning
Collaborative practice	Digital literacy	Assessing team contribution
	Inclusivity (eg NESB)	Media based projects
		Variety of communication styles supported
	Negotiate understanding	Reflecting
	Multiple perspectives	Debating
Critical reviewing	Feedback	Reviewing
Critical thinking	Practice of	Social knowledge building
Independent learning	Critical reviewing	Review/commentary of online material
	Critical thinking	Give & receive feedback
	Negotiate understanding	Reflecting
Written communication	Contribute to external	Debating

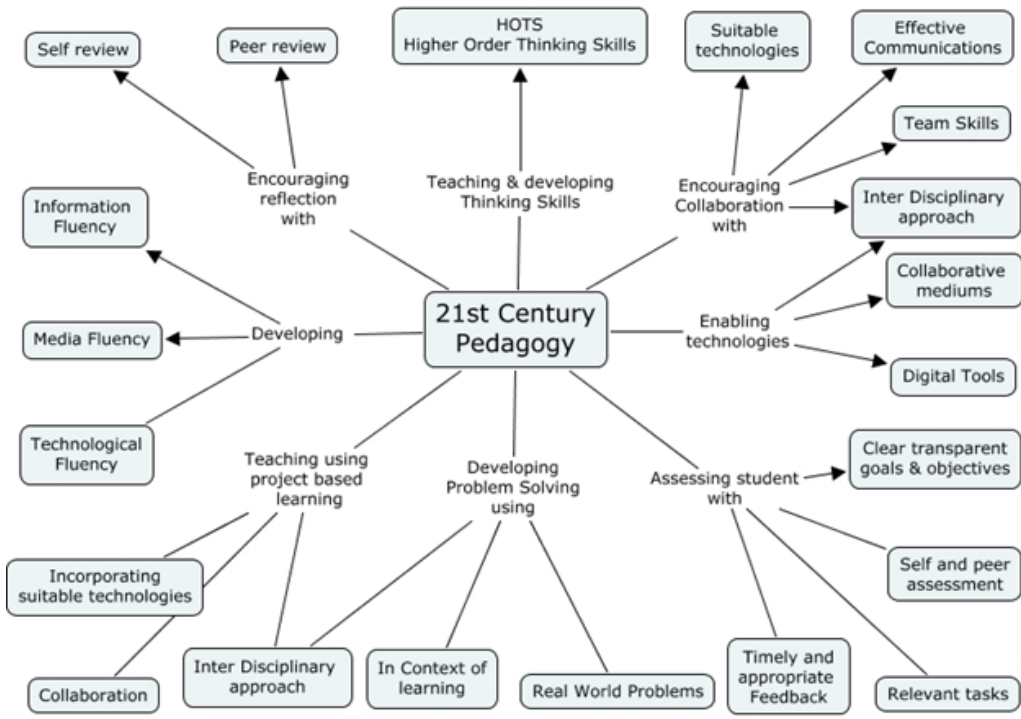
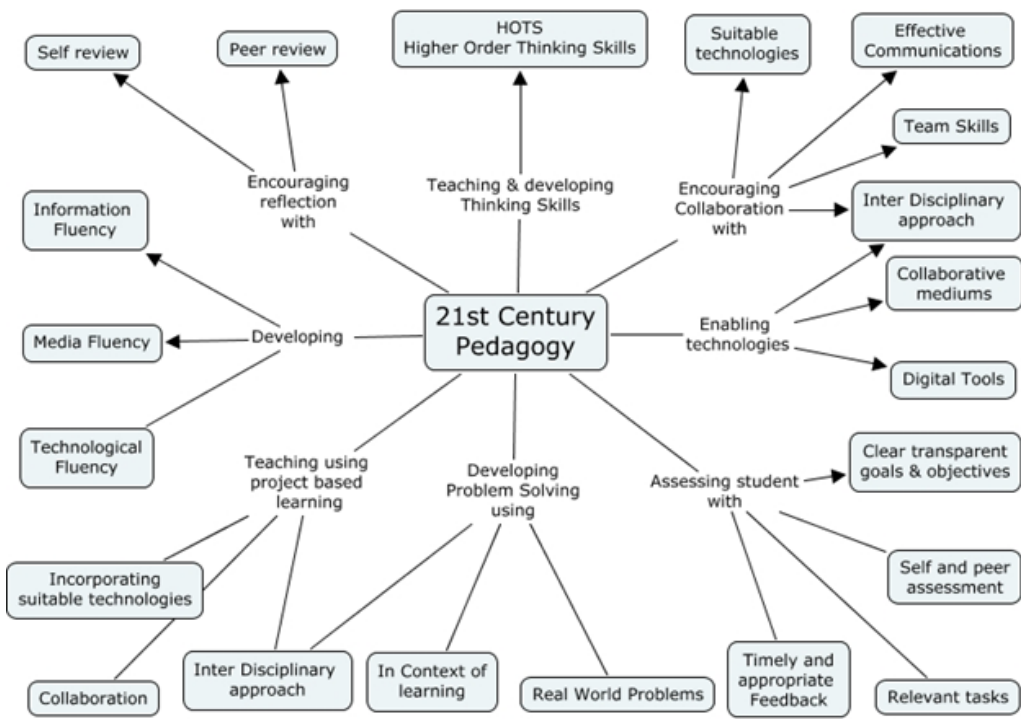
activity	Reviewing
conversations	Publishing
resources	Check for plagiarism
Appropriate referencing	
	Sharing audio/video material
Oral communication	Presenting
Presentation skills	Digital storytelling
Language proficiency	Audio/video discussion and feedback

## 21st Century Learners

In 21st Century Learning, students use educational technologies to apply knowledge to new situations, analyze information, collaborate, solve problems, and make decisions. Utilizing emerging technologies to provide expanded learning opportunities is critical to the success of future generations. Improved options and choice for students will help improve student completion and achievement. (British Columbia Ministry of Education, 2010)

What is pedagogy for the 21st Century Learner?

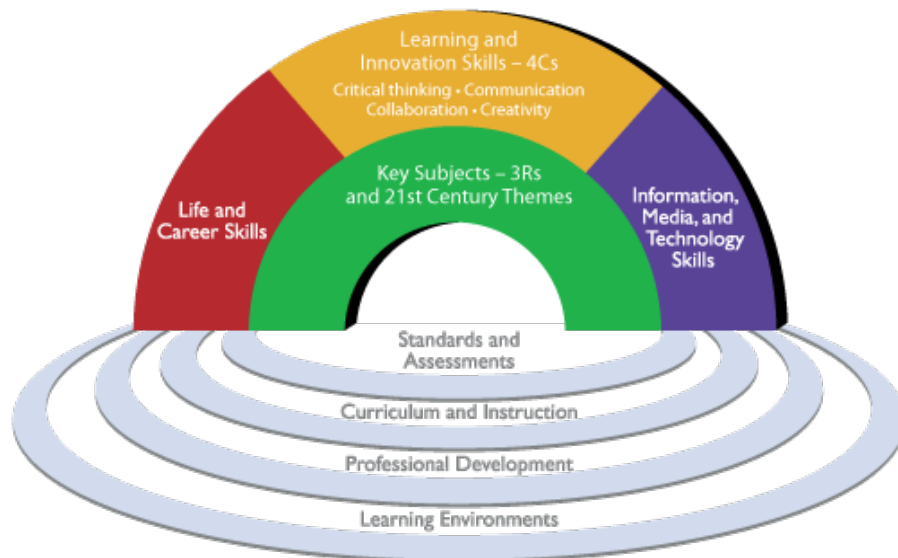
Pedagogy for a 21st Century learner entails a different set of values and hierarchy, one in which the value of self-learning and discovery are prominent. The need for self-directed study, which is contextually based and incorporates peer-to-peer interactively is needed.



<http://www.p21.org/our-work/p21-framework>

### P21 Framework for 21st Century Learning

21st Century Student Outcomes and Support Systems



© 2007 Partnership for 21st Century Learning (P21)  
[www.P21.org/Framework](http://www.P21.org/Framework)

**9** **Fundamental Digital Skills for 21st Century Teachers**

<p><b>Record and edit audio clips</b></p> <ol style="list-style-type: none"> <li>1- Soundcloud.com</li> <li>2- Audioboom.com</li> <li>3- Vocaroo.com</li> <li>4- Clyp.it</li> </ol>	<p><b>Create interactive video content</b></p> <ol style="list-style-type: none"> <li>1- Youtube Video Editor</li> <li>2- Wevideo.com</li> <li>3- Magisgto.com</li> <li>4- Animoto.com</li> </ol>	<p><b>Create infographics and posters</b></p> <ol style="list-style-type: none"> <li>1- Piktochart.com</li> <li>2- Canva.com</li> <li>3- Drawings.google.com</li> <li>4- Thinglink.com</li> </ol>
<p><b>Create PLNs, connect, discover new content, and grow professionally</b></p> <ol style="list-style-type: none"> <li>1- Twitter.com</li> <li>2- Facebook.com</li> <li>3- Plus.google.com</li> <li>4- LinkedIn.com</li> </ol>	<p><b>Use blogs and wikis to create participatory spaces for students</b></p> <ol style="list-style-type: none"> <li>1- Blogger.com</li> <li>2- Wordpress.com</li> <li>3- Edublogs.org</li> <li>4- wikispaces.com</li> </ol>	<p><b>Create engaging presentations</b></p> <ol style="list-style-type: none"> <li>1- Docs.google.com/presentation</li> <li>2- Haikudeck.com</li> <li>3- Zoho.com/docs/show.html</li> <li>4- Prezi.com</li> </ol>
<p><b>Create digital portfolios</b></p> <ol style="list-style-type: none"> <li>1- Web.seesaw.me</li> <li>2- Silk.co</li> <li>3- Sites.google.com</li> <li>4- Weebly.com</li> </ol>	<p><b>Curate, organize and share digital resources</b></p> <ol style="list-style-type: none"> <li>1- Diigo.com</li> <li>2- Scoop.it</li> <li>3- Educlipper.net</li> <li>4- Edshelf.com</li> </ol>	<p><b>Create digital quizzes</b></p> <ol style="list-style-type: none"> <li>1- Flipquiz.me</li> <li>2- Riddle.com</li> <li>3- Quizalize.com</li> <li>4- Testmoz.com</li> </ol>

www.educatorstechnology.com

### Salmons Five-Stage Model of Teaching and Learning Online

his model implores that the course moderator take the students through five steps during the training process, supporting the learner on the journey through different e-moderating skills.

The five-steps that Salmon describes are Stage

Step 1: Access and Motivation,

Step 2: Online Socialisation,

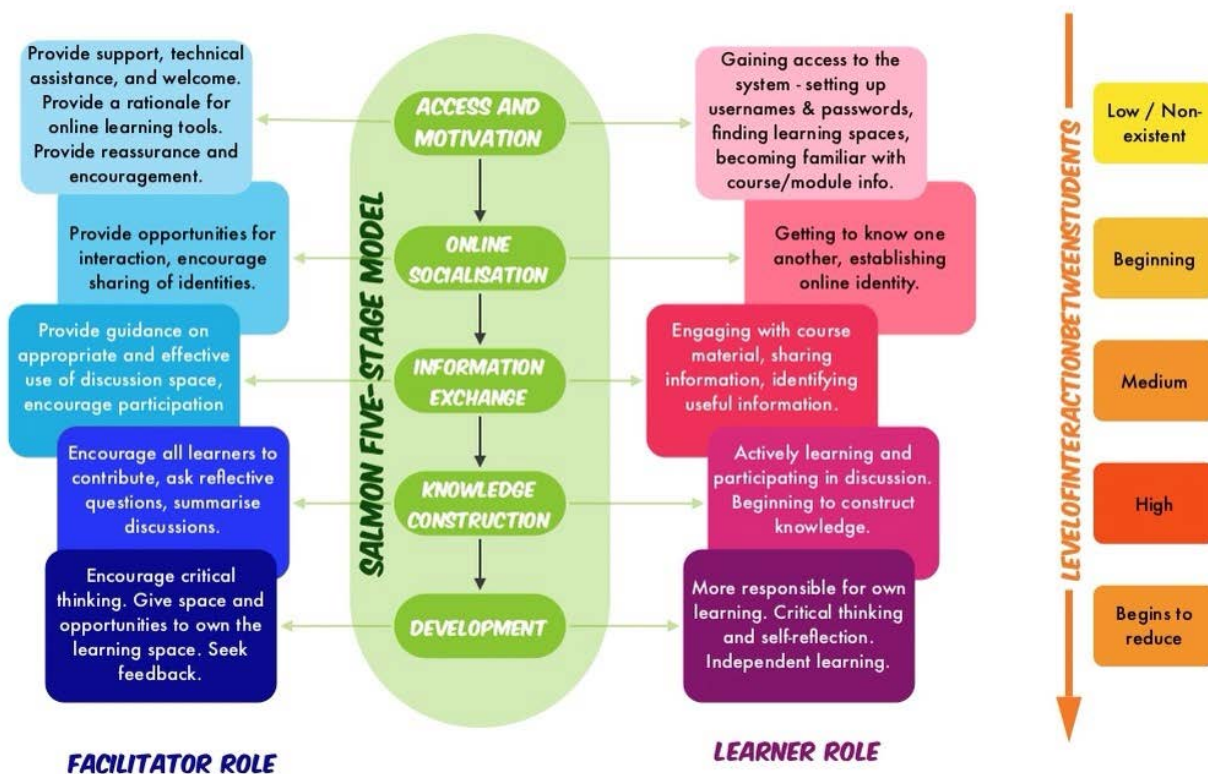
Step 3: Information Exchange,

Step 4: Knowledge Construction, and

Step 5: Development.

This allowed the participants to take the responsibility for their learning, provide an opportunity to think critically about the context and put the weeks learning into something meaningful for them.

<https://octel.alt.ac.uk/2013/models-for-supporting-learning-salmon-octel-7-1/>



## Teacher Centered vs. Learning Centered

<b>Comparison of Teacher-centered and Learner-centered paradigms</b> ( <u>Learner-Centered Assessment on College Campuses</u> by Huba and Freed 2000)	
<b>Teacher-Centered Paradigm</b>	<b>Learner-Centered Paradigm</b>
Knowledge is transmitted from professor to students	Students construct knowledge through gathering and synthesizing information and integrating it with the general skills of inquiry, communication, critical thinking, problem solving and so on
Students passively receive information	Students are actively involved
Emphasis is on acquisition of knowledge outside the context in which it will be used	Emphasis is on using and communicating knowledge effectively to address enduring and emerging issues and problems in real-life contexts
Professor's role is to be primary information giver and primary evaluator	Professor's role is to coach and facilitate Professor and students evaluate learning together
Teaching and assessing are separate	<b>Teaching and assessing are intertwined</b>
Assessment is used to monitor learning	<b>Assessment is used to promote and diagnose learning</b>
Emphasis is on right answers	Emphasis is on generating better questions and learning from errors
Desired learning is assessed indirectly through the use of objectively scored tests	<b>Desired learning is assessed directly through papers, projects, performances, portfolios, and the like</b>
Focus is on a single discipline	Approach is compatible with interdisciplinary investigation
Culture is competitive and individualistic	Culture is cooperative, collaborative, and supportive
Only students are viewed as learners	Professor and students learn together

<b>TEACHING-CENTERED versus LEARNING-CENTERED instruction</b> (Assessing Academic Programs in Higher Education by Allen 2004)		
<b>Concept</b>	<b>Teacher-Centered</b>	<b>Learner-Centered</b>
Teaching goals	<ul style="list-style-type: none"> <li>Cover the discipline</li> </ul>	<ul style="list-style-type: none"> <li>Students learn:               <ul style="list-style-type: none"> <li>How to use the discipline</li> <li>How to integrate disciplines to solve complex problems</li> <li>An array of <b>core learning objectives</b>, such as communication and information literacy skills</li> </ul> </li> </ul>
Organization of the curriculum	<ul style="list-style-type: none"> <li>Courses in catalog</li> </ul>	<ul style="list-style-type: none"> <li>Cohesive program with systematically created opportunities to synthesize, practice, and develop increasingly complex ideas, skills, and values</li> </ul>
Course structure	<ul style="list-style-type: none"> <li>Faculty cover topics</li> </ul>	<ul style="list-style-type: none"> <li><b>Students master learning objectives</b></li> </ul>
How students learn	<ul style="list-style-type: none"> <li>Listening</li> <li>Reading</li> <li>Independent learning, often in competition for grades</li> </ul>	<ul style="list-style-type: none"> <li>Students construct knowledge by integrating new learning into what they already know</li> <li>Learning is viewed as a cognitive and social act</li> </ul>
Pedagogy	<ul style="list-style-type: none"> <li>Based on delivery of information</li> </ul>	<ul style="list-style-type: none"> <li>Based on engagement of students</li> </ul>
Course delivery	<ul style="list-style-type: none"> <li>Lecture</li> <li>Assignments and exams for summative purposes</li> </ul>	<ul style="list-style-type: none"> <li>Active learning</li> <li>Assignments for formative purposes</li> <li>Collaborative learning</li> <li>Community service learning</li> <li>Cooperative learning</li> <li>Online, asynchronous, self-directed learning</li> <li>Problem-based learning</li> </ul>
Course grading	<ul style="list-style-type: none"> <li>Faculty as gatekeepers</li> <li>Normal distribution expected</li> </ul>	<ul style="list-style-type: none"> <li><b>Grades indicate mastery of learning objectives</b></li> </ul>
Faculty role	<ul style="list-style-type: none"> <li>Sage on the stage</li> </ul>	<ul style="list-style-type: none"> <li>Designer of learning environments</li> </ul>
Effective teaching	<ul style="list-style-type: none"> <li>Teach (present information) well and those who can will learn</li> </ul>	<ul style="list-style-type: none"> <li>Engage students in their learning</li> <li>Help all students master learning objectives</li> <li><b>Use classroom assessment to improve courses</b></li> <li><b>Use program assessment to improve programs</b></li> </ul>

## [Links to Additional Resources](#)

[A New Pedagogy is Emerging... and Online Learning is a Key Contributing Factor](#)

[More Content Doesn't Equal More Learning \(Faculty Focus - Oct 12, 2015\)](#)

[The Eight-Minute Lecture Keeps Students Engaged](#)

[Learning Theories.com](#)

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[Five Ways Online Learning is Enabling Change in Post-Secondary Education](#)

[NADE Conference 2011: Stephen Downes \(keynote\): We don't need no educator video and slides.](#)