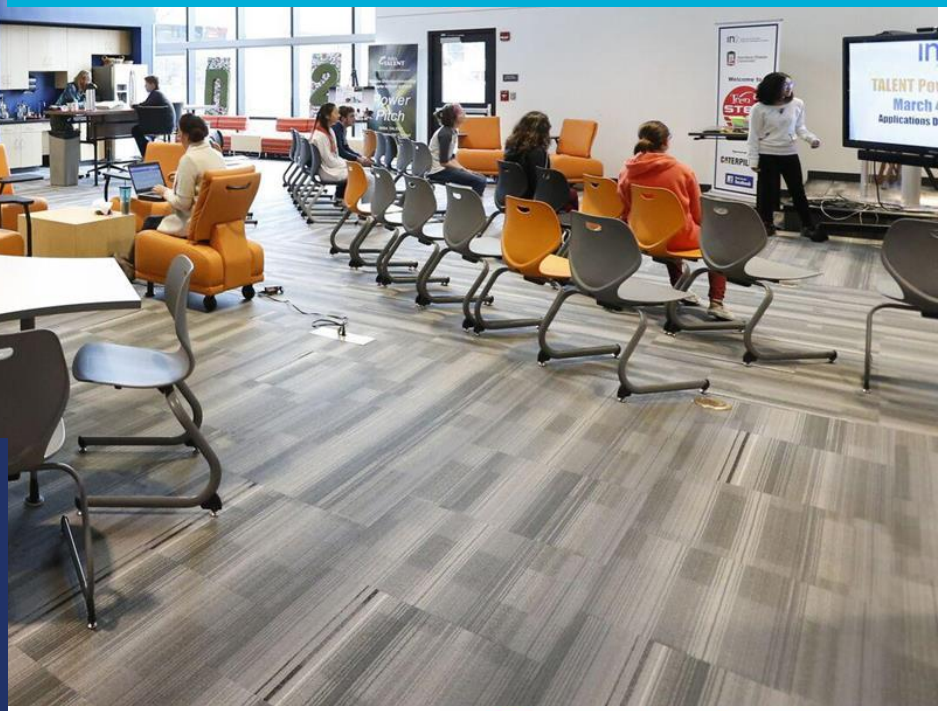
Implementing the Best Practices of Online Teaching and Learning into Your Virtual Classroom: Focus on Instructional Design and Pedagogy



2021 Kane County Institute Day

Dr. Rich Schultz
Illinois Mathematics and Science Academy (IMSA)
Senior Online Learning Administrator

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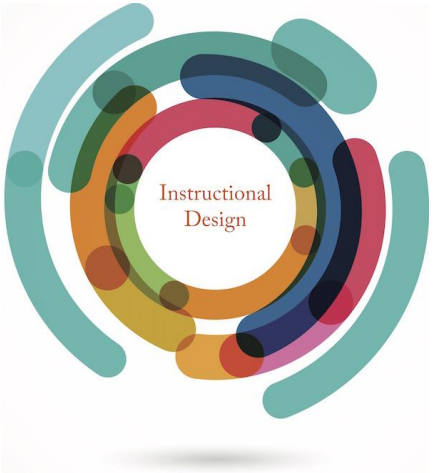
This slideshow is available in .pdf form at:

https://bit.ly/2LzEYtR

This Session



- When most educators went online in 2020, challenges arose when pivoting rapidly from a physical classroom to a virtual setting.
- Many had little time for professional development to envision what a great online experience looks like.
- This session focuses on the exposure to online teaching and learning: the pedagogy and instructional design fostering engagement and on behalf of the students.
- Focus: grades 6-12

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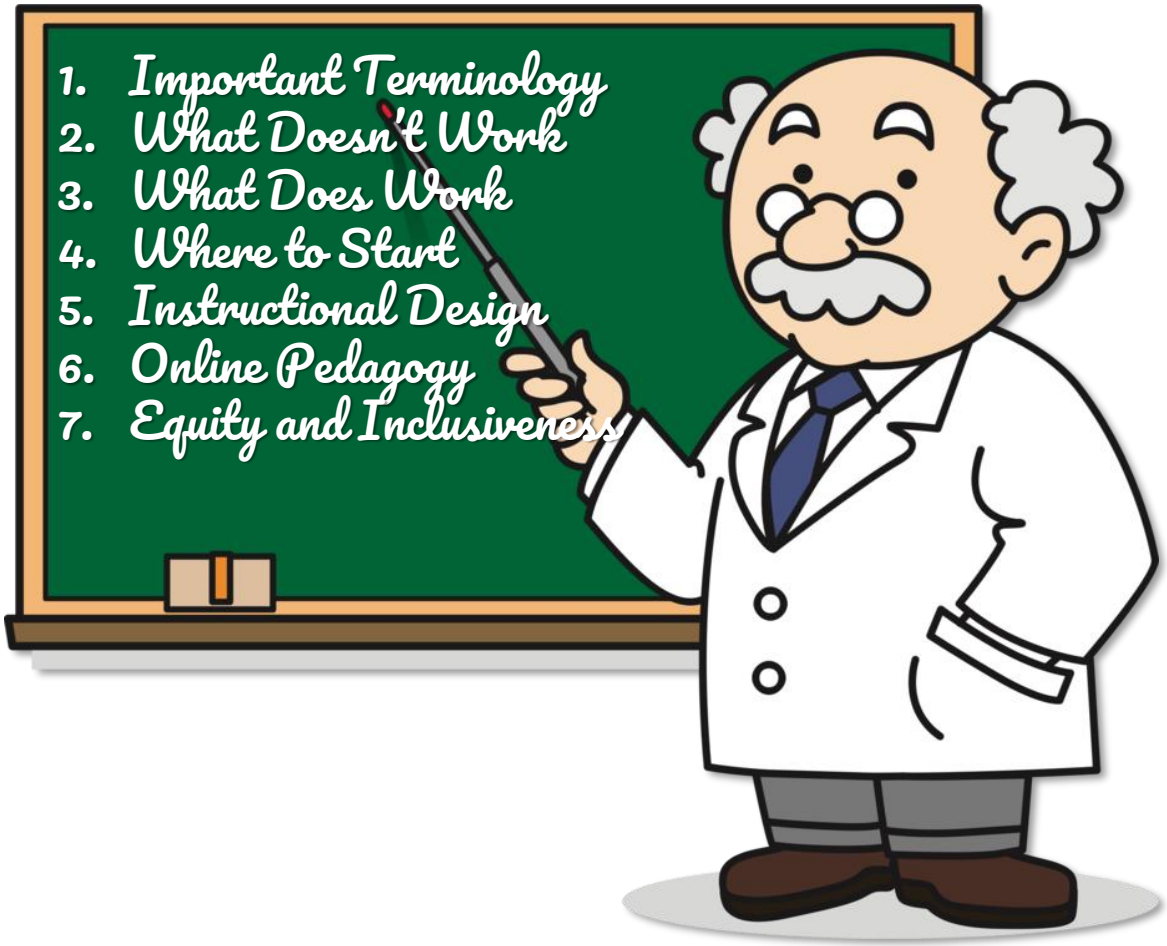
Agenda



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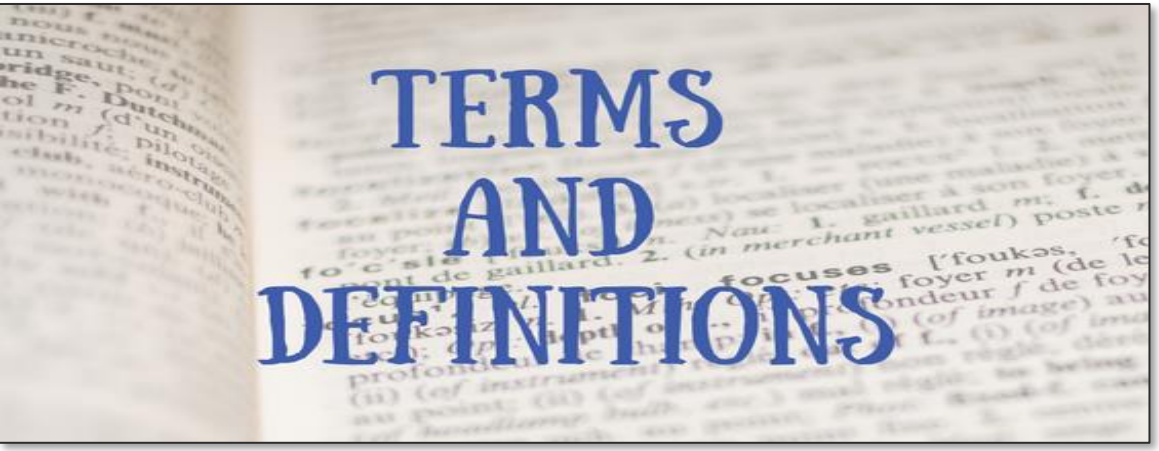

Why is Terminology Important?

- There are many terms associated with online learning, so it is important that definitions be provided so that terms are used consistently.

- Whether the subject is science, math, or literature; whether the classroom is elementary, middle school, or high school—when students learn and use technology, they learn how to use skills to holistically address questions and they are better prepared to meet the challenges of work and life in the 21st Century.

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Key Terms

- **F2F learning**: classroom-based learning with no online component
- **Remote learning**: virtual learning that results from a quick pivot from F2F learning. There is no forethought or planning involved. No design is created, and pedagogy mimics classroom pedagogy thus confusing students.
- **Virtual learning:** umbrella term that is synonymous with e-learning, online learning, distance learning, and sometimes “digital learning”
- **Synchronous learning**: learning experiences that take place in real time and include interactions between student and facilitator in a virtual environment.
- **Asynchronous learning**: online coursework that has experienced well designed instructional design processes and embedded engagement coupled with appropriate online pedagogy.
- **Blended learning**: a combination of online and F2F classroom instructions. Example: flipped classroom
- **Hybrid learning**: a combination of synchronous and asynchronous online learning
- **Instructional design**: the pre-planned process of storyboarding coursework such that it provides interaction, engagement, and deep learning experiences using tools and technology.
- **Online pedagogy**: the shift from classroom teaching and learning to autonomous learning on behalf of the student. Educators shift from teachers to facilitators and coaches providing guidance as opposed to content and lectures.

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What Doesn’t Work

1. PowerPoint presentations:

- Without a presenter, a slide show may not make much sense. The slides are only a part of the talk. They usually serve as prompts for the presenter, or visual cues for the audience.
- Adding more text as a substitute for the presenter also doesn't work well because it's not interactive. Students can't get clarification of a confusing point or ask a question on the spot.

2. Lack of engagement:

- In an online course, you can't just put the content up and hope the students will engage with it.
- An effective online course must have *"regular and substantive"* interaction between instructor and student, student with student, and student with content. Online presence on behalf of the faculty is critical.

3. Recorded videos:

- While it might seem like uploading recordings of your 60 to 90-minute lectures is an easy way to put a class online, studies show that the average student stops watching by the five-minute mark, and sooner when the material is dry or challenging.
- Recorded videos with captioning and transcripts of three to five minutes is appropriate and speaks to equity.

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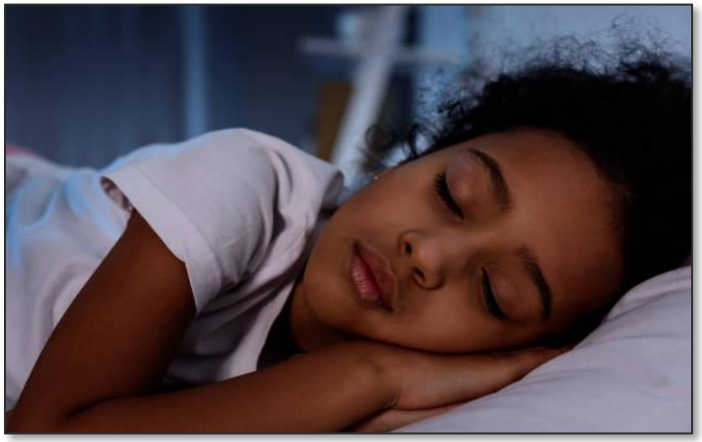
What Doesn't Work (cont.)



4. Lecturing on Zoom:

- There is no research or evidence that lecturing or synchronous class sessions on Zoom (or any video conferencing platform) with students is an effective methodology for learning. Students turn off video and mute and may even leave the class session.

5. Online Assessment:

- Assessing via multiple choice tests or any format that permits students to use search engines to locate the correct answer is ineffective.
- Lockdown browsers can be effective; however, the best practice is to assess based on personal experiences and applications. Timed exams can help decrease the sharing of responses or searching for responses but approaches that focus on inquiry-based learning and problem-centered learning tend to work most effectively.

6. Problem solving:

- Asking students to solve a problem with a single correct answer is something that can be shared with other students. Focus on derivation and explanation rather than THE correct answer.

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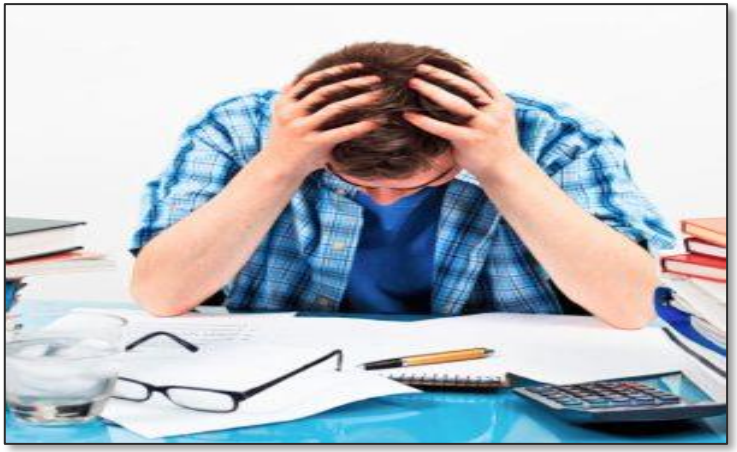
What Doesn't Work (cont.)



7. Adding additional work

- Adding additional work to compensate for face-to-face interaction is not only unhelpful to students, but it frustrates them and makes them feel overwhelmed. Overloading does not speak to focused or deep learning.

8. Customizing your learning management system course:

- Many institutions use learning management systems for students to access coursework. Students look for consistency in design to make learning easier.
- Concentrating on learning navigation for each course instead of concentrating on content and engagement defeats the purpose of efficient and effective learning.

9. Lecturing:

- Any form of a lecture doesn't work well online since it lacks the personality of a face-to-face presentation. While lecturing may have its place, research indicates that providing learning experiences that are inquiry-based and encourages autonomous learning are most effective.

10. Asking students to recall facts.

- That's the bottom of Bloom's Taxonomy. How about creating, developing, or formulating?

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What Doesn't Work (cont.)

If you are doing any of these ten things for your students, you might as well furnish a pillow and sing a lullaby to them online.

LULLABY Learning

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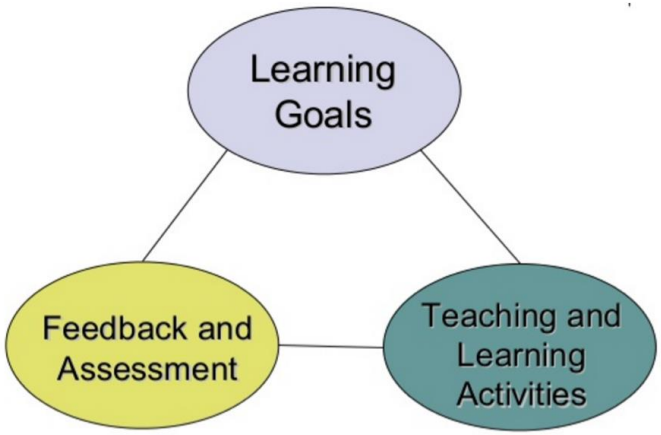
What Does Work?



1. **Start with the end:**

- Use a backwards design approach to write learning outcomes first then work towards how you will get there with content, formative and summative assessments, activities and engagement. Remember student-instructor, student-student, and student-content interactions.

2. **Set expectations first:**

- How do you want the students to act and perform in an online class?
- Use rubrics to show them your expectations
- Display an “A” example, a “C” example, and a “poor example”.

3. **“Teach” your syllabus:**

- Prior to the beginning of the course, ask students to attend a synchronous session and go through details of your syllabus including all details.
- While this may take some time, if you record it, you can post the recording in your learning management system and have students refer to it later. If they ask a question about the course, refer them to the recording. Saves you time and helps students review the syllabus. Promotes equity.

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What Does Work? (cont.)

4. Embed *within* your learning management system

- Having students open new tabs in their browser frustrates and confuses them. They begin concentrating on finding the right tab instead of learning the content. Keep everything *within* the learning management environment.

5. Use technology appropriately

- Technology/tools in a course should 1) serve a purpose and not be "technology for the sake of using technology", 2) not have a steep learning curve (if it is difficult to learn for you, it will be ten times harder for students – keep it simple!) and 3) free or inexpensive (free is better).

6. Some activities or options:

- Surveys
- Journaling
- Online student presentations with written anonymous critiques from peers
- Case study/scenario videos
- Debates
- Simulations

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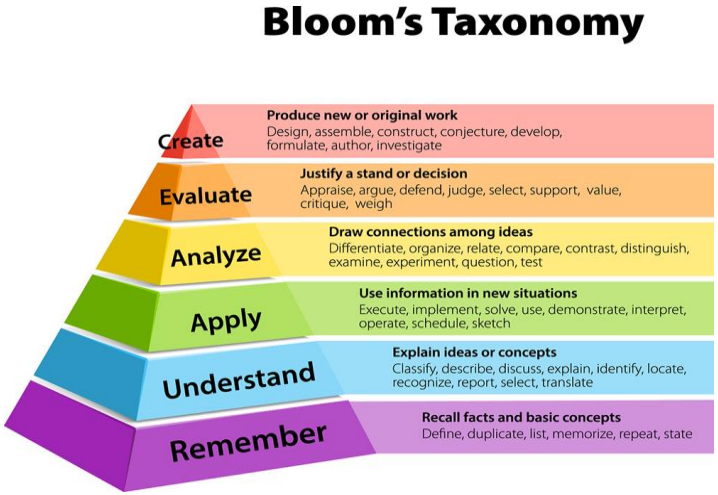
What Does Work? (cont.)



7. Think highest level of Bloom's taxonomy:

- Have students apply their knowledge, analyze problems, search for and synthesize information, and evaluate the quality of various information sources and, at the highest level, create original work.

8. Use Zoom sparingly:

- Briefly check in on students showing an online presence, converse with them informally and check their health, summarize last week's work and how to improve, and summarize future assignments and activities for the week. Record this discussion and post. It should take no longer than 10-15 minutes.
- Turn students loose and step aside to become a facilitator. Be the "guide on the side" and not the 'Sage on the stage". Don't give in to the urge to teach content. Students can read. Let them discover!

9. Provide guidance and support:

- Hold virtual office hours and encourage appointments
- Respond in a timely fashion
- Get he feedback loop going to provide a back-and-forth conversation with students

10. Learning communities:

- Build dedicated learning communities for students, not for yourself.
- Encourage collaboration. Students learn from each other as well as from the teacher.

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My Top Tips

- Develop using Universal Design principles
- Build an accessible course (and curriculum): pay close attention to ADA requirements
- Design Thinking
  Empathize->Define->Ideate-> Prototype->Test

- "Can" your responses: when students ask questions, save your responses. Use those when students ask the same question repeatedly so that everyone gets the same exact working. Saves you time and provides for equity!

- Think equity! Empathy and putting yourself in your students' shoes is the best thing you can do for them.
- Personalize/customize learning
- Step back and become a guide and not a "teacher"!

"Sage on the Stage"

"Guide on the Side"

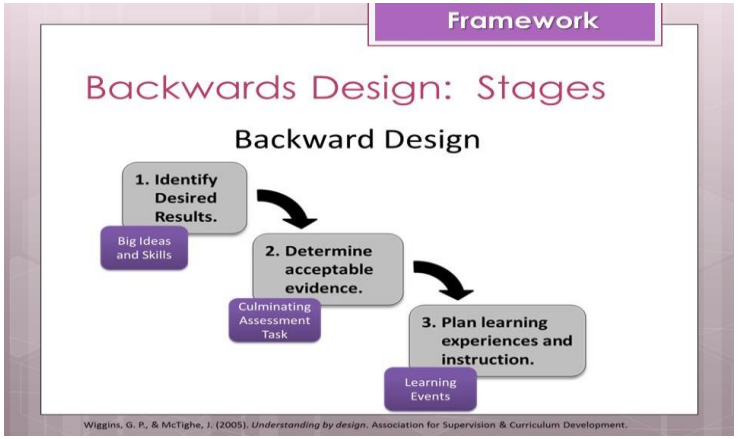
The Universal Design for Learning Guidelines

CAST | Until learning has no limits

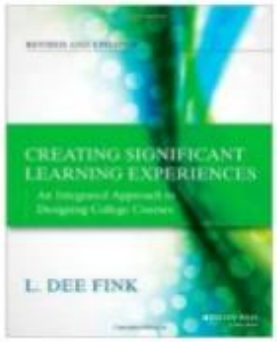
	Provide multiple means of **Engagement**	Provide multiple means of **Representation**	Provide multiple means of **Action & Expression**
	Affective Networks The "WHY" of Learning	Recognition Networks The "WHAT" of Learning	Strategic Networks The "HOW" of Learning
Access	Provide options for **Recruiting Interest** (7) • Optimize individual choice and autonomy (7.1) • Optimize relevance, value, and authenticity (7.2) • Minimize threats and distractions (7.3)	Provide options for **Perception** (1) • Offer ways of customizing the display of information (1.1) • Offer alternatives for auditory information (1.2) • Offer alternatives for visual information (1.3)	Provide options for **Physical Action** (4) • Vary the methods for response and navigation (4.1) • Optimize access to tools and assistive technologies (4.2)
Build	Provide options for **Sustaining Effort & Persistence** (8) • Heighten salience of goals and objectives (8.1) • Vary demands and resources to optimize challenge (8.2) • Foster collaboration and community (8.3) • Increase mastery-oriented feedback (8.4)	Provide options for **Language & Symbols** (2) • Clarify vocabulary and symbols (2.1) • Clarify syntax and structure (2.2) • Support decoding of text, mathematical notation, and symbols (2.3) • Promote understanding across languages (2.4) • Illustrate through multiple media (2.5)	Provide options for **Expression & Communication** (5) • Use multiple media for communication (5.1) • Use multiple tools for construction and composition (5.2) • Build fluencies with graduated levels of support for practice and performance (5.3)
Internalize	Provide options for **Self Regulation** (9) • Promote expectations and beliefs that optimize motivation (9.1) • Facilitate personal coping skills and strategies (9.2) • Develop self-assessment and reflection (9.3)	Provide options for **Comprehension** (3) • Activate or supply background knowledge (3.1) • Highlight patterns, critical features, big ideas, and relationships (3.2) • Guide information processing and visualization (3.3) • Maximize transfer and generalization (3.4)	Provide options for **Executive Functions** (6) • Guide appropriate goal-setting (6.1) • Support planning and strategy development (6.2) • Facilitate managing information and resources (6.3) • Enhance capacity for monitoring progress (6.4)
Goal	**Expert learners** who are...		
	Purposeful & Motivated	**Resourceful & Knowledgeable**	**Strategic & Goal-Directed**

PDF Source:
https://keepteaching.ucdavis.edu/sites/g/files/dgvnsk8756/files/files/page/udgl_v1.pdf

Where to Begin

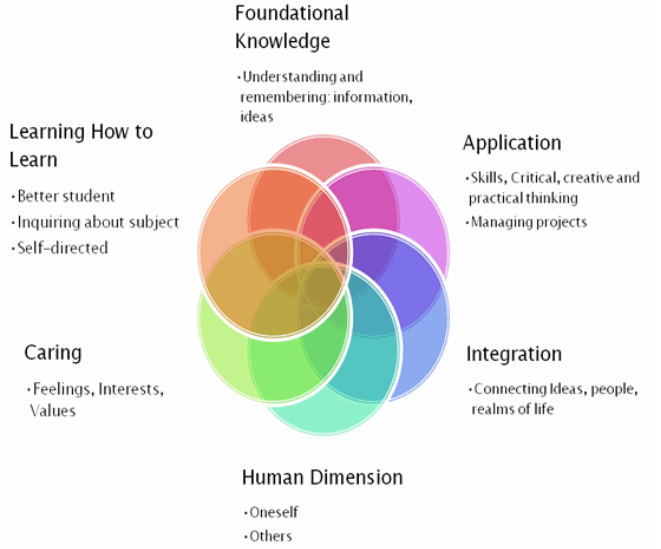


Motivation: Significant Learning



Self-Directed Guide to Designing Significant Learning Experiences

Fink, D. (2013). *Creating significant learning experiences: An integrated approach to designing college courses*. San Francisco, CA: Jossey-Bass.



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Where to Begin (cont.)

Week	Activity	Due Date	Due Time	Point Value	Percent
1	Quiz 1-Syllabus Info	09/04/2019	10:00 pm	25	5%
1	Discussion-About Me	09/05/2019	10:00 pm	5	1%
1	Discussion-Week 1 Reading	09/06/2019	10:00 pm	5	1%
2	Quiz 2	09/11/2019	10:00 pm	25	5%
2	Discussion-Week 2 Reading	09/13/2019	10:00 pm	5	1%
3	Quiz 3	09/18/2019	10:00 pm	25	5%
3	Assignment: Term Paper #1	09/20/2019	10:00 pm	50	10%
4	Discussion-Week 4 reading	09/25/2019	10:00 pm	5	1%
4	Test-Midterm Exam	09/27/2019	10:00 pm	100	19%
5	Discussion-Week 5 reading	10/02/2019	10:00 pm	5	1%
5	Quiz 4	10/04/2019	10:00 pm	25	5%
6	Discussion-Week 6 reading	10/09/2019	10:00 pm	5	1%
6	Assignment: Term Paper #2	10/11/2019	10:00 pm	50	10%
7	Discussion-Week 7 reading	10/16/2019	10:00 pm	5	1%
7	Quiz 5	10/18/2019	10:00 pm	25	5%
8	Discussion-Week 8 reading	10/23/2019	10:00 pm	5	1%
8	End of course survey	10/25/2019	10:00 pm	5	1%
8	Test-Final Exam	10/30/2019	10:00 pm	150	29%
Total				520	100%

The Learning Roadmap

You may even want to include more details such as specific readings, links to assignments, or links to associated discussion forums.

Embed into the learning management system using Google Drive so that you can share it with students, change it on the fly, and quickly alert students.

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Where to Begin (cont.)

[Ten Best Practices for Teaching Online]
J. V. Boettcher, Ph.D.
Designing for Learning 2006 – 2019

- **Best Practice 1.** Be present at the course site
- **Best Practice 2.** Create a supportive online course community
- **Best Practice 3.** Share very clear expectations including rubrics
- **Best Practice 4.** Use a variety of large group, small group, and customized learning activities/experiences
- **Best Practice 5.** Use synchronous sparingly, focus on asynchronous learning
- **Best Practice 6.** Solicit feedback often and listen to students! Adjust based on feedback.
- **Best Practice 7.** Create discussions that encourage inquiries, reflections, and problem solving
- **Best Practice 8.** Focus on current content to make it relevant
- **Best Practice 9.** Combine core concept learning with customized and personal learning
- **Best Practice 10.** Tie it up at the end

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Instructional Design

The process by which instruction is improved through the analysis of learning needs and systematic development of learning materials.

Student centered

Curation of content

Shift from "Instructional" to "Learning Experience" Design

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Instructional Design (cont.)

- Set clear learning objectives using measurable verbs
- Make navigation simple and consistent
  - Use “START HERE” button
  - Menu-driven
  - Sequential based on prior learned skills/knowledge
- Storyboard to make course flow
- Accommodate learning modalities
  - Audio
  - Visual
  - Tactile
- Include case studies/simulations/scenarios for relevance
- Offer creative assessments high on Bloom’s Taxonomy
- Provide rapid feedback to begin feedback loop
- Provide rewards (badges/micro-credentials)
- Promote micro-learning (mini lectures and voiceovers/screencasts)
- Chunk” content to facilitate deeper learning

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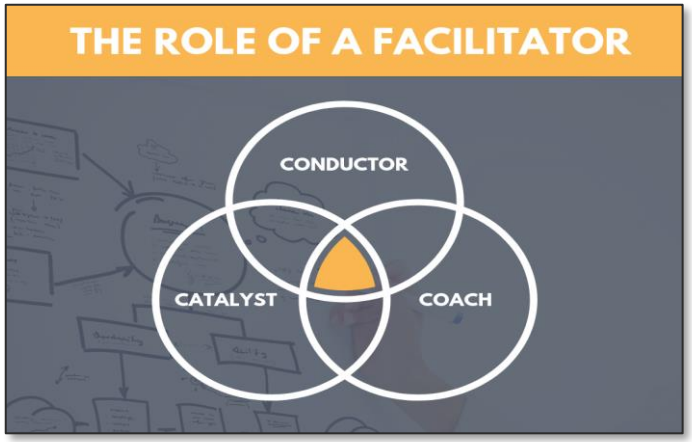
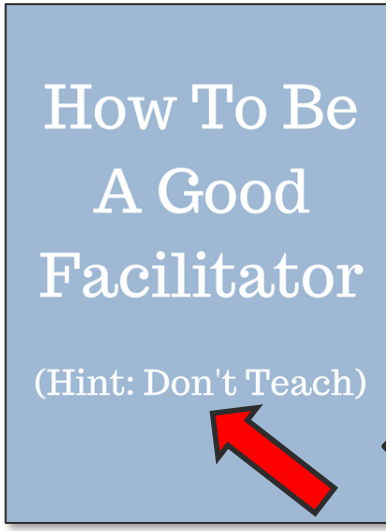
Online Pedagogy





- Be a coach
- Be a guide
- Be a mentor
- Be a facilitator
- But…DON'T TEACH

Engage, engage, engage!

- Build a safe learning community
- Be creative with discussion forums: VoiceThread
- Set virtual office hours for one-on-one consultations
- Encourage collaborative learning (not academic dishonesty)
- Show empathy and develop trust – don't be accusatory
- Provide rewards

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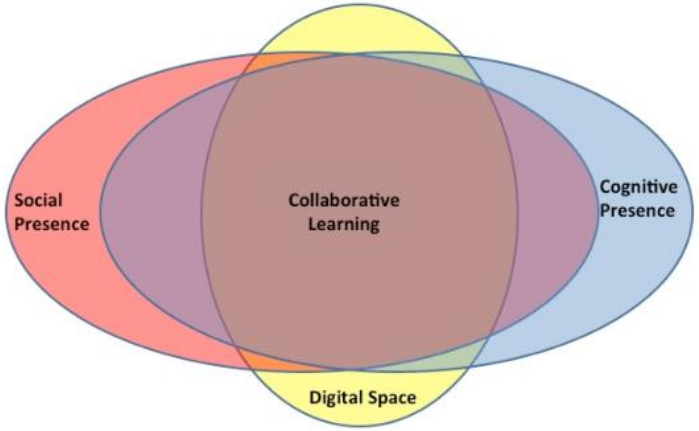
Online Pedagogy (cont.)



Teacher-Centered Approach

Direct Instruction
- Formal Authority
- Expert
- Personal Model

Subject Matter Expert (SME)

Student-Centered Approach

Inquiry-Based Learning
- Facilitator
- Personal Model
- Delegator

Cooperative Learning
- Facilitator
- Delegator

Learning Facilitator

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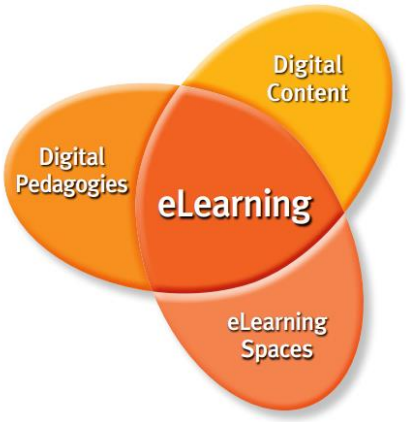
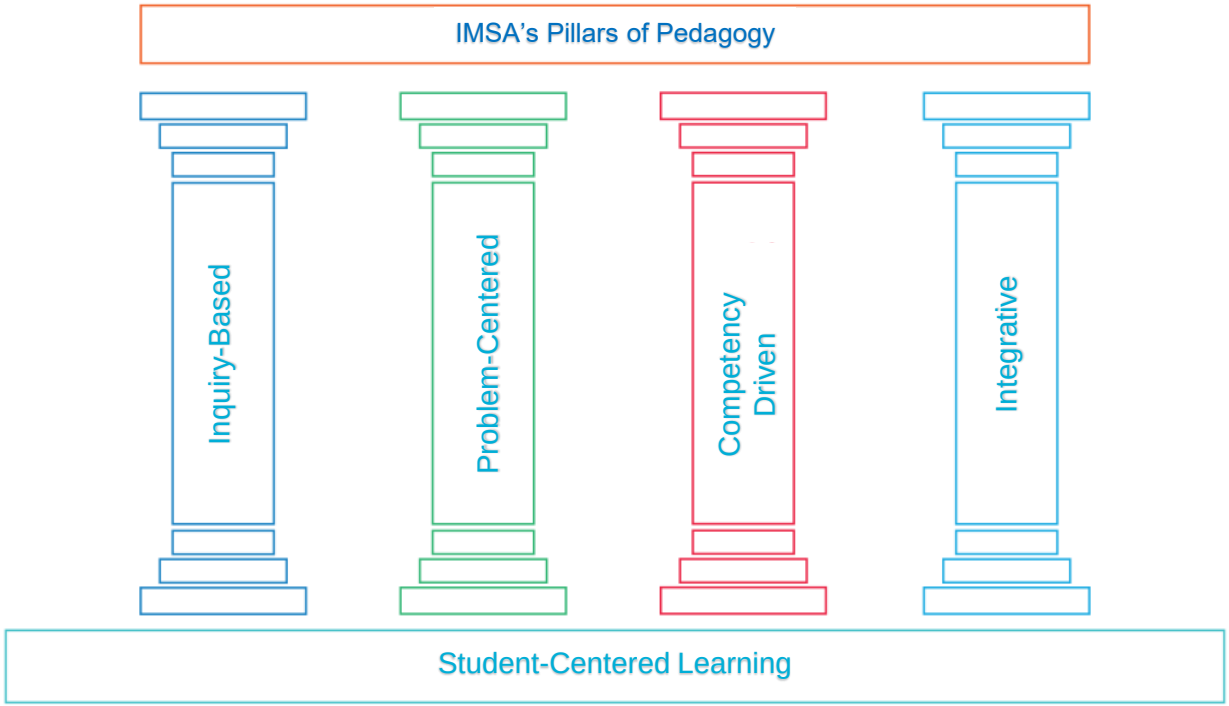
Online Pedagogy (cont.)





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Equity and Inclusiveness

Per Gay (2010), culturally responsive teaching practices should be:

1.**Validating**. Culturally responsive teaching utilizes "cultural knowledge, prior experiences, frames of reference, and performance styles of ethnically diverse students to make learning encounters more relevant to and effective for them. It teaches to and through the strengths of these students" (p. 31).

2.**Comprehensive**. Culturally responsive teaching is about educating the whole learner by "helping students of color maintain identity and connections with their ethnic groups and communities; develop a sense of community, camaraderie, and shared responsibility; and acquire an ethic of success. Expectations and skills are not taught as separate entities but are woven together into an integrated whole that permeates all curriculum content and the entire modus operandi of the classroom". (p.32).

3.**Multi-dimensional.** "Culturally responsive teaching encompasses curriculum content, learning context, classroom climate, student– teacher relationships, instructional techniques, classroom management, and performance assessments" (p. 33).

4.**Empowering.** "Because culturally responsive teaching is empowering, it enables students to be better human beings and more successful learners. Empowerment translates into academic competence, personal confidence, courage, and the will to act. In other words, students have to believe they can succeed in learning tasks and be willing to pursue success relentlessly until mastery is obtained" (p. 34).

5.**Transformative. "**Culturally responsive teaching defies conventions of traditional educational practices with respect to ethnic students of color. This is done in several ways. It is very explicit about respecting the cultures and experiences of African American, Native American, Latino, and Asian American students, and it uses these as worthwhile resources for teaching and learning. It recognizes the existing strengths and accomplishments of these students and then enhances them further in the instructional process" (p.36).

6.**Emancipatory**. Culturally responsive teaching "releases the intellect of students of color from the constraining manacles of mainstream canons of knowledge and ways of knowing. Central to this kind of teaching is making authentic knowledge about different ethnic groups accessible to students. The validation, information, and pride it generates are both psychologically and intellectually liberating. This freedom allows students to focus more closely and concentrate more thoroughly on academic learning tasks" (p.37).

Source: https://link.springer.com/article/10.1007/s11528-017-0207-z#Sec2
PDF: https://files.eric.ed.gov/fulltext/ED594599.pdf

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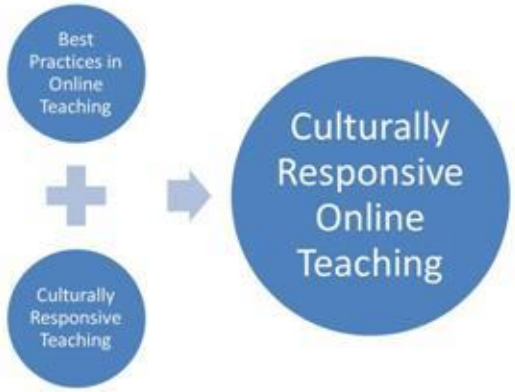
Seven Principles of Culturally Responsive Online Teaching

Principle 1: Students are affirmed in their cultural connections
Principle 2: Teachers are personally inviting
Principle 3: Learning environments are physically and culturally inviting
Principle 4: Students are reinforced for academic development
Principle 5: Instructional changes are made to accommodate differences in learners
Principle 6: Online Classroom is managed with firm, consistent, loving control
Principle 7: Interactions stress collectivity as well as individuality

- **Validating**
- **Comprehensive**
- **Multi-dimensional**
- **Empowering**
- **Transformative**
- **Emancipatory**



Source: http://www.ghequityinstitute.com/

PDF: https://www.educatored.com/CourseResource/course/103993/194333/3ddcbdfe594741548174aaae0e932e12_Elements%20and%20Strategies.pdf

Resources

- Best Practices for Online Instruction in the Wake of COVID-19 (.pdf)
- Ensuring Equity in Online Learning – Considerations in Response to COVID-19's Impact on Schooling
- Harvard's Best Practices of Online Pedagogy
- Culturally Responsive Teaching
- Ten Best Practices for Teaching Online
- Library of 120 E-Coaching Tips
- Thrust into Online Learning Overnight? Change Your Mindset to Thrive
- Celebrating Difference: Best Practices in Culturally Responsive Teaching Online
- Elements and Strategies for Culturally Responsive Teaching

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Illinois Mathematics and Science Academy

Dr. Rich Schultz
Senior Online Learning Administrator
IMSA
Center for Teaching and Learning
rschultz@imsa.edu