#### Stanford VPTL





# Welcome to the ID Summit!

Ben Piscopo & Alison Brauneis

March 26, 2019



#### Goals for the ID Summit

By the end of the ID Summit, you will be able to...

- Apply learning science research and best practices in online course design to the development of your own course learning objectives, assessments and content delivery
- Start building your own online course module in an Open edX course shell using tips and strategies on using Studio
- Connect and share your work with other participants in the instructional design community



#### Introduce Yourself!

In pairs or triads, answer the following:

- 1. What is your name?
- 2. What is your position? Where do you work?
- 3. What is the project that you will be working on? (Describe in 1-3 sentences)
- 4. What is the most inspiring use of technology in a learning environment that you have seen?



## Today's Agenda

Welcome & Introductions

Learner-Centered Design

Sandbox Setup

Break

Module Design & Outline

Lunch

Assessments, Content Delivery & Learner Engagement

Breakout Sessions & Workshop Time

Share Out & Conclusion



# What is the *first* thing that you think about when you *design* a course?



# How Do We Usually Begin Designing a Course?

#### **COMMON APPROACH**

1. Consider content and topics

2. Then activities and discussion

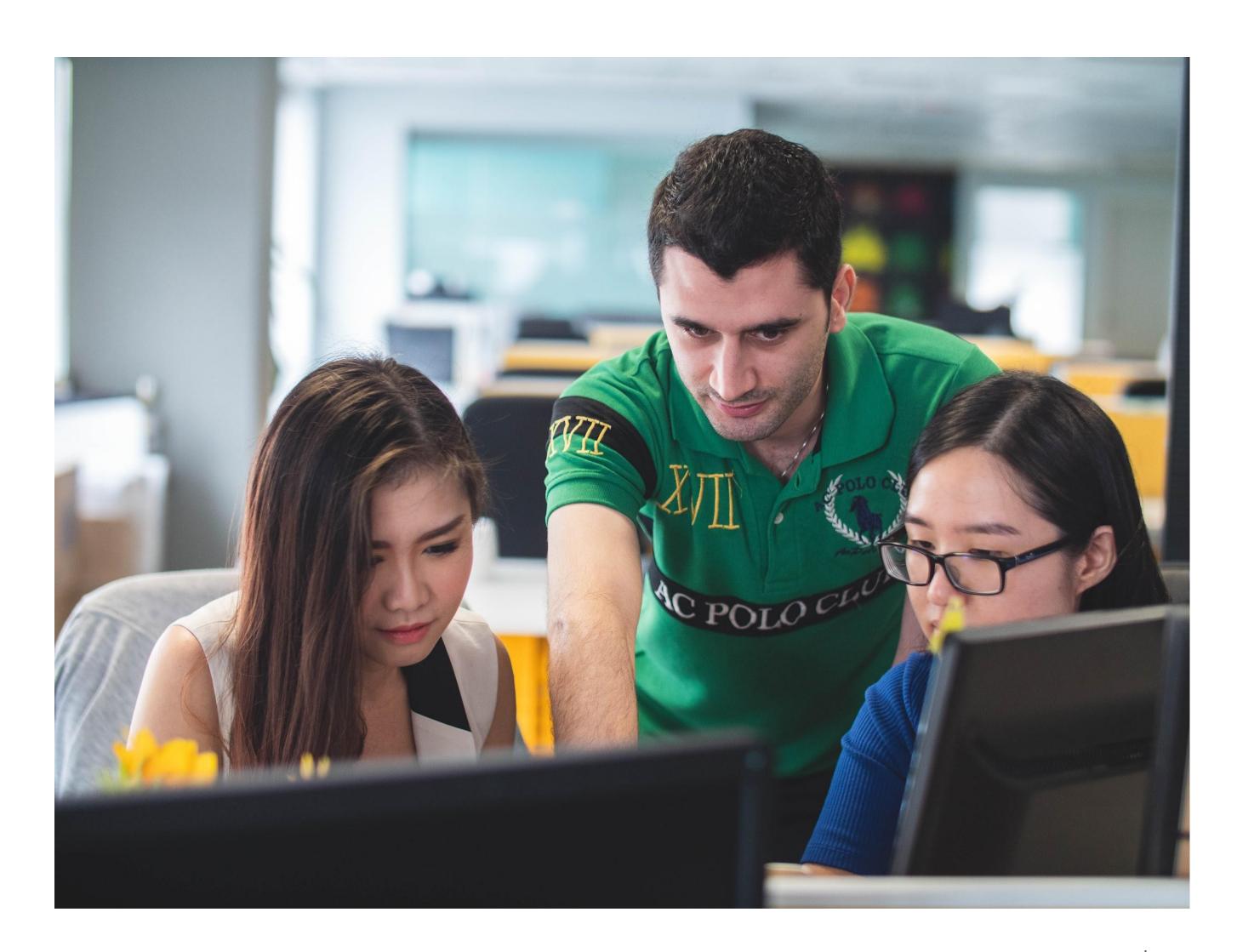
3. Then assignments and grading

4. ... to see what the learners learned



## Learner-Centered Design

1. Who are your learners?



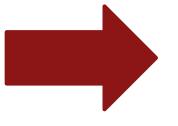
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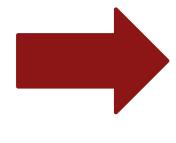
#### Backward Design

Adapted from Wiggins and McTighe (2005)

Identify desired results



Determine acceptable evidence



Plan learning experiences and instruction



#### Backward Design

Adapted from Wiggins and McTighe (2005)

Learning Objectives

Assessment

Content

Identify desired results

Determine acceptable evidence

Plan learning experiences and instruction

Learning outcomes for learners

What assignments demonstrate and support learning outcomes?

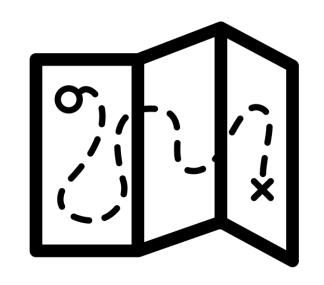
What course content, discussion & activities support assessment and learner learning?



#### Benefits of Backward Design



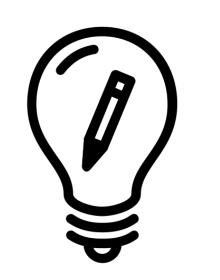
Focused on the learner's learning



Provides structure and organization to course development



Sets clear goals and outcomes



Allows learners to see how their work coheres around their learning



#### Effective Learning Objectives...

Are statements that describe a specific, measurable and realistic learner behavior



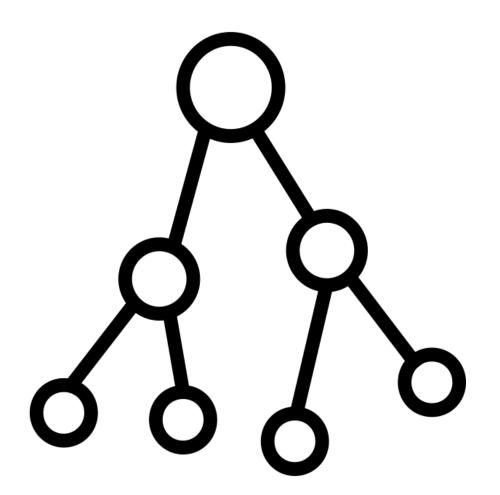
- Are learner-centered ("students will be able to...")
- Are focused on skills, knowledge, or attitudes/attributes
- Break down tasks into specific cognitive components
- Align with level of understanding expected of learners
- Use action verbs

Student by Wilson Joseph from the Noun Project



#### Be Wary of "Understand" and "Know"

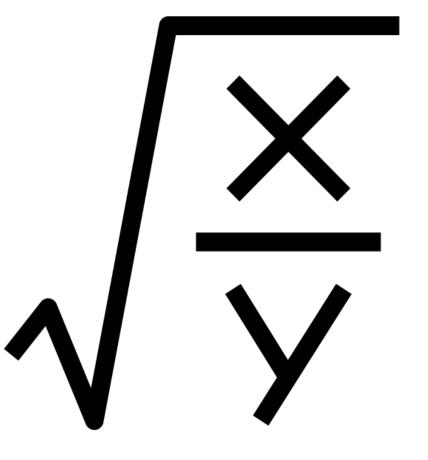
What does "understand" or "know" mean?



**OR** 



)R



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#### Example Learning Objectives

#### **CHEMISTRY**

• Students will be able to identify the interactions among nuclei, electrons, atoms, and molecules, and how they determine the structures and properties of pure substances and mixtures.

#### **CIVIL ENGINEERING**

• Students will be able to choose appropriate probabilistic models for a given problem, using information from observed data and knowledge of the physical system being studied.

#### **ENGLISH**

• Students will be able to recognize and analyze the use of irony in 19th century short fiction.

#### **MATHEMATICS**

• Students will be able to assess the reasonableness of a given solution.



#### Backward Design

Adapted from Wiggins and McTighe (2005)

Learning Objectives

Assessment

Content

Identify desired results

Determine acceptable evidence

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Learning outcomes for learners

What assignments demonstrate and support learning outcomes?

What course content, discussion & activities support assessment and learner learning?



# Example of Alignment Between a Learning Objective, Assessment & Content

Learning Objectives What would you like your learners to know or do by the end of your online learning module?	Assessments  How will you know if your learners have achieved your learning objectives?	Content & Activities  What content and activities will you deliver to support your learning objectives?
1. Explain four levels of protein structure	Answer a question or two on the module quiz (graded)	<ul> <li>Read a short text-based material on the four levels of protein structure</li> <li>Complete a short activity to identify levels of protein structure in images of pipe cleaners folded into "pipe cleaner proteins"</li> <li>Discuss thoughts with peers on the discussion forum</li> </ul>



# Workshop Time: Create & Refine Your Learning Objectives & Module Plan

1. On your own, complete the worksheet with your online learning module in mind. Prioritize your learning objectives and thinking about your students, then complete the assessments and content delivery/activity sections of your module plan.

Soft copy of the worksheet: <a href="http://tiny.cc/idsummitlearningobi">http://tiny.cc/idsummitlearningobi</a>

2. In pairs or triads, share your learning objectives (and your other work) for your module. Provide feedback to one another.

3. Jot down notes / make edits.



#### References

Wiggins, G., & McTighe, J. (2005). *Understanding by Design* (expanded 2nd edition). Alexandria, VA: ASCD.





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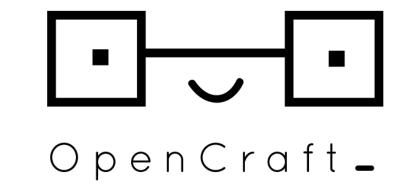
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#### Sandbox Course

# OPENECK 2019

#### Two Steps!



Register here: http://bit.ly/idSandbox2019 or https://openedxcon2019.opencraft.hosting/

Log into Studio: <a href="https://studio-openedxcon2019.opencraft.hosting/">https://studio-openedxcon2019.opencraft.hosting/</a>

Already in a Sandbox?

Fill in your Course info: Schedule & Details (Studio)

Offer help to your colleagues



#### Module Design & Development

How will you know if learners are successful?

- Assessments → Activities
- Hierarchy in an edX course
- Using a Storyboard



#### Hierarchy in an edX Course

Section = Week, module

Subsection = Lesson

#### Unit

Component

Component

Component

e.g. "Week 1: Human History of Antarctica"

"Terra Australis Incognita"

"Cook's Circumnavigation"

"Your Thoughts"



#### Naming Levels in a Course

#### Topics and sub-topics

Numerical order

Course: Family Engagement in Education

Research Implications & Practice

Subsection Children Ages 0-5

Section

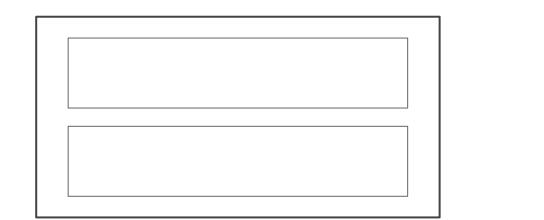
Unit Read and Reflect

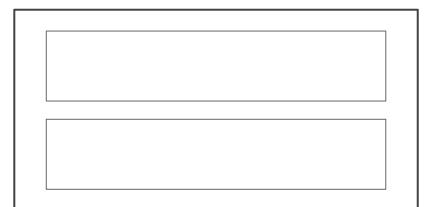
Intro to CS using Python

Unit 1: Introduction to Computing

Chapter 1.1: Computing

Lesson 1: What is Programming?







#### Naming Levels in a Course: Numerical Order

Course: Digital Transformation Strategy

Section Part 1: Every Business is (Becoming) Digital

**Subsection** Introduction

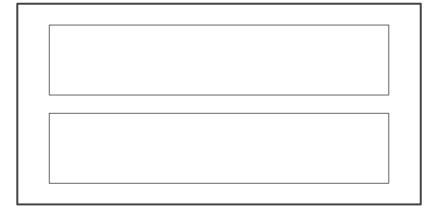
Unit Learning Objectives

Sustainable Soil Management

Module 1: Soil Formation

1.1 Preview

1.1.1 Introduction





# edX Storyboard

#### http://bit.ly/edxStoryboard

#### Introduction

Studio link: https://studio.edx.org/course/course-v1:edX+StudioX+3T2017...

Sub name	Unit name	Description (objectives)	Comp Type	Toyt/Imago/Source	
Getting Started	Welcome to StudioX!	Feels welcome	Video	"Welcome to StudioX"	welcome video 01
		In the right place	Text	This course is designed for course authors who are responsible for developing and delivering courses to be run on the edX platform. It provides application training with hands-on activities that guide you through the process of developing a course to be run on the edX platform. You must have access to Studio, edX's course authoring software, to successfully complete StudioX.	1
		Knows goals	Text	<h3> Course Goals This course is an introduction to using Studio but it also considers the needs of an entire course lifecycle. Here's what you'll learn how to do: <ul> <li>Create a new course in edX Studio</li> <li>Create accessible content in a course</li> <li>Set up a grading policy</li> <li>Manage a course and a course team</li> <li>Create a communication plan</li> <li>Beta test and launch a course</li> <li>Improve your course with analytics</li> <li>Make decisions around archiving or rerunning a course</li> </ul></h3>	"Goals" graphic needed
		DemoX plug	Text	Related resources:  Is this your first time taking a course on edX? Enroll in DemoX, the edX demonstration course, for more information on how to navigate an edX course.	Add "related resources image.





# Your Feedback (morning only attendees)

For those of you who are **only attending the morning session**, we greatly appreciate hearing your thoughts and feedback on today's ID Summit. Please complete the following short anonymous evaluation before you leave:

# http://tiny.cc/idsummitsurvey

Send a digital "postcard" to yourself with your top 3 action items:

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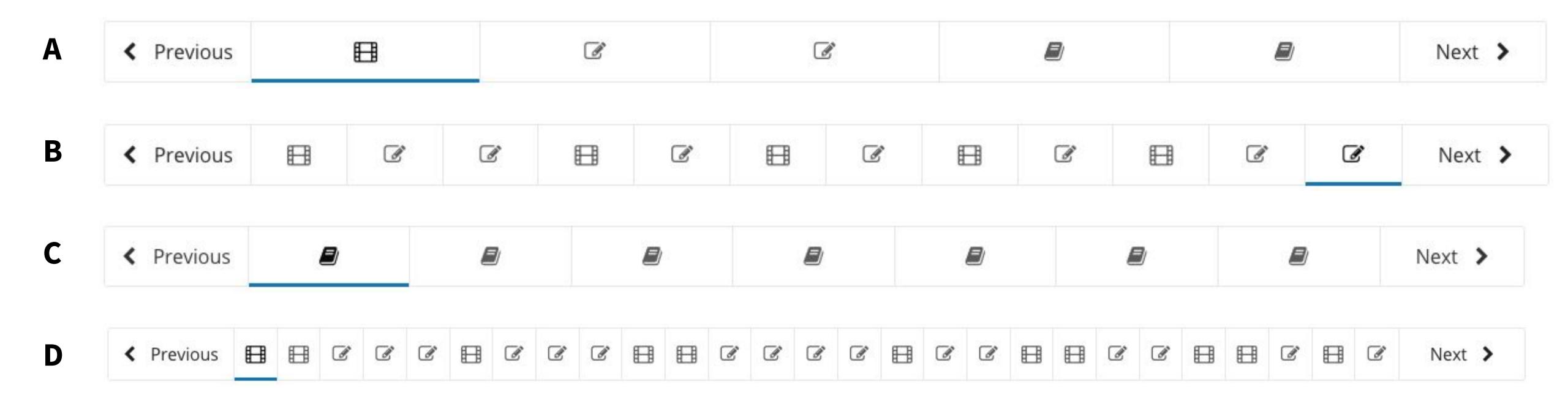
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## Tips for Increased Learner Engagement

1. Learning Sequence - Vary content formats!

Which ones are probably more engaging?

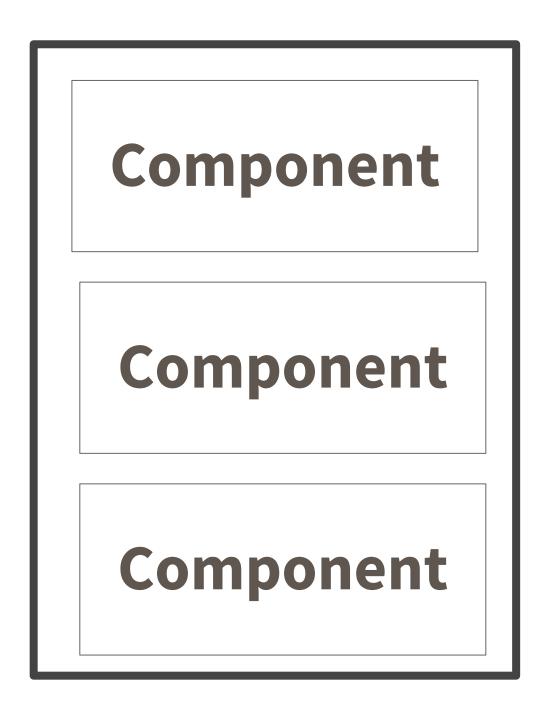


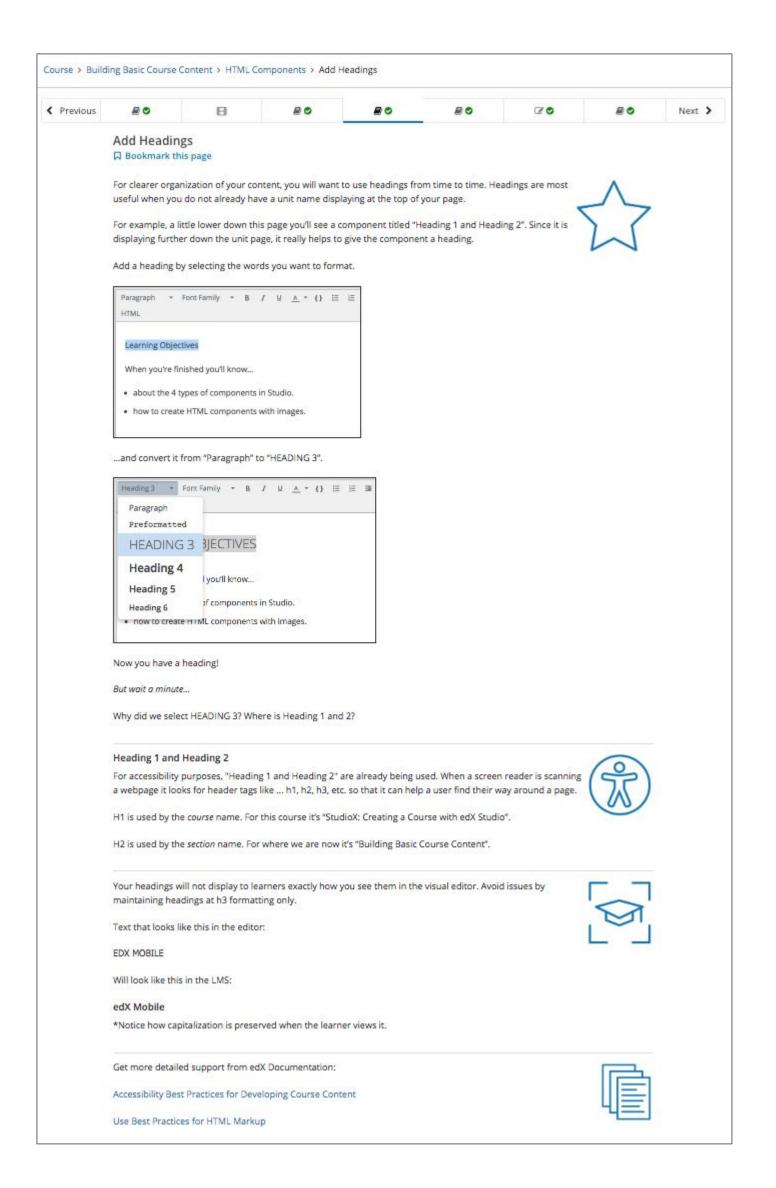


#### Tips for Increased Learner Engagement

2. Unit Depth - Limit to 3 components!

#### Unit





How many videos are in a typical edX course?

During 2012 - 2014: ...

During 2015 - 2018: ...

How many videos are in a typical edX course?

During 2012 - 2014: 120 videos (13 week course)

Or 9.2 videos/week

During 2015 - 2018: ...

How many videos are in a typical edX course?

During 2012 - 2014: 120 videos (13 week course)

During 2015 - 2018: 42 videos (6 week course)

How many videos are in a typical edX course?

During 2012 - 2014: 120 videos (13 week course)

9.2 videos/week

During 2015 - 2018: 42 videos (6 week course)

7 videos/week

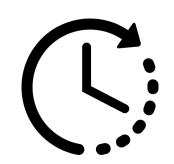


#### Strengths of Video

#### Choose video in *some* situations:



#### Engagement, Passion



Time Shift



Location



Demonstration



High Concept, Abstract



# Why is this a video?

# Noongar Language and Culture

Learn about the Noongar people of Western Australia, their culture and their language.







## Why is this a video?

#### Electricity and Magnetism: Magnetic Fields and Forces

Learn how charges create and move in magnetic fields and how to analyze simple DC circuits in this introductory-level physics course.







## Why is this a video?

#### Railway Engineering: An Integral Approach

Discover the science and complexity of railway systems, including how their efficiency depends on the alignment of all their components.







### Activity: "Should I be a Video?"

#### **HANDOUT**



- 1. Write one learning objective or concept to learn. (C0 = example concept)
- 2. How might you teach this concept with various formats?

Format   Concepts	CO	C1	C2
Video	Animation		
Reading			
Assessment	KC		
Discussion			
Writing/Journal			
Other activity	Simulation		





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### Breakout Sessions

	Session 1	Coffee Break	Session 2	Session 3
	2:30 - 3:00	3:00 - 3:10	3:10 - 3:40	3:45 - 4:15
Station A (Introducto ry)	Content Delivery & Assessments (Greg Bruhns)		Learner Engagement (Jea Choi)	HTML5 Interactive Content (Ben Piscopo)
Station B (Advanced)	Course Styling (Anna Lifshits Agmon & Hodaya Zada)		Course Styling (Anna Lifshits Agmon & Hodaya Zada)	Course Styling (Anna Lifshits Agmon & Hodaya Zada)
Station C	Custom Python Problems		Custom Python Problems	Custom Python Problems
(Advanced)	(Colin Fredericks)		(Colin Fredericks)	(Colin Fredericks)
Station D	Open Response Assessments		Open Response Assessments	Open Response Assessments
(Advanced)	(Udo Ouwerkerk)		(Udo Ouwerkerk)	(Udo Ouwerkerk)



# Online Resource on Online Courses: Blended & Online Learning Design (BOLD)

### bold.lagunita.stanford.edu



#### Presenting Content:

Videos: <a href="http://tiny.cc/BOLDVideo">http://tiny.cc/BOLDVideo</a>



#### Designing for All Learners:

- Overview: <a href="http://tiny.cc/BOLDDesignforAllLearners">http://tiny.cc/BOLDDesignforAllLearners</a>
- Inclusive Learning Environments: <a href="http://tiny.cc/BOLDInclusiveLearning">http://tiny.cc/BOLDInclusiveLearning</a>
- Accessible Text: <a href="http://tiny.cc/BOLDAccessibleText">http://tiny.cc/BOLDAccessibleText</a>
- Accessible Visuals: <a href="http://tiny.cc/BOLDAccessibleVisuals">http://tiny.cc/BOLDAccessibleVisuals</a>
- Accessible Videos: <a href="http://tiny.cc/BOLDAccessibleVideos">http://tiny.cc/BOLDAccessibleVideos</a>
- Non-Accessible Materials: <a href="http://tiny.cc/BOLDNonAccessible">http://tiny.cc/BOLDNonAccessible</a>



#### Assessments:

- Types: <a href="http://tiny.cc/BOLDAssessments">http://tiny.cc/BOLDAssessments</a>
- Selected-response: <a href="http://tiny.cc/BOLDSelectedResponse">http://tiny.cc/BOLDSelectedResponse</a>
- Constructed-response: <a href="http://tiny.cc/BOLDConstructedResponse">http://tiny.cc/BOLDConstructedResponse</a>



### Reflection

Jot down notes about next steps and findings from the breakout sessions you attended.

AND/OR

Send a digital "postcard" to yourself with your top 3 action items:

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**THANK YOU!** 

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