Online Course DESIGN GUIDE

Exploring the Guide

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Online Course DESIGN GUIDE

Agenda

- Introduction
- Overview of the Course Design Guidelines and Blueprint
- Part 1: Pre-Design
- Lunch
- Part 2: Design and Development
- Part 3: Facilitation
- Wrap-Up

Workshop Outcomes

- **Participants will create a blueprint for an online course**
- **Participants will understand:**
  - The difference between face-to-face and online course
  - What good online facilitation means
  - The importance of learning outcomes

About Brandon Muramatsu

- **B.S. & M.S. in Mechanical Engineering**
- **Taught multimedia design and open education**
- **20 years in EdTech**
  - ~10 years in educational digital libraries: Collections, nationwide collaborations, quality and peer review
  - 9+ years in Open Education: Open Educational Resources and OpenCourseWare
- **"Been There, Done That"**
  - Multimedia courseware design and course support, course design, video production software design, digital libraries, metadata, learning objects, open educational resources/OpenCourseWare, …

About you!

- **Please introduce yourselves with your Name and Institution**
- **What do you hope to get out of the workshop?**

Participants' Interests

- How to design the online B.Ed. Program
- Developing online courses to develop reflective practices
- Have a toolkit to design an online course
- How to improve existing online courses
- Software and tools that can be used for online courses

Participants' Interests

- **Elements in the design online courses**
- **Practical approaches to launch the courses**
- **Framework**
- **What kind of digital resources are available**
- **What is the "digital toolkit" and how to use it**

Setting the Stage

- **Have you taken an online course?**
- **Have you taught an online course?**
- **What courses are you teaching now?**

Setting the Stage

- **Practical skills and how to do it.**
- **Why do we need an online course, especially if there's an existing face-to-face course**
- **Areas where we can use the toolkit, and the importance of the toolkit**
- **Hands on practice to use the toolkit**

Why develop the Guide?

The Project

- **Rationale:**
  - Came from observing the transition from existing courses (especially correspondence / distance learning ones) to “contemporary” online courses
  - My interest in designing contemporary (for the 21st century) courses that take into account everything we know about good design practice
  - My desire to share the experiences of experts, and their tips and tricks <we’re still working on this one>

The Participants

- **Brandon Muramatsu**
  - Project Lead, MIT OEIT
- **Holly Ludgate**
  - Project Lead, New Media Consortium
- **Samantha Adams Becker**
  - Writer/Editor, New Media Consortium
- **Tom Caswell**
  - Contributor, Western Governors University
- **Marion Jensen**
  - Contributor, American Express
- **Gretchen Ulrich**
  - Contributor, Northeastern University
- **Emily Wray**
  - Contributor/Editor/Designer, Full Sail University

Developing the Guidelines and Toolkit

- **1.5 Day Meeting**
- **Discussed the structure of the guidelines, and goals**
- **Draft (write) sections of the guidelines, contribute worksheets and identify resources**
- **Edit, edit, edit**

Online Course Design

Designing an good online course is designing a good course!

Part 1: Pre-Design

Part 1: Pre-Design

- **"Gathering all of the necessary information to ensure that the course will meet the needs of the learners and engage them throughout the learning journey."**

- **What's different online:**
  - More difficult to make spontaneous adjustments
  - The asynchronous nature means you need to be thoughtful about creating interaction opportunities

Pre-Design Questions (1)

- **Who are my learners?**

… you need to make sure you can produce content for their level and the correct voice.

- **What do they currently know?**

…so you can avoid repetition and focus on growing what they have learned.

Pre-Design Questions (2)

- **What do they need to know before starting the course?**

…so you can provide prerequisite materials to learners and they can plan accordingly before the course begins.

Pre-Design Questions (3)

- **What other content is available that supports meeting learning outcomes?**

…curating content you already have means not having to start everything from scratch.

- **Do you have existing material that can be used in the course?**

…being able to identify other resources that support your key topics adds greater depth to the course.

Pre-Design Questions (4)

- **What content must be revised for an online format or created from scratch?**

… taking inventory of the varying stages of content will inform the design phase and give you a better sense of how much work it will require to prepare the content for online use.

Going Behind The Curtain

Exploring a MIT online course

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MIT and Education

- **MIT does not have a School of Education**
- **MIT *does* have faculty that are deeply interested in education**
  - Eric Klopfer (the same faculty member leading the Games and Simulation Course) runs the Scheller Teacher Education Program to prepare MIT students to teach in K-12 schools
- **MIT has a number of central units (TLL, OEIT, etc.) that provide support for teaching and learning.**

Best Practices for Teaching and Learning

- **One of the courses MIT developed for the EDC Pre-STEP program**
- **Course Goals:**

  How do we design a course?

  What are the best methods for promoting critical thinking skills, knowledge retention, and transfer?

…primarily for in-person classes

Background on the Course

- **Based on a 14 week course that MIT provides for graduate students and Post-Docs who wish to learn how to teach**
- **Course is run by the MIT Teaching and Learning Laboratory (TLL)**
  - They work with faculty on education research
  - They work with faculty on pedagogically informed teaching practice
  - Perform some of the functions of a Center for Teaching and Learning

Background on the Course

- **Instructors have taught the face-to-face version of this course**
  - Experienced in teaching in Biology
  - Experienced in research in Biology, both have Ph.D.s
  - Deep interest in biology education, especially preparing students for careers in Biology
- **Instructors have not taught online before**
  - Relying on others for that experience <- it takes a team!

Question: Who are my learners?

- **Faculty interested in learning "best practices"**
  - Might be in teacher education departments
  - With possible focus on Science / Math education
- **Challenge:**
  - Different from the course upon which it was based
  - MIT graduate students ≠ faculty in teacher education programs

Question: What do my learners currently know?

- **Unknown**
  - Might, or might not, have experience with “good” teaching practice
  - Might not have been formally trained to “teach”
- **Challenge:**
  - Didn’t have the opportunity to really find out about the participants before designing the course, had to make assumptions

Question: What do my learners need to know before starting the course?

- **Participants should have:**
  - Experience in teaching
  - Perhaps experience in teaching pre-service teachers
- **Challenge:**
  - Didn't have the opportunity to really find out about the participants before designing the course
  - Had to make assumptions

Question: Do you have existing material that can be used in the course?

- **Yes!**

- **Challenges:**
  - Material designed for face-to-face interactions
  - Materials designed for a 14 week course

Question: What other content is available that supports meeting learning outcomes?

- **Lots and lots**

- **Challenge:**
  - Pre-supposes learning outcomes!
  - Some materials are referenced in pre-session readings
  - Some materials are referenced during the session videos (as citations)

Question: What content must be revised or created from scratch?

- **Lecture videos**
  - Most of the course is an interactive discussion in class based around the pre-session readings
- **Slides**
- **Activities**

- **Challenges:**
  - Developing a mostly-asynchronous learning experience for what was a highly synchronous course

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Pre-Design Activity

- **Break up into small groups**
- **Select a course you teach or would like to teach**
  - What's the course title? What's the course about?
- **Answer the pre-design questions**
- **Report back**

Pre-Design Questions

- Who are my learners?
- What do my learners currently know?
- What do my learners need to know before starting the course?
- Do you have existing material that can be used in the course?
- What other content is available that supports meeting learning outcomes?
- What content must be revised for an online format or created from scratch?

Pre-Design: Group 3

- **Functional English**
  - Graduate students 14 years of education
  - **Studied English as a subject for 12 years, basic grammar, sufficient vocabulary, comprehension (reading writing, speaking, listening)**
  - Basic technology knowledge (IT literacy)
  - Existing materials: textbooks
  - Other materials: **British Council online courses, BBC Online Language course, AIOU course**
  - What need to be revised, or created? Teacher guides and textbooks
  - Questions: What are the assessments? Test, quizzes

Pre-Design: Group 1

- **Child psychology**
  - Don't know about philosophy of learning
  - What will they learn about the course
  - Existing materials: **Textbooks and course guides**
  - Other resources: Other published materials, purchase textbooks online, Wikipedia
  - What is needed: Will need to design for online courses
  - What to revise: **Change from print to online**

Pre-Design: Group 4

- **ICT in Education**
  - Audience: Students of B.Ed. Hons.
  - Existing knowledge: Knowledge of basic computers
  - Required knowledge: how to use the Internet and modern technology to access the course
  - Existing materials: Course guide, text material, A/V aids
  - Other materials: Sources from website, e.g., MIT, production center
  - Revision of materials: **Assessment system** needs to be changed for the online course, textbooks print -> digital, method of teaching and classroom teaching will be revised with videos and assignments

Pre-Design: Group 2

- **Classroom Management**
  - Audience: **undergraduates, 18-20, Men/Women, rural and urban background**
  - What do they know: Educational psychology, child development, methods of teaching, awareness of school-based visits, <- Question: is there relevancy for some of these
  - Need to know?: Scheme of studies <- **Question is this necessary**, Purpose of the course, IT skills
  - Existing Materials: Printed, websites, videos, course guides
  - Other materials: more videos, online simulations / games
  - Revision: study guides, scheme of studies, assessment tasks

Break

Part 2: Design and Development

Part 2: Design and Development

- **"In this phase, learning strategies are mapped out, learning content and media are developed, organized, and sequenced, and supporting technology is selected."**
- **What's different online:**
  - Online learning is more exploratory in nature, and oftentimes less directed than in-person
  - Learners access materials asynchronously: The easier it is for learners to locate and engage with learning activities, the more mental energy they will have to focus on the content.

Objectives and Outcomes

- "Learning outcomes are general statements that describe the essential learning (knowledge, skills, and attitudes) that learners will achieve by the end of the course. They should encompass the depth of the knowledge and skills that you will be ultimately assessing. When composing outcomes, be mindful not to combine elements that cannot be assessed by a single method."

Designing a Blueprint

- **What's a blueprint?**
  - A comprehensive plan that allows "you to design with the big picture in mind to ensure you reach every milestone and build consistency throughout the curriculum."
- **Key Elements**
  - Course information
  - Course learning objectives and outcomes
  - Lesson topics and format
  - Learning resources
  - Activities and assessment

Content Patterns: Organizing & Sequencing (1)

- **"Constructing patterns in your curriculum is one way to infuse consistency throughout the course, which helps the learners manage time and resources. How you approach your content each week should be organized in such a way that the learner understands what is being taught and how to interact and engage with the material and community."**
- **What's different online:**
  - The easier it is for learners to locate and engage with learning activities, the more mental energy they will have to focus on the content.

Content Patterns: Organizing & Sequencing (2)

- **Write all course content using a consistent voice**
- **Create patterns in activity structure (e.g., description, rationale, deliverables, and resources)**
- **Establish a consistent schedule (e.g., standardize due dates and plan synchronous sessions, virtual meetings, office hours, and other activities at the same time each week)**
- **Align learning objectives to each segment of content**
- **Structure the content into smaller pieces**

Best Practices Course: Organizing and Sequencing Example

- **Demo Organizing and Sequencing in Session 1**

Creating Content Relationships

- **"Strategically organize and present all course content to leverage the learners' existing expertise on a topic against the concepts and skills they are going to learn."**

1	2	3
Create a pre-assignment that activates prior knowledge before new material is introduced as a method of contextualizing new information.	Introduce a topic by connecting prior knowledge to the new learning.	Present a discussion board where the learner can engage and contextualize prior knowledge with new learning.

Best Practices Course: Content Relationship Example

- **Demo Content Relationships in Session 1**

Lesson Development with Media (1)

- **"Depending on how you choose to introduce, curate, or present the learning topics, creative applications of media can further engage learners in the material."**
- **What's different online:**
  - Just posting your slides does not leverage the opportunities in an online course
  - Simply recording a video of an in-person lecture does not leverage the opportunities in an online course

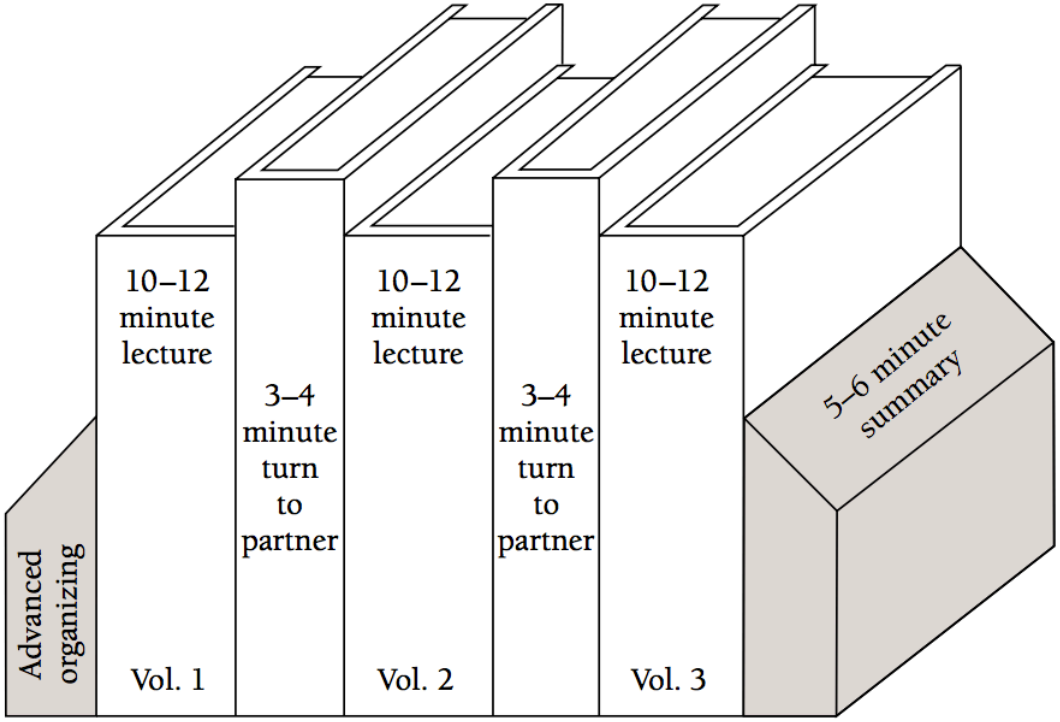
Lesson Development with Media (2)

- **Media can:**
  - Introduce and guide main concepts
  - Generate interest in a subject
  - Reinforce confusing or complex ideas
  - Frame overarching themes
  - Set the stage for an activity
  - Curate a particular approach for how the learner should explore a topic

Best Practices Course: Media Example (1)

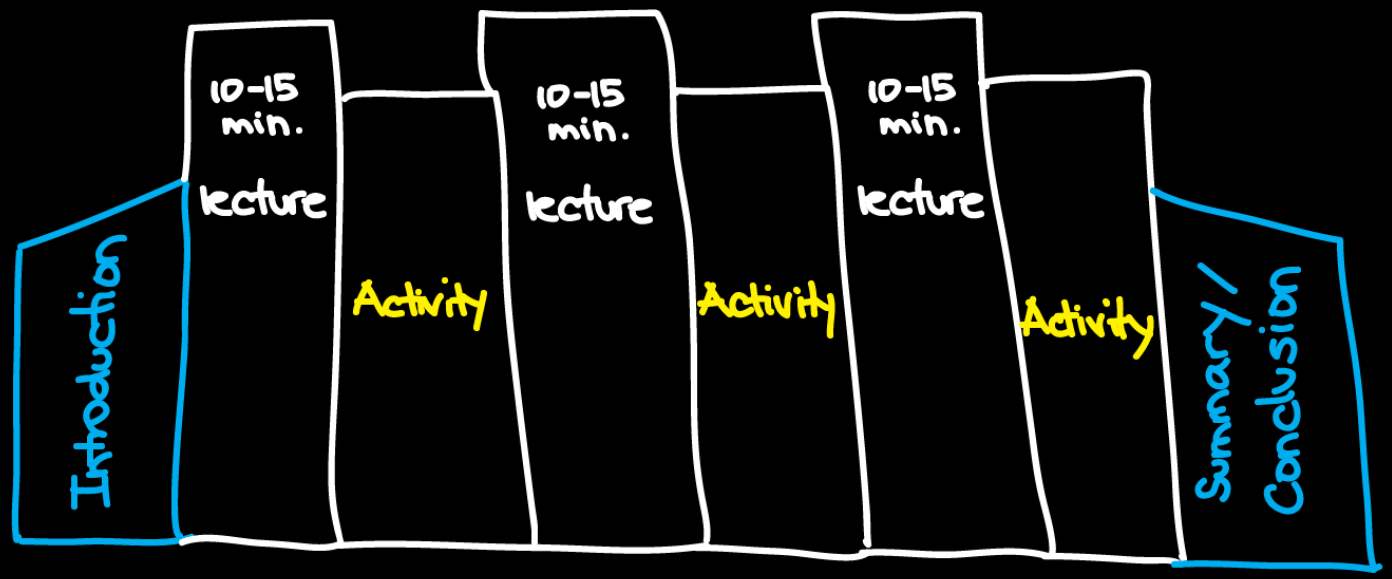
- **Demo Whodunnit Video from Session 1**

Best Practices Course: Media Example (2)



Smith, K. (2000). *Going Deeper: Formal Small-Group Learning in Large Classes*

Best Practices Course: Media Example (2)



Adapted from Smith, K. (2000)

Content Licensing

- **Keep in mind licensing laws**
  - What materials developed by others can you use?
  - Will you share your materials—license them—in such a way as others can build upon them (e.g., Creative Commons licensed)

Designing Community

- **"While meaningful learning can happen outside of a community, the overall learning experience usually benefits from community."**
  - Build rapport
  - Encourage interaction with clear expectations

Designing Assessments

- "Align each assessment with specific learning objectives and course outcomes"
- "Diversify assessment types to align learning with particular objectives"
- "Create both formative and summative assessments to evaluate the progression of learners throughout your course."
- **What's different online:**
  - Some assessments can be automatically scored, and can be parameterized

Checklist (1)

Course Introduction

- ☑ The syllabus that was created as a part of your blueprint clearly describes the course and its connection to the overall degree/certification program and to the profession/discipline.
- ☑ There are easy-to-understand instructions for learners about how to get started.
- ☑ It is clear what materials will be used in the course and how they can be accessed.

Learning Objectives & Outcomes

- ☑ The course landing page and syllabus state clear course objectives.
- ☑ The syllabus clearly states what outcomes the learner will achieve after successful completion of the course.
- ☑ The learning outcomes are measurable.
- ☑ The course objectives and outcomes are appropriately designed for the course level.

Checklist (2)

Learning Resources

- ☑ The learning resources support the course objectives.
- ☑ The learning resources are appropriately designed for the level of difficulty of the course.
- ☑ The learning resources are diverse to cater to a range of different learning styles.

Assessment

- ☑ Levels of learner performance are clearly outlined.
- ☑ The assessment measures are aligned with the stated course outcomes.
- ☑ The assessment methods are consistent with activities and learning resources.
- ☑ The assessments fit the appropriate level of difficulty for the course outcomes.

Part 3: Facilitation

Part 3: Facilitation

- **"Learners should be able to absorb the information presented and share their interpretations and knowledge with their peers so that the online environment feels like a collaborative community."**
- **What's different online:**
  - In person, we're adept and reading eye-contact, body language and human gestures—online we have limited opportunities
  - In person, it's easy to ask spontaneous questions—online this requires intentional design

Instructor Presence

- **“Online courses do not replace the instructor”, the instructor’s role “shifts to guiding the learning process, encouraging interaction, and prompting reflection.”**
  - Welcome learners
  - Encourage community
  - Connect with learners
  - Actively participate

Learner Feedback

- Leverage Learner Contributions
  - Encourage, nurture, and recognize
  - Focus the discussion in forums
  - Respond to individual learners
  - Involve learners as co-facilitators
  - Facilitate synchronous events

Time Management

- **Instructor's Perspective:**
  - Can require more time to prepare and teach an online course
  - Time shifts from in-class activities (lecturing) to answering emails, participating in chats / discussion forums (facilitating)
  - Tip: Set expectations on when you'll respond
  - Tip: Engage students in supporting each other
- **Student's Perspective:**
  - Students will spend time understanding the course organization, and interacting with the online resources
  - Tip: Students should formally set aside time to do the course activities

Example: Best Practices Course (1)

- **Instructor Presence**
  - Introduction Video: Introduces instructors, provides an overview of the course
  - Asked for students to introduce themselves
- **Learner Feedback**
  - Synchronous weekly events

Example: Best Practices Course (2)

- **Time Management**
  - Each session requires extensive pre-session readings
  - Video divided into segments

Post Mortem on the Best Practices Course

Big Challenges: Best Practice Course (1)

- **Getting students to login and participate**
  - **Many things** we could have done better to support students
- **Not fully understanding the infrastructure challenges**
  - Reliable electricity and access to computers and network
  - Bandwidth: We did use a “low” resolution/data-rate on videos, probably needed to be even lower

Big Challenges: Best Practice Course (2)

- **Clearly explaining course structure and activities**
  - Pre-session readings are critical
  - Participation in discussion forums was a key part of the course, but they need sufficient participants and constant participation
- **Semi-Synchronous Session Design**
  - Expecting students to watch pre-recorded videos and participate in activities by starting and stopping the videos

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Digital Learning Toolkit

Coming Soon!

http://dltoolkit.mit.edu/

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