Creativity, Innovation, and Change (CIC)
Reflections on Teaching a Process-Oriented MOOC

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Motivation

• Encourage creative behavior
• Promote innovative mindset in students
• Introduce new communities of learners to Penn State
• Explore MOOC technology and impact
• Investigate new online instructional methods
Course Strategies

Learning Objectives

- Lead students through the creative process, from ideation to implementation
- Focus on experimentation and experiential learning
- Encourage reflection and personal development
- Promote collaboration

Student Engagement

- Three levels:
  - Tourist
  - Explorer – Basic Certificate
  - Adventurer – Certificate with Distinction
- Focus on community
- Use of social media
# Instructional Building Blocks

8 Lessons / Weeks

- Short Videos → Quizzes
- Exercises → Reflections
- Projects → Deliverables
- Discussion Forums
- Supplemental Readings

<table>
<thead>
<tr>
<th>Project Phase</th>
<th>Steps</th>
<th>Deliverable</th>
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| **Exploration** - In this phase, you will generate ideas for your projects, identify which idea you want to explore, and define project goals. | - Weeks 1-2 | Exploration Statement  
  - Title  
  - Project Goals (vision statement)  
  - Starting Point of the project  
  - Challenges you will face  
  - Creative Media File |
| **Design** - In this phase, you will conduct research, define metrics for your project, create an experimentation timeline, and list assumptions you will test. | - Weeks 3-4 | Design Statement  
  - Give your project a descriptive title  
  - List your challenges you will test  
  - Create an experimental timeline  
  - Define design elements/parameters for prototypes to test your assumptions  
  - Identify which elements of your design are most likely to fail |

## Exercises

Each week, we will have several exercises available. You only need to fill out a reflection survey for one exercise for credit; choose whichever one is most appealing and useful to you! This week, the available exercises are:

- Bold Acts of Defiance
- Spare Diamonds
- Idea Generation Techniques (Part 1)
- Idea Generation Techniques (Part 2)
- Paradox of Structure

After you complete an exercise, please fill out the Week 3 Exercise Reflection Survey.
150,756 enrolled, 93,287 active (logged in at least once)
653,077 videos watched, 137,159 quizzes submitted
41,114 posts & comments, 713 Signature Track signups
Impact on Other PSU Instruction

Resident Courses
- Improved delivery
  - Streamlined lecturing
  - More interactive learning
- Flipped classrooms
  - Students digest videos and readings at home
  - Class time spent on exercises and application
- Examples: First Year Seminar, SYSEN courses

World Campus Courses
- Repurposing of MOOC content
  - Videos / Exercises / Projects
- Improved discussion forums

Sub-forum
- Professor Digest
  General Discussion
  - General discussion about the course, life, and everything under the sun.
- Lecture Videos
  - Discuss the weekly lecture videos
- Exercises
  - Ask questions about exercises and request peer assessment of your work.
- Idea Cloud
  - Discuss your views and opinions of articles and videos in the idea cloud
- Study Groups
  - Find friends and arrange meet ups!
- Projects
  - Discuss project ideas and request peer reviews
- Share your Journey
  - Post your reflections on change!
- Suggestions and/or Complaints
  - Post your issues with the course and tell us how to make it better!
- Course Materials Errors
  - Please use this forum to get help with potential errors in the lectures, assignments/grading, and other course materials.
- Technical Issues
  - Please use this forum to get help with technical issues and bugs such as error messages or difficulty submitting assignments.
Research Opportunities

- Pre- and post-course survey data
- Data generated directly from the course:
  - Content analysis of exercises, forums, and projects
  - Online behavioral statistics (click rates, video views)
- COIL project to study different assessment strategies
- Data collection mechanism for current NSF grants
- “Broader impact” mechanism for future federal grants
Global Creative Style

Creative Style Estimates (Week 1)

~19,000 students
~150 countries
Next Steps

- Incorporate feedback to improve course
- Develop strategies for MOOC monetization
- Formulate MOOC research strategy:
  - Investigating online education directly
  - Use MOOC as dissemination channel and/or test bed for other research efforts
- Continue to share our experiences with others:
  - Outside PSU: national/international conferences
  - Inside PSU: open forums, WD convocation