Universal Design for Learning: In practice

Examples from faculty and instructors in the 2016-2017 FDI, Designing Learning for All

March 9, 2017
Welcome & Introductions

Who are you?
Where do you work on campus?
What brings you here today?

...lunch is an acceptable answer!
Universal Design for Learning
Workshop series

March 2, 12-1:30p
Universal Design for Learning: An Introduction

March 9, 12-1:30p
Universal Design for Learning: In Practice

March 16, 12-1:30p
Universal Design for Learning: Challenges & Considerations
In this session, we will:

- Discuss how instructors and faculty at OU have integrated the three UDL principles into their respective classrooms
- Explore specific ways to integrate these practices into both face-to-face and online classrooms
- Address potential implications of UDL in your instructional practices
UDL and neurocognitive networks

**AFFECTIVE NETWORKS:**
**THE WHY OF LEARNING**

Engagement
For purposeful, motivated learners, stimulate interest and motivation for learning.

**RECOGNITION NETWORKS:**
**THE WHAT OF LEARNING**

Representation
For resourceful, knowledgeable learners, present information and content in different ways.

**STRATEGIC NETWORKS:**
**THE HOW OF LEARNING**

Action & Expression
For strategic, goal-directed learners, differentiate the ways that students can express what they know.

The relationships between these principles

Engagement

Universal Design for Learning

Representation

Action/Expression
Examples of multiple means of engagement in the classroom

Katie Greer, University Libraries: Engagement in the online environment

Megan Conrad (in absentia), Industrial & Systems Engineering: Ergonomic Design “Gems and Bloopers”

Katie Jostock, Communications & Journalism / Writing & Rhetoric: Minimizing Distractions and Threats with Mindfulness
Engagement in the online classroom

Examples from LIB250
Katie Greer, OU Libraries
LIB 250: Intro to library research and technology in the Information Age

Catalog Description

With the ever-increasing availability of online and digital resources, it is vital that students be able to find and use information effectively. In this course students will learn about the organization of information, search skills, the research process, discipline-specific sources, evaluation of information, information ethics and other sources of debate. Prerequisite: WRT 160.

Course Objectives

● To understand how information sources originate and operate in their broader socio-economic and political contexts (such as the World Wide Web, library databases and scholarly publications).
● To gain interdisciplinary proficiency in seeking information via the World Wide Web and via electronic subscription databases and library search tools.
● To understand how libraries use technology for information organization, storage, and retrieval.
● To critically evaluate information.
● To incorporate selected information into the research process.
● To become knowledgeable about information-related issues affecting libraries and higher education as well as society as a whole, especially ethical issues.
Engagement in the online environment

Winter 2015: Revamped course, new ***Final Project***

Online resource guide

- Real-world skills and application
- Autonomy: topics were open-ended and could be academic or personal
- Continuous planned progress on the assignment
- Collaboration and community: Ongoing peer-review of topics & projects
- Self-assessment & reflection: Peer-review, reflection journals, progress checkpoints
Final Project Guidelines and Examples

Sample sites

Student Work: Example 1, Example 2
Ergonomic design “gems and bloopers”

Megan Conrad, in absentia

Industrial & Systems Engineering
# Scaffolding Multiple Means of Engagement

<table>
<thead>
<tr>
<th>Ergonomic Design Journal</th>
<th>Presentation Skills</th>
</tr>
</thead>
<tbody>
<tr>
<td>Week 1 - Assignment</td>
<td>Demonstrate expectations</td>
</tr>
<tr>
<td>Week 2 - Instructor examples</td>
<td>Discuss in groups, present as groups to class</td>
</tr>
<tr>
<td>Week 3 - Student examples</td>
<td>Individual presentations (informal - seated)</td>
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<tr>
<td>Week 6 &amp; 9 - Student examples</td>
<td>Final presentations (formal - head of class)</td>
</tr>
<tr>
<td>Week 13 - Journal due</td>
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</tbody>
</table>
Benefits to this Approach:

- Keeps students on track (7 total journal entries, 3-4 are presented in class well in advance of due date)
- Fosters conversation re: gems/bloopers (good/poor design)
- Sharing observations benefits entire – Examples shared from differing experiences, workplaces, etc.
- Practice presentation skills by gradually developing comfort with the class/speaking environment
- Breaks up lecture periods – students enjoy the discussion
- Students actively identify contemporary ergonomic issues in daily life
- Improves final project – student see/think about examples throughout the entire semester
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I came across the Apple watch when a co-worker of mine was talking about how he planned to get one to add to his tech-savvy collection. The watch is basically all the features of a phone compacted into a small wearable sized screen. You can listen to music, see photos, send emails, chat and also check the time, which is the obvious function of the watch. But what struck me first when I saw this picture of the Apple watch screen was “How were my big fingers going to touch the right icon?” I face a similar problem while swiping over the letters of the digital keyboard on my phone. Moreover I was not fascinated by the unorganized crowding of icons in such a small amount of space. Not to mention, it would require so much more effort in terms of scrolling and making adjustments to do quick tasks like read a message or send an email. Some of the icons that are commonly used can be easily confused such as the speaker icon with a line across it. I read about users who, out of habit, would touch this icon to put a friend on the speakerphone, but would instead mute their own voice. For these reasons I consider this gadget a UD blooper.
Chase bank ATM. Personally I have not driven a mid or a high vehicle but I assume it would be difficult for a person driving a truck or a bigger vehicle to use a drive thru ATM that was set at a height suitable for normal sized vehicles only. They would experience strain in their backs and shoulders when trying to reach for the touch screen monitor. They would also find difficulty in comprehending the functions of the ATM since the options would not be clear and visible in their line of sight. I also found the instructions to be very intuitive. The instructions are pretty simple and the buttons are perfectly designed in terms of font and colour. Using black uppercase letters to represent the different heights over yellow coloured backgrounds, makes it visible during the day as well as night.

It also helps people with vision problems to read the signs with less effort. I also feel the use of buttons on an ATM makes it highly ergonomic for people with hand disabilities. This is also true in the case of the options shown on the ATM monitor. They are large, well spaced and of a legible font size that prevents the common touch screen bloopers.
Blooper - Urinal Configuration

This is a design blooper. There is no way 2 people could use these urinals at the same time, without terrible results.

In order to fix this situation, one of the urinals must be removed.
Minimizing Distractions & Threats through Mindfulness

- Composition I & II, Public Speaking - Anxiety-inducing courses
- “What can be done to help students retain focus, approach assignments with confidence and calm, and develop self-acceptance when making mistakes?”
- Mindfulness focuses on the present as a way to de-clutter our minds from worrying about the past or future
- “Awareness that arises through paying attention, on purpose, in the present moment, non-judgementally” (Kabat-Zinn, 2005).
- It’s hard for Westerners to be mindful
Becoming Present

Your body is present. Is your mind?

Past | Present | Future

Dana Neill
Origins of Mindfulness

- Eastern Buddhist origins; expect some Western resistance
Religious Conflict?

I like to think of mindfulness simply as the art of conscious living. You don’t have to be a Buddhist or a yogi to practice it. In fact, if you know anything about Buddhism, you will know that the most important point is to be yourself and not try to become anything that you are not already. Buddhism is fundamentally about being in touch with your own deepest nature and letting it flow out of you unimpeded. It has to do with waking up and seeing things as they are. In fact, the word “Buddha” simply means one who has awakened to his or her own true nature.
Religious Conflict (cont.)?

So, mindfulness will not conflict with any beliefs or traditions—religious or for that matter scientific—nor is it trying to sell you anything, especially not a new belief system or ideology. It is simply a practical way to be more in touch with the fullness of your being through a systematic process of self-observation, self-inquiry, and mindful action.

Kabat-Zinn, 2005
Mindfulness and meditation’s positive effects on focus development and stress reduction have lead a number of college instructors from business, accounting, sociology, and nursing to incorporate its practice into their pedagogy (Borker, 2013; Helber, Zook, & Immergut, 2012; dos Santos et al., 2016).

Specific outcomes may include:

- Staying focused in learning situations
- Moving from fear to curiosity in academic learning
- Finding an inner source of calm
- Feeling more self-acceptance when facing difficult situations (Hjeltnes et al., 2015)
How Do I Start the Conversation?

- Engage in discussions (“What do you do when you are faced with an unfamiliar task?”)
- Include active learning activities—like “Think/Write-Pair-Share”—and ask students to reflect on their thoughts and feelings (“Take three minutes to write about how you feel when asked to put a paper in MLA.”)
- Be vulnerable and open with them and/or validate their thoughts and feelings (“It is completely understandable that you would be feeling anxious.”)
How Do We Practice Mindfulness?

Mindful Breathing

https://www.youtube.com/watch?v=nTGqo_ScI6Y

SLOW DOWN ...

Just Breathe
How Do We Practice Mindfulness?

Mindful Eating
How Do We Practice Mindfulness?

Mindful Touch
Stop & think

How do these examples connect to what you’re already doing in your classroom(s)?

Do these examples prompt any ideas, thoughts, or questions?
Talk & share

If you feel comfortable, share your thoughts or questions with someone near you.

Alternately, jot some notes or ideas down on a piece of paper.
Examples of multiple means of representation in the classroom

Jess Tess-Navarro, Writing & Rhetoric: Multiple formats of writing

Amanda Nichols Hess, University Libraries: Illustrating concepts through multiple media (online)
Objective: The student will be able to define and identify different types of writing in a workplace setting, related to their field of study.

10 Min Video: Why is Writing Important? (video/audio with subtitles)
Representation - Example

Freewrite: What do you know about writing in your field?
I report my freewrite to the class about writing in education (instructor testimony)
Pair-share: Discuss your freewrite with a few people around you (peer testimony)
Representation - Example

- Review Assignment Sheet - text; provides suggestions about writing artifacts
- Activity: In groups, annotate a report from the Oakland Post - text example or artifact

Representation Summary:
Visual/audio examples, in-person examples, text examples
Illustrating concepts through multiple media (online)

Amanda Nichols Hess, University Libraries
Multiple Media in an Online Classroom

- Use a variety of formats to represent the same kind of information or a single concept.

Different Forms and Formats of Information

As you saw in that infographic – and, as you probably know from personal and academic experiences – information can come packaged in many formats. For instance, here is a chart of the primary formats of information that libraries provide to their users:

<table>
<thead>
<tr>
<th>Source Type</th>
<th>Reference Material</th>
<th>Books or Scholarly Journals</th>
<th>Consumer/Popular Magazines, Newspapers, Tabloids</th>
<th>Professional and Trade Journals</th>
</tr>
</thead>
<tbody>
<tr>
<td>Purpose</td>
<td>Presentational information, including definitions of terms, biographical information, and summaries of historical events</td>
<td>Expository author’s opinions or analysis of an issue backed up by research and data</td>
<td>Share news or opinions about current events</td>
<td>Share tips and practices for professional backs or current field or line of work</td>
</tr>
<tr>
<td>Example</td>
<td>General Dictionary of Art</td>
<td>Journal of the American Medical Association</td>
<td>Health</td>
<td>Michigan Nurse</td>
</tr>
</tbody>
</table>

As you can see, these different types of resources have different purposes. However, these are certainly not the only formats of information available, and as you can probably guess, the Information Age and the advent of digital technologies have facilitated the development of new information formats.
Multiple Media in an Online Classroom

- Use a variety of formats to represent the same kind of information or a single concept
Stop & think

How do these examples connect to what you’re already doing in your classroom(s)?

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Talk & share

If you feel comfortable, share your thoughts or questions with someone near you.

Alternately, jot some notes or ideas down on a piece of paper.
Examples of multiple means of action / expression in the classroom

Katie Jostock, Communications & Journalism / Writing & Rhetoric: Broadcast Journalism final assignment

Amanda Nichols Hess, University Libraries: Chunking writing tasks online
What is Broadcast Announcing?

Course Description: This is a skills-based experiential course designed to improve your announcing skills in form and function to best prepare you for what is expected in a career where voice, clarity, intelligence, and creativity are of utmost importance. This course is designed similarly to public speaking with the exception that mass communication is a form of public speaking where we cannot always come prepared, and we do not always know our audience. We must deal in the moment in a variety of capacities—interview, sports, radio, television, weather, commercial production, commentary, etc. We will have lectures discussing material related to broadcast announcing, but most of the class will be interactive, discussion, presentation, and skills-based.

By the end of the term, students should be able to:

- Use effective oral delivery
- Use effective physical delivery
- Select appropriate language to communicate ideas vividly, accurately, and respectfully
- Engage in ethical communication by demonstrating respect for the audience, the topic, the content, and the consequences of performances
- Critically evaluate performances
Two Options for Testing

Tests (100 points [25% of final grade]):

- **Test #1 – Midterm (50 points):**
  - Option A: Take an exam demonstrating your knowledge of course content.
  - Option B: Create a 5-7 minute video or audio project demonstrating your knowledge of course content and individual creativity. (Proposals and approval required 3 weeks before exam due date.)

- **Test #2 – Final (50 points):**
  - Option A: Take an exam demonstrating your knowledge of course content.
  - Option B: Create a 5-7 minute video or audio project demonstrating your knowledge of course content and individual creativity. (Proposals and approval requires 3 weeks before exam due date.)
Proposals

In the text box below, give me a description of what you plan to do for your 5-7 minute video or radio project. These questions may help guide your proposal:

1. What kind of video or radio project do you envision? Will you put on a show? What kind of show? Will you cover a broadcasting issue or focus on developing your specialty announcing?
2. Who is your audience? How will you connect with your audience using the artistic elements of your video and audio (images, sound effects, music, etc.)?
3. Justify the amount of work you intend on putting into this project. How will you earn the 50 points? If you were creating a grading rubric for this project, which kinds of criterion would you include?
Results

1. The project that envision would be one that goes over the interesting basics of broadcasting. This would include describing the different personal in the broadcasting. The show and the changes of radio and TV and go through the issues of broadcasting.

2. My audience would be those between the ages of 10-20. The major reason for this group is because it has the generations of three different ages that have or will have issues in the field of broadcasting. By using this I can connect to all the ages of my audience based on the topics and issues that will be covered.

3. The amount of work for this will be somewhat moderate. Since I will cover all ages, my audience i will have to come up with different scenes that will be suit some critical issues. The grading rubric that I would create would be one that would reflect issues in broadcasting that would include speech, delivery etc.
Results

1. What kind of video or radio project do you envision? Will you put on a show? What kind of show? Will you cover a broadcasting issue or focus on developing your specialty announcing? What will the overall point, message, or theme be for your show (to inform, entertain, or persuade)?

   I will be compiling recorded material from a Bike of life segment discussing the power of music. It will inform and entertain people on the deep connection that music has within each of us. I will play clips of different songs – happy, spiritual, and self-love, I will also persuade them to pay more attention to the music they listen to and the effects it can have.

2. Who is your audience? How will you connect with your audience using the artistic elements of your video and audio (images, sound effects, music, etc.)?

   My audience will be the general population. I will use appropriate music and interesting topics.

3. Justify the amount of work you intend on putting into this project. How will you earn the points? Present a storyboard for your project or outline of what you plan to do.

   The points will be for:
   - Clear message – 10pts
   - Creative – 10pts
   - Allotted time used well – 8pts
   - Clear sounding and understandable – 12pts
   - Connects with intended audience – 5pts
   - Relevant music/audio – 5pts

Outline:
- Show Intro
- Topic intro
- Feel the Music clip
- Music = connection
- Music in Judaism – spiritual soul touching
- Daled Bavos clip
- Bob Marley quote
- Study from Brunel University
- Music part of us
- Who says clip
- Weekly Mission
- Show Closing
<table>
<thead>
<tr>
<th>Test #1: Option A</th>
<th>Test #2: Option A</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student A</td>
<td>Student A</td>
</tr>
<tr>
<td>93%</td>
<td>80%</td>
</tr>
<tr>
<td>Student B</td>
<td>Student B</td>
</tr>
<tr>
<td>71%</td>
<td>78%</td>
</tr>
<tr>
<td>Student C</td>
<td>Student C</td>
</tr>
<tr>
<td>54%</td>
<td>92%</td>
</tr>
<tr>
<td>Student D</td>
<td>Student D</td>
</tr>
<tr>
<td>94%</td>
<td>96%</td>
</tr>
<tr>
<td>Student E</td>
<td>Student E</td>
</tr>
<tr>
<td>95%</td>
<td>90%</td>
</tr>
<tr>
<td>Test #1: Option B</td>
<td>Test #2: Option B</td>
</tr>
<tr>
<td>Student F</td>
<td>Student F</td>
</tr>
<tr>
<td>80%</td>
<td>96%</td>
</tr>
</tbody>
</table>
Reflection from My “Option B” Student

“Having the option to do an assignment instead of a written exam is what I had hoped for when I signed up for the class. I gained a lot from the 2 projects; I did a hands-on assignment while everyone else took an exam... I was glad for the opportunity to actually utilize equipment in real life and not just receive a textbook education. It made my semester so much more meaningful and it helped me catch a lisp mistake I wasn't noticing prior! Anyone who plans on a career within broadcasting should opt out of the exams as they need more real life experiences in the field. Plus, they were super fun and creative!”
What This Reflection Tells Us about UDL

1. Students “hope for” multiple means of action and expression as a way to express their individual talents and creativity.
2. Multiple means of action and expression yield greater meaning and engagement for students regarding courses.
3. Multiple means of action and expression allow students to reflect on their strengths and weaknesses and adjust accordingly.
4. Multiple means of action and expression can provide students with real-world experiences.
Chunking writing tasks online

Amanda Nichols Hess, University Libraries
Addressing Writing-Intensive Requirements

LIB250: writing-intensive course

Writing Intensive in General Education requirements:
- Prerequisite of WRT160, cross-cutting capacity of effective communication
- 33%+ of a student’s grade based in writing
- More than one writing format
- Emphasis on critical inquiry
- Evaluation of form & content
- Opportunities for revision / feedback
- 500+ word assignment
- 2500+ words / 10+ pages of writing
Chunking Writing-Intensive Tasks Online

- 33%+ of a student’s grade based in writing
- More than one writing format
- Emphasis on critical inquiry
- Evaluation of form & content
- Opportunities for revision / feedback
- 500+ word assignment
- 2500+ words / 10+ pages of writing

<table>
<thead>
<tr>
<th>Activity</th>
<th>Grade Weight</th>
</tr>
</thead>
<tbody>
<tr>
<td>Lessons / Readings / eCourse</td>
<td>10%</td>
</tr>
<tr>
<td>Includes all content under Lessons course headings</td>
<td>10%</td>
</tr>
<tr>
<td>Small Group Discussions</td>
<td>10%</td>
</tr>
<tr>
<td>Team tasks</td>
<td>10%</td>
</tr>
<tr>
<td>Peer-to-Peer Feedback</td>
<td>10%</td>
</tr>
<tr>
<td>Project Progress Checkpoints</td>
<td>10%</td>
</tr>
<tr>
<td>Reflection Journals</td>
<td>15%</td>
</tr>
<tr>
<td>Final Assignment</td>
<td>35%</td>
</tr>
<tr>
<td>Total</td>
<td>100%</td>
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</table>
Stop & think

How do these examples connect to what you’re already doing in your classroom(s)?

Do these examples prompt any ideas, thoughts, or questions?
Talk & share

If you feel comfortable, share your thoughts or questions with someone near you.

Alternately, jot some notes or ideas down on a piece of paper.
Key takeaways from this session:

Thoughts and ideas to take back to your own practice... and maybe to share with others in your unit

UDL principles can -- and should -- look different in different disciplines and learning environments.

Not every UDL principle can be applied in every course or learning situation.

Technology can help to facilitate integrating UDL in a more seamless way.
Next session:

Universal Design for Learning: Challenges & Considerations

March 16, 12-1:30p

Engage in a discussion about the instructional, technical, and administrative challenges faced in integrating UDL at OU. Hear about, and help identify, options for mitigating these issues.