UDL and Course Design at AL$ workshop

Elizabeth Tu
Center for Faculty Development
June 13 & 14, 2012
Agenda

- Overview of Agenda
- The Universal Design for Learning (UDL) Framework and Your Instructional Issue
  - Think-Pair-Share #1: What instructional issue(s) do I want to focus today?
- Your Instructional Strategies in Engaging the Students
  - Think-Pair-Share #2: How do I engage my students in their learning process?
- Student Challenges, Copyright, Technology
- Assessment Plan
  - Think-Pair-Share #3: How do I assess what my students have learned?
- Resources and References

Center for Faculty Development and Support
Getting Ready for Your Class…

- Syllabus
- Learning Objectives
- Assignments
- Grades
- Due Dates
- Textbook & Materials
- Resources

Contact Info
- Quizzes, Mid-Term, Final

Center for Faculty Development and Support
Getting Ready for Your Class…

The 4 key components in learning and teaching are: content, learner, delivery, and evaluation. They are represented in a diagram which are dynamically impacting one another.
Educationally, Does One Size Fit All?

In a cartoon, the speaker is announcing his selection instructions: "For a fair selection, everyone has to take this same exam: please climb that tree." His audience include a dog, a seal, a goldfish in a tank, an elephant, a penguin, a monkey, and a bird.
“Universal Design”, architectural term, coined by Ronald Mace in the 1970s.

“...the design of products and environments to be usable by all people, to the greatest extent possible, without the need for adaptation or specialized design.”

1
Universal Design

Is our physical environment welcoming?

- Physical environment design for access
- Stairs as access feature/barrier
  - Physical Disabilities
  - Elderly
  - Children
  - Strollers/Carts
Universal Design for Learning

Is our pedagogical environment welcoming?

UDL is the proactive design of our courses to ensure they are educationally accessible regardless of learning style, physical or sensory abilities.

Just as physical barriers exist in our physical environment, curricular barriers exist in our instructional environment.
The 3 Principles of UDL

- **Multiple means of representation**
  - Multiple representations of your content, to give learners various ways of acquiring information and knowledge.

- **Multiple means of engagement**
  - Multiple means of engagement, to tap into learners' interests, offer appropriate challenges, and increase motivation.

- **Multiple means of expression**
  - Multiple means of action and expression, to provide learners alternatives for demonstrating or expressing what they know.
What is REPRESENTATION?

- Provide multiple means of representations of the content
  - multiple ways of clearly identifying and explaining essential course concepts in different ways
  - multiple ways of teaching course content which incorporate different teaching/learning styles/modalities (visual/graphic, verbal/auditory, etc.)
  - examples of successful work or assignment expectations
What is REPRESENTATION?

“How do I present essential course content to my students?”

Knowing that students access information in a variety of formats (including auditory, visual and tactile), consider varying how you express essential course content. This increases the likelihood of information access and comprehension and, ultimately, the effectiveness of your instruction.
UDL Case Story ²

Think – Pair – Share #1

- Take a moment and recall an activity, a concept, or a learning objective from your syllabus where your students have struggled or have most difficulty.

- Identify one “teaching” and one “student” variable that may have impacted student success and Why?

- Discovery activity: Locate a new option/choice jot down the source of your search and share your thoughts with a person sitting next to you.
Getting Ready for Your Class…

The 4 key components in teaching and learning are: content, learner, delivery, and evaluation. They are represented in a diagram which are dynamically impacting one another.
What is ENGAGEMENT?

- Provide multiple means of engagement, to tap into learners' interests, offer appropriate challenges, and increase motivation
  - I offer various ways to involve students in the learning process (lecture, small group work, class discussion, hands-on activities, etc.)
  - I offer clear and specific feedback on assignments and encourage resubmission of assignments, as appropriate
What is ENGAGEMENT?

“How do I involve my students in the learning process?”

Knowing that active participation is key to learning, consider adopting various ways that students can actively participate in class. Active participation strengthens learning and, ultimately, the effectiveness of your instruction.
Instructional Strategies

Who are my students? How do I involve my students in their learning process?

- Lectures
- Examples/Illustrations
- Models, Simulations, etc.
- Demonstrations
- Drill & Practices
- Discussions
- Role Plays
- Surveys, Qs & As
- Audio, Video, Online
- Scaffolding Prompts
- Group Projects
- Notes Taking
- Technologies
- Drawings
- Group Projects
- Notes Taking
- Technologies
- Drawings
Understanding our Students-AL$ workshop, June 13 & 14, 2012
Background for our study

- “There are two lasting bequests we can give our children. One is roots, the other is wings” (attributed to Henry Ward Beecher).
- Concern about meeting the needs of an increasingly heterogeneous, and arguably less well-prepared wave of students.
- Predictors of success: academic preparation, motivation and engagement – and the promotion of a “mastery orientation” (Adelman, 2004; Dweck, 2006; Pascarella & Terenzini, 2005).
- Tension between intellectualism & careerism (e.g., Aronowitz, 2000; Karabel, 1998).
- College as a critical time for self-discovery and personal growth but also for preparation for gainful employment (e.g., Kuh, et al, 2005).
- And what about those gen-end-of-alphabeters? (e.g., Crome 2007; Delucchi & Korgen, 2002).
What we did and what we found

Build on two Teacher-Scholar projects:

- 2006-2007 Cohort sought to document *matches and mismatches* between the kinds of study behaviors *faculty* thought were important to succeed in their classes and the extent to which *students* in those same courses also deemed those behaviors important and actually engaged in them.

- 2007-08 Cohort sought to better understand students’ motivations in college as they pertained to the metaphor of a “*consumer attitude*” vs. a commitment to *learning for its own sake*. 
Two set of research questions:

- Does the amount of effort students expend vary, depending on how they feel about a course? Does the answer vary, depending on what their reason(s) for attending college?

- To what degree do students make use of their professors, to help them succeed academically? What reasons do they cite for utilizing this resource (or not)? And do their answers to these questions vary, depending on their reason(s) for attending college?
What we did and what we found

- Participants:
  - 400 students in ChAD 60, Fall 2008-Spring 2009
    - 33% Frosh; 27% Sophomore; 29% Junior; 11% Senior
    - 75% came to SJSU straight from HS
    - 90% had already selected an academic major
    - 25% live in campus housing; 50% w/families
    - 34% were first in immediate family to attend college
    - 56% < age 20; 32% age 20-22; 9% age 23-28; 4% > 29
  - Survey administered in class, at beginning and end of semester – Complete data available for N = 311.
How hard students are willing to work...

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<tr>
<th>TIME 1</th>
<th>Education</th>
<th>College Experience</th>
<th>Family</th>
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<tr>
<td>Interesting</td>
<td>4.71</td>
<td>4.69</td>
<td>4.68</td>
</tr>
<tr>
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<td>3.05</td>
<td>2.50</td>
<td>2.93</td>
</tr>
<tr>
<td>t</td>
<td>11.78</td>
<td>9.88</td>
<td>8.92</td>
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<td>P</td>
<td>.0001</td>
<td>.0001</td>
<td>.0001</td>
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<tr>
<td>Connect with instructor</td>
<td>4.60</td>
<td>4.27</td>
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<tr>
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<td>3.19</td>
<td>3.21</td>
</tr>
<tr>
<td>t</td>
<td>8.50</td>
<td>3.89</td>
<td>6.97</td>
</tr>
<tr>
<td>P</td>
<td>.0001</td>
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# How hard students are willing to work...

<table>
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<th>TIME 2</th>
<th>Education</th>
<th>College Experience</th>
<th>Family</th>
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<tr>
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<td>4.31</td>
<td>4.67</td>
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<tr>
<td>Boring</td>
<td>2.98</td>
<td>2.65</td>
<td>2.73</td>
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<tr>
<td><strong>t</strong></td>
<td>11.98</td>
<td>7.04</td>
<td>10.89</td>
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<td><strong>P</strong></td>
<td><strong>.0001</strong></td>
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<td><strong>.0001</strong></td>
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<tr>
<td>Connect with instructor</td>
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<tr>
<td>Don’t connect with instructor</td>
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<td>2.81</td>
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<td><strong>8.08</strong></td>
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<td><strong>.0001</strong></td>
<td><strong>.001</strong></td>
<td><strong>.0001</strong></td>
</tr>
</tbody>
</table>
Changes in effort over time

- Students who cited “education”: No change for any of the 4 contexts.

- Students who cited “family”: No change except for marginal drop, for courses they felt were Boring (t = 1.94, p = .057)

- Students who cited the “college experience”: Dropped in 2/4 contexts – Interesting (t = 2.00, p = .057); and Don’t connect (t = 1.92, p = .067).

- Sadly, no one became more diligent over time!!!
Do you go talk to your instructors after they have returned your assignments?

<table>
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<tr>
<th></th>
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<th>College Experience</th>
<th>Family</th>
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<td>NO</td>
<td>26</td>
<td>39</td>
<td>32</td>
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<td>...never thought of it</td>
<td>26</td>
<td>33</td>
<td>33</td>
</tr>
<tr>
<td>...not sure what I’d learn</td>
<td>24</td>
<td>40</td>
<td>28</td>
</tr>
<tr>
<td>...they might think I was complaining about my grade</td>
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<td>40</td>
<td>22</td>
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<tr>
<td>...I’m not comfortable talking to my instructors</td>
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<td>30</td>
<td>22</td>
</tr>
<tr>
<td>[item left blank]</td>
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<td>20</td>
<td>11</td>
</tr>
<tr>
<td>YES/SOMETIMES</td>
<td>74</td>
<td>61</td>
<td>68</td>
</tr>
<tr>
<td>...might learn something useful</td>
<td>51</td>
<td>31</td>
<td>55</td>
</tr>
<tr>
<td>...might get more points</td>
<td>31</td>
<td>40</td>
<td>28</td>
</tr>
<tr>
<td>...enjoy talking with my professors</td>
<td>17</td>
<td>06</td>
<td>18</td>
</tr>
<tr>
<td>[item left blank]</td>
<td>29</td>
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<td>30</td>
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UDL Case Story

➢ UDL case story #2 at
http://pachyderm.csuprojects.org:8080/pachyderm_2_1/presentations/Thinkaloudtoteachproblemsolvingstrategies346/
Think-Pair-Share # 2

- With the new AL$ instructional materials/options you have identified, discuss how it may work in your classroom.
  - One potential benefit – how this new option matches with student characteristics or learning style
  - One potential drawback – how it may not be a good match
  - What adjustments or preparations you need to make

- Instructional planning activity
The 4 key components in learning and teaching are: content, learner, delivery, and evaluation. They are represented in a diagram which are dynamically impacting one another.
What is EXPRESSION?4

- Provide multiple means of action and expression, to provide learners alternatives for demonstrating what they know
  - I allow students to demonstrate what they have learned in more than one way or through a variety of means (different ways to complete class activities - oral presentations, written reports, multiple choice exams, etc.)
  - I provide clear guidelines and/or evaluation rubrics for all major course assignments and activities (how assignments are structured, submitted and graded)
What is EXPRESSION?

“How do I ask my students to show what they know?”

Knowing that students have preferences for how they express themselves (orally, written and visually), consider providing multiple ways for students to demonstrate their competency. This increases the likelihood of their success and, ultimately, the effectiveness of how you measure their learning.
Planning Your Assessment

How do I ask my students to show what they know?

- Formative
- Summative

Quizzes, Exams

Online Posting

Participation

Written papers

Role Plays

Video Report

Notes Taking

Surveys

Individual Projects

Group Projects

Oral presentations

Technologies

ePortfolio

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Planning Assessment

Planning Phase

- Choose a topic; focus on an “assessable” question/goal; Design toward the goal
  - What kind of feedback do I want to collect?
  - Is it a teaching or learning behavior that can be changed and that I am willing to change if necessary?
  - Is it appropriate to my goal, or, worth assessing?
  - Are the instructions, guidelines or grading rubrics clear?
  - Is it easy to assess? How much time and effort can I afford to spend?
  - Can I integrate it into my class activity?
  - Will it contribute to learning?
Planning Assessment

Implementing Phase

- Teach related to the target goal; Collect feedback; Analyze the feedback and turn it into usable info
  - Have I tried it myself?
  - Have I done a run-through with a colleague?
  - Is the *purpose* clear to students?
  - Is the *process* clear to students?
  - Have I planned how I will analyze the data?
  - Have I collected a reasonable amount of data (not too much)?
  - Is the analysis simple?
  - Have I allowed enough time to do the analysis?
Planning Assessment

Responding Phase

- Interpret the results and formulate actions; Communicate the results to students and try the response; Evaluate the effectiveness of the process
  - Does my response fit into my class teaching?
  - How will I communicate the results to students?
  - Have I presented both the good and the bad news?
  - What do I expect their reactions to be?
  - What will I plan to do or say to respond to the results?
  - What impact would my response have – on students and their learning?
  - How can I help students make best use of the results to improve their learning?
Think-Pair-Share # 3

- What are the different assessment options you provide for your students

- For the new AL$ assessment options you have found, discuss the expectations, guidelines or grading rubrics you plan to include in your syllabus.

- Assessment activity
Wrap-up

- Multiple means of *representation*;
- Multiple means of *expression*;
- Multiple means of *engagement*. 
The 4 key components in learning and teaching are: content, learner, delivery, and evaluation. These are represented in a diagram which are dynamically impacting one another.
Resources

UDL Resources:

- Nine Common Elements of UDL
- AL$ UDL Worksheets (handout)
- “From Where I Sit” videos at http://teachingcommons.cdl.edu/access/materials/fwis.shtml
- Is my document accessible? at http://sjsu.edu/cfd
- Checklist for Accessible Course Materials at http://sjsu.edu/cfd
References


2. UDL Universe at http://udluniverse.com/


