

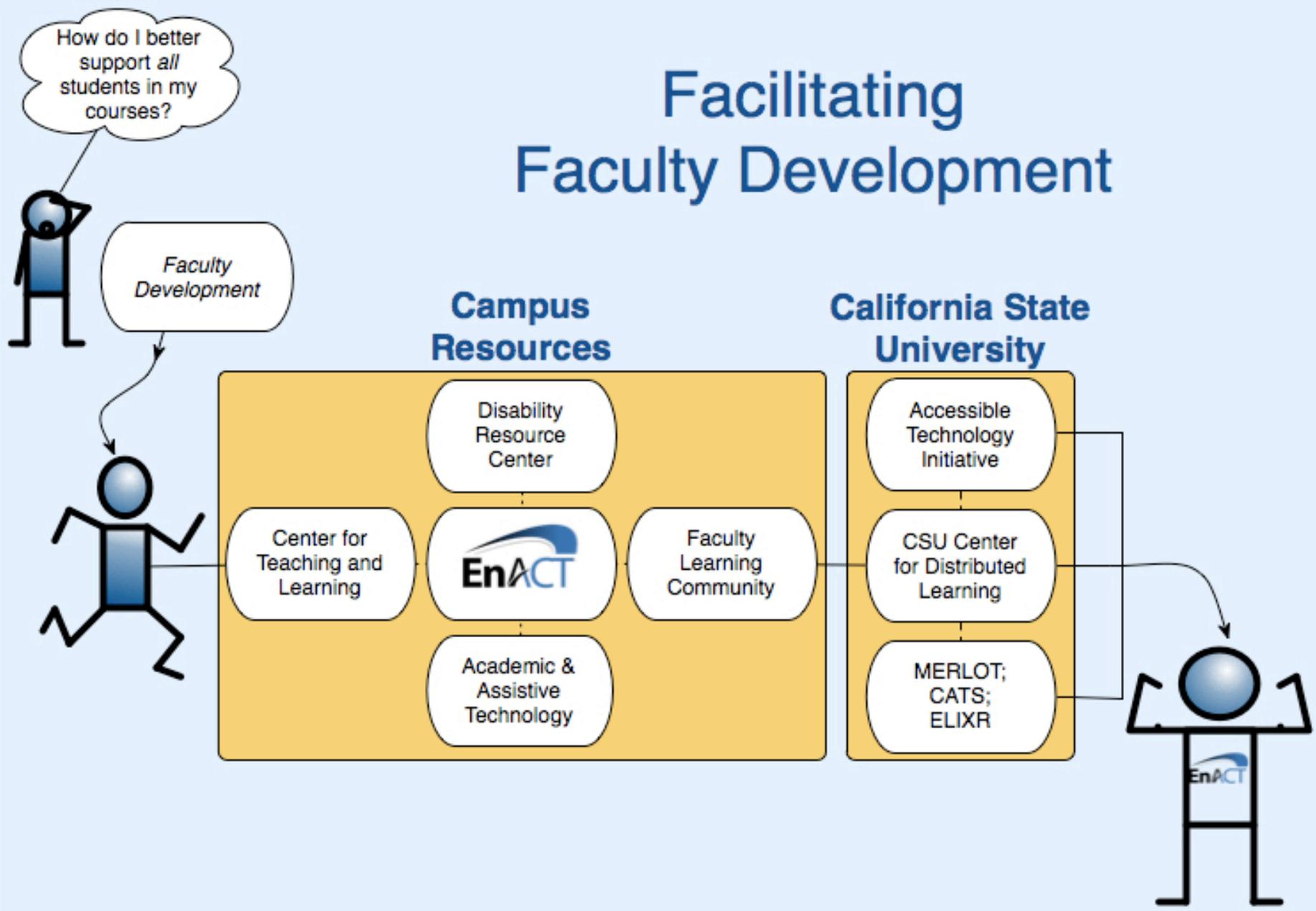
# EnACT~PTD: Project Overview

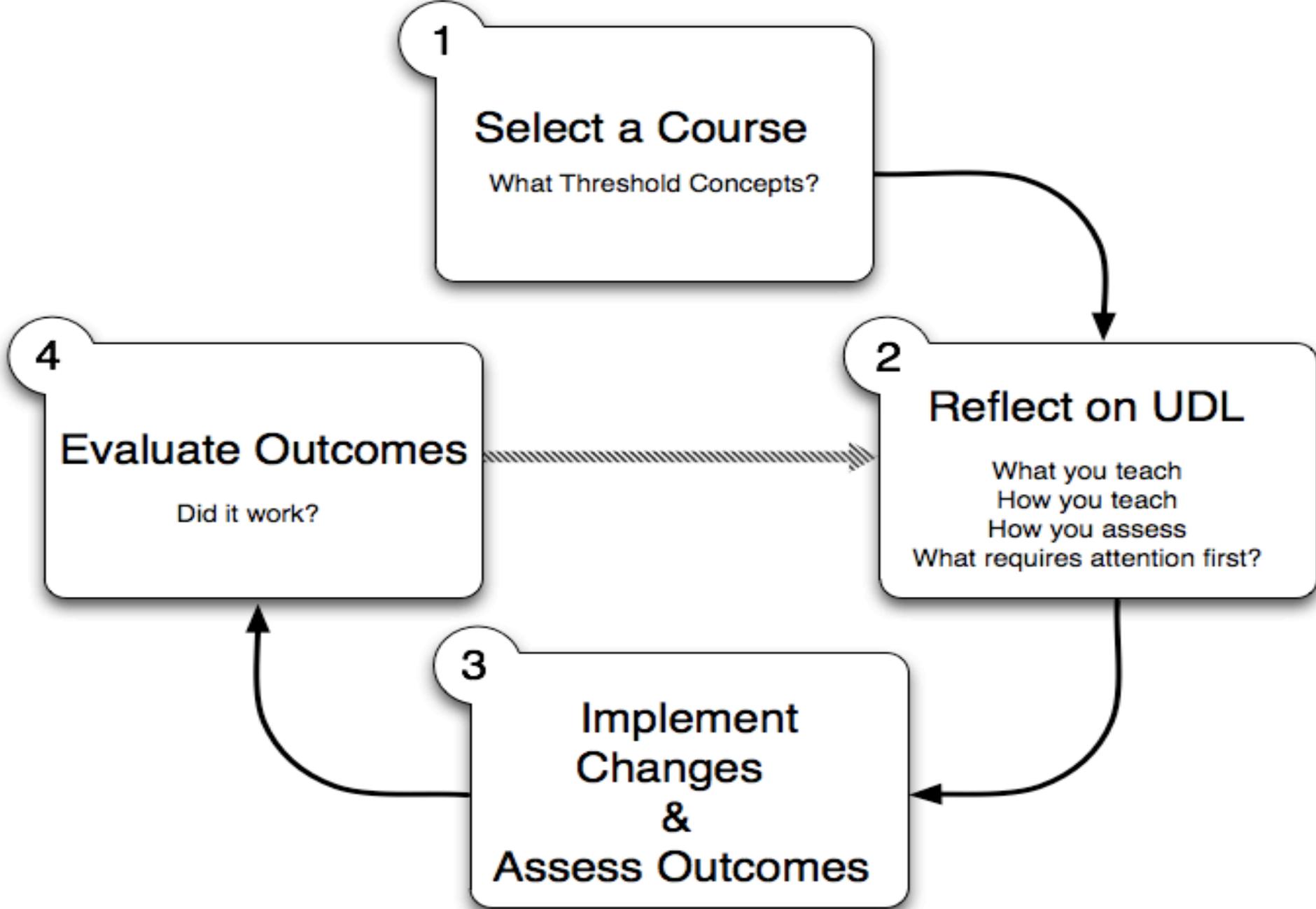
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- Introduce Ensuring Access through Collaboration and Technology: Partnership, Technology & Dissemination (EnACT~PTD)
- Examine Project Impact on Faculty
- Examine Project Impact of Students
- Salient Project Outcomes

- Funding provided U.S. Department of Education: Office of Postsecondary Education
- 3 year federal grant (2008/09; 2009/10; 2010/11) awarded to implement *model demonstration projects* that support postsecondary students with disabilities
- EnACT~PTD is a partnership between Faculty Development and Disability Support Services offices across 7 California State University campuses
- Model faculty program to support faculty implementation of Universal Design for Learning (UDL) in higher education
- Dr. Emiliano C. Ayala (Principle Investigator) & Dr. Brett Christie (Coordinator) – Sonoma State University

# Facilitating Faculty Development





# Project Impact on Faculty: 2009-2010

Area	Impact	Data
Impact of Activities	<p>75 % of faculty agreed they would “more likely make changes to their courses” after exposure to UDL.</p> <p>100% of EnACT~PTD faculty made changes to their courses as a result of their participation.</p> <p>•Average # of course changes: 2.5</p>	<ul style="list-style-type: none"> <li>• 154 CSU faculty</li> <li>•38 project faculty</li> <li>• 30 disciplines</li> </ul>
Value of UDL/FLC	<p>EnACT faculty overwhelmingly reported that our training was an important part of the teaching and learning process.</p>	<ul style="list-style-type: none"> <li>• 98% cited UDL as valuable</li> <li>•100% highlighted benefits of FLC</li> </ul>
Impact on teaching	<p>85% of EnACT faculty indicated that they would “not have made substantive changes to their courses” without project support.</p>	<ul style="list-style-type: none"> <li>•30/38 faculty</li> </ul>

# Project Impact on Students: 2009-2010

Area	Impact	Data
Course Completion/ G.P.A	<p>Students with Disabilities (SwD) •Mean GPA: 2.96/Baseline: 2.90</p> <p>Students without Disabilities (SwoD) Mean GPA: 3.18/Baseline: 3.0</p> <p>Students with Disabilities (SwD) •Course Completion: 96%/Baseline: 88%</p> <p>Students without Disabilities (SwoD) •Course Completion: 98.5%/Baseline:92%</p>	<ul style="list-style-type: none"> <li>• 869 CSU students grades were reviewed</li> <li>•785 SwoD (90%)</li> <li>•84 SwD (9.6%)</li> </ul>
Value of UDL Course Changes	<p>Most students reported that UDL course changes made by faculty were “important” in helping them succeed.</p>	<ul style="list-style-type: none"> <li>• 93% SwD cited UDL changes as important</li> <li>•90% SwoD cited UDL changes as important</li> </ul>
Struggle to learn	<p>37% of all students indicated that “in general” they struggle to learn given how faculty teach their courses.</p>	<p>321/869 CSU students</p>

# Salient Project Outcomes

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- 9 Common Elements of UDL (handout)
- UDL Syllabus Rubric (handout)
- Accessible Instructional Multimedia
- EnACT website - <http://enact.sonoma.edu/>

## Nine Common Elements of Universal Design for Learning in Higher Education

Across the California State University system, 764 undergraduate and graduate students with (SwD) and without (SwoD) disabilities provided their feedback on effective teaching strategies in the postsecondary classroom. The recommendations listed below represent those strategies that students reported were **Very Important** in terms of how faculty design and deliver their courses.

General Elements	Strategy	2007 "Very Important"	2009 "Very Important"
1. Course Syllabus	Provide a course syllabus that clearly identifies all course requirements, course expectations and due dates.	SWOD: 92% SWD: 93%	SWOD: 95% SWD: 98%
2. Course Syllabus	Provide contact information so students have varied ways to contact you with questions or concerns.	SWOD: 85% SWD: 93%	SWOD: 85% SWD: 88%
<b>UDL Representation Elements</b>			
3. Teaching Style	Provide multiple ways of clearly identifying and explaining essential course concepts (highlight the main ideas in different ways).	SWOD: 75% SWD: 82%	SWOD: 71% SWD: 81%
4. Teaching Style	Offer multiple ways to teach important concepts which incorporate different teaching styles (present information visually and verbally).	SWOD: 69% SWD: 75%	SWOD: 80% SWD: 81%
5. Teaching Resources	Provide examples and/or illustrations of all major course assignments (offer examples of successful work or assignment expectations).	SWOD: 57% SWD: 89%	SWOD: 65% SWD: 61%
<b>UDL Engagement Elements</b>			
6. Student Participation in Learning	Offer varied ways to involve students in the learning process (use lectures, small group work, class discussion, hands-on activities).	SWOD: 68% SWD: 71%	SWOD: 62% SWD: 79%
7. Student Feedback	Offer clear and specific feedback on assignments and encourage re-submission of assignments, as appropriate.	SWOD: 71% SWD: 82%	SWOD: 83% SWD: 93%
<b>UDL Expression Elements</b>			
8. Student Expression of Learning	Provide alternatives for how students can complete major course assignments (offer different ways to complete class activities).	SWOD: 45% SWD: 57%	SWOD: 47% SWD: 51%
9. Student Expression of Learning	Provide clear guidelines and/or evaluation rubrics for all major course assignments (how assignments are structured, submitted & graded).	SWOD: 77% SWD: 89%	SWOD: 82% SWD: 90%

## Universal Design for Learning: A Rubric for Evaluating Your Course Syllabus

A well-designed syllabus offers more than the instructor's contact information and a course outline. It also provides information about course goals and objectives, grading procedures, support services, and course policies regarding class participation, missed examinations, late assignments, and academic integrity. ~Howard University

Elements	Traditional Syllabus	Enhanced Syllabus	Exemplary Syllabus	Tips/Tools
<b>Instructor Information</b>	Syllabus provides a single way to way to contact instructor for student questions or concerns.	Syllabus offers varied ways to contact instructor for student questions or concerns.	Syllabus offers varied ways to contact instructor for student questions or concerns and provides brief overview of instructor.	
<b>Textbooks</b>	Syllabus lists required and recommended textbooks.	Syllabus lists required and recommended textbooks with information about where they can be purchased. Short statement provided as to why the textbook was selected.	Syllabus lists required and recommended textbooks with information about where they can be purchased. Electronic equivalent provided or texts ordered early to ensure timely conversion in an alternative format. Short statement provided as to why the textbook was selected.	
<b>Course Assignments (explanation)</b>	Syllabus identifies all learning objectives, course requirements/ assignments, and appropriate due dates.	Syllabus identifies and explains all learning objectives, course requirements/ assignments, and appropriate due dates.	Syllabus clearly explains and links all learning objectives, course requirements/assignments, and appropriate due dates.	
<b>Course Assignments (examples)</b>	Syllabus provides information on how to complete major course projects, activities or papers.	Syllabus provides detailed guidance on how to complete major course projects, activities or papers.	Syllabus provides detailed guidance on how to complete major course projects, activities or papers and offers links to examples and illustrations as appropriate.	
<b>Course Assignments (submission)</b>	Syllabus requires students to submit course assignments in a single or specific way.	Syllabus allows for specific students to submit course assignments in alternative formats with prior instructor approval.	Syllabus provides multiple ways for all students to submit course assignments.	
<b>Course Assignments (grading)</b>	Syllabus stipulates grading criteria for all course requirements.	Syllabus stipulates grading criteria for all course requirements and offers detail on items requiring further clarification.	Syllabus stipulates grading criteria for all course requirements and offers detail on items requiring further clarification and links to instructor grading rubrics.	
<b>Course Calendar</b>	Syllabus has no or minimal information in calendar form.	Syllabus utilizes a course calendar to specify due dates for course activities.	Syllabus and Learning Management System (LMS) utilize a course calendar to specify and periodically reinforce due dates, highlighting key course events and activities.	
<b>Student Resources</b>	Syllabus contains no information about student-oriented campus resources.	Syllabus contains general information about student-oriented campus resources.	Syllabus contains general information about student-oriented campus resources and highlights specific additional resources that may be unique to this course.	
<b>Format (length)</b>	Syllabus provides basic information in a few pages.	Syllabus contains all course information, guidance, and examples, but may be cumbersome for some to navigate.	Syllabus is carefully crafted to provide sufficient information and guidance yet clearly links to additional resources and examples avoiding a text heavy document.	
<b>Format (accessible)</b>	Syllabus is offered in hardcopy form on the first day of class.	Syllabus is made available in hardcopy and electronically upon student request.	Syllabus is made available to students as an accessible electronic document and hardcopy form.	
<b>Format (visible)</b>	Syllabus is offered in hardcopy form on the first day of class.	Syllabus is offered in multiple ways so students can access information as needed throughout the course.	Syllabus is offered and posted in multiple ways so students can access information easily and repeatedly. Key items are periodically reviewed.	

# TEACHING COMPUTER SCIENCE

<http://elixr.merlot.org>

MERLOT ELIXR

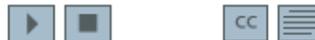
CSU

## Universal Design for Learning - Computer Science

*Suzanne Rivoire, Sonoma State University*



Video: Case Story Trailer (1.5 mins)



Suzanne Rivoire teaches Computer Science at Sonoma State University. Dr. Rivoire saw the potential of Universal Design for Learning to better meet the needs of all her students, particularly those who may struggle to meet the outcomes of her Introduction to Programming course. In addition, UDL is an important part of making the course accessible to all students, including those with disabilities.



Suzanne's Story



More about the programming projects



Resources



## UDL in Business Education

*Kirsten Ely, Sonoma State University*

<http://elixr.merlot.org>



Video: CaseStory Overview (1 min)



This case story depicts faculty development efforts taking place across multiple CSU campuses. Specifically, these efforts focus around training faculty in the principles of Universal Design for Learning. As a result, faculty members are able to more effectively teach all students, including students with disabilities. The key to helping all students succeed is identifying and removing barriers from our teaching methods and curriculum materials. Drawing from brain research and using new media, the UDL framework proposes that



Kirstin's UDL Story



Kirstin's UDL Process



UDL Support Resources



# Final Thoughts

## □ **What is working?**

- Funding ensures that project go beyond single campus effort and examines sustainable practices that can be adopted by other institutions of higher education
- UDL+FLC focus ensures that faculty assume responsibility for instructional practices including accessibility
- Promoted best practices coupled with consistent data ensures appropriate and valued implementation

## □ **What needs further attention?**

- Carrot or stick dilemma (mandate or encourage training)?
- Continued/closer ties with CSU Accessible Technology Initiative (CSU ATI) to ensure broad-based sharing of best practices and common resources