Inclusion & Universal Design for Learning

Presented by:

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Commitment to Least Restrictive Environment (LRE)

Our goal for each child is to ensure Individualized Education Program (IEP) teams begin with the general education setting with the use of Supplementary Aids and Services before considering a more restrictive environment.
Public education "is a right which must be made available to all on equal terms."

*U.S. Supreme Court, Brown v. Board of Education*

"UDL offers a new way of thinking about creating multiple learning opportunities in every area of course design. Once you start thinking this way, the sky's the limit!"

*Prof. Sandra Yang, Cal Poly Pomona*

http://www.udlcenter.org
Evolution of Inclusion

- No Schooling
- Separate Schools
- Separate Classrooms
- Mainstreaming
- Integration
- Inclusion
Standards Aligned System (SAS)

- [http://www.pdesas.org/](http://www.pdesas.org/)
- Try the vertical viewer feature to identify standard-aligned objectives for students with intellectual disabilities.
Examples of Educational Practices that Support Educating Students in General Education Classes:

- Principles of Effective Instruction
- Universal Design for Learning (UDL)
- Co-Teaching
- Differentiated Instruction
- Curricular Accommodations
- Data Informed Decision Making
- Positive Behavior Supports
### Specially Designed Instruction (SDI)

<table>
<thead>
<tr>
<th>Accommodation</th>
<th>Modification</th>
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<tr>
<td>“a support or service that will assist the student so that he or she can gain full access to the content and instruction as well as enable them to demonstrate what they know in relation to the construct”</td>
<td>“a change in the content of instruction or the expected performance of a student”</td>
</tr>
</tbody>
</table>

(Nolet & McLaughlin, 2000)
Outcomes for ALL students...

Adapted from Michael McSheehan, Institute on Disability, University of New Hampshire, 2009
A Vision of K-12 Students Today

http://www.youtube.com/watch?v=_A-ZVCjfWf8
“Intersection of Initiatives”

One more thing
“Consider the needs of the broadest possible range of users from the beginning”

- Ron Mace, Architect -
What’s better about Universal Design?

- Recognizes the reality of diversity
- Built in right from the start
  - Less costly than retrofit
  - More efficient than individual solutions
  - More aesthetic
  - Benefits more people

http://www.youtube.com/watch?v=PgvFyuFnPco&feature=relmfu
Universal Design - examples

- Ramps
- Curb cuts
- Electric doors
- Captions on television
- Easy-grip tools
Who else benefits?

Universal Design

- Curb cuts
- Ramps & elevators
- Closed Captioning
- Signs and symbols

Universal Design for Learning

- Using a microphone
- Visual cues and schedules
- Building background knowledge
- Illustrating vocabulary
- Dictating responses
- Working with a partner

http://www.cast.org/research/index.html
Universal Design for Learning (UDL)

- More ways to **access**...
- More ways to **participate**...
- More ways to **demonstrate learning**...

Resulting in more equitable access to the general education curriculum for **ALL** learners
UDL at a Glance

http://www.youtube.com/user/UDLCAST#p/a/u/o/bDvKnYog6e4
How do you know what we need?
Brain Research & New Technologies

**Multifaceted learning capacities**

- **Recognition Networks**
  The "what" of learning
  - How we gather facts and categorize what we see, hear, and read. Identifying letters, words, or an author's style are recognition tasks.

- **Strategic Networks**
  The "how" of learning
  - Planning and performing tasks. How we organize and express our ideas. Writing an essay or solving a math problem are strategic tasks.

- **Affective Networks**
  The "why" of learning
  - How learners get engaged and stay motivated. How they are challenged, excited, or interested. These are affective dimensions.

**Accessibility to digital media**

- [Image of a digital device]
Technology NOW and THEN:

http://www.youtube.com/watch?v=xFAWR6hzZek

http://www.youtube.com/watch?v=SkhpmeZWuRQ
Principles of UDL

Multiple

- means of representation
- means of action and expression
- means of engagement

- CAST -
Getting to Know YOU the UDL Way


- [http://www.udlcenter.org/resource_library](http://www.udlcenter.org/resource_library)

- [http://www.udlcenter.org/resource_library/articles/gps](http://www.udlcenter.org/resource_library/articles/gps) (GPS activity)
# Universal Design for Learning Guidelines

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<th>I. Provide Multiple Means of Representation</th>
<th>II. Provide Multiple Means of Action and Expression</th>
<th>III. Provide Multiple Means of Engagement</th>
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<tr>
<td>1. Provide options for perception</td>
<td>4. Provide options for physical action</td>
<td>7. Provide options for recruiting interest</td>
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<tr>
<td>- Options that customize the display of information</td>
<td>- Options in the mode of physical response</td>
<td>- Options that increase individual choice and autonomy</td>
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<td>- Options that provide alternatives for auditory information</td>
<td>- Options in the means of navigation</td>
<td>- Options that enhance relevance, value, and authenticity</td>
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<td>- Options that provide alternatives for visual information</td>
<td>- Options for accessing tools and assistive technologies</td>
<td>- Options that reduce threats and distractions</td>
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<tr>
<td>2. Provide options for language and symbols</td>
<td>5. Provide options for expressive skills and fluency</td>
<td>8. Provide options for sustaining effort and persistence</td>
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<td>- Options that define vocabulary and symbols</td>
<td>- Options in the media for communication</td>
<td>- Options that heighten salience of goals and objectives</td>
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<td>- Options that clarify syntax and structure</td>
<td>- Options in the tools for composition and problem solving</td>
<td>- Options that vary levels of challenge and support</td>
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<td>- Options for decoding text or mathematical notation</td>
<td>- Options in the scaffolds for practice and performance</td>
<td>- Options that foster collaboration and communication</td>
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<td>- Options that promote cross-linguistic understanding</td>
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<td>- Options that increase mastery-oriented feedback</td>
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<td>- Options that illustrate key concepts non-linguistically</td>
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<td>- Options that provide or activate background knowledge</td>
<td>- Options that guide effective goal-setting</td>
<td>- Options that guide personal goal-setting and expectations</td>
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<td>- Options that highlight critical features, big ideas, and relationships</td>
<td>- Options that support planning and strategy development</td>
<td>- Options that scaffold coping skills and strategies</td>
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<td>- Options that guide information processing</td>
<td>- Options that facilitate managing information and resources</td>
<td>- Options that develop self-assessment and reflection</td>
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<td>- Options that support memory and transfer</td>
<td>- Options that enhance capacity for monitoring progress</td>
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### Multiple Means of Representation

#### 1. Provide Multiple Means of Representation

**1. Provide options for perception**
- Options that customize the display of information
- Options that provide alternatives for auditory information
- Options that provide alternatives for visual information

**2. Provide options for language and symbols**
- Options that define vocabulary and symbols
- Options that clarify syntax and structure
- Options for decoding text or mathematical notation
- Options that promote cross-linguistic understanding
- Options that illustrate key concepts non-linguistically

**3. Provide options for comprehension**
- Options that provide or activate background knowledge
- Options that highlight critical features, big ideas, and relationships
- Options that guide information processing
- Options that support memory and transfer

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**Recognition Networks**

The "what" of learning

How we gather facts and categorize what we see, hear, and read. Identifying letters, words, or an author's style are recognition tasks.
Multiple Means of Representation

Examples

- Read aloud
- Highlight phrases
- Listen to audiotape
- Text-to-speech
- Built-in talking glossary
- Built-in language translation
Multiple Means of Action and Expression

### Strategic Networks
The "how" of learning

- Planning and performing tasks. How we organize and express our ideas. Writing an essay or solving a math problem are strategic tasks.

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#### II. Provide Multiple Means of Action and Expression

4. Provide options for physical action
   - Options in the mode of physical response
   - Options in the means of navigation
   - Options for accessing tools and assistive technologies

5. Provide options for expressive skills and fluency
   - Options in the media for communication
   - Options in the tools for composition and problem solving
   - Options in the scaffolds for practice and performance

6. Provide options for executive functions
   - Options that guide effective goal-setting
   - Options that support planning and strategy development
   - Options that facilitate managing information and resources
   - Options that enhance capacity for monitoring progress
Multiple Means of Action & Expression

- Written response
- Verbal response
- Visual art project
- Dramatic response
- iMovie (Macintosh)
- Multimedia: Power Point, Hyperstudio
Multiple Means of Engagement

III. Provide Multiple Means of Engagement

7: Provide options for recruiting interest
   7.1 Optimize individual choice and autonomy
   7.2 Optimize relevance, value, and authenticity
   7.3 Minimize threats and distractions

8: Provide options for sustaining effort and persistence
   8.1 Heighten salience of goals and objectives
   8.2 Vary demands and resources to optimize challenge
   8.3 Foster collaboration and community
   8.4 Increase mastery-oriented feedback

9: Provide options for self-regulation
   9.1 Promote expectations and beliefs that optimize motivation
   9.2 Facilitate personal coping skills and strategies
   9.3 Develop self-assessment and reflection

Purposeful, motivated learners

Affective Networks
The "why" of learning

How learners get engaged and stay motivated. How they are challenged, excited, or interested. These are affective dimensions.
Multiple Means of Engagement

- Keep ongoing personal journal
- Use archived resources
- Flexibility in use of tools to access information
- Choice in means of expression
- Flexible grouping strategies
www.cast.org

Transforming Education through Universal Design for Learning

Who we are
Each year, the US Department of Education sponsors five UDL Fellows to work with CAST on finding creative solutions to pressing needs in education. Don Glista of VSA Arts, and Pati Rohrbach, formerly of NEA, are the 2010-2011 fellows.
Learn more about the UDL Fellowship Program

What we do
CAST works to apply Universal Design for Learning (UDL) to education's greatest challenges. Read about our projects

Learning Tools
Thanks to the generosity of our funders, CAST offers free multimedia learning tools. View tools

Professional Development
CAST helps districts and educators implement UDL to support all learners. Learn more
UDL Checkpoints

Checkpoint 1.1: Offer ways of customizing the display of information

I. Provide Multiple Means of Representation
   Perception
     • Checkpoint 1.1
     • Checkpoint 1.2
     • Checkpoint 1.3

Key Considerations
- How does this help learners meet the goal?
- How does this account for the variability of all learners?
- Can learners customize the display?
- Can you think of other examples/resources that illustrate this checkpoint?
- Tell us!

Example/Resource

AIM Explorer
- The AIM Explorer is a free simulation that combines grade-level digital text with access features common to most text readers and other supported reading software. Magnification, custom text and text-to-speech, color, text-to-speech (synthetic and human), highlighting, and layout options are present in sequence to help struggling readers decide which supports might help them access and understand text.

Why UDL?

- Why UDL? The AIM Explorer allows users to see how different access features and text options such as magnification, TTS voice and colors, text-to-speech (synthetic and human), highlighting, and layout options are present in sequence to help struggling readers decide which supports might help them access and understand text.

- See also:
  1.3. Offer alternatives for visual information
  2.3. Support decoding of text, mathematical notation, and symbols
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<th>Teachers</th>
<th>Parents</th>
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- **UDL Book Builder™**
  - Launched: 08/24/2009
  - Enables educators to develop their own digital books to support reading instruction literacy learning. [Go to: CAST UDL Book Builder](#)
  - Grades: All Grades

- **UDL Curriculum Self-Check™**
  - Helps educators build options and flexibility into each element of the curriculum in order to reach and engage all students. [Go to: CAST UDL Curriculum Self-Check](#)
  - Grades: All Grades

- **UDL Editions™**
  - Publicized by Google around the world, UDL Editions is a model for presenting classic texts from world literature in a flexible online interface with just-in-time, individualized supports for struggling and expert readers alike. [Go to: CAST UDL Editions](#)
  - Grades: 5 and up

- **UDL Guidelines**
  - A set of principles for designing curriculum that provides all individuals with equal opportunities to learn. Created at CAST and housed by the National Center on Universal Design for Learning. [Learn More about the National Center on UDL](#)
  - Grades: Educators

- **UDL Lesson Builder™**
  - Helps educators to design lessons/units of study to meet the diverse learning challenges, skills, and background of students in today's classrooms. [Go to: CAST UDL Lesson Builder](#)
  - Grades: All Grades
FREE Digital Text

- http://bookbuilder.cast.org
- http://udleditions.cast.org
- www.booksshouldbefree.com
- http://www.planetebook.com/
- http://www.buckslib.org/kids/ (Tumble Books)
On-Line Modules

Welcome to the CAST UDL online modules. These two online modules introduce the theory, principles and application of Universal Design for Learning (UDL) to teacher candidates and in-service teachers. They provide higher education faculty with a multimedia, interactive online-learning environment that can be embedded in instructional methods courses. They are designed to be flexible enough to be used as part of an online, hybrid or face-to-face course. It is suggested that you create an interactive community of practice using a blog, wiki or other type of interactive web 2.0 media.

What do you get?

Multiple Means of Representation
The content is represented in multiple ways including text, audio clips and video.

Multiple Means of Action and Expression
Online activities, discussion questions and lesson plan assignments allow students to express their understanding in different ways.

Multiple Means of Engagement

Additional features
These prompts can be found throughout the modules and provide students with additional opportunities to pause and reflect, to extend their learning, to modulate UDL and to test their understanding. Embedded prompts are also provided for instructors.

Get Started!
Module 1
Introduction to UDL

Module 2
Applying the UDL Framework to Lesson Development

What People are Saying

"We integrated the CAST UDL Online Modules into our own hybrid course. The content provided, in "multiple" ways, was superb, engaging and motivated our participants to consider changes to their curriculum design! Our discussion board literally exploded with ideas. Thank you CAST for all your resources!"

Shari Hill & Robin Gibson
FDRS East Center Technology Specialists, Florida

"As an instructor of in-service educators, I thought someone had given me a Christmas present when I saw the UDL Online modules. Using the modules with my students supports my own design of lessons using the UDL principles. As I use the
Teaching Every Student
in the Digital Age

Teaching Every Student in the Digital Age: Universal Design for Learning
David H. Rose & Anne Meyer
ASCD, 2002

Acknowledgments

Preface

Chapter 1: Education in the Digital Age

Chapter 2: What Brain Research Tells Us About Learner Differences

Chapter 3: Why We Need Flexible Instructional Media

Chapter 4: What Is Universal Design for Learning?

Chapter 5: Using UDL to Set Clear Goals

Chapter 6: Using UDL to Support Every Student's Learning

Chapter 7: Using UDL to Accurately Assess Student Progress

Chapter 8: Making Universal Design for Learning a Reality

References and Resources

Purchase this book

http://www.cast.org/teachingeverystudent/ideas/tes/
Explore:

- http://tkamforall.pbworks.com/w/page/9671794/FrontPage

- http://www.cds.hawaii.edu/cnmi/webquest/teacher/universaldesign/conlon/

- http://udltechttoolkit.wikispaces.com
Additional On-line Resources/References

www.cast.org  Center for Applied Special Technology- extensive UDL research and resource lists

www.udlcenter.org  National Center for Universal Design for Learning

www.pdesas.org  state portal that provides resources linked to standards and the anchors and “big ideas” linked to standards

http://www.cast.org/learningtools/index.html  Universal Design for Learning list of tools and on-line resources

www.aim.cast.org  on-line tool to facilitate accessibility to instructional materials

http://udltechtoolkit.wikispaces.com  great strategies for all skill areas and ages

www.kidsites.com  many links to interactive websites and printables for all subjects

www.quizlet.com  flash card builder/exchange

www.freeworksheets.com  free printable worksheets to provide repeated practice of many different skills

www.gcflearnfree.org  provides interactive lessons and activities that could be used as life skills or transition tools

www.classtools.net  has a “fakebook” link that can be used a variety of ways (ex. Character analysis for a novel, social studies character development, etc)