Early Education in a Diverse World: Applying Universal Design

September 22, 2010
Dallas, TX
Michael Conn-Powers
Indiana University-Bloomington

Our Context
Early education has emerged as a patchwork process

Early Childhood
Special Education
Nursery Schools
Private Preschool
Head Start
Child Care
Public Prekindergarten

Together, we serve a diverse audience of children and families
Today we need early education programs that successfully educate all children.

What we have traditionally done in Early Education doesn’t always work well.
Retrofitting and patching existing programs doesn’t always work.

How can we create early education classrooms that work for all children?
## Our Agenda

<table>
<thead>
<tr>
<th>Agenda</th>
<th>Goals</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. What is UD?</td>
<td>Understand framework &amp; principles of universal design</td>
</tr>
<tr>
<td>2. Implications for ECE?</td>
<td>Know intended outcomes and general strategies</td>
</tr>
<tr>
<td>3. How it works?</td>
<td>Application of UD to TX Prekindergarten Guidelines</td>
</tr>
<tr>
<td>4. Limitations &amp; Considerations?</td>
<td>Understand limitations &amp; how UD fits with other practices</td>
</tr>
</tbody>
</table>

### 1. What is Universal Design?

- **What is UD?**
- **Implications for ECE?**
- **How it works?**
- **Limitations & Considerations?**
The World is Harder When it is Not Conceived for You

- http://www.youtube.com/watch?v=RsuKxY_9f_8
- http://www.youtube.com/watch?v=EVV_I-FHNTg

“Simplify life for everyone by making products, communications, and the built environment more usable by as many people as possible at little or no extra cost.”

Center for Universal Design, North Carolina State University
“Simplify life for everyone by making products, communications, and the built environment more usable by as many people as possible at little or no extra cost.”

Center for Universal Design,
North Carolina State University
“Simplify life for everyone by making products, communications, and the built environment more usable by as many people as possible at little or no extra cost.”

Center for Universal Design, North Carolina State University

<table>
<thead>
<tr>
<th><strong>Center for Universal Design</strong></th>
<th><strong>Posited 7 Principles</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>1. Equitable use</strong></td>
<td>Allows equal access and avoids segregating or stigmatizing</td>
</tr>
<tr>
<td><strong>2. Flexibility in use</strong></td>
<td>Accommodates wide range of preferences &amp; abilities</td>
</tr>
<tr>
<td><strong>3. Simple &amp; intuitive</strong></td>
<td>Easy to understand</td>
</tr>
<tr>
<td><strong>4. Perceptible Info</strong></td>
<td>Communicates necessary info effectively through different modes</td>
</tr>
<tr>
<td><strong>5. Tolerance for error</strong></td>
<td>Minimizes hazards &amp; adverse outcomes</td>
</tr>
<tr>
<td><strong>6. Low physical effort</strong></td>
<td>Used efficiently &amp; comfortably</td>
</tr>
<tr>
<td><strong>7. Size/Space for approach and use</strong></td>
<td>Appropriate for approach, reach, manipulation, and use</td>
</tr>
</tbody>
</table>
Example of UD in Everyday Life

- Take a minute and think of instances in our lives where our community is universally designed.
- Think of instances where our community is not universally designed.

How do these principles apply to education?

*As we start a new school year, Mr. Smith, I just want you to know that I'm an Abstract-Sequential learner and trust that you'll conduct yourself accordingly!*

[Image: Cartoon of a student with a book talking to a teacher who is looking surprised]
### Translated into Educational Applications (Mason, Orkwis & Scott, 2005)

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Equitable curriculum</td>
<td>Single curriculum accessible to diverse student population; does not segregate or call “undue attention”</td>
</tr>
<tr>
<td>2. Flexible curriculum</td>
<td>Presented flexibly to accommodate range of abilities and preferences</td>
</tr>
<tr>
<td>3. Simple &amp; intuitive instruction</td>
<td>Instruction is straightforward, provided in mode most accessible; language and complexity is adjusted</td>
</tr>
<tr>
<td>4. Multiple means of presentation</td>
<td>Alter to effectively reach all students, regardless of sensory ability, level of understanding or attention</td>
</tr>
<tr>
<td>5. Success-oriented curriculum</td>
<td>Encourages engagement, provide supportive learning environment, ongoing assistance</td>
</tr>
<tr>
<td>6. Appropriate level of student effort</td>
<td>Ease of access to curriculum, addresses motivation, accommodates varied responses</td>
</tr>
<tr>
<td>7. Appropriate environment for learning</td>
<td>Allow for variations in physical and cognitive access, instructional methods, and classroom environment</td>
</tr>
</tbody>
</table>

### Universal Design for Learning

Center for Applied Special Technology (CAST)

http://www.cast.org/
# Universal Design for Learning Guidelines

## Three Principles Guide

**UDL**

http://www.youtube.com/user/UDLCAST#p/a/u/0/bDvKnY0g6e4

### Universal Design for Learning Guidelines

<table>
<thead>
<tr>
<th>Representation</th>
<th>Expression</th>
<th>Engagement</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>I. Representation</strong></td>
<td><strong>II. Expression</strong></td>
<td><strong>III. Engagement</strong></td>
</tr>
<tr>
<td>Use multiple means of representation</td>
<td>Use multiple means of expression</td>
<td>Use multiple means of engagement</td>
</tr>
<tr>
<td><strong>1. Provide options for perception</strong></td>
<td><strong>4. Provide options for physical action</strong></td>
<td><strong>7. Provide options for recruiting interest</strong></td>
</tr>
<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>
</tr>
<tr>
<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>
</tr>
<tr>
<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>
</tr>
<tr>
<td><strong>2. Provide options for language and symbols</strong></td>
<td><strong>5. Provide options for expressive skills and fluency</strong></td>
<td><strong>8. Provide options for sustaining effort and persistence</strong></td>
</tr>
<tr>
<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>
</tr>
<tr>
<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>
</tr>
<tr>
<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>
</tr>
<tr>
<td>- Options that promote cross-linguistic understanding</td>
<td>- Options that increase mastery-oriented feedback</td>
<td>- Options that increase mastery-oriented feedback</td>
</tr>
<tr>
<td>- Options that illustrate key concepts non-linguistically</td>
<td><strong>6. Provide options for executive functions</strong></td>
<td><strong>9. Provide options for self-regulation</strong></td>
</tr>
<tr>
<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>
</tr>
<tr>
<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>
</tr>
<tr>
<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>
</tr>
<tr>
<td>- Options that support memory and transfer</td>
<td>- Options that enhance capacity for monitoring progress</td>
<td></td>
</tr>
</tbody>
</table>

© 2008 by CAST. All rights reserved.

Universal Design forces us to reframe our assumptions and challenges.

### Universal Design for Learning

<table>
<thead>
<tr>
<th></th>
<th>Old Assumptions</th>
<th>New Assumptions</th>
</tr>
</thead>
<tbody>
<tr>
<td>Students with disabilities</td>
<td>Separate Category</td>
<td>Continuum of differences</td>
</tr>
<tr>
<td>Teacher adjustments</td>
<td>Child with disabilities</td>
<td>All children</td>
</tr>
<tr>
<td>Curriculum Materials</td>
<td>Centers on textbook</td>
<td>Diverse, including digital</td>
</tr>
<tr>
<td>Source of the problem</td>
<td>Remediating student</td>
<td>Flexible curriculum</td>
</tr>
</tbody>
</table>

CAST
Diversity is the New Norm

How do we:

Design for Diversity?

- Provide Meaningful Access?
- Engage Children in Learning?
- Insure Everyone Belongs?
- Build in Accommodations?
- Offer Common Lessons?
- Implement Multiple Teaching Strategies?
- Find Different Ways to Participate?
- Be Flexible & Find Alternatives?
Right From the Start

What UD IS NOT?

ONE SIZE FITS ALL

FORGETTING INDIVIDUALS

“DUMBING DOWN”

NARROWING CURRICULUM
**Activity**

- Open House at your program
- Diverse classroom
- Families are asking questions
- How do you respond?

**Questions from Families**

1. How can you teach such a diverse class?
2. What about that girl who speaks little English?
3. Because Joe is quiet and a little behind, I’m afraid he’s going to get lost in your classroom. What are you going to do?
4. My daughter is gifted; will she be held back?
5. James requires so much attention. How will you balance his needs with the other children?
2. How does UD apply to Early Education?

Intended Outcomes Applying UD to Early Education

Application of UD Practices

• Equal & valued member
• Access to all opportunities
• Meaningful engagement
• Successful learning
• Minimize special assistance

Conn-Powers, Cross, Traub, & Hutter-Pishgahi, 2006
Universal design principles have a role in early education

1. Accessible environments
2. Common flexible curriculum
3. Multiple means of representation
4. Multiple means of engagement
5. Multiple means of expression

Let's examine these principles as we look at Kindergarten Arrival
Arrival Time in Kindergarten

• Find and enter class

• Find and enter class
• Put stuff away
Arrival Time in Kindergarten

• Find and enter class
• Put stuff away
• Deposit homework

Arrival Time in Kindergarten

• Find and enter class
• Put stuff away
• Deposit homework
• Morning seat work
Critical Skills for Arrival Time

- Follows the routine
- Clear speech/comm.
- Follows rules
- Follows directions
- Completes task
- Communicates needs & wants

1. Accessible Welcoming Environments

All children fully access and participate in the physical, social, and instructional life of the classroom
1. **Accessible Welcoming Environments**

- Safe and easy access to activities
- Materials stored for easy access
- Different materials to accommodate different skill levels
- Varied seating options
- Adequate space
- Welcoming social climate

Adapted from CAST, 2008; Conn-Powers et al., 2006; Cunconan-Lahr & Stifel, 2007; Darragh, 2007

2. **Common Flexible Curriculum**

All children learn from a common curriculum that is responsive to individual needs and abilities
2. Common Flexible Curriculum

- Common curriculum- no one segregated or stigmatized
- Multiple learning goals that accommodate multiple skill levels and interests
- Varied levels of support or “scaffolding”

Adapted from Conn-Powers et al., 2006; Cunconan-Lahr & Stifel, 2007; Darragh, 2007

3. Multiple means of representation

All children receive the information they need, regardless of sensory ability, level of understanding, linguistic background, or attention
3. Multiple means of representation

- Provide options for perception, for language, and for comprehension (CAST)
- Use different modalities
- Provide multiple cues, models, & languages
- Accommodate wide range of language skills
- Eliminate unnecessary complexity in directions and instruction

Adapted from Conn-Powers et al., 2006; Cunconan-Lahr & Stifel, 2007; Darragh, 2007

4. Multiple means of engagement

All children fully engage (interested, motivated, challenged) in all activities
4. Multiple means of engagement

- Provide options for recruiting interest, for sustaining effort and persistence, and for self-regulation (CAST)
- Multiple materials for individual interests
- Multiple ways for interacting with materials
- Provide range of appropriate challenges
- Allow individual choice and autonomy
- Individualized support/scaffolding

Adapted from Conn-Powers et al., 2006; Cunconan-Lahr & Stifel, 2007; Darragh, 2007

5. Multiple means of expression

All children successfully demonstrate what they know and what they can do
5. **Multiple means of expression**

- Provide options for physical action, for expressive skills, and for executive functions (CAST)
- Multiple ways for completing work
- Alternative ways for demonstration
- Partial participation and performance

Adapted from Conn-Powers et al., 2006; Cunconan-Lahr & Stifel, 2007; Darragh, 2007

3. How Does This Apply to Texas prekindergarten Guidelines?
APPLICATION TO TX PreK GUIDELINES

1. Guidelines for English Language Learners
2. Guidelines for Children with Special Needs
3. The Learning Environment: Space
4. Common Prekindergarten Activities

APPLICATION OF UD PRINCIPLES TO COMMON PreK ROUTINES

- Circle Time (large group)
- Learning Centers
- Small groups
- Read Aloud
- Snack/Meal times
- Outdoor/Motor
**Arrival Time Example**

<table>
<thead>
<tr>
<th>Description</th>
<th>Demands/Challenges</th>
<th>Apply UD</th>
</tr>
</thead>
<tbody>
<tr>
<td>Move to classroom (find or follow)</td>
<td>• independent mobility</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• up/down stairs</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• find location/follow others</td>
<td></td>
</tr>
<tr>
<td>Greetings, give materials to teacher ...</td>
<td>• comprehend greetings &amp; ?’s</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• follow directions</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• mobility to navigate around</td>
<td></td>
</tr>
<tr>
<td>Put backpack, coat, stuff in cubby</td>
<td>• recall responsibilities</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• comprehend directions</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• put stuff in place</td>
<td></td>
</tr>
<tr>
<td>Move to next activity / follow directions ...</td>
<td>• sign in (name)</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• comprehend directions</td>
<td></td>
</tr>
<tr>
<td></td>
<td>• complete seat work task</td>
<td></td>
</tr>
</tbody>
</table>

4. Limitations and Implications?
Sometimes, Some Children Will Need Individualized Supports

Specialized Intervention
Differentiated Instruction
General Education

Building Blocks Model Provides An Excellent Example of a Multi-Tiered Approach
Sandall, Schwartz, Joseph, Chou, Horn, & Lieber (2002)

Few Children Some Times
Child-focused Instructional Strategies
Embedded Learning Opportunities
Curriculum modifications & adaptations
Quality Early Childhood Program

All Children All the Time
All Children Need and Receive Sound, Evidence-Based Early Education

Sandall, Schwartz, Joseph, Chou, Horn, & Lieber (2002)

Sometimes Teachers Need to Make Modifications to Include Children & Enhance Their Learning & Participation

Sandall, Schwartz, Joseph, Chou, Horn, & Lieber (2002)
Sometimes some children need additional opportunities to learn & practice.

Sandall, Schwartz, Joseph, Chou, Horn, & Lieber (2002)

- Quality Early Childhood Program
- Curriculum modifications & adaptations
- Embedded Learning Opportunities
- Child-focused Instructional Strategies

A few children need intensive, individualized services to accomplish individual & classroom goals.

Sandall, Schwartz, Joseph, Chou, Horn, & Lieber (2002)

- Quality Early Childhood Program
- Curriculum modifications & adaptations
- Embedded Learning Opportunities
- Child-focused Instructional Strategies
Response to Intervention and Recognition & Response Reflect a Multi-Tiered Approach

Recognition and Response Adds Unique Features to a Multi-Tiered Model
What is the Role of Universal Design in Implementing Multi-Tiered Intervention Models?

Universal Design Principles Influence the Tier 1 or Foundational Services
**Implications?**

From a UD Framework, Our Questions Around Inclusion Shift.

<table>
<thead>
<tr>
<th>Inclusion Perspective</th>
<th>UD Perspective</th>
</tr>
</thead>
<tbody>
<tr>
<td>How do we successfully include James in the preschool and work on his IEP goals?</td>
<td>How do we design the preschool so that it welcomes and effectively educates all children, including James?</td>
</tr>
</tbody>
</table>
Universal Design Offers Us an Opportunity to Blur the Distinctions that Separate Children and Programs