Program for Inclusive Education (PIE)

Acronym Soup: Connecting the Dots to Inclusion

Christie Bonfiglio, Ph.D.
Sean Smith, Ph.D.
University of Notre Dame

Program for Inclusive Education (PIE)
Program for Inclusive Education (PIE)
Objectives for the Session

• To identify the acronyms that flood the field of education.
• To understand how the frameworks relate to inclusive education.
• To connect the dots between the frameworks and your classroom.
TIERED SYSTEMS OF SUPPORT
Tiered Systems of Support

• RTI:
  – Response to Intervention
  – Academic domain

• PBS/PBIS:
  – Positive Behavior (Intervention) Supports
  – Behavior domain

• MTSS:
  – Multi-Tiered Systems of Support
Program for Inclusive Education (PIE)
Tier 1: Ice Cream

CORE
80 – 85%
Tier 2: Ice Cream and Sauce

Targeted Interventions
10 - 15%
Tier 3: Ice Cream, Sauce, & Sprinkles

Individual Interventions

5%
Special Education: Cherry on Top

Program for Inclusive Education (PIE)
Multi-Tiered Systems of Support

Tier 3: Function-Based Support (~5%)
Tier 2: Targeted Intervention (~15% of Students)
Tier 1: ~80% of Students

Program for Inclusive Education (PIE)
MTSS

“Integration of multiple-tiered systems into one coherent, strategically combined system meant to address multiple domains or content areas” (McIntosh & Goodman, 2016)

-RTI & PBIS

-Social significance
**Integrated MTSS**

- Differences are not monumental
- Similarities support the integration
- 3 assumptions:
  - Strong relationship between academic skills and problem behavior
  - Common features and underlying theories
  - More efficient use of resources and protection against competing initiatives
Similarities & Differences

**Academic RTI**
- Academic assessments & interventions
- Published curriculum
- Direct assessment
- Benchmarking w/ periodic assessment
- Grade-level teaming

**PBIS**
- Behavior assessments & interventions
- Free materials adapted to fit school
- Indirect assessment
- Continuous assessment w/ existing data sources
- School-wide teaming
Academic Skills & Behavior

- Crossover effects
  - Readers and behavior  (Arnold et al., 2005)
  - Comorbidity over time  (Fleming et al., 2004; McIntosh et al., 2008)
Pathways to Academic & Behavior Challenges

1. Behavior challenges lead to combined challenges
2. Attention deficits lead to combined challenges
3. Academic challenges lead to social rejection & combined challenges
4. Academic challenges lead to combined challenges

Combined Academic & Behavior Challenges

Program for Inclusive Education (PIE)
LEARNING ENVIRONMENTS FOR ALL LEARNERS
Meeting the Needs of Learners

• **DI:** Differentiated Instruction

• **UDL:** Universal Design for Learning
Differentiated Instruction

• 5 Core Beliefs of DI
  – Students differ in their *readiness* to learn
  – Students learn best with *high expectations and support* from adults
  – Students learn best when material is *connected to their interests and experiences*
  – Students learn best in a *safe community*
  – Schools must *maximize every student’s capacity*

Garten, Murdick, Perner, & Imbeau, 2016
Differentiated Instruction

The Learner Relationship

What Teachers Prepare
- Content
  -- Access
- Process
  -- Sense-making
- Product/
  Learning Artifacts
  -- Evidence

How Students Engage
- Readiness
  -- Current Skill Level
- Interests
  -- Choices and Backgrounds
- Learning Profile
  -- Brain Intelligences

Program for Inclusive Education (PIE)
DI = Process, Content, Product

Teachers can differentiate

- Content
- Process
- Product

According to the student’s

- Readiness
- Interests
- Learning Profile

To Increase

- Growth
- Motivation
- Efficiency
Differentiating Content

Content:
• The “What”
• Consider access
• Multiple modalities
• Relevant to learner
• Newsela
Differentiating Process

• How students make sense of content
• Reflect & digest the material
• 1-2 processing sessions for every 30 mins. of talking
• Graphic Organizers
• Chunking
Differentiating Product

- Use of knowledge
- 3-4 choices for end product
- Students propose own design

Tic-Tac-Toe Menu

<table>
<thead>
<tr>
<th>Collect</th>
<th>Teach</th>
<th>Draw</th>
<th>Judge</th>
</tr>
</thead>
<tbody>
<tr>
<td>Farm or ideas which are important to you. (Knowledge)</td>
<td>A lesson about your topic to our class. Includes at least one visual aid. (Synthesis)</td>
<td>A diagram, map, or picture of your topic. (Application)</td>
<td>Two different viewpoints about an issue. Explain your decision. (Evaluation)</td>
</tr>
<tr>
<td>Photograph</td>
<td>Demonstrate</td>
<td>Graph</td>
<td>Create</td>
</tr>
<tr>
<td>Video(s), or film part of your presentation. (Synthesis)</td>
<td>Something to show what you have learned. (Application)</td>
<td>Some part of your study to show how many or how few. (Analysis)</td>
<td>An original poem, dance, picture, song, or story. (Synthesis)</td>
</tr>
<tr>
<td>Survey</td>
<td>Forecast</td>
<td>Build</td>
<td></td>
</tr>
<tr>
<td>Survey of others to learn their opinions about some fact, idea, or theme of your study. (Analysis)</td>
<td>How your topic will change in the next 10 years. (Synthesis)</td>
<td>A model or dramatic representation of what you have learned. (Application)</td>
<td></td>
</tr>
<tr>
<td>Create</td>
<td>Memorize</td>
<td>Write</td>
<td>Compare</td>
</tr>
<tr>
<td>An original game using the facts you have learned. (Synthesis)</td>
<td>And write a quote or a short list of facts about your topic. (Knowledge)</td>
<td>An editorial for the student newspaper or a three-dimensional project. (Evaluation)</td>
<td>Two things from your study. Look for ways they are alike and different. (Analysis)</td>
</tr>
</tbody>
</table>
Readiness

Influenced by:
• Student’s prior learning
• Life experiences
• Attitudes about schools
• Varies: Time, topic, & circumstance

Examples:
• Ability grouping
• Varied reading levels
• Tiers from basic to advanced
Interests

• Topics or pursuits that evoke curiosity
  – Students bring with them
  – School promote new

• Examples
  – Offering topic choice
  – Incorporating student voice
  – Variety of options for concept
    • Sports, business, education
Learning Profile

• How students learn best
  – Style, culture, gender, intelligence preference
• Examples
  – Auditory
  – Visual
  – Kinesthetetic
Universal Design for Learning

• 3 Principles
• Multiple Means of...
  – Representation
  – Expression
  – Engagement
• Considering 4 curricular components
Universal Design for Learning—GPS

Program for Inclusive Education (PIE)
Principle I – Multiple Means of Representation

Options:

- Perception
- Language & Symbols
- Comprehension
Principle 2- Multiple Means of Action & Expression

Options:
- Physical Action
- Expressive Skills & Fluency
- Executive Function
Principle 3 - Multiple Means of Engagement

Options for:
- Recruiting Interest
- Sustaining Effort & Persistence
- Self-Regulation
Getting from A to B

Traditional Route
Getting from A to B

UDL Route

Back
Detour
Critical focus...

REDUCING BARRIERS
Learning Goal

**Traditional Goal:** Students will read the chapter about photosynthesis and write in cursive a 500-word report about the role sunlight plays in this process.

<table>
<thead>
<tr>
<th>Representation Barriers:</th>
<th>Action/Presentation Barriers:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Printed text</td>
<td>• 500-Word Report</td>
</tr>
<tr>
<td>• Visual &amp; physical impairments may have difficulty accessing info</td>
<td>• Fine motor skills may have difficulty w/cursive handwriting</td>
</tr>
<tr>
<td>• Some may struggle with decoding</td>
<td>• Organization may come difficult to create a report of this length</td>
</tr>
</tbody>
</table>

**Engagement Barriers:**
• Not often addressed w/traditional goals.
Learning Goal

**UDL:** Students will be introduced to the basic elements of photosynthesis demonstrating their knowledge about the role sunlight plays in this process.

<table>
<thead>
<tr>
<th>Representation:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Access through multiple formats</td>
</tr>
<tr>
<td>• Printed text, Audio books, digital text</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Action/Presentation:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Demonstration of knowledge using alternate methods</td>
</tr>
<tr>
<td>• Handwritten report, film/video, recorded presentation, diorama</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Engagement:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Selection of book appealing to student. List of choices provided.</td>
</tr>
<tr>
<td>• Choice of access</td>
</tr>
<tr>
<td>• Choice of demonstration</td>
</tr>
<tr>
<td>• Complete assignment with own learning preference.</td>
</tr>
<tr>
<td>• Visual, auditory, tactile, kinesthetic.</td>
</tr>
</tbody>
</table>
### Instructional Materials

<table>
<thead>
<tr>
<th>TRADITIONAL MATERIALS</th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>Text-Based</td>
<td>Audio-Based</td>
<td>Image/Graphic Based</td>
</tr>
<tr>
<td>Textbooks</td>
<td>Lectures</td>
<td>Video</td>
</tr>
<tr>
<td>Handouts</td>
<td>Videos</td>
<td>Handouts</td>
</tr>
</tbody>
</table>

### BARRIERS

<table>
<thead>
<tr>
<th>Requires student to:</th>
<th>Requires student to:</th>
<th>Requires student to:</th>
</tr>
</thead>
<tbody>
<tr>
<td>• See</td>
<td>• Hear</td>
<td>• See</td>
</tr>
<tr>
<td>• Decode/comprehend</td>
<td>• Identify key points</td>
<td>• Process visual info</td>
</tr>
<tr>
<td>• Process visual info</td>
<td>• Take notes (physical &amp; cognitive ability)</td>
<td></td>
</tr>
</tbody>
</table>
UDL & Instructional Materials

• Choice of materials including multiple types (text, audio, media, scaled models, tactile)
• Scaffolds & supports (graphic organizers, spellcheck)
• Incorporate 3 principles
# Instructional Methods

<table>
<thead>
<tr>
<th>TRADITIONAL METHODS</th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Textbook</strong></td>
<td><strong>Lecture</strong></td>
<td><strong>Whole-Group</strong></td>
<td><strong>Independent</strong></td>
</tr>
<tr>
<td>Independent Reading</td>
<td>Summarizes Info</td>
<td>Video Discussion</td>
<td>Worksheets</td>
</tr>
</tbody>
</table>

## BARRIERS

*Requires student to...*

- Understand & learn content regardless of background knowledge
- Extract relevant info
- Learn by limited example in text
- Ability to take notes (physically & cognitively)
- Engage or participate in discussion regardless of disposition
- (Targets middle 50%)
- Memorize over apply
- Copy & write
## UDL & Instructional Methods

<table>
<thead>
<tr>
<th>Representation</th>
<th>Action/Expression</th>
<th>Engagement</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Multiple examples</td>
<td>• Model skills in variety of ways</td>
<td>• Offer choices of content &amp; tools</td>
</tr>
<tr>
<td>• Highlights important info</td>
<td>• Opportunities to practice (scaffold/support)</td>
<td>• Provide adjustable levels of challenge</td>
</tr>
<tr>
<td>• Utilize multiple media &amp;</td>
<td>• Provide corrective feedback</td>
<td>• Allow choice of reinforcers</td>
</tr>
<tr>
<td>formats</td>
<td></td>
<td>• Allow options for environment or context</td>
</tr>
<tr>
<td>• Build/activate background</td>
<td></td>
<td>• Utilize flexible learning groups</td>
</tr>
<tr>
<td>knowledge</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
## Assessment

### Traditional Assessment

<table>
<thead>
<tr>
<th></th>
<th>Worksheets</th>
<th>Chapter Review</th>
<th>500-Word Report</th>
<th>Chapter Test</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Independent</td>
<td>Homework</td>
<td>Long-Term (Hybrid)</td>
<td>In Class</td>
</tr>
</tbody>
</table>

### Barriers

- Confound goal based on means of demonstration
- Rely on printed text (vision & decoding)
- Rely on writing (fine motor)
- Disconnect learning medium w/demonstration
- Preclude use of instructional supports
- Use single format & testing environment
- Rarely used to guide instruction (summatives rarely do)
# UDL & Assessment

| Reflect the Learning Goal | • What am I assessing?  
<table>
<thead>
<tr>
<th></th>
<th>• What did they learn?</th>
</tr>
</thead>
</table>
| Flexible Learning Demonstration | • Allow multiple mediums  
|                                | • About the learning |
| Scaffolds & Supports | • Allow computer, spellcheck, etc.  
|                                | • About the demonstration of content  
|                                | • What am I assessing? |
| Ongoing | • Use formative assessment  
|         | • Allows for identification of difficulties for re-teach  
<p>|         | • Differs from summative = mastery |</p>
<table>
<thead>
<tr>
<th><strong>BARRIERS</strong></th>
<th><strong>UDL SOLUTIONS</strong></th>
</tr>
</thead>
<tbody>
<tr>
<td>Worksheet, Review, Essay, Exam</td>
<td>Paper or Digital Worksheets, Chapter Exercises, Project, Presentation</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Confounds learning goal</th>
<th>Reflects the learning</th>
</tr>
</thead>
<tbody>
<tr>
<td>-Assesses handwriting?</td>
<td>-Addresses content not method</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Requires student to:</th>
<th>Provide flexible opportunities to demonstrate</th>
</tr>
</thead>
<tbody>
<tr>
<td>-See, decode &amp; comprehend, process visually, fine motor skill, organize thoughts, demonstrate in format &amp; environment</td>
<td>-Paper or digital materials</td>
</tr>
<tr>
<td></td>
<td>-Choice of format &amp; medium of presentation</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Precludes use of supports</th>
<th>Allow scaffolding &amp; supports</th>
</tr>
</thead>
<tbody>
<tr>
<td>-Spellcheck, text-to-speech reader)</td>
<td>-Online activities, digital versions</td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>Does not guide instruction</th>
<th>Ongoing</th>
</tr>
</thead>
<tbody>
<tr>
<td>-Summative</td>
<td>-Embedded with activities (hyperlinks online)</td>
</tr>
<tr>
<td></td>
<td>-Corrective feedback</td>
</tr>
</tbody>
</table>
Differentiated Instruction Meets Universal Design for Learning
## DI vs. UDL

<table>
<thead>
<tr>
<th>Differentiated Instruction</th>
<th>Universal Design For Learning</th>
</tr>
</thead>
<tbody>
<tr>
<td>Content</td>
<td>Multiple Means of Representation</td>
</tr>
<tr>
<td>Process</td>
<td>Multiple Means of Engagement</td>
</tr>
<tr>
<td>Product</td>
<td>Multiple Means of Expression</td>
</tr>
</tbody>
</table>
Connecting the Dots...

Program for Inclusive Education (PIE)

*Tier 1 = UDL/DI

*Address the principles for ALL students
MTSS: Meeting the Needs of ALL

• Tiers 1 & 2 in the classroom *led by the teacher.*
• Differentiated Instruction
• Planning with UDL
Tier 1...Good Quality Ice Cream

• *Predict & Prevent!*

• “You cannot intervene your way out of ineffective instruction” *RTI Network*

• UDL/DI
  – Intentionality
Inclusion = 

Access for All

Leads to...

Success
Questions or Additional Info...

Program for Inclusive Education
ace.nd.edu/inclusion

Dr. Christie Bonfiglio, Director
cbonfiglio@nd.edu

Dr. Sean Smith, Faculty/Consultant
seanj@ku.edu