A Philosophical and Evidence-based Basis for Including Students with Disabilities in the General Curriculum

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Snell (2003) reminds us that in addition to their collective diversity and need for supports, individuals with disabilities share a fundamental human trait, the “capacity to learn” (p. 221).
Opportunities for Interaction and Reciprocal Benefit

- The ways in which students with disabilities are perceived and subsequently treated by others can have a major impact on the quality of their lives.
- First and foremost students with disabilities are human beings—they are someone’s child, someone’s sibling, someone’s classmate, or someone’s friend.

Reasons for Optimism

- Inclusive Education
- Access to the General Curriculum
- School Reform & Restructuring
- Transition
Reasons for Optimism Cont.

Positive Behavior Supports  Peer Supports

Criterion of the Least Dangerous Assumption (Donnellan, 1984)

- Martin Pistorius (Ghost Boy)
Criterion of the Least Dangerous Assumption (Donnellan, 1984)

▶ “We should assume that poor performance is due to instructional inadequacy rather than to student deficits.”

▶ In other words, if a student does not do well, the quality of the instruction should be questioned before the student’s ability to learn.

A New Paradigm
Cheryl Jorgenson (2005)

▶ All people have different talents and skills.

▶ Intelligence is not a one-dimensional construct, nor can it (or its absence) be measured accurately and reliably enough to base students’ educational programs and future goals on test results.

▶ Children learn best when they feel valued, when people hold high expectations for them, and when they are taught and supported well.
Each Decade We Have Expected More from Students with Disabilities

- For Example for Sts with Severe Disabilities
  - Early 1970s - Developmental Skills
  - 1980s - Functional Skills
  - 1990s - Inclusion/Self-Determination
  - 2000s - Academic Content
  - 2010-current - Academics aligned to state standards

How all of this has guided our work...

- Ann Donnelon and Cheryl Jorgenson, along with legal mandates which require access to grade aligned content, have pushed our thinking in regard to innovation and research in this area.
- Although we will always use rigorous research methodology and data to guide development and future research in this area.
Ayers Foundation and the Impact of LDA on a Community
Learning in General Curriculum for Ss with Disabilities *Based on Leased Dangerous Assumption*

1. Create full educational opportunity.
2. Promote current and future options.
3. Complement daily living skills.
4. Enhance inclusion.
5. Promote student abilities.

**1. Create a Full Educational Opportunity**

- We do not know what students can achieve until they have the opportunity to learn.
2. Promote current and future options in the community and beyond

Academic Learning can enhance use of technology for daily life.

Skills like reading and math increase post school outcomes (e.g., employment, postsecondary ed.)

3. Compliment acquisition of daily living skills.

- There is no evidence that a person must master all or most daily living skills before being able to learn academics. In fact that expectation is a double standard only applied to students with more severe disabilities.
4. Enhance school inclusion.

- Academic learning enhances school inclusion as students focus on the same/similar content.

5. Promote Student abilities.

- Academic learning can be augmented with technological supports and may actually be more feasible and appealing for some Ss with disabilities.
Apply the following criteria to promote LDA

1. Standards based instruction
2. Evidence based practices
3. Differentiated instruction which maintains rigor
4. Consistent data capture and decision making

1. Standards Based Instruction

Grade Level Achievement     Alternate Achievement?

- Grade level achievement
- Grade Level Academic Standard
- Alternate achievement that is “grade-aligned”
Consider a variety of ways to make standards accessible

- Prioritize
  - Teach a portion of the standards
- Pinpoint
  - Teach a portion of each standard
- Simplify
  - An extension of the standards
- Task Analyze
  - Skill sequences

### Extending Grade Level Standards: National Standard Example- ELA

<table>
<thead>
<tr>
<th>Strand: Category of standard</th>
<th>Grade level standard</th>
<th>Objectives based on present level of performance</th>
</tr>
</thead>
<tbody>
<tr>
<td>Reading: Literature</td>
<td>4th Grade</td>
<td><strong>Beginning Symbolic</strong> Leslie will select an object/picture to represent a story’s theme for 4 of 5 opportunities.</td>
</tr>
<tr>
<td>Integration of Knowledge and Ideas</td>
<td></td>
<td><strong>Early Symbolic</strong> Adam will use pictures to identify themes in literature that has been read to him and sort the different stories by corresponding themes for 4 of 5 opportunities.</td>
</tr>
<tr>
<td></td>
<td></td>
<td><strong>Symbolic</strong> Thomas will use a Venn diagram to compare and contrast the themes of literature he has previously read with 90% of responses correct for at least 3 stories.</td>
</tr>
</tbody>
</table>
2. Use Evidence-Based Practices

- Special Issues
  - Exceptional Children (Winter, 2005), V. 71-2
- What Works Clearinghouse
- National Secondary Transition Technical Assistance Center
- National Autism Centers National Standards Project
- Reviews of the Literature

Use Evidence-Based Practices

- Reviews of the literature
Evidence-Based Practices for Students with Disabilities

- Strategies that enhance student responding
  - Choral Responding
  - Response Cards
  - Model, Lead, Test teaching procedures
  - Systematic Error Correction
  - Teaching to Mastery

Choral Responding

Direct Instruction Reading Lesson
(Part A – Vocabulary & Fluency)
Choral Responding (math)

Peer Supports
Use Evidence-Based Practices with scientifically researched curricula

**English Language Arts**


EBPs for English Language Arts for Students with Low Incidence Disabilities

Interactive read-aloud

Literature-based

ELA standard

Word study

Comprehension

ELA standard

Image of a classroom setting with students and a teacher.
Choose the Text

- Literature from Grade Level English Language Arts
- Text Related to Student Interests
- Text Related to Transition Goals
- Literature from Content Areas e.g., Science, Social Studies

Determine if Text Needs to Be Adapted

Adapting Text

- Summarize and abbreviate (can use study guides for novels)
- Add visuals of key vocabulary (optional)

Example from Holes
Select Key Vocabulary

**Tier 1**
- Everyday speech and functional words found in the literature
- Examples: man, son, mother, dream, sad, football

**Tier 2**
- Academic words found primarily in written texts
- Examples: act, scene, stage, tragedy, setting, tone

**Tier 3**
- Words related to the topic of the text; may be the academic concepts in content area
- Examples: simonize, philandering, condensation, democracy

Use Response Prompting Systems like System of Least Prompts

- **Natural Cue**
- **Gesture**
- **Verbal**
- **Visual/Picture**
- **Model**
- **Physical (partial, full)**
- **Full Physical**
Using Time Delay

Vocabulary Script
Using the Time-Delay Procedure

Note: "Show me" means any form of induction, including pointing to, pulling a card from a choice board, or giving a choice.

Vocabulary Cards

Round 1: 5-Second Delay
Round 1 is a warm-up round. Ss may need numerous trials at Round 1 before moving to Round 2.

Step 1 Present the vocabulary cards to S and review them. For Level 1 Ss, present vocabulary cards in sets of 2; for Level 2 Ss, present vocabulary cards in sets of 3; for Level 3 Ss, present vocabulary cards in sets of 4.

Step 2 In this first round, give the direction to find the target vocabulary. For example, say to one S, "Show me water." and provide an immediate prompt (3-second time delay) by pointing to the vocabulary (water) while giving the direction.

Step 3 Provide feedback. If the S points correctly, provide praise. Yes, you pointed to water. If the S does not point to the correct response, use a physical prompt to help the S locate the correct response. Then give praise. Very good! You pointed to water.

Round 2: 5-Second Delay

Step 1 Present the vocabulary cards to a S. For Level 1 Ss, present vocabulary cards in sets of 2; for Level 2 Ss, present vocabulary cards in sets of 3; for Level 3 Ss, present vocabulary cards in sets of 4.

Step 2 In this second round, give the direction to find the target vocabulary. For example, say to one S, "Show me water," and then wait up to 5 seconds (5-second time delay) for the S to independently respond or begin to initiate a response. Tell the...
Comprehension: Develop the Questions
Develop comprehension questions at different levels of complexity. Also consider the target standard selected to write questions.

Some examples based on To Kill a Mockingbird:

Knowledge
How old was Miss Caroline?

Comprehension
Why did the class murmur when Miss Caroline said she was from Winston County? What happened first, second, last?

Application
Miss Caroline was 21. What will happen to you when you are 21?

Analysis
Why was Jem in a haze?

Synthesis
What is the theme of this story?

Evaluation
What is the author’s tone in this passage? The author’s purpose?

Consider Technology
How Will Student Answer?
Response board option

- Provides a visual aid
- Simplifies responding by offering options
- Only use for students who cannot compose answer using speech

Put It All Together

Interactive Read-aloud

Literature-based Comprehension

Word study
Same Strategy for Informational Text

Families took over their businesses. Everyone worked hard and enjoyed each other’s cultures.

The families were neighbors.

On December 7, 1941, Japan attacked Pearl Harbor. Pearl Harbor is in the state of Hawaii. People started hearing stories that Japanese-Americans were going to be sent away to camps in Colorado. People who were sent to these camps could not leave.

Graphic Organizers
Student Led Research-example of Nonfiction text- *A Thousand Paper Cranes*
Use Evidence-Based Practice:
Mathematics


Standards-Based Math Instruction

Math standard

Real Life Math Story

Task analysis for computation

Graphic organizer; manipulatives

Standards-based mathematics

Math in context

- Write to address math standard
- Adapt word problems
- Focus on activities students prefer or are familiar with
- Change stories so students do not memorize

Kurt plans ahead

Kurt needed to buy food to make breakfast and lunch this week. He needed oranges, ham, and milk. First, he got oranges. What food did Kurt get next?
Graphic Organizer: Points on a Plane

Keep track of steps to solve the problem

What do we need to find out? Check the box.

☐ 1. What food did Kurt get next?
☐ 2. What store did Kurt go to next?

Food: ____________________________

Graphic Organizers

Next dollar line

Equation prompt

<table>
<thead>
<tr>
<th>First fact</th>
<th>Sign</th>
<th>Second fact</th>
<th>Sign</th>
<th>Last fact</th>
</tr>
</thead>
<tbody>
<tr>
<td>+</td>
<td>-</td>
<td>=</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Add    Subtract

1 2 3 4 5 6 7 8 9 10

x = ______________
### Task Analyze the Steps to Solve the Problem and Prompt for Each

<table>
<thead>
<tr>
<th>Teacher</th>
<th>Target Response</th>
<th>Prompting</th>
<th>Reinforcement</th>
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</thead>
<tbody>
<tr>
<td>“Show me the coordinate plane.”</td>
<td>Points to the coordinate plane.</td>
<td>Constant time delay: “Here is the coordinate plane. Now you show me.” (0, then 4).</td>
<td>“Good. That is the coordinate plane”</td>
</tr>
<tr>
<td>“Show me point A.”</td>
<td>Points to A.</td>
<td>CTD: “Here is point A. Now you find it.”</td>
<td>“Excellent. That is point A.”</td>
</tr>
<tr>
<td>“Show me point D.”</td>
<td>Points to D.</td>
<td>CTD: “Here is point D. You show me.”</td>
<td>“Yes. That’s point D.”</td>
</tr>
<tr>
<td>“Draw the AD line segment.”</td>
<td>Draws line from A to D.</td>
<td>CTD: “Here is A, here is D, here is the AD line. Now you draw it.”</td>
<td>“Great. You drew the AD line segment.”</td>
</tr>
</tbody>
</table>

### Putting It All Together

- **Math standard:** Find points on coordinate plane
- **Real Life Math Story**
- **Task analysis for computation:** Points to coordinate plane, points to A, D, draws line from A to D
- **Graphic organizer; manipulatives**
- **Standards-based mathematics**
It’s time to do our math worksheet so we can summarize our story. Follow the directions as I read the math worksheet with you. Use teacher directions on worksheet as needed to help students complete worksheet.

**Embedded Instruction**
Use the checklist for this level to select the skills the student will embed in the math lesson in general education.

**Level 2.2 Lesson Two**

**The Chinese New Year**

1. Mark the set that is > (greater than):

2. How many boys are there?
Use Evidence-Based Practice: Science


Standards-based Science Lesson

Experiment

Concept statement

Vocabulary

May Use Text: A “Wonder” Story

Chromosomes are what give us our hair

Color, eye color, skin color, whether our hair is straight

Our hair and whether we have lots of families or only a few

Hair. Where do we get cells from? Life get half of

Our cells from our mother and half from our father
Experiment

Identify the experiment general educator uses for concept.

What do you think will happen?

When you mix a powder with a liquid,
sometimes the liquid changes. Sometimes it doesn’t.
Do you think the water will change?

yes  no

Concept Statement

Identify the science concept in the standard,
rewrite it as a simple statement.

Solvent + solute = solution.
Vocabulary

Use vocabulary sight word cards to teach words and symbols needed for the concept statement (e.g., symbols for solute, solvent, solution).

Task Analysis/Inquiry Approach

Let the students discover the science concept through a hands-on approach. Frame the inquiry lesson with a task analysis.
May Use KWHL Chart

<table>
<thead>
<tr>
<th>KWHL Chart</th>
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<tbody>
<tr>
<td>✍️ What do we Know?</td>
</tr>
<tr>
<td>It is wet</td>
</tr>
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</table>

<table>
<thead>
<tr>
<th>Student’s name</th>
<th>Prediction</th>
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Putting it All Together
3. Build Foundational Skills- Differentiate Instruction

**Lower: Early Literacy**
- Begin with objects and picture books
  - Make age appropriate
- Build understanding through multisensory experiences related to story
- Watch for early awareness and anticipation of familiar story lines

**Higher: Independent Reading**
- Use story summary or some story lines written at student’s reading level
  - Combination of teacher (or peer) read-aloud and student reading
- Teach phonics to build independence in decoding text

4. Consistent Data Collection and Data Based Decision Making
To Promote LDA

- Teach Grade Level Content
- Use Evidence Based Practices
- Differentiate instruction for all learners
- Collect and Analyze daily instructional data

Resources and Contact Information

- Chapter
  - “What Should We Teach Students with Moderate and Severe Disabilities?”
- Carnine (1976)
- Lambert, Cartledge, Heward, & Lo (2006)
- Miller, Hall, & Heward (1995)
- Wood (2005)
Contact Information

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