

English Learners with Disabilities: Best Practices for the Classroom

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The method we use to adjust our practice to meet the needs of the diverse learners in our classrooms.



Benefits:

1. Increases student achievement
2. Contributes to student engagement



Challenges:

1. Need to be flexible.
2. Use a variety of resources to create instruction that holds meaning for all students.
3. Don't often receive adequate training in differentiation strategies.



Resource for **DIFFERENTIATION**
CommonLit

<http://www.commonlit.org/>

Distinguishing Behaviors

Behaviors Associated with Acquiring a Second Language	Behaviors Associated with Learning Disabilities
<p>Difficulty carrying out a series of directions because</p> <ul style="list-style-type: none">• Directions not well understood• It can be harder to remember directions in L2.	<p>Difficulty carrying out a series of directions because</p> <ul style="list-style-type: none">• Poor short term memory• Lack of attention
<p>Difficulty distinguishing between heard unfamiliar sounds because</p> <ul style="list-style-type: none">• Not in L1• In a different order than in the L1	<p>Difficulty with phonological awareness</p> <ul style="list-style-type: none">• Even though they know the sounds
<p>Confusion with sound-symbol correspondence</p> <ul style="list-style-type: none">• When different than L1 <p>Difficulty pronouncing sounds</p> <ul style="list-style-type: none">• Not in the L1.	<p>Slow to learn sound-symbol correspondence.</p> <p>Lack of consistency in knowledge</p> <ul style="list-style-type: none">• Of sounds from one day to another.

Behaviors Associated with Acquiring a Second Language

- Difficulty remembering sight words
- When word meanings are not understood
 - When irregular patterns are used

Difficulty retelling a story in English

- Without expressive skills to do so

May have stronger receptive skills than expressive skills.

Confusion with figurative language, idioms, pronouns, conjunctions, words with multiple meanings.

Behaviors Associated with Learning Disabilities

- Difficulty remembering sight words
- May know word one day but not the next

Difficulty retelling a story in sequence

- May have poor short-term memory
- May have poor retrieval skills

Confusion with figurative language, idioms, and words with multiple meanings

- May be very literal

Behaviors Associated with Acquiring a Second Language	Behaviors Associated with Learning Disabilities
<p>Slow to process challenging language</p> <ul style="list-style-type: none"> • Because not well understood 	<p>Slow to process challenging language</p> <ul style="list-style-type: none"> • Because of processing difficulties
<p>May seem to have poor auditory memory</p> <ul style="list-style-type: none"> • If sounds or words are unfamiliar or not well understood 	<p>May have a poor auditory memory</p> <ul style="list-style-type: none"> • May not be able to repeat strings of sounds or words accurately
<p>May have difficulty concentrating, because</p> <ul style="list-style-type: none"> • Learning in L2 is exhausting 	<p>May have difficulty concentrating, because</p> <ul style="list-style-type: none"> • Learning needs are not being met
<p>May seem frustrated or withdrawn</p> <ul style="list-style-type: none"> • Learning in L2 can be difficult 	<p>May seem frustrated or withdrawn</p> <ul style="list-style-type: none"> • Learning is difficult

What should we see in the classrooms?

Language objective

Content objective

Academic vocabulary

Focus on language structures and functions

Opportunities for oral practice

Collaborative Conversations

Visual Cues

Graphic Organizers

What the Research Says: What Works Clearinghouse Practice Guides:

Recommendations with Strong Levels of Evidence

1. Teaching **vocabulary** words intensively over several days.
2. Integrate **oral** and **written** English language instruction into content-area teaching.
3. **Small group** interventions for reading problems.
4. **Pairs** of students at different EL levels working together.
5. Explicit direct instruction

Vocabulary

- Use an evidence-based approach
- Develop lists of essential words drawn from core reading programs and textbooks used in content areas
- Emphasize the acquisition of meanings of everyday words

Three Tier Vocabulary Words

Bringing Words to Life

(Beck & McKeown, 2013)

Tier 1: Common, everyday words that students learn on their own.

Tier 2: High frequency words for mature language users. Found across various contexts and topics. Understanding their meaning promotes

everyday

reading and listening comprehension.

Tier 3: Low-frequency words; many of which are content-specific.

Selection Criteria for Instructional Vocabulary

	Tier 1	Tier 2	Tier 3
Description	Basic words that most children know before entering school	Words that appear frequently in texts and for which students already have conceptual understanding	Uncommon words that are typically associated with a specific domain
Examples	clock, baby, happy	sinister, fortunate, adapt	isotope, peninsula, bucolic

(Beck, McKeown, Kucan, 2002)

Choosing Tier Two Words

Her thoughts were interrupted by loud shouts and a commotion from the wedding party assembled outside. Manyara was missing! Everyone bustled about, searching and calling for her. When they found her footprints on the path that led to the city, they decided to go on as planned.

(Mufaro's Beautiful Daughters, John Steptoe)

How do I determine that a word is **TIER 2**?

Word	Is this a generally useful word?	Does the word relate to other words and ideas that students know or have been learning?	Is the word useful in helping students understand text?	If you answer yes to all three questions, it is a tier 2 word. If not, it is probably a tier 3 word.

“Let’s Take a look...”

“She’s just too much of a distraction and I’ve been getting calls from the other parents. They’re afraid those stripes may be **contagious**.”



A Bad Case of Stripes

by David Shannon

Sequenced Vocabulary Instruction

1. Contextualize the word for its use in the story you are using.

“She’s just too much of a distraction and I’ve been getting calls from the other parents. They’re afraid those stripes may be contagious.”

2. Ask the students to repeat the word so they can make a phonological representation of it.

“Say contagious with me.”

3. Explain a student friendly meaning of the word.

“Contagious means an illness that can be spread to other people.”

4. Provide examples in contexts other than the one used in the story.

“The surgeon scrubbed her hands to prevent the spread of the contagious germs”

5. Have students interact with the word.

“Could you be contagious if you went to school with chickenpox?”

6. “If I say something about which your would be “contagious”, say “contagious”.”

Going on vacation

Pink eye

Riding a bike

Head lice

Getting a haircut

Mowing the lawn

6. Complete the sentence, “I would be contagious if I.....”

7. Ask

“What is our word that means “an illness that can be spread to other people?”

Oral Language

Providing Structured Opportunities to Talk and Discuss

- Reading aloud and shared readings accompanied by structured discussions are not just for elementary schools.
- Peer led discussions and conversations are important.
- More structured “talk” allows more oral language development.

Pyramid Discussions

- Look at the items.
- Decide which 8 items you would need on a mountain top.



Steps of the Pyramid

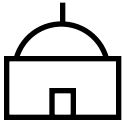

1. Think about it individually.
2. In pairs
3. Small groups of 4
4. Larger groups of 6
5. One person leads discussion.

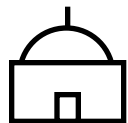


Written Language

Fundamentals of Sentence

Writing

1. Start with a capital letter 
2. Have end punctuation (. ? !)
3. Have a subject (**S**)
4. Have a verb (**V**)
5. Make sense 



S 

V

. ? !

Paired Learning

Classwide Peer Tutoring

- Can practice, review anything.
- Appropriate for grades K-12
- 5-10 minutes a day.

Classwide Peer Tutoring

Team: _____ Date: _____ Today's Points _____

Name: _____

Question Number	Answers and Corrections	Points Earned

Improving Reading Comprehension

Teach students to

1. Make predictions *before* reading.
2. Monitor their understanding and ask questions *during* reading.
3. Summarize what they have read *after* reading.

Scaffolding for Comprehension

- Paraphrasing
- Reinforcing contextual definitions
 - “Aborigines, the people native to Australia”
- Repeating student responses with correct punctuation
- Use of graphic organizers

Color Coding Analytical Writing

- To help students understand what makes an analytical essay.
 - Plot summary reiterates what is obvious and known in a text. It is yellow because it is superficial and lightweight.
 - Commentary is blue because it goes beneath the surface to look at the deeper meaning. It is the opinions, interpretations and insights.
 - Supporting detail is green because it glues together plot summary and commentary. It is the evidence to support the claims.

What the Research Says: Math

Recommendations with Strong Levels of Evidence

- 1. Explicit, direct instruction** including models of proficient problem solving, verbalization of thought processes.
2. Instruction on **solving word problems** based on common underlying structures.
3. Assist students in **monitoring and reflecting** on the problem-solving process.
4. Teach students how to use **visual representations**

Intervention Name: Schema-Based Instruction / Schema-Broadening Instruction (SBI) Multiplicative Schemas (Multiplication and Division)*

Common Core State Standards Domain Areas: (check all that apply)

Counting and Cardinality (K)	Operations and Algebraic Thinking (K-5)	Numbers and Operations in Base Ten (K-5)	Numbers and Operations – Fractions (3-5)	Measurement and Data (K-5)	Geometry (K-HS)	Ratios and Proportional Relationships (6-7)	The Number System (6-8)	Expressions and Equations (6-8)	Statistics and Probability (6-HS)	Functions (8-HS)	Number and Quantity (HS)	Algebra (HS)	Modeling (HS)
	X	X	X										

Setting: (check all that apply)

Whole-class	Small-group	Individual
X	X	X

Focus Area: (check all that apply)

Acquisition	Fluency	Generalization
X	X	X

Function of Intervention:

A *schema* is a way to organize or pattern information within a structured framework of known and unknown information. Within word-problem work, the learner identifies the type of problem (i.e., schema), which lends itself to solving the problem using a given organizational pattern.

The main focus of Schema-Based Instruction or Schema-Broadening Instruction (SBI) is to teach word-problem solving using identification of a problem schema, representation using diagrams or equations to represent the schema, and solving the word problem. Scaffolding of student learning is provided throughout.

Brief Description:

Within each unit:

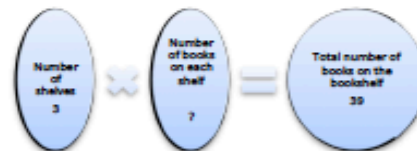
Schema instruction phase- Each type of problem (equal group, multiplicative compare, and combinations) is introduced through explicit instruction and requires students use schematic diagrams or equations, which help students understand the structure of the story problem.

Problem solution phase- Follow-up lessons teach students to solve story problems using a four-step checklist: FOPS

- ___ F - *Find* the problem type
- ___ O - *Organize* the information in the problem using a schematic diagram or equation
- ___ P - *Plan* to solve the problem
- ___ S - *Solve* the problem

With mastery of the strategy, use of schematic diagrams are faded in favor of equations for each type of problem.

Example for Equal Group: There are three shelves on Sarah's bookshelf. She has a total of 39 books on the bookshelf. If each shelf has the same number of books, how many books are on each shelf?



Group Number in each group Product
(unknown)

See below for more examples.

Procedures:

- **Duration:** Students work on lessons utilizing SBI for 50 to 60 minutes each day, although some lessons may be as short as 30 minutes (Jitendra, 2007).
- **Teacher training:** Teachers must be familiar with the instructional scripts for each of the three problem types. It is recommended that teachers assign partners prior to instruction in efforts to maximize time on-task; change partners regularly, and monitor partner discussions and work.
- **Instructional practices:** Teachers should monitor use of checklist and schematic diagram for proper use and

application. Teacher differentiation of lessons is recommended (e.g., more directed instruction, examples, opportunities for response) according to student needs.

- **Monitoring system:** Progress monitoring assessment is recommended every 1 to 2 weeks in addition to ongoing informal assessments and observations. Students should be able to independently verbalize understanding of problem-solving steps and schematic diagrams prior to fading of checklists and diagrams.

Critical Components (i.e., that must be implemented for intervention to be successful):

Teacher scripts are intended to be followed as a framework for language and instruction, allowing teachers the liberty to provide additional scaffolding, explanations, or elaboration when necessary. Assessment should be criterion-based and assess the content that students are expected to learn to ensure mastery (Jitendra, 2007).

Critical Assumptions (i.e., with respect to prerequisite skills): Language contributes to the ability to solve mathematic stories or word problems; consequently students should be able to read and understand the word problem prior to learning to apply the problem-solving strategy. Equally important, students must have ample time to master new skills. Students who have been taught (but not mastered) multiple problem-solving strategies may confuse components. Therefore it may be best to teach a strategy (such as SBI) that allows for multiple opportunities to apply and generalize learned skills (Jitendra, 2007).

Materials:

Teacher script

Schematic diagrams

FOBS checklist (available in Jitendra, 2007)

Multiplicative Examples:

Each example demonstrates a one-step Multiplicative (multiplication or division) story problem.

Equal Groups:

In an equal-groups problem, you have a group or set within a word problem and an equal number within each group. In an equal-groups problem, the unknown can be (a) the groups, (b) number in each group, or (c) the product.

For example:

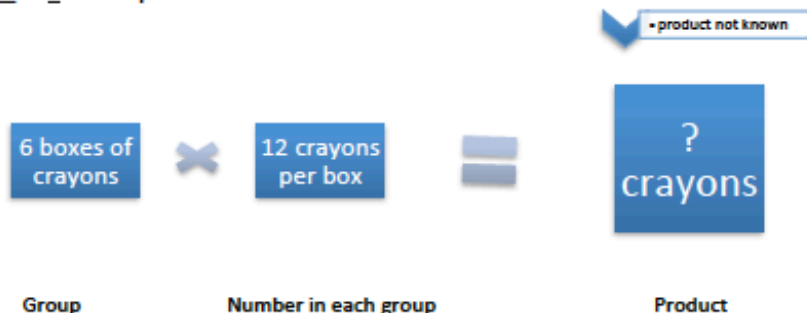
(Multiplication) Alex has 6 boxes of crayons. Each box contains 12 crayons. How many crayons does Alex have?

___ F - Find the problem type: In the problem, each box of crayons contains 12 crayons, since Alex has 6 boxes of crayons, he has 6 equal groups of 12.

___ O - Organize the information in the problem using the schematic diagram: Since we are finding the final value by showing a specific number of equal groups, we can set the problem up like this: (see below)

___ P - Plan to solve the problem: $6 \times 12 = ?$

___ S - Solve the problem: $6 \times 12 = 72$



Variations of the problem:

(Partition Division)

Alex has 72 crayons he distributes equally into 6 boxes. How many crayons are in each box?

$$6 \times ? = 72$$

(Measurement Division)

Alex has 72 crayons in total. There are 12 crayons per box. How many boxes of crayons does Alex have?

$$? \times 12 = 72$$

*Please note, with both the partition division and measurement division problems, students set up the word problem using the schematic diagram or equation. Students then use multiplication or division to solve for missing information in the diagram or equation. *The underlying schema of the word problem is the same in multiplication and division.*

Multiplicative Compare:

In a comparison problem, a set (number) is multiplied a number of times for a product. In comparison problems, the unknown can be (a) the set (b) the number of times, or (c) the product.

For example:

(Multiplication) William walked 3 miles. Logan walked 4 times as many miles as William. How many miles did Logan walk?

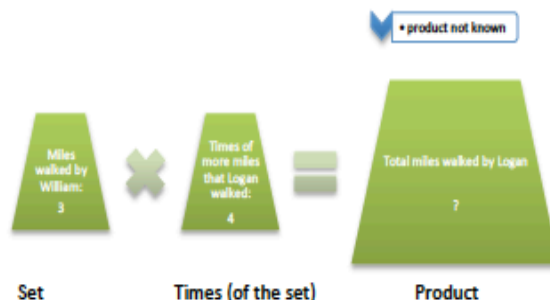
F - Find the problem type: In the problem, we know the distance that William walked and how many times that

distance Logan walked. This is a comparative problem because we have the set number (miles William walked) and the number of times that Logan walked that distance. We use this information to find out how many miles Logan walked.

___ O - Organize the information in the problem using the schematic diagram: In order to find out how many miles Logan walked, we multiply the set number by a number of times to find the product, as indicated below:

___ P - Plan to solve the problem: $3 \times 4 = ?$

___ S - Solve the problem: $3 \times 4 = 12$ miles



Variations:

(Partition Division)

Logan walked 12 miles. He walked 4 times as many miles as William. How many miles did William walk?

$$? \times 4 = 12$$

(Measurement Division)

William walked 3 miles, and Logan walked 12 miles. How many times as many miles did Logan walk than William?

$$3 \times ? = 12$$

Combinations:

In a combinations problem, there is a number of items that are multiplied by another number of items to determine the product, the unknown can be (a) the first set, (b) the second set (or sequential sets after that), or (c) the product.

For example:

(Multiplication) Josie is packing her suitcase to go visit her grandparents. She has 5 pairs of shorts. She has 7 different tops. How many different outfits can she wear if she wears one pair of shorts with one shirt at a time?

___ F - Find the problem type: In this problem we have two different sets (number of shorts and number of tops) and we have to find out how many combinations we can make using the sets.

___ O - Organize the information in the problem using the schematic diagram: Since we know the values of the two sets, we multiply them to determine the product, or number of combinations.

___ P - Plan to solve the problem: $5 \times 7 = ?$

___ S - Solve the problem: $5 \times 7 = 35$

• combinations (product) not known



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Common Underlying Structures in Word Problems

1. Change problems
2. Compare problems
3. Identifying relevant information
4. Identify irrelevant information
5. Help them transfer skills from basic to more difficult problems.

Monitoring and Reflecting

Provide students with a list of prompts.

What is the story in this problem about?

What is the problem asking?

What information is given to me? How can it help me?

Provide students with task lists.

Identify the problem type.

Recall similar problems to solve this one.

Use a visual representation.

Visual Representations

Select appropriate visual representations.

Use think-alouds to teach students how to represent problems visually.

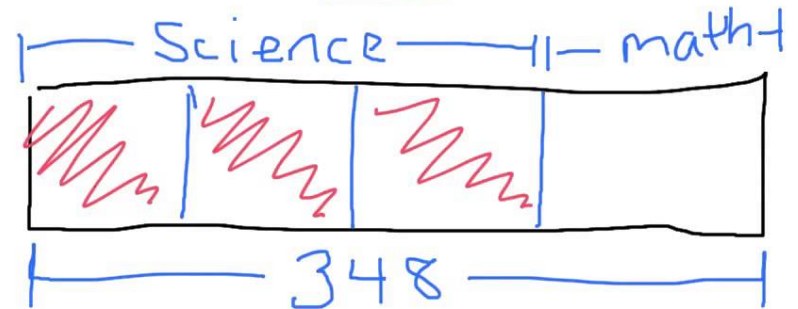
Marcus ran a lemonade stand for five days. On the first day he made \$5. Every day after that he made \$2 more than the previous day. How much money did Marcus make, in all, after five days?

Days	1	2	3	4	5
\$made	\$5	\$7	\$9		

✓ ✓ ✓
+2 +2 +2



Alex scored a total of 348 points on her math test and science test. She scored three times as many points on her science test as she did on her math test. How many points did she score on each test?



PLUSS

Pre-teach critical vocabulary

Language modeling and opportunities to practice.

Use visual and graphic organizers.

Systematic and explicit instruction.

Strategic use of native language & teaching for transfer.

This idea

Causes this to happen

Specific information about the idea

Specific information about what might happen

HOW and/or WHY does the idea cause it to happen?

What is the idea's positive or negative impact?