Case Studies for Written Expression Difficulties
Identifying Instructional Needs of the Student Who Struggles to Communicate through Writing

19th State Dyslexia Institute Dr. Terri Zerfas
The "Write" Stuff July 31, 2014

See hand-outs for the following:

• Resources
• Case studies
• Measuring Progress
• Metacognitive Questioning
• Online Resources and Apps
• Writing Strategies
• Classroom Checklists for:
  • Oral Language Skills
  • Executive Function Skills
  • Basic Writing Skills

Becoming an expert strategy user

Graham, Bollinger, Olson, D'Aoust, MacArthur, McCutchen, & Olenhouse 2012
**Differentiated Instruction**

For **content** and **conventions**, differentiate in the following techniques:

- Pacing
- Repetition
- Deliberate attention to connection between reading and writing

Cooper, Chard, & Kiger, 2006

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**Intervention, Accommodations, and/or Strategies**

**Classroom Checklist for Oral Language**

- Speech Sound Awareness
- Word Retrieval
- Verbal Memory
- Speech Perception/Production
- Comprehension
- Expressive Language

Catts 1997
(see hand-out)
Oral Language Intervention

**Speech Sound Awareness**

- Listening Games
- Rhyming (sound structure of words)
- Segmenting and Blending
  - sentences $\rightarrow$ words
  - words $\rightarrow$ syllables
  - syllables $\rightarrow$ phonemes
- Alphabetic Principle

Adams, et al., 1998

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Oral Language Intervention

**Word Retrieval**

- Open-ended Response Options (*Not a girl, but a ___*)
- Choice Response Options (*knife or fork*)
- Same Sounds Cue retrieval strategy (*initial phoneme*)
- Familiar Word Cue retrieval strategy (*flock/ducks*)
- Synonym and Category Substituting (*like ___*)
- Syllable Dividing (*microscope*)
- Reflective Pausing to reduce Fast Inaccurate Responses

German, 2005
Richard, 2001

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Oral Language Intervention

**Verbal Memory**

- Keep input simple, structured, and redundant.
- Use simple, isolated procedures that **reduce** working memory load
- Use external memory aids (e.g., visual, mnemonics)
- Use scaffolding (graduated learning supports)
- Allow **time** for rehearsal and processing

Dehn, 2008
Oral Language **Intervention**

**Speech Production/Perception**
- Preteach vocabulary words for content areas
- Classroom acoustic accommodations
- Pairing auditory input with visual
- Minimal pairs practice
  
  Data 2012

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**Oral Language Intervention**

**Comprehension**

Sequence of Events and Narrative Strategies
- Teacher reads narrative to students
- Student answers questions about story (factual, inferential, etc.)
- Student visualizes/verbalizes story sequence with teacher cues
- Student sequences pictures in correct order
- Student narrates story using pictures for cues
- Student narrates story without visual cues
- Student writes narrative on graphic organizer before beginning the writing process

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**Oral Language Intervention**

**Expressive Language**

- Use of figurative language
  - Idioms
  - Similes (like/as)
  - Metaphors (implicit)
  - Personification (human qualities ascribed to nonhuman entitles or notions)
  - Euphemisms (PC synonym)
  - Hyperbole (intentional exaggerations)
  - Chiasmus (reverse order of words in second sentence)

Johnson & Johnson 2011
**What is the connection between Oral Language and EF?**

To promote communication and self-regulation:
• Early language opportunities
• New vocabulary
• Verbal repetition of daily events
• Verbal labeling of objects
• Real life application of words

Tobar 2014

**Oral Language and EF Connection**

• Inner speech, self-cueing or self-explanation is a metacognitive/metalinguistic strategy to promote
  • Self-regulation verbalizations
  • Planning
  • Directing attention to relevant information
  • Making associations permanent and powerful
  • Organizing verbally
  • Context previews and scans

Gordon-Pheshey, 2014
Tobar 2014

**Metacognition and Reflective Questioning**

**Working Memory**
• Allows student to hold important information in mind
• Allows student to think with care and detail
• Facilitate transfer of knowledge and skills

Gordon-Pheshey 2014
Eberhardt, 2013

**Inhibitory Control**
• Allows student to stay focused
• Allows student to get/stay organized
• Allows student to recall relevant concepts
• Allows student to disregard extraneous thoughts
**Intervention** to Improve EF

*Provide multiple and repeated opportunities to be physically active in order to improve EFs and academic performance*

- Fine motor tasks
- Physical exercise
  - Playing outside
  - Engaging in handicrafts
  - Dance
  - Sports

Roebers & Jager 2014

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**Intervention** to Improve EF

*Reduce stress in the classroom*

- To stabilize neurotransmitters
- To increase control over actions
- To support conscious decision-making

Tobar 2014

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**Intervention** to Improve EF

*Inhibitory Control*

- Wait strategies to counteract impulsivity
- Environmental accommodations to reduce distractions
- Motor breaks to counteract restlessness when writing
- Spelling monitoring strategies to check accuracy
**Intervention to Improve EF**

**Inhibitory Control**

- Teach explicit skills for dictation
- Teach strategies to counteract perseveration of thoughts, words, and topics (e.g., graphic organizers)

**Intervention for EF**

**Cognitive Flexibility**

Transition from Other- to Self-Regulation through instructional cueing

- self-initiated
- self-sustained
- self-monitored
- self-disciplined

Dehn 2008

Freedom from the control, influence, support, or aid of others

**Intervention for EF**

**Working Memory**

- Destress
- Grab Attention
- Color
- Novelty
- Personal Meaning
- Relational Memories
- Patterning
- Mental Manipulation for Long-Term Memory
- Practice makes permanent
- Syn-Naps (restoring neurotransmitters)  
  Wills, 2006
**Intervention** for EF

**Working Memory Load**

- Simple verbalizations
- Simple, isolated procedures
- Rehearsal and processing time
- Promote higher level processing
- External memory aids
- Repetition (spaced)

Dehn, 2008

**Intervention** for EF

**Working Memory Load**

- Quiet learning environment
- Organized presentations
- Scaffolding
- Activating relevant information
- Reduce *unnecessary* processing demands

Dehn, 2008

Handwriting **Intervention**

**Handwriting Automaticity**
(rate of writing legible letters)

- Explicit instruction in handwriting
- Using visual cues (patterns, examples)
- Using verbal guidance

Handwriting Intervention

Handwriting Automaticity

- Improves writing quality
- Increases quantity of writing
- Increases writing speed
- Allows student to focus on composing (planning and organization of thoughts)

Swanson, Harris, & Graham (2003)
Saperstein Associates (2012)

Intervention Spelling

- Each time a child skips over a word and uses a picture to develop meaning, he/she loses the opportunity to learn the spelling of that word
  Harm, McCandliss, & Seidenberg, 2003

- Spelling words should be presented in a careful, linguistically driven sequence
  Schlagel, 2002

Intervention Spelling

- Students need explicit instruction application of spelling rules and patterns to the writing process
  Williams & Phillips-Birdsong, 2006
- Spelling instruction should be multisensory due to the positive effects on working memory
  Henry, 2003
**MNEMONICS**

See hand-outs for a list of mnemonics and strategies to use with the struggling writer

Mnemonics help students organize, store, and retrieve new information

Scruggs & Mastropieri (1989)

Visual mnemonics connect new information with a familiar image...concrete information is effectively encoded and elaborated with prior knowledge

Mastropieri, Scruggs, & Whedon (1997)

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**Intervention** for Mechanics

- Students learn mechanics easier when integrated into the writing process Baker, 2003

- Students tend to embrace the use of capitalization and punctuation when these basic skills are presented as a tool to help the student achieve writing goals Bromley, 2003

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**Sentence-Structure Development**

- **Sentence Framing**
  - **Sentence Expanding**
    - **Sentence Combining**

  Graham, Bollinger, Chen, D’Koust, MacArthur, McCutchen, & Olinhhouse 2012

  - **Simple**
    - One independent clause that expresses a complete thought.

  - **Compound**
    - At least two independent clauses joined by a coordinating conjunction or a semi colon.

  - **Complex**
    - A subordinate clause plus an independent clause.

  - **Compound-Complex**
    - At least two independent clauses plus at least one subordinate clause.
**Intervention** for Sentence Combining

Most common errors:
- Simple sentences
- Too frequent use of the word *and*
- Repeated sentence types
- Run-on sentences
- Overly complex structures

Sadler & Asaro-Sadler, 2010

**Function-Based Instructional Approach**

Sentence expansion using manipulative sentence strips coupled with metacognitive questions (abstract made concrete)

- Who or what did it?
- What did (they/he/she/it) do?
- When?
- Where?
- How?
- How many?
- Which one?
- What kind?

* Serves as a cue to the writer regarding what type of information builds the sentence.
* Serves as a means for expanding the base sentence.
* Serves as a means for varying the syntax for clarity and interest.
* Serves as a comparison for changes in sentence meaning.

Eberhardt, 2013

**Intervention** for Mechanics

- Grammar skills must be introduced and reinforced continually in order to reach automaticity

- Grammar review used in the context of evaluating student work has more relevance to the student

Allen, 2003
### Effect Sizes for Intervention

<table>
<thead>
<tr>
<th>Intervention</th>
<th>Example</th>
<th>Effect Size</th>
</tr>
</thead>
<tbody>
<tr>
<td>Writing Strategies</td>
<td>Promote self-regulation through strategies like TREE, POW</td>
<td>.82</td>
</tr>
<tr>
<td>Summarization</td>
<td>Explicit instruction on summarizing printed information</td>
<td>.82</td>
</tr>
<tr>
<td>Collaborative Writing</td>
<td>Group work focusing on writing process</td>
<td>.75</td>
</tr>
<tr>
<td>Specific Product Goals</td>
<td>Setting specific, concrete, achievable goals</td>
<td>.70</td>
</tr>
<tr>
<td>Word Processing</td>
<td>Technology use during writing process</td>
<td>.55</td>
</tr>
</tbody>
</table>

Graham & Perin, 2007

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### Effect Sizes for Intervention

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<tr>
<th>Intervention</th>
<th>Example</th>
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</tr>
</thead>
<tbody>
<tr>
<td>Sentence Combining</td>
<td>Explicit instruction in combining simple sentences into complex sentences</td>
<td>.50</td>
</tr>
<tr>
<td>Prewriting</td>
<td>Using various planning techniques and graphic organizers</td>
<td>.32</td>
</tr>
<tr>
<td>Inquiry Activities</td>
<td>Develop content knowledge for writing project</td>
<td>.32</td>
</tr>
<tr>
<td>Process Writing</td>
<td>Focus on process rather than product</td>
<td>.32</td>
</tr>
<tr>
<td>Study of Models</td>
<td>Expose students to models of good writing</td>
<td>.25</td>
</tr>
<tr>
<td>Writing for Content Learning</td>
<td>Enhance content-area knowledge through writing activities</td>
<td>.23</td>
</tr>
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</table>

Graham & Perin, 2007

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### Intervention for Advanced Written Expression

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**Challenge** of Writing Strategies

- Problems acquiring, using, or managing writing strategies  
  Graham & Harris, 2000
- Cognitive load increases until strategy established
- Lack of cognitive flexibility
- Lack of automaticity
- Low motivation due to past failure

**Independent** Writing

- Has the strategy proved to be efficient?
- Did the teacher and student collaborate on the evaluation?
- Does the strategy improve student performance and writing confidence?
- Is the strategy monitored throughout the process?
- Is the strategy used consistently and effectively?
- Are the use of strategies maintained over time and generalized to other situations?

Santangelo, Harris, & Graham (2008)

**Measuring Progress**

<table>
<thead>
<tr>
<th>Planning</th>
<th>Productivity</th>
<th>Complexity</th>
<th>Mechanics</th>
</tr>
</thead>
<tbody>
<tr>
<td>How many ideas?</td>
<td>Number of words</td>
<td>Number of different</td>
<td>Grammatical</td>
</tr>
<tr>
<td>Number of unique</td>
<td>produced?</td>
<td>words?</td>
<td>accuracy?</td>
</tr>
<tr>
<td>ideas?</td>
<td>Number of sentences</td>
<td>Number of clauses</td>
<td>Spelling accuracy?</td>
</tr>
<tr>
<td>How do ideas</td>
<td>produced?</td>
<td>in sentences?</td>
<td>Punctuation</td>
</tr>
<tr>
<td>relate?</td>
<td></td>
<td>Number of words in</td>
<td>accuracy?</td>
</tr>
<tr>
<td>How are ideas</td>
<td></td>
<td>sentences?</td>
<td>Capitalization</td>
</tr>
<tr>
<td>sequenced?</td>
<td></td>
<td></td>
<td>accuracy?</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td>Paragraphing?</td>
</tr>
</tbody>
</table>

Adapted from Raskoff & Gray, 2008
**Teach for Transfer**

<table>
<thead>
<tr>
<th>Letter-Writing Instruction</th>
<th>Word Spelling Instruction</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Provide explicit instruction in letter-writing</td>
<td>• Provide explicit instruction in word spelling</td>
</tr>
<tr>
<td>• Follow with practice in composing on a teacher-provided prompt</td>
<td>• Follow with practice in composing on a teacher-provided prompt</td>
</tr>
<tr>
<td>• Share writing with peers</td>
<td>• Share writing with peers</td>
</tr>
</tbody>
</table>

**Support for Academic Competence**

Dusty Rhodes
Age 7.7 Grade 1.8

- No history of LD in family
- Intact middle class family
- Vision/hearing WNL
- Family/community activities typical for age
- Above average cognitive ability
- 30 minutes daily Reading Recovery
- Loves to play forward in soccer
- Motivated by external rewards
- Responds well to frequent motor breaks

**Interference with Academic Competence**

Dusty Rhodes
Age 7.7 Grade 1.8

- Delays in fine motor development
- Need for speech therapy has continued into formal written language instruction
- Below average working memory
- Below average skills in oral language, PA, decoding, fluency, comprehension, and handwriting
- Distracted by auditory and visual stimuli
- Difficulty sustaining attention
- Does not use learning strategies
Dusty Rhodes

**Conclusions**
Age 7.7  Grade 1.8

- Dx dyslexia by school district
- At-risk for dysgraphia
- Speech sound disorder
- Weakness in auditory processing
- At-risk for ADHD (inattentive type)

**Recommendations**
Age 7.7  Grade 1.8

- Continue speech therapy
- Will be starting dyslexia intervention in 2nd grade
- Accommodations for handwriting (extended time, reduce/eliminate copying tasks, no grade deflation due to handwriting)
- Learning strategies for working memory
- Accommodations for auditory processing (learning and environmental)

**Sample Lesson**

**Phonological Awareness**
Wendy Day
Support for Academic Competence
Age 9:1 Grade 3.3
• No family history of LD
• Intact family with good relationships
• Typical home/community activities
• Has not been retained
• Average cognitive ability
• Artistically creative

Wendy Day
Interference with Academic Competency
Age 9:1 Grade 3.3
• Failure to thrive @ 6-8 weeks postnatal
• Birth-4 years chronic otitis media (no tubes)
• Anxiety/depression (issues with teacher/peers)
• Inconsistent programming (Grade 1 Lexia, Grade 2 Raz Kids, Grade 3 SRA)
• Slow response to intervention (reading and speech therapy)
• Below average performance spelling, writing, and math
• Weakness in written syntax and organization of writing

Wendy Day
Conclusions
Age 9:1 Grade 3.3
• Dx
  • ADHD – Predominantly Inattentive Type
  • CAPD
  • Speech Sound Disorder
  • Dyslexia
  • Disorder of Written Expression
Wendy Day
Recommendations
Age 9:1 Grade 3.3

• Intervention consistent with parameters detailed in Texas Dyslexia Handbook
• Strong, consistent collaboration between SLP and dyslexia therapist
• Intensive phonological awareness training
• Accommodations for spelling/writing (reduced volume, technology, no penalty on content due to misspelled words)
• Accommodations for auditory processing (pair visual/auditory, reduce environmental interference)
• Explicit instruction in writing strategies (graphic organizers, self-regulation)
• Strategies for memory

Sample Lesson
Language Frames

Jack Hammer
Support for Academic Competence
Age 11:4 Grade 5.4

• Superior cognitive ability
• Intact family (3 siblings)
• Above average family/community opportunities
• WNL speech/language, vision, hearing
• Above average social skills
• Above average work ethic
• Private tutoring in an MSLE curriculum
Jack Hammer
Interference with Academic Competence
Age 11:4 Grade 5.4

• Slow processing speed
• Difficulty with all aspects of written language
• Attention/organization deficits
• Tendency toward perfectionism and subsequent anxiety about performance (“My teacher would be so mad to know how I did”)
• Apologetic if aware of errors
• Hesitant to respond if unsure

Jack Hammer
Conclusions
Age 11:4 Grade 5.4

• ADHD Predominantly Inattentive Type
• Processing Speed Issues
• Dyslexia, partially remediated
• Disorder of Written Expression

Jack Hammer
Recommendations
Age 11:4 Grade 5.4

• Explicit instruction, strategies, and accommodations for writing fluency issues
• Accommodations (extended time, reduce copying tasks, use of technology as bypass for hand-written assignments, alternate means of demonstrating knowledge)
• Address attention and organization issues through an ADHD coach
• Address “uneven” development in gifted student
  • The Social and Emotional Development of Gifted Children: What Do We Know (2002)
**Jack Hammer**  
Age 11:4 Grade 5.4

Sample Lesson Plan  
Use of EF Apps  
Tapping into the entrepreneurial mind

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**Justin Case**  
*Support for Academic Competence*  
Age 14.1 Grade 8.9

- Above Average cognitive ability
- Intact family (2 siblings)
- WNL articulation, vision, hearing
- District MSLE curriculum in elementary school
- Prefers video games over physical activities
- Talent in understanding new technology
- Passion for alternative rock music

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**Justin Case**  
*Interference with Academic Competence*  
Age 14.1 Grade 8.9

- Poor study skills resulted in mandatory summer school for failing science and history
- Study skills class scheduled for 9th grade
- Difficulty completing/submitting assignments
- Very resistant to academic tasks, especially writing tasks
- Slow verbal responses
Justin Case
Conclusions
Age 14.1 Grade 8.9

- Dyslexia and dysgraphia Dx confirmed
- Auditory processing risk factors
- Added Mixed Receptive Expressive Language Disorder
- Lack of transfer to content areas
- Continued disfluency in writing

Justin Case
Recommendations
Age 14.1 Grade 8.9

- Speech therapy to address vocabulary, auditory processing, and English syntax
- Technology to bypass handwriting deficits
- Explicit writing instruction should include the writing process, as well as self-regulated strategies for writing

Justin Case
Sample Lesson Plan
The lyrical grammar
Thank you for your investment of time in students who struggle with written expression. You may contact me at tzerfas@swbell.net.