SPELLBOUND AND LETTER PERFECT: STRATEGIES FOR EFFECTIVE SPELLING INSTRUCTION AND INTERVENTION

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PRESCRIPTIVE INSTRUCTION

USING ASSESSMENT TO GUIDE INTERVENTION
INSTRUCTION CHOICES

• MODIFIED DEVELOPMENTAL APPROACH:
  • FOR ALL STUDENTS, CURRICULUM FOLLOWS A GENERAL DEVELOPMENTAL SEQUENCE AND A HIERARCHY OF INSTRUCTION BASED ON UNDERSTANDING SPELLING AS A COMPLEX LANGUAGE SKILL
  ▪ WILL SPEND TIME TEACHING SKILLS THAT SOME STUDENTS MAY ALREADY HAVE
  ▪ THIS MORE GENERAL APPROACH IS EXPLICIT AND SYSTEMATIC BUT DOES NOT ALLOW TIME FOR INTENSIVE INSTRUCTION AND PRACTICE
INSTRUCTION CHOICES

• PRESCRIPTIVE APPROACH:
  • INDIVIDUALIZED INSTRUCTION FOR EACH STUDENT/STUDENT GROUP
  • TEACH ONLY WHAT THE STUDENT/GROUP NEEDS TO LEARN AND WITH THE METHOD OF INSTRUCTION THAT WILL BE MOST EFFECTIVE FOR THAT STUDENT/STUDENT GROUP
  • PROVIDE EXPLICIT AND SYSTEMATIC INSTRUCTION; TARGET ONLY SPECIFIC DEFICITS, ALLOWING TIME FOR INTENSIVE INSTRUCTION AND PRACTICE
BASIC POINTS RE: WORD STUDY INTERVENTION/INSTRUCTION

• ALL ACTIVITIES ARE INTRODUCED BY INSTRUCTOR MODELS BEFORE STUDENT ATTEMPTS THEM (I DO, WE DO, Y’ALL DO, YOU DO)

• FOCUS ON THE FIVE LINGUISTIC AWARENESS SKILLS

• PROVIDE
  • DIRECT, FOCUSED ATTENTION TO THE FIVE SKILLS VIA NATURALISTIC AND “CONTRIVED” EXPERIENCES
  • PLENTY OF OPPORTUNITIES FOR TEXT-LEVEL READING AND WRITING

• SPELLING INSTRUCTION IS USED FOR BOTH SPELLING AND READING DEVELOPMENT

• FACILITATION OF SPELLING SKILLS SHOULD OCCUR ACROSS THE CURRICULUM
AN ACTIVITY TO IMPROVE PHONEMIC AWARENESS FOR SPELLING

- USE “SOUND STRINGS”* TO LINK PA TO SPELLING
  - ADULT AND STUDENT(S) EACH HAVE A SOUND STRING
  - AFTER CONSIDERABLE MODELING FIRST (AND POSSIBLE “PRIMING”), ADULT PRESENTS WORD
  - STUDENT MOVES BEADS
  - STUDENT PLACES BEADS ON TOP OF PAPER
  - STUDENT WRITES AT LEAST ONE LETTER PER BEAD
  - SPECIALIST DISCUSSES OUTCOME, INCLUDING “OTHER KNOWLEDGE” DEMONSTRATED BY STUDENT (E.G., DIGRAPH AWARENESS)

- KEEP IN MIND TO:
  - TARGET SPECIFIC SEGMENTATION ERRORS
  - CONTROL AND GRADUALLY INCREASE SIZE OF WORD OR SYLLABLE
  - CONSIDER WORD POSITION
  - CONSIDER PHONEME PROPERTIES

*SPELL-Links to Reading and Writing™
SAMPLE SORT

• BADGE
• PAGE
• BRIDGE
• HEDGE
• RAGE
• HUGE
• SIEGE
• LODGE
I NOW AM THE SECURITY OFFICER FOR TAGE RIDGE PARK. I THINK GETTING THIS JOB IS PRETTY GOOD FOR MY AGE; I DIDN’T EVEN DODGE THE QUESTION WHEN I WAS ASKED. WHEN THEY DECIDED TO HIRE ME, I DIDN’T BUDGE ON THE SALARY. THE PARKS SYSTEM HAS NOW GIVEN ME A GOLD BADGE FOR MY ROLE. THE NICE PART OF THIS POSITION IS THAT I’M NOT SITTING IN A “CAGE;” RATHER, I AM OUT IN THE PARK WALKING THE EDGES OF THE PARK AND ENSURING NO ONE TRIES TO DODGE THE ENTRANCE FEE BY SNEAKING IN.
WHAT AGE WERE YOU WHEN YOU STARTED FIRST GRADE?
I HAVE A BIRD AT HOME THAT LIVES IN A CAGE.
I LIKED THE STORY SO MUCH I COULDN'T WAIT TO TURN THE PAGE.
WE HID BEHIND THE HEDGE SO WE COULD SCARE OUR FRIEND.
WE TRIED TO DODGE THE DOG BUT IT WAS TOO HUGE TO ESCAPE.
PLAYING BY THE RULES

- WING
- FINGER
- THING
- HANKY
- SINK
- THINK
- SING
- BANG
- JUNKY
- WINK
ACTIVITIES TO IMPROVE MORPHOLOGICAL AWARENESS FOR SPELLING

▪ WORD SORTS

▪ “RELATIVES AND FRIENDS”*
  ◦ ADULT DISCUSSES WITH STUDENT THAT FAMILY MEMBERS CAN:
    • LOOK AND SOUND ALIKE
    • LOOK ALIKE BUT NOT SOUND ALIKE
    • SOUND ALIKE BUT NOT LOOK ALIKE
    • NOT SOUND OR LOOK ALIKE BUT STILL BE RELATED
  ◦ ADULT EXPLAINS THAT FOR MANY “WORD RELATIVES” THE SAME SITUATIONS OCCUR
  ◦ ADULT AND STUDENT BRAINSTORM THE RELATIVES OF A SPECIFIC WORD AND DISCUSS HOW THE “MAIN RELATIVE” HELPS SPELL THE OTHERS.
  ◦ ADULT CAN INCLUDE FOILS AND HAVE STUDENT DISCUSS WHY THIS STRATEGY SHOULD NOT BE APPLY

*SPELL-Links to Reading and Writing™
OTHER MORPHOLOGICAL AWARENESS ACTIVITIES

• OTHER TASKS MAY INCLUDE:
  • WORD BUILDING: GIVEN CARDS WITH PREFIXES, SUFFIXES OR BASE WORDS (ROOTS), COMBINE TO MAKE OR RECOGNIZE WORD (UN+CLEAR, SALT+Y)
  • WORD GENERATING: GIVEN AFFIX, GENERATE A WORD
  • MORPHEME FINDING: FIND ROOTS AND AFFIXES IN TEXTS
  • WORD SORTS (E.G., SIMILAR SPELLING, DISSIMILAR PURPOSE – CORNER, READER)
## WORD BUILDING

<table>
<thead>
<tr>
<th>Prefix</th>
<th>Base/root</th>
<th>Suffix</th>
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<tbody>
<tr>
<td>re</td>
<td>cycle</td>
<td>-tion</td>
</tr>
<tr>
<td>im</td>
<td>friend</td>
<td>-ly</td>
</tr>
<tr>
<td>dis</td>
<td>teach</td>
<td>-er</td>
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<tr>
<td>in</td>
<td>make</td>
<td>-able</td>
</tr>
<tr>
<td></td>
<td>busy</td>
<td>-ness</td>
</tr>
<tr>
<td></td>
<td>hard</td>
<td>-ship</td>
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MORPHEME FIXES

• INSTRUCTOR AND STUDENT CHOOSE COMMON PREFIX OR SUFFIX AND DISCUSS MEANINGS/SPELLINGS
  • COMMON PREFIXES*:
    • RE-, IN-, DIS-, IM-
  • COMMON SUFFIXES*:
    • -TION, -Y, -LY, -ANT, -LESS, -ER, -MENT, -FUL, -NESS, -ABLE, -OUS, -ISH, -IST,
    • -IVE, -IC, -ARY, -ERN, -SHIP, -ENT, -ING, -OR, -AL, -EN, -ITY, -WARD

• STUDENT SEARCHES (READS) TEXT AND IDENTIFIES USE OF TARGET AFFIX (PREFIX OR SUFFIX)

• STUDENT EXPLAINS MEANING AND SPELLING OF AFFIX IN CONTEXT OF TEXT.
AN ACTIVITY TO IMPROVE MGRS FOR SPELLING

- "PICTURE THIS"* STRATEGY
  - USED FOR WORDS FOR WHICH OTHER STRATEGIES/KNOWLEDGE SOURCES CANNOT BE USED
  - ADULT MODELS STRATEGY OF VISUALIZING FIRST USING A PICTURE AND THEN AN IMAGE FAMILIAR TO STUDENT (E.G., BEDROOM)
  - USING TARGET WORD, STUDENT AND ADULT LOOK AT WRITTEN WORD AND TALK ABOUT ITS CHARACTERISTICS
  - STUDENTS SPELLS WORD FORWARD AND BACKWARD
  - STUDENT TAKES "PICTURE" OF WORD
  - STUDENT VISUALIZES WORD, SPELLS IT FORWARD, THEN BACKWARD.

*SPELL-LINKS TO READING AND WRITING™
Picture This!
Mental Images of Words
USE OF TECHNOLOGY IN ASSESSMENT AND INTERVENTION*

- SPELL CHECKERS CATCH BETWEEN 30-80% OF MISSPELLINGS
- SPELL CHECKERS IDENTIFIED 53% OF THE MISSPELLINGS OF STUDENTS WITH LLD

*Montgomery et al., 2001
TEXTING AND LITERACY SKILLS

• INVESTIGATED THE IMPACT OF PREDICTIVE TEXT USE UPON THE LITERACY SKILLS OF PRIMARY SCHOOL, SECONDARY SCHOOL AND UNIVERSITY COHORTS.

• NO DIFFERENCES IN USE OF TEXT ABBREVIATIONS (‘TEXTISMS’) WERE FOUND BETWEEN PREDICTIVE TEXT USERS AND NONUSERS.

• THERE WERE NO SIGNIFICANT MAIN EFFECTS OF PREDICTIVE TEXTING STABILITY ON GROWTH IN STANDARDIZED SPELLING, ORTHOGRAPHIC PROCESSING OR GRAMMAR (TROG II) SCORES, FOR ANY AGE GROUP.

Waldron, Wood, & Kemp, 2016
A COMPREHENSIVE, SEMI-SYSTEMATIC REVIEW OF THE LITERATURE INTO TEXTING AND LITERACY WAS CONDUCTED, WITH A PARTICULAR FOCUS ON QUANTITATIVE EMPIRICAL STUDIES.

THERE WERE NO CLEAR POSITIVE OR NEGATIVE LINKS DISCOVERED BETWEEN ADOLESCENT TEXTING PRACTICES AND LITERACY, WITH THE RESEARCH FINDINGS IN THIS STUDY AREA BEST SUMMARIZED AS MIXED AND INCONCLUSIVE.
WHY ARE SLPS INVOLVED IN LITERACY?!
SLP SPECIAL SKILLS/PERSPECTIVE

• KNOWLEDGE OF NORMAL AND DISORDERED LANGUAGE ACQUISITION
  • SEE MOATS (1999) ABOUT WHAT TEACHERS NEED TO KNOW ABOUT LANGUAGE

• CLINICAL EXPERIENCE IN DEVELOPING INDIVIDUALIZED PROGRAMS FOR CHILDREN AND ADOLESCENTS
  • BASED ON SPECIFIC PROFILE OF STRENGTHS AND WEAKNESSES, AS OPPOSED TO GENERAL METHODS APPROACH

• LITERACY IS LANGUAGE. IT’S IN OUR SCOPE OF PRACTICE! (SEE SLP SERVICE DELIVERY AREAS)
SCOPE OF PRACTICE

• **LANGUAGE** - SPOKEN AND WRITTEN LANGUAGE (LISTENING, PROCESSING, SPEAKING, READING, WRITING, PRAGMATICS)
  - PHONOLOGY
  - MORPHOLOGY
  - SYNTAX
  - SEMANTICS
  - PRAGMATICS (LANGUAGE USE AND SOCIAL ASPECTS OF COMMUNICATION)
  - PRELINGUISTIC COMMUNICATION (E.G., JOINT ATTENTION, INTENTIONALITY, COMMUNICATIVE SIGNALING)
  - PARALINGUISTIC COMMUNICATION (E.G., GESTURES, SIGNS, BODY LANGUAGE)
• **LITERACY** (READING, WRITING, SPELLING)
WHY IS THE SLP INVOLVED?

• CHILDREN WITH PERSISTENT OR RESOLVED SPEECH SOUND DISORDERS PERFORM POORER THAN CHILDREN WITHOUT A HISTORY OF SSD ON MEASURES OF SPELLING.

• THE RISK IS STRONGEST WHEN THE SSD IS ACCOMPANIED BY LANGUAGE IMPAIRMENT

• DELETION ERRORS AND PROBLEMS WITH SOUNDS SUCH AS “TH,” “SH,” AND “CH” ARE ASSOCIATED WITH POORER PHONOLOGICAL AWARENESS. HOWEVER, NATURE OF PRODUCTION ERRORS DOES NOT PREDICT PASS/FAIL ON PA TEST.

• MORPHOLOGICAL KNOWLEDGE CONTRIBUTES UNIQUELY TO READING AND SPELLING PERFORMANCE… SO MORE THAN JUST PHONEMIC AWARENESS

• PHONOLOGICAL INTERVENTION THAT ALSO EMPHASIZES PHONEMIC AND MORPHOLOGICAL AWARENESS TENDS TO RESULT IN BETTER LITERACY PERFORMANCE.
SAMPLE COLLABORATION EXPERIENCE

SLPS’ COLLABORATION WITH GENERAL EDUCATION PEERS CAN LEAD TO IMPROVEMENTS IN STUDENTS’ LITERACY SKILLS (E.G., DARLING ET AL., 2009; GODDARD ET AL., 2007)
MODEL COLLABORATION

• TWO SECOND GRADE GENERAL EDUCATION TEACHERS AND ONE SLP
• MULTIPLE STEPS TO PROCESS
  • TWO-HOUR TRAINING MODULE (APEL & WASOWICZ, 2018)
  • IMPLEMENTATION OF LESSONS (APEL ET AL., 2013)
    • TWO DAYS PER TARGET AFFIX
    • TARGET AFFIX INTRODUCED (INFLECTIONAL OR DERIVATIONAL)
    • ACTIVITIES THAT FOCUSED ON TARGET AFFIX
    • REVIEW LESSONS AFTER THREE TARGETED AFFIXES
    • DAILY LESSONS; 26 LESSONS ACROSS 8 WEEKS
• WEEKLY CHECK-INS AND QUESTIONS

Henbest, Apel, & Mitchell, 2019
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<thead>
<tr>
<th>Instructional Activity</th>
<th>Description</th>
<th>Example from Script</th>
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</thead>
<tbody>
<tr>
<td><strong>Lesson Goal</strong></td>
<td>Teacher reviews previously learned affixes (after first lesson)</td>
<td>“…So far you have learned about the plural suffix which means more than one…”</td>
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<td>Teacher presents new affix</td>
<td>“Today, you are going to learn about the /dis/ prefix.”</td>
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<td><strong>Listening/ Identification Activity</strong></td>
<td>Teacher names aloud target affixed words and provides definition.</td>
<td>“Listen to these words with the /dis/ prefix and what they mean….disable-not to be able…”</td>
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<td>Students are encouraged to indicate when they hear a word with the target affix</td>
<td>“…When you hear a word with the /dis/ prefix at the beginning that means ‘not to’, raise up your magnifying glass…”</td>
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<td>Students provide the definition of the target affixed words</td>
<td>“I will say a word with the /dis/ prefix and you will say what it means.”</td>
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<td>Word-Sorting</td>
<td>Teacher names words with and without affix. The students give thumbs up when word contains affix. The teacher sorts words into piles depending on whether or not there was an affix.</td>
<td>“…disquiet, disable, place…”</td>
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<td>Teacher and students study the spelling of the affix</td>
<td>“What do you notice about how the /dis/ is spelled?”</td>
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<tr>
<td>Written Identification Activity</td>
<td>The teacher demonstrates how to identify the affix in the written word</td>
<td>“…I see the letters ‘dis’ at the beginning of this word…I will circle the prefix…”</td>
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<td>The students practice identifying the target affix in the written word with guidance.</td>
<td>“…if you think the letters ‘d-i-s’ in ‘displease’ are a prefix, then circle them and write the meaning of that word on the line.”</td>
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OUTCOMES

• AVERAGE OF 9.5/10 POSITIVE FEEDBACK RE: IMPLEMENTATION/CONSULTATION MODEL FROM TEACHERS

• IMPLEMENTATION FIDELITY WAS APPROX. 92%

• STUDENTS SIGNIFICANTLY IMPROVED THEIR MA SKILLS FOR IDENTIFYING AFFIXES, UNDERSTANDING THE MEANING OF AFFIXES, AND SPELLING OF MULTI-MORPHEMIC WORDS
  • EFFECT SIZES RANGED FROM .47-.98.

• BOTTOM LINE: GENERAL EDUCATION TEACHERS CAN DELIVER SLP-GUIDED MA INSTRUCTION THAT LEADS TO IMPROVEMENTS IN STUDENTS’ SKILLS
MAIN TAKE AWAYS

• SPELLING IS A WINDOW INTO WHAT STUDENTS KNOW ABOUT LANGUAGE

• WRITTEN LANGUAGE IS PART OF AN SLP’S SCOPE OF PRACTICE

• PRESCRIPTIVE ASSESSMENT LEADS TO PRESCRIPTIVE INTERVENTION

• SLPS CAN HELP OTHERS UNDERSTAND THE ROLE OF LANGUAGE IN SPELLING (AND READING)
NAME SOMETHING BEGINNING WITH 'E' THAT YOU'RE NOT VERY GOOD AT!

SPELLING!