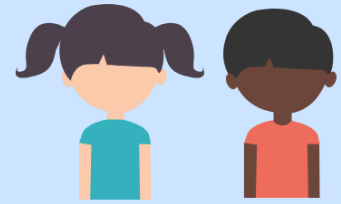




# SLP SERVICE DELIVERY MODELS



## Outside the Classroom

### Multidisciplinary

Pullout

Individual

Small Group

### Consultation

Modelling

Coaching

Scaffolding

Fading

## Inside the Classroom

### Interdisciplinary

One Teach,  
One Drift

One Teach,  
One Observe

Station  
Teaching

Remedial &  
Supplemental

### Transdisciplinary

Parallel

Team

### Multidisciplinary

- Teachers and SLPs have their own distinct roles and responsibilities
- Example: A child with an articulation delay is initially pulled from the classroom to work one-on-one in intervention. The SLP elicits correct articulation of the sound



### Consultation

- Modelling: observe the expert
- Coaching: expert offers support
- Scaffolding: dialogue between professionals
- Fading: expert begins to withdraw support
- Example: The SLP provides strategies to the teacher to help elicit the sound



### Interdisciplinary

- Professionals work together but in their own distinct role
- Example: When the child is able to produce the sound consistently, the SLP drifts throughout the classroom monitoring their production and occasionally assisting, while the teacher continues to perform classroom instruction



### Transdisciplinary

- There are shared roles and responsibilities
- It requires extensive communication between professionals
- Example: The teacher elicits the correct sound without SLP support



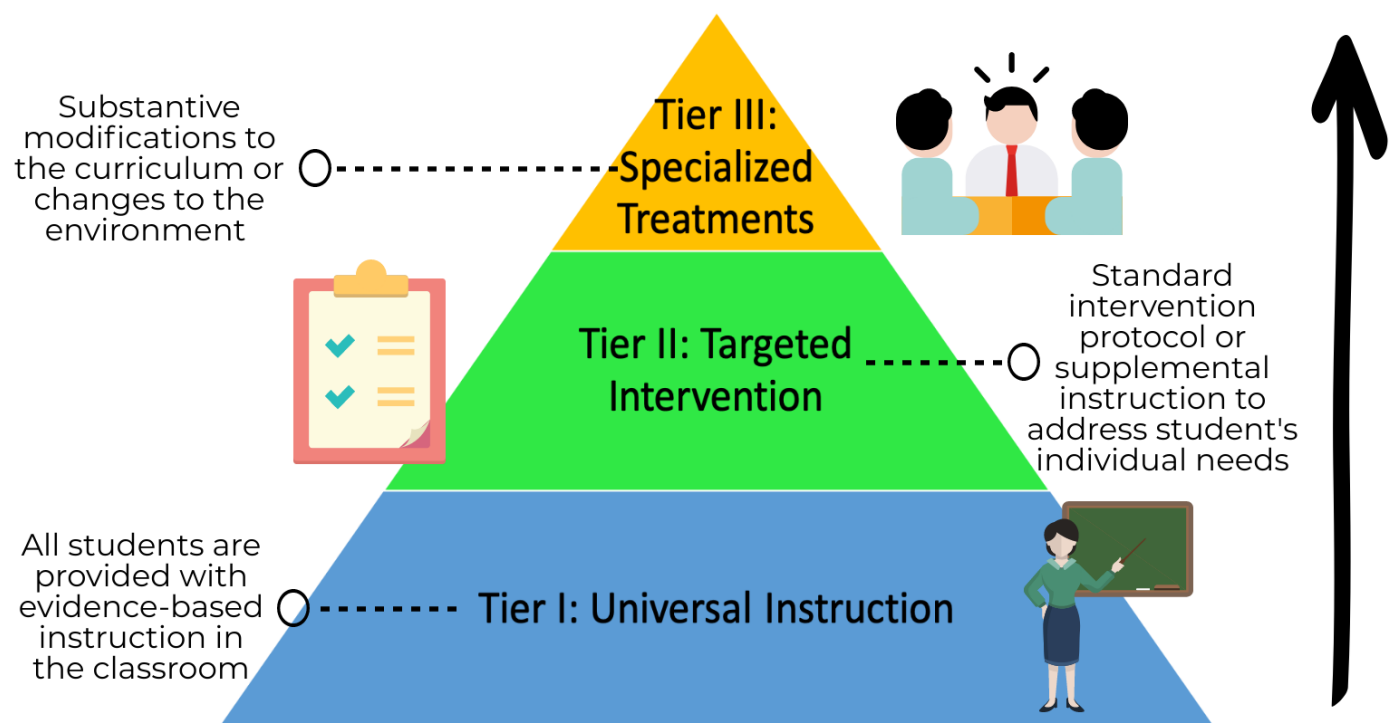
(Suleman et al., 2014)



# RESPONSIVENESS TO INTERVENTION MODEL



Responsiveness to intervention (RTI) is a model that consists of three tiers of differentiated instruction to target students with different needs in the school. With universal screening and frequent monitoring, RTI promotes early identification and intervention to students struggling with universal instruction.



## SLP Roles Within the Tiers

### Tier I

- Provide education to teachers about the structures and functions of language
- Assist teachers in providing instruction on concepts such as phonemic awareness, decoding, and spelling
- Help teachers to adjust academic language and discourse demands on the student (i.e. reduce linguistic complexity)
- Help teachers administer and interpret screening and progress monitoring systems

### Tier II

- Consult teams delivering targeted intervention
- Help identify students that require intervention
- Reinforce intervention fidelity
- Help eliminate instructional redundancy
- Continue to help with progress monitoring and language disorder identification
- Play direct role in tier II intervention deployment

### Tier III

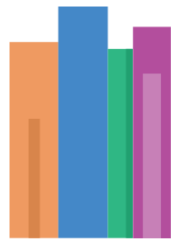
- Provide specialized treatment to students and monitor their responsiveness to this treatment
- Identify and develop innovative ways to help the students who have not benefitted from targeted intervention
- Consult with other specialized educators to help maximize service benefits



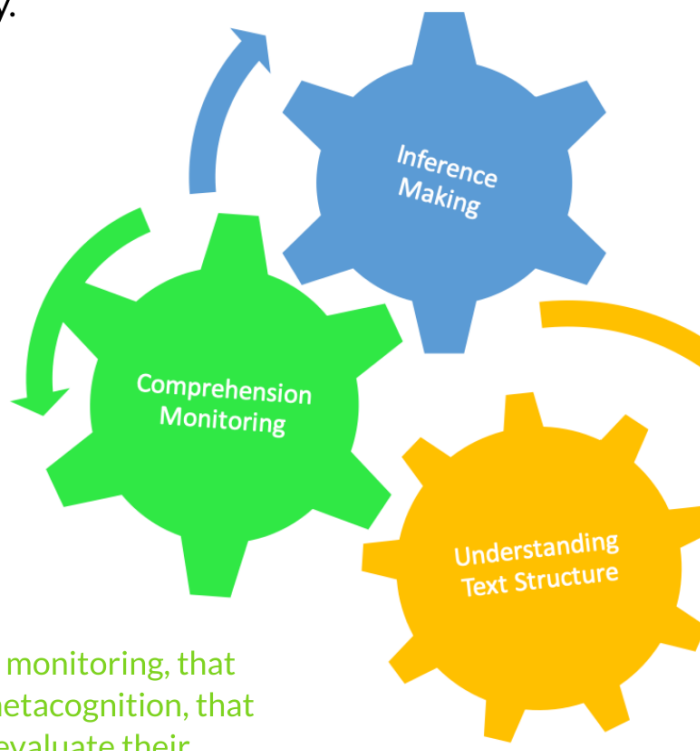
# THE ROLE OF WORKING MEMORY IN READING COMPREHENSION



Text comprehension is a complex task. Both higher and lower levels of language skills are required for reading comprehension. Lower level language skills include *word recognition* and *verbal and semantic skills*. Higher level language skills include *inference and integration*, *comprehension monitoring*, and *knowledge about the text structure*. In the early years, word reading is the best predictor of text comprehension, however, higher level language skills are more important as word reading develops. *Working memory* is the ability to store and process information simultaneously. Higher level language skills, and therefore reading comprehension, can be impacted by limited working memory.



Comprehension monitoring, that is an aspect of metacognition, that helps a student evaluate their understanding of the text and resolve problems to facilitate their understanding. This task can be difficult for a student with working memory problems when the pieces of information required to comprehend the meaning are nonadjacent.



Working memory enables integration of the text to establish coherence, hold retrieved information and integrate it with the current text. Making inferences may be necessary to establish referential coherence, causal antecedents, and understand a character's emotional reactions. Working memory is the work space where this integration and inference making takes place.

Children with more advanced text comprehension are better able to understand and explain narrative structure, such as the kind of information that may be found in the introduction and ending of a text. If this skill is well learned then it can be activated with little cost to processing capacity, however, if working memory is limited then this skill will have a greater cost to access.

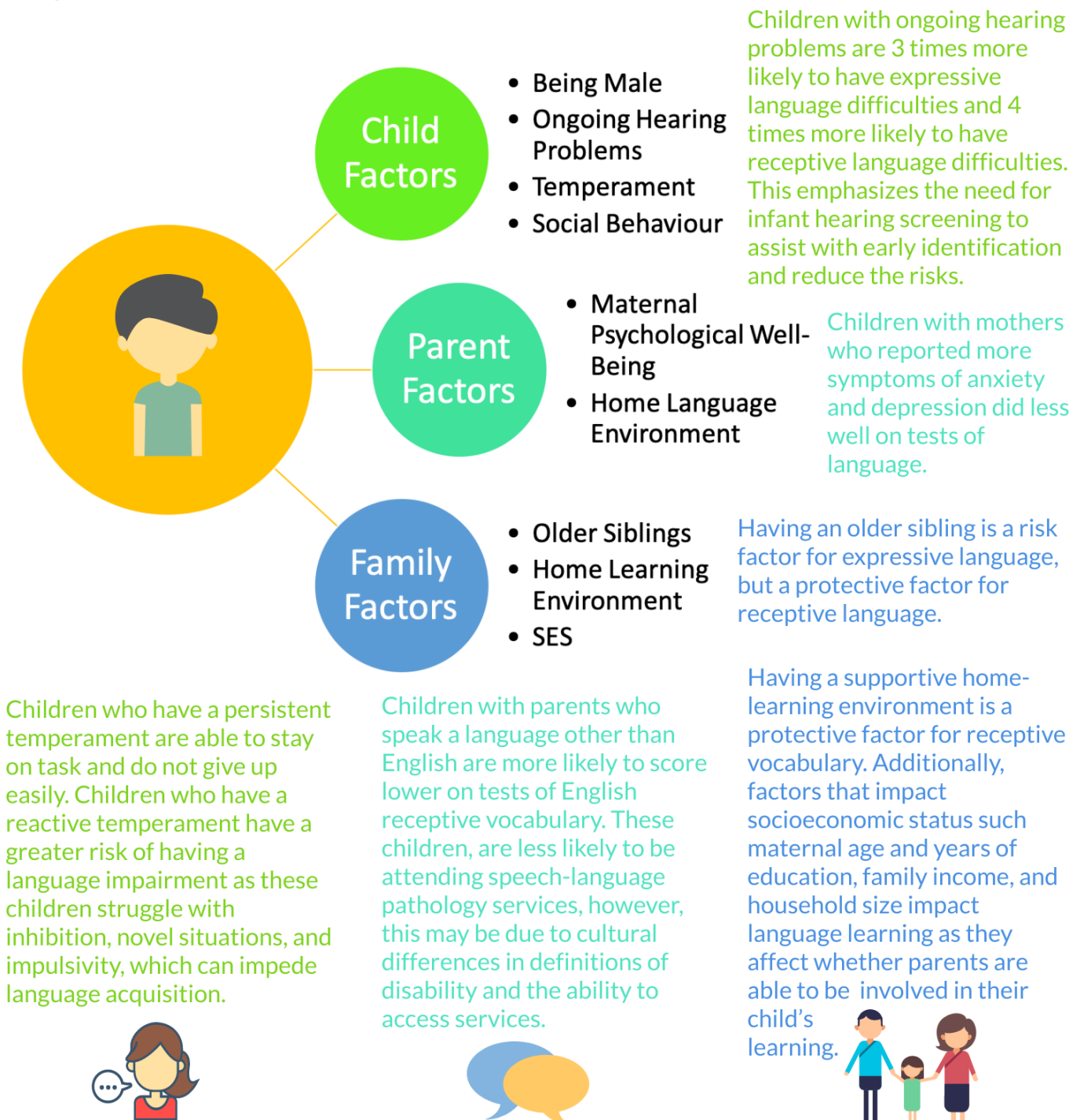




# RISK AND PROTECTIVE FACTORS OF SPEECH AND LANGUAGE IMPAIRMENT



Identifying risk and protective factors associated with speech and language impairment is an important task as early detection and early intervention can play a huge role in the severity and longevity of the impairment. These factors can be broken down into three categories: child factors, parent factors, and family factors.





# PROMOTING SELF-REGULATION IN CHILDREN



What is self-regulation? The foundation for a child's physical, emotional, behavioural, and educational well-being. Self-regulation is how a child manages and recovers from stressors.

When a child is dealing with a stressor the sympathetic nervous system is activated in the brain and much of the body's resources are needed to address it. The parasympathetic nervous system can be activated when this stressor is dealt with, and then the body can dedicate energy towards other bodily functions, such as cellular repair and maintaining a stable body temperature, or towards higher level cognitive functions such as sustaining attention and learning.

## Five Primary Sources of Stress

### 1. Biological

- not enough sleep, exercise, poor diet



### 2. Emotional

- negative feeling such as: fear, anger, shame, sadness, etc.

### 3. Cognitive

- cognitively challenging tasks



### 4. Social

- i.e. group activities, playing with children for extended time

### 5. Prosocial

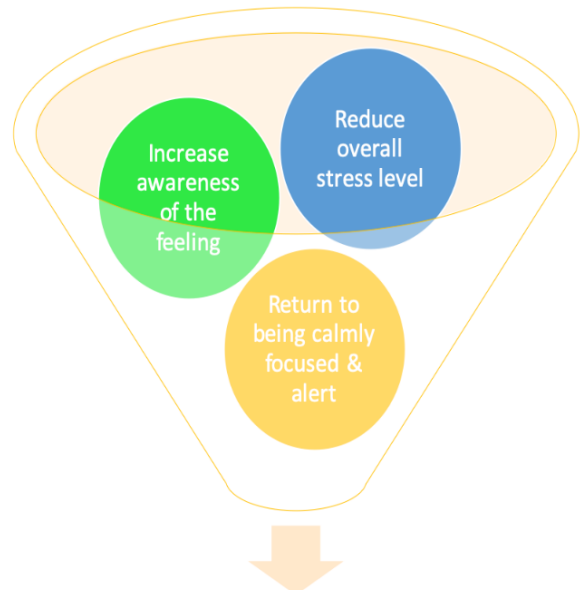
- i.e. dealing with other children's feelings and emotions



## Signs of an Excessive Stress Load

- Trouble paying attention
- Easily distracted
- Getting angry too often
- Highly impulsive
- Trouble tolerating frustration
- Trouble sitting still
- Trouble thinking through simple problems

## Steps to Self-Regulate



**Self-Regulate**





# DYNAMIC ASSESSMENT



Traditional language assessments focus on identifying language impairments from a child's current language abilities relative to his or her peers. However, a child's current language abilities may not reflect his or her potential due to variable learning experiences.

Dynamic assessment is based on Vygotsky's Zone of Proximal Development. The goal of a dynamic assessment is to determine the difference between what the child can demonstrate he or she knows unassisted and what he or she can attain when clinician assistance is provided. Therefore, the dynamic assessment will demonstrate the learning potential of a child in an optimal learning environment.



## Testing The Limits

This form of dynamic assessment utilizes elaborated feedback and verbalization. In elaborated feedback, the clinician provides the child with feedback on the correctness of his or her response along with an explanation. In verbalization, the child is asked to describe the test question and then let the clinician know how he or she arrived at an answer.



## Test-Teach-Retest

In this form of dynamic assessment the test situation moves from an evaluative to a teaching interaction. It is expected that children who have not had sufficient experience to a language process will show high modifiability in the teach phase, whereas, children with a true language disorder will show limited modifiability and will require additional intervention.



## Graduated Prompting

In this dynamic assessment the clinician uses a hierarchy of predetermined prompts to better assess the child's learning and language abilities, based on the number of prompts required to elicit the desired response. This form of dynamic assessment can be helpful in making predictions of a child's responsiveness to intervention.



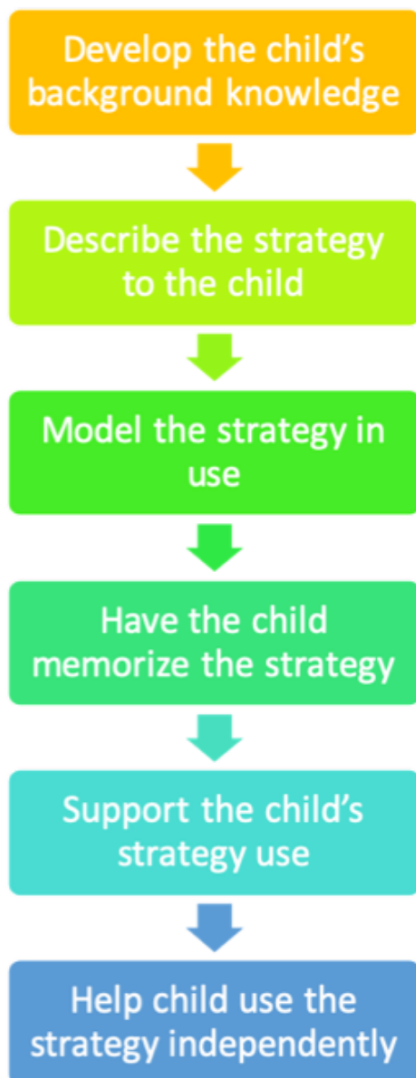


# COGNITIVE STRATEGY INSTRUCTION

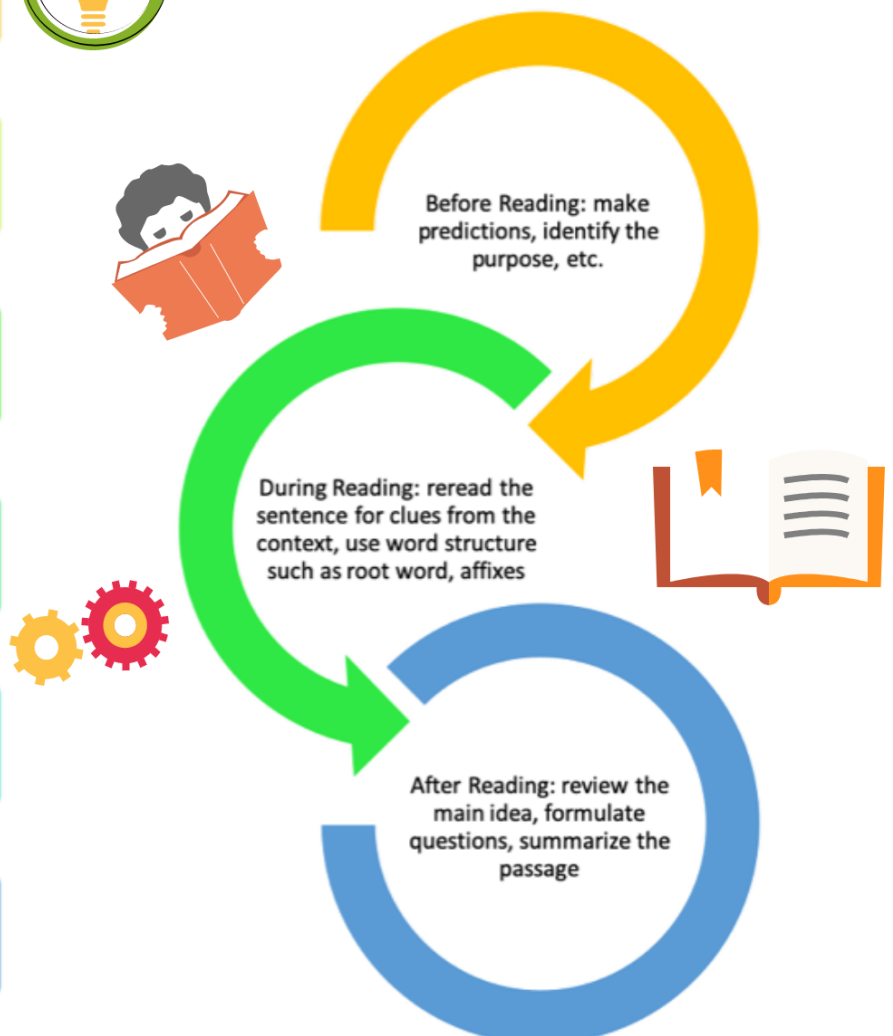


Cognitive strategy instruction (CSI) is an explicit approach to instruction that aims to help improve a child's learning by facilitating information processing. To do so, CSI uses metacognitive strategies to help a child monitor and evaluate their own comprehension. Some of these explicit teaching processes include: verbal rehearsal, scaffolded instruction, and self-monitoring.

## CSI FORMAT



## EXAMPLE OF CSI IN A COMPREHENDING EXPOSITORY TEXT EXERCISE



CSI can be used individually or in small groups for children with learning disabilities, or in the classroom. CSI is most effectively used when children understand and use a few strategies rather than a large array. CSI has been shown to improve academic performance in children with learning disabilities.



# PHONEMIC AWARENESS



Phonemic awareness is the ability to hear, identify, and manipulate phonemes (or sounds). A lack of phonemic awareness is associated with reading difficulties. Children with dyslexia or developmental language disorders do not typically learn phonemic awareness skills naturally and require explicit instruction. Reading fluency is the ability to read accurately, with speed, and with proper expression. Advanced phonemic awareness is a particularly important skill in order for a child to become a fluent reader.



Early	Basic	Advanced
<ul style="list-style-type: none"><li>• Rhyming</li><li>• Alliteration</li><li>• Segment in syllables (phonological awareness)</li><li>• Identify first sound</li></ul>	<ul style="list-style-type: none"><li>• Segmenting words into syllable and words into sounds</li><li>• Blending individual sounds into a word</li></ul>	<ul style="list-style-type: none"><li>• Deleting phonemes</li><li>• Substituting phonemes</li><li>• Reversing phonemes within a word</li></ul>





# MORPHOLOGICAL AWARENESS



Morphological awareness is the understanding that words have morphemic structure and can be broken down into smaller meaningful units, such as prefixes, suffixes, and bases (roots). Instruction in morphology improves linguistic and reading abilities in the following ways:

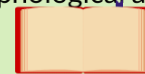
## *Morphological Awareness Improves Phonological Awareness*

Instruction in morphology includes awareness of sounds with links to meaning. In the words “music” and “musician” the ‘c’ has a shift in pronunciation from “k” to “sh”. Understanding that “musician” is derived from the base word “music” can help a child understand the phonological relationship of the words.

Aa

## *Morphological Awareness Mediates and Facilitates Vocabulary Acquisition and Therefore Reading Comprehension*

If a child understands that words can be broken down into meaningful units, then he or she can acquire new words in their lexicon by predicting the meaning of more morphologically complex words. This can also assist when a child can make this prediction when reading a novel word and ultimately assist in reading comprehension. Children who have a language or literacy impairment have a much more difficult time with this task without explicit instruction, whereas, typically developing children can acquire new words in the classroom implicitly with this application of morphological awareness.



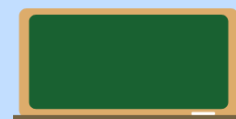
## *Morphological Awareness Aids in Word Decoding*

Knowledge of morphemes, such as bases, can help a child decode word pronunciation when ambiguous sound-letter associations exist. For example, in the words “shoe” and “wash” the ‘s’ ‘h’ letter combination make the ‘sh’ sound, whereas, in the words “misheard” and “mishap” the ‘s’ ‘h’ letters are pronounced separately as they are at the junction of the affix and the bases.



## *Morphological Awareness Aids in Spelling*

Having an awareness of the meaning of morphological parts can aid in spelling, even when the phonology is different. For example, the morpheme “-ed” which is a suffix used for regular past tense words is always spelled as such even though it is pronounced differently in “planted”, “talked”, and “turned”.





# MORPHOLOGICAL AWARENESS INTERVENTION



This intervention approach for morphological awareness has a “detective” theme where the child gets to play the role of a detective in uncovering word meanings based on knowledge of morphological meanings. This approach to morphological awareness should be taught explicitly to children with language and literacy impairments. The following are examples and techniques for providing intervention in morphology:

1

- Introduce morphology and identify patterns
  - introduce the concept of morphology explicitly
  - identify regularities and patterns in morphology



2

- Emphasize inflectional morphology
  - link grammatical forms with meaning
  - for example: “-s” with the concept of “more than one”
  - instruct that these morphological markers are always spelled the same even when they sound different in words



3

- Emphasize derivational morphology
  - instruct that derivational morphemes alter semantic roles in a word
  - for example: the transformation from a noun to a noun (electric, electrician), a verb to a noun (retaliate, retaliation), or a verb to an adjective (create, creative)

4

- Build words from morphemes
  - teach a child about multimorphemic words so that he or she can understand that known words can combine to form new words, i.e. mail + man = mailman
  - instruct on the meanings of roots and affixes to allow child to create and understand novel words



5

- Link morphemes to an academic context
  - allow the child to see the applicability of morphological skills
  - allow the child to use their new knowledge as a detective skill to uncover the meaning of novel words, i.e. “if piglet mean little pig, what does owlet mean?”



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