Session Objectives:
1. Identify, define and describe four morphological interventions to facilitate vocabulary development.
2. Design evidence-based treatment sessions using prefixes, suffixes, and root words; and
3. List and identify ways to utilize common grade-level root words to facilitate vocabulary knowledge.

Approximately 60% of new words acquired by school-age children are morphologically complex words (Anglin et al., 1993)

Beginning in the upper elementary grades, textbooks are filled with morphologically complex words (Nippold & Sun, 2008)

Morphological Awareness – gives access to unknown words without them memorizing or being explicitly taught

Wolter & Green (2013) found with the awareness of affixes and base words, readers learn to see words as a sum of their component parts. This allows them to infer meanings of unknown words.

Leonard (1989, 1994) found the hallmark characteristics of children with language impairments include late onset of first words, late onset of word combinations, and pronounced difficulty with grammatical morphology.

Developmental emphasis on children with Typical Development (TD) shifts to grammar at around 400 words. (Bates et al., 1991).

Types of Morphology:
Lexical Morphemes – words that have meaning by themselves (e.g., boy, food, door)
Grammatical Morphemes – words that function to specify the relationship between one lexical morpheme and another (e.g., at, in, on, -ed, -s)
Free Morphemes – morphemes that can stand alone as words (e.g., boy, food, in, on)
**Bound Morphemes** – morphemes that occur only in combination, cannot stand alone to convey meanings.

2 Types of Bound Morphemes:
- 1) *Inflectional Morphemes* – changes the form of the word
- 2) *Derivational Morphemes* – changes the meaning of the word

Inflectional Affixes – all are suffixes and all native to English
Derivational Affixes – may be either suffixes or prefixes and many were adopted from Latin, Greek, or other languages

English has only eight inflectional suffixes:
- 1. Plural
- 2. Possessive
- 3. Comparative
- 4. Superlative
- 5. Present
- 6. Past
- 7. Past Participle
- 8. Present Participle

Finestack & Satturlund (2018) conducted an online survey of 338 SLPs to examine procedures SLPs used to target grammatical forms.
Results indicated the following:
- **Targets:** Plural-s, Present Progressive, Past Tense verbs, Pronouns, Possessives
- ** Procedures:** Modeling, Recasts, Requests Imitation, Explicit Presentations
- **Activities:** Play with toys, conversation, and book reading

Acronym for grammatical interventions:

**MRS. I**

*Modeling* – the child merely listens to the target structure, the child is not required to respond
*Recasts* – repeat the child’s utterance but in the corrected form
*Saliency* – Used to make the grammatical targets stand out e.g., make the target form louder, longer and make dynamic pitch changes. Alter context: repeat grammatical target at the end of a phrase/sentence and force a contrast so the target form is highly informative.
*Imitation* – Elicited imitation is far more intrusive than the other techniques. Imitation can be made with alternating targets.

Combined grammar facilitation approaches were more effective when embedded in a story context rather than presented in a decontextualized way. (Gillam et al., 2012)
Crago and colleagues found plural acquisition for children with language impairments predict plurals to be missing or delayed in acquisition.

Acquisition of irregular plurals is dependent on input frequency.

**Dual Mechanism Approach (plurals and irregular plurals)**
1) Regular plurals – generated by a traditional rule
2) Irregular plurals – memorized (Pinker and Prince, 1992)

**Possessives:**
Preschoolers produce possessives 3 times more often when they listened to and retold stories than in conversation. (Leadhold and Miller, 1992)

**Verb Tenses:**
Watkins et al., found that children with language impairments use less diverse verbs and rely on general all-purpose verbs such as get, make and go.

Windsor et al., found that -ed performance was an area of striking difficulty in children with language disorders written samples.

Leadhold and Miller (1992) found that preschoolers produce past tense forms approximately 2 times more often when they listen to and retold stories.

Weiler found that typical preschoolers are better able to use their past tense morphology skills with verbs that have a defined endpoint, a completed action.

Bybee & Slobin (1982) found there are approximately 200 irregular verb forms in the English language.

Out of the 30 of the most frequently used verbs, 22 are irregular.

Most irregular past tense forms occur by rote learning

Researchers suggest that some irregular forms develop early, while others are not mastered until elementary school. (Shipley, Maddox, & Driver, 1991).

**Carlisle’s 4 Approaches to Morphological Instruction**
1. Heighten awareness of word’s morphological structure
2. Teach meaning of affixes and base words
3. Foster morphological problem solving
4. Teach morphological analysis to build reading vocabulary

Base word is a word in its simplest form. A base word has nothing added to it.
Root word is a semantic unit – it is a group of letters with meaning.
Sample Morphology IEP Objectives:
Student will identify affixes (prefixes and suffixes) and root words in multisyllabic words with 85% accuracy with minimal cues.

Student will define affixes (prefixes and suffixes) and root words in multisyllabic words with 90% accuracy with moderate cues.

Student will determine the meaning of targeted grade-level academic words by identifying their roots and affixes, explaining the meanings, and using them in a correct sentence with 80% accuracy over 2 sessions.

Thank You for attending the session!

Cathy Alexander, MA CCC-SLP
Cathy@KidsVocabulary.com