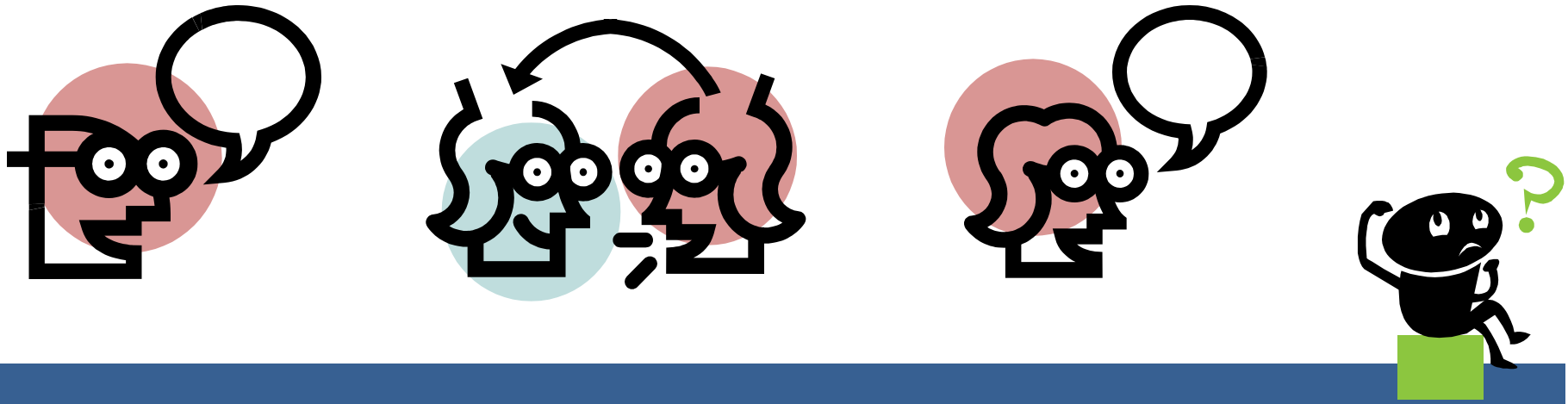


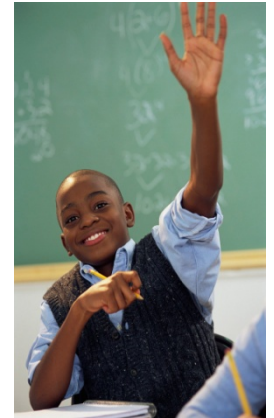
What is speech versus language?



How is it connected
to cognition?

Importance of Language & Communication

- Why are good language and communication skills so important?
 - Learning
 - Business
 - Interpersonal Relationships
- We use language and communication for everything



What is Speech Versus Language?

• SPEECH

• The **physical** means of communicating.

• Areas of Speech include:

• Articulation: How speech sounds are made

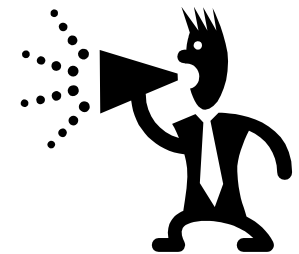
• e.g., children must learn how to produce the “s” sound in order to say “sun” instead of “tun”

• Voice: Breathing causes the vocal folds to vibrate and produce sound

• e.g., overuse or misuse and can lead to hoarseness or loss of voice

• Fluency: The rhythm of speech

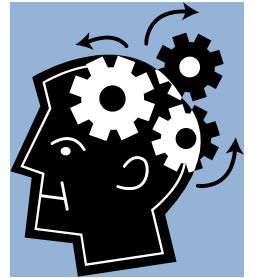
• e.g., sound and word repetitions and hesitations disrupt fluency



What is Speech Versus Language?

LANGUAGE: is a system of shared rules. It can be oral, written or gestural. It is the cognitive aspect of communication.

- Components of language include:
 - **Phonology**: Rules of **sound** combination to create words
 - [s], [i], [t] = Seat
 - **Morphology**: Rules that govern **meaningful sound units**
 - “-ed” to mark past tense
 - **Semantics**: Regards **meaning** in words, sentences, conversations, etc.
 - The word “course” can be a **pathway** or a **class** you take
 - dogs and cats have **sematic features** that include, being animals, having four legs, and tails
 - **Syntax**: Rules that govern **how words are combined** to make phrases and sentences
 - **Determiner + Subject + Verb + Det + Object** → “The dog ate the bone.”
 - **Pragmatics**: Rules that govern **language use**
 - **eye contact** duration, **standing distance** from another speaker, **turn taking**



How Language Components Interact

- **FORM**

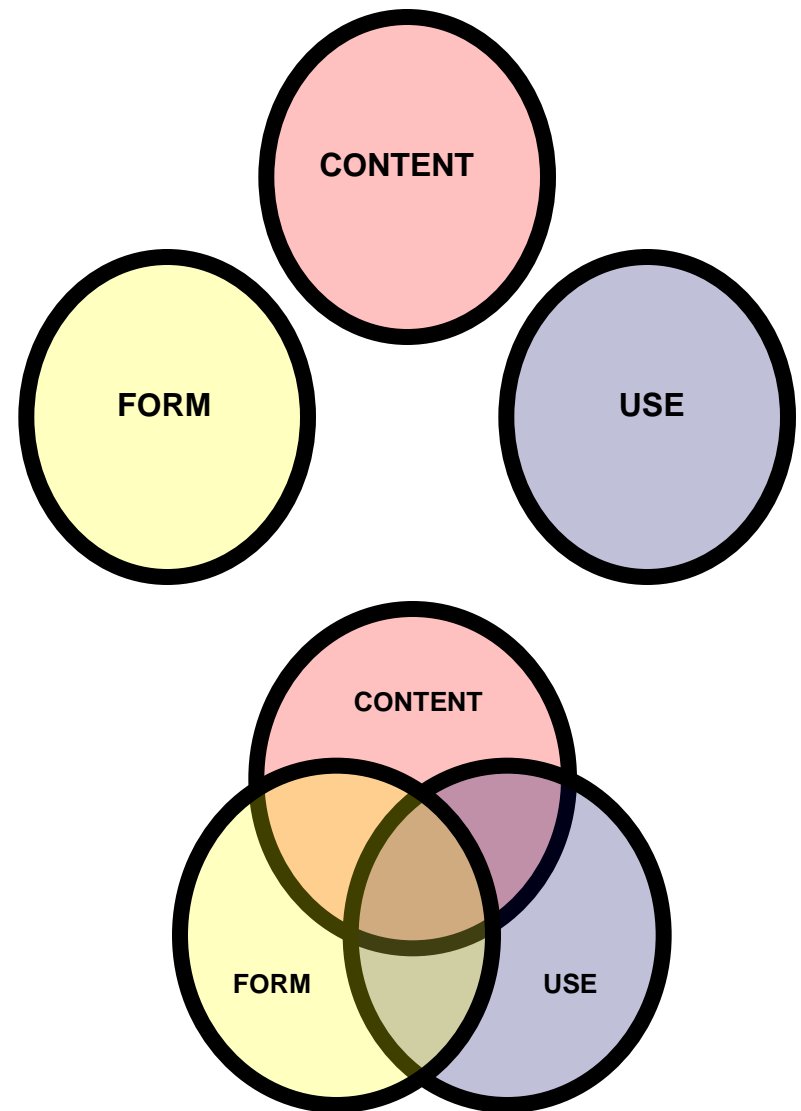
- Phonology: Sound structure rules
- Morphology: Meaningful sound units
- Syntax: Phrases and sentence structure rules

- **CONTENT**

- Semantics: Meaning

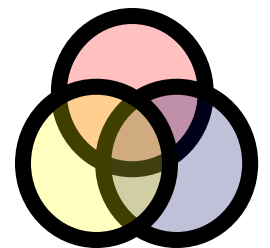
- **USE**

- Pragmatics: Rules of use



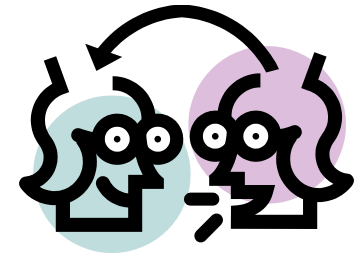
How Language Components Interact

- Language components are integrated
- Trouble in one component may lead to trouble in another
 - Trouble using proper word order (Form) can negatively effect...
 - the meaning of a sentence (Content), this can have a negative impact on...
 - successful transmission of the message (Use)
- Trouble with speech clarity can also negatively impact each of these areas as well



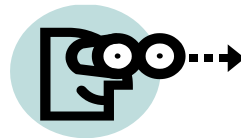
Look Both Ways: Language is a two-way street

Comprehension & Expression



- **Receptive Language (Comprehension)**

- Incoming information
- What we hear, see or read



- **Expressive Language**

- Outgoing information
- What we say, do or write



“Non-Verbal” Cognition

- Language and cognition are inextricably linked
- To function Language works with the executive functions such as
 - planning
 - attention
 - reasoning
 - mental flexibility
 - initiation
 - working memory
 - problem solving
 - inhibition
 - task switching
 - monitoring



Speech & Language Development

- Speech and language development begins in the womb

- Third Trimester



- There are predictable developmental milestones

- We begin looking for these skills at birth

- Errors in development

- Some errors are normal

- These will correct on their own as motor and cognitive skills grow

- Some errors are normal, but **persist** too long or are **atypical**

- This may indicate a disorder

- These need therapy to correct



Speech-Language Pathologists (SLPs)
work in all of these areas to help people
learn, understand, and communicate



SLP's also work with other challenges to the speech mechanism such as feeding and swallowing...that too big a "bite" to address here, though. See www.asha.org for more information.

Thanks for reading