

# Processing Disorders: The Impact on Learning

- ❖ Language Processing  
and
- ❖ Auditory Processing

# What is processing?

- The ability to interpret or attach meaning to auditorily received information, to then formulate an expressive response.
- People with processing disorders have normal intelligence and normal hearing acuity.
- Processing deficits can be subtle, but eventually result in academic problems.

# Auditory Processing Disorder Characteristics

- Normal hearing
- Difficulty following oral directions.
- Short auditory attention span
- Poor short-term and long-term memory
- Gives impression of not listening even though looking at the speaker; daydreams
- Difficulty listening in presence of background noise
- Academic deficits (phonics, reading, spelling) & mild speech-language impairments
- Disruptive behaviors – distracted, impulsive, frustrated.
- Frequent requests for verbal repetition or often saying “huh?”
- History of ear infections.

# Language Processing Disorder Characteristics

- Problems retrieving common words
- Use of generic, less-specific labels (stuff/things)
- Misuse of words with similar phonetic structure
- Delayed response time
- Frequent “I don’t know” or “I forgot” responses
- Inconsistency in learning: requires extensive review of previously learned material
- Recognizes language errors but can’t fix them
- Incomplete sentences or thoughts.
- Pragmatic problems; disruptive behavior
- Age commensurate IQ with academic difficulties

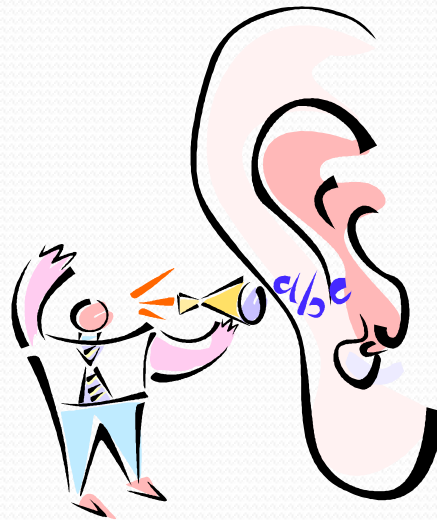
# Processing Assessment

## Auditory Processing

- Audiologists conduct central auditory processing (CAP) assessment

## Language Processing

- Speech-Language Pathologists (SLPs) assess language processing



# Prerequisites for Assessment

## Auditory Processing

- To appropriately evaluate CAPD, three requirements must be met:
  - Normal/near normal hearing
  - Normal/near normal intellectual functioning
  - Adequate receptive/expressive language acquisition

## Language Processing

- To appropriately evaluate LPD, three requirements must be met:
  - Normal/near normal hearing
  - Normal/near normal intellectual functioning
  - Acoustic signal/auditory information is received accurately

# CAPD

*How can educators help?*

# *Teacher Modification Strategies for CAPD*

- ❖ Amplify the auditory signal. (FM systems improve the signal to noise ratio)
- ❖ Reduce the amount of background noise.
- ❖ Preferential seating (maximize auditory and visual signals)
- ❖ Clear/concise directions. (include only pertinent instruction)
- ❖ Gain attention prior to giving instruction.
- ❖ Restate, paraphrase, & emphasize important information.
- ❖ Monitor YOUR use of rate, inflection, gestures, etc.
- ❖ Use visual supports and demonstrate to supplement instruction.  
(supplement verbal material with written when possible)
- ❖ Check for comprehension
- ❖ Use peer pairing/buddy system to check notes, assignments, etc.



# CAPD

*How can students with  
CAPD  
assume responsibility?*

# *Compensatory Strategies: Students being their own advocate.*

- ❖ Pay attention to the speaker. (watching facial expressions/body language)
- ❖ Listen for meaning/key words (note taking strategies: write down meaningful words)
- ❖ Repeat information (rehearse information until you attach meaning to it)
- ❖ Learn to CONCENTRATE on the speaker. (focus is critical to learning)
- ❖ Paraphrase & check for comprehension (take notes, ask peers if they understood the same information/content)
- ❖ Ask clarification questions (state what you DO KNOW and then seek on what you are unsure of )
- ❖ Peer/buddy check: (Again use a peer to check your information/compare notes)
- ❖ Be proactive! Be your own ADVOCATE! (review content prior to lecture, actively participate, seek clarification, take responsibility of learning)

LPD

*How can educators help?*

# *Teacher Modification Strategies for LPD*

- ❖ Multimodality approach: present information using visual, tactile, motor, auditory, etc.
- ❖ Supplement auditory/verbal information with visuals (write key words, assignments, notes, etc. to support instruction)
- ❖ Provide cues. Prompts, etc. ( phonemic cues - i.e. it starts with a “s”, choice prompts - i.e. is it a verb or adjective)
- ❖ Give examples to help make connections between the content and real life experiences (Teachers who share stories will help the student to connect a memory to information present & aid in retrieval)
- ❖ Allow for “thinking time” (it can be helpful to present a question and allow the entire class time to think before responding)

# *Teacher Modification Strategies for LPD (continued)*

- ❖ Shorten length of assignments to focus on accuracy
- ❖ Vary the type of questions/responses on class discussions/exams (i.e. teachers use multiple choice verses open ended questions)
- ❖ Paraphrasing, repeating, clarifying information

# LPD

*How can students with  
LPD  
assume responsibility?*

# *LPD Compensatory Strategies: Students being their own advocate*

- ❖ If you need extra time to do work, ask for more time.
- ❖ Use retrieval strategies that you have learned.
- ❖ **Ask for cues** (when you struggles to retrieve info., asking a teacher for help shows you are interested and trying to learn)
- ❖ **Paraphrase & check for comprehension** (repeat information back to the teacher, take notes, ask peers if they understood the same information/content)
- ❖ **Ask clarification questions** (state what you DO KNOW and then seek on what you are unsure of )
- ❖ **Peer/buddy check:** (Again use a peer to check your information/compare notes)
- ❖ **Be proactive! Be your own ADVOCATE!** (review content prior to lecture, actively participate, seek clarification, take responsibility of learning)

*Let's Compare*



# Student Compensatory Strategies

## CAPD

- ❖ **Pay attention to the speaker.** (watching facial expressions/body language)
- ❖ **Listen for meaning/key words** (note taking strategies: write down meaningful words)
- ❖ **Repeat information** (rehearse information until you attach meaning to it)
- ❖ **Learn to CONCENTRATE on the speaker.** (focus is critical to learning)
- ❖ **Paraphrase & check for comprehension** (take notes, ask peers if they understood the same information/content)
- ❖ **Ask clarification questions** (state what you DO KNOW and then seek on what you are unsure of)
- ❖ **Peer/buddy check:** (Again use a peer to check your information/compare notes)
- ❖ **Be proactive! Be your own ADVOCATE!** (review content prior to lecture, actively participate, seek clarification, take responsibility of learning)

## LPD

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# *Build a strong foundation*

Students with LPD require support to build a strong language foundation in order to achieve academic success.

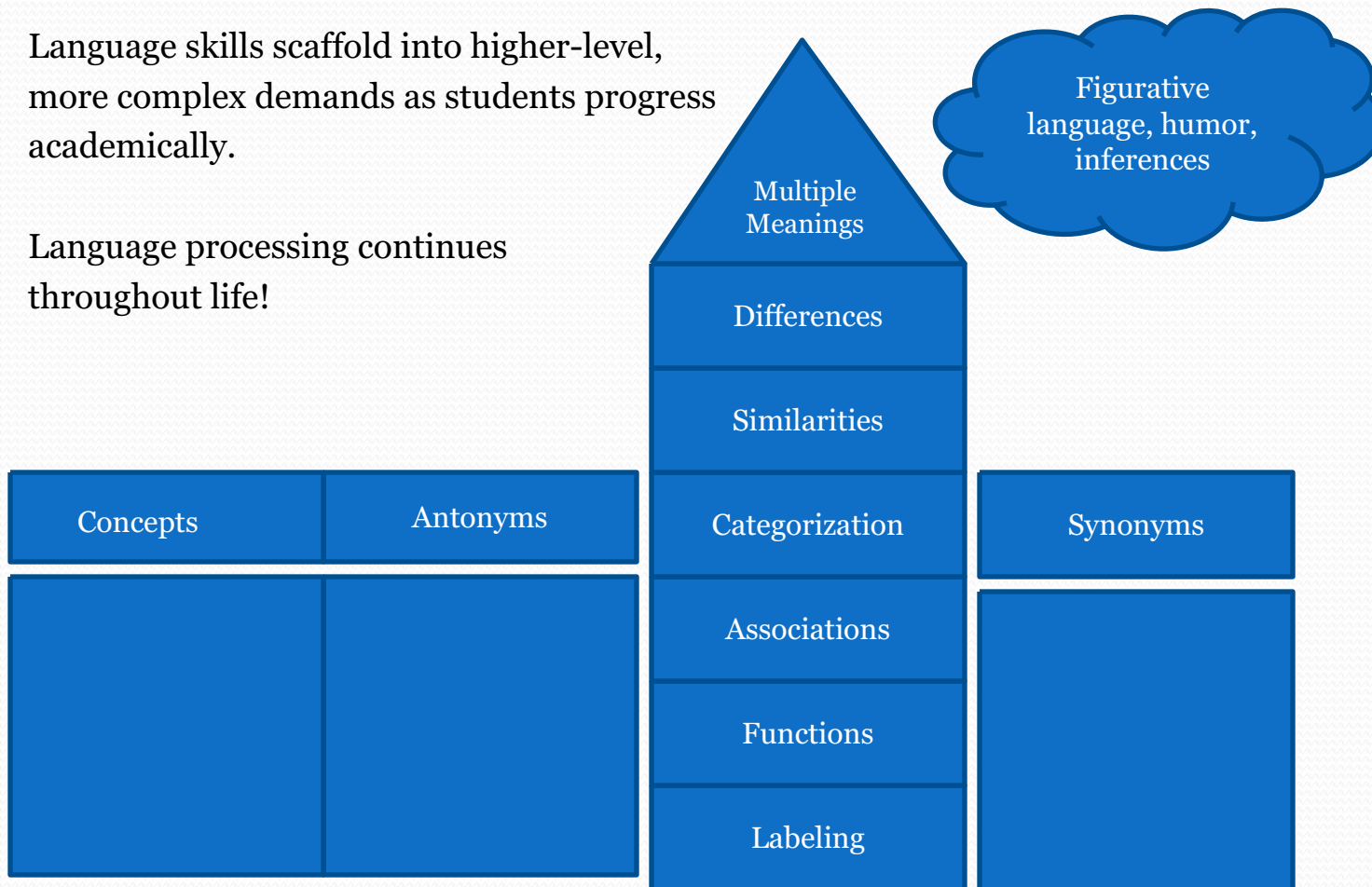


Once a student masters one level, that will be the foundation/building block to scaffold to the next level.

# *Moving from concrete to abstract language skills*

Language skills scaffold into higher-level, more complex demands as students progress academically.

Language processing continues throughout life!



***Coming together  
is a beginning.***

***Keeping together  
is progress.***

***Working together  
is success.”***

**~Henry Ford**



Richard, Gail. J. (2001). *The Source for Processing Disorders*.  
LinguiSystems.

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