

The slide features several decorative circles. A light purple circle is behind the word 'Verb'. A solid light purple circle is behind 'Therapy'. A solid light purple circle is behind 'Using'. A solid light purple circle is behind 'Collaborative'. A light purple circle is behind 'Referencing'. Below the title, there are three solid light purple circles on the left and one light purple circle on the right.

Verb Therapy Using Collaborative Referencing

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Verb Retrieval and Aphasia

- Aphasia is a communication disorder caused by brain damage that results in language impairments in the areas of comprehension, formation, and use. (Nicolosi, Harryman, & Krescheck, 1989).
- Many individuals with aphasia have more difficulty with verb retrieval than noun retrieval.

Verb Retrieval and Aphasia

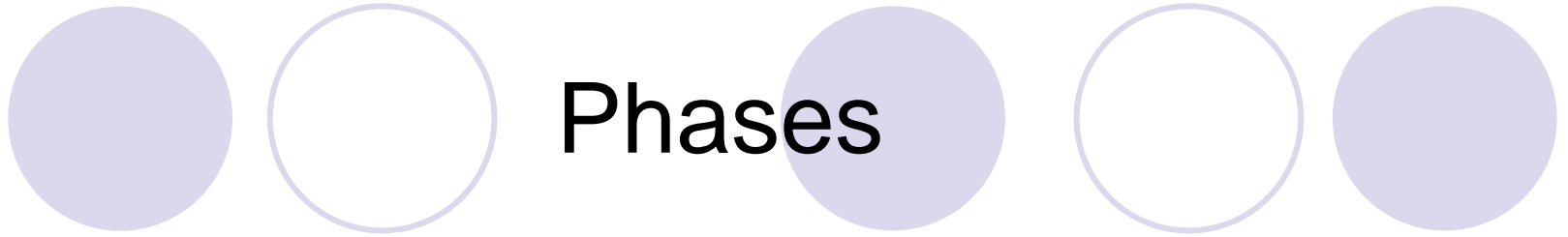
- Reasons for verb retrieval difficulty in individuals with aphasia include, imageability of the word, number of arguments, semantic complexity.
- Treatments for word retrieval with individuals with aphasia include, stimulation-facilitation, deblocking, operant conditioning, and functional/compensatory techniques. These treatments are not specific to verbs.

Collaborative Referencing Tasks

- Collaborative Referencing is the process through which people work together, using past knowledge and experiences, to establish a shared perspective (Clark and Wilkes-Gibbs, 1986).
- Collaborative Referencing tasks are a type of barrier task that has been found to increase noun retrieval in individuals with aphasia.

Collaborative Referencing Tasks

- Partners sit across from each other separated by a barrier.
- Both have a numbered board and a matching set of pictures.
- The object is for the director to name picture cards so that the matcher can place pictures in the same sequence.



- During collaborative referencing tasks partners typically progress through of 3 phases:
 - Initiation-first full phrase, includes detailed descriptions
 - Refashioning- repairs, expansions, replacements
 - Acceptance- both partners agree

Collaborative Referencing Studies

- Clark and Wilkes-Gibbs (1986)
 - Participants were 8 pairs of college students.
 - Stimuli consisted of 12 Chinese Tangram figures.
 - Separated by an opaque barrier.
 - Number of words and conversational turns needed for successful matching decreased across trials.
 - Cards were placed with 98% accuracy.



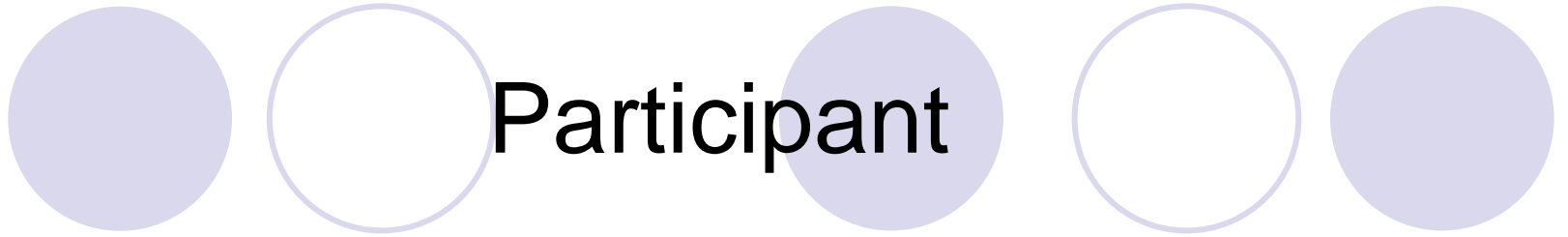
Collaborative Referencing Studies

- Hengst (2003) study
 - Patterned after Clark and Wilkes-Gibbs (1986).
 - Studied collaborative referencing between individuals with aphasia and routine communication partners.
 - Separated by a partial barrier
 - Resulted in accurate card placement, simplification of initiating descriptions, and a decrease in collaborative effort across trials.
 - Partners made references from shared knowledge and history.



Research Questions

- Using collaborative referencing tasks with individuals with aphasia to match pictures depicting verbs has not been studied.
- Research questions
 - Does a person with fluent aphasia learn to use verbs through collaborative referencing?
 - Is the verb learning pattern consistent with the collaborative referencing model?
 - What types of cues are most effective for the participant during verb learning?



- 59 year old male with fluent aphasia
- 2 years post onset
- Receiving speech-language therapy two times a week
- Previously unsuccessful at verb learning
- Aphasia Diagnostic Profile indicated Wernicke's aphasia



Research Design

- Descriptive Case Study
- Independent Variable:
 - Collaborative Referencing Task
- Dependent Variables:
 - Number of correctly labeled verbs
 - Responses to partner cues
 - Adherence to the collaborative referencing model



Procedures

- Collaborative Referencing Model patterned after Clark and Wilkes-Gibbs (1986) and Hengst (2003)
- The routine communication partner was the participant's wife.
- Each session consisted of six trials.
- Correct responses included the targeted verb label and refashioned verb labels when the label had been accepted by the participant and his wife.
- Verbs were considered trained when the participant named 8 out of 10 labels correctly over 2 trials.
- After criterion was met, the next picture set was targeted.

Materials

- Stimuli consisted of 3 sets of 10 color photographs of the participant performing activities.
- Fiber board barrier.
- 2 boards numbered 1 through 10



Setup





Transcript Coding

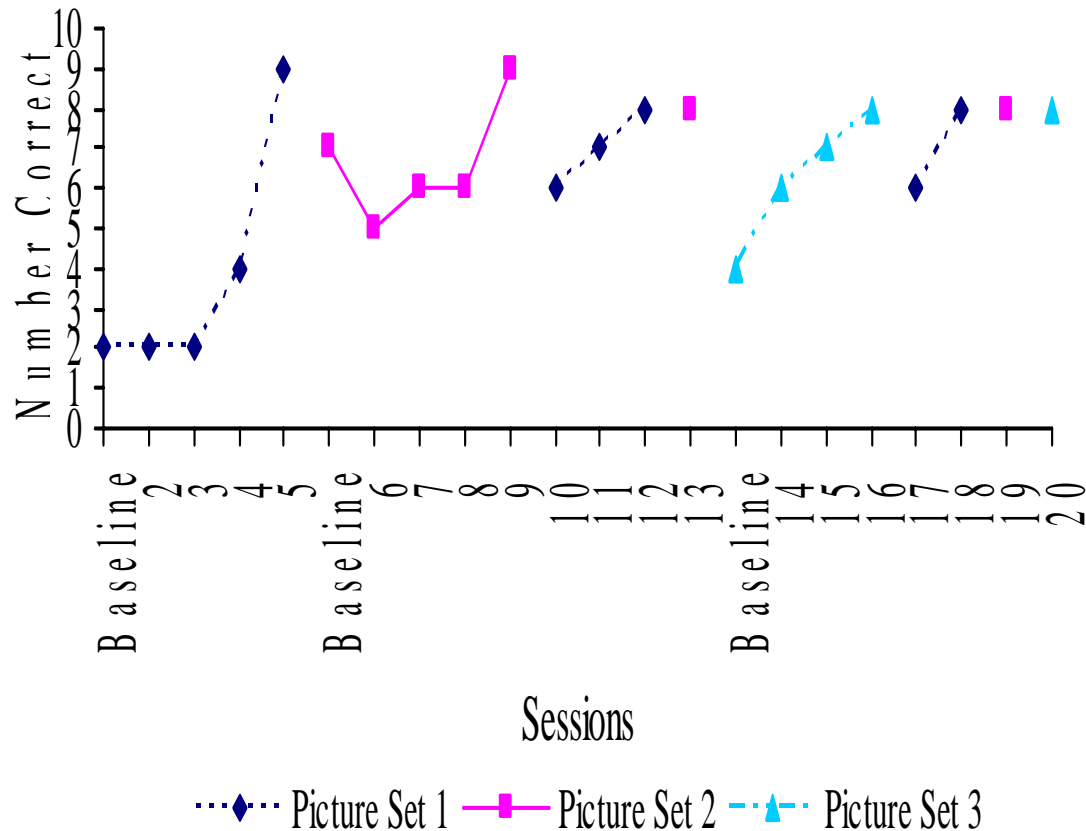
- Transcripts were coded using the following system, based on cues provided by the communication partner:
 - Q= Response to a question
 - S= Sentence completion
 - D= Description
 - P= Phonemic cueing



Reliability

- Inter-rater reliability of transcription and coding was completed by the faculty mentor watching 20% of the video samples while reviewing data forms.
 - Transcription: 94%
 - Coding: 82%
 - Description cues: 93%
 - Phonemic cues: 93%
 - Question cues: 82%
 - Sentence completion cues: 90%

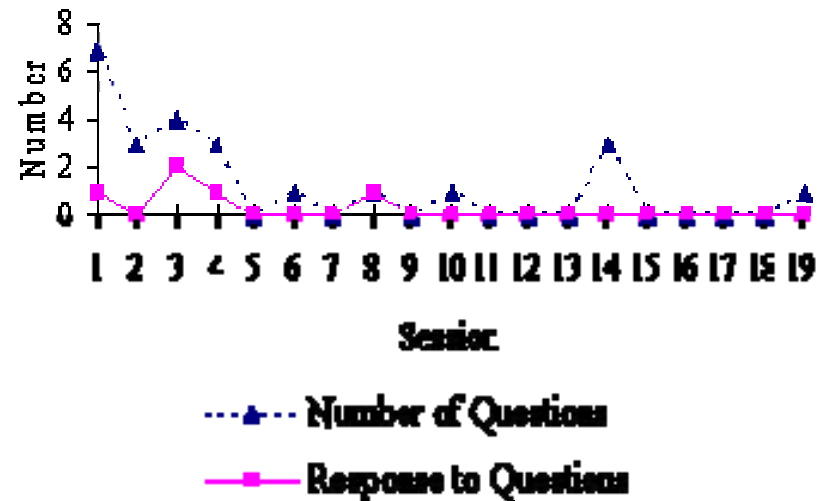
Mean Number of Correct Responses



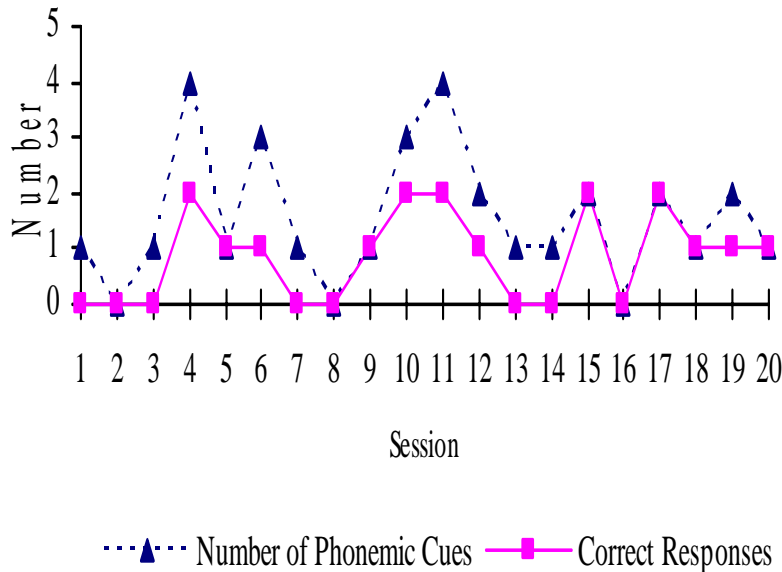
- Criterion was met for all 3 verb picture sets.
- The number correct for each picture set increased across sessions.
- Across all picture sets, the number of correct verb labels on the first trial when a set was reintroduced was greater than the initial baseline for that picture set.

Mean Number of Question Cues and Correct Responses to Cues

- Mean number of question cues= 1.2, range 0-10, SD=1.88
- Mean number of correct responses to question cues= .25, range=0-2, SD=.56
- Correlation between mean number of question cues and mean number of correct responses
 - $r=.66$
 - $p=.001$

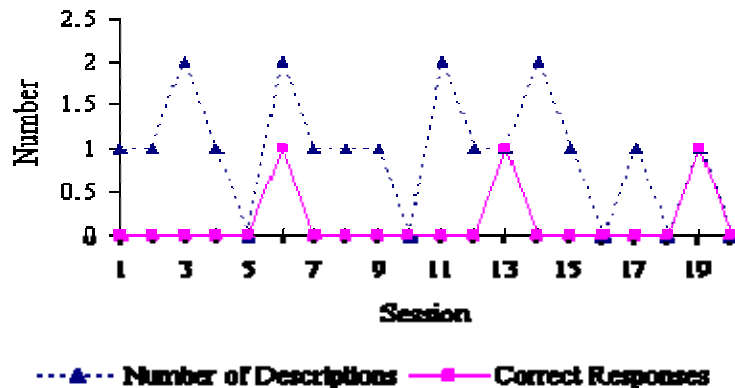


Mean Number of Phonemic Cues and Correct Responses to Cues



- Mean number of phonemic cues in each session=1.55, range 0-5, SD=.69
- Mean number of correct responses to phonemic cues=.85, range=0-4, SD=.81
- Correlation between mean number of phonemic cues and mean number of correct responses
 - $r=.82$
 - $p< .001$

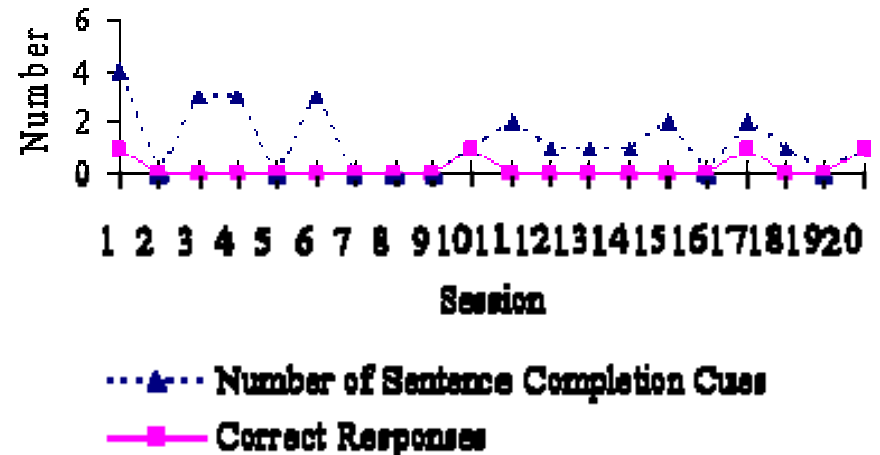
Mean Number of Description Cues and Correct Responses



- Mean number of description cues = .95, range 0-2, SD = .69
- Mean number of correct responses = .15, range 0-1, SD = .37
- Correlation between the mean number of description cues and mean number of correct responses
 - $r = .24$
 - $p = .15$

Mean Number of Sentence Completion Cues and Correct Responses to Cues

- Mean number of sentence completion cues=1.25, range=0-6, SD=1.25)
- Mean number of correct responses=.15, range 0-2, SD=.37
- Correlation between mean number of sentence completion cues and mean number of correct responses
 - $r = .35$
 - $p = .06$



Card Set 2, Session 1, Trial 3



Card Set 2, Session 2, Trial 6





Discussion

- For this participant collaborative referencing seemed to be a beneficial supplement to speech therapy.
- The participant benefited mostly from phonemic cueing and question prompts.
- The collaborative referencing model was followed when the targeted label was not initially accepted by both individuals.

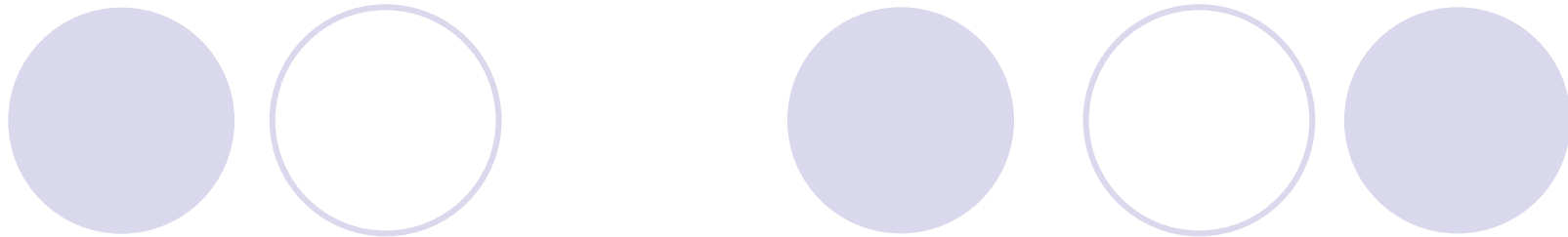
Limitations and Future Research

● Limitations

- This study was a case study design, therefore results only extend to this participant.
- Only 4 types of cues were analyzed.
- Feedback given to the partner was not analyzed.

● Future Research

- Indications for when to use collaborative referencing
- Training procedures for partners



Questions??



References

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