Introduction
Age-appropriate foundations for literacy development are universally regarded as priorities in early childhood special education. Children who are deaf or hard of hearing are at risk for language and literacy delays. Parent-child storybook reading provides opportunities for enriched language and reading comprehension interactions and promotes literacy development within the natural home routine. Many parents read with their children and enjoy the shared storybook engagement that comes with a nightly reading ritual. However, many parents are unsure about how to utilize effective reading strategies to maximize literacy growth in their preschool children who are DHH. This study explored the impact on effective strategies during storybook reading when parents engaged in a 20-minute training session.

Driving Principles
- Children who are DHH benefit from substantive and meaningful exposure to language and literacy activities to promote expressive and receptive language development and literacy foundations.
- Reading time at home should not become a ‘therapy session’ or place stressful requirements on the child.
- Questions posed during storybook reading should empower the child to think creatively and feel confident that there are no wrong answers when exploring storybook possibilities.
- Parents can have a powerful impact on early literacy experiences during shared reading opportunities in the home.

Study Description
Single-subject design
Participants: 4 families
Activity: Parent-child storybook reading - 15 minute segments
Data collected using Language Environment Analysis (LENA)
All sessions transcribed

Materials
LENA recording unit
Parents provided with five children’s books to use during the study period and then keep as a token of appreciation for study participation
- *Pancakes for Breakfast* by Tomie dePaola
- *Good Night Gorilla* by Peggy Rathmann
- *The Umbrella* by Jan Brett
- *Lion and the Mouse* by Jerry Pinkney
- *A Ball for Daisy* by Chris Raschka

Results

Family 1
- Substantial increase in child engagement from baseline to intervention
  - Average 42 questions/session at baseline
  - Average 44 questions/session at intervention
- Intervention sessions included:
  - Sabotage (“He took the keys to climb the barn... Oh, you’re right, he took the keys to open the gate.”)
  - Expansion (child: “She dies”, parent: “Yes, a pink dress with a white apron”).

Family 2
- Primarily used ‘wh’ questions at baseline
- Substantial increase in asking child “what do you think?” at intervention, resulting in greater child engagement in the story
  - Average 13 questions/session at baseline
  - Average 40 questions/session at intervention
- Began using phonemic awareness prompts at intervention

Family 3
- Parent-child interaction at intervention was much more playful than interaction seen at baseline
- Increased use of conversational prompts
  - Average 14 questions/session at baseline
  - Average 44 questions/session at intervention

Family 4
- Very little child engagement during storybook reading at baseline
  - Average of 1.5 questions/session at baseline
  - Average of 18 questions/session at intervention
- Parent included singing during storybook reading at intervention
- Increased emphasis on phonemic awareness

Percent Increase in Child Vocalizations
- All four families showed an increase in the number of child words spoken during the 15-minute storybook reading period from baseline to intervention.

Procedures
Baseline
- Parents trained in using the LENA recording unit
- Parent-child storybook reading was recorded to obtain typical literacy interactions.
- No training or specific study information was provided.

Intervention
Parents participated in a 20-minute training to discuss effective strategies for:
- Prompting comprehension questions
  - ‘Wh’ questions
  - Critical thinking (e.g., I wonder... I think... I hope...)
  - “What do you think...”
- Other question forms (e.g., How many... Does he...)
- Identifying opportunities to emphasize phonemic awareness
- Utilizing effective wait time
- Encouraging increased child response in parent-child utterance ratio

Parents also received a copy of *Put Reading First: A Parent Guide* by National Institute for Literacy to reinforce early literacy priorities

Parent Feedback

Thank you so much for the awesome participation! Thank you again for your support? Please let us know if you have any other feedback or comments on your experience with the study.

Encouraging child engagement during storybook reading can empower the child to explore literacy possibilities and increase opportunities for critical thinking and expanded language.