RESEARCH ASSISTANT: LANGUAGE FLUENCY LAB

Valerie Hsieh
Hearing and Speech Sciences
vshsieh@terpmail.umd.edu

RESEARCH QUESTION

Overview
I was a research assistant for former PhD student Dr. Julianne Garbarino. She is part of the Language Fluency lab, which is run by Dr. Nan Ratner. Dr. Garbarino's dissertation looked at stuttering and other types of language disfluencies in preschool aged children. She analyzed stuttering-like disfluencies and its frequency in the context of grammaticality and sentence planning. The results of this study also has future clinical implications related to the amount of stuttering a child has when answering questions.

Research methodology: CLAN and language sampling
This project uses child language samples that have been provided in both video and audio files from several different projects. The samples have then been transferred onto a computer program called CLAN: Computerized Language ANalysis. The transcripts generated from CLAN will then allow researchers to add postcodes and analyze the language samples in any manner they wish.
Over this past summer, I familiarized myself with the computer program and transcribing audio files. Once I became familiar with using CLAN, I began to add postcodes for analysis. Throughout this process, I needed to pass an agreement test with Dr. Garbarino with 90% or higher, as well as meet with other research assistants to check some of the more subjective work.

Acknowledgements
I would like to thank Dr. Julianne Garbarino and Dr. Nan Ratner for this amazing research opportunity.
I would also like to thank Dr. Peel and Ms. Thompson for making SDU a great experience.

MY CONTRIBUTIONS

Introductory tasks: The first tasks I performed were to check the fluency coding, ensuring proper segmentation, and ensuring that the audio lined up properly with the transcripts.
Exclusion coding: I needed to mark the utterances that were to be excluded from analysis. Some of these included the child saying "I don't know," coded as [+ idk], or a one word response of "yes" or "no," coded as [+ owr].
Delay and change coding: This coding involved going through the transcripts and identify if the child delayed their speech or they changed what they were going to say. **A delay [+ del]** would be if the child said "uh" or "um" as a filler. A **change [+ chg]** would be if the child revised their word in the middle of an utterance.
Grammaticality coding [*] : in this task, I needed to mark the child utterances that were considered grammatically incorrect. This assignment was very subjective and depended heavily on the context and the parent responses.
Function coding: This task was to identify the different functions or purposes of a specific utterance. These included:
- **Answers [+ ans]** to an adult's question
- An original **question [+ quest]**
- **Other responsive [+ or]:** this occurred when a child responded to a statement from an adult rather than a question, including yes/no, agreeing, protesting. I also needed to indicate if the response was **prompted, spontaneous** or a **repetition**
- **Other assertive [+ oa]:** when the child added new information to the conversation.

SAMPLE TRANSCRIPTS AND FLUENCY CODING DEFINITIONS

Stuttering-Like Disfluency	Code
Part-word repetition	↩ (↩ th↩ this)
Block	≠ (≠boy)
Prolongation	: (w:here)
Mid-word break	^ (b^unny)

Typical Disfluency	Code
Fragments Filler	&+a &-um, &-uh
Word repetitions Phrase repetitions	[/] (cat [/] cat) <> [/] (<that's a> [/] that's a)
Word revisions Phrase revisions	[//] (cat [//] dog) <> [//] (<that's a> [//] that's my)

```
481   *CHI:   yeah . [+ dn] [+ ans] [+ owr] .
484   *MOT:   okay . .
487   *MOT:   well try this xxx . .
490   *CHI:   w:here this be [*] ? [+ dn] [+ quest] [+ ods] .
493   *MOT:   you can open the door and it can drive in . .
498   *MOT:   xxx drive in . .
501   *CHI:   xxx . [+ dn] [+ uni] .
502   *MOT:   that's not quite big enough is it ? .
507   *MOT:   let's make it a little bigger . .
511   *CHI:   make it bigger . [+ dn] [+ orr] .
514   *MOT:   xxx . .
515   *CHI:   xxx . [+ dn] [+ uni] [+ rep] .
516   *CHI:   ↩loo-loo-loo-loo↩look . [+ dn] [+ oa] .
```

```
1066   *CHI:   you [/] you play with me [*] ? [+ dn] [+ quest] [+ ods] .
1069   *MOT:   yes of course . .
1072   *CHI:   &-uh &-uh ↩p↩play toys ? [+ dn] [+ quest] [+ del] .
1075   *MOT:   yeah we can't have a family checkup if I don't play with you . .
1082   *MOT:   if the family doesn't play with you . .
1087   *CHI:   mommy ! [+ dn] [+ oa] .
1090   *MOT:   yes . .
1093   *CHI:   why this on me [*] ? [+ dn] [+ quest] .
```

This is an example of a typical transcript on CLAN, where the postcodes, bullets and disfluencies are coded. This specific transcript was from a study that Dr. Ratner conducted in the 1990s.

Teaching with FluencyBank (talkbank.org)
This is the Voices project, part of an open access database called Talkbank, which has videos of examples of stuttering.