

## Computerized Sentence Building as a Treatment for Aphasia

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Acute cerebrovascular disease (stroke) is one of the leading causes of death in the United States, and those who survive are often left with significant long-term disabilities. According to Kansas Health Matters, between 2016 and 2018, 14.7 out of every 10,000 Kansans were admitted to the hospital due to stroke. Aphasia, which frequently occurs secondary to stroke, results in loss of the ability to speak freely. One cause of difficulty producing conversational speech is an impairment in the ability to build sentences. Existing treatments have shown improvement in spoken language (e.g., Thompson et al., 1997; Doyle et al., 1987), but treatments may not reach full recovery potential. People with aphasia express eagerness to find new therapy approaches to improve communication abilities and to have home therapy programs in addition to in-person therapy. There continues to be a need for effective sentence production treatments that can be easily translated into a home program. This presentation reports results from a treatment study examining whether a computerized sentence building task has therapeutic value for people with aphasia. The treatment is based on a sentence processing task known as the word maze, first developed by Freedman and Forster in 1985. Seven people with aphasia performed the task once or twice per week in forty-minute long periods for a total of 6-8 sessions. All participants showed improved task accuracy and increased scores on the Assessment for Living with Aphasia. Two participants showed an 8-point increase on the Western Aphasia Battery-R Aphasia Quotient.