

# Developing Language and Literacy Skills of the Deaf and Hard of Hearing through Supplemental Curricula, Strategies and Vocabulary Interventions Marcie Ball, California Lutheran University

### **The Research Question**

What impact does the use of evidence-based curricula, including supplemental curricula, interventions, and strategies for the Deaf/Hard of Hearing population, have on developing reading and writing skills in grades sixth, seventh, and eighth?

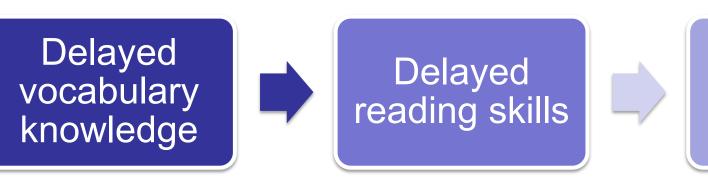
### The Problem

- Delayed literacy skills among the Deaf/Hard of Hearing students have been a problem for over 50 years in Deaf Education, yet very little research has been conducted (Guardino et al., 2014).
- \* "Research in the United States has shown the median reading" ability of a deaf adolescent leaving secondary school is at the level of a fourth grade and that only ten percent of students develop age-appropriate skills" (Dammeyer, 2014, pp.108-109)
- There is a lack of research in the area of Deaf Education as a whole.
- Previous studies are not being replicated; therefore they cannot be proven evidence-based.
- In previous research, there is a common trend of teachers for the Deaf/Hard of Hearing feeling unsupported in teaching reading, reading comprehension, and writing.
- Deaf/Hard of Hearing students cannot rely on phonological awareness to listen, decode and read vocabulary in order to develop literacy skills; therefore, the standard curriculum does not suffice.
- Previous research suggested that students who had lower English literacy skills did not have access to ASL acquisition between the ages of birth and three years old. 95% of deaf children are born to hearing parents who are not fluent in sign language and therefore cannot read to their child. The lack of exposure to vocabulary can reduce the Deaf/Hard of Hearing child's word knowledge development, later hindering language development which directly affects literacy skills.

California Lutheran University

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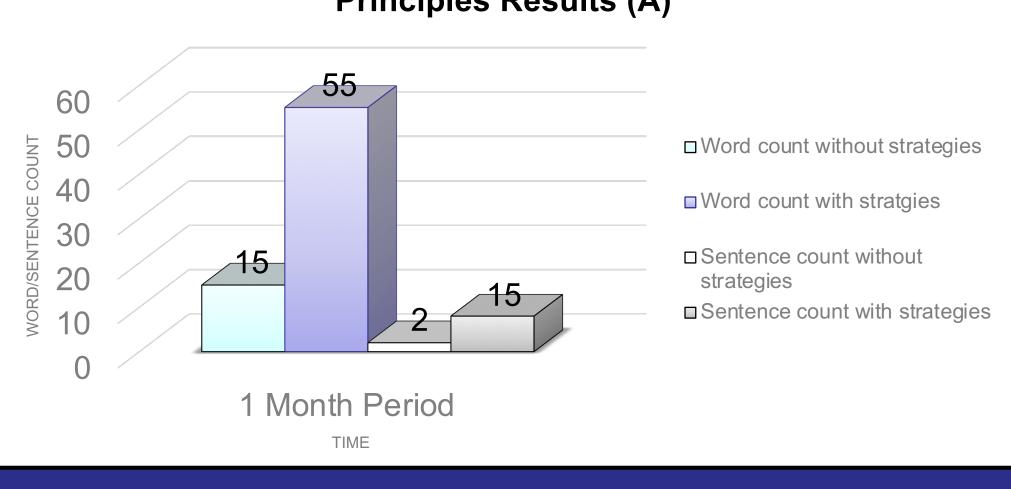
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Delayed writing skills

### **Purpose of the Study**

The purpose of this study was to examine and describe the impacts of using evidence-based curricula, including supplement curricula, systematic strategies, and approached-based vocabulary interventions that support Deaf/Hard of Hearing learners and whether they increase reading and writing skills in the middle school setting.



#### Writing With and Without SIWI Seven Guiding **Principles Results (A)**

### Methodology

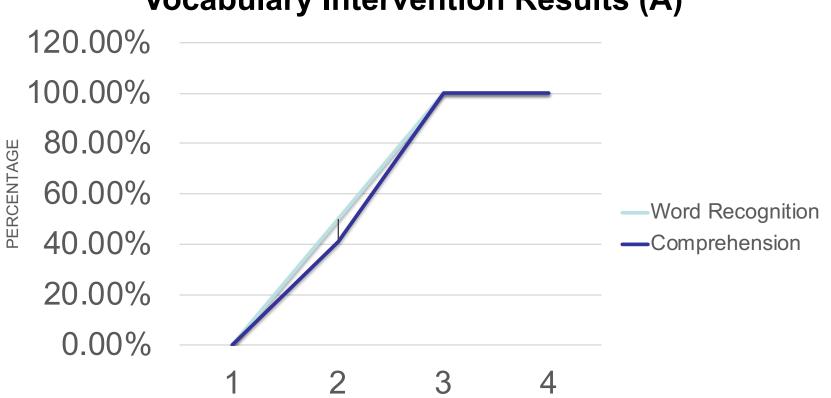
The research design of this study followed a quasi-experimental methodological approach using both qualitative and quantitative data collection.

The qualitative data consisted of a pre-test, post-test, observation notes, and participant writing samples.

The quantitative data collection consisted of a participant survey at the beginning and end of the study using a Likert rating scale.

The pre-test was given to all participants prior to using a supplemental curriculum, systematic strategies, and approached-based vocabulary interventions for a specific English Language Arts lesson.

The post-test was given after one month of using supplemental curriculum, systematic strategies, and interventions.



TIME/WEEK

### **Vocabulary Intervention Results (A)**



## Results

- The study results were based on each participant's vocabulary knowledge and writing growth versus scores. The determined growth was recorded and plotted on a graph then converted to an overall percentage.
- During the pre- and post-test assessments for the supplemental writing curriculum, participants growth was measured with and without incorporating the seven guiding principles from the Strategic and Interactive Writing Instruction (SIWI). The participants showed an overall growth average of 610 percent in word count and an overall growth average of 507 percent in constructing English sentences.
- The approach-based vocabulary intervention pre- and posttest assessments measured participant growth in vocabulary knowledge in the areas of word recognition with an overall growth average of 100 percent accuracy and word comprehension with an overall growth average of 100 percent accuracy.
- Both assessments measured the number of correct responses over time during the baseline, intervention, and follow-up sessions.

### Implications

- It was determined that direct instruction, visuals, access to ASL, and explicitly teaching the lessons using the approached-based intervention was pivotal for participants struggling with language and literacy development in both English and ASL.
- The participant's consistent growth with word and sentence count indicated that some aspects of the seven guiding principals of SIWI were crucial to the participants development; however, it is undetermined as to which of the seven guiding principles had the most impact on language and literacy growth.
- This study could hypothesize that strategic instruction, the interactive component, and linguistic and metalinguistic development best supported language and literacy growth.
- Future research could further assess each of the seven guiding principles from SIWI to determine their unique contribution to the writing process.

"If students can't learn the way we teach, we teach the way they learn." Ignacio Estrada