

# Special Day Classroom Teachers Perspective of Deaf and Hard of Hearing Students Understanding of Mathematical Word Problems

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## ABSTRACT

Previous research has primarily focused on students' achievement on mathematical word problems and their barriers to completing these problems. While it is essential to understand these challenges that Deaf and Hard of Hearing (DHH) students face when completing mathematical word problems, little research is available from the perspective of their Special Day Classroom teachers. This study examined teachers' instruction, preparedness, understanding of student's challenges, and support when teaching mathematical word problem-solving in DHH students.

## INTRODUCTION

- Consistent evidence from research studies between 1980 and 2000 indicates that children with hearing loss lag behind their hearing peers by 2 to 3.5 years in mathematics (Swanwick et al., 2005).
- In addition, research shows that students with a hearing loss have trouble interpreting relations between the numbers and the content of word problems (Cho and Chung, 2012).
- When Pagliaro 1998, began analyzing the collected data from their study, it showed a continued lack of preparation among DHH teachers in mathematics, which influences their effectiveness in the classroom.

## AIM

- In this quantitative research study, the goal is to address the problems related to Deaf and Hard of Hearing Students underachievement in mathematical word problem-solving skills.

## METHOD

### Participants

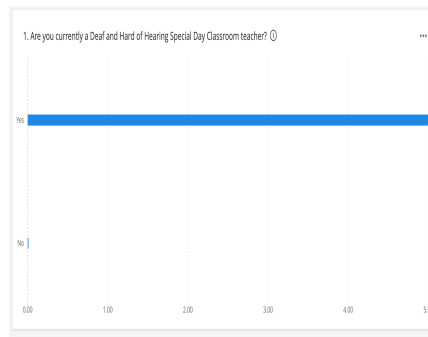
- 5 participants acquired through Mechanical Turk data collection website
- 5 female
- Ages ranged from 26–35 years old
- All participants are Def and Hard of Hearing Special Day Classroom teachers
- 1–10 Years of Experience in a Special Day Classroom

### Materials

- Access to an electronic device to participate in survey

### Procedure

- Participants will be recruited through a snowball sampling to recruit participants to join the study.
- This research study will utilize an electronic survey.
- The survey will include questions where the participants will answer using a Likert Scale from 1–4 and open-ended questions.



## RESULTS

- The data collected shows that teachers receive adequate Professional Development and feel confident when teaching mathematical word problems.
- Results also show that teachers believe their students are unable to successfully complete a mathematical word problem.

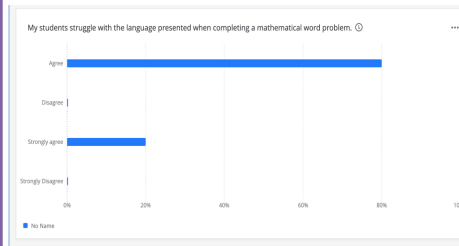
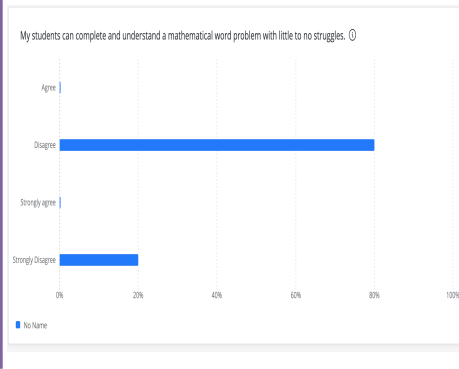


Figure1: Image selected to correspond with example of struggle students face.



## DISCUSSION

- The results show that Special Day Classroom teachers feel prepared to support and provide instruction to their DHH students on mathematical word problems.
- Data also shows that teachers feel their students do not understand nor can they independently complete a mathematical word problem.
- Future research should include a larger sample of DHH teachers including Middle and High school to continue to gather data to support the findings of this study.

## REFERENCES

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