Accessible Materials Project: Sign Language Video Creation and Instruction

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Learning Objectives

The participant will be able to:

1. summarize the process used by the Accessible Materials Project to create accessible materials for students who are deaf/hard of hearing.

2. apply this accessible materials model to the distinct needs of his or her student population.

3. identify the evidence base in support of materials presented in sign language.
Roadmap

Overview:
• Children who are Deaf/Hard of Hearing (D/HH)
• Evidence-based practices
• Accessible Materials Project
Candy Quiz!!

• What do you know about students who are deaf/hard of hearing?
DHH Children

**Language**
- Language delays (ASL and English)
- Lack of fluent language models and access

**Literacy**
- Reading delays
- Lack of English foundation
Children who are D/HH

- 1-3 children per 1,000 are D/HH
- Some use listening and spoken language
- Some use sign-supported speech
- Some use American Sign Language (ASL)
- Some use more English-like signing
Children who are D/HH

Language models

>90% of parents are hearing

Few parents sign adequately

Few teachers sign adequately

Some interpreters do not sign adequately

Many are the only D/HH child in school

80% of DHH students attend local schools
Candy Quiz!!

• What do you know about evidence-based practices?
Evidence-based Practices

No Child Left Behind Act (NCLB, 2002)

Common Core Standards Initiative (2010)

Individuals with Disabilities Education Improvement Act (IDEIA, 2004)
Evidence-based Practice

Systematic, instructional research

Functional relation between teacher performance and student outcomes

Experimental or quasi-experimental (e.g., intact classroom) research settings

(Odom et al., 2005)
Evidence-based Practice

Need collection of research studies

Each study must meet indicators

Single case and group designs
Single Case Design Studies

Participant is compared to himself across time

- participants
- setting
- repeated measures
- reliability
- fidelity
- internal validity
- external validity
- social validity
- replications (3)
Single Case Design (SCD)

>5 SCD studies published in peer reviewed journals

>20 combined participants included across studies

‘Evidence-based’

>3 different researchers in 3 different geographical locations conducted the studies
Group Design

- Compare a functional relation across a group of participants

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**‘acceptable’ quality**

- All but 1 Essential and 1+ Desirable Indicators

  - **Essential:**
    - Participants (D/HH)
    - Fidelity
    - Multiple measures
    - Generalization
    - Data Analysis

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**‘high’ quality**

- All but 1 Essential and 4+ Desirable Indicators

  - **Desirable:**
    - Attrition
    - Reliability
    - Validity
    - Maintenance
    - Data Analysis
Evidence-based Practice

Stories in sign language + Repeated viewings of stories = Increased language skills
Increased math vocabulary

Repeated viewings of math stories in sign language

Pre-teaching math vocabulary

(Cannon, Fredrick, & Easterbrooks, 2010; Guardino, Cannon, & Rafferty, under review)
Pre-teaching

target word in print → target word in sign → example and non-example → showing students where the word appeared in the text
Revisited viewings of ASL stories + Teacher mediation and student practice = Classifier production during narrative retell

(Beal-Alvarez & Easterbrooks, in press)
ASL Classifier

- Specific structure
- Used frequently in narratives
- “The boy climbed the tree.”
Teacher Mediation

- Scripted mediation during viewings
- Teacher prompting
- Teacher modeling
- Student practice
- Teacher feedback
Increased their ASL productions
Accessible Materials Project (AMP)

All ASL materials in previous studies created by AMP

Initially, Atlanta Area School for the Deaf (AASD), media and technology department

School Improvement Grant

Collaboration between AASD and the Georgia School for the Deaf (GSD)
Candy Quiz!!

• What do you know about schools for the deaf in Georgia?
Collaboration

AASD
- Day school in Clarkston, GA
- About 200 students, pre-k-12th
- About XX instructional staff

GSD
- Residential school in Cave Spring, GA
- About 110 students, pre-k-12th
- About 30 instructional staff
Accessibility

Example AMP story

Watch the story

Retell the story
<table>
<thead>
<tr>
<th>Retell the story</th>
</tr>
</thead>
<tbody>
<tr>
<td>Was retell difficult?</td>
</tr>
<tr>
<td>Why?</td>
</tr>
<tr>
<td>What did you understand?</td>
</tr>
<tr>
<td>How could you better understand the story?</td>
</tr>
</tbody>
</table>
AMP Goal??

Develop texts that are accessible for children who are DHH through the incorporation of sign language.
AMP develops accessible materials for students who are deaf/hard of hearing by presenting text in sign language.
AMP

1931: Congress’ provision for the development of accessible books and materials for individuals who are **blind**

1966: Congress expanded to **others with disabilities** with Public Law 89-522

Provide books published in formats that included Braille, audio recordings, or **any other form**

D/HH children’s primary access to language is through a visual mode (sign language)

ASL
2004 Sundance/Newbridge Publishing granted permission for AASD to render their guided readers into a digital video format

Addition of sign language to support the printed text

Pictures (Read-Aloud) and Pictures/text (Sign-to-Print) in background
AMP History

To date:

- >350 guided readers
- >50 popular trade books
- DVDs accompany companion texts
- >50 videos of personal narratives signed by deaf community members
Guided Readers

- Pre-primer through a 2nd grade level
- Higher levels correspond with Accelerated Reader tests
- Available for student check-out from the Media Center
- Free DVDs with purchase of books
### Mediated Learning

**Students access higher instructional reading levels**

<table>
<thead>
<tr>
<th>Access through the visual channel</th>
<th>builds background knowledge</th>
<th>Provides support for decoding, fluency, and visualization</th>
</tr>
</thead>
<tbody>
<tr>
<td>promotes accelerated progress</td>
<td></td>
<td></td>
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</tbody>
</table>
Guided Readers

available for limited distribution under Fair Use guidelines

information on titles, availability, and guidelines for distribution

www.facebook.com/accessiblematerialsproject

amp@doe.k12.ga.us

YouTube

Schooltube
Suddenly, I became very ill with a high fever.

Someone was hurt before you, wronged before you, hungry before you, frightened before you, beaten before you, humiliated before you, raped before you... yet, someone survived. You can do anything you choose to do.

The shoe is **blue**.

**Mount Everest**

Highest mountain peak?
The ultimate goal of AMP . . .

the inclusion of students who are DHH as *individuals with a print disability* under National Library Service legislation, thereby creating an avenue for wider distribution of accessible texts to students, families, and educators.
Examples of the diverse materials developed to date
• Deaf experience stories
• Motivational quotes
• AlphaKids books and DVDs
Accessible Materials Project

• The Road Not Taken
Pair and Share Activity

Divide into small groups (3-4 people)

Discuss how you could use this model to develop accessible materials for a specific group of students

Share with large group
Creation of AMP Materials

• Current AMP staffing and equipment
AMP Survey: How are AMP materials used?

Responses: 62 instructional staff across preschool through high (AASD and GSD)

- 36 hearing, 22 deaf, 2 as hard of hearing, 2 no response
- 128 MS/HS, 45 elementary

Classroom instruction
Looped on TVs at school
Home setting

Language, content knowledge, ASL skills, reading skills
How the AMP materials are used

**Home**
- Early intervention
- DVDs and books
- DVD players on buses

**Professional Learning**
- Teachers and interpreters
- ASL skills
- Can use with computers, iPads®, iPhones®, Androids®
I use the Alpha Kids books with the signed DVDs for guided reading and independent reading.

First, I introduce a book and use a picture walk to engage the students. Students make predictions based on the title and pictures, which we place on a Circle Map (Thinking Map).

Then we read the book together, watch the signed DVD, look at the printed text, and discuss how it was signed on the DVD. We go back and watch parts of the DVD when necessary.

Next, students read the book independently and practice signing it fluently using a signed reading fluency rubric and re-watching the DVD as needed.

Then the students videotape themselves and self-evaluate the fluency of their rendition.
Teacher Feedback

Students also use the AMP materials independently for homework.

- They watch the Read Aloud version on the DVD first, then read the book and document any unknown vocabulary.
- Next they watch the Connect to Print version and figure out the meaning of the unknown vocabulary.
- They read the book again and take an Accelerated Reading test to monitor their independent reading across time.
- Students also check out Alpha Kids books and the signed DVD for independent reading during class and at home.
AMP materials are the foundation of my 3rd/4th grade bilingual classroom and are an incredibly effective tool to develop my students’ English and ASL skills.

I use the accessible books and other resources in ASL on a regular basis in my classroom to give my students access to strong ASL models and the opportunity for repeated viewings.

Additionally, these resources are a way to access curriculum standards that would be difficult using grade-level English-only texts.

Using these materials, my students are able to watch high level content and participate in standards-based activities and discussions.
I use the early math guided reading series in the classroom. First I share the book and video in a whole group setting. I emphasize the vocabulary and concepts in the text (in English) and video (in ASL).

Then, I put the text and DVD in a learning center for students to engage in repeated viewings.

Students are expected to answer a journal prompt based on what they’ve learned about the targeted math concept from the text/video.
Thank you!

• Questions?
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