Reading Instruction for Deaf Students

An Honors Thesis (HONRS 499)

by

Devon Gilbert

Thesis Advisor
Dr. Diane Bottomley

Ball State University
Muncie, Indiana

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Abstract

Deaf individuals generally have difficulties in the area of reading. Deaf students often have a very difficult time developing their reading abilities. There are five main areas of reading in which deaf students struggle. These areas include phonemic awareness, phonics, fluency, vocabulary, and comprehension. There are a variety of strategies that have proven to be effective for deaf students in these areas. Incorporating these strategies in reading instruction will help to develop the reading abilities of deaf students. This paper will focus on deaf students whose main form of communication is American Sign Language. Different areas of reading instruction, instructional strategies, and sample modified lesson plans are included in this thesis.
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Rationale:

The overall purpose for completing this paper is to build a deeper understanding of the needs of deaf students in the area of reading. Deaf students have specific needs that must be met by using effective instructional strategies. By focusing on these specific needs and instructional strategies, this paper addresses how best to teach reading to deaf students. Lesson plans were developed using effective reading strategies that can be implemented in an entire class and also accommodate the needs of deaf students. These lesson plans can serve as a basis for developing the best possible reading instruction for all children, specifically deaf students.
Reading Instruction for Deaf Students

Reading is a very difficult area for many deaf students. Deaf students, on average, make about one-third of yearly progress as compared to their hearing peers. “It takes three years to progress one level in reading.” This results in the many deaf students who read at the fourth grade level upon graduation (Schirmer, 2000). This comes from the fact that deaf children do not have adequate access to phonological code and print-sound mapping (Goldin-Meadow, 2001). Deaf children also generally have a delayed access to any form of language. This paper will focus on deaf students whose main form of communication is American Sign Language (ASL). Different areas of reading instruction, instructional strategies, and sample modified lesson plans are included in this paper.

American Sign Language offers deaf students a way to communicate and express themselves, but its structure is much different from the English language structure that they must use to read and write. Teachers must focus on teaching deaf students the mapping between ASL and print (Goldin-Meadow, 2001).

The National Reading Panel has identified five areas that hold the most importance in reading instruction. These areas are phonemic awareness, phonics, fluency, vocabulary, and comprehension (National Reading Panel, 2000). These five areas greatly affect reading success and should be considered when planning reading instruction. These five areas, however, have slightly different implications for deaf students. Because deaf students do not have auditory access, phonological
awareness and phonics will have less emphasis. Information must also be presented in a way, such as ASL, so that deaf students can have access.

Phonemic awareness and phonics are closely linked. Phonemic awareness is the basic understanding that speech is made up of individual sounds (Tompkins, 2010). A student who is phonemically aware understands that words are composed of phonemes, or units of sound. Children develop phonemic awareness through identifying and categorizing sounds in words, substituting sounds to make new words, blending sounds to form words, and segmenting words into sounds. These skills will help students to develop the ability to notice and manipulate the sounds of oral language (Tompkins, 2010). Phonemic awareness is an important aspect to learning sound-symbol relationships.

Phonics is the relationship between sounds of speech and spelling patterns (Tompkins, 2010). Phonics involves the classification of consonants and vowels, the blending of sounds into words, and phonics rules. Phonics helps students to decode words when reading by using rules to make generalizations.

Phonemic awareness and phonics are difficult areas for deaf students. Most deaf students use non-speech-based recoding strategies based on fingerspelling or visual information (McAnally, 2007). These students do not focus on letter-sound correspondence, but rather on the actual letter and its ASL sign. In this case, phonemic awareness and phonics are of little importance to deaf students. Studies show that some deaf students use speech-based code, but there is no evidence as to how these students gain access to a phonological code (McAnally, 2007). Due to this, there is no knowledge how to lead deaf students to the development of phonological
processes. Difficulties in phonemic awareness and phonics stem from inadequate auditory access for print-sound mapping (Goldin-Meadow, 2001).

Fluency is the ability to read efficiently and with purpose. Components of fluency include the ability to read quickly, accurately, and with expression (Tompkins, 2010). Fluency involves automaticity and word-identification. Students should be able to automatically recognize words. These words are known as sight words, meaning words students automatically know by sight. An important aspect of fluency involves developing reading stamina by providing students with many opportunities to read. Fluency is important because it increases comprehension, which is the ultimate goal of reading (Tompkins, 2010).

Deaf students tend to be less fluent than their hearing peers because they lack automaticity and decoding skills (McAnally, 2007). Deaf students spend much of their attention on identifying words in a text, which takes away from the attention they should be giving to comprehension. Lack of fluency skills often causes poor comprehension.

Vocabulary involves learning the meaning of new and unfamiliar words. Vocabulary is very important in the development of reading because larger vocabularies tend to lead to more capable readers (Tompkins, 2010). Vocabulary instruction not only includes teaching new words, but also teaching students strategies to figure out unfamiliar words on their own.

Deaf students often have limited exposure to language. Because of this, their vocabularies are usually far below their hearing peers. Deaf students also acquire new words at a much slower rate than most hearing students (McAnally, 2007).
Often times, deaf students have no skills or understanding of how to use context clues or other strategies to figure out the meanings of unknown words (McAnally, 2007). Vocabulary is also related to comprehension, so deaf students often have poor comprehension as a result of a lack of vocabulary.

Comprehension is the ultimate goal of reading. Comprehension is the thinking process that helps students find meaning in a text. It requires different levels of thinking, including literal, inferential, critical, and evaluative (Tompkins, 2010). Students need to be taught a variety of strategies to help them comprehend a text. These strategies include activating background knowledge, connecting, determining importance, drawing inferences, predicting, questioning, repairing, setting a purpose, summarizing, and visualizing (Tompkins, 2010). All of these strategies help students engage with a text to construct meaning.

Deaf students often struggle with comprehension and have poor use of comprehension strategies. Many of these difficulties stem from the syntactic structures of the English language (McAnally, 2007). ASL syntax is very different from English syntax. This makes English much more difficult for deaf students to read and comprehend. Many deaf students view reading as a decoding task. They think that the main goal of reading it to recognize every word on the page whether they understand what they have read or not (McAnally, 2007). More emphasis needs to be placed on comprehension strategies. Two strategies with which deaf students have much difficulty are inferential skills and monitoring strategies (McAnally, 2007). Students are not aware how to repair understanding when there
has been a breakdown in comprehension. Deaf students need much more support in the area of comprehension.
Instructional Strategies

There are many instructional strategies that appear to support the needs of deaf students in reading. Many of the strategies are effective for teaching hearing children, but they can be modified to best meet the needs of deaf students. Pairing American Sign Language with several strategies increases student understanding and success. There is no research on phonemic awareness and phonics strategies that are effective for deaf students. The following strategies have shown to be effective when teaching deaf students in the areas of fluency, vocabulary, and comprehension.

When teaching word identification, it is important to pair the print form of the word with the sign representation. This can be represented through sign print, spelling the word using the ASL alphabet, or the actual sign for the word. It may be beneficial to photograph the child signing the word and pair it with the print form. This strategy is very beneficial for deaf students because it helps them develop the ability to recognize words automatically (McGough, 2005). Students may also benefit from labeling objects in the classroom with both print and sign representations. This strategy also helps students to learn the mapping between ASL and print.

Repeated reading and predictable texts are two ways to help deaf students develop fluency. Predictable books give students the opportunity to practice reading high-frequency words (McAnally, 2007). This will help to increase their word recognition skills. Repeated reading is a strategy in which students reread the same
passage to increase fluency (McAnally, 2007). This strategy helps students to develop speed and automaticity when reading. It also boosts children’s confidence when they feel that they can read the text successfully. This strategy can be used with both hearing and deaf students and can be very effective.

In order to practice reading with expression, deaf students need to be given the opportunity to “read aloud” stories in ASL. Students can demonstrate the ability to show expression in their signing or in facial expressions and body language. Reading with expression can also be practiced through dramatic performances, such as Readers Theatre. Readers Théâtre allows children to participate in a dramatic performance of a script. Students can use published scripts or write their own. Students rehearse their lines and perform for the class. This allows deaf students to read text in English and perform using ASL. This provides deaf students with an opportunity to practice to transition between English and ASL. It also allows students to practice using expression when signing.

Vocabulary development in deaf students can be supported through the use of various instructional strategies. Visual displays can help students to understand new vocabulary. Word maps and semantic maps are strategies in which vocabulary words are connected with definitions or other words that relate to them (Shirmer, 2000). This helps students to connect new words to previous knowledge and ideas. It may also help students to include a picture of the child signing the vocabulary word to make the connection in ASL.

Concept analysis is a strategy that helps students to make generalizations about new words or concepts so that they can apply them in a variety of situations
Students concentrate on identifying both critical and noncritical attributes or characteristics of the concept. Using those characteristics, students think of examples and nonexamples of the concept. This allows students to use the new words in different situations. This strategy is effective for both hearing and deaf students. It provides extra support for deaf students who often have difficulty generalizing concepts and using them in different situations.

An important part of vocabulary instruction with deaf students is teaching them how to use context clues to determine the meaning of unfamiliar words. This can be taught through modeling and supported with other strategies. One such strategy is the cloze procedure. In this strategy, important words are left out of a sentence. Students must use clues from the sentence to determine which word would make sense and fit best in the sentence. This strategy encourages students to look at context clues, which will ultimately support them in vocabulary development. This strategy is very beneficial for deaf students because they often have difficulty using context clues. This strategy teaches these skills explicitly as it requires the students to look at the whole sentence to determine the missing word or the meaning of an unfamiliar word.

There are many strategies that support deaf students in the area of comprehension. One such strategy is the use of graphic organizers. Graphic organizers help students to organize information in a visual way. Graphic organizers include KWL charts, Venn diagrams, double-entry journals, webs, and many, many others. Graphic organizers can also be created with a specific student’s needs in mind. Story maps and pattern guides are also very beneficial for deaf students. Story
maps focus to understand narrative structure by focusing on sequence of events. This helps students understand what to look for when reading a story or narrative text. Pattern guides help students to organize information from expository texts. Students can use time lines, comparison chats, and cause-and-effect charts to organize this information (McAnally, 2007). Graphic organizers give deaf students the opportunity to visually organize information so that it is easier to understand. Using graphic organizers can be beneficial before, during, and after reading. Graphic organizers are effective with both hearing and deaf students, but are especially beneficial for deaf students who use a visual language as these organizers present information in a visual way. For young deaf learners, it may be beneficial to include both pictures and words in graphic organizers.

The Self-Monitoring Approach to Reading and Thinking, or SMART, supports students who have difficulty monitoring and repairing understanding, which is a problem many deaf students have. In this strategy, students read a passage and stop at the end of each paragraph so that they explain to themselves what they read in their own words. If the students understand what they read, they will place a check mark by the paragraph. If the students do not understand what they read, they will place a question mark next to the paragraph. After they have finished reading the passage, the students will reread the paragraphs that they didn’t understand. The students will identify the problem that has caused the breakdown in comprehension and choose a repair strategy to fix the problem (McAnally, 2007). This strategy helps students to develop metacognitive skills so that they can monitor their own comprehension. It is effective with all students, but especially beneficial for deaf
students who often lack self-monitoring strategies. This strategy requires students to check for understanding and reread portions that they do not understand.

The incorporation of ASL in reading instruction with deaf students is extremely important. This increases their comprehension and also gives them more opportunities to transition between ASL and English. Providing students with a brief summary in ASL prior to reading increases comprehension greatly (McGough, 2005). Giving students the opportunity to retell stories in ASL enhances comprehension because it allows students to be more thorough and expressive (McAnally, 2007). One of the most important uses of ASL in reading instruction with deaf students is during read alouds. An instructional aid or interpreter can interpret the story in ASL making sure to keep the print visible. This not only increases comprehension, but also gives students the opportunity to see the transition between ASL and English print (Schirmer, 2000).

A final strategy that has proven to be very effective with deaf students is the language experience approach. In this approach, the student signs a story or experience and the teacher writes the story or experience on a piece of paper. The student then reads the story aloud using ASL. This approach helps students to begin transitioning between English and ASL. Students are also able to see how their story in ASL should be written in English. Teachers may record a copy of the story exactly as dictated, following ASL structure, and also using English structure. This will allow students to see the different between the two language structures and how they might transition between the two (Schirmer, 2000).
Sample Modified Lesson Plans

The following lesson plans have been developed with the previous strategies in mind. These lesson plans have been created to teach to an entire general education class. Modifications for each lesson are included in order to provide effective instruction for deaf students. As deaf students get older and develop more strategies for reading, they will require fewer modifications for lessons.
Lesson Plan #1 (Kindergarten-1st grade)

Modifications in Italics

Standards:

K.RF.3 Know and apply grade-level phonics and word analysis skills in decoding words.

K.RF.4 Read emergent-reader texts with purpose and understanding.

K.R.I.1 With prompting and support, ask and answer questions about key details in a text.

Procedures

(Use of an interpreter for questions and discussions)

Before Reading Strategies (Introducing)
Activating and assessing prior knowledge and to develop background if necessary
- Discuss the topic of seasons with the class. Ask students about their experiences, thoughts, attitudes, and opinions.

Help Students set a purpose for reading
- Ask the students to think about their favorite season. Think about why it is your favorite season and the types of things you like to do during the season. Give the students some time to think about these questions.

During Reading Strategies (Reading and Responding)

Teach Strategy (e.g., summarizing, predicting, etc.-see standards for list).
- Language Experience Approach: Work with students in small groups or individually and ask them about their favorite season. Ask questions to prompt more detail.
  - As the student discusses their favorite season, record their dictation. Record the student’s dictation as closely as possible, but make appropriate grammar changes. (The student will dictate in ASL. Create two written stories. First, record the student’s dictation verbatim using ASL grammar structure. Next, record the dictation using English grammar structure.)
o Read the text aloud to the student and point to each word. Read aloud with expression and intonation. Allow students to practice reading along. (*Read both stories aloud. First, read the ASL structure story. The story should look just as the student signed it. Next, read the English structure story. Point to each word and sign the word. Explain that the first version used ASL and the second version used English. Discuss the differences between the two structures and when each structure should be used.*)

o Ask the student to read the text aloud. Give feedback and help when necessary. (*Allow the student to read the story aloud using both ASL and English structures. Discuss the transition between the two. Provide many opportunities for the student to transition between ASL and English.*)

- **Prompting Questions:**
  o What is your favorite season?
  o Why is it your favorite season?
  o What are some of your favorite things about that season? What do you like the most about it?
  o What types of things do you like to do during that season?
  o Do you have any special memories from that season?

**After Reading Strategies (Extending)**

*Use the understandings about the theme*

- Ask students to share their favorite seasons. Share why it is your favorite season and the types of things you like to do during that season.
- Discuss the students’ favorite seasons. Do we all have the same season?
- Do you think there is something positive or good about every season?
- Many people like different seasons for different reasons.
Lesson Plan #2 (2nd - 3rd grade)

Title and Author of Reading Material: **Dolphin** by Robert Morris

**Summary of Reading Material:** Dolphin is an informational book about the lives of dolphins. The text describes the many different characteristics of dolphins and follows the life of a newborn dolphin. *(provide this summary in ASL before the students begin reading)*

**Theme of Reading Material:** Dolphins work together and care for each other just like people do.

**Standards:**

K.RF.3 Know and apply grade-level phonics and word analysis skills in decoding words.

K.RF.4 Read emergent-reader texts with purpose and understanding.

K.RI.1 With prompting and support, ask and answer questions about key details in a text.

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**Procedures**

*(Use of an interpreter for questions and discussions)*

**Before Reading Strategies [Introducing]**

Activating and assessing prior knowledge and to develop background if necessary

- Give a quick book talk about the book. The book will describe different characteristics of dolphins. It will follow the life of a newborn dolphin.
- Ask the students what they know about dolphins. Fill out the “K” column in the KWL chart. Write down basic facts to model for students.

Help Students set a purpose for reading

- What kind of animals do you think live in a coral reef? Let’s read to find out.
- Ask the students what they would like to know about dolphins. Fill out the “W” column in the KWL chart. Write down what you want to know to model for the students.
Teaching Vocabulary (if needed in order to understand the main gist)
  o Blowhole- hole on top of dolphin for breathing through, flukes-part of a
dolphins tail used for swimming and moving, several- many, protect-keep
safe from harm, wounded-injured, heal-get better or healthy, danger-
possibility of trouble or harm
  o Cloze procedure: Display sentences from the book or create sentences
using the vocabulary words. Make sure the sentences provide context
clues about the vocabulary words' meanings. Leave a blank where the
vocabulary word should be. Ask the students to look at the words and
clues in the sentence to determine which word belongs in the blank. Model
this process for the students by thinking aloud. Allow students to make
guesses about the words. Place the vocabulary word in the blank. Ask the
students to look at the context clues again. Allow the students to make
guesses about the meaning of the words and discuss the actual meaning of
the words. (Once the meanings of the words have been determined, take a
picture of the student signing the word. Pair the picture with the word and
the definition in the student's words.)

During Reading Strategies (Reading and Responding)

Teach Strategy (e.g., summarizing, predicting, etc.-see standards for list).
  • Activating Background Knowledge/Setting a Purpose/ Identifying Details:
The KWL chart will help with all three of these strategies. I will model how to
use each section of the KWL chart.
  o K: This column of the chart will help students to activate their background
knowledge. I will model how to use this strategy by filling out my own
KWL chart. I will write down what I already know about dolphins in the
K column. I will ask the students to write down what they already know
about sea animals in the K column.
  o W: This column will help the students set a purpose for reading. They will
write down what they want to learn about dolphins and hopefully they will
learn some of these things in the text. I will model this strategy by writing
down what I want to learn about sea animal and coral reefs. I will ask the
students to do the same.
  o L: This column will help the students identify details about the animals
from the text and recall those details by writing them down in the KWL
chart. We will discuss different things we learned about dolphins while
reading the book. I will ask the students to write down what they learned
from the book in the third column. They will have to recall details from
the text to complete this portion of the chart.
  o (Allow the student to pair pictures of signs with the explanations in the
graphic organizer)
• **Literature Reflection:** (these questions will be asked during the class discussion throughout the book)
  - Why are the dolphins excited?
  - What are baby dolphins called? Female dolphins? Male dolphins?
  - Why must dolphins breathe air? How do they breathe air?
  - Are the dolphins having fun swimming next to the ship? How do you know?
  - How do the dolphins rest? Where do they sleep?
  - How do dolphins hunt for food? What kind of food do they hunt?
  - How do dolphins warn the other dolphins that there is danger?
  - How do the dolphins protect the baby? Why do they protect him?
  - Who takes care of the baby when the mom is away?
  - Why does the mom let the fish that she caught go?
  - Why do the dolphins swim to the shrimp boat?
  - How did the dolphins help the baby after he got hurt?
  - How old will the baby dolphin grow to be?

**After Reading Strategies (Extending)**

Use the understandings about the theme of the text.

- I will ask the students to write down what they learned from the text in the third column on his KWL chart. I will model this strategy by writing down what I learned from the book.
- What were some interesting facts you learned about dolphins? Were you surprised by anything? Why or why not?
- Did the dolphins work together in the book? Explain. Did the dolphins seem to care for each other in the book? Explain.
- Do dolphins seem similar to people? How?
- Dolphins work together and care for each other just like humans do.
- What are some ways you work together and care for each other in this class?

Use the literature as a model for writing.

- Writing prompt: What was the most interesting thing you learned about dolphins?
- Writing prompt: What are some things you have in common with the dolphin in the story? How is the dolphin like you?
- Students will have the opportunity to share their writing with the class in an author’s chair. *(Provide an opportunity for the student to “gloss” their writing (write the story in ASL structure). This will encourage the student to practice the transition between English and ASL. The student will display the English version of the writing to the class and use ASL to read aloud to the class.)*
Lesson Plan #3 (4th-5th grade)

Title and Author of Reading Material: The Hard-Times Jar by John Holyfield

Summary of Reading Material: This book is about a young girl from a family of migrant workers. Her family moves around a lot and is very poor. The girl loves to read, but she cannot afford real books. Instead, she writes her own books. Her dream is to one day own real books. (provide this summary in ASL before the students begin reading)

Theme of Reading Material: Sometimes you get rewarded for doing the right thing.

Standards:

• 4.RF.4 Read with sufficient accuracy and fluency to support comprehension.

• 4.RL.1 Refer to details and examples in a text when explaining what the text says explicitly and when drawing inferences from the text.

• 4.RL.3 Describe in depth a character, setting, or event in a story or drama, drawing on specific details in the text (e.g., a character's thoughts, words, or actions).

• 4.W.3 Write narratives to develop real or imagined experiences or events using effective technique, descriptive details, and clear event sequences

Procedures

(Use of an interpreter for questions and discussions)

Before Reading Strategies (Introducing)

Activating and assessing prior knowledge and to develop background if necessary

• I will explain that this story is about a young girl from a family of migrant workers. The girl loves to read, but cannot afford real books.

• I will ask the students what they would do if they could not have real books.

Help Students set a purpose for reading

• Do you think the girl will ever own a real book? Let's read to find out.
• I will remind the students to think about what Emma might be thinking or feeling throughout the story.

Teaching Vocabulary (if needed in order to understand the main gist)
  o Migrant workers: I will explain to the students that migrant workers are people who move away from their homes to work during different seasons. Emma’s family moves away from their home to help harvest crops or pick fruit. I will explain that migrant workers are very poor and do not have much money. I will show students pictures of migrant workers so that he can visualize what this concept means.
  o There is no sign for migrant workers. After discussing the meaning of migrant workers and looking at pictures of migrant workers, allow the student to create their own sign for this concept.
  o Allow the student to create a concept map to gain an in-depth understanding of the word.

During Reading Strategies (Reading and Responding)

Teach Strategy (e.g., summarizing, predicting, etc.—see standards for list).
  • Character Analysis/Open-Mind Portrait: I will ask the students to read the story silently or in pairs. (Ask the student to use the SMART strategy when reading to monitor comprehension) After each page, we will stop and discuss the story as a class. Throughout the story, I will ask the students to reflect on what Emma might be thinking or feeling. I will model this strategy by thinking aloud. I will state character thoughts and feelings such as, “Emma loves books and wants money to buy a real book. She must feel disappointed that she cannot buy a real book.” I will ask the students to tell me what Emma might be thinking or feeling throughout the story. We will discuss the character and focus on thoughts and feelings.
  o Open-Mind Portrait: I will model how to create an open-mind portrait by creating my own. I will explain and model for the students that the first portrait is a drawing of what Emma actually looks like. I will let the students use pictures from the book to help him. I will then explain and model for the students that the second portrait is a picture of the inside of Emma’s mind. The students can draw pictures or write words explaining what Emma is feeling and thinking. I will make my own open-mind portrait to model this process for the students and monitor the class as they create their own. I will think aloud to explain why I am using particular pictures and words. I will brainstorm and discuss some ideas for the portraits with the class.

  • Literature Reflection: (these questions will be asked during the class discussion throughout the book)
    o Why does Emma make her own books? (literal)
How do you know that Emma’s stories are important to her? (inference)
Do you think Emma would rather write her own stories or have a real book? (inference)
What is the hard-times jar? Explain. (literal)
What do you think Emma wants to do with the money in the hard-times jar? (inference)
Would you like being a migrant worker? Explain. (opinion)
Do you think books are Emma’s favorite things? Explain. (inference)
Why is Emma upset that she has to go to school? (inference)
What makes Emma different from the rest of the students? Explain. (literal)
Do you think Emma will like her new school? Explain. (inference)
Why do you think Emma brought the books home? (inference/opinion)
Do you think Emma will bring the books back? (opinion/prediction)
Do you think it was the right thing for Emma to do? (opinion)
What would you do if you were Emma? (opinion)
Why do you think Emma’s mom gave her money from the hard-times jar? (inference)
What do you think Emma will do with the money? (inference)
Do you think Emma will still write her own books? (prediction)

After Reading Strategies (Extending)

Use the understandings about the theme of the text.

Class Discussion:

- Did Emma do the right thing by returning the books?
- What happened after she returned the books? Explain.
- Do you think Emma was rewarded for doing the right thing? Why or why not?
- Have you ever done the right thing in a hard situation? Explain.
- Were you rewarded for doing the right thing?
- It is important to do the right thing. Sometimes you will even get rewarded.

Use the literature as a model for writing.
- Writing prompt #1: Write your own story like Emma did in the story.

Students will have the opportunity to share their stories with the class in an author’s chair. (Provide an opportunity for the student to “gloss” their story (write the story in ASL structure). This will encourage the student to practice the transition between English and ASL. The student will display the English version of the story to the class and use ASL to read aloud to the class.)


