# Dual Media Case Studies: Perspectives on Literacy by Four Adolescents, Their Teachers, and Family Members

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## Introduction

A student who uses both print and braille for literacy tasks is referred to as a dual media learner. Some students begin literacy instruction as dual media learners, other students begin as print readers and later learn to read braille, and a few students initially read braille and later learn to read print. There is little understanding of how a student with a visual impairment who transitions from print to braille during his/her late elementary or secondary education utilizes both of these learning media in conjunction with technology to complete literacy tasks. The purpose of this study was to gather information directly from secondary students with visual impairments and their educational team regarding the complexities of completing literacy based tasks at school and home as they learn braille due to a recent loss of ability to see and read print efficiently.

## Procedures

We conducted telephone interviews with four triads, each composed of a student who is a dual media learner, their teacher, and a family member of the student. The interviews lasted between 20-65 minutes. Topics covered in each interview included:

* How was the decision made for the student to begin learning braille?
* What methods and materials were used to teach the student braille?
* How does the student and the family member feel about braille?
* What roles does technology play in the student’s current literacy experiences?
* What is the student’s level of efficiency with print, braille, and technology?
* What role will print, braille, and technology play in the student’s future?

## Results

Anna was a repeating sixth grader in her second year at a specialized school for students with visual impairments. She had learned braille during her first year at the specialized school, and at the time of the study, read braille at 12-18 words per minute. According to Anna, “At first, I was nervous, [about learning braille] but now I say ‘yeah’ because I do not have to strain my vision.” She was also learning to use technology, but she struggled with problem solving and completing her homework assignments. Her mother expressed concern that Anna had no way to read and write personal information efficiently.

Brian was a ninth grader with Stargardt's disease who played football and attended general education classes. He began learning braille in 7th grade, and his teacher placed more emphasis on reading braille than writing braille. Although Brian stated that he preferred to use print rather than technology or braille, he did report that “I like that I’m the only person at school who knows braille. I think it is cool to know a different language.”

Chad was a sixth grader with additional learning challenges. He was mainstreamed in general education classes with a 1:1 assistant. According to his teacher of students with visual impairments, Chad was challenged by technology, so his progress was slow. Chad’s teacher used games to motivate him during braille instruction. At the time of the study, Chad read less than 17 words per minute in braille and print. Chad shared: “I only see half of the word [with my electronic magnifier]… I read slower than everybody else.”

Dina was an 11th grade student enrolled in a virtual school and was simultaneously taking college courses. She reported, “Once I couldn't see print any more, I said, ‘I’ve got get on board and learn braille.’” She was able to listen at 250+ words per minute, but she read braille at 18 wpm. She had developed a personalized system that allowed her to be successful in school. She input text with a Braille Note, and then moved the content onto her computer so that she could edit with JAWS and MAGic. She also had two braille pen pals who motivated her and helped her practice.

## Take Aways

* The educational team, including the student, should consider the student’s future braille and technology needs.
* Families and educators should design programs to support students in becoming efficient braille readers and writers in a short time span so that they truly can integrate braille as a tool in their literacy toolbox.
* Students and families need emotional support as the student moves through the transition from print to braille.
* Students may benefit from meeting role models and having ongoing interactions with them.
* Students may benefit from intense technology instruction to ensure proficiency and comfort in using technology.

## Additional Information

This research was funded by a Research Initiative for Summer Enhancement grant from the University of South Carolina. An article about the study is in press with the *Journal of Visual Impairment & Blindness.* It is slated to be in the March/April 2020 issue.