



# Racing to Better Literacy and Language Outcomes for Students Who Are Deaf and Hard of Hearing



Carrie Davenport, Ph.D., Sheila Alber-Morgan, Ph.D. & Moira Konrad, Ph.D.  
Department of Educational Studies

## Introduction

Several studies have shown reading racetracks to be an effective intervention for hearing elementary students receiving special education services and students served in general education settings (Anthony, Rinaldi, Hern, & McLaughlin, 1997; Rinaldi & McLaughlin, 1996).

Davenport, Alber-Morgan, Kranak, and Clancy (2017) extended the literature on reading racetrack games with DHH preschoolers. Modifications include using photographs instead of sight words, and American Sign Language instead of spoken English. Results of this study demonstrate that the game is functionally related to the acquisition. Additionally, students were able to maintain acquired words for up to 4 weeks and generalize to a different format.

Davenport, Konrad, and Alber-Morgan (under review) also extended the literature by implementing a reading racetrack with four DHH kindergarteners. Study results indicate the intervention was effective in increasing sight word acquisition, maintenance, and generalization. All sessions were conducted in ASL (students' primary language).

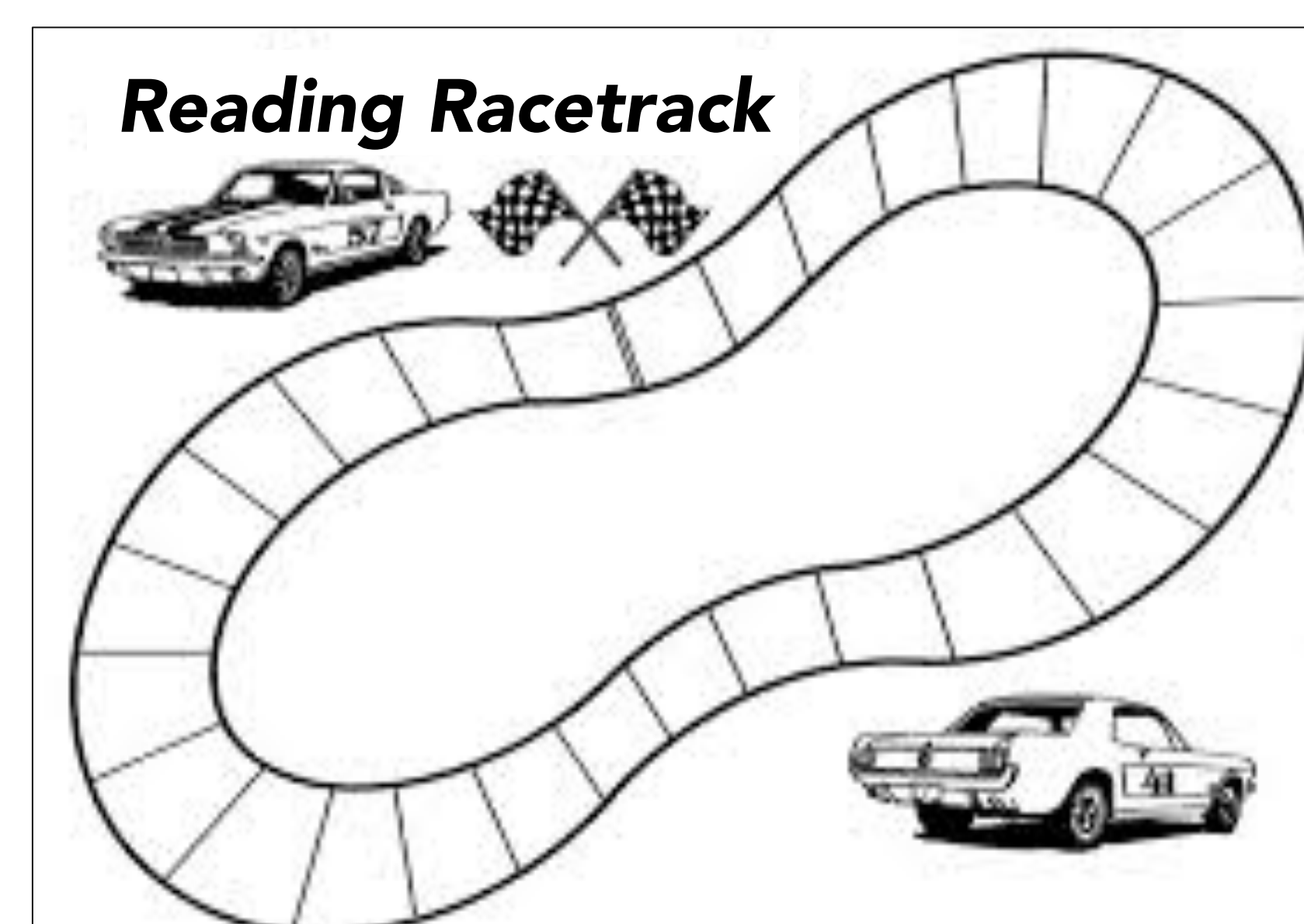
## Components and Materials

### Components:

- Modeling
- Active student responding
- Feedback
- Data-based decision making

### Materials:

- ✓ List of target words
- ✓ Game template
- ✓ Data collection sheet
- ✓ Graphing paper



## How to Play

### How to play:

1. Implement “model-lead-test” for each word prior to having the student play the game (e.g., Say/sign to the student, “This word is *said*.” “Let’s read it together.” “Your turn: What’s the word?”). Given that there are several repetitions of the words on the track, it is not necessary to go around the entire track; just teach the first set.
2. To check for understanding, have the student then point to and read each of the words one time. Provide praise after each correctly read word. If the student pauses for longer than 3 seconds or misreads the word, use an error correction procedure: Point to the word and say/sign, “This word is \_\_\_\_\_. Your turn: What’s the word?” Repeat as many times as necessary.
3. Once the student has correctly read all the words, say/sign, “Now we are going to play the game. Direct the student to begin moving the game piece around the track, reading each word as the game piece lands on the spot. Tell the student to read quickly and carefully. For students who sign, teachers may want to ask the student if it would be preferable for them to move the game piece or if the teacher moving it would be preferred.
4. Say/sign, “on your mark, get set, go,” and start the timer for one minute.
5. If the student hesitates or makes an error, provide him or her with the correct word (but be sure to mark these as errors on the data sheet).
6. When timer sounds, say/sign, “Stop reading.”
7. Count the number of words read correctly and incorrectly and record on the reading racetrack data sheet (see Figure 2). Tell the student how many words he or she read correctly. At this point, students may also self-graph their words read correctly. Praise the student for effort and improvements, and have the student set a goal for next time.

## Reading Racetracks in Your Classroom

The following is a list of possible challenges and suggestions for addressing them when considering implementing a reading racetrack in your classroom:

### Challenge #1: My Students Use Diverse Communication Modes

Customize! For DHH students, this means the person implementing the game can match the language (e.g., English, ASL) and communication mode (e.g., spoken language or sign) the child uses. If a student uses spoken language with some sign support, the teacher can use both spoken and sign language when playing the game with that particular student.

### Challenge #2: My Students Have Different Reading Levels

Individualize! Reading racetracks can be individualized based on students' reading levels. If students are working from different Dolch sight word lists, the racetracks for those students can be filled with sight words from their respective lists. Sight words for one student may be pulled from the kindergarten list and another may be working on the first grade list.

### Challenge #3: Some of My Students Are Struggling to Acquire and Maintain Sight Words

Is it a “can’t do” or “won’t do” situation? If it is “can’t do”, you may need to address more basic skills with the student (e.g., easier sight words, basic phonics), reduce the number of target words, keeping the number of cells on the racetrack consistent and thereby increasing number of practice opportunities. Be sure proper error correction procedures are used by always ending with the student performing (i.e., reading) the skill correctly

If it is “won’t do”, try using task-specific praise, stickers or other tangible reinforcers, goal setting, self-graphing, and opportunities to play the game with peers.

## References

Alexander, C. T., McLaughlin, T. F., & Derby, K. M. (2008). The effects of reading racetracks on sight words across four elementary students with differing disabilities. *The Open Rehabilitation Journal*, 1(1), 47–52.

Crowley, K., McLaughlin, T. F., & Kahn, R. (2013). Using direct instruction flashcards and reading racetrack to improve sight word recognition of two elementary students with autism. *Journal of Developmental and Physical Disabilities*. 25, 297–311.

Davenport, C. A., Alber-Morgan, S. R., Clancy, S. M., & Kranak, M. P. (2017). Effects of a picture racetrack game on the expressive vocabulary of deaf preschoolers. *The Journal of Deaf Studies and Deaf Education*, 1–10.