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Right: Assessments such as the BRI and AIMSweb are used to identify a student's reading level.

Effective Practices in Teacher Preparation Programs: Reading Action Research Projects

By Jennifer S. Beal

Data-driven instruction is simply good educational practice. In our deaf education certification program—which confers master's degrees in education at Valdosta State University through a variety of online options—we address this issue directly with our graduate students, all of whom are teacher candidates. One of the ways we do so is through a required "reading action research project."

Part of our Methods to Teach Reading and Writing to Deaf Students course, the reading action research project requires that the teacher candidates engage in an inquiry-focused process that includes planning, acting, observing, reflecting, and revising (Carr & Kemmis, 1986; Wang, Kretschmer, & Hartman, 2010). The project is carried out within the real world of teaching reading to deaf and hard of hearing students. It challenges teachers to collect data across literacy tasks, analyze it, and use it to determine the effectiveness of their interventions or instructional strategies (Tankersley, Harjusola-Webb, & Landrum, 2008).

First: Understand the Student

The project begins with the course. As coursework is online and our teacher candidates are in various states, the professor provides a video-recording outlining the steps. Teacher candidates learn that they must:

- **Identify and obtain permission to work with a student in need of an intervention.** The student can be in any K-12 grade and in the teacher candidate's or another teacher's classroom. They may work with the student in class or on a tutorial basis.

Illustrations courtesy of Jennifer S. Beal
Photo by Matthew Vita

Summary of Assessments:

BRI
- Basic Reading Inventory
- Word list/Vocabulary
- Independent level – 6th grade
- Instructional level – 7th grade

BRI
- Basic Reading Inventory
- Passage
- Fluency: 81 wpm – 25th percentile for 4th grade
- Comprehension: Independent – 3rd grade
- Instructional – 4th grade

AIMS WEB
- Reading comprehension maze
- 12 out of 15 attempted answers correct
- Below the 25th percentile of 4th grade

- **Administer assessments to identify the student's reading level.** This includes the *Basic Reading Inventory: Kindergarten Through Grade Twelve and Early Literacy Assessments* (BRI) (Johns, Elish-Piper, & Johns, 2017), with its grade-level word lists and reading passages.

- **Select reading passages that align with the student's instructional and independent reading levels.** To address vocabulary and comprehension instruction, teachers use materials at a student's instructional reading level, while materials at the student's independent reading level are used for fluency.

- **Conduct a miscue analysis on these assessment passages.** The miscue analysis through the BRI allows the teacher candidate to identify the strategies the student uses to make sense of the text. While passages selected and analyzed are the same for students who use spoken language and students who use sign language, the analysis is modified for signing students to account for things such as sign substitutions and omissions. Students are also asked to retell the passages and respond to five to 10 comprehension questions.

- **Conduct a third reaading-related assessment for triangulation.** For students who use sign language,

another passage on their reading level is selected and they are video-recorded as they render it in sign language using the Signed Reading Fluency Rubric (Easterbrooks & Huston, 2008), which measures 13 sign language components (including facial expression, role taking, and eye gaze) and five levels of proficiency across each component (including *not observed*, *emerging*, and *fluent*). For students who use spoken language, teacher candidates work with the mentoring teacher to select a third assessment. This may be the Peabody Picture Vocabulary Test, the Expressive One-Word Picture Vocabulary Test, or a different assessment.

Second: Develop Teaching Objectives

Using the data they have collected, our teacher candidates develop objectives for instruction. The instructional objectives must span the four areas cited as critical by the National Reading Panel (2000). These include:

- **Phonological awareness.** For students who use spoken language, phonological awareness might focus on pronunciation of ending sounds or identification of syllables in given words. For students who use sign language, phonological awareness might mean manipulating the individual parameters of signs (i.e.,

handshape, location, and movement).

- **Vocabulary.** For both students who use sign language and students who use spoken language, focus is on the recognition and knowledge of words that are used in the teacher's instruction.

- **Fluency.** For students who use spoken language, this may mean reading with expression that is appropriate to the text. For students who use sign language, this may mean rendering phrases in conceptually correct sign language.

- **Comprehension.** To show comprehension, students who use sign language and students who use spoken language are assessed on their ability to accurately identify specific details from the lesson.

Typically, our teacher candidates differ in their ability to construct measurable objectives. The professor, therefore, provides a formula that they may apply that includes specific behavior, criteria (e.g., identify five words), and degree of success (e.g., across two out of three trials). Posting their objectives for feedback allows other teacher candidates to see their work and enables them to teach each other. Teacher candidates revise their objectives as needed before they begin their lesson plans.

Third: Develop the Lessons
The next step is to identify an instructional theme and a learning goal, to note the state standards that are relevant, and to develop four lesson plans. They must address two objectives per lesson plan: Lesson plans 1 and 2 address

phonological awareness and vocabulary; lesson plans 3 and 4 address fluency and comprehension.

Lesson plans are developed according to a template that includes all of the mandatory components of the handbook of the edTPA, the teacher performance assessment, developed by researchers at the Stanford Center for Assessment, Learning, and Equity (2013) that is used around the country to measure teachers' readiness to teach.

Teacher candidates talk with their students to identify a teaching theme—perhaps spooky stories or the Incredible Hulk. Next, they describe the pretest-posttest that they will administer to document their students' performance on each objective before and after instruction. Teacher candidates also identify strategies that will support the student in acquiring, maintaining, and generalizing the reading skills.
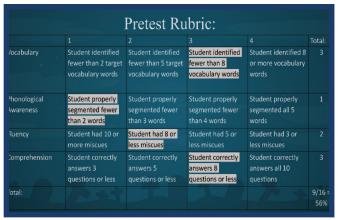
The teacher candidates note step by step what they and their student will do during instructional time, including the instructional strategies they plan to use and the references for those strategies. They detail how they will open the lesson by discussing the objectives, how they will activate their learner's prior knowledge, and how they will embed a "hook" to get their learner's attention. Further, they explain the learning tasks, instructional supports and strategies, expected student responses, how they will scaffold and mediate information as students access and practice instructional information, and how they will use technology within the lesson. Finally, teacher candidates are encouraged to have their student summarize what he or she has learned. A posttest, exactly the same as the pretest, measures the change in proficiency related to each objective. After delivering each lesson, they provide feedback to the student related to data, the instructional objectives, and what they will focus on in the subsequent lesson. Teacher candidates also engage in reflection after each lesson, post these reflections online, and respond to the comments and reflections of their peers.

Put It Together
Candidates receive feedback on each lesson from the professor prior to delivering it. As teacher candidates enter the graduate program with various levels of experience and proficiency, feedback is individualized and rendered

> **Teacher candidates also engage in reflection after each lesson, post these reflections online, and respond to the comments and reflections of their peers.**

Pretest Rubric:

	1	2	3	4	Total:
Vocabulary	Student identified fewer than 2 target vocabulary words	Student identified fewer than 5 target vocabulary words	Student identified fewer than 8 vocabulary words	Student identified 8 or more vocabulary words	3
Phonological Awareness	Student properly segmented fewer than 2 words	Student properly segmented fewer than 3 words	Student properly segmented fewer than 4 words	Student properly segmented all 5 words	1
Fluency	Student had 10 or more miscues	Student had 8 or less miscues	Student had 5 or less miscues	Student had 3 or less miscues	2
Comprehension	Student correctly answers 3 questions or less	Student correctly answers 5 questions or less	Student correctly answers 8 questions or less	Student correctly answers all 10 questions	3
Total:					9/16 = 56%

Posttest Rubric:

	1	2	3	4	Total:
Vocabulary	Student identified fewer than 2 target vocabulary words	Student identified fewer than 5 target vocabulary words	Student identified fewer than 8 vocabulary words	Student identified 8 or more vocabulary words	3
Phonological Awareness	Student properly segmented fewer than 2 words	Student properly segmented fewer than 3 words	Student properly segmented fewer than 4 words	Student properly segmented all 5 words	1
Fluency	Student had 10 or more miscues	Student had 8 or less miscues	Student had 5 or less miscues	Student had 3 or less miscues	2
Comprehension	Student correctly answers 3 questions or less	Student correctly answers 5 questions or less	Student correctly answers 8 questions or less	Student correctly answers all 10 questions	
Total:					16/16 100%

individually. This allows the professor to demonstrate evidence-based strategies for modeling, scaffolding, and mediation (Vygotsky, 1978) within the real-world process of developing and implementing a lesson plan with a student.

The professor also comments on teacher candidates' reflections and provides additional insight or ideas to fine-tune instruction. Teacher candidates create a PowerPoint presentation that summarizes each of the four lessons that is video-recorded, captioned, and uploaded to YouTube. They provide the link to their peers, who are required to watch and comment on their presentations.

Research in Action

Using action research in a graduate-level course on how to teach reading to deaf and hard of hearing children is an effective instructional practice. Although the lesson plans require detailed information, our teacher candidates have overwhelmingly supported the level of detail as it has proven helpful in their preparation for the edTPA.

In anonymous surveys from the end of the year, one graduating teacher candidate called the reading action research project an "excellent experience to work on creating lesson plans, reflect on instruction, review effectiveness, and think about future planning." Still another wrote that doing the assessments and lessons and "synthesizing them into a final project … really forced me to think about the function of each assessment and how it fit within the bigger picture." Further, a third graduating teacher candidate observed: "We learned about assessing a student and creating lessons based on the results. I enjoyed this practical part of this class."

As they administer assessments, create data-based instructional objectives, develop lesson plans, incorporate state standards and features of the edTPA, and deliver their lessons, our teacher candidates learn to use assessment data to guide their teaching. The result is that the reading action research project benefits both our teacher candidates and our K-12 students.

References

Carr, W., & Kemmis, S. (1986). *Becoming critical: Education, knowledge, and action research*. Lewes, England: Falmer Press.

Easterbrooks, S. R., & Huston, S. (2008). The signed reading fluency of students who are deaf/hard of hearing. *Journal of Deaf Studies and Deaf Education, 13*, 37-54.

Johns, J., Elish-Piper, L., & Johns, B. (2017). *Basic Reading Inventory: Kindergarten through grade 12 and early literacy assessments (12th edition)*. New York: Kendall Hunt.

National Reading Panel. (2000). *Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction*. Washington, DC: U.S. Department of Health and Human Services.

Stanford Center for Assessment, Learning, and Equity. (2013, November). *2013 edTPA field test: Summary report*. Retrieved from *https://secure.aacte.org/apps/rl/res_get.php?fid=827&ref=edtpa*

Tankersley, M., Harjusola-Webb, S., & Landrum, T. J. (2008). Using single-subject research to establish the evidence base of special education. *Intervention in School and Clinic, 44*(2), 83-90.

Vygotsky, L. S. (1978). *Mind in society: The development of higher psychological processes*. Cambridge, MA: Harvard University Press.

Wang, Y., Kretschmer, R. E., & Hartman, M. C. (2010). Teacher-as-researcher: Theory-into-practice. *American Annals of the Deaf, 155*(2), 105-109.