

MATHEMATICS PRESERVICE TEACHERS ARE LITERACY EDUCATORS TOO: LEARNING HOW TO ADMINISTER AND USE DATA FROM THE TEXAS MIDDLE SCHOOL FLUENCY ASSESSMENT TO PLAN INSTRUCTION

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ABSTRACT

House Bill (HB) 2237 (80th Legislature), Section 6: Adolescent Reading Assessment requires districts and public charter schools to administer the Texas Middle School Fluency Assessment (TMSFA) or some other state approved alternative assessment to students in grade seven who do not demonstrate reading proficiency on the grade six state reading assessment. This requirement began in the fall 2008. Many school districts provided training for teachers to learn how to administer the TMSFA. Yet, there are many middle school administrators and teachers who do not know about HB 2237 Section 6 or the TMSFA. This article explains HB 2237 Section 6 requirements. In addition, it provides information about the TMSFA and a free online training offered through the Texas Adolescent Literacy Academies (TALA) website. This article also includes the beliefs of mathematics preservice teachers enrolled in a grades 4-8 literacy methods course about the TMSFA form.

Beginning in fall 2008, House Bill (HB) 2237 (80th Legislature), Section 6: Adolescent Reading Assessment, required districts and public charter schools to administer the Texas Middle School Fluency Assessment (TMSFA) or some other state approved alternative assessment to students in grade 7 who did not demonstrate reading proficiency on the grade 6 Texas Assessment of Knowledge and Skills (TAKS) reading test, and now, the State of Texas Assessments of Academic Readiness (STAAR). As the instructor of record for an undergraduate grades 4-8 literacy methods course, I did not know TMSFA existed until searching the Internet one summer night in 2017 for a reliable and valid measurement for middle grade level content area teachers to use to determine students' reading fluency and comprehension. During the past two years, I noticed an increase in preservice teachers pursuing certification to teach mathematics and a decrease in those seeking one in English/language arts and social studies. With the increase in enrollment of mathematics preservice teachers, many began to ask about the connection between literacy and their content

area. I spent a considerable amount of time demonstrating how all content area educators were literacy teachers.

As part of the course, I trained students to use Rasinski and Padak's (2005) *Three minute reading assessments: Word recognition, fluency & comprehension for grades 5-8*. I used this particular assessment because it provided teachers with a roadmap indicating "where their children were academically, and where they needed to go" (Rasinski & Padak, p. 5). I explained to the preservice teachers that assessment is a vital component of successful instruction because it enables teachers "to identify a focus for their instruction" (Rasinski and Padak, 2005, p. 5). Yet, I felt compelled to locate another measurement to provide them with options. I wanted them to know how to use a variety of reading fluency and comprehension instruments. I stumbled upon the TMSFA, and realized it had been in existence for several years. I asked several school administrators and teachers about HB 2237 Section 6 and the TMSFA, and none knew about the House Bill or the assessment. As such, the purpose of this article is to inform sixth, seventh, and eighth grade teachers in Texas about HB 2237 Section 6 and TMSFA. This article will also shed some light on the beliefs about TMSFA from my 2017 literacy methods course students after they completed the training modules.

WHAT DOES HB 2237 SECTION 6 REQUIRE DISTRICTS TO DO?

As stated previously, HB 2237 Section 6 requires districts to administer a state approved or alternate assessment to students in grade seven who did not demonstrate reading proficiency on the state reading test. The TMSFA and three alternative assessments are listed in the 2014-2018 Commissioner's report as reliable and valid reading instruments for seventh grade students. The alternative assessments are listed below:

- Istation's Indicators of Progress, Advanced Reading (ISIP-AR)
- Reading Analysis and Prescription System (RAPS 360)
- Woodcock Johnson III Diagnostic Reading Battery (WJ III DRB)

The required domains for grade seven are Phonics/Word Analysis (PH/WA), Text Comprehension-Reading (TC-R), and Fluency (FL). Seventh grade teachers are required to assess students in these domains. As such, the TMSFA and alternative assessments listed above included the required domains.

The TMSFA is used to determine areas of reading difficulty. It consists of two subtests: Passage Reading Fluency and Word Reading Fluency. The Passage Reading Fluency subtest is used to determine students' accuracy and fluency with connected narrative and expository texts (TEA, 2011). The Word Reading Fluency subtest is used to determine students' word-level abilities in the absence of context (TEA, 2011). The TMSFA is administered three times during an academic year to monitor students' performance: the beginning of school year (BOY) from August to November, the middle of year (MOY) from December to February, and the end of year (EOY) from March to May. HB 2237 pertains to only the BOY administration of the TMSFA, which occurs within the first six weeks of the academic year. Although HB 2237 Section 6 applies to grade seven students, TMSFA can also be administered to students with a low passing score on the state mandated

reading test or those at-risk of failing it. It is imperative that teachers remember that the TMSFA serves as a diagnostic instrument to assess grade seven students who failed the state reading test in grade six. It is also a progress-monitoring tool used to assist in planning a strategic intervention to help students meet grade-level standards in reading (TEA, 2011).

WHERE CAN EDUCATORS FIND THE TMSFA?

The TMSFA is offered free of charge through the Texas Adolescent Literacy Academies (TALA) website. Part of Texas Gateway, an online learning initiative of the University of Texas System/Texas Education Agency (TEA), TALA consists of three separate academies—the English Language Arts Academy (for English language arts/reading teachers), the Content Area Academy (for mathematics, science, and social studies teachers), and the Professional Development to Support Academic Writing Academy (for English language arts/reading teachers). TALA is designed to help teachers develop appropriate instruction for students in grades six through eight, including those who struggle with reading due to English language proficiency, learning disabilities and dyslexia. The English Language Arts (ELA) Academy of TALA provides free training modules on administering and using the TMSFA. The self-paced stand alone course is located in unit four of TALA. It is titled, “Texas middle school fluency assessment: Administering and interpreting results. In one report, TEA (2011) noted that TALA is based on the concept that “students who can read effortlessly with comprehension are better equipped to understand literature, science, social studies, and mathematical word problems” (p. 14). Undergirding TEA’s concept is the belief that “developing students’ basic reading skills will assist in their overall understanding of what is being read in the content areas” (p. 14). I reference this quote in my literacy methods course to help preservice teachers pursuing mathematics certification understand that they are literacy educators too.

WHAT DID PRESERVICE TEACHERS SAY ABOUT THE TMSFA?

All preservice teachers enrolled in my literacy methods course for teachers pursuing certification in grades four through eight printed a copy of their certificate of completion to confirm they had been trained to administer the assessment. After collecting the certificates, I asked the preservice teachers to retrieve the TMSFA reflection log (TEA, 2011). The reflection log consists of four questions. One question asks them to identify how they can use the results to identify students’ needs and plan instruction. Another question asks if they have concerns about interpreting and implementing the assessment. One preservice teacher wrote, “The overall ending equated scores and retell scores are very useful for future instruction planning, for it shows you what they are struggling with.” She also wrote, “How could teachers, after giving this assessment, implement what they found into a lesson plan for math specifically?” I developed in-class projects to show them how to transfer the results from the TMSFA into planning instruction. One assignment required them to analyze textbooks and nonfiction works using a readability formula. We also discussed creating formative and summative assessments based on the results from the TMSFA. I introduced the preservice teachers to the Kling and Bay-Williams (2014) article about ways in which mathematics teachers use observations, interviews, performance tasks, and journaling as formative assessments to learn about students’ reading fluency and comprehension.

According to Kling and Bay-Williams, interviews provided “the extraordinary opportunity to hear children explain what they know about a topic in a discussion format, during which teachers can ask follow-up and clarify questions” (p. 491). After reading the article and completing in-class projects, students began to see how to use results from the TMSFA and data from other assessment tools to plan instruction. The capstone project for the literacy methods course requires them to assess four students in their field experience placement using the TMSFA and Rasinki and Padak’s (2005) *Three Minute Reading Assessments*. The preservice teachers are required to complete a reflection log on the TMSFA (see Appendix I) and the Rasinski and Padak assessments (see Appendix II). The purpose of this capstone project is for the preservice teachers to experience conducting the assessments and to collect data based on their findings. In addition, it enables them to use the data to assist their mentor teacher in instructional planning.

CONCLUSION

Mathematics preservice teachers are literacy educators, too. As we reach the midterm of the semester, I have witnessed more of my preservice teachers using data from the TMSFA and Three Minute Reading Assessments to develop their lesson plans. Several incorporated journaling as a formative assessment because they wanted to learn more about the students in their mathematics classrooms. Most used Fry’s Readability (Schrock, 2016) to evaluate nonfiction text and determine reading levels. Kling and Bay-Williams (2014) recognize the importance of meaningful assessment in a mathematics classroom. In this case, the TMSFA and the Three Minute Reading Assessments serve as diagnostic instruments for preservice teachers in grades six through eight to use to develop lesson plans and to assist their mentor teachers. However, there are still many middle school administrators and classroom teachers who do not know about HB 2237 Section 6 or the TMSFA. If they are expected to use data to drive instruction, then it is imperative that they are equipped with the proper assessment tools to help students learn how to read effortlessly with comprehension in science, social studies, and mathematics.

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APPENDIX I

To earn full credit, make sure you include a completed copy of the TMSFA Record Sheet: Passage Reading Fluency and the Teacher Page of the Three-Minute Assessment that includes results for each student. You will upload all documents to Blackboard by October 25 by 5pm.

Preservice Teacher's Name: _____

Date: _____

Semester: _____

Content Area: _____

Texas Middle School Fluency Assessment

Preservice-Teachers' Perception of TMSFA

Directions: Place an X in the box that best matches your opinion.

	Strongly Disagree	Disagree	Agree	Strongly Agree
1. I have a good understanding of the TMSFA.				

Explain.				
2. I believe it is beneficial to know how to administer the assessment in my content area.				
<p>Explain. Make sure you discuss what you learned about the students after administering the assessment.</p> <p>Student #1</p> <p>Student #2</p> <p>Student #3</p> <p>Student #4</p>				
3. I believe the results from the assessment help with preparing lesson plans.				
Explain. Make sure you discuss the impact the results had on your mentor teacher's lesson planning. Were you able to share results with the mentor teacher?				

4. I learned about myself as a future teacher.				
Explain.				

Student Demographics Information

Please use a pseudonym.

Student #1_____

Gender_____

Grade_____

Ethnicity_____

Previous Grade in language arts_____

STAAR results (if applicable)_____

Student #2_____

Gender_____

Grade_____

Ethnicity_____

Previous Grade in language arts_____

STAAR results (if applicable)_____

Student #3 _____

Gender _____

Grade _____

Ethnicity _____

Previous Grade in language arts _____

STAAR results (if applicable) _____

Student #4 _____

Gender _____

Grade _____

Ethnicity _____

Previous Grade in language arts _____

STAAR results (if applicable) _____

School's SES Population (Is it a Title I school? What's the percentage?) _____

APPENDIX II

Preservice Teacher's Name: _____

Date: _____

Semester: _____

Content Area: _____

Three Minute Reading Assessment for Grades 5-8

Preservice-Teachers' Perception of the Three Minute Reading Assessment

Directions: Place an X in the box that best matches your opinion.

	Strongly Disagree	Disagree	Agree	Strongly Agree
1. I have a good understanding of the Three Minute Reading Assessment.				
Explain.				
2. I believe it is beneficial to know how to administer the assessment in my content area.				
Explain. Make sure you discuss what you learned about the students after administering the assessment.				
Student #1				
Student #2				

Student #3				
Student #4				
3. I believe the results from the assessment help with preparing lesson plans.				
Explain. Make sure you discuss the impact the results had on your mentor teacher's lesson planning. Were you able to share results with the mentor teacher?				
4. I learned about myself as a future teacher.				
Explain.				