Michigan Evaluation Brief

How are Schools Using the School-wide Elementary Reading Tiered Fidelity Inventory?

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The document provides a summary of how Michigan Elementary Schools used the Reading Tiered Fidelity Inventory (R-TFI) during 2018-19.

Introduction

Michigan's MTSS (MiMTSS) Technical Assistance Center works on behalf of the Michigan Department of Education to provide a continuum of technical assistance to ISDs, districts, and schools. The mission is to improve outcomes for all learners by assisting educators in developing infrastructures to support high-quality and sustained implementation of effective, data-driven practices within a Multi-Tiered System of Supports framework.

The MiMTSS TA Center achieves this in part by providing professional learning and technical assistance to educators. School leadership teams engage in professional learning while setting up MTSS data, systems, and practices. Teams then assess their implementation efforts using fidelity measures. As such, School Leadership Teams (SLT) need to know how well their school-wide reading model is implemented in their school.

The Reading Tiered Fidelity Inventory (R-TFI) is a measure designed to evaluate implementation of a schoolwide reading model (elementary) or content area reading model (secondary). The R-TFI was developed by MiMTSS TA Center in 2015 in response to the absence of other existing fidelity measures that could be used to help schools evaluate, measure progress, and design improvement plans around a multi-tiered system of supports for reading (St. Martin, et al., 2015). Fidelity is defined as meeting or exceeding the R-TFI Total Score threshold of 80%.

To understand how Michigan schools are using the R-TFI, this evaluation brief aims to answer the following research questions:

1. How often do partnering schools complete the R-TFI per year?
2. How many tiers are assessed during each R-TFI administration?
3. What are the average scores at each tier of the R-TFI?
4. What subscales and items on the R-TFI have the highest and lowest scores?

Methodology

For this evaluation brief, the sample consists of 94 schools that assessed at least one tier of the R-TFI during the 2018-19 school year. Schools must have completed at least one item in a tier to have that tier assessment included in the analyses. For research questions 3 and 4, if schools completed the R-TFI more than one time during the year, their R-TFI with the highest overall score was used to capture the most tiers assessed during a single administration.
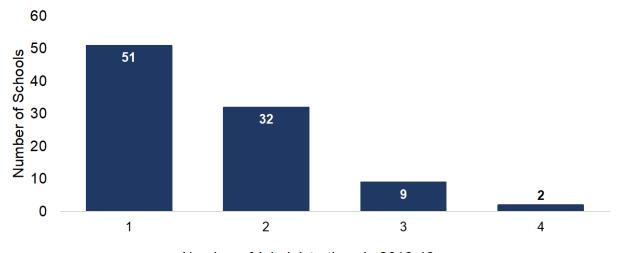
School Characteristics

School demographic information was gathered from the National Center for Education Statistics (NCES) for the 2018-19 school year. Of the 45 districts that housed the 94 schools, there were on average, 2116 students, 4.6 schools, and 17.5 students per teacher, across each district. Further, 27 (59%) were located in rural areas, 7 (15%) were located in suburban areas, 6 (13%) were located in towns, and 6 (13%) were located in cities. A total of 1 (1%) of the schools were K-2, 88 (94%) were elementary, 1 (1%) were elementary/middle, 1 (1%) were middle, and 3 (3%) were K-12 schools.

Results

1. How often do schools complete the R-TFI per year?

The 94 partnering schools completed 150 R-TFI surveys during the 2018-19 school year. As shown in figure 1, a total of 51 (54%) of the schools completed the R-TFI once, and 32 (34%) completed the R-TFI twice, 9 (10%) completed the R-TFI three times, and 2 (2%) completed the R-TFI four times.

Figure 1. Majority of Michigan Schools Administer the R-TFI Once on an Annual Basis

2. How many tiers are assessed during each R-TFI administration?

Results are shown in figure 2. Of the 150 R-TFIs that were completed by the 94 schools, 38 (25%) of the R-TFIs assessed Tier 1 only, 4 (3%) assessed Tier 2 only, 0 (0%) assessed Tier 3 only, 12 (8%) assessed Tiers 1 and 2, 0 (0%) assessed Tiers 1 and 3, 4 (3%) assessed Tiers 2 and 3, and 92 (61%) assessed all three tiers during a single administration. Based on all 150 administrations, figure 2.1 below shows the percentage of administrations that included Tiers 1, 2, and/or 3, irrespective of the combinations above.
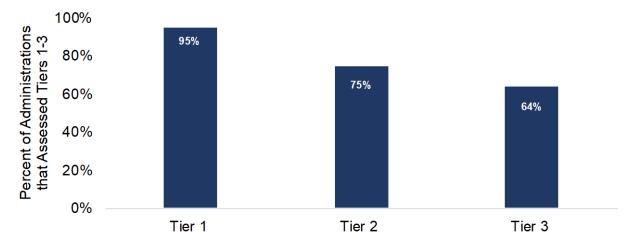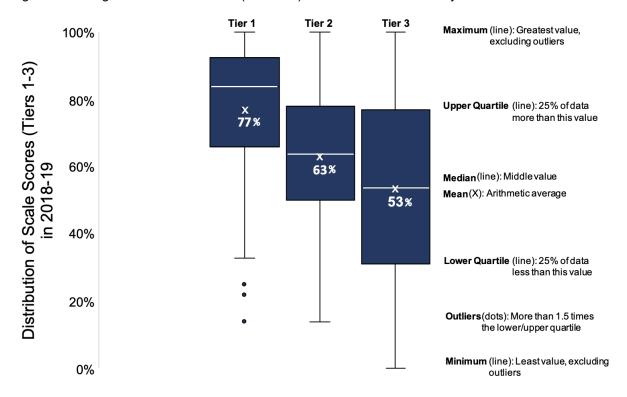
Figure 2. R-TFI Tier 1 Scale was Assessed More Often than Tiers 2 and 3

3. What are the average scores at each tier of the R-TFI?

Results are shown in figure 3. For the 94 schools that assessed Tiers 1, 2, 3 at some time during the school year, the average score on the Total scale was 63% (SD = 26 percentage points), the average score on the Tier 1 scale was 79% (SD = 20 percentage points), the average score on the Tier 2 scale was 67% (SD = 20 percentage points), and the average Tier 3 score was 63% (SD = 25 percentage points).

Figure 3. Average R-TFI Scale Scores (Tiers 1-3) Decreases and Variability Increases From Tier 1 to 3

4. What subscales and items on the R-TFI have the highest and lowest scores?

Tier 1: Teams

The average score for the 94 schools completing the Tier 1: Teams subscale was 82% (SD = 21 percentage points). Mean scores for individual items on this subscale were 1.90 for *School Leadership Team* and 1.41 for *Grade-Level Teams*.

Tier 1: Implementation

The average score for the Tier 1: Implementation subscale was 77% (SD = 23 percentage points). Mean scores for individual items on this subscale ranged from 1.71 for *adequate time* to 1.33 for *instructional plans*.

Tier 1: Resources

The average score on the Tier 1: Resources subscale was 78% (SD = 23 percentage points). Mean scores for individual items on this subscale ranged from 1.88 for *school-wide reading assessments* to 1.17 for *written guidelines for core reading program*.

Tier 1: Evaluation

The average score on the Tier 1: Evaluation subscale was 78% (SD = 23 percentage points). Mean scores for individual items on this subscale ranged from 1.93 for *data system(s) that allows access to universal screening* to 1.20 for *grade-level teams monitor instructional plans*.

Figure 4. Average Tier 1 Subscale Scores Based on School's Highest R-TFI Total Score Show the Team Subscale Score Met the 80% Scale Fidelity Threshold
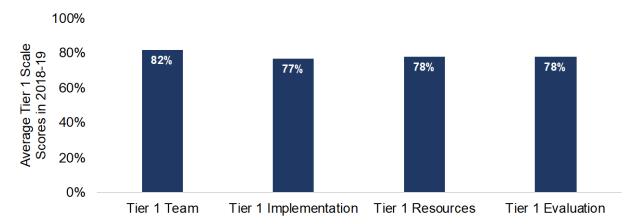
Table 1. Average Scores Across Items Within Tier 1 Subscales

Subscale	Item	Item Description	Score Average
Teams	1.1	A School Leadership Team is established to support the implementation of a Tier 1 reading system.	1.90
Teams	1.2	The School Leadership Team uses an effective team meeting process.	1.68
Teams	1.3	The School Leadership Team's work is coordinated with other school teams.	1.66
Teams	1.4	Grade-Level Teams are established to support the implementation of Tier 1 reading instruction.	1.51
Teams	1.5	Grade-Level Teams use an effective team meeting process.	1.41
Implementation	1.6	The district uses a formal procedure for selecting curriculum, programs and materials to provide Tier 1 reading instruction.	1.71
Implementation	1.7	The school allocates adequate time for core reading instruction.	1.51
Implementation	1.8	The school has a School-Wide Reading Plan.	1.33
Implementation	1.9	Grade-level instructional plans include an emphasis on Tier 1 instruction.	1.66
Implementation	1.10	Class-wide expectations for student behavior are established and taught.	1.51
Implementation	1.11	Procedures are implemented for common classroom activities.	1.17
Resources	1.12	Written guidelines are available for teaching the core reading program.	1.80
Resources	1.13	The school has identified an individual(s) to assist in data coordination for school- wide reading assessments.	1.34
Resources	1.14	A school-wide reading universal screening assessment schedule is available for the current school year.	1.59
Resources	1.15	Professional learning is purposely selected for supporting the implementation of a School-Wide Reading Model.	1.59
Resources	1.16	The School Leadership Team uses system-level coaching.	1.78
Resources	1.17	All staff have access to instructional coaching.	1.93
Evaluation	1.18	Universal screening assessments have been purposely selected.	1.78

Subscale	Item	Item Description	Score Average
Evaluation	1.19	The school uses a data system(s) that allows access to universal screening assessment reports.	1.49
Evaluation	1.20	Staff collect reading universal screening data with fidelity.	1.63
Evaluation	1.21	The School Leadership Team collects Tier 1 system fidelity data.	1.51
Evaluation	1.22	The School Leadership Team uses data to monitor the health of the School-Wide Reading Model.	1.22
Evaluation	1.23	The School Leadership Team uses a process for data-based decision-making.	1.20
Evaluation	1.24	Grade-Level Teams use a process for data-based decision-making.	1.32
Evaluation	1.25	The School Leadership Team monitors implementation of the School-Wide Reading Plan.	1.90
Evaluation	1.26	Grade-Level Teams monitor implementation of the grade-level instructional plans.	1.68
Evaluation	1.27	The School Leadership Team provides a status report or presentation on student reading performance to stakeholders.	1.66

Tier 2: Teams

The average score for the 94 schools completing the Tier 2: Teams subscale was 67% (SD = 21 percentage points). Mean scores for individual items on this subscale ranged from 1.47 for *grade-level teams make adequate progress in the Tier 1 core reading curriculum* to 1.22 for *school leadership team defines a process to be used by grade-level teams*.

Tier 2: Intervention Implementation

The average score on the Tier 2: Interventions subscale was 78% (SD = 21 percentage points). Mean scores for individual items on this subscale ranged from 1.69 for *intervention groups are appropriate* to 1.41 for *the school notifies parents/guardians of intervention plans*.

Tier 2: Resources

The average score on the Tier 2: Resources subscale was 78% (SD = 23 percentage points). Mean scores for individual items on this subscale ranged from 1.63 for *scheduling of reading interventions* to 1.31 for *staff receive implementation supports*.

Tier 2: Evaluation

The average score on the Tier 2: Evaluation subscale was 59% (SD = 23 percentage points). Mean scores for individual items on this subscale ranged from 1.75 for the *school uses a data system* to 0.56 for *grade-level teams monitor the percent of students who are responding to Tier 2 supports*.

Figure 5. Average Tier 2 Subscale Scores Based on School's Highest R-TFI Total Score Show the Subscale Scores did not Meet the 80% Scale Fidelity Threshold
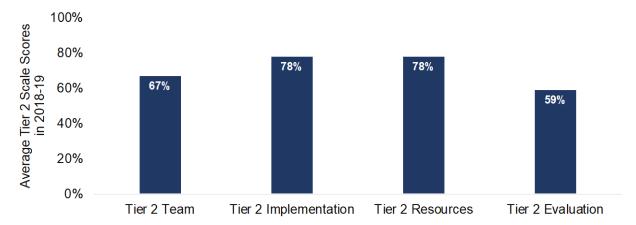

Table 2. Average Scores Across Items Within Tier 2 Subscales

Subscale	Item	Item Description	Score Average
Teams	2.1	The School Leadership Team defines a process to be used by Grade-Level Teams for supporting students with reading skill deficits.	1.22
Teams	2.2	Grade-Level Teams work to support students who are not making adequate progress in the Tier 1 core reading curriculum.	1.47
Intervention Implementation	2.3	The school uses a formal process for selecting evidence-based reading interventions.	1.53
Intervention Implementation	2.4	The school uses a data-based process for matching student needs to specific reading interventions.	1.69
Intervention Implementation	2.5	Intervention groups are appropriate for students receiving reading intervention.	1.41
Intervention Implementation	2.6	The school notifies parents/guardians of intervention plans for their child.	1.63
Resources	2.7	The scheduling of reading interventions is coordinated with Tier 1 reading instruction.	1.63
Resources	2.8	All staff providing reading interventions receive implementation supports.	1.53

Subscale	Item	Item Description	Score Average
Evaluation	2.9	The school monitors data on student access to reading intervention supports.	0.78
Evaluation	2.10	Staff collect progress-monitoring data with fidelity.	0.56
Evaluation	2.11	The school uses a data system to display student reading progress.	0.81
Evaluation	2.12	The school monitors the fidelity of interventions.	1.22
Evaluation	2.13	Grade-Level Teams monitor the percent of students who are responding to Tier 2 supports.	1.47
Evaluation	2.14	Grade-Level Teams adjust reading intervention supports based on individual student progress.	1.59

Tier 3: Teams

The average score for the 94 schools completing the Tier 3: Teams subscale was 68% (SD = 28 percentage points). Mean scores for individual items on this subscale ranged from 1.67 for *grade-level teams* to 1.00 for *student support teams use an effective team meeting process*.

Tier 3: Intervention Implementation

The average score on the Tier 3: Interventions subscale was 66% (SD = 28 percentage points). Mean scores for individual items on this subscale ranged from 1.47 for *school alters intervention variables to intensify to supports* to 1.17 for *the school invites parents/guardians to collaborate on intervention plans for their child.*

Tier 3: Resources

The average score on the Tier 3: Resources subscale was 68% (SD = 38 percentage points). The mean score for the item on this subscale was 1.37 for *all staff supporting students with an intensive reading intervention plan receive implementation supports*.

Tier 3: Evaluation

The average score on the Tier 3: Evaluation subscale was 59% (SD = 37 percentage points). Mean scores for individual items on this subscale ranged from 1.50 for *staff collect diagnostic data with fidelity* to 0.97 for *intensive reading intervention plans are adjusted based on decision rules*.

Figure 6. Average Tier 3 Subscale Scores Based on School's Highest SWPBIS-TFI Total Score Show the Subscale Scores did not Meet the 80% Scale Fidelity Threshold
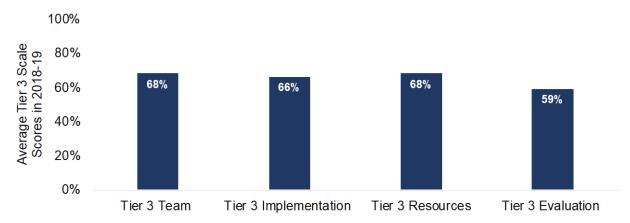

Table 3. Average Scores Across Items Within Tier 3 Subscales

Subscale	Item	Item Description	Score Average
Teams	3.1	Grade-Level Teams support students with intensive reading needs.	1.67
Teams	3.2	Student Support Teams are established to improve students' reading performance.	1.27
Teams	3.3	Teachers access the assistance of the Student Support Teams.	1.47
Teams	3.4	Student Support Teams use an effective team meeting process.	1.00
Intervention Implementation	3.5	The school uses a variety of data sources to design intensive reading intervention plans.	1.47
Intervention Implementation	3.6	The school alters intervention variables to intensify reading intervention supports.	1.17
Intervention Implementation	3.7	The school invites parents/guardians to collaborate on intervention plans for their child.	1.37
Resources	3.8	All staff supporting students with an intensive reading intervention plan receive implementation supports.	1.07
Evaluation	3.9	Staff collect diagnostic data with fidelity.	1.67
Evaluation	3.10	The school monitors the percent of students who are responding to Tier 3 supports.	1.27
Evaluation	3.11	Intensive reading intervention plans are adjusted based on decision rules.	1.47

Discussion

The measurement of implementation fidelity helps to demonstrate the impact of professional learning and provides context for interpreting student outcome data. Schools that participate in professional learning for MTSS/schoolwide reading model and commit to implementation should be using a fidelity measure, such as the R-TFI, to monitor implementation and make improvements, minimally once per school year. This evaluation brief can be used by educators across the educational cascade:

Schools

Schools can use these results to understand how their R-TFI administration schedule and scores compare to other schools in the state. If schools are just getting started with Tier 1, they can use the evaluation results to anticipate upcoming challenges they may need to plan for with Tier 2 and 3 implementation. Schools that are performing better than statewide patterns should celebrate their accomplishments and consider how they will sustain their implementation. They may choose to share their successes and examples within their district, region, or with state leaders so that others can benefit from their learning.

Districts and Intermediate School Districts

Districts and Intermediate School districts can use these results to understand how schools in their area compare to other schools in the state. They can use the results to predict the implementation supports that schools will need as they work to implement and sustain MTSS/schoolwide reading model. Districts and ISDs may seek to learn from schools in their area with successful implementation across multiple Tiers and then share resources across the district or region. Districts and ISDs may reach out to the MiMTSS TA Center and the Michigan Department of Education to request supports in areas of MTSS/schoolwide reading model implementation that their local schools are struggling to fully implement. If districts and ISDs are providing their own MTSS/schoolwide reading model professional learning to schools, they can use these statewide data to design professional learning materials that will address common needs that we see in Michigan schools.

MiMTSS TA Center and Michigan Department of Education

The MiMTSS TA Center analyzes these data to inform professional learning. For instance, Content Specialists working to develop and refine the online modules for R-TFI Facilitator certification are using the results to identify which items on the R-TFI to focus on when designing the online courses. Items with the lowest scores were selected to be highlighted with example products, additional instruction, review, and explanation, and became the focus of in-course assessments.

Data from this report suggest that schools may need more intensive and sustained supports to fully implement Tier 2 and 3 schoolwide reading model systems, practices, and data. In addition, item analysis helps to identify the specific concepts that schools may need more support with, such as more explicit guidance, worked examples, and more opportunities to practice and receive feedback. These resources can be embedded within professional learning materials and offered as stand-alone resources. Specifically, these results were used when designing the online training for Reading TFI Facilitators. Items with low average scores from this report were

selected to illustrate specific examples and challenging points when preparing Reading TFI Facilitators.

The TA Center can also offer clearer guidance on suggested administration schedules for the R-TFI. Once per year may be sufficient for schools that have achieved the 70% fidelity thresholds and are looking to make continuous adjustments for sustained implementation. Once per year might also be sufficient if it represents baseline data for schools that are just getting started with schoolwide reading model training and implementation. Schools in between those two ends of the implementation continuum may need to use a fidelity tool more frequently. However, schools are unlikely to benefit from using the R-TFI 5-6 times per year if they are focused on implementing and monitoring their action plans after each R-TFI administration.

The MiMTSS TA Center also reports statewide fidelity data (i.e., this evaluation brief) to the Michigan Department of Education and other funding agencies to demonstrate the impact of the TA Center's supports to the field, to identify shared priorities, and to work together to address any potential barriers to improving MTSS implementation fidelity.

References

St. Martin, K., Nantais, M., Harms, A., & Huth, E. (2015). Reading Tiered Fidelity Inventory (Elementary-Level Edition). Michigan Department of Education, Michigan's Integrated Behavior and Learning Support Initiative.

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