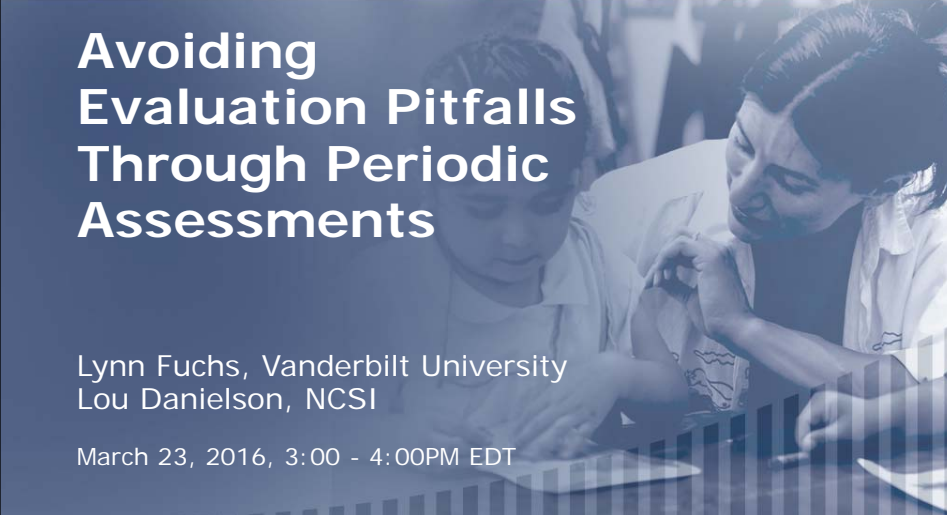


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Transforming State Systems  
to Improve Outcomes for  
Children with Disabilities



# Avoiding Evaluation Pitfalls Through Periodic Assessments

Lynn Fuchs, Vanderbilt University  
Lou Danielson, NCSI

March 23, 2016, 3:00 - 4:00PM EDT




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## Session Objectives


- Assist states in avoiding common evaluation pitfalls related to assessing progress toward meeting their SiMR by illustrating
  - The pitfalls states may face in relying only on state assessments to assess progress.
  - How SEAs can use periodic assessments to highlight their progress in achieving their SiMR.

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## Our Presenters



Dr. Lynn Fuchs,  
Vanderbilt University

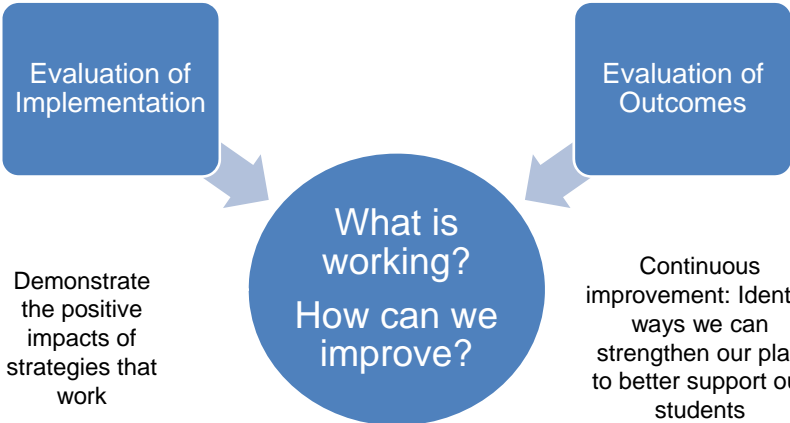


Dr. Lou Danielson,  
NCSI

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## Using Evaluation For Continuous Improvement



Evaluation of Implementation


Evaluation of Outcomes

What is working?  
How can we improve?

Demonstrate the positive impacts of strategies that work

Continuous improvement: Identify ways we can strengthen our plan to better support our students


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## What Are We Evaluating?


| Implementation  | Outcomes   |
|---|--|
| <ul style="list-style-type: none"><li>• Changes in infrastructure</li><li>• Coherent improvement strategies</li></ul> | <ul style="list-style-type: none"><li>• Changes in educational practice</li><li>• Student outcomes</li></ul> |

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## A Strong Plan for Evaluating the Effects of Your Initiative on Your SiMR: Essential Ingredients

- Formative data to focus on progress
- Measures that are
  - Feasible
  - Technically defensible
  - Sensitive to improvement for students in the target population
- A longitudinal tracking sample (tracking the same group of students from the start of your initiative)



## Why State Assessments Are Not Enough

- Most state tests don't start until 3<sup>rd</sup> grade
- Poor sensitivity to improvement for this target population
- One-time spring assessment at end of your initiative
  - Can't inform timely intervention adaptations
  - Students who respond best to your initiative exit the sample (you're left with students who respond poorly).



## Case Study 1: Why Summative Assessments Are Not Enough



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## Case Study: State SiMR

- Increase the literacy performance of students with disabilities in K-grade 3 as measured by an increase in the percentage of third-grade students demonstrating proficiency on state assessment.


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## Case Study: The State Initiative

### The SEA...


- Funded an RTI Center to support district-wide implementation of RTI in 20 participating schools.
- Provided extensive professional development on evidenced-based practices at Tiers 2 and 3.
- Offered on-site coaching to support implementation for participating schools.



## Case Study: Evaluation Approach

| Implementation   | Outcomes/Impact  |
|--|--|
| <ul style="list-style-type: none"><li>• Fidelity Checklists</li><li>• Completion of Activities</li><li>• Surveys/Interviews of Staff</li></ul> | <ul style="list-style-type: none"><li>• SWD Performance on Grade 3 State Tests</li></ul> |

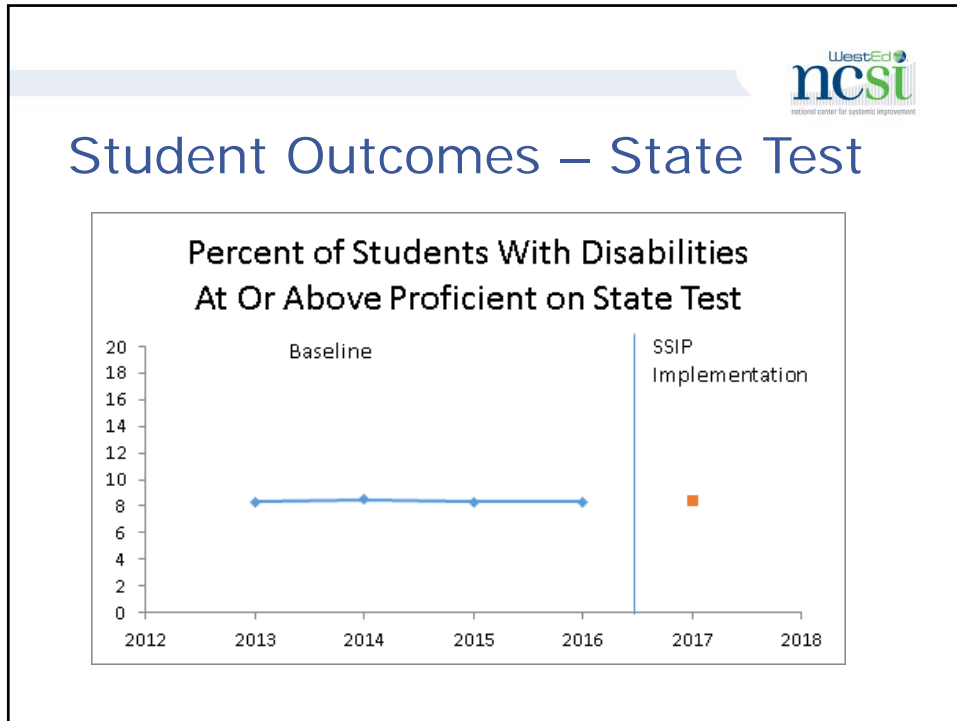
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## Case Study: Results of Evaluation

- **Implementation data indicated**
  - Evidenced-based Tier 2 programs were implemented.
  - The SEA's high quality materials, developed by NCI to improve Tier 3 services, were used.
  - Most schools showed adequate fidelity at Tier 2 and Tier 3.
- **Surveys and interviews indicated interventionists believed SWD had made strong progress.**


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### Case Study: Impact of Evaluation


Did the initiative fail?  
OR  
Did the evaluation approach fail to demonstrate the SEA's success?

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## Case Study 2: How Using A Periodic Assessment Approach to Evaluation Does a Better Job of Showing the SEA's Success



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## Case Study 2: State SiMR

- Increase the literacy performance of students with disabilities in K-grade 3 as measured by an increase in the percentage of grade-3 students demonstrating proficiency on state assessment.

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## Case Study 2: The State Initiative

- SEA funded an RTI Center to support district-wide implementation of RTI in 20 participating schools.
- Provided extensive professional development on evidenced-based practices at Tiers 2 and 3.
- Offered on-site coaching to support implementation for participating schools



## Case Study 2: Evaluation Approach

| Implementation   | Outcomes/Impact   |
|--|---|
| <ul style="list-style-type: none"><li>• Fidelity Checklists</li><li>• Completion of Activities</li><li>• Surveys/Interviews of Staff</li></ul> | <ul style="list-style-type: none"><li>• SWD Performance on Grade 3 State Tests</li><li>• <b>The Tracking Sample's Performance on Periodic Assessments (K-3)</b></li></ul> |

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## Case Study 2: Decision to Supplement the Evaluation with Periodic Assessment

- What are the advantages of including periodic assessment tools, with a tracking sample?
  - Available for all grades included in SiMR (K-3)
  - More sensitive to improvement for this target population
  - Readily available as part of the implementation of the SSIP strategy
  - Includes the full group of students likely to receive services at some time K-3

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## Case Study 2: Planning for the Use of Periodic Assessments

- Engaged LEAs in early planning discussions about using valid, reliable periodic assessment data, with sensitivity to the progress of this target population
- At mid-Kindergarten (January), used screening to select a tracking sample
- Identified periodic assessments for 10 points across K-3
- Assessed progress by calculating percentage of mean performance at each of the 10 time points

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## Case Study 2: Selecting the Tracking Sample

- Screened with Letter Sound Fluency (LSF) and Word Identification Fluency (WIF) in mid-January to identify the tracking sample.
- This identified the sample of children *likely* to receive SSIP services immediately or at any point in the evaluation.
  - Permits tracking of larger group of students across the SiMR's full time period.
  - The tracking sample includes students before they are designated as having a disability and follows students after they exit special education.

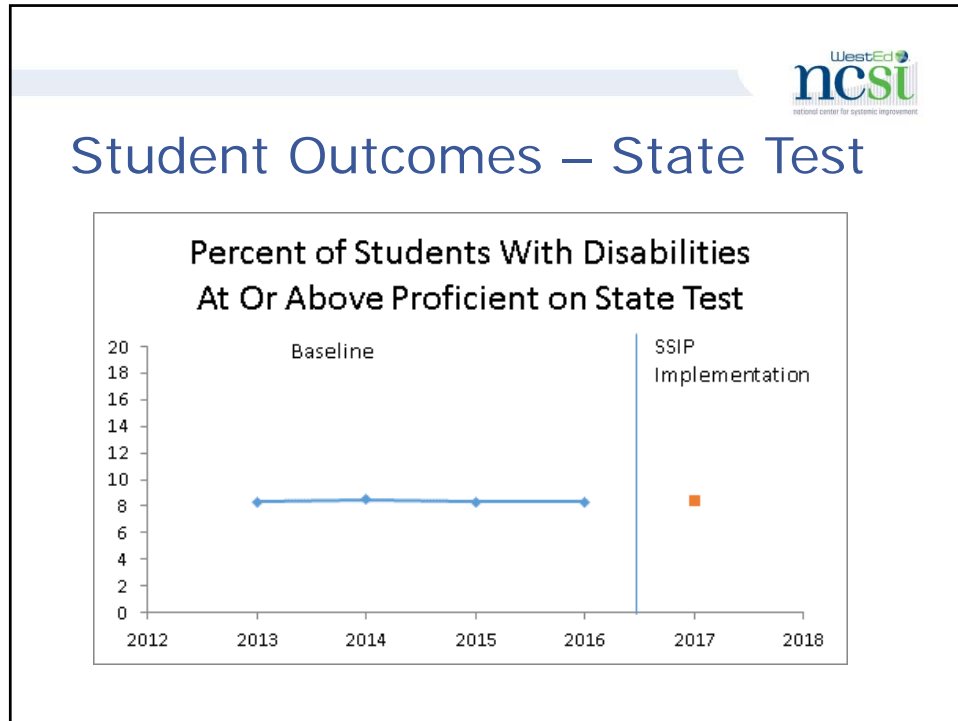
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## Case Study: Results of Evaluation Activities

- Implementation data indicated
  - Evidenced-based Tier 2 programs were implemented.
  - The SEA used high quality materials developed by NCII to improve Tier 3 services.
  - Most schools showed adequate fidelity for both Tier 2 and Tier 3.

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### Digging Deeper with Periodic Assessments

- At each of the 10 periodic assessments, calculate the tracking sample's mean performance compared to the "expected" performance for the grade and measure.
  - Consult norms provided by the tool developer.
  - Find mean for the appropriate grade and time of year.

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## Calculating the Percentage of Expected Performance for Julia

- Student's score divided by expected performance
- Example:
  - Julia's score = 25 WRC
  - Mean for students at that grade = 50 WRC
  - Julia's percentage of expected mean =

$$\frac{25}{50} = .5 = 50\%$$

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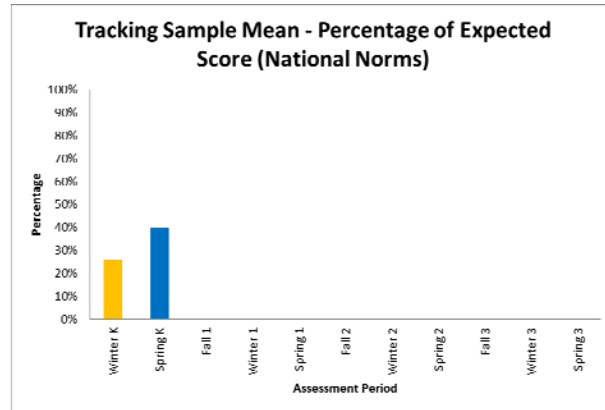
## Aggregating The Mean Percentage of Expected Performance across Students

- Example:
  - Jim = 50%
  - Mary = 32%
  - Ted = 75%
  - Linda = 59%
  - **Mean = 54%**

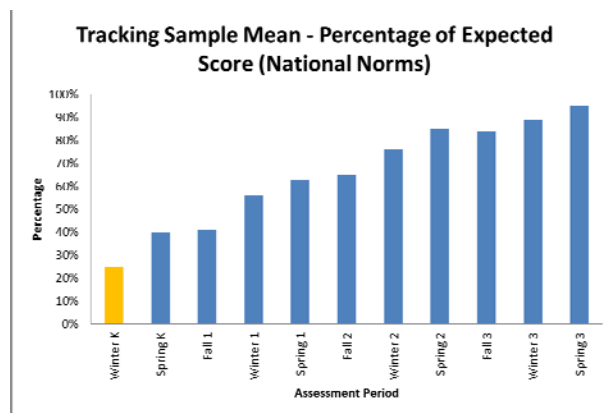
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## Results: Percentage of the Expected Performance for January and Spring K (Year 1)



## Results: Percentage of Expected Performance for Baseline and All 10 Periodic Assessments





## Impact of Two Evaluation Approaches

| Case Study 1: State Tests Only  | Case Study 2: State Tests +<br>Periodic Assessments   |
|---|---|
| <ul style="list-style-type: none"><li>• Poor sensitivity (doesn't reveal progress) to improvement on SiMR</li><li>• Decreased motivation and persistence of LEA staff</li><li>• Only includes students who do <u>not</u> exit services.</li><li>• Difficulty identifying areas for continuous improvement</li></ul> | <ul style="list-style-type: none"><li>• Better sensitivity to improvement on SiMR</li><li>• Data highlight success of initiative</li><li>• Increased staff commitment</li><li>• Includes all students who were at-risk for disability at mid-kindergarten, including those who exited services.</li><li>• Data to support timely decisions about program improvement.</li></ul> |

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## Considerations for Next Steps



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## Benefits of Using Periodic Assessment with a Tracking Sample to Inform Systems-Level Decisions

- Measures are more sensitive to student learning
- Data are already available as part of improvement efforts
- Ability to aggregate periodic assessment results for formative and summative program evaluation

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## Benefits of Using Tracking Samples

- Increases sensitivity of evaluation to capture the impact of SSIP.
- Increases size of evaluation sample.
- Helps capture progress of higher performing SWDs who respond to the initiative but exit those services before your evaluation ends.

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## Selecting Periodic Assessments

National Center on Response to Intervention

**Screening Tools Chart**

This tools chart presents information about screening tools from the fifth annual review of screening tools by the [Center's Technical Review Committee \(TRC\)](#). The volume includes ratings from our TRC members on the technical rigor of the tool and information about the efficiency of implementation. Click for [Details of the technical standards](#). [Additional information](#) is provided below the chart.

| Grade | Subject                              | Classification Accuracy Rating | Generalizability | Reliability | Validity | Disaggregated Reliability, Validity, and Classification Data for Diverse Populations | Administration |
|-------|--------------------------------------|--------------------------------|------------------|-------------|----------|--|----------------|
| Any   | Reading                              |                                |                  |             |          |  | Group          |
| Any   | English Language Arts                |                                | Moderate High    |             |          |  | Group          |
| Any   | Reading Curriculum-Based Measurement |                                | Moderate High    |             |          |  | Individual     |

National Center on Intensive Intervention

**Academic Progress Monitoring GOM**


This tools chart presents information about academic progress monitoring tools. The three tabs, Psychometric Standards, Progress Monitoring Standards, and Data-based Individualization Standards include ratings from our TRC members on the technical rigor of the tool. [Additional information](#) is provided below the chart.

View the [Progress Monitoring Mastery Resources](#).

| Grade Level | Subject | Psychometric Standards | Progress Monitoring Standards | Data-based Individualization Standards |
|-------------|---------|------------------------|-------------------------------|--|
| Any         | Reading |                        |                               |  |

| Title    | Area   | Reliability of the Performance Level Score | Reliability of the Measure | Validity of the Performance Level Score | Predictive Validity of the Measure of Improvement | Disaggregated Reliability and Validity Data |
|----------|--|--|----------------------------|---|---|---|
| AIMtools | Test of Early Literacy - Letter Naming Fluency         |  |                            |   |   |   |
| AIMtools | Test of Early Literacy - Letter Sound Fluency          |  |                            |   |   |   |
| AIMtools | Test of Early Literacy - Response Sound Fluency        |  |                            |   |   |   |
| AIMtools | Test of Early Literacy - Phonemic Segmentation Fluency |  |                            |   |   |   |
| AIMtools | Oral Reading Fluency (3-CAR)                           |  |                            |   |   |   |
| AIMtools | Curriculum-Based Measurement in Reading (CBM-R)        |  |                            |   |   |   |
| AIMtools | Letter Sound Fluency                                   |  |                            |   |   |   |

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# Question and Answer

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## Resources

- [NCSI - SiMR Tracking Sample: What Are the Advantages of Tracking a Sample Over Time?](#)
- [NCRTI Screening Tools Chart](#)
- [NCII Progress Monitoring Tools Chart](#)
- L & L CSLC Office Hours: March 29, 1-1:30 EDT
- Assigned NCSI TA Provider



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**Thank You for  
Participating**

**We look forward to our  
continued  
collaboration!**

**Thank You!**

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