Moving an Early Education Program into an MTSS Framework

Part 4: Strengths-Based Problem-Solving

Robin Miller Young, Ed.D.
Northern Illinois University

Judy Carta, Ph.D.
University of Kansas

Workshop presented at the NeMTSS Summit
September 6, 2019
Steps of the Strengths-Based Problem-Solving Model

**Problem Identification**
Is there a difference between current performance and expected or desired performance?

**Plan Evaluation**
How is/are the student(s) responding?

**Problem Analysis**
Why does the problem exist?

**Intervention Implementation**
What can be done to reduce the difference between current and expected/desired performance?

Figure 4.1. Steps of the problem-solving model. Source: Batsche, G. et al., 2005.
Strengths-based Problem-Solving Process

SCHOOL/PROGRAM Level:

• How are all children performing in core? Compare current indicators with expected or desired goals.

• Identify needed improvements. Make program changes, implement with fidelity, and monitor progress.

• Compare students’ performance and growth to goals. Determine next steps.
Strengths-based Problem-Solving Process

**CLASSROOM Level:**

- Core curriculum should be meeting most students’ needs. So, which children need supports?
- Arrange small groups to provide targeted interventions (standard protocol if possible). Implement with fidelity; monitor progress.
- Compare student performance and growth to goals; decide next steps.
Strengths-based Problem-Solving Process

**INDIVIDUAL-CHILD Level:**

- Core curriculum plus strategic interventions should be meeting almost all children’s needs.
- So, which few children require intensive interventions that are more individually-designed supports?
- Provide targeted interventions Implement with fidelity; monitor progress.
- Compare student performance and growth to goals; decide next steps.
Problem-Solving Model Steps: Continuous Improvement Process

Problem Identification

• Is there a difference between current performance and expected or desired performance?
• What is the goal relative to the expected/desired performance?

Decision: If there is a problem, move to Problem Analysis phase.

Methods and Tools to Support Problem Identification

• Universal screening
  • Standardized published tools (e.g., Individual Growth and Development Indicators (IGDIs); Preschool Early Literacy Indicator (PELI); Behavioral and Emotional Screening System; Ages & Stages Questionnaire)
• Program level data
• Classroom level data
• Accurate identification in context of the measurement framework

• What do you use for universal screening?
How are all children performing in the core for three different programs?

<table>
<thead>
<tr>
<th>Program</th>
<th>Percentage Meeting Benchmark</th>
</tr>
</thead>
<tbody>
<tr>
<td>Program 1</td>
<td>55</td>
</tr>
<tr>
<td></td>
<td>27</td>
</tr>
<tr>
<td></td>
<td>18</td>
</tr>
<tr>
<td>Program 2</td>
<td>70</td>
</tr>
<tr>
<td></td>
<td>17</td>
</tr>
<tr>
<td></td>
<td>13</td>
</tr>
<tr>
<td>Program 3</td>
<td>80</td>
</tr>
<tr>
<td></td>
<td>16</td>
</tr>
</tbody>
</table>
Which children need supports?

<table>
<thead>
<tr>
<th>First</th>
<th>Fall PN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cadence</td>
<td>9</td>
</tr>
<tr>
<td>Eternity</td>
<td>7</td>
</tr>
<tr>
<td>Dianlix</td>
<td>6</td>
</tr>
<tr>
<td>Christopher</td>
<td>6</td>
</tr>
<tr>
<td>Noah</td>
<td>2</td>
</tr>
<tr>
<td>John</td>
<td>9</td>
</tr>
<tr>
<td>Arianny</td>
<td>6</td>
</tr>
<tr>
<td>Milan</td>
<td>12</td>
</tr>
<tr>
<td>Jeniah</td>
<td>11</td>
</tr>
<tr>
<td>Daralyn</td>
<td>6</td>
</tr>
<tr>
<td>Jayden</td>
<td>1</td>
</tr>
<tr>
<td>Makenzie</td>
<td>12</td>
</tr>
<tr>
<td>Kendry</td>
<td>6</td>
</tr>
<tr>
<td>Elena</td>
<td>2</td>
</tr>
<tr>
<td>Drake</td>
<td>8</td>
</tr>
<tr>
<td>Michelle</td>
<td>10</td>
</tr>
<tr>
<td>Jayden</td>
<td>3</td>
</tr>
<tr>
<td>Audrey</td>
<td>4</td>
</tr>
</tbody>
</table>

Is that the right question to be asking in this case?
Problem-Solving Model Steps:
Continuous Improvement Process

**Problem Analysis**

- Why does the problem exist?
- What factors could be contributing to the problem that we can address?
- What resources are required to address the problem?

**Decision**: Once the problem is understood, move to **Intervention Implementation** phase.

Methods and Tools to Support Problem Analysis

- Record Review
- Teacher and caregiver interviews and rating scales
- Other assessment data
- Curricular review
- Classroom observations
  - Instructional environment
  - Individual child behavior
  - What to look for?
Intervention Implementation

• What can be done to reduce the difference between current and expected/desired performance?
• What supports are needed to ensure strong intervention implementation?

**Decision**: Match child’s (children’s) strengths and needs to intervention, implement and then do **Plan Evaluation**.

Supporting intervention implementation

Pre-intervention
- Contextual fit?
- Training
- Supports identified
- Clear plan of action

During intervention
- Check in and feedback
- Additional supports required?
- Modifications needed?

Post-intervention
- Planning for maintenance/generalization/fading
- Social validity check
Problem-Solving Model Steps: Continuous Improvement Process

**Plan Evaluation**

- How is/are the student(s) responding?
- How is the plan working?
- Has the difference between current and expected/desired performance been reduced to satisfactory level?
- What are the next steps?

**Decision**: If the problem still exists, implement modified plan. No problem, end intervention.

How are all children performing in the core in one program across time?

- Fall: 55% meeting benchmark, 27% other levels
- Winter: 72% meeting benchmark, 17% other levels
- Spring: 80% meeting benchmark, 11% other levels
Which children still need supports, or need additional or different supports?

<table>
<thead>
<tr>
<th>First</th>
<th>Fall PN</th>
<th>Winter PN</th>
<th>Spring PN</th>
</tr>
</thead>
<tbody>
<tr>
<td>Cadence</td>
<td>9</td>
<td>13</td>
<td>15</td>
</tr>
<tr>
<td>Eternity</td>
<td>7</td>
<td>11</td>
<td>13</td>
</tr>
<tr>
<td>Dianlix</td>
<td>6</td>
<td>7</td>
<td>11</td>
</tr>
<tr>
<td>Christopher</td>
<td>6</td>
<td>5</td>
<td>10</td>
</tr>
<tr>
<td>Noah</td>
<td>2</td>
<td>8</td>
<td>6</td>
</tr>
<tr>
<td>John</td>
<td>9</td>
<td>9</td>
<td>11</td>
</tr>
<tr>
<td>Arianny</td>
<td>6</td>
<td>6</td>
<td>11</td>
</tr>
<tr>
<td>Milan</td>
<td>12</td>
<td>11</td>
<td>13</td>
</tr>
<tr>
<td>Jeniah</td>
<td>11</td>
<td>13</td>
<td>15</td>
</tr>
<tr>
<td>Daralyn</td>
<td>6</td>
<td>8</td>
<td>11</td>
</tr>
<tr>
<td>Jayden</td>
<td>1</td>
<td>8</td>
<td>10</td>
</tr>
<tr>
<td>Makenzie</td>
<td>12</td>
<td>11</td>
<td>15</td>
</tr>
<tr>
<td>Kendry</td>
<td>6</td>
<td>9</td>
<td>12</td>
</tr>
<tr>
<td>Elena</td>
<td>2</td>
<td>2</td>
<td>5</td>
</tr>
<tr>
<td>Drake</td>
<td>8</td>
<td>8</td>
<td>12</td>
</tr>
<tr>
<td>Michelle</td>
<td>10</td>
<td>12</td>
<td>15</td>
</tr>
<tr>
<td>Jayden</td>
<td>3</td>
<td>5</td>
<td>8</td>
</tr>
<tr>
<td>Audrey</td>
<td>4</td>
<td>8</td>
<td>9</td>
</tr>
</tbody>
</table>
Boxplots across time

Fall Picture Naming

Winter PN

Spring PN

Picture Naming - Number Correct

Fall Picture Naming

Winter PN

Spring PN

Picture Naming - Number Correct
Show MTSS for Young Children Video #3: Problem-Solving at the Program/School Level

(available on the Brookes Publishing website.)
Data-based decision making and strengths-based problem solving at program/school level: Tier 1
Essential Ingredients in Tier 1 Early Literacy

4 Key Content Areas that lay the foundation for reading

- Oral language/Vocabulary
- Comprehension
- Phonemic Awareness
- Alphabet Knowledge

Examples of Evidence-Based Practices

- World of Words (Vocabulary) (Neuman)
- Dialogic Reading (Whitehurst)
- Explicit Instruction (Archer)
- I do, We do, You do
Universal Screening Data-Vocabulary

<table>
<thead>
<tr>
<th>Students meeting criteria</th>
<th>Sept</th>
<th>Nov</th>
<th>Jan</th>
</tr>
</thead>
<tbody>
<tr>
<td>Proficient</td>
<td>62</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Not Proficient</td>
<td>38</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

Benchmark
Problem Identification

**PI meeting: What was learned . . .**

- Universal vocabulary screener administered to all children in September.
- 62% of children meet benchmark criteria; goal was to have 80% of children meet benchmark.
Problem Identification

**PI decision:** We do have a problem; need to plan **PA** meeting to focus on system-level explan

(To be completed with the session participants)

Do you agree that there is a “Problem”? Why? Why not?

What information needs to be gathered before the PA meeting to look at “system-level” (Tier 1) explanations for the gap and to help design an intervention plan?
Program/School Problem Solving Example

Problem Identification

**PI decision:** We do have problem; need to plan **PA**

(from the video)

Goal: Need to 80% proficient; only 62% meet benchmark. Gap is too large. If we don’t raise their knowledge of word meanings (vocabulary), they will have difficulty becoming proficient readers. Need to focus on bolstering Tier 1.
Problem Analysis

**PA** meeting: What was learned . . .
(to be completed with the session participants)
Problem Analysis

**PA meeting: What was learned . . .** (from the video)

- Concern: Vocabulary growth rate (pre-post instruction)
- Student engagement is strong
- Curriculum evaluation: keep it.
- Teachers are inconsistent in lesson planning and delivery
- IDEAS strategy.
IDEAS Vocabulary Strategy – Applied Example

IDEAS Intro: “I see you are flipping pancakes.”

**Identify**
- I do it: “This is a *spatula*.”
- We do it: “Say the word *spatula* with me.” Child repeats with teacher
- You do it: “Now, you say the word *spatula*.” Child says *spatula*.

**Define** “A *spatula* is something that you use while cooking to turn or flip something over.”

**Explain** “I always use a *spatula* when I make pancakes and also when I fry potatoes.

**Ask** "What food can you flip with a *spatula*?"

**Say again** "*Spatula*. Say *spatula*." Child say, "*Spatula*."

Source: Abbott et al., 2015
Program/School Problem Solving Example

Problem Analysis

PA Decision: An Intervention Plan was developed: (To be completed with session participants)
Problem Analysis

PA Decision: Intervention Plan was developed (video)

• Decide to keep current curriculum
• Change lesson plan process – improve instruction.
• Train and coach of IDEAS strategy; use with fidelity.
• Implement across large group, small group “Centers”, and embedded in play.
Plan Evaluation: First Meeting

Review Intervention Plan results
(To be completed with session participants)
Plan Evaluation: First Meeting

Review Intervention Plan results (from video)

- First, teachers were resistant to making changes; now, they see how to be creative AND implement lessons with fidelity.
- 85 – 95% of the lesson components are being implemented.
- IDEAS Strategy: better definitions and “I do, we do, you do.”
- Staff growing to like the data-based decision making.
- Some progress (70 %), but not enough to close gap.
Universal Screening Data - Vocabulary

Students Meeting Criteria

<table>
<thead>
<tr>
<th>Month</th>
<th>Proficient</th>
<th>Not Proficient</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sept</td>
<td>38</td>
<td>62</td>
</tr>
<tr>
<td>Nov</td>
<td>30</td>
<td>70</td>
</tr>
<tr>
<td>Jan</td>
<td>Benchmark</td>
<td></td>
</tr>
</tbody>
</table>

Benchmark

- Proficient
- Not Proficient
Plan Evaluation: Second Meeting

Review Intervention Plan impact:
(To be completed with session participants)
Plan Evaluation: Second Meeting

Review Intervention Plan impact: (from video)

• Children receiving many individual opportunities to respond (OTR); opportunities for feedback.

• Implementation rates are still high.

• Two data sources show continued improvement:
  One-point-in-time: Universal screener now at 78%
  Rate-of progress: Pre- & post-instruction vocab growth.
Universal Screening Data - Vocabulary

Students Meeting Criteria

- September: 38% proficient, 62% not proficient
- November: 30% proficient, 70% not proficient
- January: 22% proficient, 78% not proficient

Benchmark

- Green: Proficient
- Yellow: Not Proficient
MTSS for Young Children: Key Takeaways

• All children get the level of instruction that meets their needs
• Prevention of delays and disabilities—better than “wait to fail”
• Early intervention is more effective and less costly than later remediation.
• Continuous progress monitoring ensures that children don’t get “stuck” receiving ineffective instruction.
• Data-based decision-making fosters team members moving in the same direction.
Our Vision for MTSS in Early Education

Wouldn’t it be great if...

every child could participate in an early education program with evidence-based instruction, and receive appropriate levels of instructional intervention to achieve the best possible early academic and behavioral outcomes?

Thank you for joining us on this journey!  Judy and Robin