Systematic Screening in Tiered Systems: Lessons Learned at the Elementary School Level

Introduction

Across the United States, many school leaders are engaging in systematic screening processes as part of integrated, tiered systems of support to meet students’ multiple needs. Systematic screening is a key practice used to examine the overall level of students’ performance for the school as a whole and identify students who may need additional supports beyond Tier 1 prevention. Screening data are used alongside other data collected as part of regular school practices (e.g., office discipline referrals, attendance, nurse visits) to facilitate data-inform decision making to shape instruction at the school, class, and student levels (see Universal Screening – Systematic Screening to Shape Instruction). School and district leaders also implement research-based strategies, practices, and programs at each level of prevention – Tier 1, Tier 2, and Tier 3 - to provide a strong foundation for positive student outcomes in all three learning domains. These integrated tiered systems emphasize equity goals by providing tiered interventions and supports at the earliest indication of need and ensure students have equitable access to core instruction in academics and social skills by using a range of positive behavior-change systems and instructional strategies.

Purpose

In this model demonstration paper, we highlight the experiences of elementary schools in one district that were in the first year of an IES-funded researcher-practitioner partnership grant (R305H150018) supporting the implementation and evaluation of their integrated tiered system of support (see www.Ci3T.org). In this brief, we summarize the procedures, key findings, and lessons learned regarding conducting systematic screening at the elementary level.

Elementary Schools

14 Midwestern US elementary schools
Total: 4465 students
Grade: Kindergarten 18%; 1st 16%; 2nd 17%; 3rd 18%; 4th 17%; 5th 14%
Gender: 53% Male; 47% Female
Ethnicity/race: Hispanic 8%; White 73%; Mixed races 11%; Black 7%; Asian/Pacific Islander 5%; Native American/Native Alaskan 4%
School and University Partnership

The research team formed a partnership with one school district to develop an integrated tiered system for each of their schools. University-based trainers collaborated with district leaders to guide them through the process of selecting a screening tool, developing the systems and structures for implementing screening practices, administering screening, interpreting screening data, and using screening data with other school collected data for decision making (For a detailed protocol that can be adapted for use with any selected screening tool see [https://www.ci3t.org/a-new-resource-to-support-installation-of-the-srss-ie](https://www.ci3t.org/a-new-resource-to-support-installation-of-the-srss-ie)). The research team also provided professional learning opportunities to faculty and staff through multiple avenues, including a series of afterschool professional learning sessions by trainers, districtwide presentations, on-demand resources (e.g., YouTube videos), and practice guides.

Procedure

1. Assemble Leadership Team

An established leadership team has been shown to be essential to sustain implementation of tiered systems. Schools in the partner district assembled a school-site leadership team that consisted of members representative of the school's faculty and staff. Each leadership team represented stakeholders who were familiar with the school environment and had frequent interaction with students. Most often this included the principal, two general education teachers, one special education teacher, an individual with expertise in school-based interventions (e.g., instructional coach, social worker, school psychologist, school counselor, mental health team member, or behavior specialist), and a family member. The team also included a student to ensure student input was integrated into the implementation planning. All adult team members attend a 6-part, year-long training series led by university partners (see [www.ci3t.org/building](http://www.ci3t.org/building)) to build their system. The student team members attended two evening sessions so as to not miss school to attend.

2. Select a Systematic Screening Tool

The district leadership team supported the selection of their universal systematic screening tool. Identifying a valid and contextually fit screening tool was the first step in establishing a systematic screening process that would be used by all district elementary schools. During the professional learning series, each school leadership team
reviewed currently available tools including current psychometric evidence. The teams listed the top three behavior screening tools of interest to look for students with both major disorders of childhood: externalizing and internalizing behaviors. The district leadership team gathered the school teams’ short lists and looked for tools of interest across schools. They did some additional research on the collective top three selected screening tools. The district leadership team also considered the resources that would be needed to be invested in their systematic screening process, including but not limited to monetary, time, and human resources (e.g., teacher time to complete). The district leadership team with building principal input balanced the evidence and resource requirements to decide on which screening tool to use. Detailed guidance on how to select a screening tool can be found in Selecting a Universal Behavior Screening Tool (https://www.pbis.org/resource/selecting-a-universal-behavior-screening-tool-questions-to-consider).

3. Prepare for Implementation

With district support, each school-site team set up a plan defining roles and responsibilities for the screening process to ensure the efficiency and sustainability of the organizational structures (see Systematic Screening Protocol: Setting up to Screen in Your District or School for information on roles of the team members). Additionally, the district developed a secure data collection and management system to ensure only faculty or staff with an educational purpose could access the data.

Teachers had electronic access to only their homeroom class. Information related to data security during the screening process was emphasized with those completing the screenings, as well as faculty and staff in general.

District leaders established screening windows for each of the three screening time points: fall (4–6 weeks after the year began), winter (prior to winter break), and spring (before year end). Teachers were given protocols that included the logistics of data collection and access.

The district instructional technology team prepared for data collection by prepopulating students’ names and district identification numbers for each elementary teacher’s homeroom approximately 30 days before each screening window opened to ensure teacher had sufficient time with the students before completing the behavior screener. To ensure each teacher had a file prepared and the correct students were prepopulated for each teachers’ class, principals were given access to electronic folders in advance so they could examine the folders prepared for each teacher and address any issues in advance of the opening of the screening window.
4. **Schedule Professional Learning**

The school's leadership team shared information with all faculty and staff on the rationale and logistics for systematic screening. Faculty and staff had access to professional learning opportunities in a range of avenues including after school presentations by trainers, districtwide presentations, on-demand resources (e.g., YouTube videos), and practice guides. Professional learning opportunities focused on installing systematic screening processes and using screening data to inform instruction. Specifically, data from systematic screenings were used by the district leadership team and school-site leadership teams to (a) examine overall level of risk schoolwide; (b) inform the use of low-intensity, teacher-delivered supports to increase engagement and decrease disruption; and (c) connect students with Tier 2 and Tier 3 supports as needed (see [https://www.pbis.org/resource/interpreting-universal-behavior-screening-data-questions-to-consider](https://www.pbis.org/resource/interpreting-universal-behavior-screening-data-questions-to-consider) for more information on how to use systematic screening data to inform instructional decisions).

5. **Collect and Use Treatment Integrity and Social Validity Data to Refine the System Each Year**

The district collected treatment integrity and social validity data in fall and spring of each year to ensure Tier 1 practices were in place as planned (e.g., Tiered Fidelity Inventory) and offer each adult supporting implementation an opportunity to share their views on the goals, procedures, and intended outcomes. These data were reviewed to help interpret student outcomes, inform intervention efforts, and determine next steps for professional learning.

### Data Collection

<table>
<thead>
<tr>
<th>Measure</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>Student Risk Screening Scale—Internalizing and Externalizing (SRSS-IE)</td>
<td>The SRSS-IE is an established free-access screening tool. Items assess risk for both externalizing and internalizing behaviors. At the elementary level, homeroom teachers completed the SRSS-IE for each student, rating each behavior on a 4-point, Likert-type scale of never = 0, occasionally = 1, sometimes = 2, and frequently = 3.</td>
</tr>
<tr>
<td>Oral reading fluency (ORF)</td>
<td>Students' spring benchmark AIMSweb scores (number of words read correct per min)</td>
</tr>
<tr>
<td>Measures of academic progress (MAP)</td>
<td>Students' spring reading assessment percentile scores</td>
</tr>
<tr>
<td>Nurse visits</td>
<td>Number of visits a student made to the school nurse for assistance (e.g., getting a bandage, nausea, fever, somatic complaints)</td>
</tr>
<tr>
<td>In-school suspensions</td>
<td>The number of days a student was assigned in-school suspension (a sanction reserved for serious rule infractions such as bullying).</td>
</tr>
</tbody>
</table>
Key Findings

Fall SRSS-IE scores (externalizing and internalizing) predicted how students fared over the course of the academic year.

- Students scoring in the low-risk externalizing category in fall ended the year with higher ORF scores, higher mean MAP scores, fewer nurse visits, fewer in-school suspensions compared to students beginning the year in the moderate and high-risk groups for externalizing behaviors.
- Students scoring in the moderate-risk externalizing category in the fall ended the year with higher ORF scores, higher mean MAP scores, higher mean nurse visits, fewer in-school suspensions compared to students beginning the year in the high-risk group for externalizing behaviors.
- Students scoring in the low-risk internalizing category in fall ended the year with higher ORF scores, higher mean MAP scores, fewer nurse visits, and fewer in-school suspensions compared to students beginning the year in the moderate and high-risk groups for internalizing behaviors.
- Students scoring in the moderate-risk internalizing category in fall ended the year with higher mean MAP scores and more visits to the nurses office compared to students beginning the year with in the high-risk group for internalizing behaviors.

In sum, externalizing and internalizing behaviors not only reflect students’ well-being; the fall scores also indicated how well students ended the year in term of reading. The good news is: teachers can reliably measure internalizing and externalizing behaviors in about 15 minutes for the whole school and then use these data along with other data collected as part of regular school practices to inform instruction.

Lessons Learned

- Screening scores are highly related to students' academic and behavioral outcomes, including ORF, MAP reading, nurse visits, and in-school suspensions. As such, it could be helpful to address students' academic, behavioral, and social and emotional well-being needs in an integrated fashion.
- Systematic screening data can predict students' later academic and behavioral outcomes, including ORF, MAP reading, nurse visits, and in-school suspensions. In other words, behavioral screening data may inform schools which students will likely benefit from additional supports (e.g., Tier 2 and Tier 3). Screening data function as the earliest indication of needs.
- Screening data can help identify students who may benefit from additional support behaviorally, socially, and academically. Providing support according to student's risk level can help decrease
the number of students in moderate and high-risk group across time. Schools can also look at overall levels of internalizing and externalizing risk over time.

- Thorough preparation to ensure critical components of the systematic screening are ready prior to implementation is critical to the success of systematic screening. Preparations include establishing organizational structure for screening, selecting screening tool, setting up secure data management system, and scheduling screening windows.

- Support at each level of prevention will require high-quality professional learning, ideally with positive practice, coaching, and performance feedback.

For additional information on the full study, funded by the Institute of Education Sciences, please see: