A2 — Practical Problem Solving: Drilling Down Into School Data for Improved Decision Making

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Key Words: Tier 1, Coaching, Training, Behavior
Presenters

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Objectives

- Provide a basic overview of Data-Based Decision Making using Tier 1 data
- Define and create a precise problem statement for problem-solving teams
- Drill Down into Tier 1 data using the Tiered Fidelity Inventory and Drill Down tool in SWIS
Rationale for Data-Based Decision Making in SWPBIS
Research on Sustainability of SWPBIS

What *single* factor is most related to high sustainability of SWPBIS?

The frequency with which DATA are presented to all school staff

In SWPBIS, we start by identifying desired outcomes or goals, usually related to student social competence and academic achievement, then we align and organize our data, systems, and practices to move us efficiently and effectively toward those goals.
All specialized interventions are more effective and more durable with universal, school-wide behavioral expectations as a foundation.
What is a performance gap?

Simply put, a performance gap is the difference between your current situation and your intended situation. Whether you’re an athlete, a Fortune 500 company, or a classroom teacher, the performance gap affects your goals and what you need to do to make them a reality.
When should schools start screening?

Cumulative Mean ODRs Per Month for Elementary Schools

Differences become clear in October

McIntosh et al (2010)
Are secondary schools different?

Cumulative Mean ODRs Per Month for Middle Schools

- Green line: 0-1
- Yellow line: 2-5
- Red line: 6+

Still October

To close performance gaps, we need...

The right people to have the right data at the right time in the right format.

(Gilbert, 1978)
What does that mean?

People

Data

Time

Format
If you can predict it...

In a school of 500 students this might mean:
- 150 fewer referrals
- Nearly 20 days of time per school year!
Using Data for Decision Making
Did we implement the systems and strategies we agreed upon?

Is the plan resulting in progress toward our goals?
Connecting Fidelity & Outcome Data

**Lucky Sustaining**
- Positive outcomes, low understanding of how they were achieved
- Replication of success is unlikely

**Positive outcomes, high understanding of how they were achieved**
- Replication of success likely

**Losing Ground Learning**
- Undesired outcomes, low understanding of how they were achieved
- Replication of failure likely

**Undesired outcomes, high understanding of how they were achieved**
- Replication of mistakes unlikely
Team-Initiated Problem Solving

TIPS
Team-Initiated Problem Solving

www.pbis.org/Training/TIPS
Decisions are more likely to be effective and efficient when they are based on....

**DATA**

The quality of data-based problem solving depends most on the first step. Define the problem to be solved with:

- **Precision**
  (who, what, where, when, how often, why)

- **Clarity**
  (general agreement on priorities)
Why Use Data for Decision Making?

- Data help place the “problem” in the **local context** rather than on the students.
- Data help us ask the right questions...they do not provide the **solutions**.
- Use data to:
  - **Identify** problems
  - **Refine** problems and understand the context
  - **Define** the questions that lead to a solution
What is Data Integrity?

Data integrity is maintaining the accuracy and consistency of data over its entire life cycle. It is a critical aspect to the design, implementation, and usage of any system that stores, processes, or retrieves data.

For data to be useful, it should reliably match overall perceptions across staff, students, and families.

- Accurate Data
- Better Assumptions
- Good Decisions
Garbage in, garbage out
Primary vs. Precise Problem Statements
OUR DATA TELLS A STORY
Creating a Precise Problem Statement

Use **DATA** to define...

- a **PRIMARY** summary statement
- a **PRECISE** problem statement

System Update/Big Picture

Primary

Red Flag

Identify Problem with Precision

25
Precise Problem Statements: Outcomes

<table>
<thead>
<tr>
<th>Obtain</th>
<th>Avoid</th>
</tr>
</thead>
<tbody>
<tr>
<td>• Attention (adults or peers)</td>
<td>• Attention (adults or peers)</td>
</tr>
<tr>
<td>• Tangible (items, activities)</td>
<td>• Tangible (items, activities)</td>
</tr>
<tr>
<td>• Sensory</td>
<td>• Sensory</td>
</tr>
</tbody>
</table>

Why is the problem sustaining?
Our TFI Total Score was below 80%

- Which tiers?
- Which subscale(s)?
- Which items?
- Compared to other/previous fidelity data

“We’ve had a decreasing trend in our Tier 1 Scale for the last three months. Looks like the subscale of Implementation is the area we need to focus on, specifically with defining and teaching expectations, discipline policies, as well as feedback/ acknowledgement. Additionally, our faculty and student/family/community involvement have decreased over the same time period…….The staff are reporting similar areas as ‘not in place’ and as ‘priorities for improvement’ on the SAS.”
In order to define the problem precisely, we need to answer these questions and be as specific as possible. A well-defined precise problem will be much easier to solve than a vague primary problem statement.
Primary Statement Example

Recess is crazy!
There are more ODRs for aggression on the playground than last year. These are most likely to occur during first recess, with a large number of students, and the aggression is related to getting access to the new playground equipment.

- **What?**  more ODRs for aggression
- **Where?**  on the playground
- **Who?**  a large number of students
- **When?**  first recess
- **Why?**  getting access to the new playground equipment
Harbor Haven Middle School

565 students
Grades 6, 7 & 8
Drilling Down Into Your Fidelity Data
Drilling Down with Different Tools

**Step 1: Look at overall picture**
- What are the levels, trends, peaks, and/or valleys?
- How does this year compare with last year?
- How do our data compare with national/regional norms?
- How do our data compare with our preferred/expected status?

**Step 2: Filter to a more precise problem statement by adding in additional data/“clues”**
Drilling Down with the TFI (Steps 1 & 2)

**Step 1. Overall (Total Score)**

- **Date Completed** | **Total Percentage**
  - 5/5/2017 | 74%
  - 9/4/2018 | 86%

**Step 2. Breakdown by Tier**

- **Date Completed** | **Tier I** | **Tier II** | **Tier III**
  - 5/5/2017 | 83% | 73% | 68%
  - 9/4/2018 | 90% | 85% | 82%

Levels, trends, peaks?
Step 3. Breakdown by Tier & Subscale

![Bar chart showing the percentage of implementation for different tiers and subscales from 5/5/2017 to 9/4/2018.](chart_image)

<table>
<thead>
<tr>
<th>Date</th>
<th>Tier I</th>
<th></th>
<th></th>
<th>Tier II</th>
<th></th>
<th></th>
<th>Tier III</th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Teams</td>
<td></td>
<td></td>
<td>Teams</td>
<td></td>
<td></td>
<td>Teams</td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5/5/2017</td>
<td>100%</td>
<td>89%</td>
<td>62%</td>
<td>88%</td>
<td>50%</td>
<td>88%</td>
<td>50%</td>
<td>100%</td>
<td>56%</td>
<td>75%</td>
<td></td>
</tr>
<tr>
<td>9/4/2018</td>
<td>100%</td>
<td>94%</td>
<td>75%</td>
<td>88%</td>
<td>90%</td>
<td>75%</td>
<td>88%</td>
<td>100%</td>
<td>75%</td>
<td>75%</td>
<td></td>
</tr>
</tbody>
</table>
### Step 4. Review Specific Items

**Teams**

<table>
<thead>
<tr>
<th>Teams</th>
<th>5/5/17</th>
<th>9/4/18</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Team Composition: Tier I team includes a Tier I systems coordinator, a school administrator, a family member, and individuals able to provide (a) applied behavioral expertise, (b) coaching expertise, (c) knowledge of student academic and behavior patterns, (d) knowledge about the operations of the school across grade levels and programs, and for high schools, (e) student representation.</td>
<td>2</td>
<td>2</td>
</tr>
<tr>
<td>2. Team Operating Procedures: Tier I team meets at least monthly and has (a) regular meeting format/agenda, (b) minutes, (c) defined meeting roles, and (d) a current action plan.</td>
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<td>2</td>
</tr>
</tbody>
</table>

| Feature 1 Total: | 4 of 4 | 4 of 4 |

**Tier I: Universal SWPBIS Features**

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<td>2</td>
</tr>
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</table>

| Feature 1 Total: | 4 of 4 | 4 of 4 |

**Implementation**

1. Behavioral Expectations: School has five or fewer positively stated expectations and successfully sets goals for student and staff teaching matrices for and in place.
2. Teaching Expectations: Expected academic and social behaviors for all students in classrooms across all campus settings and in a consistent manner.
3. Problem Behavior Definitions: School has clear definitions for interfering with academic and social success and a clear policy developed to address office-managed versus staff-managed problems.
4. Disciplinary Policy: School policies and procedures describe and instruct, and/or restorative approaches to student behavior consistently.
5. Professional Development: Written procedures are in place for orienting new core Tier I SWPBIS practices: teaching school-wide expectations, appropriate behavior, correcting errors, and modifying assignments.
6. Classroom Procedures: Tier I features school-wide expectations, acknowledgments, in-class continuum of consequences, and appropriate classroom and consistent with school-wide systems.

**Feedback and Acknowledgment**

1. Faculty Involvement: Faculty are shown school-wide data regularly and provide input on universal foundations (e.g., expectations, acknowledgments, definitions, process).
Precise Problem Statements: Fidelity

- Which tiers?
- Which subscale(s)?
- Which items?
- Compared to other/previous fidelity data

“We’ve had a decreasing trend in our Tier 1 Scale for the last three months. Looks like the subscale of Implementation is the area we need to focus on, specifically with defining and teaching expectations, discipline policies, as well as feedback/acknowledgement. Additionally, our faculty and student/family/community involvement have decreased over the same time period…….The staff are reporting similar areas as ‘not in place’ and as ‘priorities for improvement’ on the SAS.”
Drilling Down Into Your Outcome Data
Lately, the faculty buzz around campus is that student behavior is getting worse. When we started the school year, everything seemed fine.

But several months later, the teachers are complaining that they are constantly dealing with students messing around and not getting to class in a timely manner after lunch and after other breaks and transitions.

What kind of statement is this....primary or precise?

What additional information do I need to get more precise?
Is there a problem?
Is there a problem?

If so, what is it?

SWIS Core Reports
What Do I Know?

- I know pieces of information.
- But I do not know if any of this information is connected.
- I need to drill down to look for connections.
# Drill Down Worksheet

## SWIS Drill-Down Fluency Worksheet

<table>
<thead>
<tr>
<th>Notes</th>
<th>Date Range:</th>
</tr>
</thead>
<tbody>
<tr>
<td>To help set more effective goals, identifying time ranges for pre and post intervention will be important.</td>
<td>Date range:</td>
</tr>
<tr>
<td>Notes: Review SWIS Core Reports or Similar Data, identity possible concern.</td>
<td>Start Date: _______ End Date: _______</td>
</tr>
</tbody>
</table>

**Continue to answer questions going from right to left in SWIS drill down.**

**Save the Why for the last question.**

**Save drill down in SWIS.**

**If it is more than 10 students, it should be an Action Item for the Tier Team. If fewer than 10 students, then consider referring to Intervention Team.**

**Revised Summary:**

- How many students are related to the identified problem?
- How many referrals are related to the identified problem?
- What is the baseline for the identified problem: 
  - # of Referrals [ ] / # of Weeks in Dataset [ ] = Baseline [ ]
- In the problem best addressed through systems or with individual students:
  - Systems [ ]  Students [ ]

**Precise Problem Statement:**

<~Type the summary of the precise problem statement in the TIPS Meeting Minutes form~>

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**This Drill Down Worksheet allows you to track the "steps" of the drill down**

- **Record-keeping**
- **Efficient "back-tracking"**
- **Replication**
Add Hallway to our “Include in Dataset” field.
Data Drill Down

Change the graph type to change the lens of analysis.
Use the summary to analyze problem size.
Add the clues you learn to the dataset to analyze with more precision and clarity.

Change the graph type to change the lens of analysis.
Data Drill Down
Data Drill Down
Many 6th graders are having issues with being tardy in the hallway around 1:00, and the behavior might be maintained by peer attention.
### SWIS Drill-Down Worksheet

Red flag item is identified by analyzing Core Reports (most common), Additional Reports, Student Dashboard, or SWIS Dashboard (less common/less preferred). **Reminder:** Add filters one at a time.

<table>
<thead>
<tr>
<th>Red flag item:</th>
<th>Date Range:</th>
</tr>
</thead>
<tbody>
<tr>
<td>Hallways</td>
<td>2018-2019</td>
</tr>
</tbody>
</table>

**Drill-Down Filter(s):**

- **Who?**
- **What?**
- **When?**
- **Where?**
- **Why?**

**6th graders**

- **Who?**
- **What?**
- **When?**
- **Where?**
- **Why?**

**1:00**

**Tardy**

- **Who?**
- **What?**
- **When?**
- **Where?**
- **Why?**

**Obtain Peer Attention**

**Number of students involved:** 10

**Number of referrals included:** 15

<table>
<thead>
<tr>
<th>Is the problem best addressed through systems or with individual students:</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>X</td>
</tr>
</tbody>
</table>

**Precise Problem Statement:**

Many 6th graders are having issues with being tardy in the hallway around 1:00, and the behavior might be maintained by peer attention.
What are indicators that a student needs additional supports for externalizing social behavior?

- **Tier I** 0-1 major ODR
  *Fewer than X minor/total*

- **Tier II** 2-5 major ODRs
  *X-X minor/total*

- **Tier III** 6+ major ODRs
  *X+ minor/total*

Is the problem a system-level or student-level issue (rule of 10)?

- **System Issue**
  10+ students within a similar context (e.g., location, time of day, grade) engaging in similar behavior(s)

- **Individual/Small Group**
  Fewer than 10 students within similar context engaging in similar behaviors
**Target Area(s):**
Problem behaviors in the hallways

**Goal:**
Reduce referrals for tardies in the hallways by 50%

<table>
<thead>
<tr>
<th>Solution Component</th>
<th>Action Step(s)</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Prevention</strong></td>
<td>- Increase active supervision. Vice-principal available at that time to monitor hallway. Grade levels establish a supervision rotation between classes.</td>
</tr>
<tr>
<td><strong>Teaching</strong></td>
<td>- Reteach behavioral expectations in the hallway areas. - Retrain staff on identifying possible motivation.</td>
</tr>
<tr>
<td><strong>Recognition</strong></td>
<td>- Increase recognition for appropriate behavior. - Provide feedback tickets that can be collected and used for spirit wear. - Dance party for the classroom with the fewest referrals.</td>
</tr>
<tr>
<td><strong>Extinction</strong></td>
<td>- Post weekly grade-level SWIS data. - Encourage all students to work for the dance party making peer attention for problem behavior less likely.</td>
</tr>
<tr>
<td><strong>Correct. Consq.</strong></td>
<td>- Active supervision and continued early consequence (ODR)</td>
</tr>
<tr>
<td><strong>Data collection</strong></td>
<td>- Survey staff and students to determine whether strategies (e.g., active supervision, teaching, and recognition) are implemented consistently - Use weekly SWIS data to evaluate change</td>
</tr>
</tbody>
</table>
**Precise Problem Statement:** Many 6th graders are having issues with being tardy in the hallway around 1:00, and the behavior might be maintained by peer attention.

**Goal:** Reduce referrals for 6th grade tardiness in the hallways by 50%  

<table>
<thead>
<tr>
<th>Solution Components</th>
<th>What are the Action Steps?</th>
<th>Who is Responsible?</th>
<th>By When?</th>
<th>How will Fidelity be Measured?</th>
<th>Notes/Updates</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>Prevention</strong></td>
<td>Increase active supervision</td>
<td>Vice Principals, All staff</td>
<td>Ongoing</td>
<td>Staff visible in the hallways, especially during the 1:00 passing period</td>
<td></td>
</tr>
<tr>
<td><strong>Teaching</strong></td>
<td>Teach behavioral expectations for the commons and hallways</td>
<td>Teachers will teach hallway expectations to their homeroom classes</td>
<td>January 15</td>
<td>Staff sign-off sheet next to the PBIS bulletin board in the Faculty Lounge to indicate completion</td>
<td>Incentives for the class that can have 10 students tell the principal the expectations first</td>
</tr>
<tr>
<td><strong>Recognition</strong></td>
<td>Dance Party, Recognition tickets for school store</td>
<td>PBIS Team will coordinate, Party by January 31, Tickets by January 10</td>
<td>Dance Party earned tickets used at the Spirit Store</td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>Extinction</strong></td>
<td>Post weekly data, Encourage all students to work for the Dance Party</td>
<td>All staff</td>
<td>Ongoing</td>
<td>Weekly data posted in the commons and hallway</td>
<td></td>
</tr>
<tr>
<td><strong>Correct. Consq.</strong></td>
<td>Active supervision and continued early consequence (minor/major ODR)</td>
<td>All staff</td>
<td>Ongoing</td>
<td>Staff visible in the hallways</td>
<td></td>
</tr>
</tbody>
</table>

<table>
<thead>
<tr>
<th>What data?</th>
<th>Who is responsible for gathering the data?</th>
<th>When/How often will data be gathered?</th>
<th>Where will data be shared?</th>
<th>Who will see the data?</th>
</tr>
</thead>
<tbody>
<tr>
<td>ODR record</td>
<td>SWIS Data Entry person and principal share report with teachers.</td>
<td>Weekly</td>
<td>Emailed to staff and posted in the hallways and commons for students</td>
<td>All staff and students</td>
</tr>
</tbody>
</table>
Big Idea About Sharing Data

Know your audience
• What does the team need to know to make good decisions?
• What do staff need to know? Is there anything they need to do?
• Who else would benefit from seeing an update on student behavior (e.g., students, families, parent group)?

Tell the story
Help paint the picture with data: What, where, when, who, how often, why?
Maybe stories are just data with a soul.

Brené Brown
Tools to Get Organized with SWIS
Drill Down Video Tutorial

A PBISApps How-To

Data Drill Down (Custom Reports)

https://www.pbisapps.org/Resources/Pages/Data-Drill-Down-How-To.aspx
Drill Down for Disproportionality

A PBISApps How-To

Ethnicity: Data Drill Down
**SWIS Drill-Down Worksheet**

Red flag item is identified by analyzing Core Reports (most common), Additional Reports, Student Dashboard, or SWIS Dashboard (less common/less preferred). Reminder: Add filters one at a time.

| Red flag item: |  |  |  |  |  | Date Range: 2017-2018 |
|----------------|----------------|----------------|----------------|----------------|----------------------|

**Drill-Down Filter(s):**

- 3rd Graders

**Drill-Down Filter(s):**

- Between 12:00 and 1:00

**Drill-Down Filter(s):**

- Classroom

**Drill-Down Filter:**

- Obtain Adult Attention

**Referral Summary:**

- Number of students involved: **14**
- Number of referrals included: **25**

**Is the problem best addressed through systems or with individual students:**

- Systems

- Students

**Precise Problem Statement:**

The **3rd graders** are having challenges with **inappropriate language** to **obtain adult attention** between **12:00 and 1:00** in the **classroom**.
PBIS Apps Support

• FAQs
• Support Articles
• Email support
• Call support

support@pbisapps.org
training@pbisapps.org
Not using Drill Down is like throwing darts blindfolded. Good luck hitting the target!

~Tia Rupe, SWIS Facilitator
State Example: System Data Analysis
State Example: System Data Analysis cont.
Review

- Questions? Comments?
- Thanks for attending our Drill Down session today.
- Please don’t hesitate to reach out to us either at support@pbisapps.org or training@pbisapps.org if you need any assistance or have further questions!

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3) **QR Code:** Scan the code here (or in your program book) and chose your session from the dropdown Menu.