Introduction

What is Data Integration?

Data integration is used to share or combine data from disparate sources into meaningful and valuable information.

A complete data integration solution delivers trusted data from a variety of sources.

Benefits of Data Integration

- Take advantage of specialized applications
- Efficiency
- Data integrity
- Make data more available
- Easy data collaboration
- Make your data live
- Understanding data means smarter decisions

Why Data Integration?

Most districts use multiple programs to store data:
- Student Information System
- Assessment and Progress Monitoring
- Special Education / Individual Education Plan (IEP) services
- Student health records
- Transportation Management
- Student Lunch Program
- SWIS Suite

Session Intention

- Learn best practices in decision making for continuous quality improvement
- Discuss the role of student information systems and behavior progress monitoring systems within PBIS implementation
- Investigate readiness components for integration efforts to be implemented
Framing the Discussion

The Hexagon Tool

Hexagon Tool

- Helps a site systematically evaluate new and existing interventions across six broad factors

<table>
<thead>
<tr>
<th>Need</th>
<th>Fit</th>
<th>Resource availability</th>
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</thead>
<tbody>
<tr>
<td>How well might</td>
<td>With current initiatives,</td>
<td>Training, staffing,</td>
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<tr>
<td>meet identified needs</td>
<td>priorities, supports,</td>
<td>curricula, data</td>
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<td></td>
<td>values</td>
<td>systems, administration</td>
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<tr>
<td>Evidence</td>
<td>Readiness for Replication</td>
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<tr>
<td>What outcomes might</td>
<td>Expert assistance,</td>
<td></td>
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<tr>
<td>be expected if</td>
<td>exemplars for</td>
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<td>implemented well</td>
<td>observation,</td>
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<td>operationalized</td>
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<td>Capacity to Implement</td>
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<tr>
<td>How well does this</td>
<td>Sustain and improve</td>
<td></td>
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<tr>
<td>strategy meet</td>
<td>implementation over time</td>
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<tr>
<td>identified needs?</td>
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Key Questions/Considerations

- Do you have specialized applications that would benefit from data integration?
  - Which applications?
- Do you have competing initiatives or priorities with specific data requirements?
  - What are they?
- Who are the stakeholders involved?
  How can we communicate the purpose/need?
**Building District Capacity for Data Integration**

**9/7/2016**

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**Fit**

How does this strategy fit current initiatives, priorities, supports, values?

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**Key Questions/Considerations**

- What’s the purpose or intent of the information you are collecting?
  - Reporting or decision making?
  - District-level or school-level?
- Which information are you concerned about integrating?
  - Demographic info vs. comprehensive information
- How often do you need to collect and use data for differing systems?
  - Daily, weekly, monthly, annually?

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**Data Collection vs Data Analysis**

**Data Collection**

- Systematic gathering of required information.

**Data Analysis**

- Examination of data such that relationships, patterns, trends, etc., emerge and foster hypotheses and decision making.

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**Different Tools for Different Tasks**

**District Student Information System (SIS)**

- Annual decision cycles
- Decisions affecting multiple schools
- Summarized for prior year(s)
- Legal accountability

**School-wide Information System (SWIS)**

- Daily, weekly, monthly decision cycles
- Decisions affecting the school, sub-groups, & individuals
- Data must be current (within 48 hours)
- Informs intervention planning and resource allocation

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**Flow of Information**

- Data integration, in its simplest form, is the capture and movement of data from one database on a **source system** to another database on a **target system**.

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**Flow Considerations**

- Which way should the information flow between systems?
  - Identify which application is the source and which is the target
  - In some cases, the information can flow both ways
- What information is needed?
  - Does the source currently contain all the information required by the target?
What resources are needed to make this strategy work? (e.g. training, staffing, curricula, data systems, administration)

**Resource Availability**

- Can you get the key people to the table?
- Does the group have the ability to make a change?
- What are the potential costs?

**Key Questions/Considerations**

- Who should be involved in the integration discussion?
  - District Admin
  - School Admin
  - Key users of the two systems
  - IT Dept representative
  - Others?
  - Teacher representatives
  - Vendor representative

**Right People at the Table**

**Costs**

- **Economic**
  - Vendor costs
  - Integration hardware/software
  - Staff FTE (IT, Facilitator, Coordinator, Admin, etc.)
  - Training for staff in data entry routines & procedures

- **Personnel**
  - Staff FTE (IT, Facilitator, Coordinator, Admin, etc.)
  - Training for staff in data entry routines & procedures

- **Data**
  - Data integrity
  - Data loss

Are these one-time costs or on-going?
Capacity
How can we install, sustain and improve implementation over time?

Key Questions/Considerations

<table>
<thead>
<tr>
<th>Technical Expertise/Support</th>
<th>External</th>
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<tbody>
<tr>
<td>District or school-level IT</td>
<td>Vendor or consultant</td>
</tr>
<tr>
<td>Application support personnel</td>
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<tr>
<td>Training and user support</td>
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Data Systems Capability
- Are the systems capable of being changed?
- Do we have the technical expertise to modify systems?

Sustainability
- Financial
- Developing organizational capacity continually support integration

Evidence
How does this look in practice? Are there successful applications of this?

School-wide Information System (SWIS)

- **The SWIS Suite** is a reliable, confidential, web-based information system to collect, summarize, and use student behavior data for decision making.

- The three SWIS Suite applications (SWIS, CICO, I-SWIS) align with the PBIS framework and provide needed data for a multi-tiered system of support (MTSS) including universal screening and progress monitoring.

SWIS Data Integration Options

- **Current Reality**
  - Import Student and Staff Data – School Level
  - Export Referral Data – School Level
  - Export Referral Data – District Level

- **Future Directions**
  - Import Student and Staff Data – District Level
  - Import Referral Data – District Level
  - Barriers Data Integrity
As of August 2016, there are 39 districts with 616 schools using DataLink to upload staff, students and referrals into SWIS. Uploads are usually on a nightly basis.

**Evidence**

**Exemplar/Demonstrations**

Tustin Unified School District

**Readiness for Replication**
Expert assistance, exemplars for observation, operationalized

**Key Questions/Considerations**
• Can the practices/steps be operationalized for easy replication (scalability)?
  • Who has done this already? What are the lessons learned?
  • Where can we access resources and support?

How can schools/districts using SWIS prepare for referral import?
• Clean up data integrity in SWIS
• Create a district-wide referral form
  • by level (elementary, middle, high)
• Contact IT and/or SIS vendor and request that fields in SIS match SWIS required fields
• Create a referral category map
• Sign up for Data Integration Updates by emailing support@pbisapps.org

The Hexagon Tool
Exploring Context

- NEED
- CAPACITY
- HIT
- READINESS
- RESOURCES
- EVIDENCE
Putting It All Together

Generate a Plan
- Complete the Hexagon tool
- It can support/provide context for your conversations and future directions

Summary Questions/Considerations
- Do the benefits outweigh the costs?
  - Economic costs
  - Data costs
- What’s the simplest strategy that can yield the biggest impact/results?
  - Start small
  - Person import can be a great start and alleviate much of the burden

Contact Information
- PBIS Applications Contacts
  - www.pbisapps.org
  - support@pbisapps.org
    - Put “Integration” in the subject line
- District Exemplar Contacts
  - Jennifer Rollenhagen – MiBLSI
    - jrollenhagen@miblsimtss.org
  - Ginny Joseph – Tustin Unified School District, CA
    - vjoseph@tustin.k12.ca.us