

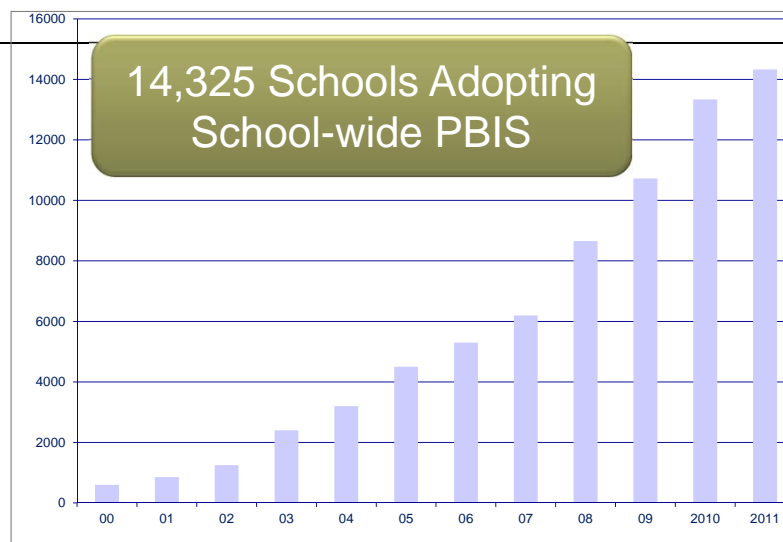
# Applying Implementation Science to FBA/BSP & Individual Behavior Support in Schools



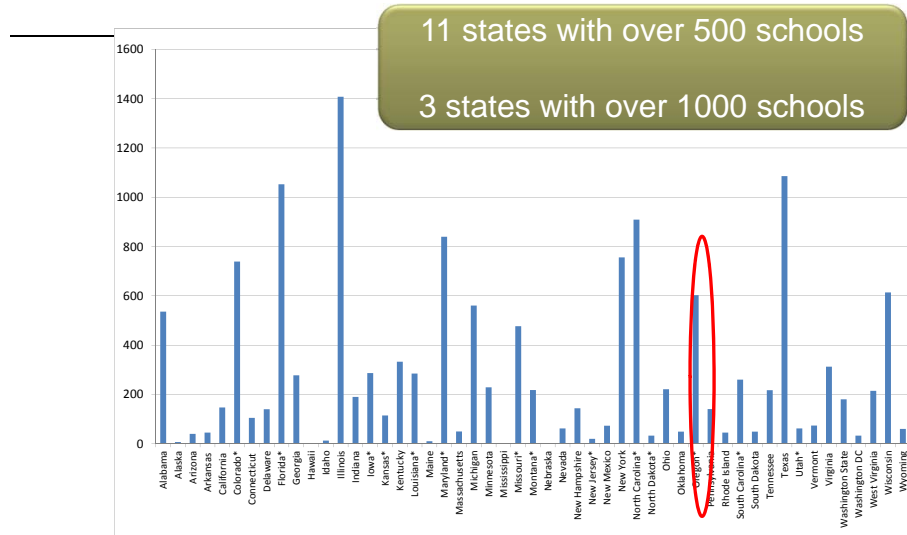
Chris Borgmeier, PhD & Sheldon Loman, PhD  
March 10th, 2011  
8<sup>th</sup> International Conference on Positive Behavior Support  
Contact: cborgmei@pdx.edu



## Schools adopting SWPBIS by year

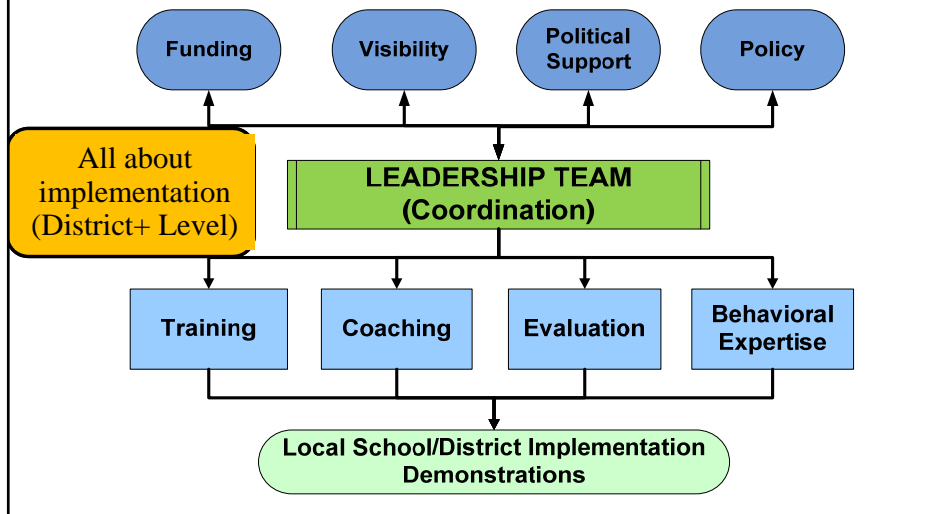


## Schools use SWPBIS (Feb, 2011)



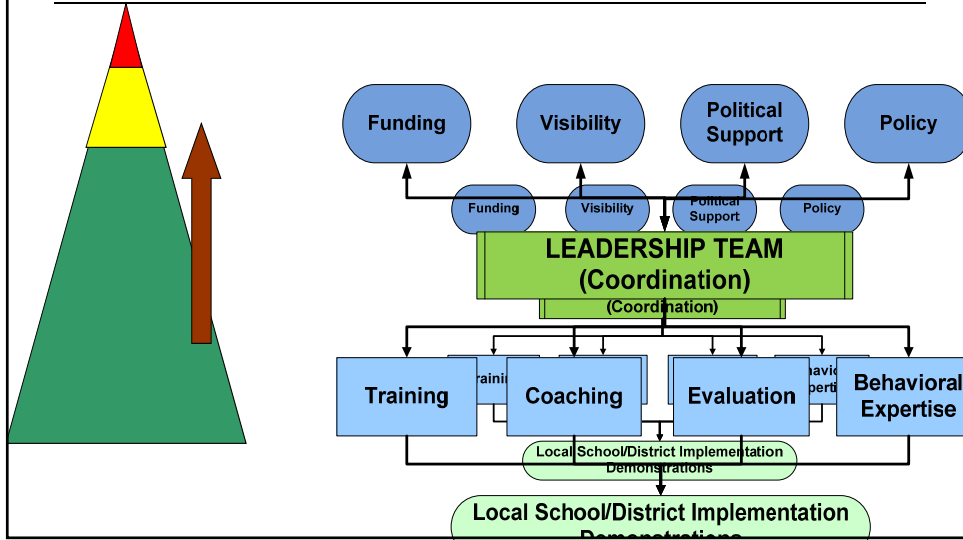
## SW-PBIS Implementation Blueprint

[www.pbis.org](http://www.pbis.org)





## SW-PBIS District Planning



How do we improve support for students with challenging behavior in schools?

The Challenge of Implementation

# Solution

---

Effective **intervention** practices and programs

+

Effective **implementation** practices

---

Good outcomes for students

**No other combination** of factors reliably produces desired outcomes

# Implementation Lens

---

- Start with the Intervention
  - What is “IT” the evidence-based intervention for students with challenging behavior

## Evidence Based Practices

---

- Early Identification & Intervention
  - Screening & Identification
- Match student to appropriate, research based interventions
  - **Function-Based Support (FBA/BSP)**
- Positive Behavior Support
  - Prevention oriented interventions
  - Teaching basic skills
  - Reinforce desired behavior
  - Discontinue reinforcement of problem behavior
- Data Based Decision Making
  - Progress monitoring

## What is “IT”?

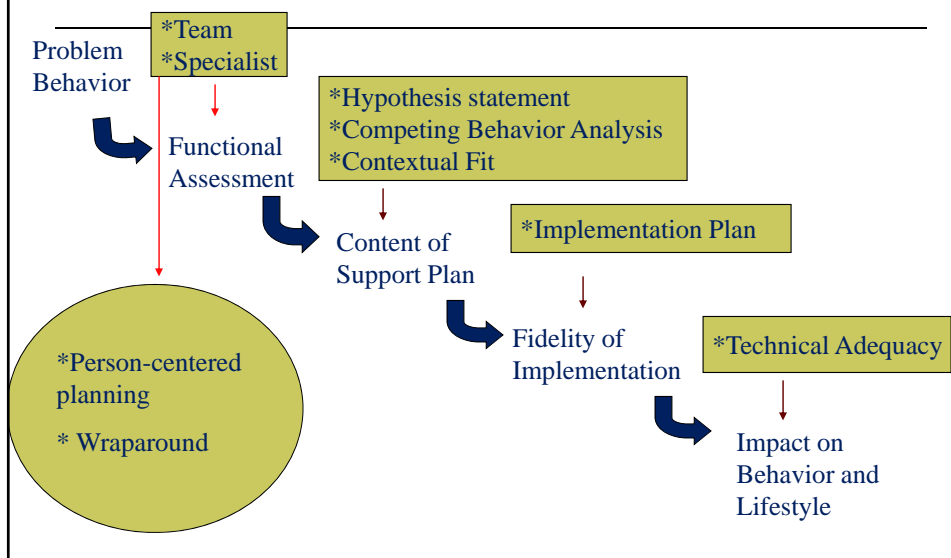
---

- Team Based Process
- Team represents:
  - Behavioral Expertise
  - Knowledge of the Student
  - Knowledge of the Context
- Conduct an Assessment (FBA) to identify:
  - Function of problem behavior
  - Environmental variables that predict **occurrence** & **non-occurrence** of problem behavior

## What is “IT”?

- Develop & Implement a Function-Based Intervention based on assessment information
  
- Monitor progress & revise (ongoing, as needed)
  - Student outcomes &
  - Implementation

## Implications for Behavior Support



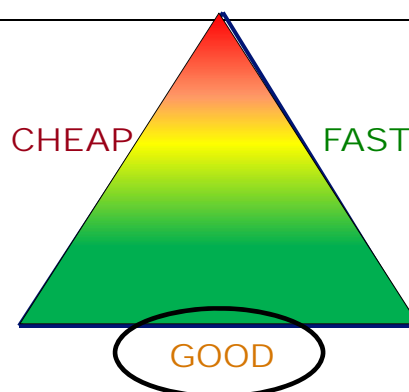
## Challenge = Implementation

---

- Limited focus on Implementation
  - Need to define the systems to support sustained, accurate implementation of Tier 3 Behavior Supports
  - Starts with strategic, long-term district planning & commitment

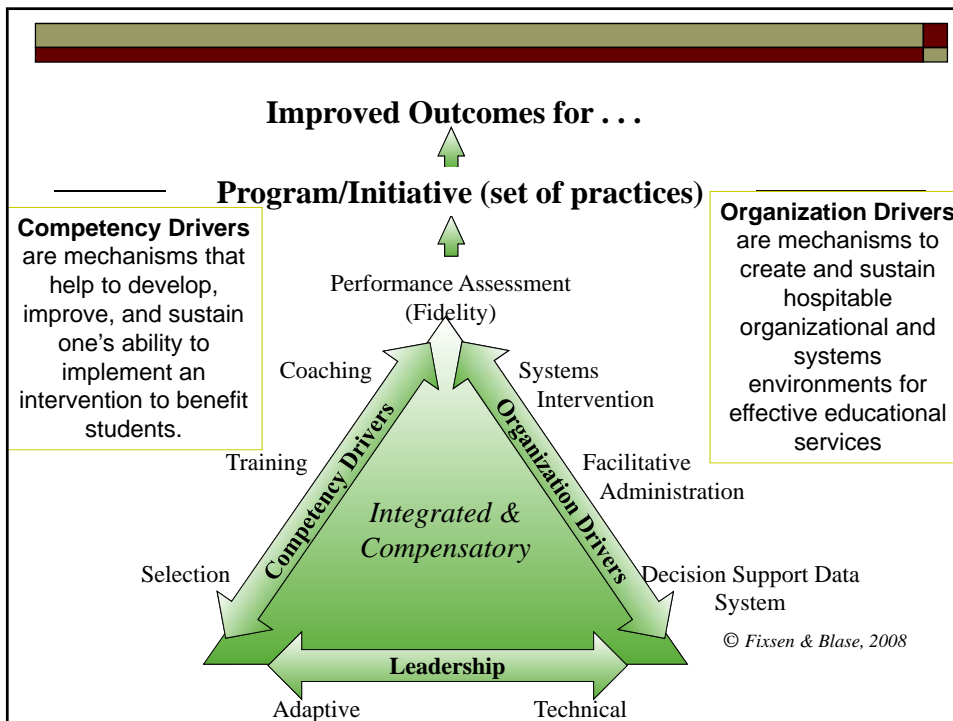
## Wexelblatt's Scheduling Algorithm

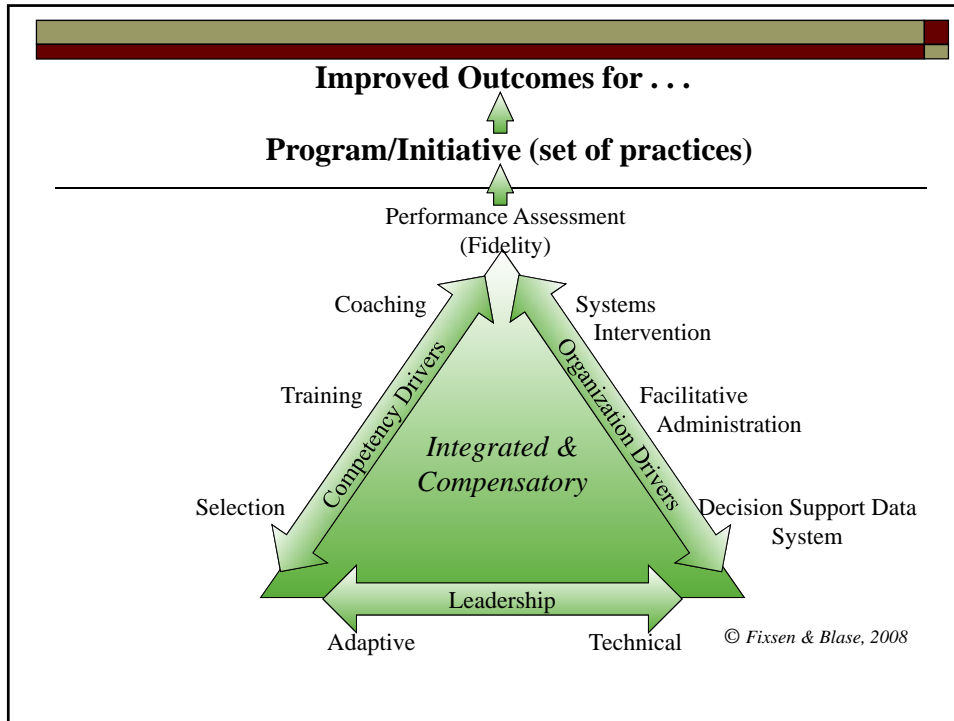
---



**When implementing an innovation,  
you may pick any two.**

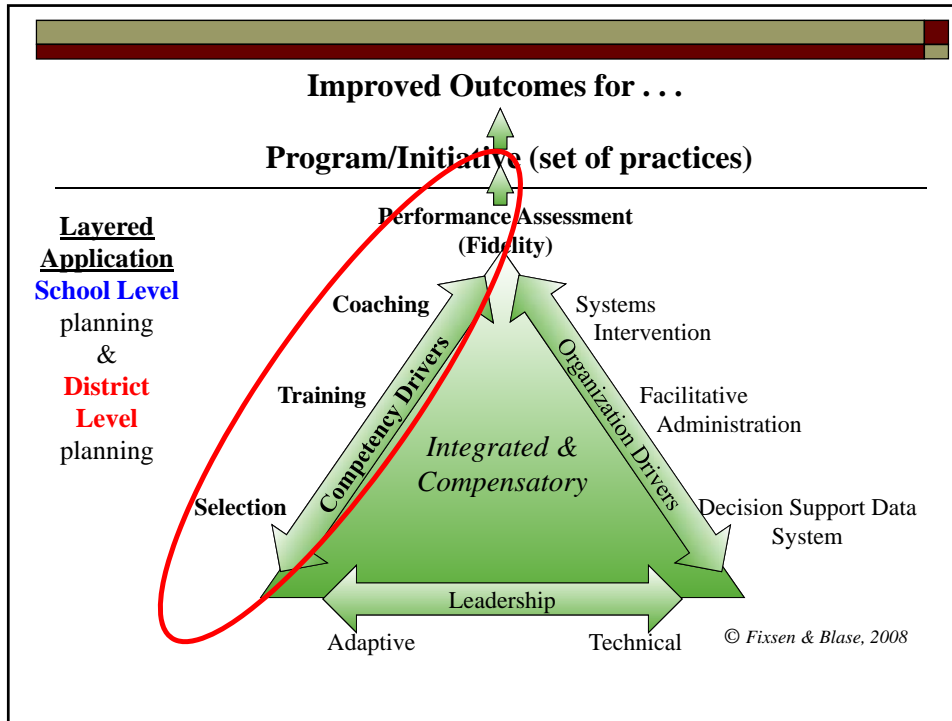
# Applying the Science of Implementation to SW-PBS Individual Student Systems





## Implementation: Competency Drivers

Mechanisms that help develop, improve, and sustain one's ability to implement an intervention to benefit students



## Competency Drivers

- Performance Assessment/ Selection/ Training/ Coaching
- Need to Apply this to:
  - District level Behavior Specialist(s)
  - &
  - Building level roles
    - Behavior Specialist
    - Administrator
    - BSP Implementer (teachers & staff)

## Performance Assessment

---

Purposes: to ensure implementation, reinforce implementation, develop skills & abilities, measure fidelity, feedback on selection, training, coaching

## Performance Assessments

---

- Start with your goals & what you want to accomplish?
  - Outcomes measures
    - Decreased referrals, suspensions, expulsions
    - Decreasing # of students in more restrictive placements
    - Decreasing # of students referred for SpEd (EBD)

## Performance Assessments

---

- Now what is the evidence based practice... and can we measure fidelity?
  - Implementation measures – How will we know if evidence based practices are being used w/ fidelity?
    - FBA/BSP assessments
      - What do we want to know?
    - Benchmark of Advanced Tiers

## Performance Assessment

---

- Transparency is important
  - Let building & district level behavior specialists know of performance assessments during selection
    - Outline performance assessment use in job description and responsibilities of
      - District Behavior Specialist &
      - Building Behavior Specialist & Administrator
  - Performance assessment should be used primarily for positive recognition & continual improvement

## Performance Assessment

- An effective Data System is necessary
  - e.g. CICO SWIS & ISIS SWIS
- Assessing Building Level Implementation
  - Monitor:
    - Tier 2
      - Students referred to Tier 2
      - Data collection for Tier 2 progress monitoring
      - Decision making/intervention changes for Tier 2
    - Tier 3
      - Students referred for Tier 3 supports based on data
      - Efficacy of FBA/BSP (BSP Crit'1 Features Checklist)
      - Data collection for Tier 3 progress monitoring

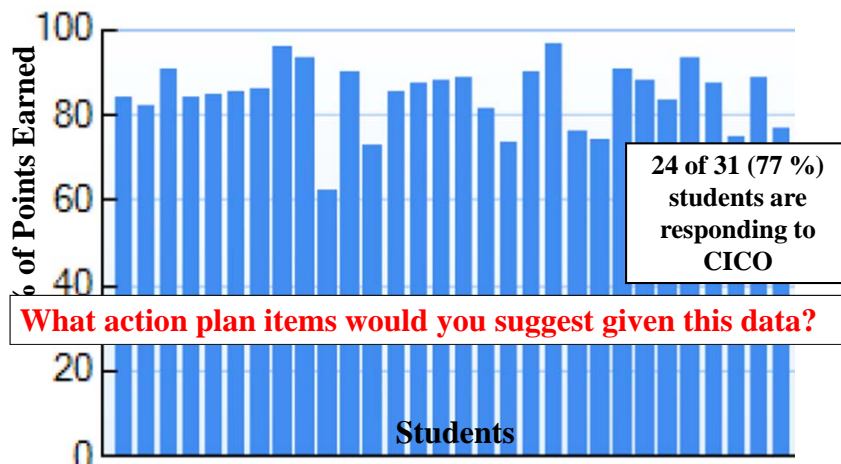
**Decision  
Support  
Data  
System**

## Performance Assessment

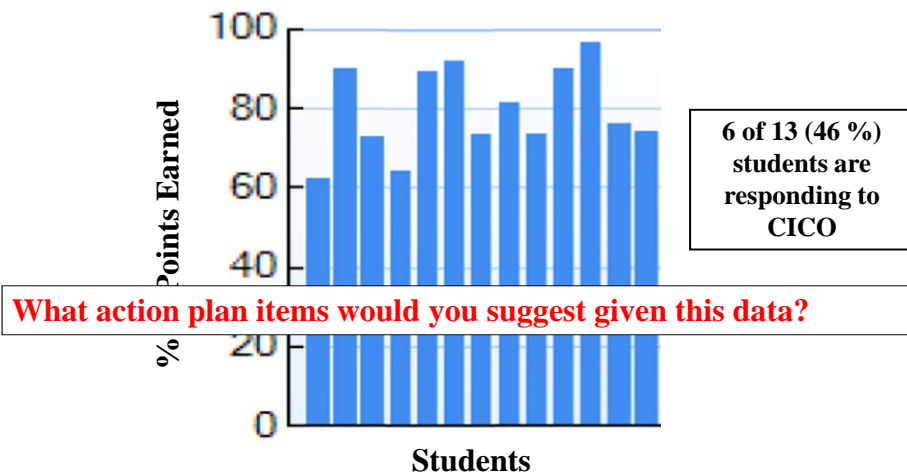
- Monitoring team data collection & data based decision making
- Monitoring Tier 1 & 2 implementation
  - Are all students in need of support being identified and provided support in a timely manner?
  - Are students responding to interventions?
  - Are the interventions (Tier 2) working for majority of students being referred? Are they worth the investment?
  - Are the interventions (Tier 2) being implemented with fidelity?
    - Regularly complete fidelity measures (BAT, etc.)

**Systems  
Intervention**

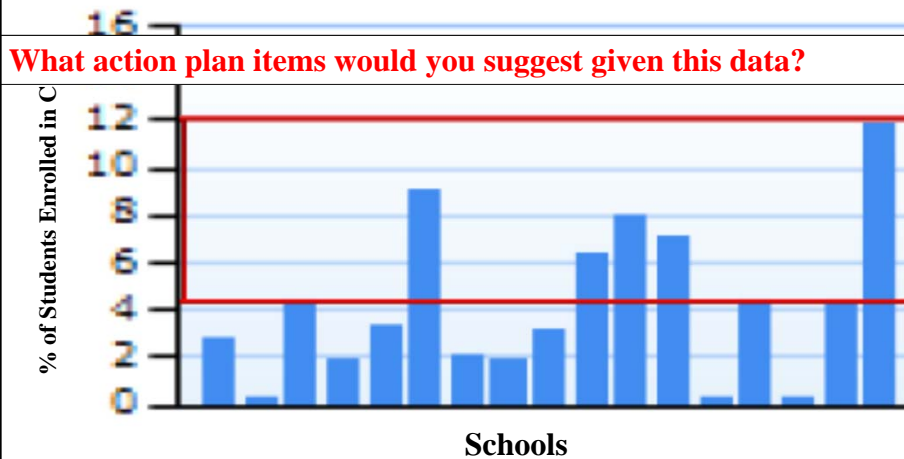
**% of Points Earned by Students on CICO  
Elementary School**



**% of Points Earned by Students on CICO  
Elementary School**



## Percent of Students Enrolled in CICO by School 2008-09 End of Year Data School District



## Performance Assessment

- Tier 3 - Performance assessment will focus on individual student plans (FBA/BSP)
  - Effective FBA
  - Do Behavioral Interventions match function of behavior?
  - Data collected consistently?
  - Data measuring correct behavior?
  - Is intervention being implemented accurately?
  - Is the plan being reviewed and appropriate decisions being made?

# Performance Assessment

- ❑ BSP Critical Features Checklist data Could be used to:
  - Monitor progress of Tier 3 systems implementation
  - Inform professional development needs (by individual & collectively in the district)
    - ❑ Training topics
    - ❑ Coaching needs

**BEHAVIOR SUPPORT PLAN CRITICAL FEATURES CHECKLIST**

Student \_\_\_\_\_ School \_\_\_\_\_ Date \_\_\_\_\_

Behavior Specialist \_\_\_\_\_

Use the following documents to complete the checklist:

- Competing Behavior Pathway, BSP Implementation Plan, BSP Evaluation Plan & data forms

**Before beginning identify assessment data collected thru FBA.**

ASSESSMENT	Who	Date
<input type="checkbox"/> Routines Analysis		
<input type="checkbox"/> FBA/ABC Interview w/ <i>Teacher</i>		
<input type="checkbox"/> FBA/ABC Interview w/ <i>Student</i>		
<input type="checkbox"/> FBA/ABC Interview w/ <i>Other staff</i>		
<input type="checkbox"/> ABC Observation <i>Location</i>		
<input type="checkbox"/> Parent Interview		
<input type="checkbox"/> Scatterplot		
<input type="checkbox"/> Academic Assessment		
<input type="checkbox"/> Records Review <input type="checkbox"/> Discipline referrals <input type="checkbox"/> IEP		
<input type="checkbox"/> Medical History <input type="checkbox"/> Academic records <input type="checkbox"/> Attendance		
<input type="checkbox"/> Functional Analysis		
<input type="checkbox"/> Other		

**Respond to the following items by evaluating the BSP team meeting, Competing Behavior Pathway form and BSP Implementation Plan and BSP Evaluation Plan and data forms**

	Yes	No	Subscale Score
<b>Critical Elements of BSP Teaming</b>			__/3
<b>Representative team</b> present at meeting to review FBA & develop implementation plan			
<b>Both</b> <input type="checkbox"/> Administrator and <input type="checkbox"/> Behavior Specialist are present & active members of the team	1	0	
<b>All staff members</b> who are <b>directly involved w/ student behavior plan</b> are present: <input type="checkbox"/> Teacher(s) _____ <input type="checkbox"/> Assistant(s) _____ <input type="checkbox"/> other staff _____	1	0	
<input type="checkbox"/> <b>Parent/Guardian is present</b> <input type="checkbox"/> Student (if appropriate)	1	0	
<b>Critical Elements of the Competing Behavior Pathway</b>			__/7
Identify & prioritize <b>Routine</b> in which problem behavior occurs (see Comp. Beh Pathway)	1	0	
Is the <b>Problem Behavior</b> described in observable/ measurable terms?	1	0	
<b>Antecedent(s)</b> described in sufficient detail to inform intervention planning (e.g. Difficult task is NOT sufficient...need specific info. → worksheet of double digit subtraction w/ borrowing)	Yes	Part	No
	2	1	0
Identified <b>Consequence</b> that is most meaningful to student & described in sufficient detail to inform intervention planning (e.g. Gains peer attention is NOT sufficient; describe whose attn & how it's delivered; e.g. whole class laughs at student)	2	1	0
Identified <b>"alternative" behavior</b> that provides same outcome/function as problem behavior	1	0	

C. Borgmeier (2010) Portland State University BSP Checklist 1

**BEHAVIOR SUPPORT PLAN CRITICAL FEATURES CHECKLIST**

Student \_\_\_\_\_ School \_\_\_\_\_ Date \_\_\_\_\_

Use the following documents to complete the following checklist:

- Competing Behavior Pathway, BSP Implementation Plan, BSP Evaluation Plan & data forms

**Respond to the following items by evaluating the BSP team meeting, Competing Behavior Pathway form and BSP Implementation Plan and BSP Evaluation Plan and data forms**

Critical Elements of the <u>Implementation Plan</u>	Yes	No	Subscale Scores ___/5
Documented <b>Antecedent</b> interventions that are likely to <b>prevent</b> the problem behavior(s) from occurring	1	0	
Documented explicit <b>Teaching</b> of "Alternative" &/or "Desired" behaviors <i>consistent with the identified function of problem behavior</i>	1	0	
Documented <b>Responses to Problem Behavior</b> that minimize reinforcement of problem behavior & redirect student to use the alternative behavior	1	0	
Documented <b>Reinforcement</b> strategies to use when student engages in alternate &/or desired behavior with incentives that are meaningful, regularly available & achievable for the student. (May need to look at reinforcement plan and point card)	1	0	
Documented <b>person(s) responsible</b> for implementing <u>each</u> intervention identified in the plan.	1	0	
Critical Elements of the <u>Evaluation Plan</u>	Yes	No	Subscale Scores ___/3
Documented <b>data system</b> (w/ attached data collection forms) that measures student progress; specifically measuring occurrence of ID'd problem behavior and/or alternate/desired behavior	1	0	
Documented system for formally & regularly monitoring <b>fidelity of implementation</b> of all component interventions in plan.	1	0	
Documented <b>Follow-up meeting</b> time to review implementation fidelity & student progress	1	0	
<b>Behavior Support Plan Technical Adequacy Score</b>	___/18		

**BEHAVIOR SUPPORT PLAN CRITICAL FEATURES CHECKLIST**

Student \_\_\_\_\_ School \_\_\_\_\_ Date \_\_\_\_\_

Behavior Specialist \_\_\_\_\_

*This portion of the checklist is intended for the recurring meetings that should occur after implementation of the Behavior Support Plan. When providing behavioral support for students with the most challenging behavior, ongoing maintenance and monitoring is the norm. These meetings should review (a) implementation of the plan and (b) student progress to make the evolving changes necessary to successfully support the student.*

Use the following documents to complete the checklist below:

- Implementation Plan, Evaluation plan, Graphs & data forms, BSP Review form

**Identify the documents presented at the meeting:**

Implementation Plan    Student Progress Monitoring Data    Graph of Student PM Data  
 Implementation Checks    Other \_\_\_\_\_

Critical Elements of BSP Review <u>Teaming</u>	Yes	No	Subscale Scores ___/3
<b>Representative team</b> present at meeting to review FBA & develop implementation plan			
<b>Both</b> <input type="checkbox"/> Administrator and <input type="checkbox"/> Behavior Specialist are present & active members of the team	1	0	
<b>All staff members</b> who are directly involved w/ student behavior plan are present: <input type="checkbox"/> Teacher(s) _____ <input type="checkbox"/> Assistant(s) _____ <input type="checkbox"/> other staff _____	1	0	
<input type="checkbox"/> Parent/Guardian is present <input type="checkbox"/> Student (if appropriate)	1	0	
Critical Elements: <u>Reviewing Implementation Fidelity</u>	Yes	No	Subscale Scores ___/2
Documented whether or not <b>implementation</b> occurred reliably for each individual intervention on the existing Implementation Plan.	1	0	
For each item not implemented or partially implemented the team documented a <b>revised plan</b> for addressing the limited implementation	1	0	
Critical Elements: <u>Data Based Decision Making</u>	Yes	No	Subscale Scores ___/4
<b>Quantitative data</b> on student data is provided and presented in an easily readable format (graph preferred).	1	0	
<b>Data is complete</b> and consistently collected (at least 90% of data points collected). If <b>NOT</b> , team documents a plan to problem solve inconsistent/limited data collection	1	0	
Document necessary <b>revisions to implementation plan</b> based on student progress data.	1	0	
Documented <b>Follow-up meeting</b> time to review implementation fidelity & student progress	1	0	
<b>Behavior Support Plan Review Technical Adequacy Score</b>	___/9		

## Performance Assessment

---

- Monitoring District Implementation related to Tier 3 Behavior Supports Performance
  - Use district aggregated results of BSP Crit'1 Features Checklist to assess performance
  - Effectiveness in collecting, monitoring & using data related to school performance assessment measures
  - Increasing completion of Tier 3 interventions with efficacy & student outcomes

## Selection

---

Staff recruitment and selection involve recruiting, interviewing, and hiring new staff or redeploying existing staff within the program.

## Selection

---

- Selection becomes increasingly important as complexity of skills required of the job increase
  - Tier 3 (individual student support) require more specific knowledge and skills than Tier 1 support
  
- Start w/ job description that clearly outlines responsibilities & roles required
  - Requires a district & school vision for Individual Student Behavior Support Systems
  - Be clear on skills & expertise required in role

## District Level Behavior Specialist

---

- Must have expertise in behavior analysis & advanced function-based support
  - Ability to conduct complex FBAs & Develop function-based intervention plans
  - Lead development of implementation plan and evaluation plan to monitor (a) student progress & (b) plan implementation
  - Strong communication, consultation and politicking skills to navigate challenging meetings and resistance to supporting students with behavioral challenges in inclusive settings
  - Strong data skills & data based decision making for individual student cases and systems evaluationa
  - Integrate wraparound with family and community supports as necessary

## District Level Behavior Specialist

- Clear job description outlining responsibilities & skills required
  - Provide support to teams for complex behavior cases
  - Conduct complex FBAs/BSPs
  - Train & follow-up with implementers to ensure accuracy and fidelity with plan implementation
  - Develop & train staff to implement and monitor safety plans
  - Provide coaching & support to school teams that builds local expertise & capacity to do “Practical FBAs” & provide function-based support
  - Support schools with implementation and development of tier 2 systems & progress monitoring teams
  - Monitor school and district data systems to evaluate school use and effectiveness of tier 2 and 3 behavioral support systems x school & district

## District Level Behavior Specialist

- Be clear in the job description about:
  - Job expectations & performance assessment
    - What are district goals for implementation & outcomes?
    - How will the district measure these outcomes?
    - Clearly identify specific aspects of the behavior specialist job that will include data collection
    - Make clear what performance assessments will be used to evaluate
      - Success at building & district level
      - Success in the Behavior Specialist role

- 
- It's important that applicants are clear about what expectations are in advance....
  
  - Also important district is ensuring opportunity for success
    - Enough fte for job
    - Training & coaching available

---

## District Level Behavior Specialist

---

- Selecting for expertise in behavior analysis & advanced function-based support
    - Use an interactive interview process w/ behavioral vignettes & rehearsals that provide opportunity to evaluate:
      - Specific targeted skills required for the position
      - How candidate responds to feedback
- Examples**
- Submit examples of previously completed FBA/BSP w/ data
  - Have interviewee complete an FBA interview
  - Provide FBA Summary Statements & ask to develop interventions suggestions for a BSP (check technical adequacy of interventions identified)
  - Vignette requiring response to teacher or principal resistant to implementing FBA/BSP

## Selection – Building Level

---

- Which Buildings to start with? & How many?
  - Suggest piloting w/ more complex interventions v. district-wide
  
- Building level Tier 3
  - Building principal invested in supporting students with challenging behavior
  
  - Job descriptions with clear roles and assigned responsibilities related to tier 2 & tier 3 pbis implementation
    - Building Behavior Specialist
      - Fluency and training in function-based intervention, implementation & evaluation
    - Tier 2 intervention manager(s)
      - Strong data management skills

## Strategically Selecting Schools

---

- School readiness
- Strong implementation of:
  - SW-PBS Universal System for 2+ years (e.g. 80%+ on SET)
  - Tier 2 interventions (CICO & progress monitoring team)
- Strong administrative support and commitment
  
- You want early implementers to have a very high likelihood of success – choose wisely
  - They become local demonstrations/exemplars

# Training

---

Activities related to providing specialized information, instruction, or skill development in an organized way to practitioners and other key staff members within the program.

# Training

---

Assuming Tier 1 & 2 Foundations in place

---

## Assuming effective universal systems

- Tier 2 Interventions
  - CICO (check fidelity of implementation)
  - Add'l interventions & using data to select appropriate interventions
    - Elem v. Secondary
  
- IPBS Teaming Process
  - Data systems & Data Based Decision Making

## Problem Statement

---

*“We give schools strategies & systems for improving practice & outcomes, but implementation is not **accurate, consistent, or durable**, & desired outcomes aren’t realized. School personnel & teams need more than exposure, practice, & enthusiasm.”*

*-George Sugai*

## Training – Building Level

---

- Skill based training
  - Functional Behavioral Assessment
  - Team Process
  - Identifying Function-Based interventions
  - Implementation Planning & Supports
  - Evaluation Planning & Data Systems



# D.A.S.H.

Session #1

**D**efine behavior in observable & measurable terms

Session #2

**A**sk about behavior by interviewing staff & student

- specify routines **where** & **when** behaviors occur
- summarize **where, when,** & **why** behaviors occur

Session #3

**S**ee the behavior

- observe the behavior during routines specified
- observe to verify summary from interviews

**H**ypothesize: a final summary of **where, when** & **why** behaviors occur

Session #4



## Format of Practical FBA Training Sessions



Objectives



Checks for Understanding



Review



Comments/  
Questions



Activities



Tasks



Key Points

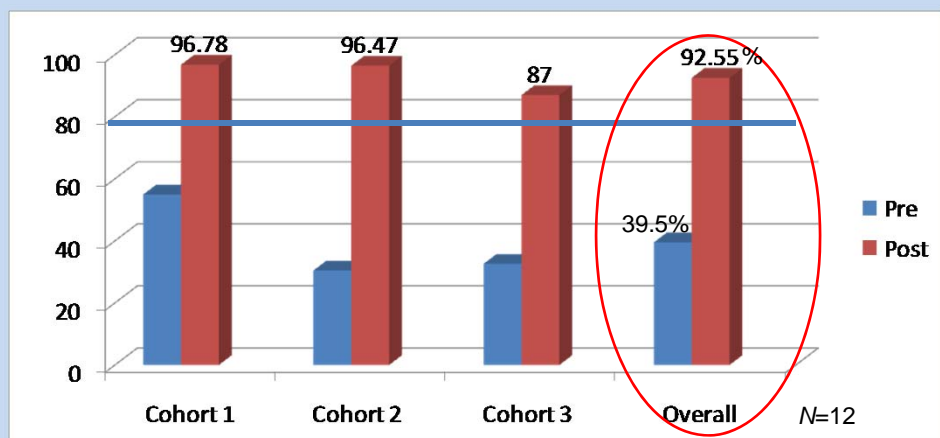
## FBA Knowledge & Skills Assessment

- Important to use to determine if participants have the **requisite skills to conduct a Practical FBA**
- Questions address participant's knowledge in:
  - FBA Process
  - 4-term Contingency/ Summarizing Behavior
  - Operationally defining behavior
  - Identifying Antecedents, Consequences, Function, Setting Events
  - Using common interview tool (FACTS) to identify routines & summarize behavior



### Results: Phase 1

## Pre/Post Training FBA Knowledge



99% Inter-rater Total Agreement on 25% of tests.

Overall Pretest  $M= 39.50\%$  ( $SD=18.82\%$ )  
Overall Posttest  $M= 92.55\%$  ( $SD=7.22\%$ )

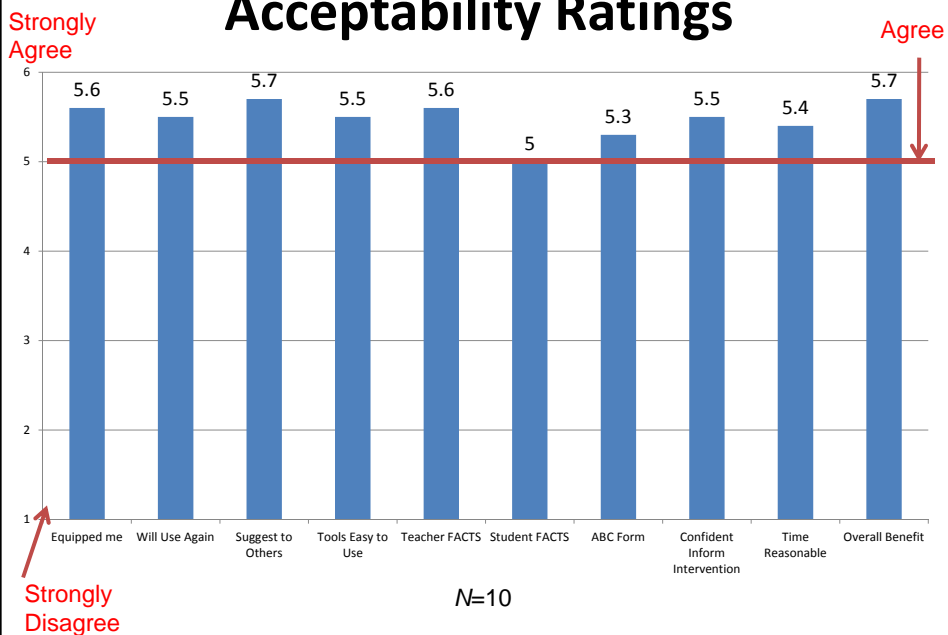
## Pre vs Post: By FBA Skill

Skill/Knowledge	Pre-Training	Post-Training
FBA Process	0% (33% Partial)	92% (8% Partial)
4-Term Contingency/ Summarize Behavior	17% (25% Partial)	94% (6% Partial)
Define Behavior	53%	96%
Identify Antecedent	33%	92%
Identify Consequence	42%	92%
Identify Function	46%	96%
Identify Setting Events	42%	100%
Forms: ID Routine	83%	100%
Forms: Summarize Behavior	0% (33% Partial)	67% (25% Partial)

N=12

## Results: Phase 2

### Acceptability Ratings



## Planning Training Activities

---

- Training should be linked to clear, measurable outcomes related to performance (assessment)
  
- Skills-based & knowledge-based training should include:
  - Behavioral rehearsal of target skills
  - pre/post test assessment
  
  - When identifying trainers ask how they will build beh'l rehearsal & pre/post test assessment into this training

## Coaching

---

Activities for either individuals or groups, on-the-job observation, instruction, modeling, feedback, or debriefing of practitioners and other key staff in the program.

## District Behavior Specialist On-site Coaching Support

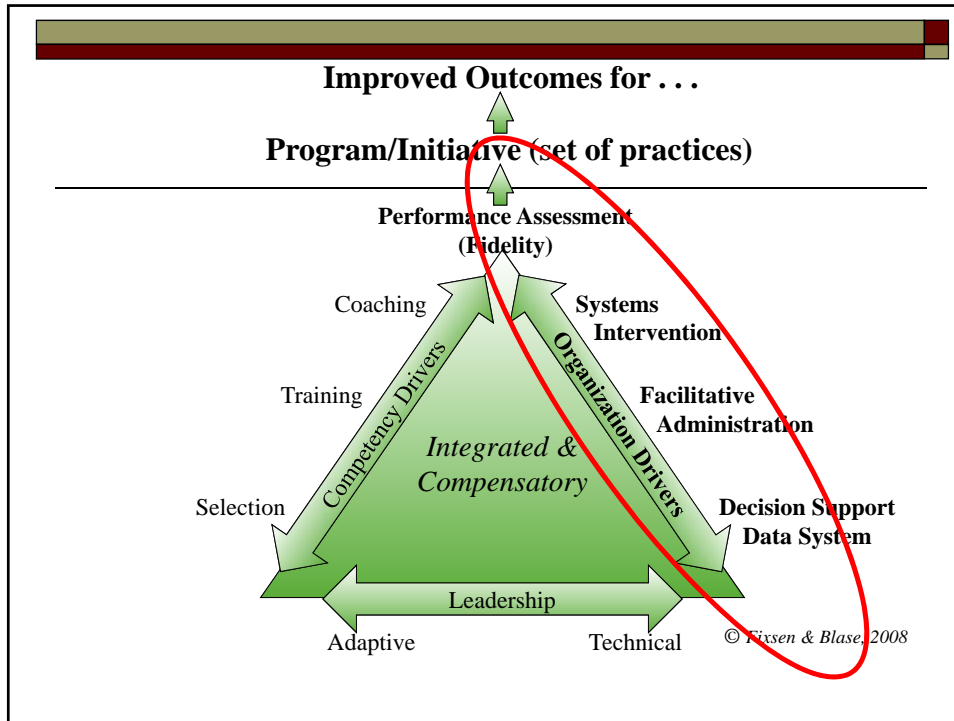
---

- Initially, serve as Systems coach for implementation of:
  - Tier 2 Interventions
  - IPBS team process
    - Data collection, analysis and decision making
  - Coach Building behavior specialists and team members to effectively perform required tasks of IPBS process
  
- Once teams are implementing Tier 2 & IPBS effectively, **then:**
  - Provide more intensive support to develop FBA/BSP skills in schools
  - Provide direct support for students requiring most intensive behavior support (in school intervention & community supports)

## Implementation: Organization Drivers

---

Mechanisms that create and sustain hospitable organizational and systems environments for implementing the evidence based intervention



## Systems Interventions

### Purpose:

- Identify barriers and facilitators for the new way of work
- Create a “hospitable” environment for new way of work
- Contribute to cumulative learning in multi-site projects.

## Systems Interventions

- District Administrator should set up periodic (monthly?) meetings to review data w/ district Behavior Specialist
  - Make sure District Behavior Specialist is focusing on systems implementation priorities
- District Behavior Specialist hold regular meetings with all Building Behavior Specialists and/or IPBS team leaders
  - To review data, address challenges, share successes, identify training & resource needs, etc.

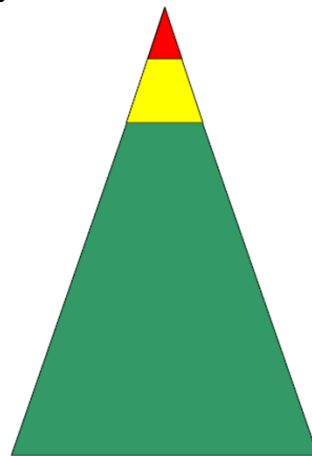
**District Admin  
& Ldrsp Team**



**School Behavior  
Specialist &  
IPBS team**

## Systems Interventions

- Maintaining strong Tier 1 & Tier 2 systems



## Structuring positions

---

- District
  - Behavior Specialist
    - Redefine responsibilities
  - How many schools per behavior specialist?
- Building
  - Person(s) with FTE & skills to carry out responsibilities of IPBS team
    - Flexibility in schedule for meeting times & data collection
    - Organized w/ data skills
    - Behavioral expertise & skills
      - Flexibility for data collection, coaching & implementation fidelity checks

## Facilitative Administration

---

### **Purposes:**

- Remove Barriers
- Utilizes PEP – PIP cycles and data for improvement
- Looks for ways to make work of teachers and staff easier and more effective!!

## Facilitative Administration

---

- Remove Barriers & Facilitate implementation
  - Philosophical barriers
  - Commitment & prioritization of intervention for students with challenging behavior
  
  - Limited resources
  - Creative use of resources
  
  - Limited follow-through & implementation
  - Teaming routines & accountability for intervention

## Facilitative Administration

---

- Increasing awareness and buy-in with Administrators & Gen Ed staff members
  - Train general educators on roles and responsibilities in intervention
    - basics of ABC & behavior support
  
  - Increase understanding of school accountability for students with challenging behavior
    - State monitoring related to LRE (student placement in more restrictive settings)
      - Need to look beyond ODR data (see Data Audit Tool)

## Data Support Data System

---

### **Purposes:**

- Provide information to assess effectiveness of new educational practices strategies, celebrate success & engage in continuous quality improvement
- Be accountable for quality infrastructure (are Drivers 'working') and for outcomes

## Decision Support Data System

---

- I-PBS is a data-based system
- Without an effective data system, teams will not use data and cannot provide effective secondary & tertiary support
  - E.g. CICO-SWIS & ISIS-SWIS @ [www.swis.org](http://www.swis.org)
- Data is used to inform:
  - Student identification
  - Student progress monitoring
  - To inform intervention changes

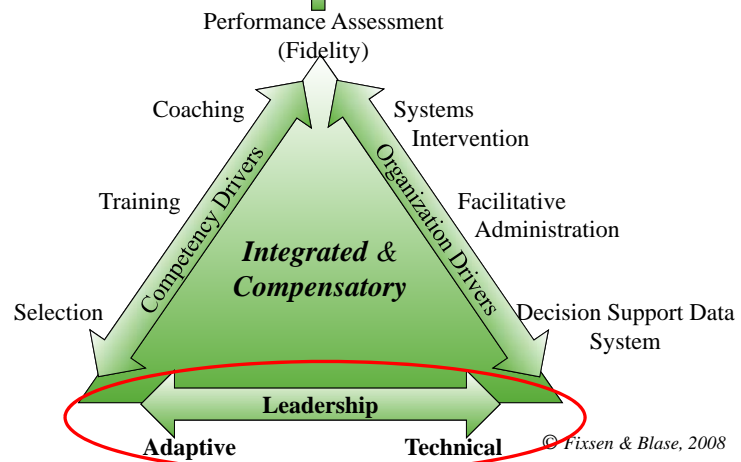
# Implementation: Leadership Drivers

Managing the Stages of Implementation

Exploration → Installation → Init'l Implementation  
→ Continual Regeneration → Sustainability

Improved Outcomes for . . .

Program/Initiative (set of practices)



## Knowing Your Community

---

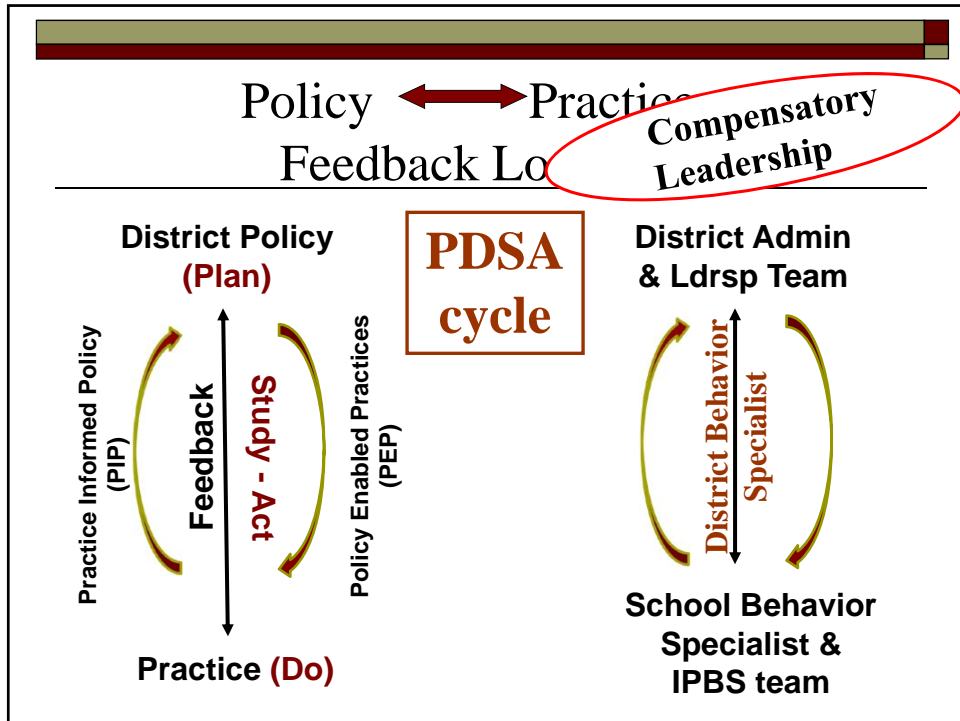
### Attention needs to be paid to:

- ❑ Providing leadership for the initiative
- ❑ Creating buy-in from stakeholders,
- ❑ Cultivating and informing champions,
- ❑ Promoting structures and processes for frequent and accurate communication at multiple levels with lots of opportunity for feedback from diverse groups of stakeholders
- ❑ And examination of feasibility of implementation all along the way

## Leadership (Integrated)

---

- ❑ Oversee Implementation effort -- Consistency in philosophy, goals, knowledge & skills **across Implementation Effort & Drivers**
- ❑ Active advocate (Champion) for seeing this process through who has a **strong understanding of IPBS** continuum and plan
- ❑ Formalize a **clear link to district priorities**
  - Consistent topic in District Leadership team discussions
  - Policy considerations
  - Align District (CIP) & School Improvement goals (SIP)



Thank you! Any Questions contact:



**cborgmei@pdx.edu   or**  
**sheldon.loman @ pdx.edu**

