Developing Effective Practices for In-depth Analysis of Your Data to Improve Results
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Nashville, TN – Cancelled Due to COVID-19
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Agenda

• Welcome and introductions
• Rationale for in-depth analysis*
• In-depth analysis process and simulation

Welcome

Who is in the room?

- Data managers
- State directors
- State Systemic Improvement Plan (SSIP) coordinators
- State Performance Plan/Annual Performance Report (SPP/APR) coordinators
- 619 coordinators
- Others?
Rationale
In-depth Data Analysis

• Requires spending time to identify the causes of the problem
  ▪ Often has multiple causes
  ▪ Requires digging deeply to get to the root(s)
• Encourages systemic thinking
• Can eliminate wasted effort on patches that will not dissolve the roots
• Encourages reflection on current practices
• Provides rationale for strategy selection
A Typical Planning Process

Where are we going?
Desired Outcome

Where are we now?
Analysis

How will we get there?
Select Strategy

Implement
A Systems Planning Process

- Desired Outcome
- Analysis
- In-depth Analysis
- Select Strategy
- Implement
Contributing Factors Related to the Root Cause

- Factors include characteristics of the school or district culture, curriculum, instruction, and/or physical environment.
- Multiple contributing factors are typically the result of a single root cause.
- Multiple contributing factors may have multiple root causes.
- Addressing the root cause dissolves associated contributing factors.
**Who Should Be Included in the Systems Planning Process?**

- Parents and students representing the group of concern and the students experiencing success
- General and special education professionals who work with the target group and who work with students succeeding
- Support staff (school psychologists, school counselors, etc.)
- Leaders with the influence and authority to make changes
- Community members from organizations that support youth and families and local business representatives
Converting Data to Wisdom

• Convene a team that
  ▪ Can speak with authority to all angles of the problem
  ▪ Understands the relevant data
  ▪ Has the power to make changes (sometimes radical) to the system

• Use
  ▪ Shared analysis
  ▪ Contemplation
  ▪ Reflection
  ▪ Honesty
In-depth Data Analysis
Questions to Ask About Data

Observations

• What are your initial thoughts or reactions?
• What do you know about the data?
• Is it a change or a trend?
• Do the data surprise you?
• What do you want to know?

Interpretations

• What do the data tell you?
• What thoughts or assumptions do these data confirm?
• What are the limitations to your conclusions?
• What are your next questions?
• What further data do you want to see?

Implications

• What are the implications?
• Why does this matter?
• What is/are the root cause(s)? Do we know them yet?
• What do we still need to find out? Do we have enough data/information to move forward?
Analysis Tool: Diagnostic Tree

Priority Issue

Context

Initial Hypotheses

Intermediate Hypotheses

Deep Hypotheses

Increase graduation rates for students with disabilities to 100%

High School A (most non-graduates)
Special education students coming from Middle School C not prepared for high school
Inadequate multi-tiered system of support (MTSS) system in Middle School C
Special education students coming from Elementary School D not prepared for middle school
Reading instruction for all children in Elementary School D is inadequate

High School B (second most non-graduates)
High turnover in special education staff
Inadequate support for new sped teachers
Special education students not in regular class
Inadequate training on appropriate individualized education program (IEP) teamwork
Priority Issue

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Process: Priority Issue

Priority Issue

Focus for improvement: student success indicator
Data: Priority Issue

• Take a look at the data on handout
• Discuss the data at your table and identify possible priority issue(s)
  ▪ Focus on student outcomes
Priority Issue

Increase graduation rates for students with disabilities by 3% annually.
Priority Issue

Context

Initial Hypotheses

Intermediate Hypotheses

Deep Hypotheses

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Process: Context

Context

Where is the concern occurring?

With what group is the concern occurring?
Data: Context

- Take a look at the data on handout
- Discuss the data at your table and identify possible location(s)
  - Consider where and for whom the priority issue is a concern
Decision: Context

Context

Disability area

Race/ethnicity
Increase graduation rates for students with disabilities to 100%

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- Reading instruction for all children in Elementary School D is inadequate

High School B (second most non-graduates)
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Process: Initial Hypotheses

Initial Hypotheses

Data-based decisionmaking
- Cultural responsiveness

Core instructional program
- Assessment: screening and monitoring

Interventions and supports

Location
- Priority Issue
  - Increase graduation rates for students with disabilities to 100%

High School A (most non-graduates)
- Data-based decisionmaking
- Cultural responsiveness

High School B (second most non-graduates)
- Core instructional program
- Assessment: screening and monitoring
Data: Initial Hypotheses

• Take a look at the data on handout
• Discuss the data at your table and identify initial hypotheses
  ▪ Consider
    – Curriculum
    – Instruction
    – Environment
    – Systems
    – Learner needs
  ▪ Focus on internal issues that are within the control of the school or district
Decision: Initial Hypotheses

Initial Hypotheses

- High discipline rates
- Attendance
- Special education students not in regular class
Intermediate Hypotheses

Priority Issue

Context

Initial Hypotheses

Intermediate Hypotheses

Deep Hypotheses

- Increase graduation rates for students with disabilities to 100%
- High School A (most non-graduates)
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  - Inadequate multi-tiered system of support (MTSS)
  - Special education students coming from Elementary School D not prepared for middle school
  - Reading instruction for all children in Elementary School D is inadequate

- High School B (second most non-graduates)
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Process: Intermediate Hypotheses

Intermediate Hypotheses:
- Confirm or disprove initial hypotheses
- Use objective data when possible
- Supplement objective data with experiential data
- Confirm findings with broad stakeholder input

Locations:
- Increase graduation rates for students with disabilities to 100%:
  - High School A (most non-graduates)
  - Special education students coming from Middle School C not prepared for high school
- Confirm or disprove initial hypotheses

Locations:
- High School B (second most non-graduates):
  - High turnover in special education staff
  - Supplement objective data with experiential data
  - Confirm findings with broad stakeholder input
Data: Intermediate Hypotheses

• Take a look at the data on handout
• Review the data and determine whether the data support your hypotheses
  ▪ Identify evidence to support your determination
• Identify at least one intermediate hypothesis that you would continue to investigate and what data you would need to continue your analysis
Decision: Intermediate Hypotheses

Intermediate Hypotheses:

- Inadequate MTSS (middle school C)
- Students with disabilities not prepared for middle school
- Inadequate support for new teachers
- Inadequate IEP team training

Multi-Tiered System of Support (MTSS)
Individualized education program (IEP)
Deep Hypotheses

Priority Issue

Context

Initial Hypotheses

Intermediate Hypotheses

Deep Hypotheses

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Process: Deep Hypotheses

Deep Hypotheses

The most likely reason based on several rounds of data analysis

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The most likely reason based on several rounds of data analysis

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Data: Deep Hypotheses

• Take a look at the data on handout
• Review the data and determine whether the data support your hypotheses
  ▪ Identify evidence to support your determination
Decision: Deep Hypotheses

Deep Hypotheses

What other data or perspectives do you need to identify the root cause?

Location(s)

Priority Issue

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Inadequate support for new sped teachers

Special education students not in regular class
Next Steps

- Continue the process of thinking about possible causes and data investigation until you have reached the root of the problem.
- Always confirm your hypotheses with a broad range of stakeholders.
- Consider potential actions that would address the root cause(s) your deep hypotheses suggest.
Reflect on Your Current Practices

- How does this deep analysis method compare to your usual practices for data analysis?
- Are there data questions that would be a good fit for this type of analysis?
- Can you think of any situations where this method would not be appropriate?
Helpful Resources

- *Data Meeting Toolkit*
- *Success Gaps Toolkit*
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