Analyzing General Outcome Universal Screening Data in an RtI Framework

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Wilmington, NC
L1  Change to Analyzing Your Universal Screening Data if possible
Leigh Gates, 9/4/2013
Who Are You? (discuss with neighbors)

• In which setting do you work?
• What is your role?
• Do you implement RtI in your setting?
• If so, what is your role in RtI?
• Do you universally screen students?
• If so, how do you use the data?
Build Your Infrastructure

1. Formative evaluation process
2. Informed by data
3. School-based leadership team (SBLT)
4. School-based coach/grade-level chairs
   – Provide Technical Assistance
   – Interpret and Uses Data
   – Facilitate regular data meetings (building/grade)
5. Team Initiated Problem Solving (TIPS) Approach
Component of Infrastructure:
Team Initiated Problem Solving (TIPS)

Continual 5-step Cycle
Always Going Back to Data
Component of Infrastructure: Formative Evaluation

- What we need:
  - **Screening system for identifying students at risk**
  - Diagnostic assessment tools for identifying specific needs of students
  - Evidence-based programs and practices
  - Progress monitoring plan
  - Evaluation of effectiveness
Formative Assessment at Each Tier

Tier 1: **Universal Screening**, accountability assessments, grades, classroom assessments, referral patterns, discipline referrals

Tier 2: Universal Screening - Group Level Diagnostics (maybe), systematic progress monitoring, formative assessment large-scale assessment data and classroom assessment

Tier 3: Universal Screenings, Individual Diagnostics, intensive and systematic progress monitoring, formative assessment, other informal assessments
Assessment, Instruction, & Progress Monitoring Across the Tiers

**Step 1**
- Screen All Students
  - Monthly Screening
  - Bench-Mark Assessment
  - Annual Testing
- Behavior Academics

**Step 2**
- Addl. Diagnostic Assessment
  - Individual Diagnostic
  - Standard Protocol
- Intensive
  - Weekly
- Supplemental
  - 5-10%
- Core
  - 80-90%

**Step 3**
- Individualized Intensive
  - 1-5%
- Continue With Core Instruction with differentiation

**Step 4**
- Results Monitoring
  - Small Group Intervention By skill
  - 5-10%
  - 2 times/month
- Grades Classroom Assessments Yearly Assessments

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**Notes:**
- Weekly monitoring for students with 1-5% needs.
- Monthly screening for 5-10% students.
- Yearly assessments for students with 80-90% proficiency.
Identify Problems: Foundational Core/Benchmark

- Universal Screening
  - Academics: Screen all students, begin in Kindergarten; 3 times per year with appropriate early literacy and math measures
  - More intense instruction and monitoring within classroom for students below cut scores
  - See handout 1 (Cut Score Worksheet)
### Cut Score Worksheet

**Step One:** Put all student scores on the universal screening measure on a histogram type chart.

**Step Two:** Calculate typical Growth Rate of specific skills. Three formulas can be used here.
- \(\text{EOYBM} - \text{BOYBM} / 36 \text{ weeks} = \text{GR}\)
- **Or**
- \(\text{EOYBM} - \text{MOYBM} / 18 \text{ weeks} = \text{GR}\)
- **Or**
- \(\text{MOYBM} - \text{BOYBM} / 18 \text{ weeks} = \text{GR}\)

**Step Three:** Determine the Targeted Growth Rate for students. Two formulas can be used here depending on the desired amount of ambitiousness.
- \(\text{GR} \times 1.5 = \text{TGR}\)
- **Or**
- \(\text{GR} \times 2.0 = \text{TGR}\)
Cut Score Worksheet

- **Step Four:** Calculate the Growth Goal for the instructional period.
  - \[ \text{TGR} \times \text{NWI (18 or 36)} = \text{GG} \]
- **Step Five:** Calculate the Cut Score for determination of level of instruction. Two formulas can be used here depending on the length of the instructional period used in step four.
  - \[ \text{MOYBM} - \text{GG} = \text{CS} \]
  - Or
  - \[ \text{EOYBM} - \text{GG} = \text{CS} \]
- **Step Six:** Using the Cut Score place a line of demarcation on the histogram created in step one. Any students above the Cut Score should obtain the GG via Core instruction. Any students below the Cut Score may need Strategic instruction to obtain the TGR and GG. Students in need of Intensive instruction should be identified using progress monitoring data during supplemental instruction implementation.
  
  Progress monitoring within all three tiers allows for students movement between the tiers during the instructional period. At Tier 1, use macro level data. At Tiers 2 & 3, use small group or individual student data.
Cut Score Worksheet Activity

- Knowing that your MOYBM is 40 and your BOYBM is 20 what would be the cut score using an accelerator of 1.5?
- BOYBM = 20
- MOYBM = 40
- 18 weeks of instruction/intervention
- Accelerator of 1.5
Team Initiated Problem Solving (TIPS) Model

Collect and Use Data

- Identify Problems
- Develop Hypothesis
- Discuss and Select Solutions
- Develop and Implement Action Plan
- Evaluate and Revise Action Plan
TIPS in Action at Tier 1

- Identify Problems
  - Percent of students (or groups) at or above benchmarks

- Develop Hypothesis
  - Consider instruction, curriculum, & environment (not ICEL)

- Discuss & Select Solutions/Develop & Implement Action Plan
  - Evidence-based practices programs w/in gen. ed.

- Evaluate & Revise Action Plan
  - Assess progress and consider need for more intensive interventions (freq., intensity, tool)
Evaluate & Revise Action Plan…

What is a “Good” Response to Intervention?

Positive Response

– Gap is closing
– Can extrapolate point at which target student(s) will “come in range” of target--even if this is long range
– Level of “risk” lowers over time

Questionable Response

– Rate that gap is widening slows considerably---but still widening
– Gap stops widening but closure does not occur

Poor Response

– Gap continues to widen with no change in rate.
Analysis of Macro Data: Positive Response to Intervention

Performance

Expected Trajectory

Observed Trajectory

Time
Evaluate & Revise Action Plan…
Linking RtI to Intervention Decisions

• **Positive**
  
  • Continue intervention with current goal
  
  • Continue intervention with goal increased
  
  • Fade intervention to determine if student(s) have acquired functional independence.
Evaluate & Revise Action Plan…
What is “Questionable” Response to Intervention?

Positive Response
- Gap is closing
- Can extrapolate point at which target student(s) will “come in range” of target--even if this is long range

Questionable Response
- Rate that gap is widening slows considerably, but still widening
- Gap stops widening but closure does not occur
- Level of “risk” remains the same over time

Poor Response
- Gap continues to widen with no change in rate.
Analysis of Macro Data: Questionable Response to Intervention

Performance

Expected Trajectory

Observed Trajectory

Time
Evaluate & Revise Action Plan…
Linking RtI to Intervention Decisions

• **Questionable**
  – Was intervention implemented as intended?
    • If no…
      – employ strategies to increase implementation integrity
    • If yes…
      – Increase intensity of intervention for a short period & reevaluate
      – If rate improves, continue.
      – If rate does not improve, return to problem solving.
Evaluate & Revise Action Plan…
What is a “Poor” Response to Intervention?

**Positive Response**

- Gap is closing
- Can extrapolate point at which target student(s) will “come in range” of target--even if this is long range

**Questionable Response**

- Rate that gap is widening slows considerably, but still widening
- Gap stops widening but closure does not occur

**Poor Response**

- Gap continues to widen with no change in rate.
- Level of “risk” worsens over time
Analysis of Macro Data: Poor Response to Intervention

- **Performance**
  - Expected Trajectory
  - Observed Trajectory

- **Time**
Evaluate & Revise Action Plan…
Linking RtI to Intervention Decisions

• *Poor*
  – Was intervention implemented as intended?
    • If no…
      – employ strategies to increase implementation integrity
    • If yes…
      – Is intervention aligned with hypothesis? (Discuss/Select Solutions)
      – Are there other hypotheses to consider? (Develop Hypothesis)
      – Was the problem identified correctly? (Identify Problems)
I, We, You

- Analyze the universal screening data provided to determine who needs supplemental instruction, intensive instruction, and follow-up diagnostic assessments?

- Use all three methods.

- Which ones correlate the most?
Questions?

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Cut Score Worksheet for Universal Screening Data*

*Only CBM type data can be used in this worksheet. Data must be whole numbers. Percentiles, standard scores, scale scores, etc cannot be used.

**Step One:** Put all student scores on the university screening measure on a histogram type chart.

**Step Two:** Calculate typical Growth Rate of specific skills. Three formulas can be used here.

- \[
\frac{EOYBM - BOYBM}{36 \text{ weeks}} = GR \\
\text{Or} \\
\frac{EOYBM - MOYBM}{18 \text{ weeks}} = GR \\
\text{Or} \\
\frac{MOYBM - BOYBM}{18 \text{ weeks}} = GR
\]

**Step Three:** Determine the Targeted Growth Rate for students. Two formulas can be used here depending on the desired amount of ambitiousness.

- \[
GR \times 1.5 = TGR \\
\text{Or} \\
GR \times 2.0 = TGR
\]

**Step Four:** Calculate the Growth Goal for the instructional period.

- \[
TGR \times NWI (18 \text{ or } 36) = GG
\]

**Step Five:** Calculate the Cut Score for determination of level of instruction. Two formulas can be used here depending on the length of the instructional period used in step four.

- \[
MOYBM - GG = CS \\
\text{Or} \\
EOYBM - GG = CS
\]

**Step Six:** Using the Cut Score place a line of demarcation on the histogram created in step one. Any students above the Cut Score should obtain the GG via Core instruction. Any students below the Cut Score may need Strategic instruction to obtain the TGR and GG. Students in need of Intensive instruction should be identified using progress monitoring data during Strategic instruction implementation. Progress monitoring within all three tiers allows for students movement between the tiers during the instructional period.
Example Cut Score Worksheet for Universal Screening Data

**Step One:**

```
| 0 | 5 | 10 | 15 | 20 | 25 | 30 | 35 |
```

**Step Two:**

\[ \text{MOYBM} - \text{BOYBM} / 18 = \text{GR} \]
\[ 40 - 20 / 18 = 1.11 \]

**Step Three:**

\[ \text{GR} \times 1.5 = \text{TGR} \]
\[ 1.11 \times 1.5 = 1.67 \]

**Step Four:**

\[ \text{TGR} \times \text{NWI} = \text{GG} \]
\[ 1.67 \times 18 = 29.97 \]

**Step Five:**

\[ \text{MOYBM} - \text{GG} = \text{CS} \]
\[ 40 - 29.97 = 10.03 \]

**Step Six:**

```
| 0 | 5 | 10 | 15 | 20 | 25 | 30 | 35 |
```

All students above the score of 10.03 should be able to meet the expected Growth Goal via Core instruction. All students below the score of 10.03 would probably be initially placed in Strategic instruction to obtain the Targeted Growth Rate and necessary Growth Goal.
# THIRD GRADE

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BOYBM for DORF – 70  
MOYBM for DORF – 86  
EOYBM for DORF – 100  

BOYBM for DAZE – 8  
MOYBM for DAZE – 11  
EOYBM for DAZE – 19  

BOYBM for TRC – M  

Total Number of Third Grade Students – 62  

32 Weeks of School Left