Linking assessment to intervention

Data from Records, Interview and Environmental Observation

If any no

- 80% students learned lesson but not client
- Short transitions (minimal time on management)
- Few checks from peers (well-behaved class)

If all yes

Individual intervention

Check instructional areas & behavior with STEEP

Classwide intervention

Check instructional areas with STEEP

- Most students did not learn (poor instruction)
- Long transitions (Beat the buzzard needed)
- Many checks from peers (rules and behavior plan)
4 Stages of Consultation

1. Problem Identification
   Typically starts and ends with interview but more recently including direct screening approaches

2. Problem Analysis
   School ➔ class ➔ individual

3. Plan Implementation

4. Plan Evaluation
WHY School-wide screening approach

- CONDUCTED WHERE the problem is actually occurring.
- DIRECT LOW-INFERENCE measurements
- EASY to DO
- EARLY SERVICES verses “wait to fail”
- SERVICE FOR individuals at risk rather that by deficit
- COMPLIES with legal mandates (preferrals, exclusion clauses).
- MINIMIZE BIAS
- INCREASE ACCURATE IDENTIFICATION (decrease false negatives).
School-based problem solving models are proliferating (e.g., Iowa Model, Minneapolis Model, CBM-DD model, responsiveness-to-intervention) but have some common core elements and assumptions.

1. Direct measurement of academic skills (for purpose of screening, formative/summative evaluation, and diagnosis)

2. Intervention with procedures to enhance fidelity progress monitoring

3. Decision-making based upon student progress during core instruction and during interventions of increasing intensity.
What we currently know about this model:

Will universal screening help identify early and better?  
Absolutely.

Do we have interventions which can improve academic skills?  
Absolutely.

Can intervention by used as an assessment device to see if a child can learn?  Absolutely.

Will placements in SPED be more accurate with this model?  
The evidence seems to point in that direction.

So these individual parts have some support.  It is logical that used together we will do well but that has not been supported.
Why alternative approach?

Assumptions not empirically supported regarding LD classifications:

1. Degree of discrepancy from IQ would meaningfully relate to the severity of LD

2. Academic performance of students with a discrepancy differs from that of students without a discrepancy

3. Discrepancy yields reliable information

4. Findings inform instruction

5. Use of IQ tests is a necessary procedure for identifying students with LD
RELEVANCE TO CONSULTATION:

Purpose of consultation process:
accurately identify the problem
know when an accurately used intervention is working
identify how a student can be adequately served in the LRE

To do this, we rely on two critical procedures:
1. deriving solutions based on an accurate decision making
2. enabling the consultee to serve as the effective agent of change

Our intervention data increases accurate decisions regarding student progress and eligibility for type of services
AN RTI approach:
Screening to Enhance Equitable Placement in Special Education

Major types of problems:

- Class wide problem
- Performance deficit
- Skill deficit but responds quickly to intervention
- Skill deficit that does not respond to Intervention and class is doing OK
- Behavior problem only that is interfering with academic performance
Main objectives of screening:

- Obtain a quick measure of **academic performance** during appropriate reading, writing, and math assignments.

- Observe student’s **disruptive behavior** during academic tasks and non-academic activities.

- **Compare** the student performance relative to **instructional placement standards and peer performance** under the same conditions for all children.
By the end of this phase you should know:

- What the problem is and what type of problem it is.
- Whether the problem can be improved quickly through brief intervention.
- Whether or not to conduct a full functional assessment.

A step by step example for an academic concern
With Kalisha
Gated system with decision rules applied at each step to determine whether to proceed to next phase of assessment.

- Step 1: Classwide CBM screening (reading, writing and math with behavior)
- Step 2: Skill/Performance Deficit Assessment
- Step 3: Brief Intervention Trial or
- Step 4: Functional Assessment
First, brief one to three minute grade-level academic probes are administered to Kalisha’s and her class while we observe classroom behavior.
Begin with TEACHER INTERVIEW:

Main objectives:

- Explain in-class assessment process
- Set date and time for in-class assessment
- Identify appropriate academic materials
PREPARING THE TEACHER:

• “I would like to conduct some observations of the child.”

• Provide Rationale:

  – To go where the problem is actually occurring.
  – To see the problem as the teacher sees it everyday with their peers and during typical classroom activities.
  – To see the problem during academic and non-academic activities in a time-efficient manner.
PREPARING THE TEACHER:

• “First, I want to conduct an observation while you ask the class to do some normal things. I will give you a script of what to do and I want to see how the child responds to different things. This will involve asking the class to do two short assignments and providing some special requests for the student.”

• Explain that during this 15-20 minute period, the teacher administers the probes to the entire class while consultant observes and records the occurrence of the problem behavior(s) identified by the teacher for both the target student and a peer.
The service provider is asking the teacher to do three activities during the In-Class Assessment:

- 1) give the students directions
- 2) distribute assignments
- 3) collect the assignments after a set time limit.

- The service provider asks the teacher to handle student behavior as he or she normally would during the assessment.

- Scripted instructions for the In-Class Assessment are given to the teacher
GETTING ORGANIZED before in-class assessment

The first observation will be for about 15-minutes. When is the time of day that I am most likely to see the behavior that causes you concern?

- 1. Scheduled observation date: _______ time: __

2. Curriculum Materials provided by (circle one):
   - assessment team
   - school personnel

3. Note level or skill type of materials appropriate for assessment
   - Reading Probe: ________________ Number needed: __
   - Math Probe: ________________ Number needed: 
   - Writing Probe: ________________ Number needed: 
What type of work should be assessed?

MATH:

Ask the teacher what math skills the students have been taught recently and should be able to do.

Or look at the most recently completed “End of Chapter” test.

READING:

Ask the teacher to identify the reading level on which the child is currently being instructed during reading class.

Ask the teacher to identify 2 to three peers who are reading at a similar level as the referred student.
MATERIALS needed:

A timer
A watch with a second hand
Copy of a math assignment for all students
Copy of mazes for all students
A story starter

If child is in low reading group:
Three copies of three different reading passages for the student, teacher, and consultant.
My mother always likes to go home, She was born on a nice ________ in a valley. Her father started ________ farm before (farm/ big/ soon) (home/the/sat) she was born. When ________ was a little girl they lived ________ (red/she/told) (to/fun/in) a very old log house on _____ farm. (call/date/the)
Teacher

- Give directions about a timed math assignment.
- Pass out the assignment.
- Tell students to “START WORKING.”
- Tell students to “STOP WORKING.”
- Collect the assignment.

Service provider will:

- Provide the math assignment.
- Observe disruptive behavior
- Score the assignments as the number of digits correct.
Question:
Does Sue have an academic problem in math?

♦ If Sue is performing **below the instructional placement standard and the peer average**, then there is a problem with math academic performance.
  ♦ For example: Target child’s score is 22
    Instructional Placement Standard is 60

♦ If Sue is performing **at or above the instructional placement standard and the peer average**, then there is no problem in math.
  ♦ For example: Target child’s score is 70
    Instructional Placement Standard is 60

♦ If a **majority of students are having difficulty** with the task, then a classwide intervention may be needed.
  ♦ For example: Target child’s score is 22
    Peer average score is 32
    Instructional Placement Standard is 60
**Interpretation of Scores obtained during the Math Assessment**

<table>
<thead>
<tr>
<th>Description</th>
<th>Value</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sue’s score (i.e., number of digits correct):</td>
<td>62</td>
</tr>
<tr>
<td>Peer average score:</td>
<td>61</td>
</tr>
<tr>
<td>Sue Ranks as 14th highest out of a class of 30</td>
<td></td>
</tr>
<tr>
<td>Instructional Placement standard for 4th grade:</td>
<td>60</td>
</tr>
</tbody>
</table>

**DECISION:**

Since Sue’s score is **above the instructional placement standard** and the peer average, Sue **does not** have a problem in math.
Teacher will:

- Give directions and give students a story starter.
- Tell students to “START WORKING.”
- Tell students to “STOP WORKING.”
- Collect the assignment.

Service provider will:

- Provide the story starter.
- Observe disruptive behavior.
- Score the assignments as number of words written.
Example of Writing Scores

Sue’s score (i.e., number of words correct): 24
Peer’s average score: 42
Sue ranks as 29 out of 30 students.
Instructional Placement Standard: 41

Does Sue have an academic problem in writing?

♦ If Sue is performing **below** the peer average and instructional placement standard, then there is a problem with writing.

♦ If Sue is performing **at or above** the peer average and instructional placement standard, then there is no problem in writing.

♦ If a **group of students are having difficulty** with the task, then a classwide or group intervention may be needed.

DECISION
Since Sue’s score is **below** the instructional placement standard and the peer score, Sue **does have** a problem with writing.
Teacher will:

- Give the class independent seatwork.
- Meet with three students. The target student will be included with two other students who read at the target student’s reading level.
- Tell each student to read a passage out loud for one minute.

Service provider will:

- Select and copy the three reading passages.
- Follow students as they read the passage out loud for 1 minute.
- Cross out words that are misread by the student.
- Score the assignments by counting the words read correctly.
Example of Reading Scores

<table>
<thead>
<tr>
<th>Description</th>
<th>Score</th>
</tr>
</thead>
<tbody>
<tr>
<td>Sue’s score (i.e., number of words correct)</td>
<td>86</td>
</tr>
<tr>
<td>First Peer’s score</td>
<td>84</td>
</tr>
<tr>
<td>Second Peer’s score</td>
<td>67</td>
</tr>
<tr>
<td>Instructional Placement Standard</td>
<td>85</td>
</tr>
</tbody>
</table>

**Instructional Placement Standard for Reading:**
- For 1st to 2nd grade: 50 words correct per minute
- For 4+: 85 words correct per minute

**Does Sue have an academic problem in oral reading?**

**DECISION:** Since Sue’s score is **above the instructional placement standard** and the peer scores, Sue **does not** have a problem with reading performance.
STEP 1: Identify problem behaviors

1. Talking out = student makes audible verbal noise without being called on by teacher.
2. Out of seat = student’s body leaves contact with chair for more than 2 seconds.
3. Touching or hitting others = any part of student’s body makes contact with another student’s body.
4. ____________________
**STEP 2: Identify target student and peers**

- The target student will be observed and recorded in the box marked “T”.
- A peer will be observed every other interval.
- This is designated by a “P” in the box.
- Decide on a pattern to observe peers.

*For example: observe one student in each group or row.*

<table>
<thead>
<tr>
<th>1 T X</th>
<th>2 P O</th>
<th>3 T X</th>
<th>4 P O</th>
<th>5 T O</th>
<th>6 P O</th>
<th>7 T X</th>
<th>8 P X</th>
<th>9 T O</th>
<th>10 P O</th>
<th>11 T O</th>
<th>12 P O</th>
</tr>
</thead>
<tbody>
<tr>
<td>13 T 0</td>
<td>14 P 0</td>
<td>15 T X</td>
<td>16 P O</td>
<td>17 T 0</td>
<td>18 P O</td>
<td>19 T O</td>
<td>20 P O</td>
<td>21 T X</td>
<td>22 P X</td>
<td>23 T X</td>
<td>24 P O</td>
</tr>
</tbody>
</table>
Scores Obtained during the Behavior Assessment

<table>
<thead>
<tr>
<th>Sue’s percentage score of on-task behavior: 60%</th>
<th>Peer’s average score: 90%</th>
</tr>
</thead>
<tbody>
<tr>
<td>Behavior standard: above 80%</td>
<td></td>
</tr>
</tbody>
</table>

Does Sue have a behavior problem?

- If Sue is performing **below** the behavior standard and the peer percentage, then there is a problem with classroom behavior.

- If Sue is performing **at or above** the behavior standard and the peer percentage, then there is no problem with Sue’s behavior.

- If a **majority of students are above the behavior standard**, then a classwide intervention may be needed.

**Decision**

*Since Sue’s score is **below the behavior standard** and above peer average score, Sue **does have** a behavior problem.*
AT this point
IF graphed would look like this:
Is there a valid academic or behavior problem?

<table>
<thead>
<tr>
<th>Subject</th>
<th>Torrence</th>
<th>Peers</th>
<th>Standards</th>
</tr>
</thead>
<tbody>
<tr>
<td>Math</td>
<td>No Problem</td>
<td>Yes! There is a deficiency</td>
<td></td>
</tr>
<tr>
<td>Writing</td>
<td>No Problem</td>
<td>Yes! There is a deficiency</td>
<td></td>
</tr>
<tr>
<td>Reading</td>
<td>No Problem</td>
<td>Yes! There is a deficiency</td>
<td></td>
</tr>
</tbody>
</table>
AT this point
IF graphed would look like this:
Is there a valid academic or behavior problem?

Sue
Peers

14/30
29/30
Scenario #1: Classwide problem.

In this example, each bar is a different student. Here Kalisha is low, but so are many other children in the class. Most of the children in this class are in the frustrational range, an outcome we routinely observe in many low performing schools. The recommendation is to treat this as a classwide problem and help several children at once rather than test Kalisha and place her in special education. Comparing children in a low performing schools to national norms is a primary reason for overidentification and disproportionality problems.
Won’t Do/Can’t Do Assessment

Immediately following the class wide assessment, a can’t do/won’t do assessment is performed to quickly find out if the problem is a lack of skill or a lack of willingness and motivation. The same probes used in class are re-administered to the child, with one difference. For this assessment the child is offered an incentive to improve the score obtained when they completed the work.
Step 2: Skill v. Performance Deficit Assessment

- Can’t do/Won’t do assessment
- Treasure chest: plastic box filled with tangible items (e.g., small toys, pokemon cards, hair jewelry, pencils, erasers, etc.)
- Students are told they may earn a reward of their choice by “beating their score.” Are allowed to briefly sample treasure chest items.
- Student repeats probe for score.
• Score increases above the class median student is coded as a performance deficit (won’t do) and does not proceed for further assessment.

• Score does not increase student is coded as a skill deficit (can’t do) and does proceed for further assessment.

• Score increases (greater than 20%) but still falls below the class median student is coded as exhibiting a combined skill/performance deficit and proceeds for further assessment.
At this point:
What type of problem is it?

- **MATH**: No Problem
- **WRITING**: YES! There is a deficiency
- **READING**: No Problem
- **BEHAVIOR**: YES! There is a deficiency

Reward did not help
Scenario #4: Can’t Do Problem

Here the problem does not improve with incentives so it is considered a: A *Can’t Do* Problem

**In Class Score with No Incentive**

**Can’t Do/Won’t Do Score**

- Kalisha
- Rene
- Angel
- Dink
- Logan
- Janice
- Henry
- Allen
- Lil
- Larry
- Mark
- Elmer
- Suze

National Norm
Won’t Do/Can’t Do Assessment

Immediately following the class wide assessment, a can’t do/won’t do assessment is performed to quickly find out if the problem is a lack of skill or a lack of willingness and motivation. The same probes used in class are re-administered to the child, with one difference. For this assessment the child is offered an incentive to improve the score obtained when they completed the work.

Classroom-based Assessment with Grade level curriculum materials

|------------------|---------------------|---------------------|---------------------|

Is motivation a contributing factor?
Conduct Won’t Do/Can’t Do Assessment

WORKING WITH THE DATA
Complete Decision Sheet to determine Type of Problem and type of Interventions
CBM internet sites

• http://www.interventioncentral.org/tools.shtml

• Reading: http://www.kansped.org/ksde/cbmnorming.html
WORKING WITH DATA

• Score academic probes
• Organize probes from high to low scores for math and then for writing
• Score on task behavior for peer and target child
• On ranking sheet
  – Write highest and lowest score
  – Write child’s name and score at ranked number
  – Add the median (middle) score
• Graph
• Review decision making process sheet
Has this model met Fuchs and Fuchs dual discrepancy?

Assessed discrepancy in student’s performance level those of peers

Assessed general education effectiveness

Assessed possibility of motivational explanation

Have not yet determined whether:

-the student’s rate of learning with adaptations made in the general education classroom is inadequate

-lack of performance due to history of poor instruction

-the provision of special education results in improved growth
Implement a Brief Intervention

If we have the situation where Kalisha performed far below her class, and has a can’t do problem, then an intervention is put into place. This will be a “strong” treatment designed to bring about rapid improvement in child functioning. The primary goal of this intervention is assessment. We are intervening to see if: a) we are correct about the type of problem identified and b) if this child will learn if exposed to good instruction to rule out lack of instruction as a variable.

Classroom-based Assessment with Grade level curriculum materials

- Problem in Math?
- Problem in Writing?
- Problem in Reading?
- A Behavior problem?

Is motivation a contributing factor?
Conduct Won’t Do/Can’t Do Assessment

Can the problem be improved quickly?
Implement a Brief Intervention

10 minutes for ~10 days
Outcome #2: The intervention was not effective

Here Kalisha was far below her class, has a can’t do problem because she did not perform better when offered an incentive, and an intervention was put into place. Here her problem did respond to intervention.
The match between the child and the learning environment seems critical.

Several types of matching or non-matching can occur:

Level I Learning Trials are targeted based on General Classroom and Curriculum Content Standards (example: general education)

Level II is targeted for Small Group but is not necessarily evidenced based (example: reading groups)

Level III is individually administered but still every child gets the same intervention. That is all kids low in reading get the intervention. (example: reading recovery)

Level IV is individually targeted based on assessment, it is evidenced based, it is delivered with integrity with sufficient frequency and intensity to produce changes (as shown in the literature).
Using intervention outcomes as an ASSESSMENT tool

General education

One size fits all—Small group

One size fits all—Evidence based Tx

Help linked to Assessment

Intervention by student match is possibly a good definition for treatment validity.

As we get closer to the center of the target below, the intervention is a better match for the student.

Once we found a match—what works---then we decide how to continue services.
Fuchs Potential pitfalls

Still lack appropriate decision rules / cut off points distinguishing between responders and non-responders for eligibility decisions but does ID at risk

**Normative:** in relation to the full distribution of student performance (e.g., 25% percentile or above)

**Limited norm:** limited to a subset who are receiving similar educational experiences (e.g., tutoring, ESL)

**Benchmark:** that corresponds to successful outcomes (e.g., 40 words per minute or 1.5 slope/week in first grade)

Gains and level or goal relative to which group?:
- General instruction
- Small group instruction
- Intensive individual instruction
Potential pitfalls

Support for intervention and measurements for early grades and in reading.

Little support in fourth grade up and in writing, math, spelling

How intensive should instruction be if we are to disconfirm a disability?
E.g., 2 week program for 10 minutes verses 15 week program for 30 minutes a day

How accurately can we predict if a child can continue in general ed without support? Which “cured” child will resurface with problems?
With respect to resistance to intervention, some miscellaneous thoughts:

A child being resistant to intervention seems to imply that the child has been resistant to a series of interventions which have been progressively more targeted to his/her needs.

We probably don’t know enough at this point to be able to respond to a real referral and tell you if the child is resistant or not.

The key thing we don’t know is how to reliably deliver an intervention with integrity. The field does not seem to be ready for that yet.
Linking assessment to intervention

Data from Records, Interview, and Environmental Observation

If any no

- 80% students learned lesson but not client
- Short transitions (minimal time on management)
- Few checks from peers (well-behaved class)
- Most students did not learn (poor instruction)
- Long transitions (Beat the buzzard needed)
- Many checks from peers (rules and behavior plan)

If all yes

- Individual intervention

If any yes

- Classwide intervention

All no

- Data from STEEP

- Score below peers → Individual academic assessment
- Behavior below peers & 70% → Individual Behavior assessment
- Scores below district/benchmarks → check slope &/or academic Tx

DATA from STEEP
4 Stages of Consultation

① Problem Identification

② Problem Analysis

③ Plan Implementation

④ Plan Evaluation

interview

direct screening approaches

School ➔ class ➔ individual

Behavior or Academic

Functional assessments

Brief Treatment Trials

Reinforcement assessments
Linking assessment to intervention

Data from Interview and Environmental Observation

- 80% students learned lesson but not client
- Short transitions (minimal time on management)
- Few checks from peers (well-behaved class)

If all yes

Individual intervention

DATA from STEEP

- Individual academic
- Skill/performance Assessment DATA
- Instruction

- Individual Behavior
- FA DATA
- Motivation
- PA
- TA
- Work Escape

Brief Treatment Trial(s) with child (could discuss ideas with teacher first)

If any no

- Most students did not learn (poor instruction)
- Long transitions (Beat the buzzard needed)
- Many checks from peers (rules and behavior plan)

Classwide intervention

Data from STEEP

Scores below district/benchmarks → check slope &/or academic Tx

Train and Treatment Trial(s) with teacher in classroom