

# Using Scientific Research-Based Interventions to Improve Outcomes for All Students



***Multitiered Interventions***

# A Multi-Tiered Service Delivery Model

- SRBI implementation is a **continuum of service delivery options** available in each school.
- Developing a multi-tiered model requires efficient use of resources and utilizing instructional “teaming.”  
( Burns & Gibbons, 2008, p. 122)

# Intervention Priorities

- Literacy (Reading and Writing)
- Mathematics
- Inappropriate Student Actions/Behaviors
- The above areas need to be examined in relationship to adult actions.

# Triage of Students Needing Intervention

- What can we do to prevent/intervene in **Tier 1** (differentiated instruction, whole group re-teach)?
- Which students require **Tier 2** intervention (supplemental small group instruction)?
- Which students require **Tier 3** intervention (intensive very small group or individualized instruction)?

# What is an intervention?

- **Intervention**= specific, targeted remedial techniques

(McCook, 2006, p.51)

- Interventions are strategic, purposeful adult actions that prevent learning difficulties and accelerate, and/or enrich student learning.

(Cappello, et. al. 2008)

# Intervention

Specific activities and procedures designed to *reduce significantly* the difference between what a student can currently do and what he or she is expected to do.

Interventions need to be empirically validated with evidence of effectiveness in school settings.

(Brown-Chidsey & Steege, 2005, p.8)

# What Are Interventions?

- Targeted assistance
- Depending on school level (elementary, middle, or high), interventions are administered by a classroom teacher, a specialized teacher, or an external interventionist
  - **Targeted instruction (Tier 2)**
    - Small group (4-6 students : 1 interventionist)
  - **Intensive instruction (Tier 3)**
    - Small group or Individual (1-3 students : 1 interventionist)
  - **and/or technology assisted (Tiers 1, 2 or 3)**

# Interventions

- Explicitly teach specific concepts, skills, and learning strategies
- Match curricular materials and instructional level
- Adapt modes of task presentation to address a variety of modalities
- Cue work habits/organizational skills
- Adjust direct instructional time
- Adjust amount of guided and independent practice



# Explicit Instruction

- Regardless of the approach, teachers make instruction explicit when they explain how and when to use strategies and model implementation; help students use them in multiple contexts indifferent content areas and genres; scaffold support.

# Interventions

- Ensure optimal pacing
- Increase task structure (differentiation)
- Increase task relevant practice
- Mini lesson on skill deficits
- Change types and methods of corrective feedback

# Interventions are NOT

- Preferential seating
- Shortened assignments
- Lowered expectations
- Parent contacts
- Classroom observations
- Suspension
- Retention
- Peer tutoring, unless its scientifically based (i.e., PALS – Peer Assisted Learning Strategies - Reading and Math)

# Use of Scientific Research-Based Interventions

- Using interventions that have a proven track record *increases the probability* of positive outcomes for students.
- If an intervention does not result in positive outcomes for the student, then it is time to move on (as long as fidelity was determined) and employ interventions that are effective.

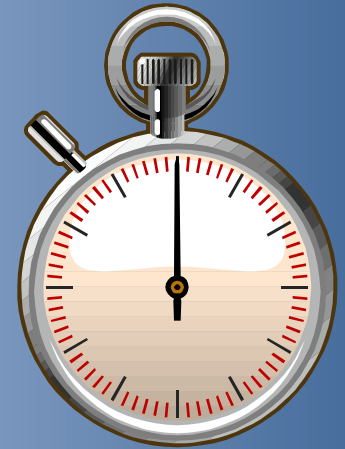
(Brown-Chidsey & Steege, 2005)

(McCook, 2006)

# Intervention

## 3 minute discussion

- What effective interventions do we see occurring already in our schools?
- Where?
- When?
- Make a list of effective interventions



# TIER 1

## TIER 1 AT A GLANCE

Students	Interventionist	Curriculum	Instruction	Progress Monitoring	Time	Location
Inclusion Whole Class Flexible Groups	Classroom Teacher	Common Curriculum  Standards Driven Curriculum	SRBI  Differentiated Instruction	Common Formative & Summative Assessment  Universal Assessment 3x per year	90 minutes daily in L.A. 60 minutes daily in Math	General Classroom

# Tier 1 “Universal Intervention”

*Are schools using best practice at Tier 1?*

## Academic Domain

- Common Core Curriculums (culturally relevant and research-based)
- Common Formative Assessments
- Collaborative Data Decision Making
- Effective Teaching Strategies
- Differentiated Instruction

# Tier 1 “Universal Intervention”

*Are schools using best practice at Tier 1?*

## **Social-Emotional-Behavioral-Domain**

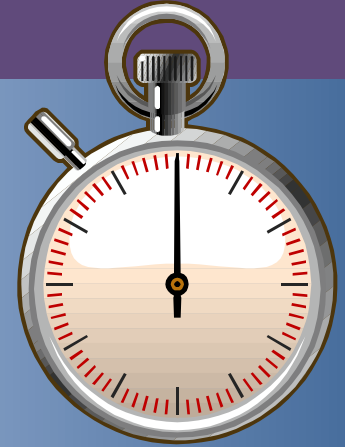
- Schoolwide expectations for behavior are explicitly taught
- Consistency in school structures and routines
- Social-emotional learning curriculum
- School & classroom level behavior supports (re-teaching, incentives, recognition, corrective feedback)
- Universal common assessment (data review) and progress monitoring



# Tier 1

## Brainstorming Activity

- Are the effective interventions we identified earlier *research-based*?
- How do we know?
- How can we find out?



# SRBI Inspection



1. We must become savvy consumers and explore the claims of “effectiveness” and “research base” in the educational programs & products we purchase and use.

2. When Investigating SRBI:

- Visit commercial websites
- Read product literature
- Phone product representative and ask questions about research basis of product

3. Questions to ask: Claims of effectiveness are based on:

- How many studies?
- What was the population and sample size?
- What was the degree of reliability & validity?
- Are the results applicable to our population?
- Is this product useful and do-able in our setting?

# Tier 2

## TIER 2 AT A GLANCE

Students	Interventionist	Curriculum	Instruction	Progress Monitoring	Time	Location
Small Groups 4-6 : 1  Grouped by same Skill or strategy	Classroom Teacher  Specialist  Instructional Aide, Tutor or Para	SRBI that supplements Tier 1	SRBI procedures, programs & materials	Probes or mini-assessments  Minimum every 2 wks.  Recommend weekly	30-45 minute sessions  3-4x per week	General education classroom, lab, small instructional space

# Examples of Tier 2 Intervention

## Academic Domain:

- **Small Group (maximum 6:1) direct instruction in:**
  - Phonemic awareness
  - Word decoding (explicit instruction)
  - Reading fluency (practice)
  - Whole number operations (hands on & explicit instruction)
  - Fact fluency (computer-based practice & corrective feedback)
  - Writing formats, structures & strategies
  - Reading strategies using content-area materials

***Students at Tier 2 may require multiple interventions simultaneously or in sequence***

# Examples of Tier 2 Intervention

## Social-Emotional-Behavioral Domain:

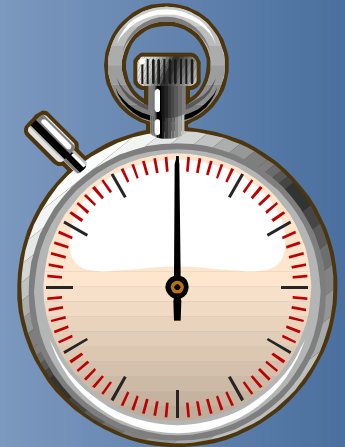
- **Small group (maximum 6:1) direct instruction in:**
  - Self control or impulse control strategies
  - Social skills training
  - Anger management strategies
  - Coping skills training for anxiety/ fears/ withdrawal
- **Small group supports for absenteeism / truancy**
- **Small organizational homeroom with direct instruction in organizational strategies**
- **Study skills strategies**

***Students at Tier 2 may require multiple interventions simultaneously or in sequence***

# Tier 2

## Brainstorming Activity

- What interventions are we currently offering to small groups of students?
  - In the academic domain?
  - In the social-emotional/behavioral domain?
- Are our interventions research-based?
- Are we targeting the intervention for specific students' needs?



# Tier 3

## TIER 3 AT A GLANCE

Students	Interventionist	Curriculum	Instruction	Progress Monitoring	Time	Location
Small Group 1-3 : 1  Grouped by same skill deficits	Classroom Teacher  Specialist  Instructional Aide, Tutor or Para	SRBI that supplements Tier 1 and Tier 2	SRBI procedures, programs & materials	Probes or mini-assessments  Minimum weekly  Recommend 2-3 times/week	60 minute session or two 30 minute sessions  Daily	General education classroom, lab, or small space for instruction

# Examples of Tier 3 Interventions

## Academic Domain:

- Individualized or small group (maximum 3:1) instruction in:
  - phonemic awareness instruction
  - standardized phonological instruction
  - number sense instruction
  - writing mechanics
  - Teaching of content specific vocabulary and academic content instruction

*Students at Tier 3 may require multiple interventions simultaneously or in sequence*



# Examples of Tier 3 Interventions

## Social-Emotional-Behavioral Domain:

- Functional Behavioral Assessment (FBA) & Behavior Intervention Plan (BIP) for students with intensive social–emotional/behavioral needs.
- Individualized anger management plan with de-escalation, time-out, & counseling contingencies.
- 1:1 organizational instruction & support.
- Student behavior charting & reflection plans.
- Individualized incentive & recognition programs.

*Students at Tier 3 may require multiple interventions simultaneously or in sequence*

# Tiers 2 and 3: Personnel

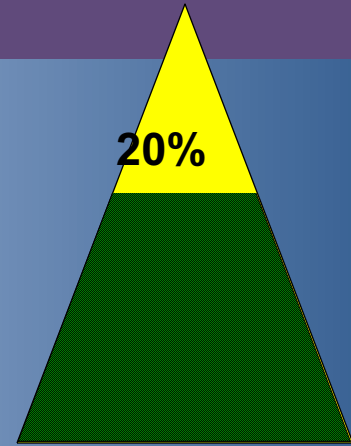
- EVERYONE in the building is a potential resource
- Re-conceptualize who does what
- Personnel deployed AFTER needs are identified
- WHERE matters less and less
- REMEMBER, student performance matters more than labels, locations and staff needs.
- A school cannot deliver intensive services to more than 7% of the population

# Stacy

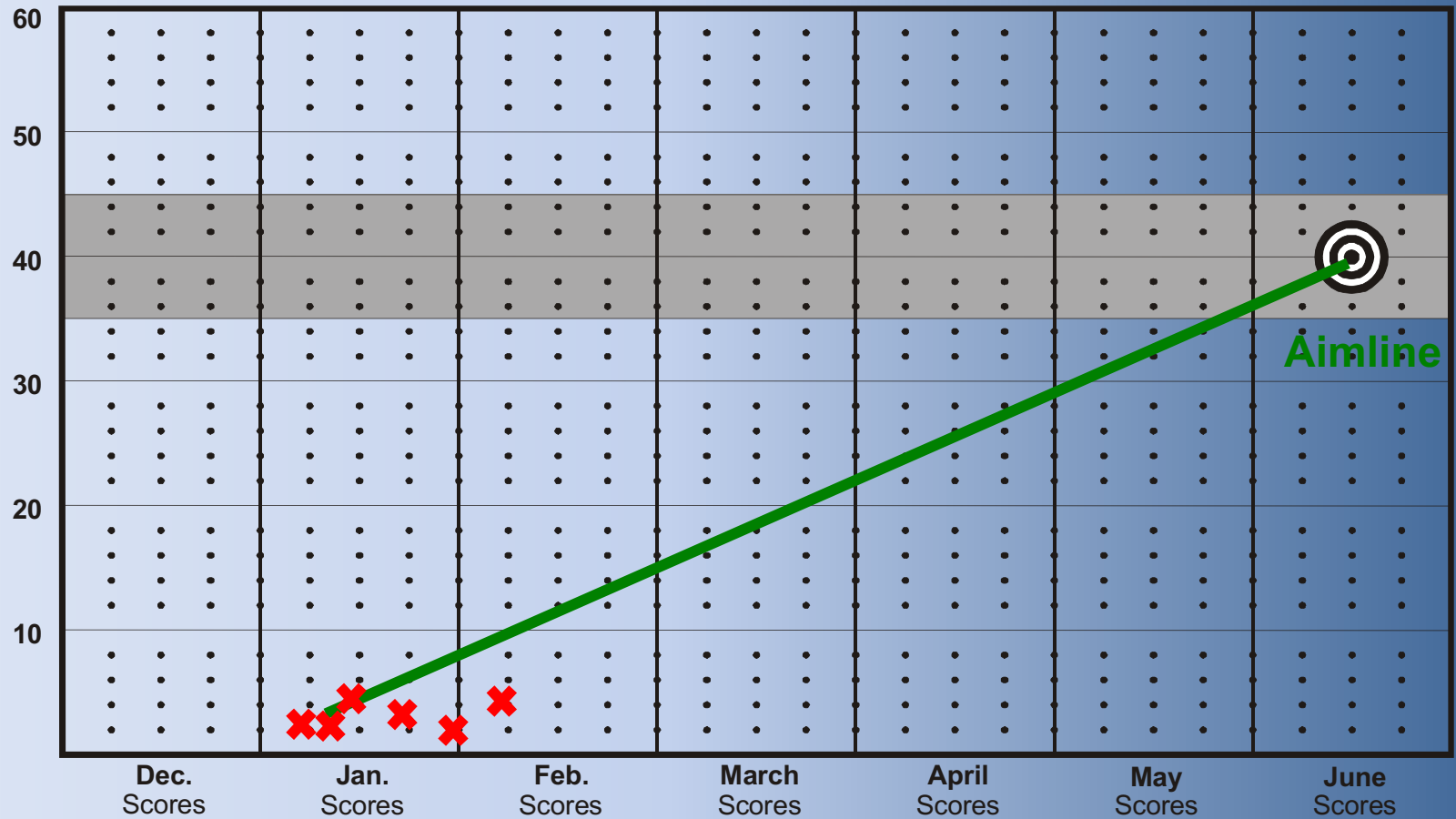
- A first grade student who moved to East School in December.
- On the January benchmark ORF assessment, she read 4 correct words per minute (cwpm).
- According to benchmark goals for Winter of 1st grade, Stacy is at high risk for failing to meet the end of year goal.
- An analysis of assessment protocols indicated that Stacy:
  - Had established phonemic awareness
  - Knew all her letter sound correspondences
  - Lacked a strategy for decoding words
  - Knew very few sight words

# Stacy's Instructional Plan

- Take part in all classroom reading instruction (i.e., core instruction).
- Receive small group intervention (5-6 students) focusing on decoding, for 30 minutes, four times a week.
- Monitor progress weekly.

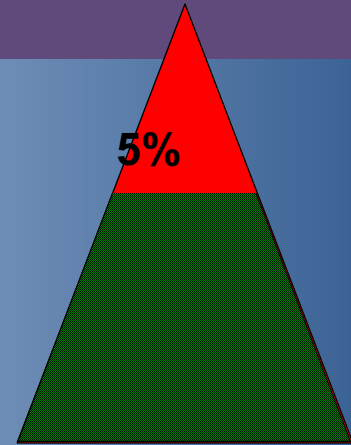


# Progress Monitoring

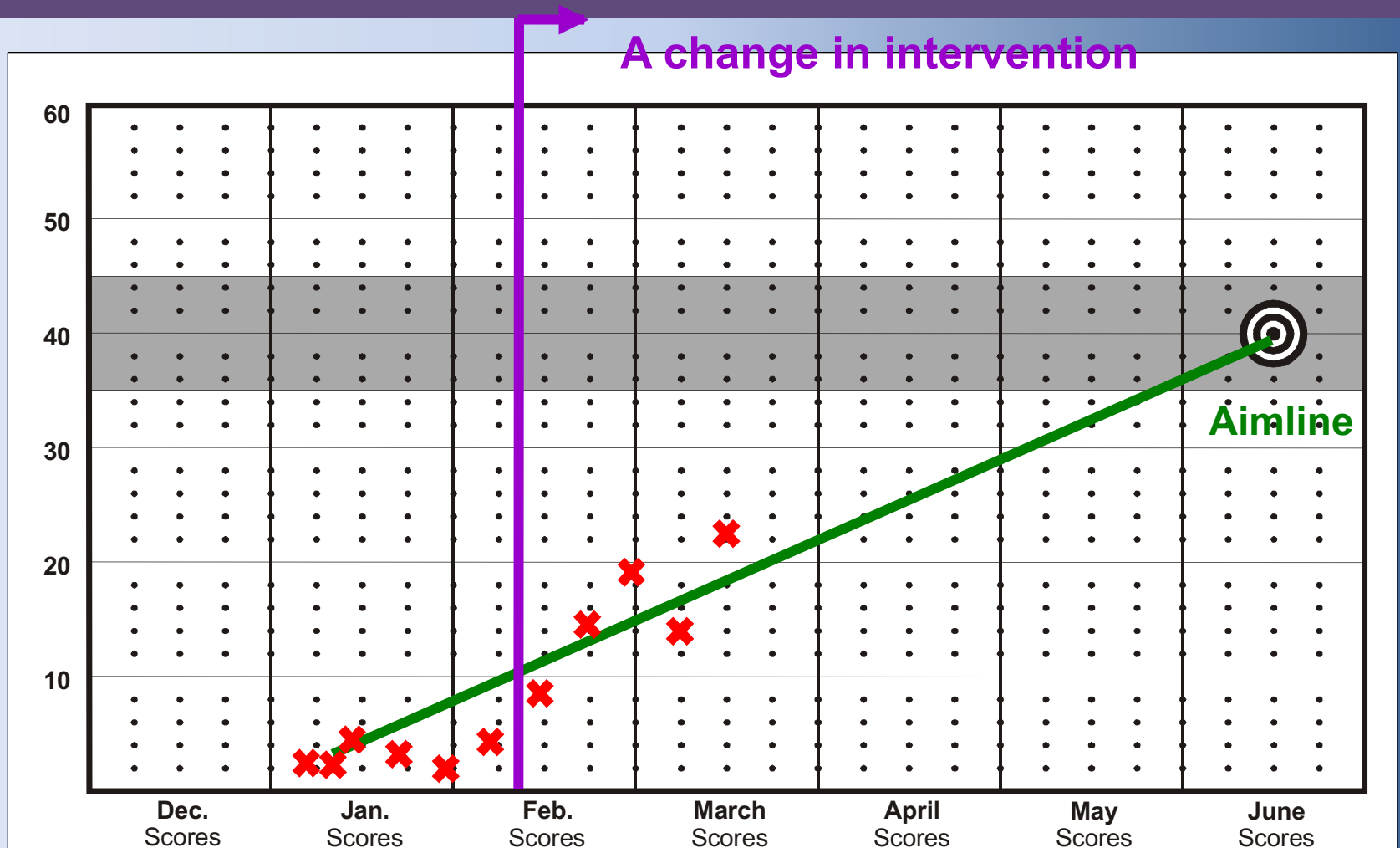


# Stacy's Instructional Plan: Adjustments

- Receive more intensive systematic intervention program 45 minutes, 5 days a week with group of 2-3 students.
- Review sight words with classroom teacher 10 minutes, 2 times a day
- Preview critical components of core instruction with instructional assistant before whole class instruction.
- Continue to monitor progress weekly.
- Literacy team meet to review Stacy's progress weekly.



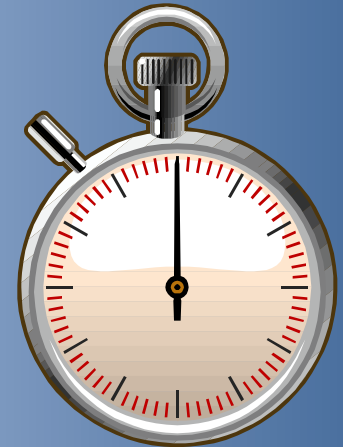
# Progress Monitoring



# Tier 3

## Brainstorming Activity

- What intensive interventions are we currently offering to very small groups of students or individuals?
  - In the academic domain?
  - In the social-emotional-behavioral domain?
- Are our interventions SRBI?
- Are our interventions being provided at the level of intensity that is needed for some students?





# Reading & Math Standards & Critical Content

**Resources to guide intervention decisions:**

## **Reading**

- CT Blueprint for Reading Success (2000)
- Beyond the Blueprint (2007)
- National Reading Panel (2000)

## **Mathematics**

- 2007 CT Mathematics Standards
- NCTM Focal Points (2006)
- National Math Panel Report (2008)

# Resources to Guide Selection of Social Emotional Learning (SEL) Curriculums

## Collaborative for Academic, Social and Emotional Learning (CASEL) University of Chicago & USDE

### – **Social-Emotional Learning Standards** (Illinois Ed. “Safe and Sound”)

- Developmental Continuum (behavior standards from primary school through late adolescence)

### **Three standards:**

1. Self Awareness & Self Management
2. Self Awareness & Interpersonal Relationships
3. Decision-Making and Responsibility

# For Starters....On-Line Resources:

## **READING:**

[http://www.prel.org/products/re\\_/assessing-fluency.htm](http://www.prel.org/products/re_/assessing-fluency.htm)

<http://www.fcrr.org/>

## **MATH:**

[http://www.nctmmedia.org/cfp/full\\_document.pdf](http://www.nctmmedia.org/cfp/full_document.pdf)

[www.k8accesscenter.org/training\\_resources/documents/Math%20Interventions.ppt](http://www.k8accesscenter.org/training_resources/documents/Math%20Interventions.ppt)

## **BEHAVIOR:**

<http://www.pbis.org/main.htm>

<http://www.doe.in.gov/sservices/response-to-intervention.html>

<http://www.nasponline.org/advocacy/rtireference.pdf>

<http://www.casel.org/>

# Tier 2 & 3

## Interventionists and Locations

- Elementary School:
  - More likely to be in the classroom with the classroom teacher as the interventionist.
  - Interventions are above and beyond Tier 1 core practices (e.g., effective teaching strategies, flexible groups, differentiation).
- Secondary School:
  - More likely to be in a separate classroom or lab with a specially trained interventionist or in a specially designed course

# Some Examples of Tier 2 Interventions in Elementary School

- Within classroom intervention by classroom teacher or specialist
- Within classroom scripted intervention by para or tutor
- Grade level or teaching team “Enrichment and Intervention Block”
- In addition to core reading and math

# Some Examples of Tier 2 Interventions in Secondary School

- Need teachers with reading or math expertise (trained in the teaching of foundational concepts and skills)
- Often use lab (reading lab, math lab)
- Durational classes (flexible groups) in addition to core math and reading classes
- May use a specifically designed course with credit

# Some Examples of Tier 3 Implementation

## Tier 3 – Intensive Instruction

- Lack of progress in Tier 2 or *direct entry* to Tier 3 following universal assessment
- Diagnostic Assessment & Individual Intervention Plan
- Daily 60 minute sessions (indiv. or groups of 2-3)
- Intervention by specialist, teacher, or specially trained paraprofessional with scripted program
- Frequent progress monitoring
- Requires schedule changes

# Entrance and Exit Criteria

- Establish criteria ahead of time
- Step Down Schedules (i.e., “gradual release”)
- After exiting, universal assessment provides “safety net” for all students

How will classroom teachers embed successful intervention strategies into core general education practices?



# Fidelity of Implementation

- **Ensure that intervention (instruction) is *delivered* as it was *designed* ....**
- **Adopt a quality assurance system including:**
  1. Structured schedules for progress monitoring
  2. Structures for data collection & data analysis
  3. Fidelity checks using logs or notes for each intervention session
  4. Scheduled meetings for consultations between interventionists (especially important when paraprofessionals and tutors provide intervention)
  5. Well developed communication system between tiers 1,2,3 and regular reports to families

# SRBI Planning Tool

Working with your teammates, discuss the following questions and record your responses on the *SRBI Planning Tool* page.

- Regarding your districts multitiered interventions/continuum of supports:
  - What is your current state?
  - What is your desired state?
  - What are your next steps?