

## KU-CRL *mission* is to markedly improve . . .

- The performance of struggling adolescent learners
- How <u>teachers</u> instruct academically diverse classes
- How secondary <u>schools</u> can be structured to improve outcomes
- How our validated practices <u>reach</u> tens of thousands of practitioners in the field
- How <u>public policy</u> initiatives are crafted to support struggling learners

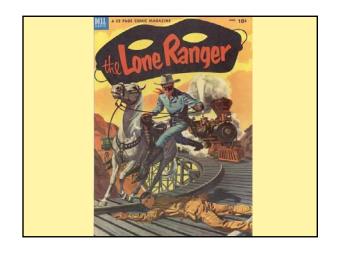






## **Bottom Line:**

The **only way** the needle moves on is through an **integrated school-wide approach** in which **everyone owns** part of the problem and **believes** big changes in achievement can happen





### **ROADMAP**

• Challenges: The Students • Challenges: The Curriculum • Challenges: The System

Pieces of the Puzzle

• Effective instruction w/ adolescents

• Findings from a new study

• Exemplary program

• Responses from principals KU LEARNING



# Student Learning Profiles

How many words a year do  $5^{th}$  graders read who read at the  $50^{th}$  percentile?

- (A) 250,000
- (B) 400,000
- (C) 600,000
- (D) 900,000



How many words a year do 5<sup>th</sup> graders read who read at the 10<sup>th</sup> percentile?

- (A) 60,000
- (B) 100,000
- (C) 180,000
- (D) 250,000



How many words a year do  $5^{\text{th}}$  graders read who read at the  $90^{\text{th}}$  percentile?

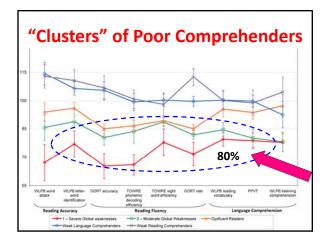
(A) 1,800,000

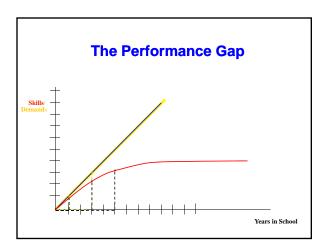
(B) 2,500,000

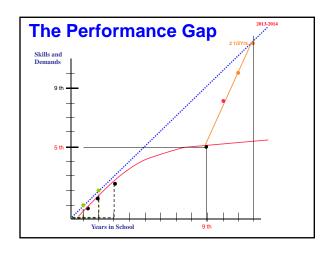
(C) 3,000,000

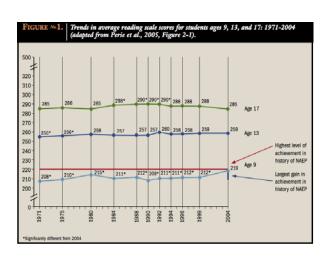
(D) 4,000,000

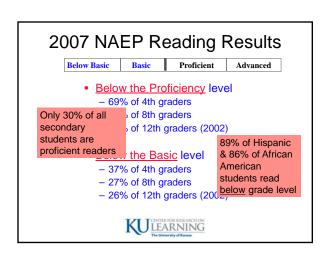
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#### The Nature of Student Hope?

- What is the difference in level of Hope between poor readers and good readers?
- · The Hope Scale (Snyder, et. al 1991)

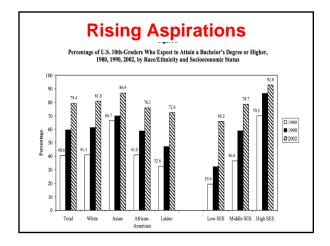
- 50 45 40 35 30 25 20 20.06 15 10 5 T A P ТА Struggling Proficient Readers Readers

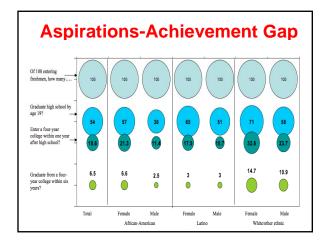
#### **Motivation for Reading Questionnaire**

- ...important for me to be a good reader
  - Poor = 3.23 Good = 3.11
- I like it when my teachers say I
   I like challenging books read well..
  - Poor = 3.31
- Good = 3.29
- Important to see my name on list of good readers
  - Poor = 3.12
- Good = 2.99
- I look forward to finding out my reading grade
  - Poor = 3.40
  - Good = 3.21

- I like reading questions that make me think hard
  - Poor = 2.75Good = 3.17
- - Poor = 2.54
  - Good = 3.19
- I enjoy long, hard fiction..
  - Poor = 2.75
  - Good = 3.32
- I make pictures in my mind ..

  - Poor = 3.03Good = 3.41
- I am a good reader
  - Poor = 2.97



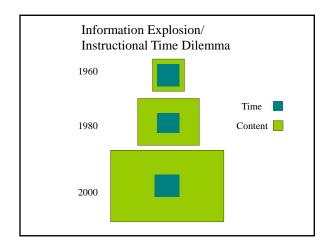


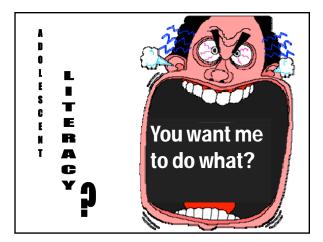
## Question

# Why is closing "the gap" so difficult in secondary schools?

- List the 3 biggest barriers to closing the gap.
- With a neighbor, designate an "A" and a "B"
- "A" share your 3 factors with "B"
- "B" share your 3 factors with "A"
- Discuss the 6 factors and select the top one







## Understanding the role of "human sense-making"

Successful implementation of complex policies usually necessitates substantial changes in the implementing agents' schemas. Most conventional theories of change fail to take into account the complexity of human sense making.....

Sense-making is not a simple decoding of the policy message, in general, the process of comprehension is an active process of interpretation that draws on the individual's rich knowledge base of understandings, beliefs, and attitudes.

Spillane, Reiser, & Reimer, 2002

Spillane, J., Reiser, B. & Reimer, T. 2002. "Policy Implementation and Cognition: Reframing and Refocusing Implementation Research." Review of Educational Research 72(3): 387-431.

# Curriculum Demands

- Much more content
- Right hand and left aren't coordinated
- Fragmented learning

#### The Battle of Thermopylae from Mathematical and Historical Perspectives

The Battle of Thermopylae is often cited as the epitome of the Greek spirit. In the end, a mere 300 Spartans faced off against a reputed three million Persians.

What were the odds that the Spartans would defeat the Persians?

For the statistician, the answer is clear: 300 to 3,000,000, or 1:10,000. For the historian, the answer is much more complicated and the mathematical answer somewhat beside the point.

True, the straight mathematical odds were quite small, but from the historian's standpoint, the Spartans' odds were improved by superiority of terrain and training, as well as the strategic and emotional advantage of defending their homeland against an invading army. The details that 'count' differ depending on the discipline. So, even though a mathematician might contend that information about key variables that could be calculated into the odds is missing from the above paragraph, the mathematician is primarily interested in assigning numerical values to those variables, whereas the historian is interested in social and economic explanations.

### **Texts become longer**

- More sophisticated learning strategies to get through assignments
- Good "reading stamina" required



### **Word** complexity increases

- Dense technical vocabulary (e.g., gametophytes, vascular)
- More academic vocabulary (e.g., ancestors, elongated)
  - Instruction in segmenting & pronouncing



# Sentence complexity increases

- Longer sentences must be parsed automatically for fluency
- Recognize and use simple cohesive devices & connective words to understand relationships (e.g., but, if, or, that)



# Structural complexity increases

- Elementary: structures signaled explicitly.
  - One relationship explained at a time.
- HS: structures not signaled explicitly
  - Several logical relationships between ideas
  - Interrelationships of section headings not apparent



# **Graphic representations** become more important

- Elementary: Text stands on own w/o graphic
- HS: Graphics critical to understand interrelated ideas or synthesize info across sections



# Conceptual challenge increases

- Abstract concepts relying on sophisticated knowledge & previously learned concepts
- Build relationships across a conceptual domain



# Texts vary widely across content areas

- Each content area demands a different approach to reading, thinking, writing
  - Norms of evidence & logic can vary
  - Different details are valued
  - Different values assigned to precision of reporting
- Cope with primary sources



# System Roadblocks

(Somewhat hidden)

Optimal use of instructional time

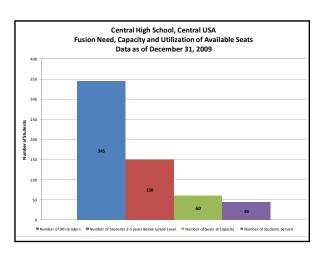
## "It's only 14 minutes"

14 minutes/period X 5 periods/week X 36 weeks/year = 2,520 minutes/year

### 42 hours 7 school days

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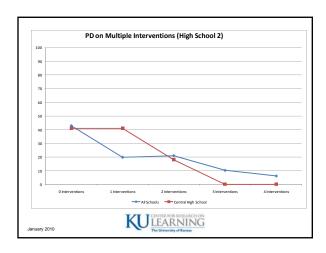
# Fully tapping available resources



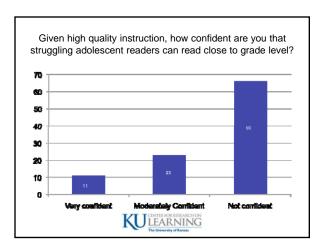
# Student absenteeism

Date Student	Absences			Absences 4th		
Enrolled	1st 9 weeks	9 weeks	9 weeks	9 weeks	Total Absences	Notes
10/14/08	3	10	20	21		Missed 54 days!!!
9/8/08	9	11	8	21		Missed 49 days!!!
10/13/08	1	7	19	10	37	
10/13/08	0	10	6	18	34	
11/7/07	0	21	15	31	67	Missed 67 days!!!
10/31/08	0	7	7	16	30	
11/3/08	0	16	6	12	34	
10/31/08	0	16	15	17	48	Missed 48 days!!!
10/31/08	0	11	14	16	41	
10/13/08	0	13	13	14	40	
10/31/08	0	7	17	35	59	Missed 59 days!!! Moved from
10/31/08	0	15	15	12	42	
10/31/08	0	7	15	16	38	
11/12/08	0	14	7	17	38	
10/13/08	2	15	5	10	32	Moved from 4 to 7 on 2/16/09
10/31/08	0	24	19	16	59	Missed 59 days!!!
10/31/08	0	14	16	26	56	Missed 56 days!!!
10/31/08	0	11	18	28	57	Missed 57 days!!!
10/30/08	0	31	27	25	83	Missed 83 days!!!

Number of teachers prepared to address literacy needs



Teacher <u>beliefs</u> that struggling learners can be successful

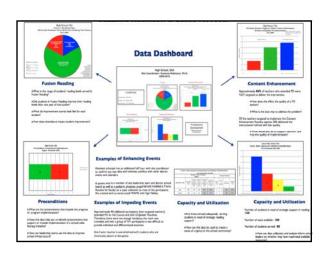


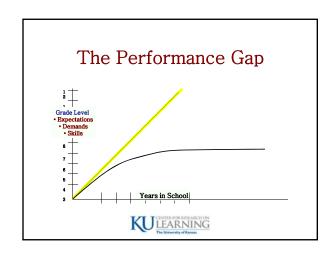
# Teachers' Expectations & Explanations

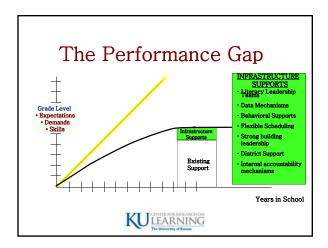
- Satisfied if 50% of students master 50% of content
- Struggling learners fail because
  - -Attitudes & goals
  - -Skills & abilities

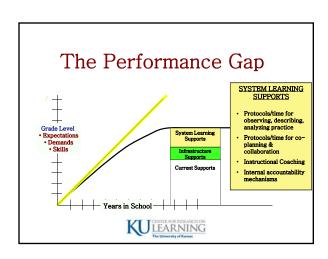


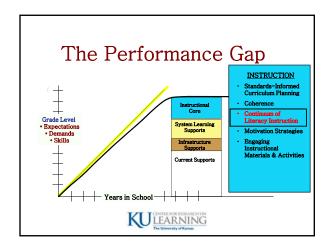












# Pieces of the Puzzle

# **Bottom Line:**

The **only way** the needle moves on is through an **integrated school-wide approach** in which **everyone owns** part of the problem and **believes** big changes in achievement can happen

# Content Literacy Continuum

## Begin by....

Getting a profile of the literacy performance of students in your school



### Screen for.....

- · Word analysis skills
- Fluency
- Comprehension
- Vocabulary



#### **Possible Tools**

- Group Reading Assessment & Diagnostic Evaluation (GRADE)
- Gates-MacGinitie Reading Tests
- Test of Silent Word Reading Fluency



#### What are the implications?

- Jefferson HS
  - 3+ Yrs below grade
  - Word Recognition 5%
- Prairie View HS
  - 3+ Yrs below grade
  - Word Recognition 27%
- Comprehension 22% Comprehension 43%



# Then ask..... Five questions

about literacy supports



### **5 Questions**

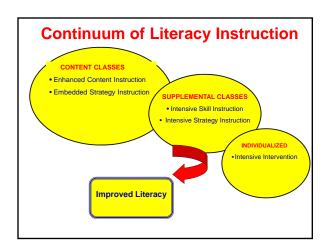
- What's in place in core classes to ensure that students will get the "critical" content in spite of their literacy skills?
- 2. Are powerful learning strategies embedded in courses across the curriculum?
- 3. What happens for students who know how to decode but can't comprehend well?
- 4. What happens for those students who are reading below the 4th grade level?
- 5. What happens for students who have language problems?



## Finally....

Use a "content literacy" framework to determine an action plan





#### So....What's Content Literacy

The listening, speaking, reading, and writing skills and strategies needed by students to learn in each of the academic disciplines

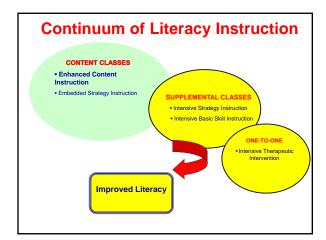


# The Content Literacy Continuum (CLC) says...

- Some students require more intensive, explicit instruction of content, strategies, and skills
- There are unique (but very important) roles for each member of a secondary staff relative to literacy instruction
  - While every content teacher is <u>not</u> a reading teacher, every teacher needs to teach students in how to read content.



# Sample interventions



#### **Key Instructional Principles**

- Transparent Students see the link between instruction and assessments, standards, & expectations at course, unit, & lesson levels. (S)
- Coherent Students see the organization of critical content within and between courses. (M)



## **Key Instructional Principles**

- Triage Planning reflects that the content has been analyzed to respond to academic diversity/difficulties so that learning of the critical content is assured. (A)
- Supported Teaching devices, learning strategies, accommodations, interaction strategies, are used to lead and model learning to compensate for learning difficulties and to teach students how to learn and meet critical content learning demands. (R)

### **Key Instructional Principles**

- **Strategic** Demonstrate the ability to move instruction to the needed level of informed and explicit required to insure learning of critical content. (T)
- Data Driven Checks mastery of critical content throughout the lesson, unit, and course to ensure learning has occurred before summative assessments are given. (E)



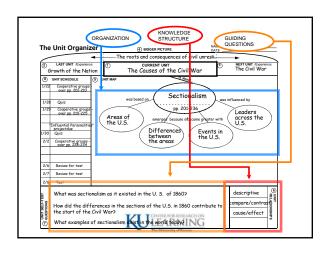
## **Key Instructional Principles**

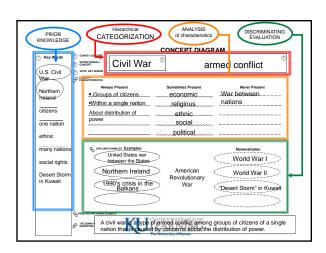
· Revisted, Retaught, Revised. -Content is revised and retaught when learning of critical content is not demonstrated or the links between standards are revisited and confirmed or revised. (R)

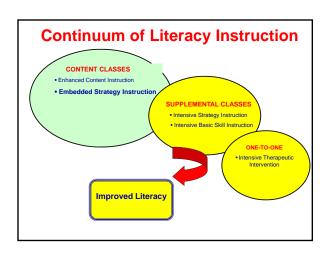


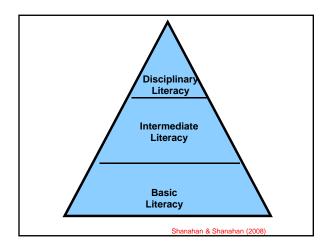
**SMARTER** Planning around critical content is essential!











#### **Basic Literacy**

Basic decoding skills, understanding various print and literacy conventions (print versus illustrations), recognition of high frequency words, some basic fluency routines – Mastered in primary grades.



#### **Intermediate Literacy**

More sophisticated routines and responses....
Read multisyllabic words quickly and easily, respond with low frequency words with some automaticity. Generic comprehension strategies, cognitive endurance, monitor comprehension, mostly by end of middle school.

#### **Disciplinary Literacy**

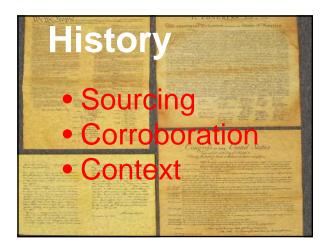
More specialized reading routines and strategies -powerful for specific situations but not necessarily generalizable.



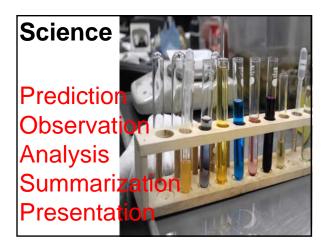
#### **Disciplinary Literacy**

"The disciplinary experts approached reading in a very different ways. We are convinced that the nature of the disciplines is something that must be communicated to adolescents, along with the ways in which experts approach the reading of text. Students' text comprehension benefits when students learn to approach different texts with different lenses."

Shanahan & Shanahan







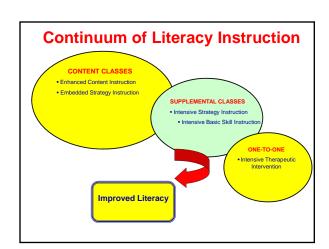
# Teachers in "literacy rich" classes......

- Understand the literacy demands of their texts
- Provide guidance to students before, during, after reading
- Provide multiple teacher models of how to process discipline specific text
- · Focus classroom talk on how to make sense of text









#### **Self-Questioning Strategy**

- Attend to clues as you read
- Say some questions
- Keep predictions in mind
- Identify the answer
- Talk about the answers

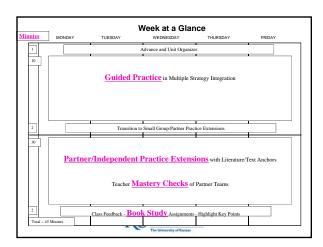


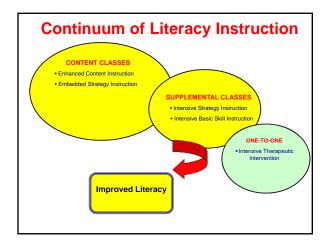


#### **Summarizing**

- Read a paragraph (chunk)
- Ask yourself what was the main idea and key details
- Put the main idea and details into your own words







#### **Intense-Explicit Instruction (RTI)**

#### Tier 1

- Cue
- Do
- Review

#### Tier 1

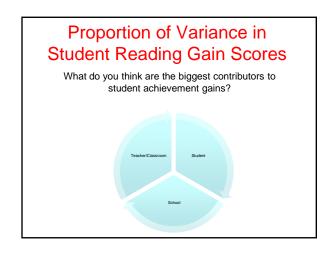
- "I do it!" (Learn by <u>watching</u>)
   "We do it!" (Learn by sharing)
   "We do it!" (Learn by sharing) • "We do it!" (Learn by sharing)
- "You do it! (Learn by practicing)

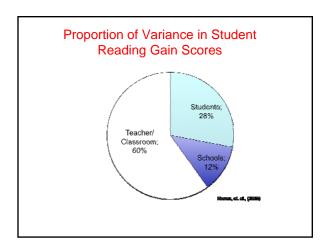
#### Tier 2 & 3

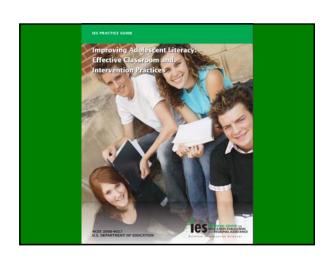
- Pretest
- Describe - Commitment (student &
  - teacher)
  - Goals
  - High expectations
- Model

- Controlled and advanced
- Posttest & reflect
- · Generalize, transfer, apply

The most effective **literacy** interventions



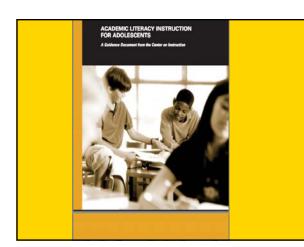




#### **IES Recommendations**

- Explicit vocabulary instruction
- Direct, explicit **comprehension strategy** instruction
- Discussion of **text meaning** & interpretation
- Increase student motivation & engagement in literacy learning
- Qualified specialists for intensive, individualized interventions





#### **COI Recommendations**

- Explicit instruction and practice to use comprehension strategies
- Increase the amount and quality of open, sustained discussion of content
- Set high standards for text, conversation, questions, and vocabulary
- Increase students' motivation and engagement with reading and knowledge engagement
- Teach essential content knowledge and critical concepts



# Findings from a New Study



National Center on Response to Intervention

#### Initial Results (N=24)

- Screening
  - 13 screen 3 times each year. Responses ranged from 1 to 6 times each year.
  - 18 screen all grades in school.
  - 13 screen only for reading and math. Other subjects mentioned: writing, science, social studies
  - Tools used varied; 13 used multiple screening measures.
  - Some screening tools used:
    - AIMSweb, MAP testing, CBMs



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#### Initial Results (N=24)

- · Progress Monitoring
  - Most respondents use multiple measures (10 of 24).
     AIMSweb is used most frequently (9 of 24).
  - Tier 1
    - Bimodal response: 6 of 24 do not progress monitor in Tier 1 and 6 of 24 progress monitor 3x per year.
  - Tier 2
    - Most frequently reported: 4 of 24 progress monitor 1x per month, 4 of 24 progress monitor 1x per week, and 4 of 24 progress monitor bi-weekly
  - Tier 3
    - Most frequent response: 7of 24 progress monitor 1x per week.



#### Initial Results (N=24)

#### • Tier 2 intervention

- <u>Delivery:</u> General education teachers most frequently (7 of 24) deliver Tier 2 interventions. An additional 6 schools responded that delivery could be administered by a combination of general educators, special educators, and specialists.
- Frequency: Half of respondents (12 of 24) said students receive Tier 2 interventions daily.
- <u>Duration:</u> Times ranged from 15 to 180 minutes; mode is 60 minutes (7 of 24).

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#### Initial Results (N=24)

#### • Tier 3 intervention

- <u>Delivery:</u> Special educators most frequently (8 of 24) deliver Tier 3 interventions.
- Frequency: Half of respondents (12 of 24) said students receive Tier 2 interventions daily.
   Range was "two days per week" to "daily."
- <u>Duration:</u> Mode is 30 minutes (4 of 24). Most respondents indicated that duration is dependent upon multiple issues (e.g., problem severity, subject, intervention method).

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### Case Study - X Middle School (XMS) General RTI Development

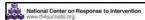
- XMS has been implementing RTI for 3
- RTI started in elementary schools as a district initiative.
- Once RTI was in place in elementary, middle schools began implementation.
- XMS uses a 3-tiered model that includes both academics and behavior.



#### Case Study - X Middle School Screening

- Screening occurs for all grades (6<sup>th</sup>, 7<sup>th</sup>, and 8<sup>th</sup>) in reading, math, and writing.
- School uses a CBM maze tool for reading, mixed basic facts for math, and correct writing sequence for writing.
- Each tool has pre-determined cut scores that team uses to identify at-risk students.

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#### Case Study - X Middle School Screening

- Screening is administered 3x per year by a threeperson team (principal, school psychologist, and a general education teacher).
- When screening results indicate a student may be struggling, peer coaching is provided in Tier 1, and the student is progress monitored weekly.

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#### Case Study - X Middle School Progress Monitoring

- Progress monitoring occurs in each tier.
  - Tier 1: students receiving interventions are progress monitored weekly.
  - Tiers 2 and 3: students are progress monitored daily.
- Progress monitoring data is used to determine tier placement.
  - Interventions are applied on a 15-day cycle. If, after 15 days, progress monitoring data show no improvement, the student is moved to a higher tier.



#### Case Study - X Middle School Academic Interventions

- Tier 1
  - Synonymous with general education. At risk students receive interventions for a 15-day cycle.
    - Peer coaching
    - 10-20 additional minutes of direct instruction
  - Co-teaching model. Both general educators and special educators provide instruction.

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National Center on Response to Intervention

#### Case Study - X Middle School **Academic Interventions**

- Tier 2
  - Daily 45-minute interventions
  - Students are in an elective class focused on their problem area
  - Interventions are based on problem solving and are specific to each student
  - General education teachers provide instruction

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National Center on Response to Intervention

#### Case Study - X Middle School Academic Interventions

- Tier 3
  - Daily intervention of at least 45 minutes
    - Some students receive up to three class periods of intervention (140 minutes)
  - Co-teaching and elective class periods
    - Special educator works with small groups during regular class period
    - Special educator teaches elective classes on basic

# An exemplary program

#### Response to Intervention Implementation @ the Secondary Level

A Recipe for Success

Lori Smith, Principal (719) 475-6120 smith@cmsd12.org Cheyenne Mountain Junior High School

## PROBLEM-SOLVING TEAM STRUCTURE

**CORE TEAM:** Administrators, Special Education Teachers, Counselors, District Intervention Specialists

**TEACHER TEAM**: All teachers on staff rotate on the PST team each year (2 teachers per meeting)

**COUNSELORS:** Primary facilitators of the Rtl process (primary data collection, screening, and referrals)

## Data Collection: What do we already do?

USE WHAT YOU HAVE...IDENTIFY NEEDS...ADD SLOWLY

- 1st Year Implementation:
- Focus on basic information/Summative assessments as screening tools
- 2<sup>nd</sup> Year Implementation:
- Addition of pre-screening tools for G/T & math placement
- 3<sup>rd</sup> Year Implementation:
- Addition of objective pre-screening tool for all incoming 7<sup>th</sup> grade students completed by 6<sup>th</sup> grade teachers

## What are the Goals of Interventions?

- They should focus on individualized instruction in a whole group setting (classroom) – Tier 1
- They should address the main student learning issues in your building (motivation, organization, and reading deficits) - Tier 2
- They should provide individualized, intensive support Tier 3

# **Progress Monitoring A Systematic Practice**

- Must be measurable (goals/outcomes)
- Must be prescriptive (defined intervention(s) with timeline)
- Must include feedback (student/teacher/counselor/parents)
- · If/then statements defined by team

#### Leadership Role in Progress Monitoring

- Facilitator A Leadership Opportunity
   (analyze data (intervention results) much like you would school-wide data looking for gaps and make data-based decisions)
- Systematic, Systematic, Systematic
- Focus on student goals and outcomes and if they measure the intent of the intervention

#### WHAT HAVE WE DISCOVERED?

- Rtl IMPROVEMENT IS CONTINUOUS SCHOOL IMPROVEMENT
- WE'LL NEVER BE DONE EVOLVING OUR PROCESSES AND COMPONENTS OF Rtl
- THE PERCEIVED "GRAY" OF Rti IS A PARADIGM SHIFT FOR OUR SCHOOL THAT CONTINUES TO BE AN ADJUSTMENT
- WE ARE CONSTANTLY REFLECTING ON BEST PRACTICE AS A BUILDING – EMBEDDED PROFESSIONAL DEVELOPMENT
- OUR SPECIAL EDUCATION MODEL IS GOING TO HAVE TO BE RESTRUCTURED OVER TIME

#### **Our RTI Successes**

#### Office Referrals

- In 2004, there were 125 referrals
- In 2007, there were 42 referrals

#### Students with F's on Eligibility Reports

- In 2004, 46 students had 2 or more F's
- In 2008 (fall semester), 6 students

#### Interventions

- In 2004, we had 10 interventions to use with all student groups
- In 2008, we have over 25 interventions in the form of courses, curriculum, and supplemental instruction or assessment for students

 	-	

# Responses from principals

#### Vital Behaviors (Leader's Perspective)

- Modeling, hands on, providing time and resources
- Flexibility, open-minded, belief in system, passionate leader
- Strong, consistent, supportive, provide time and resources, involved



#### Vital Behaviors (Leader's Perspective)

- Communication, data-based planning, hands-on, flexible
- Up front honesty, lead by example, model, follow through



#### Core Dispositions (Leader's Perspectives)

- Passion to see kids succeed, passion to learn new things to help kids
- Passionate that all kids can learn, even the low 10%
- moral obligation, real children behind the numbers, passion for kid's success, tenacity and not giving up

KULEARNING

#### Core Dispositions (Leader's Perspectives)

- Believe in the program, set high expectations, be involved at every step, be supportive
- Good working relationships, open communication, shared responsibilities



#### Skill Set (Leader's Perspectives)

- Understand the process, theory, curriculum and instruction, and assessment
- Have a knowledge base, competency in content and instruction, flexibility
- Understand research and data (collect, use, analyze)



#### Skill Set (Leader's Perspectives)

- Data-minded, deep understanding of content and instruction
- Understand research and data (collect, use, analyze)
- Fluent and creative in the use of data



#### **Getting Buy-in**

- Active involvement, be part of RTI, let teachers be managers
- Started with good staff, didn't sugar coat ugly data, came to conclusion together after recognizing the need, encourage questions, sharing info all of the time



# Probability w/o "extraordinarily strong leadership"

- Slim
- 100% no, would be a scheduling nightmare
- · It won't happen
- It can't, leadership is crucial



