RTI: Assessing District Current Status and Applying Basic Principles

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What To Do With Egbert??

- 1st Grade, falling behind in reading
- Slow progress compared to peers
- Likely to miss benchmarks related to passing 3rd Grade reading test
- Distractible, inattentive, disruptive, non-compliant
- Sound Familiar
- WHAT HAPPENS NEXT? Driven by Federal Legislation
- Consider NCLB and IDEIA

What To Do With Egbert??

- 9th Grade, failing 3 of 5 classes at first 9 weeks
- Attendance is declining
- Homework non completion
- Poor performance on weekly or unit tests
- Defiant, distractible, inattentive, disruptive, non-compliant
- WHAT HAPPENS NEXT? Driven by Federal Legislation
- Consider NCLB and IDEIA

Response to Intervention and Multi-tiered Systems of Support

- MTSS: likely language in ESEA revision
  - 3 or more tiers focusing on
    - Prevention-general education behavior and academics
    - Early identification-early intervention
    - Intense long term assistance
- RTI: *Process* uses three broad principles to deliver interventions
- Purpose is to improve results, close gaps between current and desired results.

Response to Intervention (RTI) ***Process***

- RTI is a process, not a program, not an intervention
- Principle I: Scientifically-based instruction and interventions matched to student needs + good fidelity + sufficient time to be effective
  - What is scientifically-based?
  - Is this sufficient? Why?
  - Response?
  - Effective for all?
  - Programs are not RTI
  - Difference between programs and RTI

Response to Intervention (RTI) *Process cont.*

- Principle II: Formative evaluation including,
  - Frequent progress monitoring (how frequent?)
  - Progress compared to goals (benchmarks, what?)
  - Decision rules applied to modify interventions
    - Progress exceeds goals, raise goals
    - Progress does not meet goals, improve intervention
    - Constant interaction between interventions and progress
  - Formative eval is main difference vs current practices

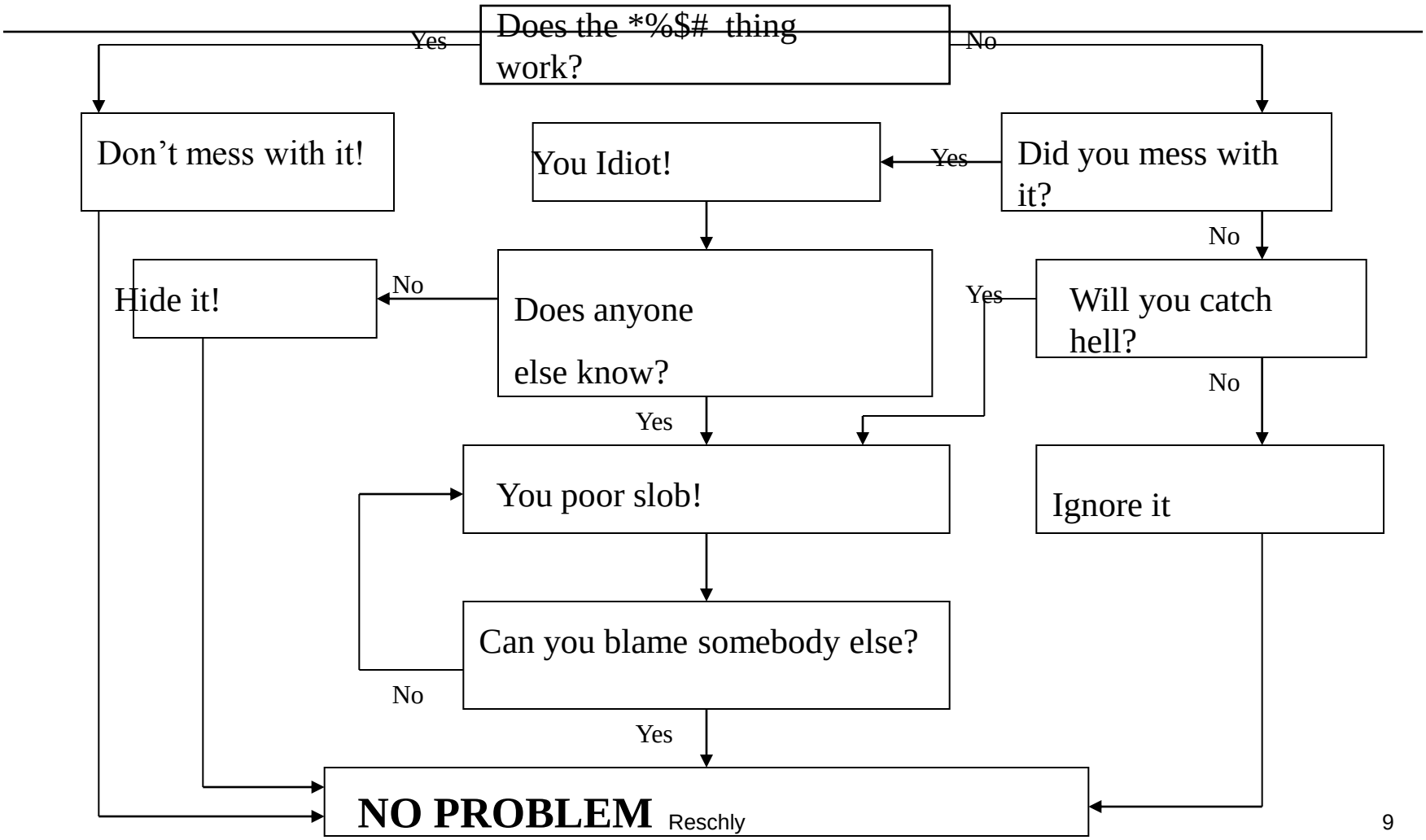
Response to Intervention (RTI) *Process*?

- Principle III: Data-based decision making using student RTI data, including
  - General education classroom instruction/intervention, curricular success
  - Need for more intensive services, academic and/or behavioral
  - Referral for specialized services
  - Special education eligibility
  - Annual review and special education exit
- Broadly, data-based decision making at multiple levels, but not just any data

Egbert in the Traditional System

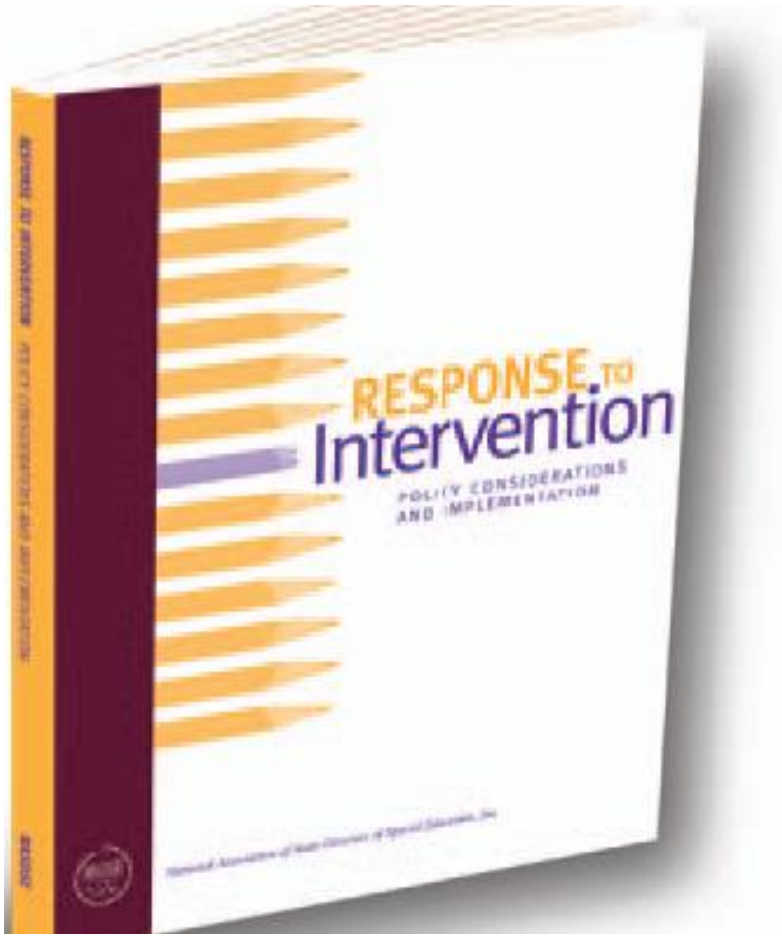
- Refer Egbert
  - Preferral “intervention” (check a box)
  - Comprehensive Evaluation-Battery of Tests, “common battery”?
  - Assessment largely outside of the natural context
  - Dubious generalizations from test behavior to classroom
  - Eligibility assessment unrelated to intervention
  - Team decision-making
  - SLD diagnoses often inaccurate

PROBLEM SOLVING CHART



RTI System Implications

- Implementation requires:
  - Allocating (aligning) resources to deliver effective interventions that produce improved child outcomes
    - Basis for allocating resources
    - Priorities toward student outcomes
    - AND
  - Changes in Personnel Roles and Decision Making
  - Continuing education opportunities aligned with well defined expectations
  - Rewards for efforts and gains



RESPONSE TO

Intervention
POLICY
CONSIDERATIONS
AND IMPLEMENTATION

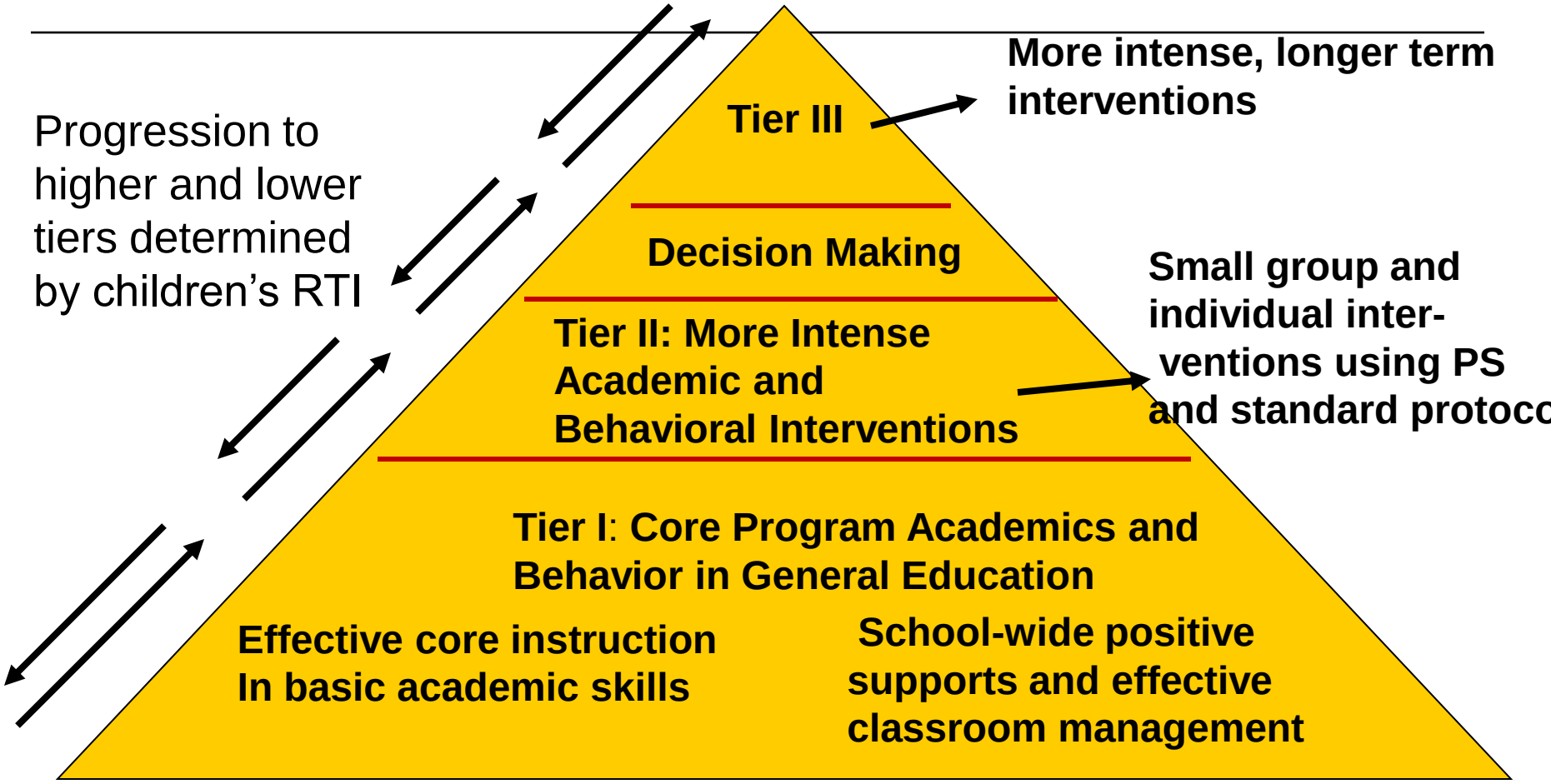
Order at:
www.nasdse.org

Cost: $15 with discounts
for large orders

Purpose of the RTI Process

- Improve results in academic, behavioral, and emotional regulation domains, through
  - High quality interventions
  - Formative evaluation
- Prevention and early identification-intervention
- Student results drive decisions about needs and intensity of interventions
- Improve, eliminate disproportionate representation
- Identification of disabilities through procedures that are valid and connected to effective special ed interventions
- Improve special education results and increase exit from sp ed

Multi-tiered Interventions Varying in Intensity and Measurement Precision



Importance of Prevention

- “ There is substantial evidence with regard to both behavior and achievement that early identification and intervention is more effective than later identification and intervention.” Nat’l Academy Report on Disproportionality p. 5, Donovan & Cross, 2002
- “If antisocial behavior is not changed by the end of grade 3, it should be treated as a chronic condition much like diabetes. That is, it cannot be cured, but managed with the appropriate supports and continuing intervention.” (Walker et al., 1995, p. 6)

Prevention continued

- *Reading intervention with a 2nd grader is like changing the direction on a speedboat, with a 5th grader it is like changing the direction of an oil tanker. (Ed Week May 13, 2009, p.11*

Multi-Tiered **Academic** Interventions of Increasing Intensity and Measurement Precision

- Tier I: General Education: All students; Effective instruction, 80-85% at benchmarks; PREVENTION
- Tier II: Standard Protocol and Problem Solving: (10 to 20 weeks) Small group and individualized interventions: EARLY IDENTIFICATION-TREATMENT
- Decision Making: Continue Program, Modifications, Comprehensive Evaluation??
- Tier III: More Intensive, Sustained Instruction in General and/or Special education
- Key Mechanism: Formative Evaluation

Multi-Tiered **Behavior** Interventions of Increasing Intensity and Measurement Precision

- Level I: General Education : School wide positive discipline, effective classroom organization and management, teacher assistance teams PREVENTION
- Level II: Individualized Problem Solving re: Behavior: Targeted, intense individual interventions in general education EI-ET
- Decision Making? Continue Program, Modifications, Comprehensive Evaluation
- Level III: More Intensive, Sustained Instruction in General or Special education
- Key Mechanism: Formative Evaluation

Tier I: General Education-Universal

- All students
- Full RTI applied (3 principles)
- Benchmarks in academic and behavioral performance
- General standard: 80% meeting benchmarks
- Failure to reach benchmarks? Overload Tier II
- Failure to prevent academic and behavioral issues

Revolution in Federal Policy (ESEA and IDEA)

- "Scientifically-based" instruction in ESEA
- Frequent assessment, progress monitoring, formative evaluation and well integrated multiple tiers of intervention
- IDEA: Prevention and Early identification – Early intervention in general education
- Early intervening services—15% of IDEA monies
- Prerequisites to referral and eligibility evaluation
  - Progress monitoring in general education for SLD
  - Appropriate instruction in reading and math,

Questions about RTI?

- Who invented RTI?
- Are we already doing RTI?
- Isn't RTI common sense?
- Do we have to collect data on everything?
- What if we are satisfied with our results?
- Do we have to identify gaps if we have good programs?
- Do we need data if we have good programs?

Next?

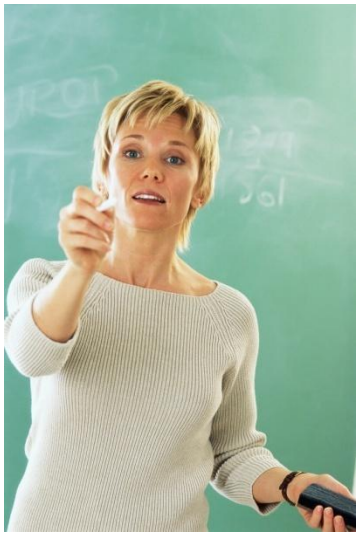
- Small groups
- Discuss
  - Identify (List) the programs at your school .
  - Purposes of the programs?
  - What gaps are addressed?
  - What data exist on closing gaps?
  - How often are programs monitored and revised?

Group Focus

- Programs by Gaps
- Data by Programs
- Progress

Barriers to RTI Implementation

- Districts reported that the three primary obstacles to implementing RTI as are follows:
  - **Insufficient teacher training in instruction and behavior interventions**
  - Lack of intervention resources
  - **Lack of data, knowledge, and skills for tracking/charting**



Source: Spectrum K12 Solutions, 2009, 2010

Principle 1:Scientifically-Based (ESEA, 2002)

- Scientifically-based research was defined in the law as,
- (A) applies rigorous, systematic, and objective procedures to obtain valid knowledge relevant to reading development, reading instruction, and reading difficulties;
- (i) employs systematic, empirical methods that draw on observation or experiment;
- (ii) involves rigorous data analyses
- (iii) reliable across observers, researchers, student groups, settings (iv) accepted by a peer-reviewed journal or approved by a panel of independent experts through a comparably rigorous, objective, and scientific review

Evolution to Evidence-Based

- Evidence-based is less restrictive, broader range of evidence is accepted
- BUT: rigorous, reasonable, good fidelity, improves student outcomes, with independent evaluation by competent evaluators
- Systematic inclusion of multiple replications of single subject designs

What Works? Research Foundations from Meta-Analysis

Treatment	Effect Size
Applied Behavior Analysis (many applications)	+ 1.00
Formative evaluation: CBM+ Graphing+Decision Rules+ Reinf.	+ 1.00
Explicit Instruction and Problem Solving	+ .70 to 1.50
Comprehension Strategies	+1.00
Math Interventions	+.60 to 1.10
Writing Interventions	+.50 to .85
Matching instruction to learning styles??	**0.00**

- **Note, these effect sizes are stable across cultural groups**

What Does NOT Work
(Forness et al, 1997; Kavale 2005, 2007)

- Perceptual motor training
- Matching instruction to presumed cognitive strengths
- Training cognitive weaknesses (e.g., working memory) to improve achievement
- Special classes for students with high incidence disabilities (exceptions?)
- Unstructured instruction with learners who have limited prior knowledge

General Instructional Principle

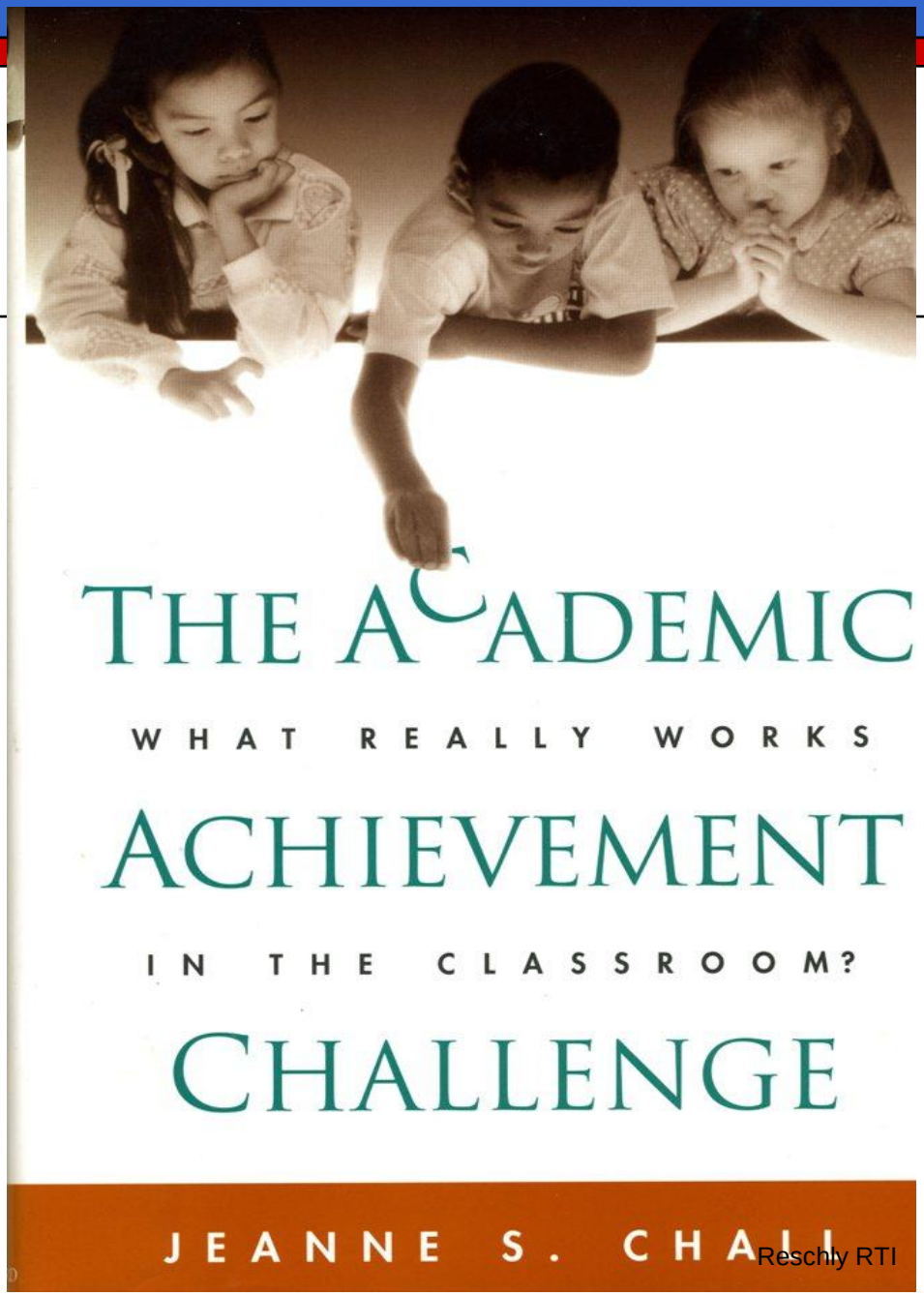
- Instruction at student's knowledge/skill level

Lower Prior Knowledge

Higher Prior Knowledge

Needs Complete, Explicit Systematic

Can Profit from Incomplete Implicit Less Structured



100 + Years of Debate

- **Teacher-centered vs Student-centered**

OR

- **Structured vs Unstructured**

- **Differences on**
  - **Curriculum**
  - **Learning Processes**
  - **Teaching Methods**
  - **Standards**
  - **Assessment**
  - **Discipline**
  - **Etc.**

100 + Years of Research

- Teacher centered, more structured approaches superior
- Struggling students profit far more from teacher centered, structured approaches
- However, reading basal series, teacher preparation programs, and classroom practice place greater emphasis on student centered, less structured approaches
- Continuing enormous resistance to scientifically-based instruction across education despite science and law
- Promising trends in reading and mathematics exist and will strengthen

Direct, Explicit Teacher Directed Instruction, http://rea.mpls.k12.mn.us/BEAT_THE_ODDS_-_Kindergarten_Teachers.html

- Teach all elements of the task
- Break task into components—as far as needed
- How explicit? Explicit enough for the student to make good progress
  - Teacher Models Skill, using multiple examples and non-examples
  - Teacher and student perform task together
  - Student performs task with feedback
  - Student independently practices task to automaticity
  - Integrate skills with prior skills and competencies
- See YouTube Direct Instruction videos

Current Teacher Preparation??

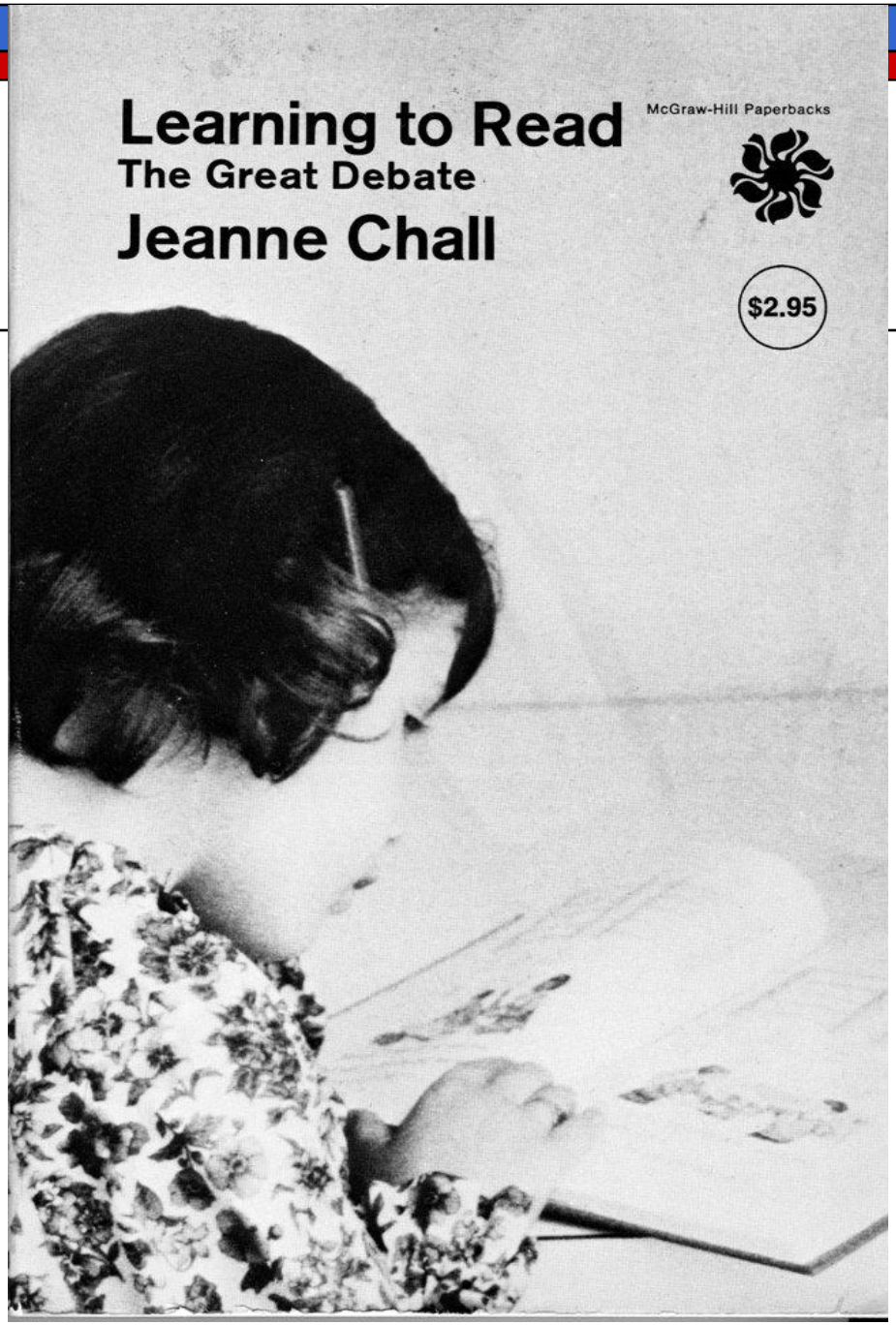
- Note Secretary Duncan's recent statements
- Current teacher preparation largely dominated by
  - Student centered philosophy—unstructured teaching
  - Radical constructivist, social constructivist,
  - Philosophy rather than science
  - Rejection of objective data, tests, progress monitoring, etc.
- Enormous changes needed in teacher preparation
- **Schools and publishing companies must do significant amount of teacher preparation**

Centrality of Teachers and Teacher Preparation

- Teacher effects are significant, especially for at-risk students and students with disabilities.
  - Tennessee Value Added Assessment System: Three years of highly effective teachers overcome effects of low socioeconomic status
  - Teacher *qualifications* (e.g., degree level) have modest to trivial effects.
  - Teacher practices have large effects.
  - Research-based teaching practices exist but are not taught in most teacher preparation programs.
- Improved teacher preparation and professional development are prerequisites to improved achievement.

Scientifically-based Instruction in Reading

- Reading Curricula content-Snow et al, 1998
  - Phonemic Awareness
  - Phonics
  - Fluency
  - Vocabulary
  - Comprehension PLUS
  - Direct, systematic instruction
  - Universal screening and formative evaluation
- Problem of teacher preparation
- VU-TQ Center Innovation configurations, reading, classroom behavior, inclusive services, learning strategies (Reschly, et al., 2007)



Chall, J. .S. (**1967**). *Learning to read: The great debate*. New York: McGraw-Hill.

- Research review 1900-1965
- Early Reading, K-3
- Code vs Meaning Emphasis
- Phonics or Whole Word
- **Code superior, especially for struggling readers**

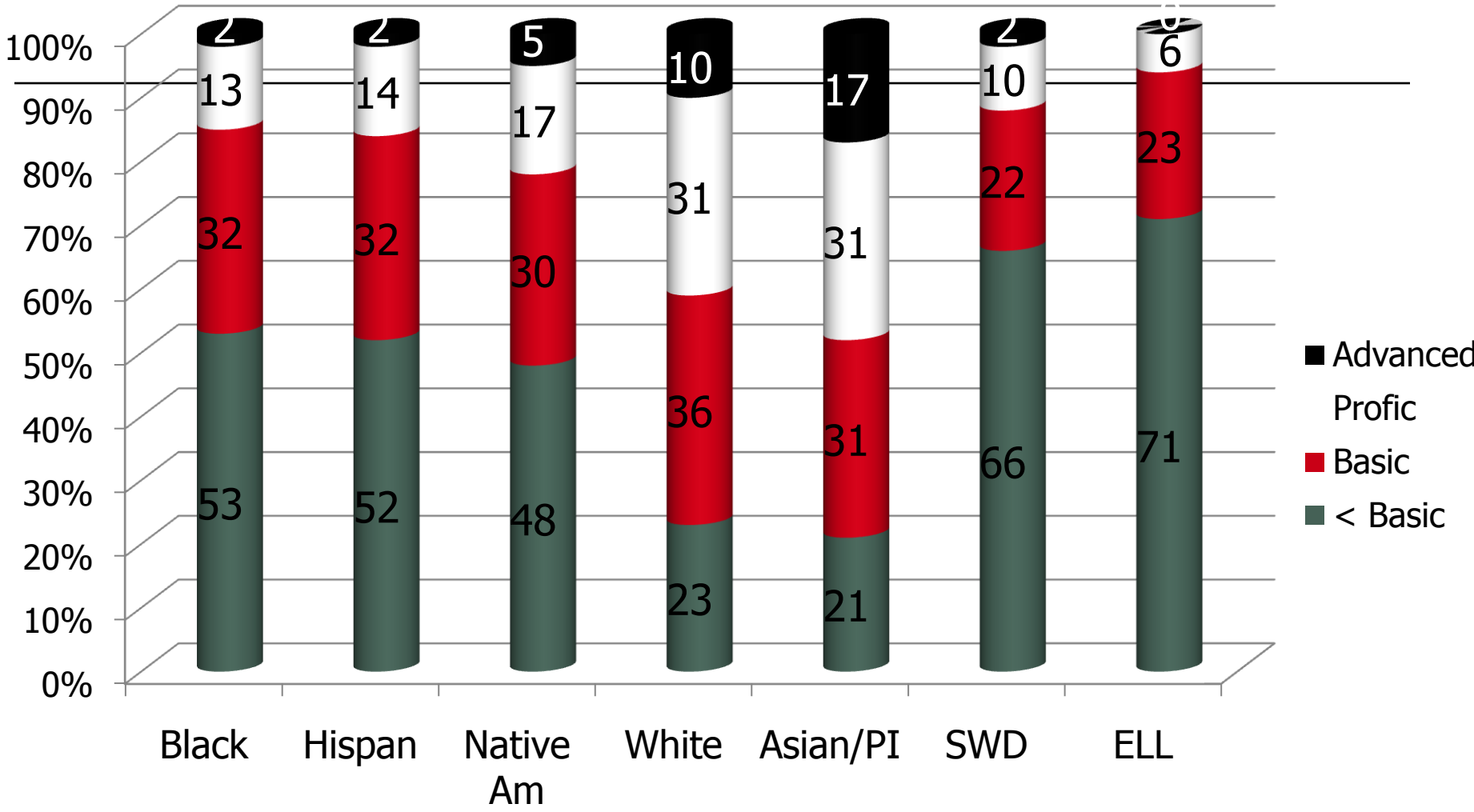
Lamented the generally poor Preparation of teachers to teach reading

NCES Reading Report Card 2009

- Categories
  - < Basic: Less than partial mastery of prerequisite knowledge and skills fundamental to proficient work at the grade level
  - Basic: Partial mastery of ……..
  - Proficient: Solid academic performance. Demonstrated competency over challenging subject matter
  - Advanced: Superior performance

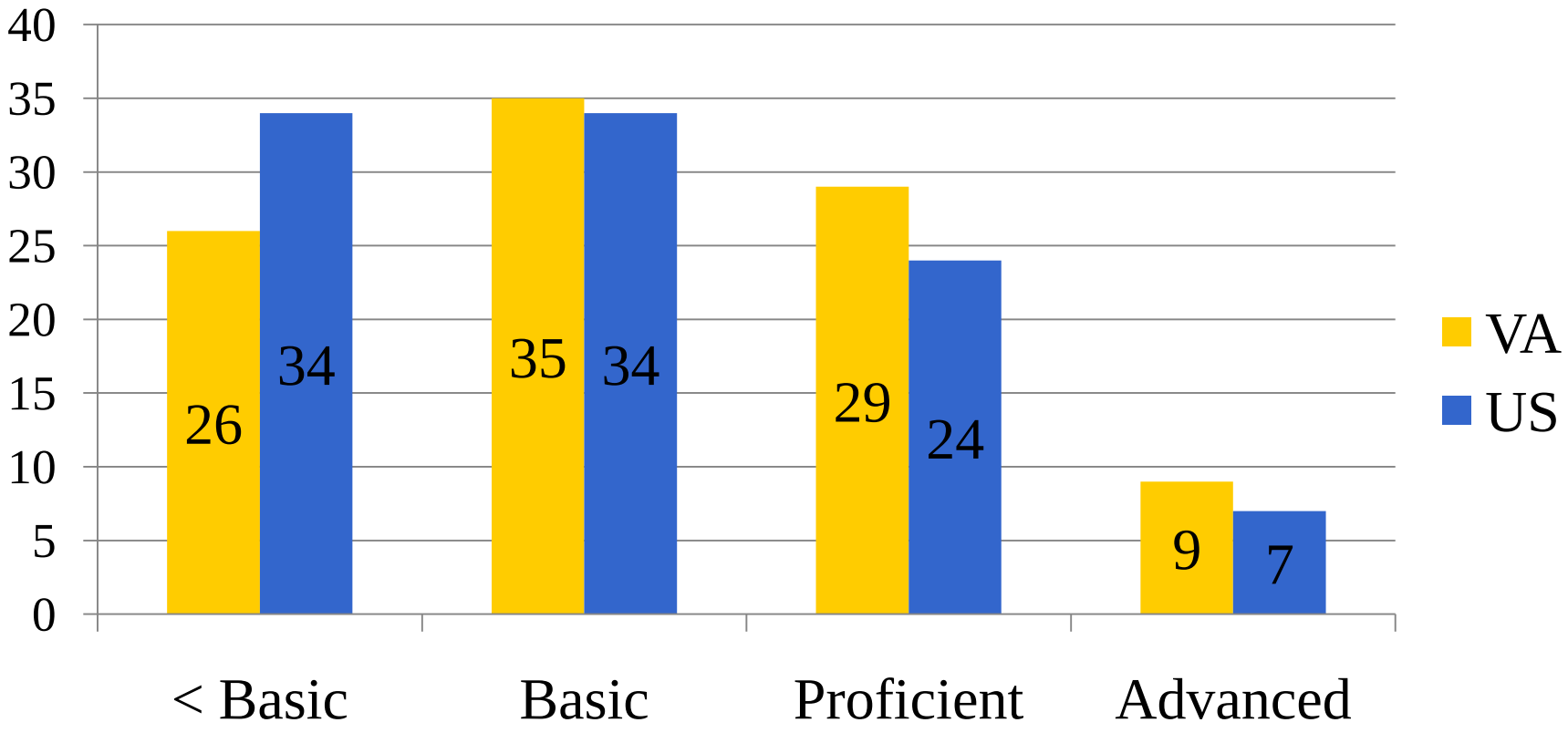
National Center for Educational Statistics (2009). (NCES 2010-458). Institute of Educational Sciences, US Department of Education, Washington DC.

Reading 2009 4th Grade: NCES Tables A-12, A-13, A-14,



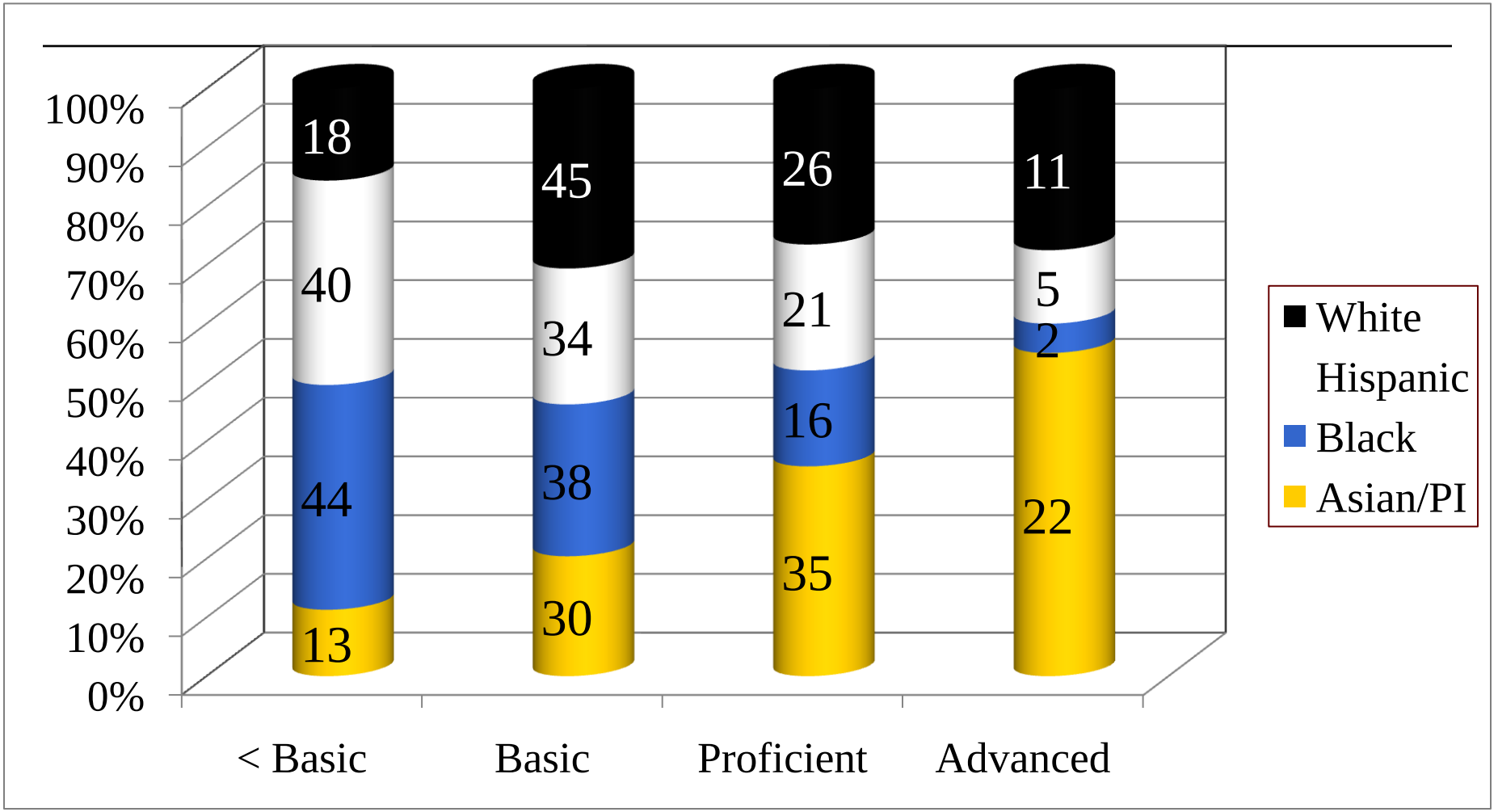
NAEP Reading Results: US and VA (NAEP, 2009)

http://nces.ed.gov/nationsreportcard/pdf/stt2009/2010460VA4.pdf



NEAP VA Reading by Group for 4th Grade Students

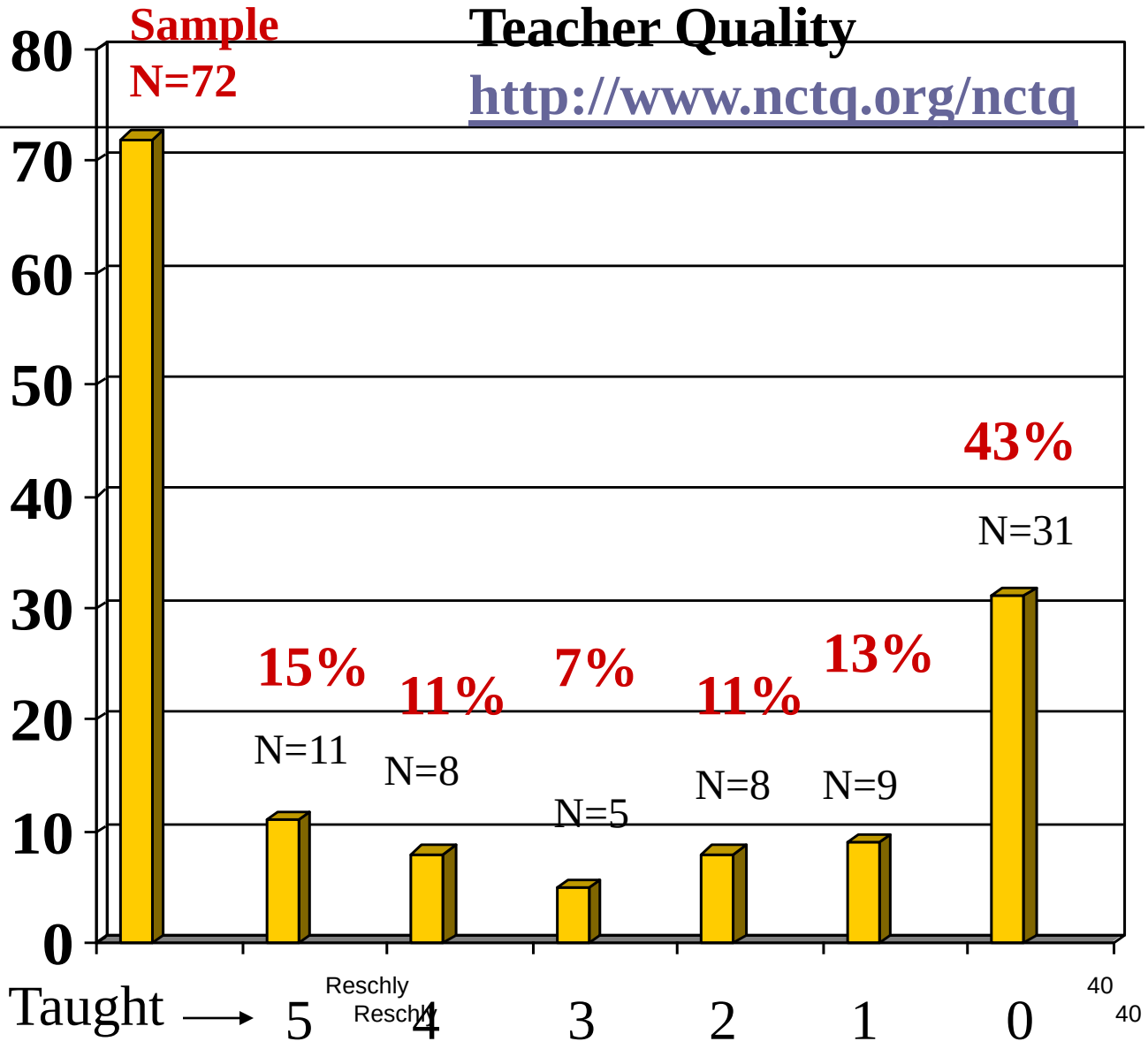
http://nces.ed.gov/nationsreportcard/pdf/stt2009/2010460VA4.pdf



IHEs and SBRI Five Components

Source National Council on Teacher Quality

http://www.nctq.org/nctq



5 Components

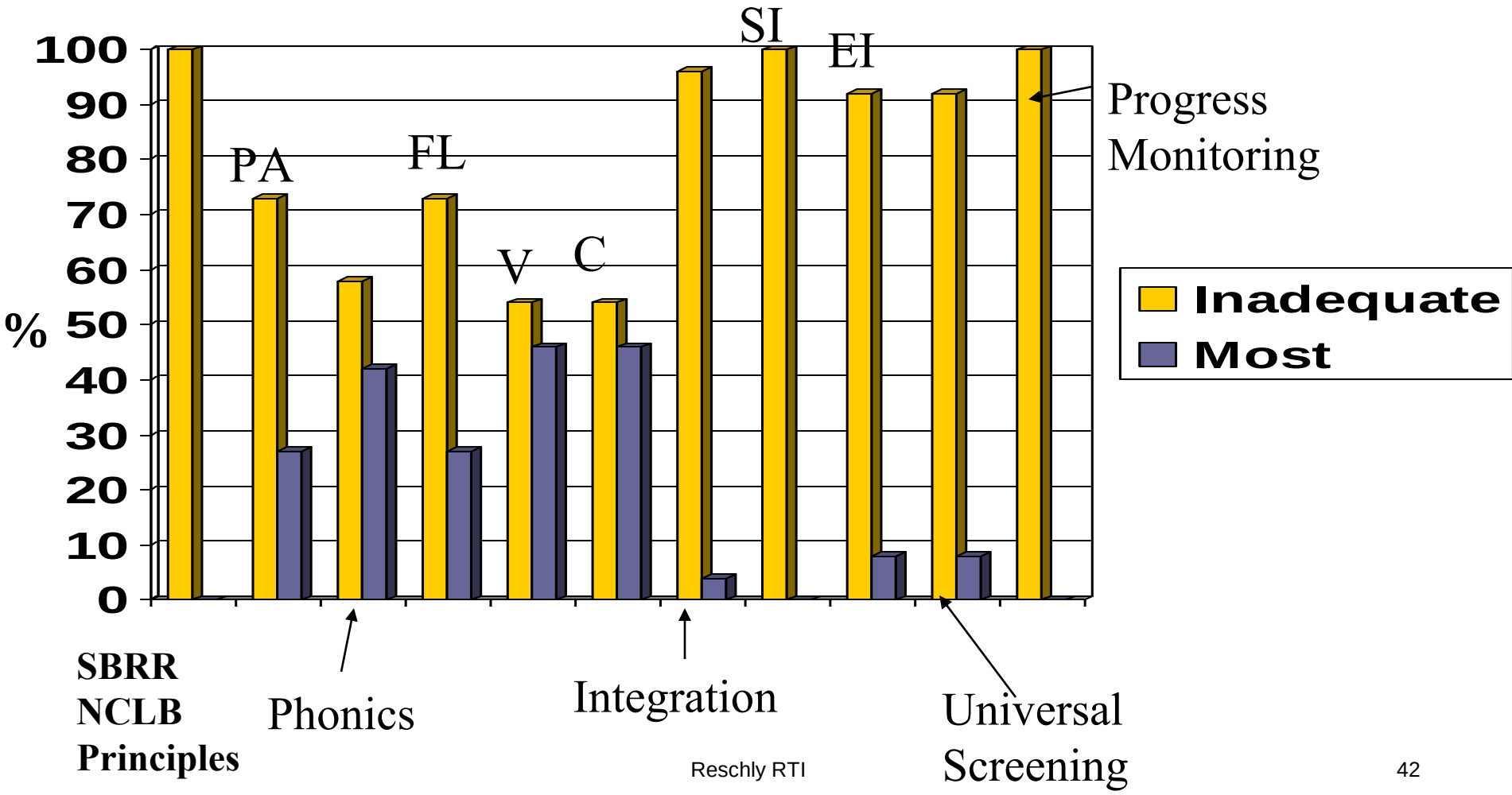
- Phonemic awareness
- Phonics
- Fluency
- Vocabulary
- Compre-hension

Well

Virginia IHEs in Walsh et al Study

- No VA IHEs included
- North Carolina
  - Elizabeth City State University 0
  - Fayetteville State University 0
  - University of North Carolina-Chapel Hill 0
  - UNC-Greensboro 5
- IHE responsibilities ??

Preparation of Special Education Teachers in Scientifically-Based Reading Instruction in 27 IHEs (Reschly et al., 2007)



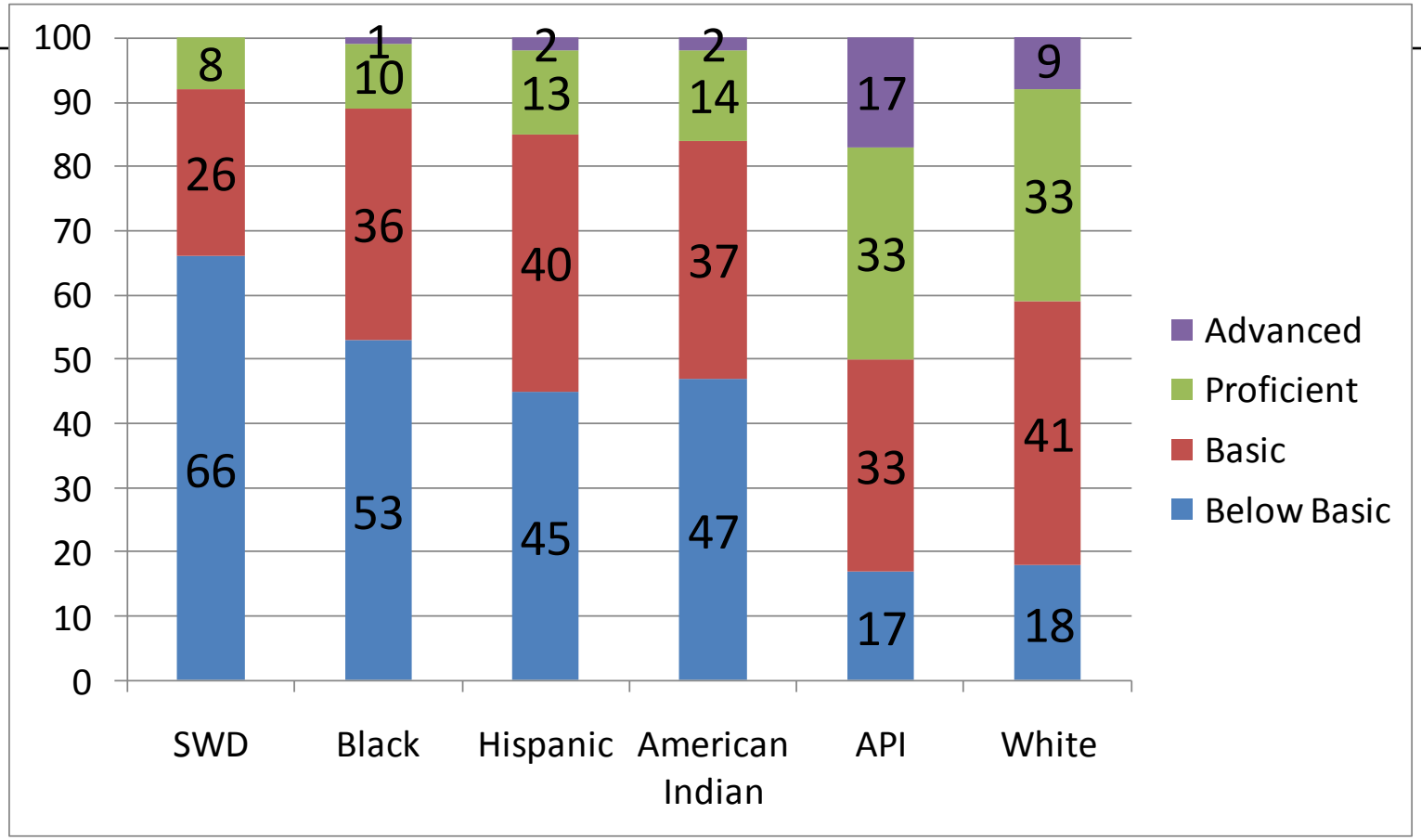
Reading Course Syllabi: Projects

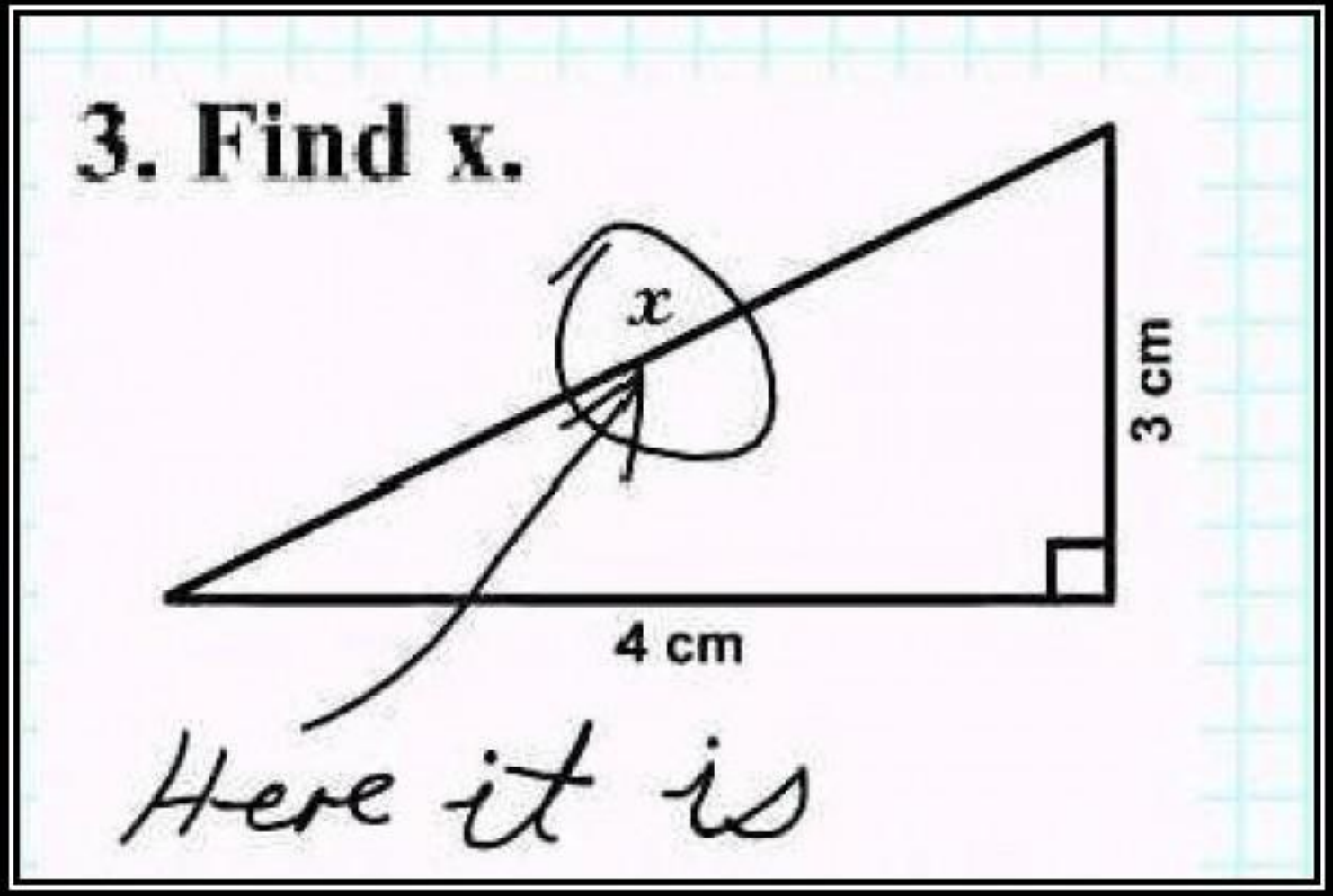
- Explain your philosophy of literacy.
- Develop bulletin board to motivate children to read.
- Produce journal explaining personal experience in learning to read.
- Analyze the social justice implications of literacy
- Imagine what it is like to be an unsuccessful reader

Math Panel Report Key Findings
www.ed.gov/mathpanel

- Conceptual understanding, computational and procedural fluency, and problem solving skills are **equally important** and mutually reinforce each other.
- Students should develop **immediate recall of arithmetic facts** to free the "working memory" for solving more complex problems.
- Teachers' regular use of **formative assessments** can improve student learning in mathematics.
- **Explicit instruction for students who struggle** with math is effective in increasing student learning.
- Teachers should understand how to provide **clear models for solving a problem type** using an array of examples, offer opportunities for **extensive practice**, encourage students to "think aloud," and give **specific feedback.**

8th Grade NAEP Results (2007) by Group





SIMPLICITY

The simplest solutions are often the cleverest
They are also usually wrong

As Long As There Are Mathematics Tests

There Will Be Prayer In The Schools

Resources for Academic and Behavioral Interventions

Vaughn-Gross Reading Center, Sharon Vaughn
http://www.texasreading.org/utcrla/

Florida Reading Center-Torgesen/Wagner
http://www.fcrr.org/

Progress Monitoring:
http://www.studentprogress.org/default.asp

Intervention Central-James Wright
http://www.interventioncentral.org/

Center on Instruction (Reading, Math, Writing, etc)
http://www.centeroninstruction.org/

THE ROANOKE TIMES
Monday, September 20, 2004

Some things do not make sense

STEPHANIE KLEIN-DAVIS | The Roanoke Times

[redacted], 35, a [redacted] resident, worries about the effect on her unborn child from the sound of jackhammers.

Discussion: Implications re continuing education

- Resistance?
- Teachers?
- Curriculum Directors?

Discussion: Implications for Continuing Education

- SEA and LEA Efforts

Discussion: Implications for IHEs

- Ways to influence IHEs

Principle 2: Progress Monitoring and Formative Evaluation

- Robust effects of progress monitoring and formative evaluation
- Data, graphs, decision rules, changes are key differences between the usual program and RTI process
- Absent data, no accountability, students gains assumed and ineffective programs continued
- Data provide feedback to everyone----supports commitments to improved results

Why Data Collection??

- Validate the existence of the problem
  - Nature
  - Severity
- Develop a realistic perspective (move away from always or never)
- Determine degree of difference with expectations
- Assess progress and apply changes during the intervention
- Assess effectiveness of the intervention
- Prompt focus on ABCs of behavior

Data Collection Principles

- Maximize simplicity and minimize intrusiveness
- Match to frequency and severity of the problem
- Increase complexity as needed
  - Severity of the problem
  - Degree of student limitations
  - Available resources
- Sufficient data to estimate strength and evaluate success
- Teacher or parent involvement with design
- Provision of materials, prompts, props

Data Collection: Permanent Product

- Naturally occurring permanent products
  - Attendance, work completion, percent correct, grades,
  - Usually most convenient and least intrusive
  - Fosters maintenance and generalization
  - Most acceptable to teachers, parents, and others
- Often can use a permanent product along with other measures of the behavior
- Most positive changes will also have a collateral effect on one or more permanent products
- Examples of permanent products???

Graphing

- Why is graphing important?
  - Ensures that data will be considered
  - Often easily to interpret
  - Tangible reflection of program effects
  - Provides the basis for changing programs if results miss goals
  - Graphing + program changes produces best effects; + reinforcement=1.0 SD effect size

Time Series Analysis Graphs

- Useful to visually represent progress
- Facilitates making intervention changes
- Simple, but powerful tool
- Rarely used despite 40 years of research confirming positive effects of CBM and formative evaluation decision rules
- See graphs that follow: Egbert is in February of Grade 1
- He has some interfering behaviors including moderate levels of disruptive behavior
- Main problem is low reading based on universal screening measures in September and January

Effective Formative Evaluation Measures: Academics and Behavior

- Direct measures of skills
- Natural settings
- Efficient re: costs and time required
- Sensitive to small increments of growth in relevant skills
- Results can be graphed in relation to goals
- Reliable in terms of stability
- Valid re: relationship to broad indicators of competence
- Example: CBM oral reading fluency and reading comprehension

Validity of CBM in Reading

- High reliability including stability over days
- Strong validity in relation to
  - Standardized reading tests, word reading AND comprehension
  - Passing rates on state high stakes tests
  - Kindergarten screening results predict 3rd grade outcomes (if no interventions are done)
  - Sensitive to intervention effects and improved CBM performance predicts success on high stakes tests

Sample passage from DIBELS, http://dibels.uoregon.edu/

The Ant Hill

Dad and I took a hike in the woods. We walked for a long 14
time and stopped to take a rest. We sat down on a log and had a 30
drink of water. A big hill was nearby. 38

Dad said, "Look, there's an ant hill." 45

I walked up to the hill and took a closer peek. At first it 59
looked just like a dirt hill. Then I noticed a few ants running 72
around. I looked closer. I saw little ants carrying pieces of 83
mushroom. The pieces were almost as big as the ants. 93

"What are they doing, Dad?" I asked. 100

"They're taking food inside the hill. They probably have 109

Sample passage from DIBELS, http://dibels.uoregon.edu/

DORF Progress Monitoring 2

The Rainy Day Picnic

I was so sad. This was the day we were going to the park for 15
a picnic. I wanted to go to the playground. I wanted to swing. I 29
wanted to lay on the grass and look up at the fluffy clouds. But 43
that morning it was raining. There were puddles everywhere. 52
And we could hear thunder. I started to cry. 61
My mother said, "Wait! We will still have the picnic!" 71
I cried, "But how? It won't be fun if it's wet!" 82

Sample passage from DIBELS, http://dibels.uoregon.edu/

Visiting Aunt Rose

My Aunt Rose invited me to spend the weekend. Aunt Rose 11
doesn't have kids. She said I could be her kid for two days. She's 25
like my big sister. 29
I like to go to visit my Aunt Rose's home. She likes to do the 44
same things I like. I like to go swimming. So does my Aunt 57
Rose. The pool where she goes also has a hot tub. I like to sit in 73
the hot tub. So does my Aunt Rose. I always bring my swimming 86

Sample passage from DIBELS, http://dibels.uoregon.edu/

The Robin's Nest

There was a robin's nest outside our kitchen window. 'I he 10
nest was in a tall bush. The mother robin sat in the nest all day 25
long. One day when I was watching, the mother bird flew away. 37
I saw the eggs she was sitting on. There were four blue eggs. 50
I watched and watched. Pretty soon the eggs started to move. 61
I watched some more until the eggs started to crack. Finally-, the 73
eggs hatched. I saw four baby birds. The baby birds opened their 85
beaks wide. I heard them peeping. Soon the mother bird came 96
back. Then the mother robin put worms in their mouths. 106

Tier I: Importance of Screening: Academics

- Universal screening is a key part of prevention
- Goal of determining success of general education curriculum in academics and behavior
- If general curriculum in working, THEN goal of identifying individual students at risk
- Early identification-Prevention when problems are more amenable to treatment
- RTI absent early, universal screening is markedly less effective

Tier I: Assessment: Academics

- Academics
  - **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 trajectories toward passing state benchmark tests and increase assessment to 2 Xs per month
  - Consider use of paraprofessionals (Pat Vadasy at U of WA) in screening and delivery of interventions

Universal Screening Results

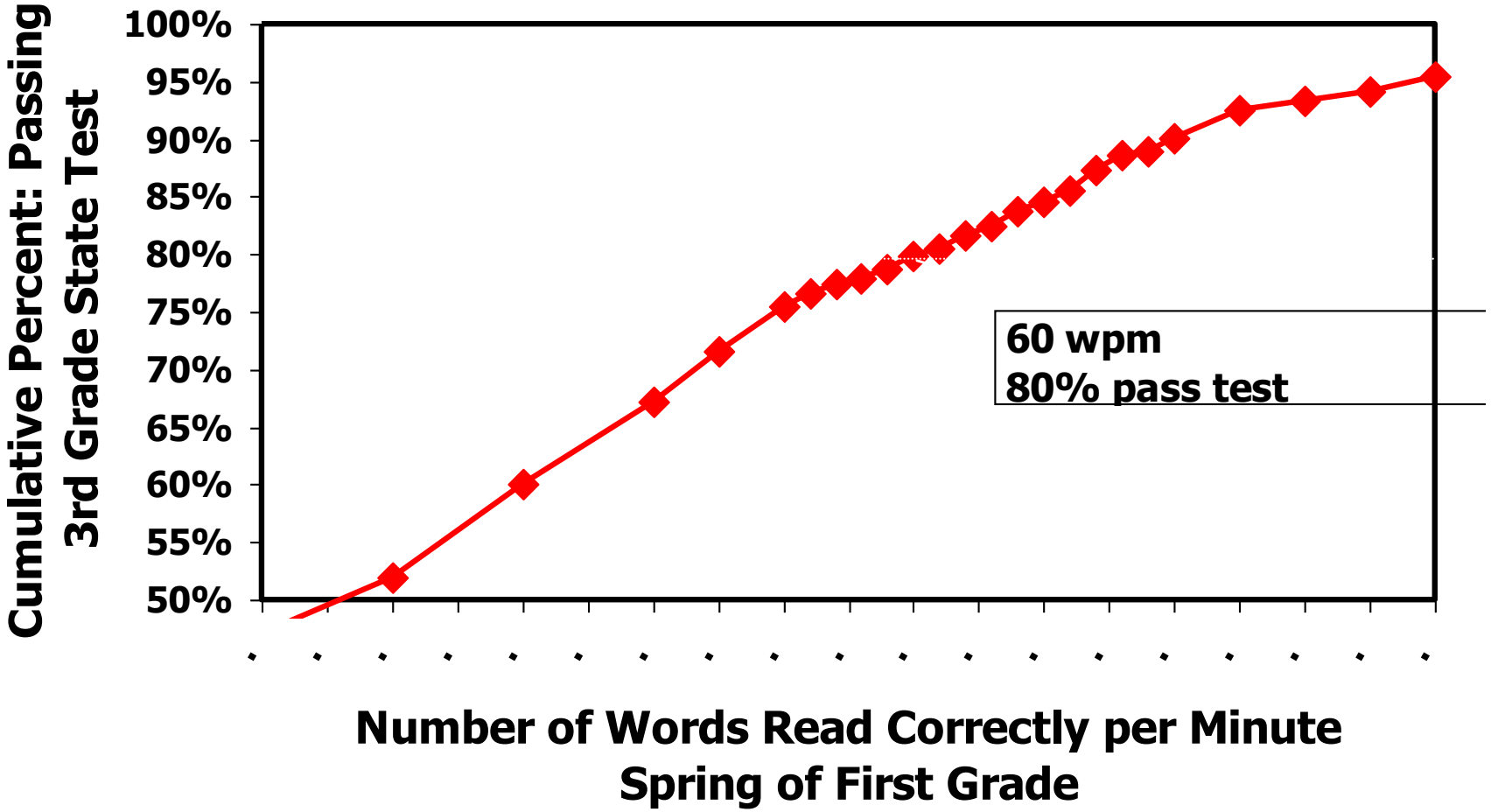
- Assess success of instructional program
  - Percent of students at or above benchmarks
  - If necessary, examine curriculum, instruction, or both
- Identify students below benchmarks
  - Interventions within general education classroom
  - Assess progress and consider need for more intensive interventions at Tier II

Common Benchmarks

Benchmark is lowest level to still have an 80% probability of passing high stakes reading tests

Age/Grade	Measure Fluency (FL)	Criterion
Winter KTG	Letter Naming Fl Initial Sound Fl	25 sounds per minute (pm)
Spring KTG	Phoneme Seg	35 sounds pm
Winter 1st gr. Spring 1st gr. Spring 2nd gr. Spring 3rd gr.	Nonsense WD Oral Rdg Fluency Oral Rdg Fluency Oral Rdg Fluency	50 sounds pm 40 wds pm 90 wds pm 110 wds pm

Benchmarks Vary By State: Minneapolis Data and State of MN High Stakes Test



Consequences of Not Meeting Tier I Goals

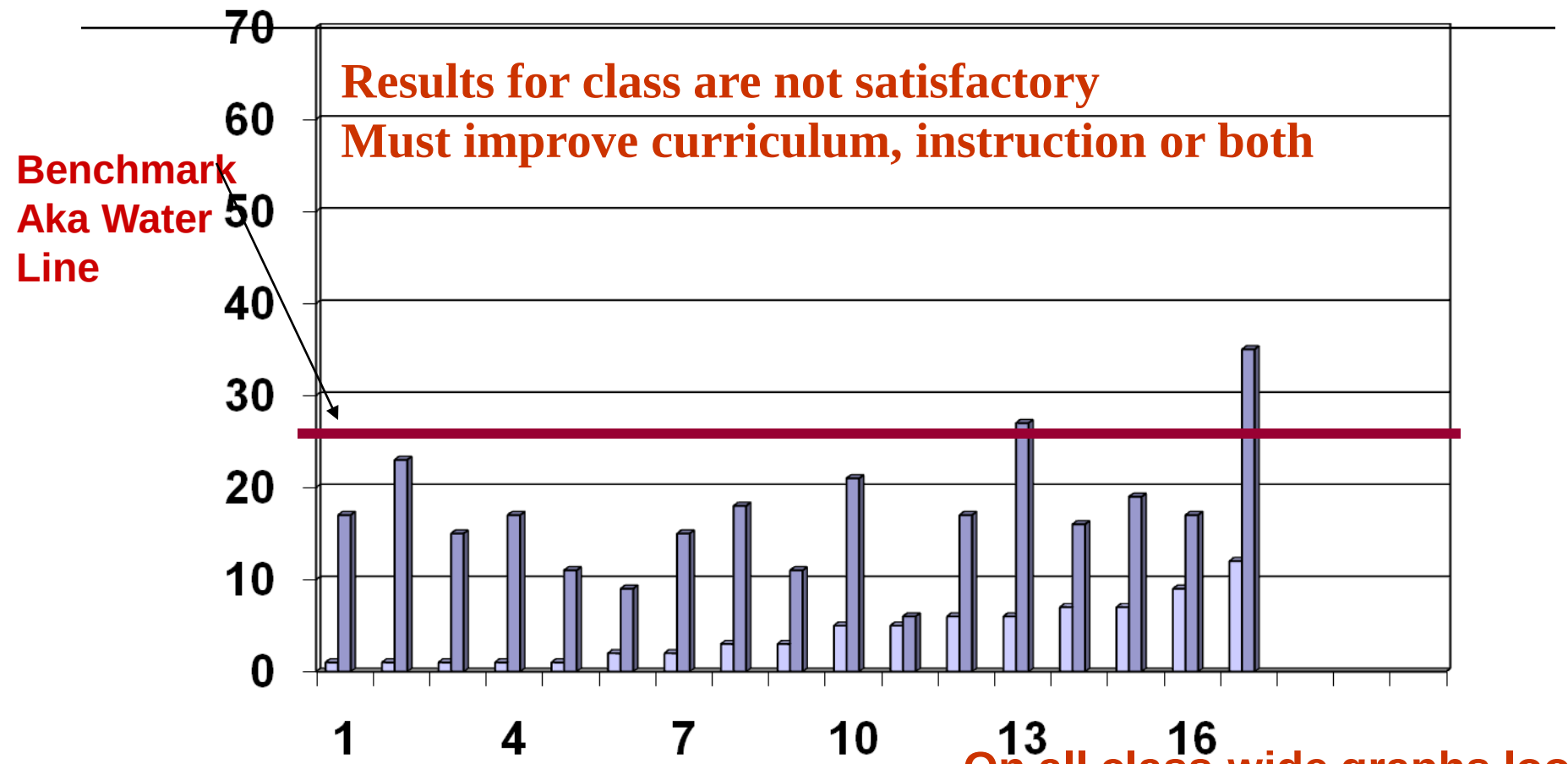
- Upside down
- Overload Tier II and Tier III
- Low probability of passing high stakes reading tests
- Markedly reduced likelihood of high school completion and post-secondary educational and career participation

Analysis of Results

- Do we really need graphs?
- Don’t our teachers know who is behind?
- Why look at the entire class?
- Do results in classrooms and with different teachers really vary that much?
- Upside down tiers: more students need Tier II than are successful in Tier I

KTG: Initial Sound Fluency Fall to January 05-06 Yr.

Benchmark: Winter KTG 25 sounds correct/min.

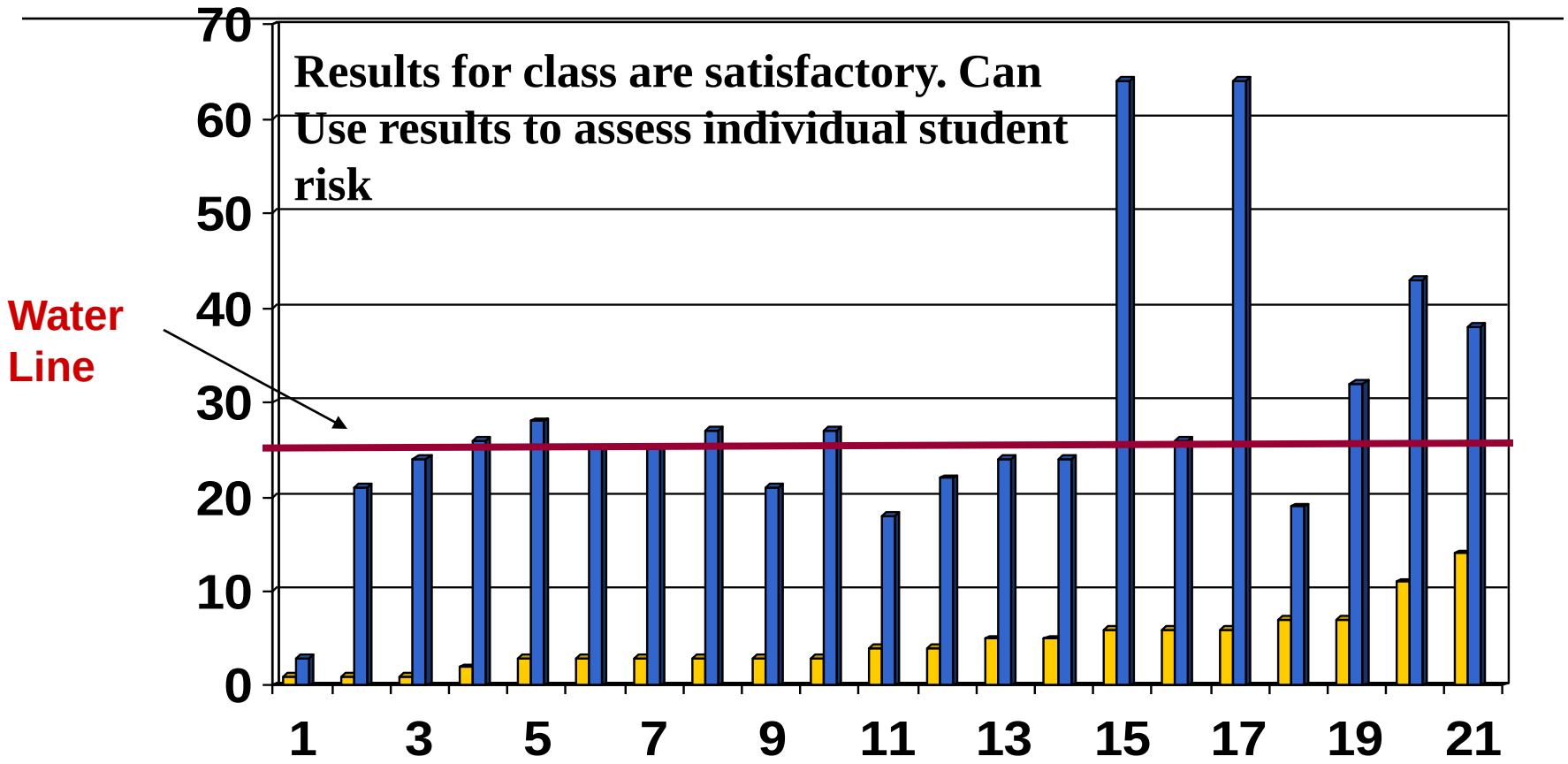


New KTG Teacher and Traditional Instruction

On all class-wide graphs look at level and progress

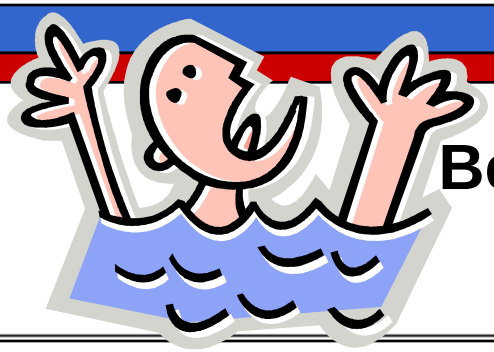
KTG: Initial Sound Fluency Fall to January 05-06 Yr.

Benchmark: Winter KTG 25 sounds correct/min.

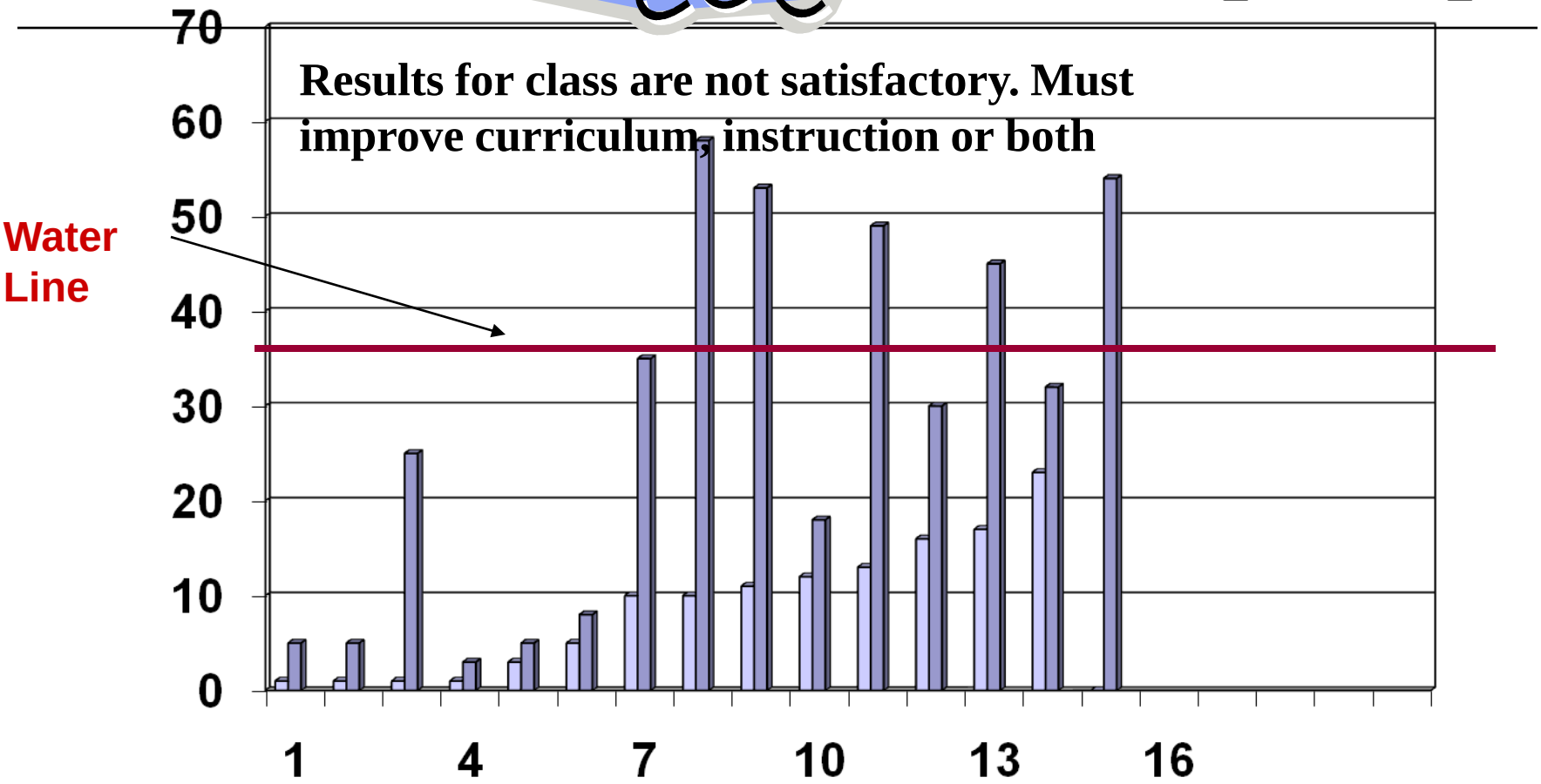


Experienced Teacher
Direct Instruction

Phoneme Seg. Fluency: Jan to May 05-06 Yr.

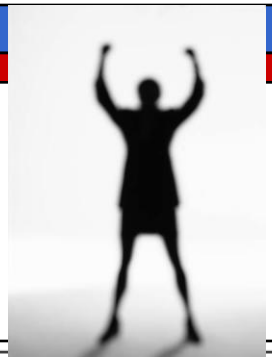


Benchmark: 35 correct

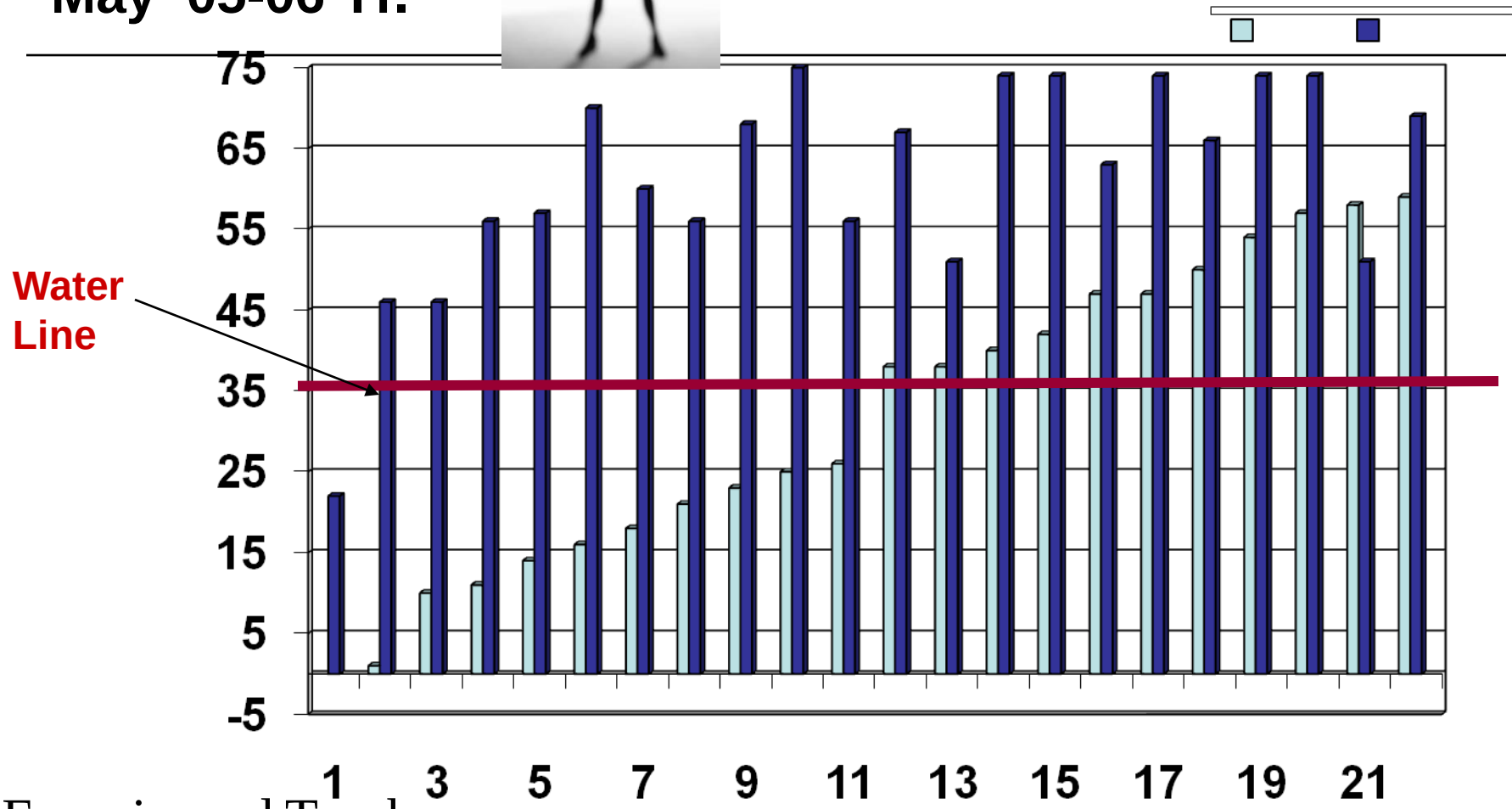


New KTG Teacher and Traditional Instruction

Phoneme Seg. Fluency: Jan to May 05-06 Yr.



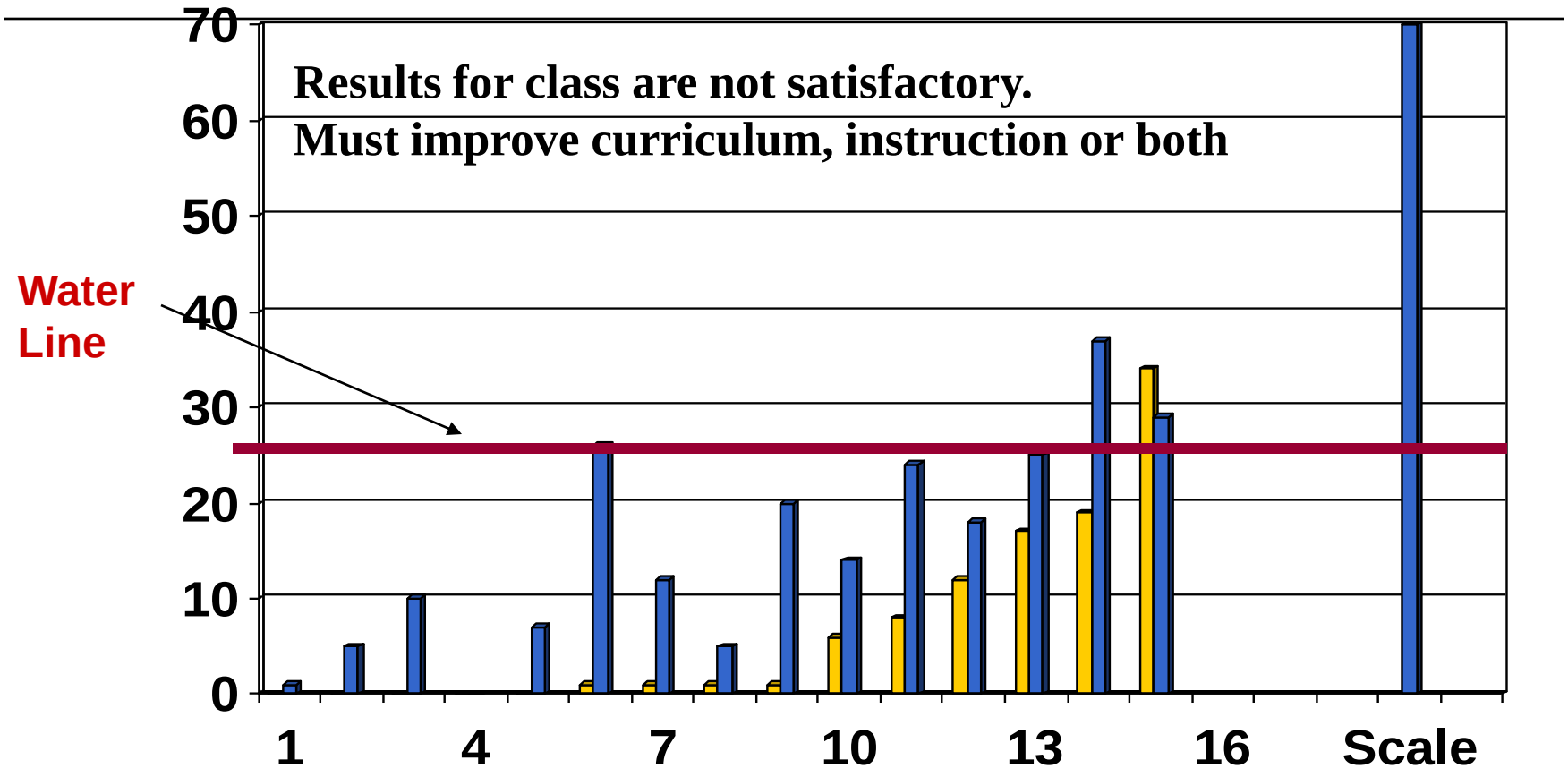
Benchmark: May 35 per minute



Experienced Teacher Direct Instruction

Nonsense Word Fluency: Jan to May 05-06 Yr.

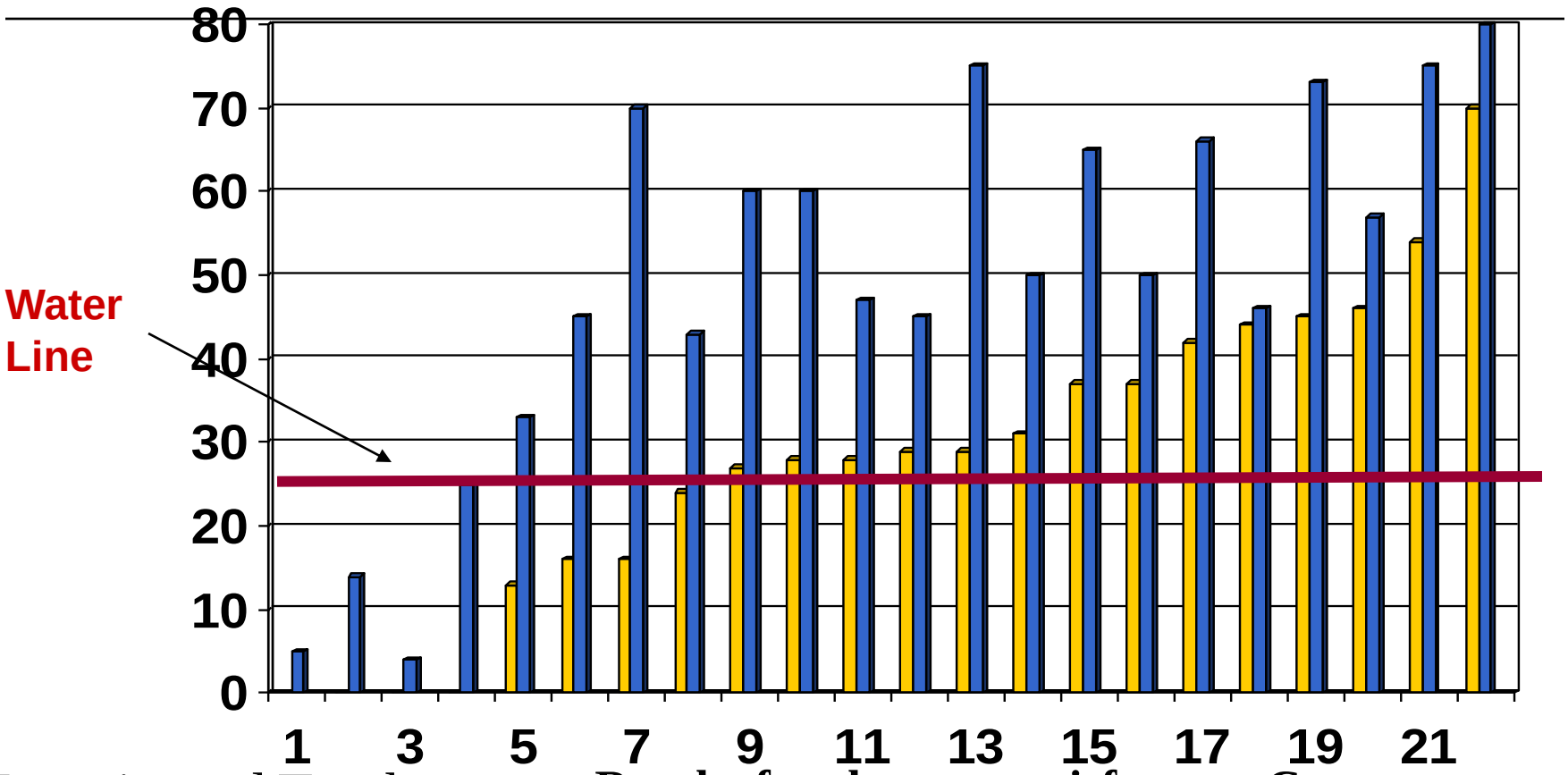
Benchmark: 25 correct per minute



New KTG Teacher and Traditional Instruction

Nonsense Word Fluency: Jan to May 05-06 Yr.

Benchmark: 25 correct per minute

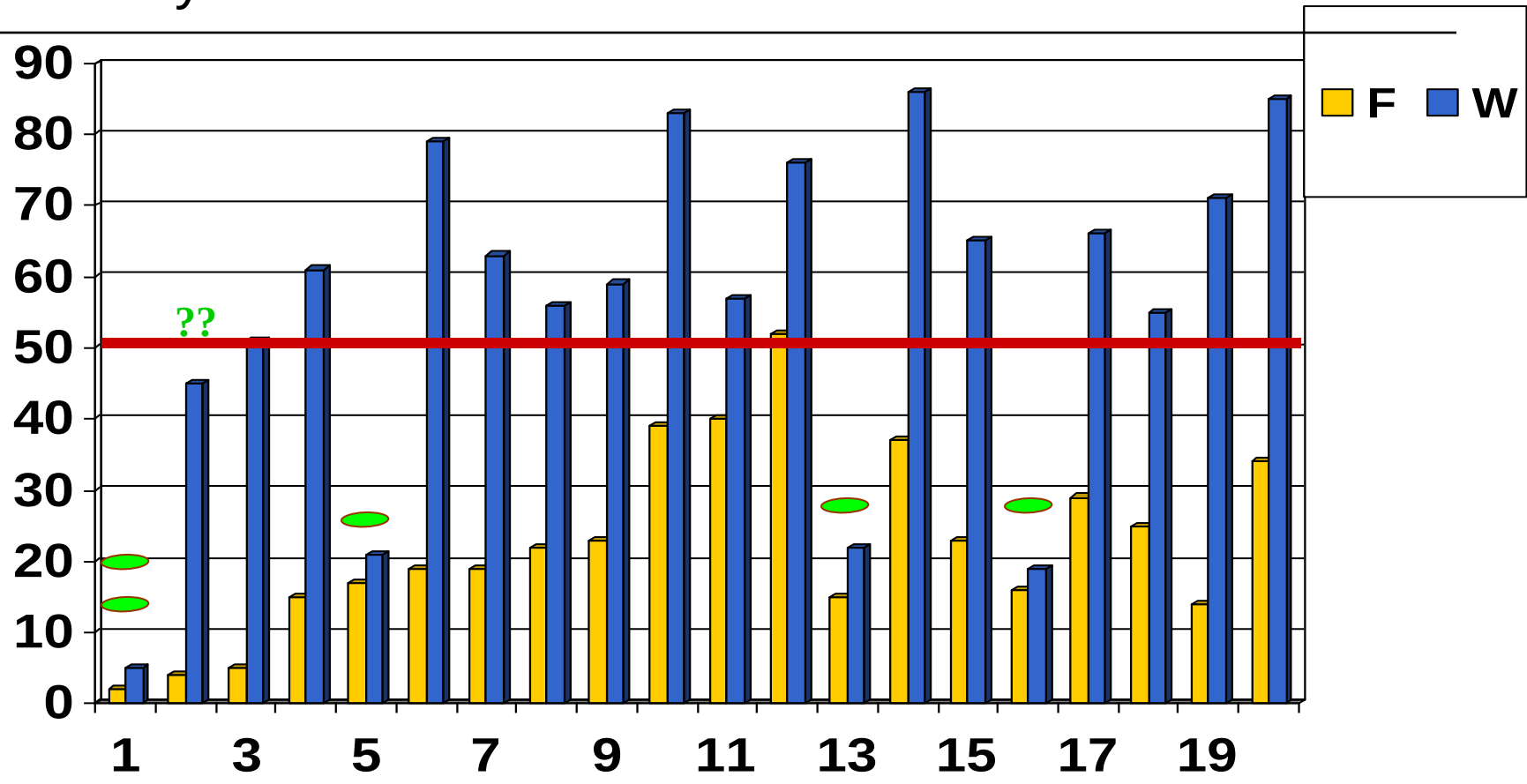


Experienced Teacher
Direct Instruction

Results for class are satisfactory. Can Use results to assess individual student risk

1st Gr. Nonsense Word Fluency

Benchmark: Winter First Grade
50 Words Per Minute



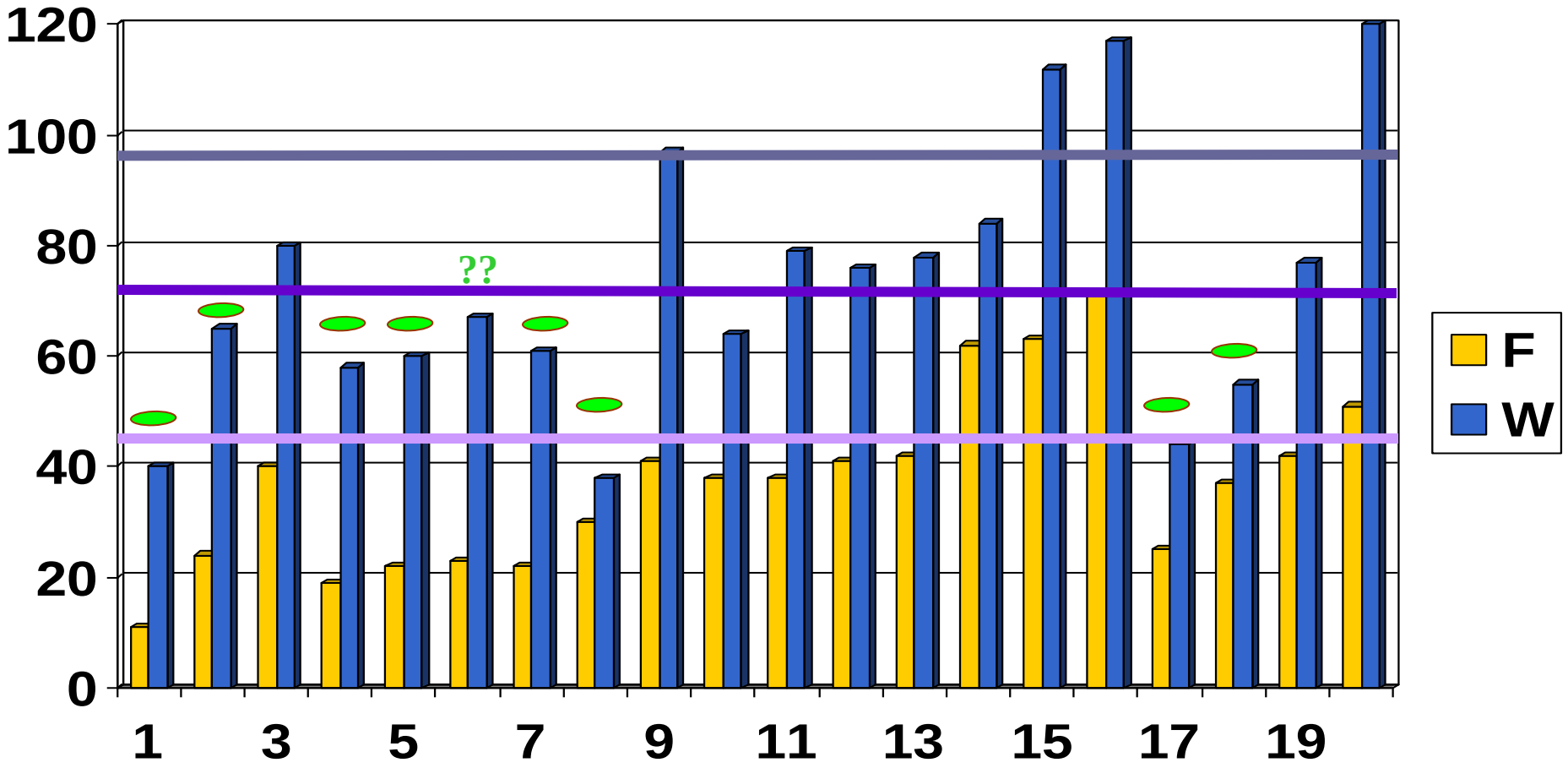
Students needing greater Gen'l Ed monitoring and Interventions.

Consider Tier II intervention due to low performance and very slow progress

Second Grade Oral Reading Fluency

Benchmarks: Early 2nd=42 WCM; Winter=71 WCM End of 2nd=90 to 95

Good results? Poor results? Level is unsatisfactory. Progress is good. Consider results at early 2nd grade



Students needing greater Gen'l Ed monitoring and Interventions

Data Collection Decisions

- Wide range of useful data exist
- Data management systems---daily access
  - Work completion
  - Attendance
  - Grades-scores
  - Classroom and non-classroom behavior
  - Weekly and unit tests
  - School engagement

Discussion: Data Collection Progress Monitoring

- What data used currently?
- What data are available?
- Naturally occurring student records?

Discussion: Other Goals for Improved Performance

- Disproportionality
- Student engagement
- High school completion
- Other goals

Discussion: Underutilized Data in District

Discussion: District Process for Addressing Poor Results

- Classroom?
- School?
- District?

Tier II Interventions

- For students who do not respond to a generally effective academic and behavior curriculum (15% to 20%)
- Generally time limited, 15 to 25 weeks
- Goal, bring student to benchmark levels or establish need for more intense interventions

Models for Tier II Interventions

- Problem solving, individual behavior, general system goals, achievement in higher grades
- Standard protocol—reading, math
  - Pull out 30 minutes per day, small group, focused on academics
  - Delivered to small groups 4-6 students
- Individual progress monitoring

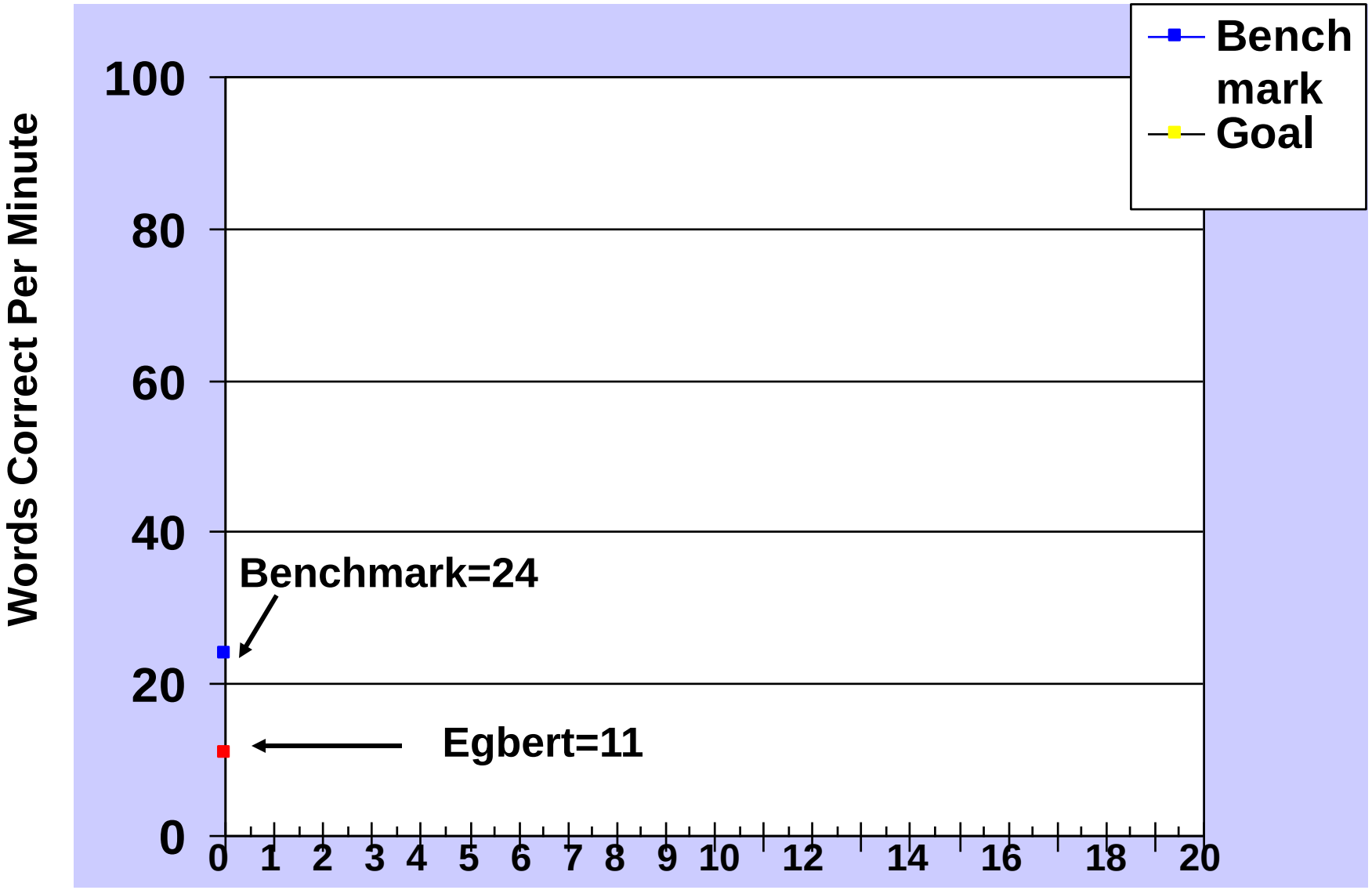
Individual Progress Monitoring

- Essential at Tier II in an RTI System
- Frequency? At least weekly, perhaps bi-weekly
- Formative Evaluation
  - Graph with goals
  - Progress in relation to goals
  - Decision Rules to guide changes in instruction or to raise goal. 2 or 3 data points above or below goal leads to changes

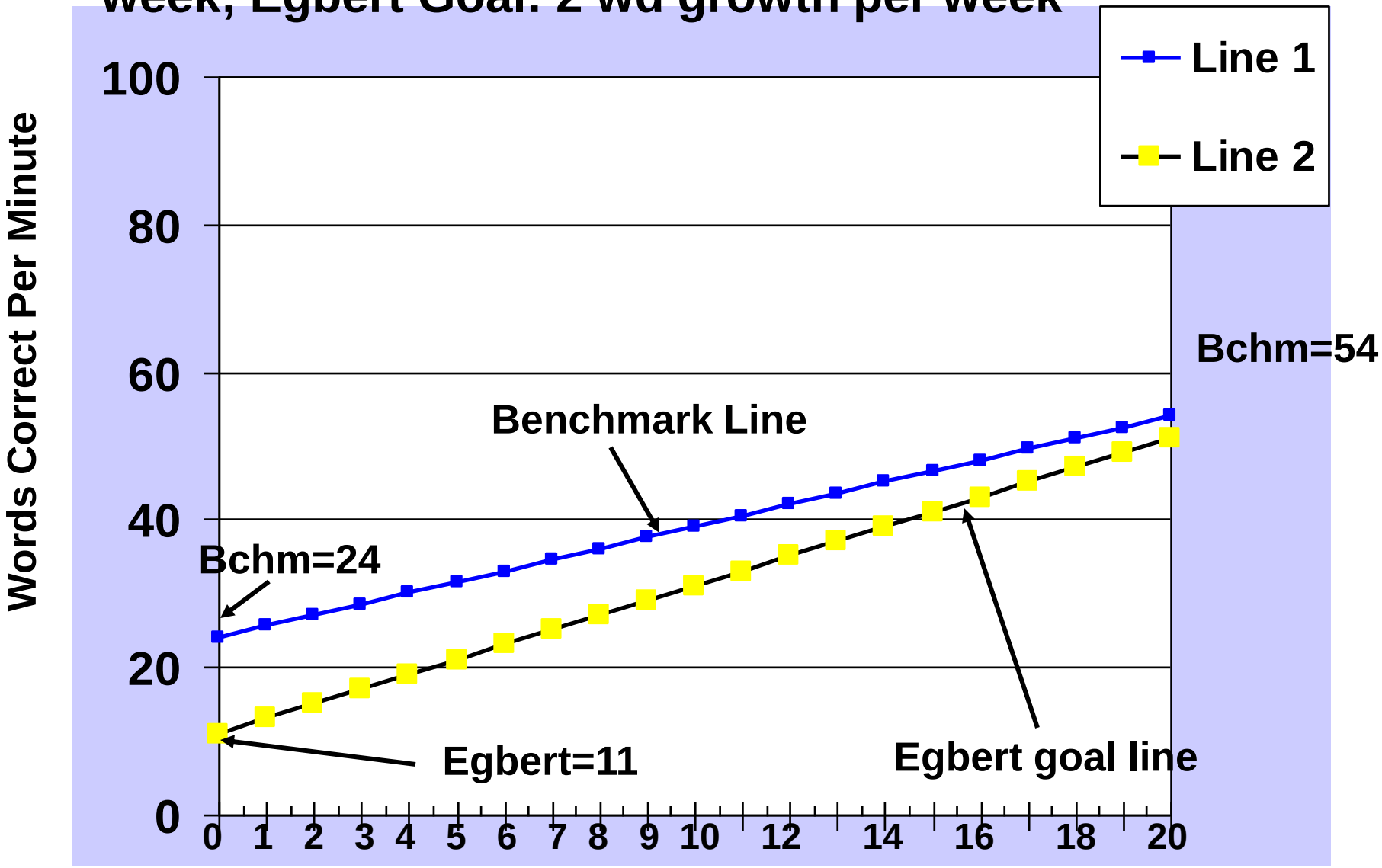
Egbert's Time Series Analysis Graphs

- Egbert is in February of Grade 1
- Main problem is low reading based on universal screening measure in January
- He has some interfering behaviors including mild levels of disruptive behavior and inattention in the classroom
- Decision to place in general education Tier II small group reading intervention
- 30 to 40 minutes daily, group of 3-5 students
- Weekly progress monitoring with an individual graph using Oral Reading Fluency

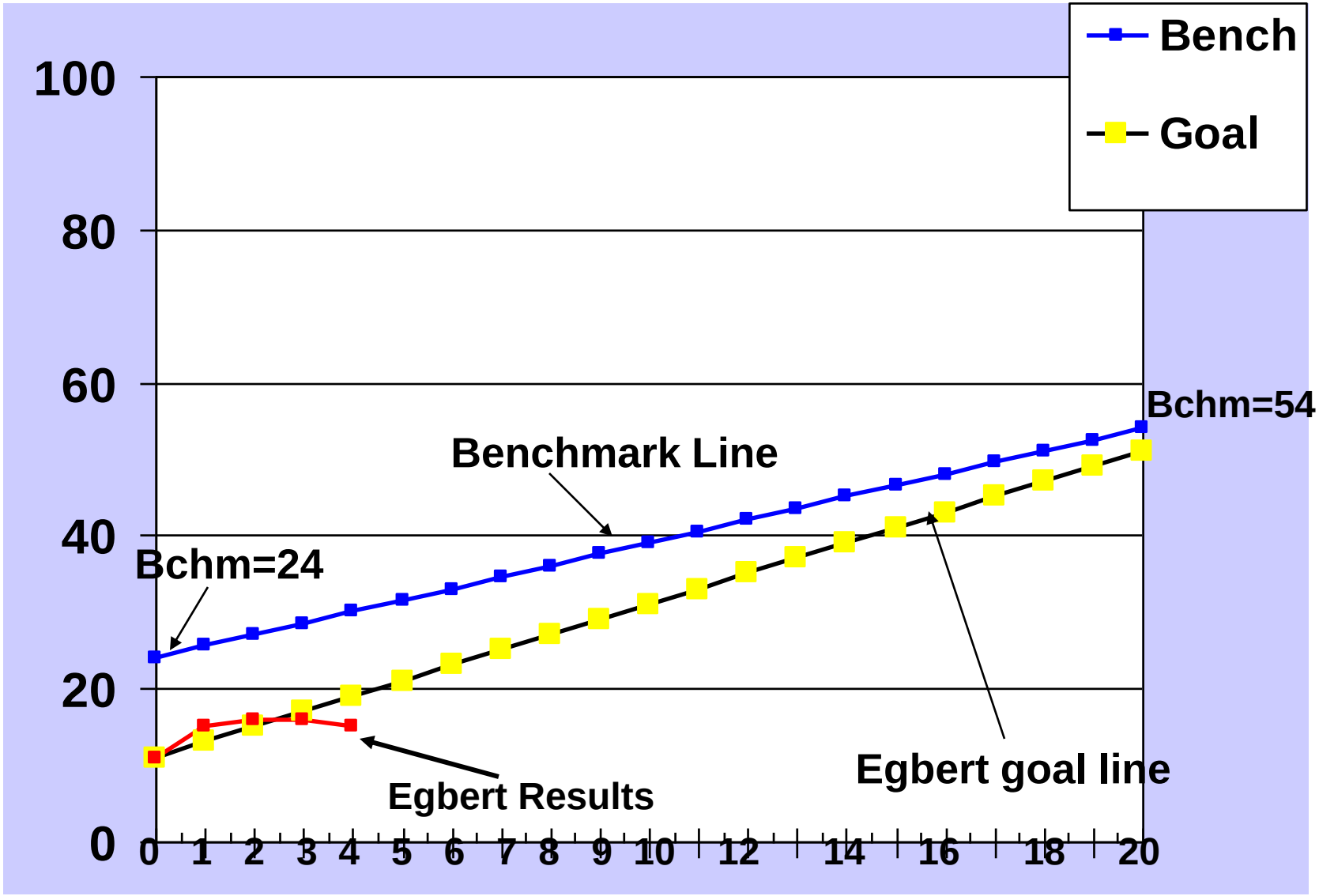
Graph Current Status February Grade 1



Determine Goal: Class=1.5 wd growth per week; Egbert Goal: 2 wd growth per week

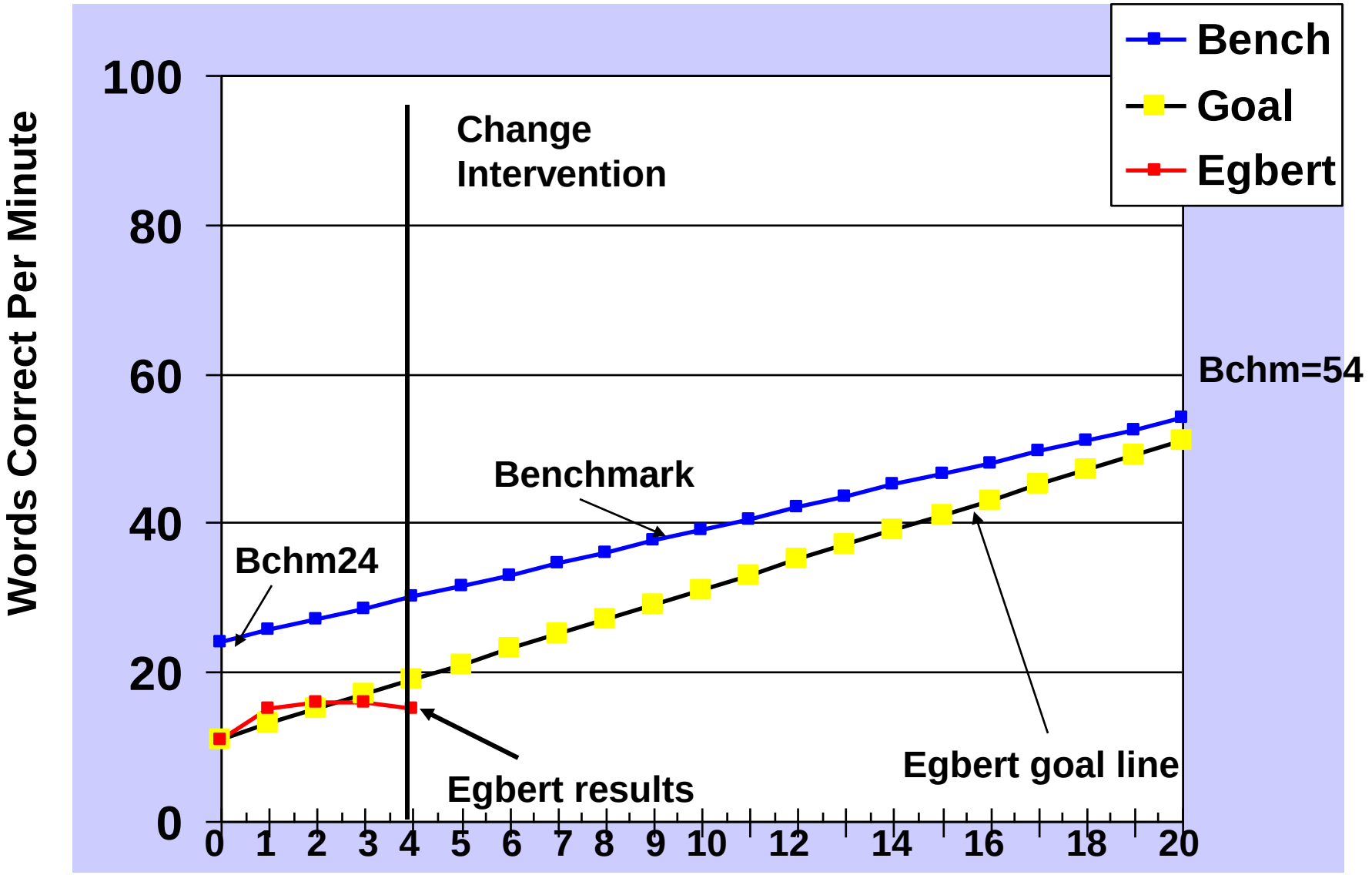


Monitor Egbert's Progress Relative to Goal

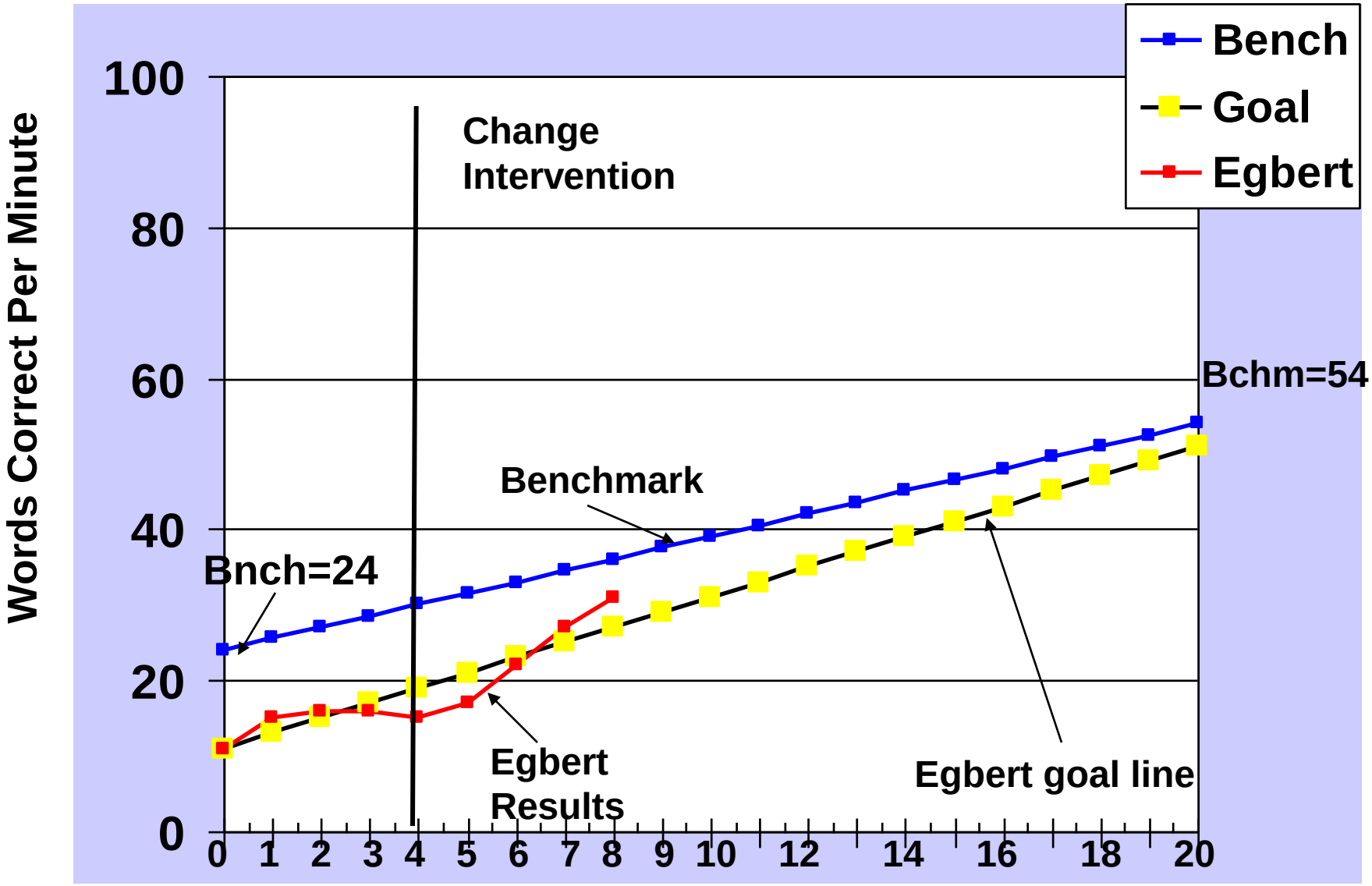


Egbert Results

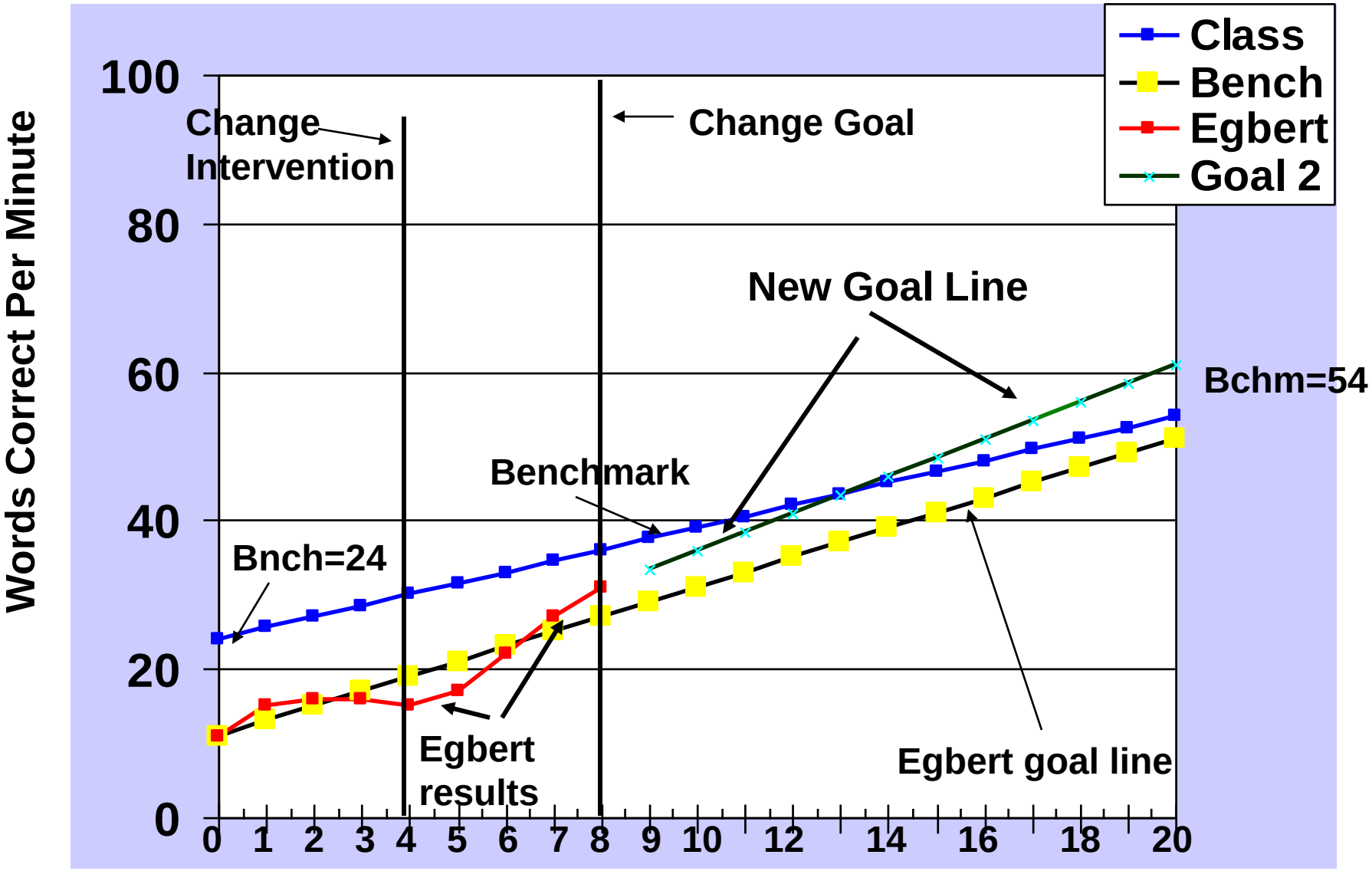
Formative Evaluation: Change Intervention



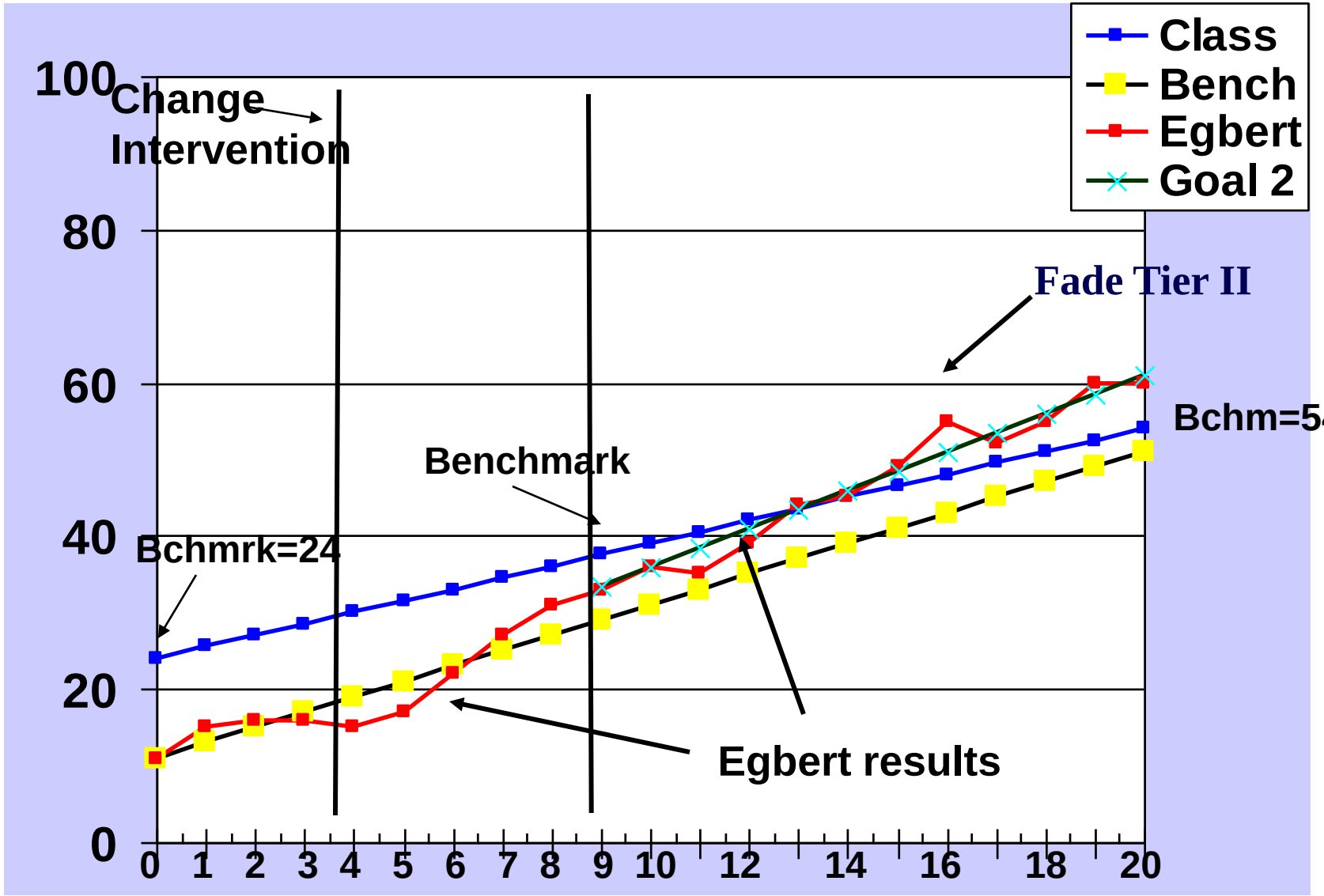
Continue Intervention and Monitor Progress



Raise Goal to 2.5 WCM Growth



Continue Intervention and Monitor Progress



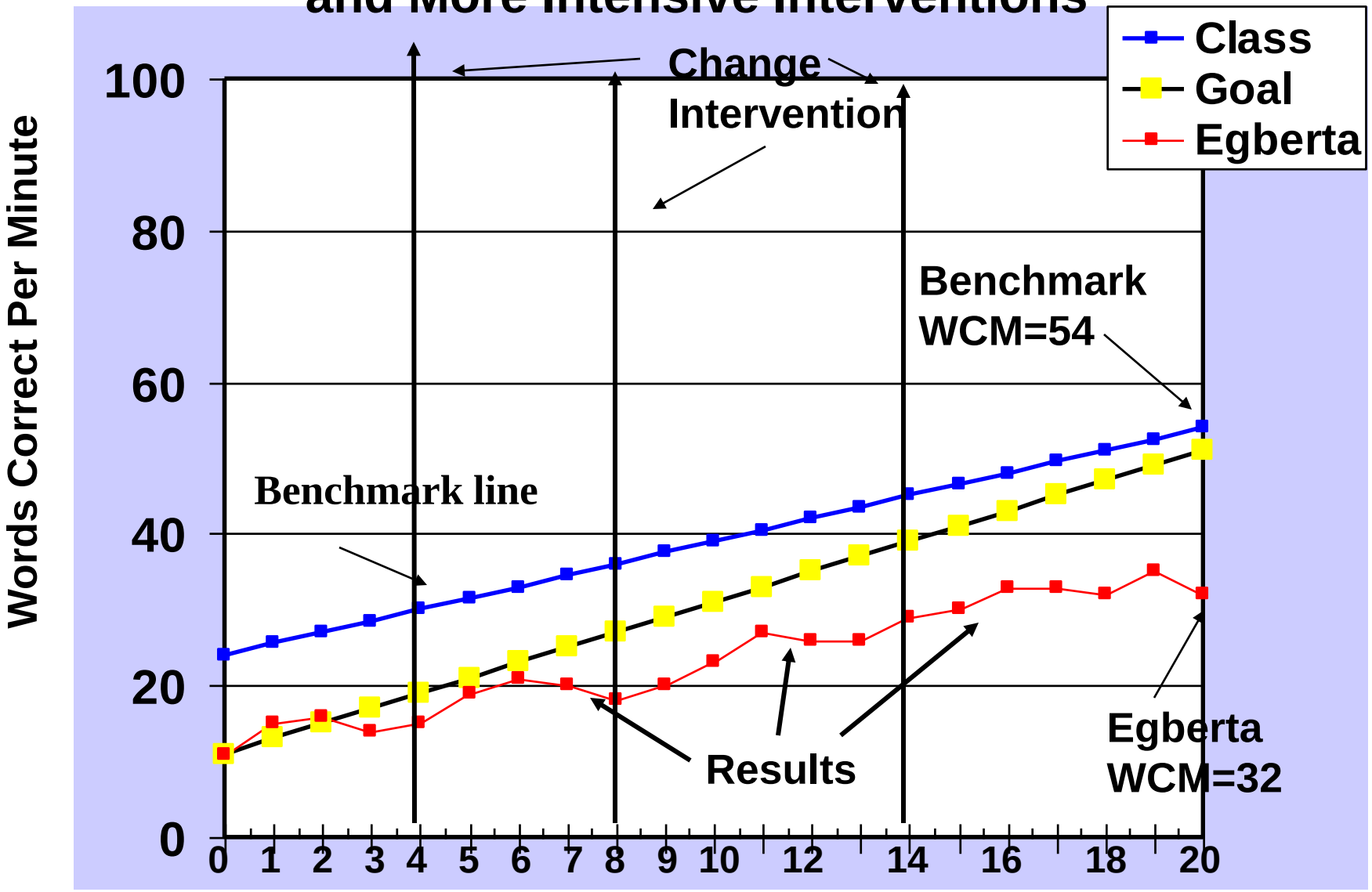
Decisions After 20 Weeks of Intervention

- Fade the intervention and discontinue if gains persist
- Student continues full-time in general education classroom
- OR
- Continue the intervention for a few more weeks. IF student is close to benchmark and making good progress
- OR
- Consider long term more intensive intervention (see next slide)

Case II: Egberta, Academic Intervention

- Egberta (Egbert's twin sister)
  - Similar performance in reading
  - No behavioral issues, described as quiet, cooperative child who tries hard and does not disrupt the class
  - Typically would not have been referred by teacher in the traditional system
  - Universal Screening will find all students with very poor reading (OK, nearly all)

Gap Not Closing: Consider Eligibility and More Intensive Interventions



Decisions After 20 Weeks of Intervention, cont.

- Consider more intensive interventions at Tier III IF student is unlikely to
  - Respond adequately within a few more weeks and needs long-term (> 12 months) intensive intervention to meet benchmarks at current rate of progress.
  - May or may not involve special education depending on local system options and resources
  - Main consideration is likely length of needed intervention

Egberta Decisions (After 20 Weeks of Intervention)

- Long term intervention needed because at current rate of progress (gain of 1 wd correct per week) will not meet benchmark for a year or more
- In an RTI System Egberta would move to a Tier III level of service.
  - May or may not involve special education depending on local system options and resources

Current Tier II Interventions

- Standard Protocol Academic Intervention
- Vaughn, S. Linan-Thompson, S., & Hickman, P. (2003). Response to instruction as a means of identifying students with reading/learning disabilities. *Exceptional Children, 69,* 391-409. Describes reading intervention
- Five areas of reading addressed in every session.
- Greater emphasis on weak skills
- Groups of 4-6 students

Problem Solving Process

- 4-stage process
- Self-correcting methodology
- Applicable to wide range of performance issues in human services
- High probability of success if applied rigorously
- Data essential

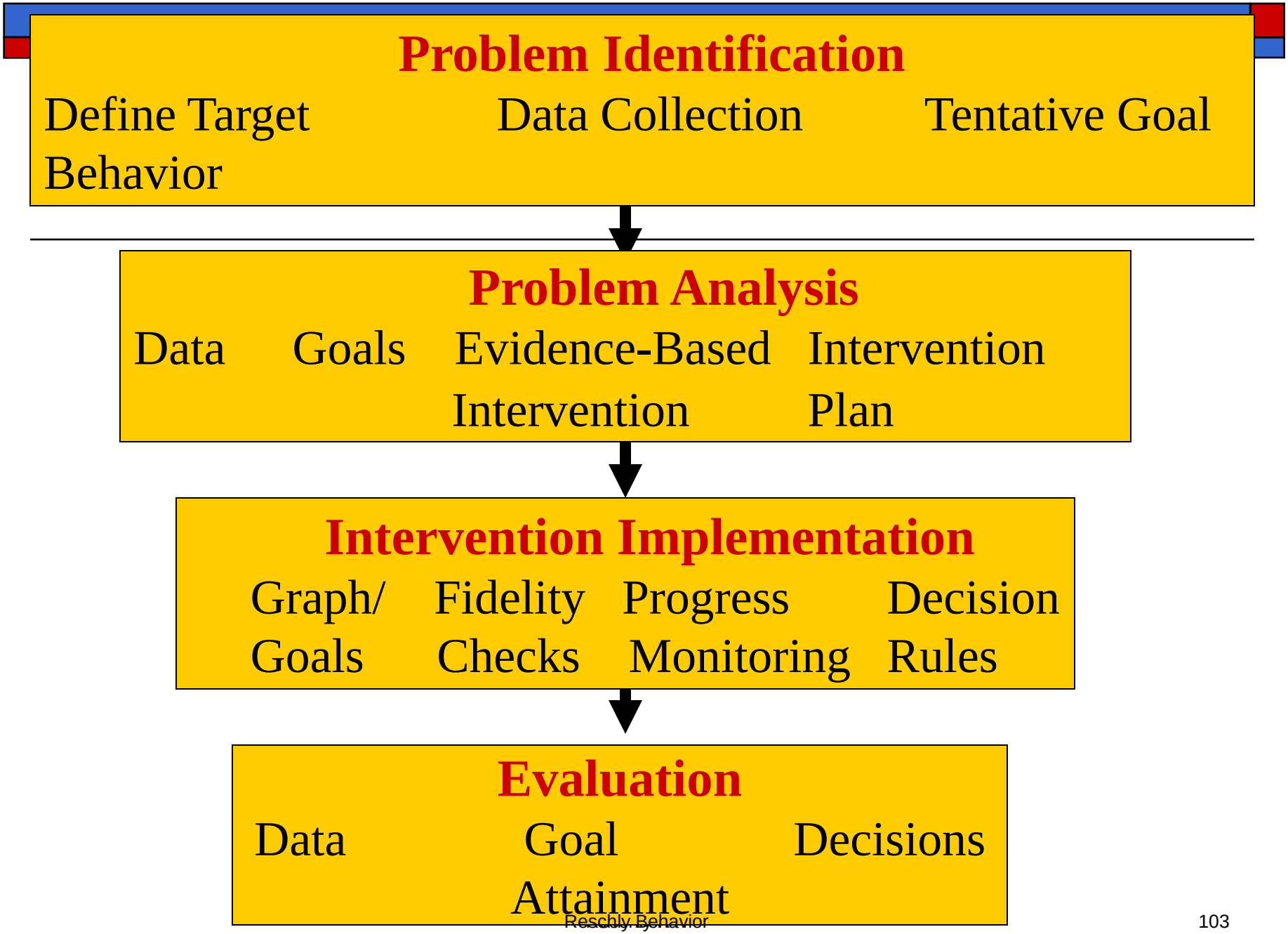

Problem Identification
Define Target Behavior
Data Collection
Tentative Goal
Problem Analysis
Data
Goals
Evidence-Based Intervention
Intervention Plan
Intervention Implementation
Graph/ Goals
Fidelity Checks
Progress Monitoring
Decision Rules
Evaluation
Data
Goal Attainment
Decisions

Table 7: Outcomes of Problem Solving Interventions

	Consultee Judgment[a]		Consultee Judgment Confirmed by Records and Graphs[b]	
Goal Status	N	%	N	%
Goals Met	112	53%	94	45%
Largely Met	27	13%	24	11%
Partially Met	53	25%	34	16%
Not Met[c]	19	9%	59	28%

[a]Consultee judgment results were based on consultee's conclusions regarding goal attainment.

[b]Judgment and data results were based on consultee's conclusions and the submission of graphs or other records confirming goal attainment status.

[c]Forty cases were re-coded as "goals not met" because tangible evidence confirming consultee judgment was not submitted with the case records.

Tier II Behavior Problem Identification Interview Outline

- Behavior (see interview protocol)
  - Questions: Describe behavior
  - Questions: Ask for examples
  - Questions: Where, When, What doing, Expectations
  - Summarize, confirm or revise

Problem Identification Interview Outline cont.

- Conditions around behavior
  - Questions: Prior learning and setting events
  - Questions: Setting conditions
  - Questions: Consequences/effects of behavior
  - Summarize conditions around the behavior

Problem Identification Interview cont.

- Tentative Goals and Assets
  - Questions: Estimate current status
  - Questions: Estimate goal
  - Questions: Assets question
  - Questions: Current approaches to teaching or behavior management
  - Summarize and confirm

Problem Identification Interview cont.

- Assessment
  - Questions about record of behavior
  - Questions: Kind of measure consideration (see later)
  - Summarize and confirm
- Wrap Up: Written summary
  - Behavior
  - Assessment procedures
  - Assessment materials, requirements
  - Time/Date for next appointment

Discussion: Current Tier II Options in District

- Academics
  - Determining participation?
  - Design?
  - Data?
  - Decision Making?

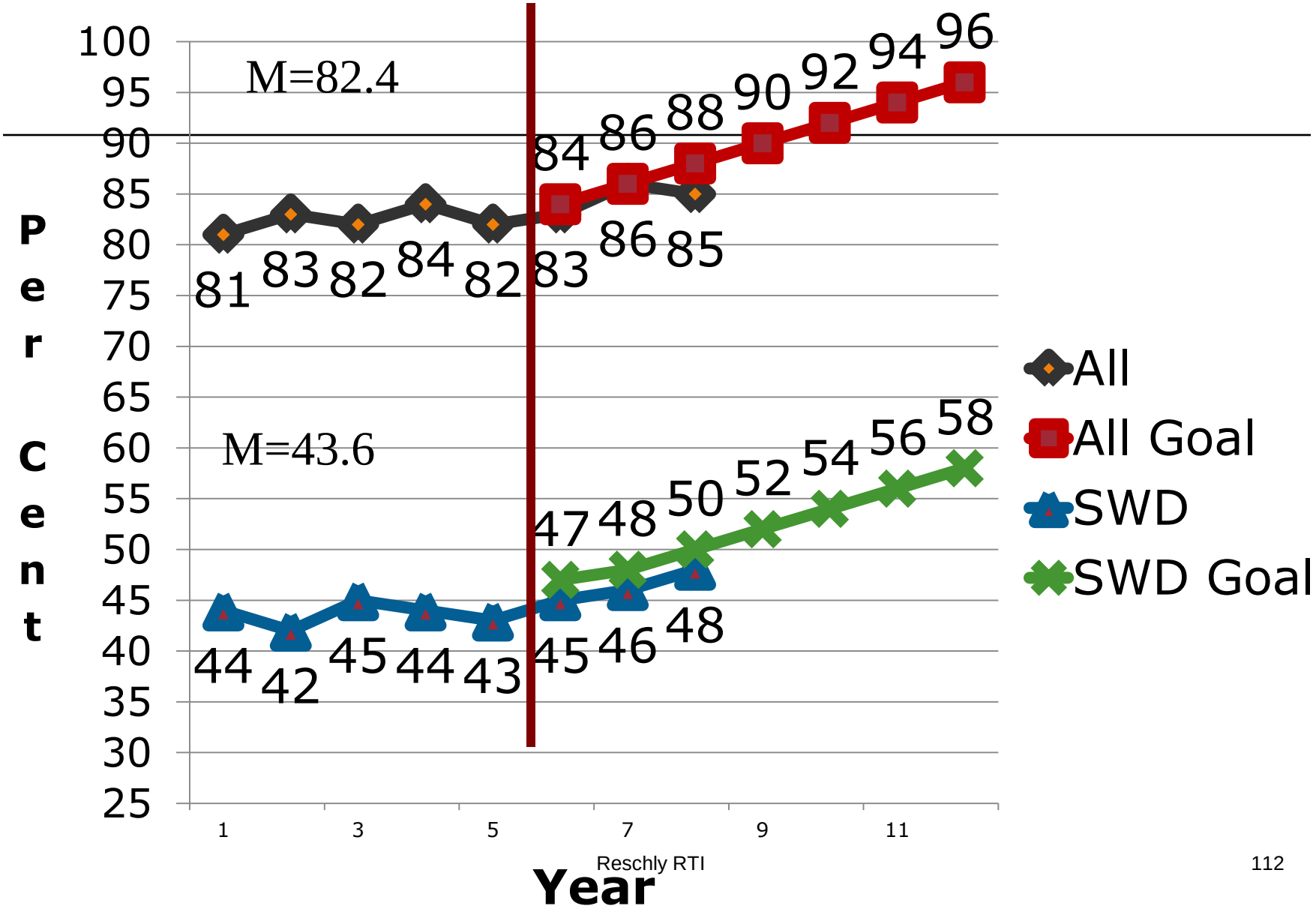
Discussion: Current Tier II Options in District

- Behaviors
  - Determining participation?
  - Design?
  - Data?
  - Decision Making?

Problem Solving Secondary

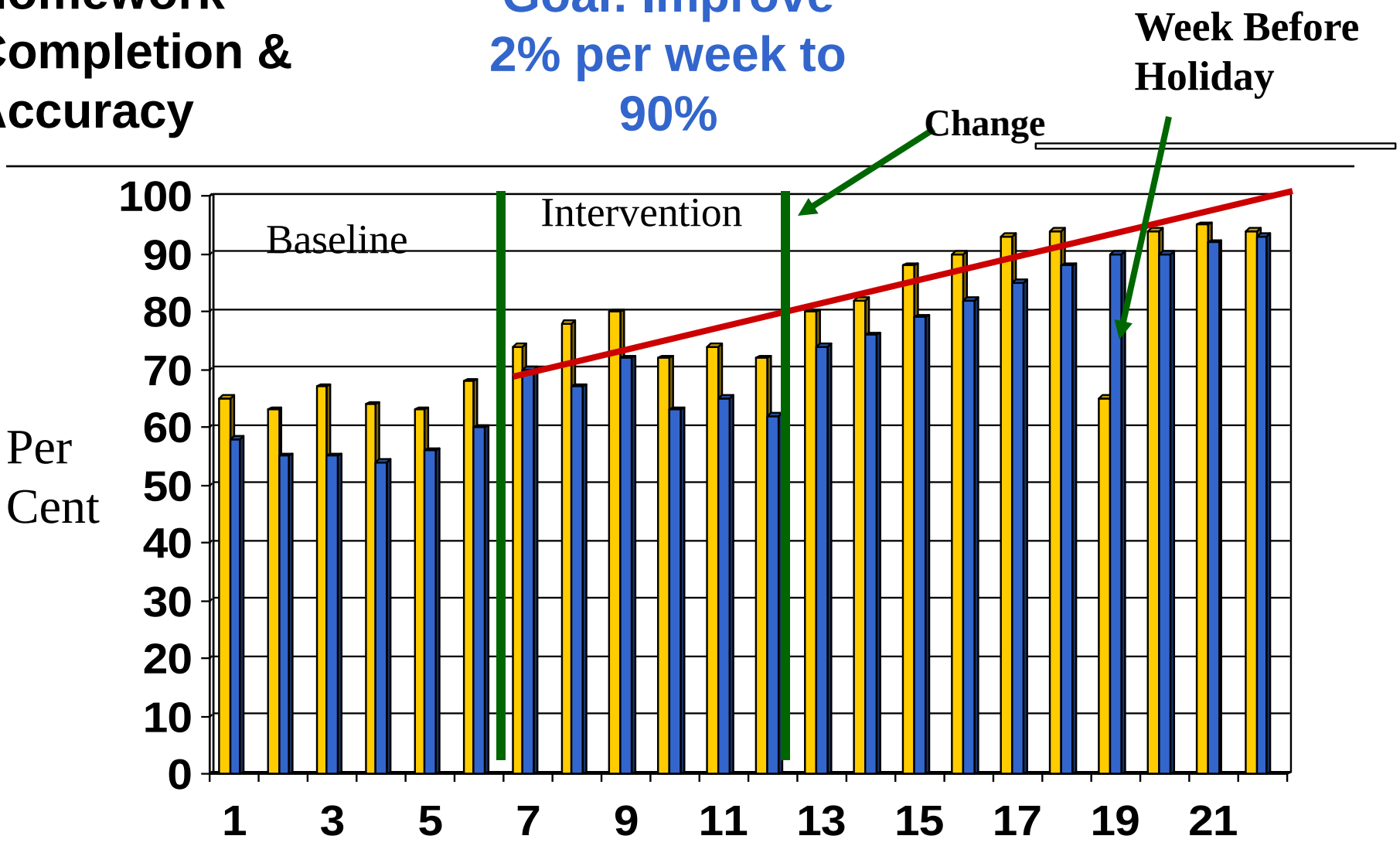
- Intervention principle
- Intervention tactics
- Progress monitoring

Graduation Rates and Goals



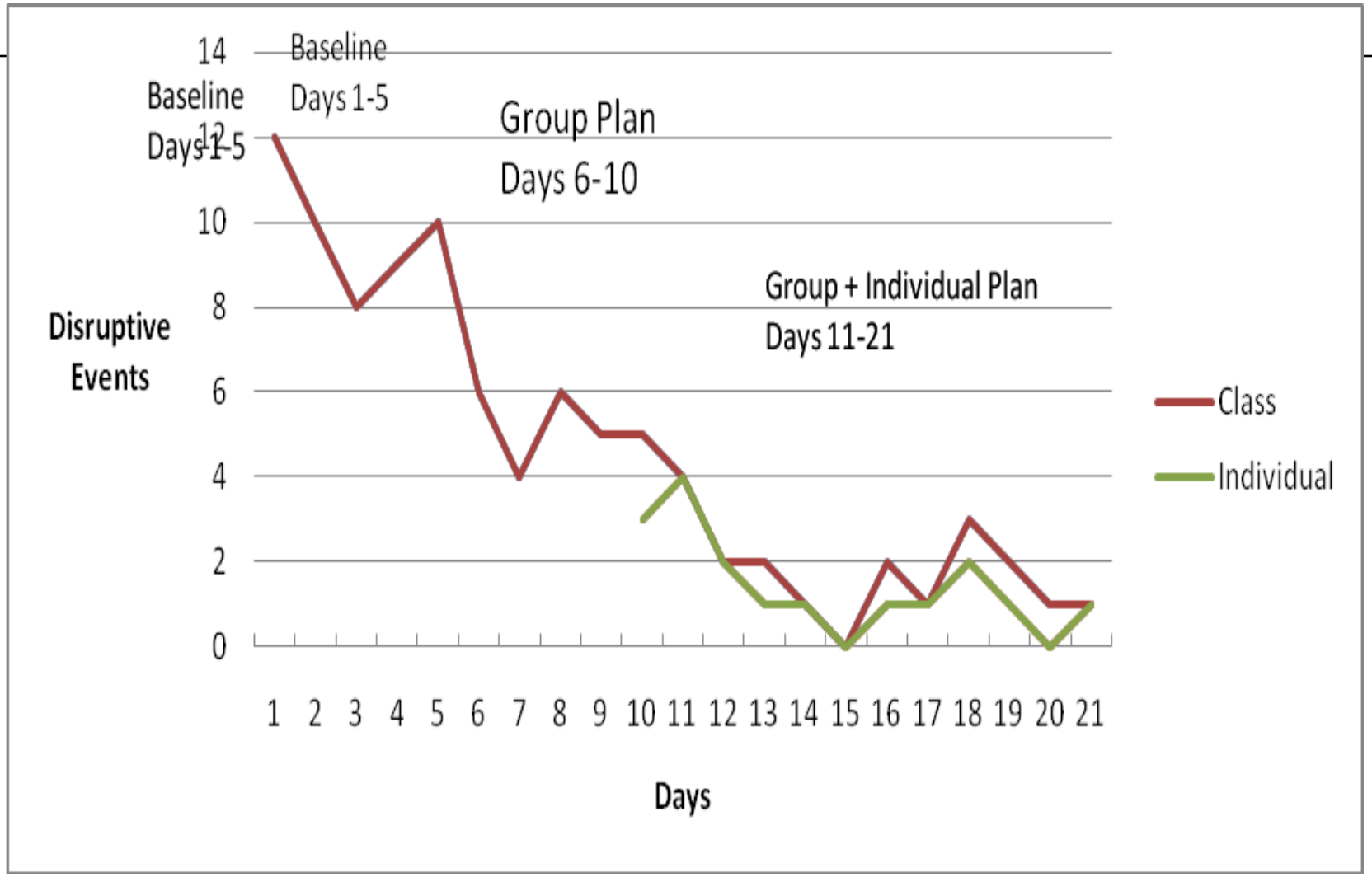
Homework Completion & Accuracy

Goal: Improve 2% per week to 90%



Reschly RTI 113

Figure 4. Disruptive Events: Individual Plan added to Class-wide Plan



Tier I: Behavior: Classroom Organization and Behavior Management

http://www.cde.ca.gov/ls/ss/se/classroommgmt.asp

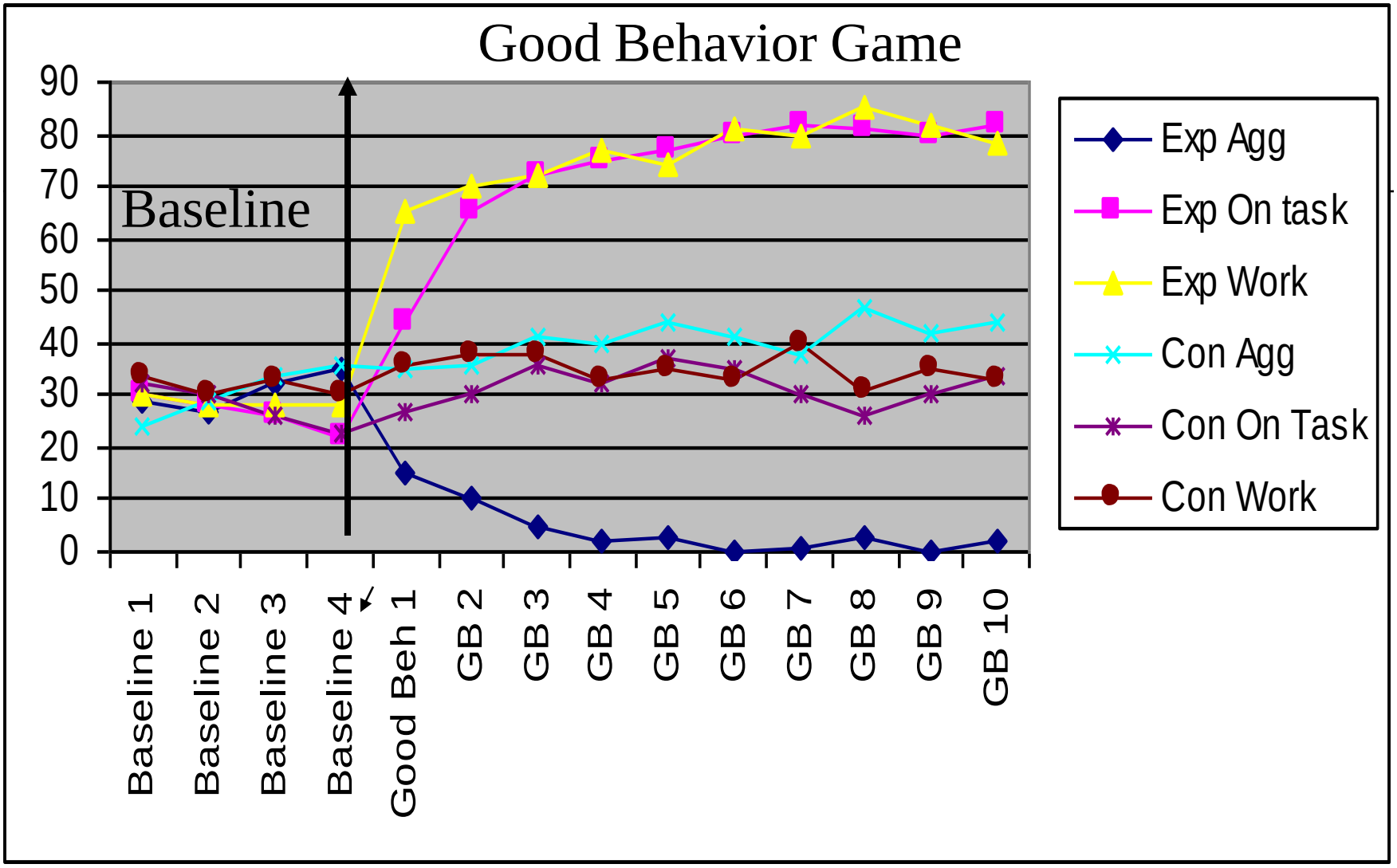
- Kellam, Baltimore Schools
  - Students randomly assigned to 1st grade teachers, then classroom was the unit of analysis
  - Classrooms observed during first 9 wks., high rates of disruptive behavior and aggression, large differences across classrooms
  - Classrooms randomly assigned to,
    - Experimental condition: Good Behavior Game (Barrish, et al, 1969; Sulzer-Azaroff & Mayer, 1991) vs.
    - Control condition of in-service on general curriculum issues

Kellam Research: Classroom Organization and Management

- Good Behavior Game (Barrish, et al., 1969)
  - Group contingency
  - Two groups formed into teams
  - Define rules and positive behaviors
  - Teams compete for positive consequences
  - Team with highest rate of appropriate behaviors earn "rewards"
    - Lining up first, Help teacher pick-up classroom, free time, etc.

Kellam Research: Effects of Good Behavior Game Were Statistically Significant

- Aggression and disruptive behavior continued in control classrooms
- Marked reduction in experimental condition
- Experimental classrooms had higher academic productivity and achievement
- Aggressive students in both conditions followed through 6th grade and first grade classroom effects persisted
- First grade experience sets academic and behavioral trajectory


Good Behavior Game
90
80
70
60
50
40
30
20
10
0
Baseline
Baseline 1
Baseline 2
Baseline 3
Baseline 4
Good Beh 1
GB 2
GB 3
GB 4
GB 5
GB 6
GB 7
GB 8
GB 9
GB 10
Exp Agg
Exp On task
Exp Work
Con Agg
Con On Task
Con Work

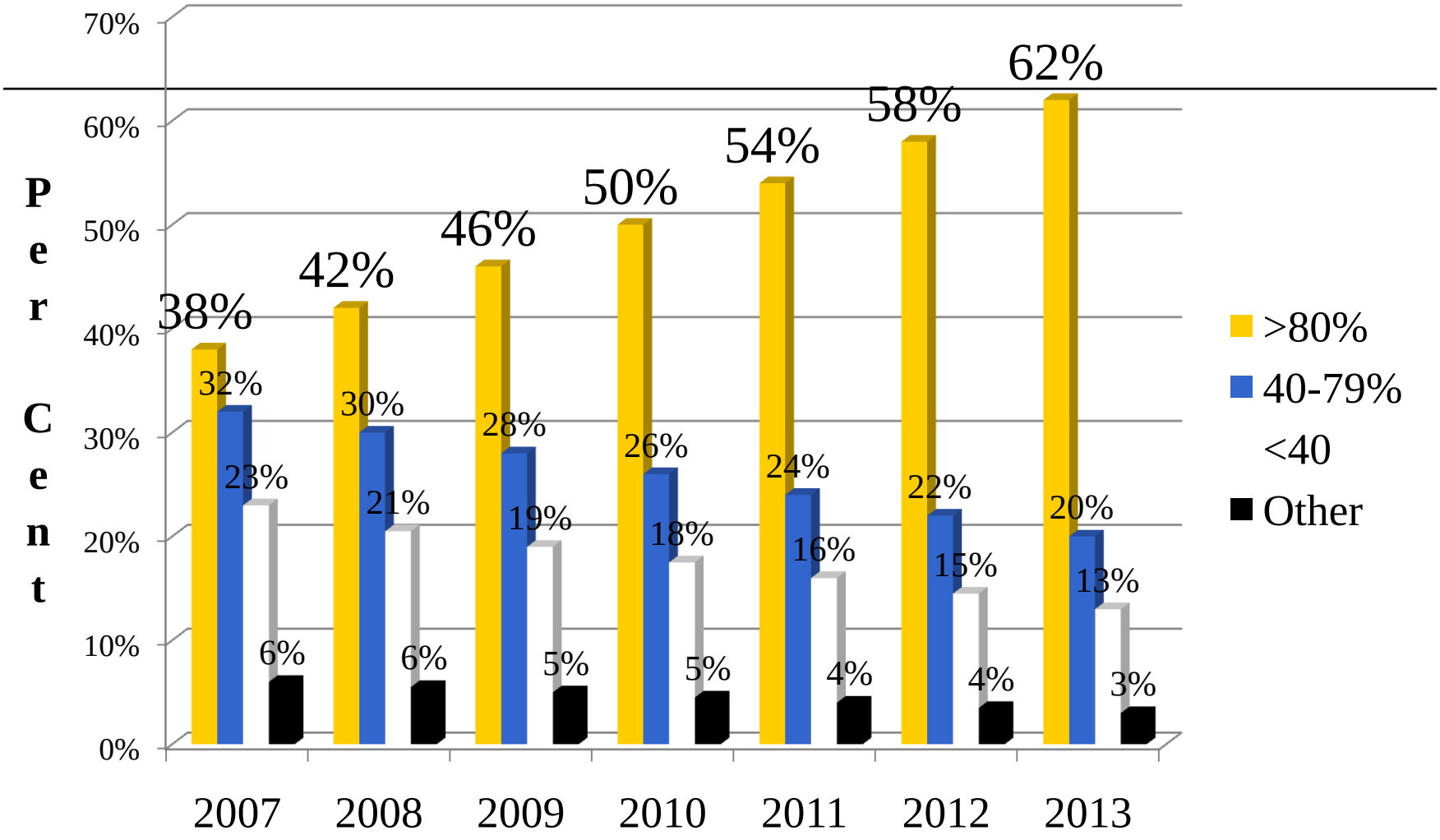
Implications of Classroom Organization and Behavior Management

- Classroom organization and behavior management are crucial to student success
  - "Teacher's skills at classroom management were then critical to children's socialization, particularly in the face of family poverty." (Kellam, et al., 1998a, p. 182)
  - "Teacher training typically does not provide effective methods and experience in classroom behavior management." (Kellam, et al., 1998, p. 182).
- Bradshaw, C. P., Zmuda, J. H., Kellam, S. G., & Ialongo, N. S. (2009). Longitudinal impact of two universal preventive interventions in first grade on educational outcomes in high school. *Journal of Educational Psychology, 101*, 926-937.

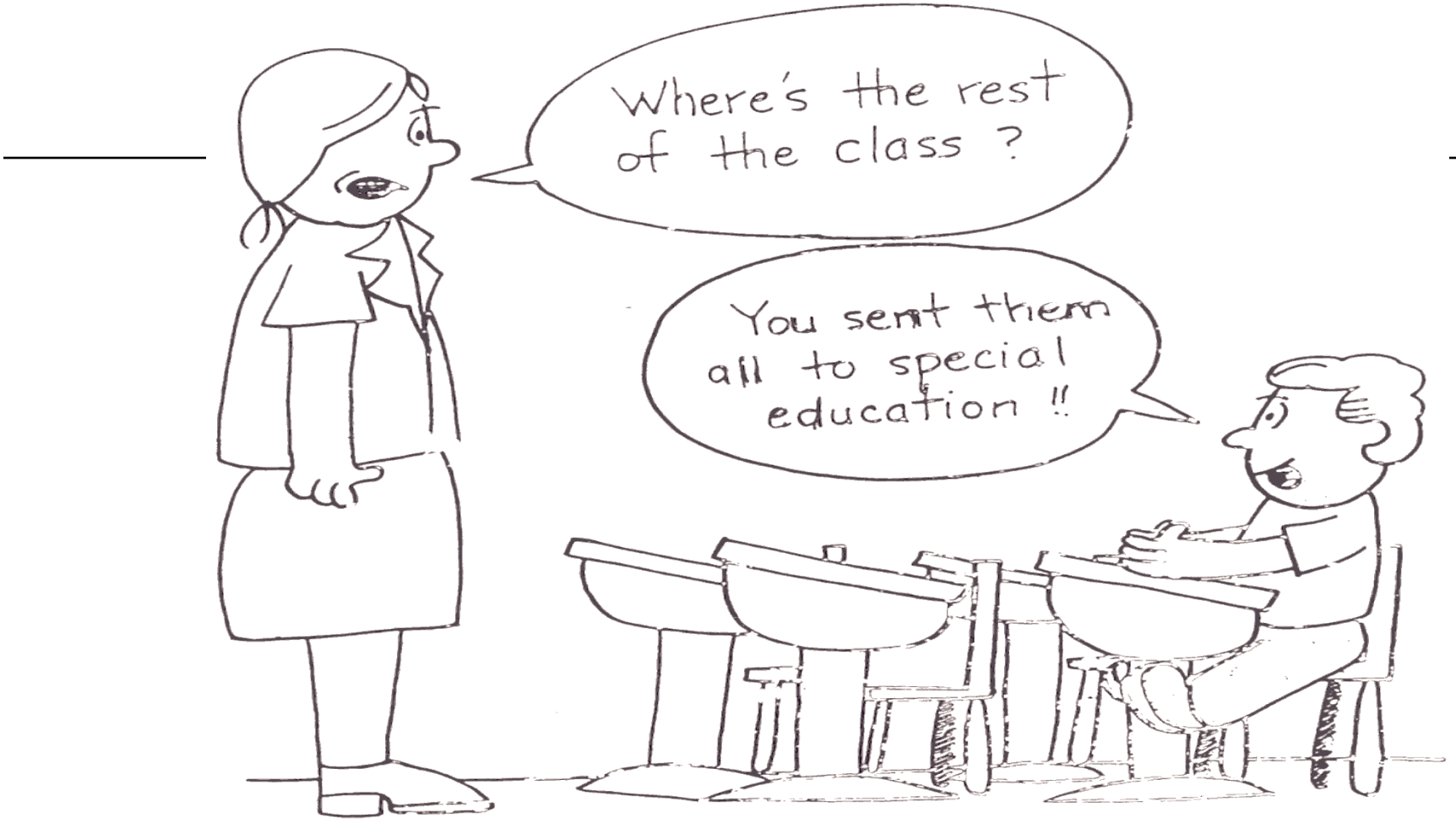
Classroom Organization and Behavior Management

- Classrooms vary significantly in organization and management
- Influences engaged time and academic productivity
- Influences incidence of behavior problems
- Discipline issues: major cause for teacher attrition
- Most new teachers to not believe they are adequately prepared, especially for classrooms with culturally diverse, economically disadvantaged students
- Teacher preparation vs teacher needs

Goal: Meet or Exceed State and US LRE Profile



Old Model: Refer-Test-Place



New Model: Prevention and Early Identification/Treatment

Scientifically Based Reading Instruction IC?

- Essential key components (content validity)
  - *Preventing reading difficulties in young children* (Snow, Burns, & Griffin, 1998).
  - *Teaching children to read: An evidence-based assessment of the scientific research literature on reading and its implications for reading instruction* (National Reading Panel, 2000).
  - Policy support
    - ESEA (NCLB, 2002)
    - IDEA (2004, 2006)

Innovation Configurations (IC) (Hall & Hord, 1987; Roy & Hord, 2004)

- Vanderbilt University's TQ Center ICs
  - Scientifically Based Reading Research (Smartt & Reschly)
  - Classroom Organization and Behavior Management (Oliver & Reschly)
  - Inclusive Practices (Holdheide & Reschly)
  - Learning Strategies (Schumaker)
  - Problem Solving (Reschly & Wood-Garnett)
  - Mathematics (McGraner, VanDerHeyden, & Holdheide)
  - Assessment (Hosp)
- www.tqsource.org

SBRI Innovation Configuration

Key Essential Component	**None** Code = 0	**Mention Only** Code = 1	**Mention Plus Readings/ Tests** Code = 2	**Plus Assignments** Code = 3	**Plus Supervised Practice** Code = 4
SBRI and Federal Policy					
Phonemic Awareness					
Phonics					
Fluency					
Vocabulary					

SBRI Innovation Configuration

Key Essential Component	**None** Code = 0	**Mention Only** Code = 1	**Mention Plus Readings/ Tests** Code = 2	**Plus Assignments** Code = 3	**Plus Supervised Practice** Code = 4
Comprehen-sion					
Integration					
Systematic Instruction					
Explicit Instruction					
Screening Assessment					
Progress Monitoring					

What Is an Innovation Configuration?

- Used for more than 30 years in development and implementation of educational innovations and methodologies.
  - Used to evaluate programs and fidelity of implementation of educational interventions.
  - Most commonly used as professional development tools (i.e., to guide implementation of innovation within a school and to facilitate the change process).

Levels of Implementation

- ***No mention.*** The component is not mentioned — Code 0
- ***Mentioned.*** The component is mentioned — Code 1
- ***Mentioned, plus readings/tests*** are specified — Code 2
- All prior levels, ***PLUS assignments such as papers, projects*** are required — Code 3
- All prior levels, ***PLUS supervised practice (field work) with feedback about degree of success*** are required — Code 4

Problem Solving Teacher Preparation Innovation Configuration

Key Essential Component	**None** Code = 0	**Mention Only** Code = 1	**+ Readings/ Tests** Code = 2	**+Assign ments** Code = 3	**+ Supervised Practice** Code = 4
Attitudes, Beliefs, Essential Informa					
Instructional Competencies					
Clsm Organ & Beh Mgmt					
Problem Solving Competencies					
Collaboration in Classroom, School, and District RTI					

Application of Innovation Configurations

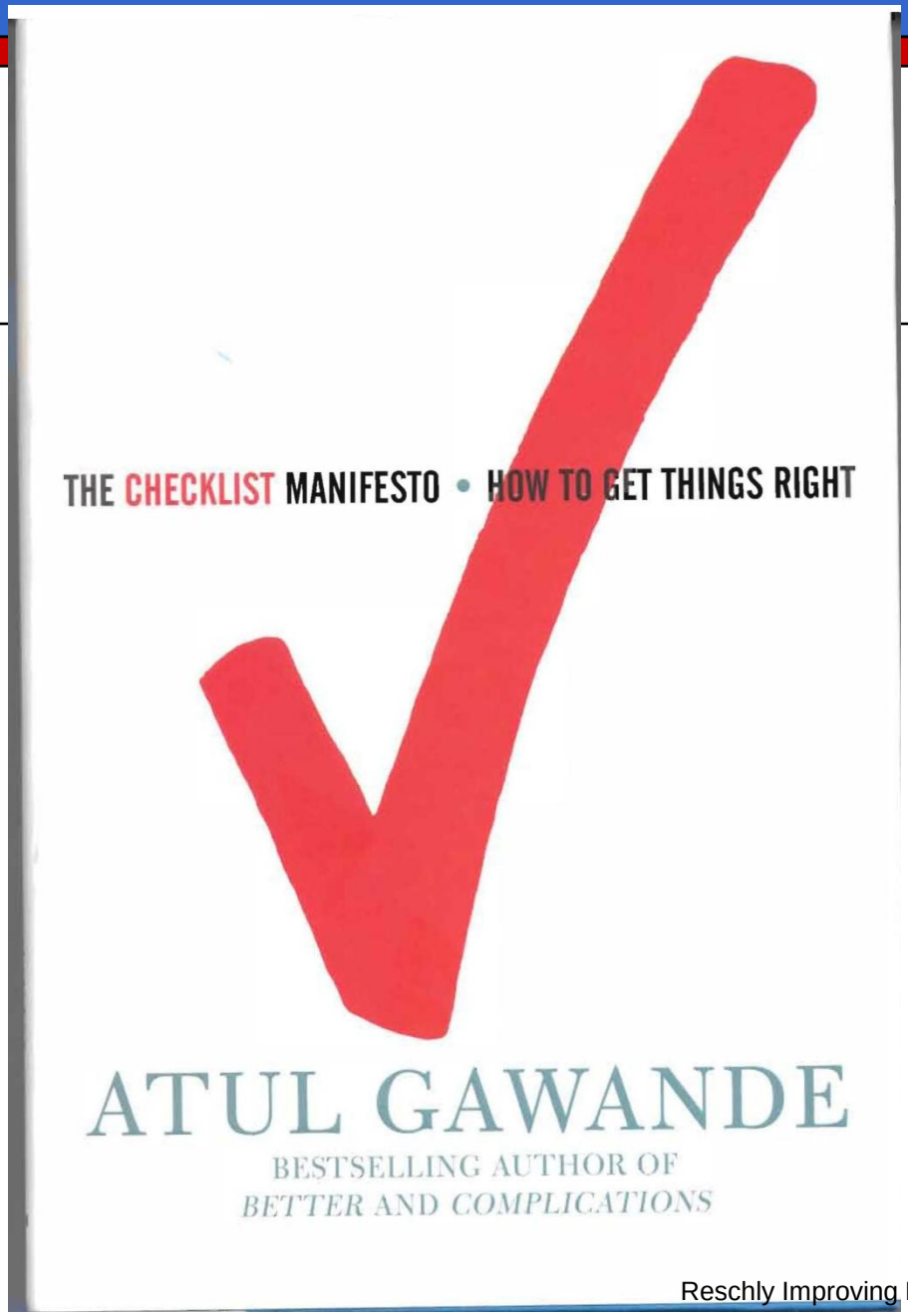
- Institution of higher education (IHE) faculty self-assessment, self-reflection, course improvement
- IHE department heads, deans, and other university administrators interested in ensuring high-quality instruction in teacher preparation programs
- State departments of education seeking to unify instruction statewide with common language and goals consistent with federal policy (e.g., Maryland and Colorado)

Application of Innovation Configurations cont.

- Design of professional development
- Professional association standards
- State licensure and teacher education program approval requirements

Fidelity of Implementation

- RTI Process: Good results with good fidelity
- Fidelity cannot be assumed
- Development of protocols, checklists
- Daily checklist completed
- Direct observation when results fall short of goals
- Do we, educational professionals, need checklists??



Gawande, A. (2009). *The Checklist Manifesto: How to Get Things Right.* New York: MacMillan.

Gawande's Checklist Manifesto

- Checklists: Force function, that is, remind us to do routine behaviors that are essential to accomplishing complex tasks
- Many examples
  - Aviation checklists-3 long checklists to get to runway
  - Medicine-routine administration of pediatric immunizations, no distractions, 4 steps before
  - Medicine-surgery procedures (infection, bleeding, anesthesia)

Gawande's Checklist Manifesto cont.

- Central line insertion in medicine: Tube to a major vein
- Routine Procedure, but infection rates too high—lead to enormous negative consequences
- Checklist developed that reduced infection rates by 66%
  - Wash hands thoroughly with anti-bacterial soap
  - Clean patient's skin with chlorhexidine antiseptic
  - Sterile drapes over the patient
  - Wear mask, hat, sterile gown, gloves
  - Put sterile dressing over the insertion sit

Gawande's Checklist Manifesto cont.

- Surgery checklist-international study involving wide range of hospitals
- Three checklists regarding routine behaviors
  - Seven item checklist before anesthesia
  - Seven item checklist prior to incision
  - Five item checklist at the conclusion of the surgery
- Outcomes? Significant decrease in surgical complications

Acceptance of Checklists by Professionals

- Mixed, often negative reactions: Reasons???
- Survey of Gawande's participants was generally positive
  - Lower for surgeons, higher for nurses
  - 50% to 70% depending on specialty endorsed continued use
  - Question? If you were the surgical patient, would you want the checklist used?
  - Answer: 94% said yes
- Checklists work, but acceptance is mixed

Discussion: Improving Fidelity

- Current district efforts?
- Acceptance of checklists?

Commitment to Better Results

- Shared commitment
- Potential for growth
- Celebrate progress
- Work collaboratively to improve results
- Work hard AND have a good time

President Kennedy on Humor

Three things that are real: God, human folly, and laughter;

The first two are beyond our comprehension

So we must do what we can with the third. John F. Kennedy

Best wishes to you for a great convention and year