Curriculum Based Evaluation (CBE) and Progress Monitoring in Reading

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Learning Targets

Participants will be able to…

- Identify skill deficits within the Big 5
- Select evidence-based interventions based on those skill deficits
- Learn about the new aimsweb and how goal setting/ determining progress will be easier (not out yet!)
- Apply their skills to case vignettes

Why did we decide to present on this topic?

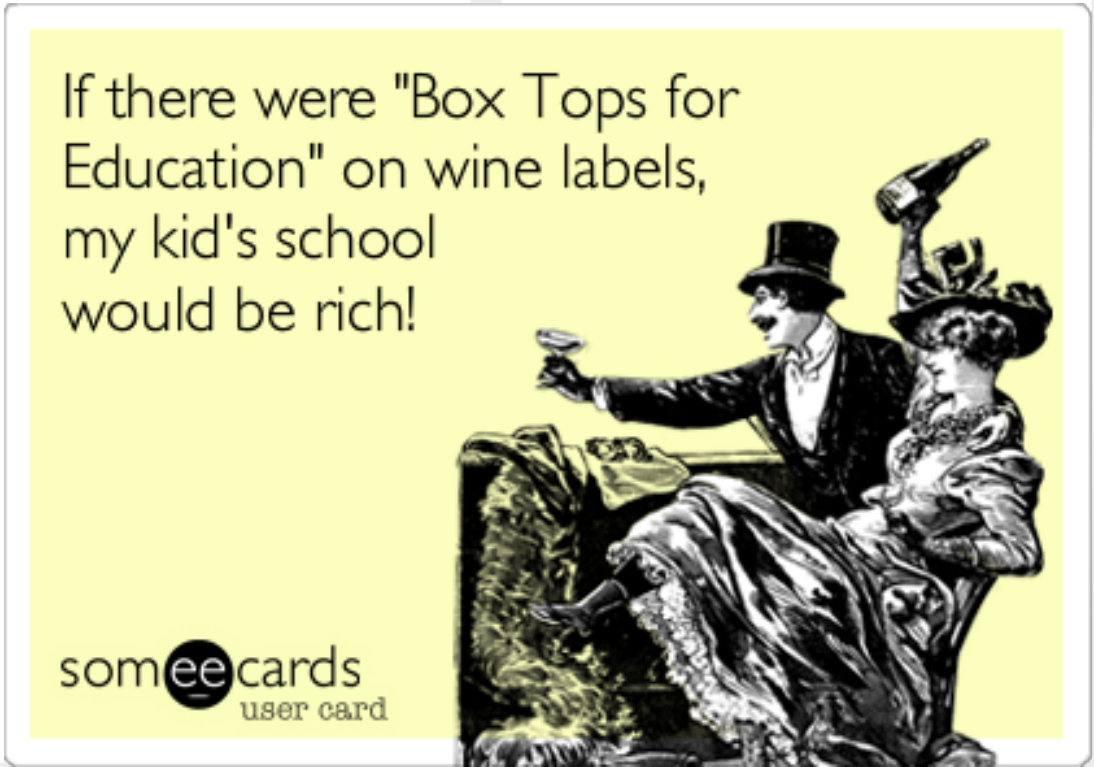
- Based upon needs in our buildings
- Frequent situations of special education evaluations identifying a skill deficit that has not been intervened on
- To provide busy special education teachers with effective and efficient methods of skill deficit identification
- To highlight the multiplicity of school psychologist's knowledge

Pretest

Get out your smartphone or computer

- Go to m.socrative.com
- Enter Virtual Room Number: 315810

**For the last question, just put N/A



Presentation Resources

https://www.dropbox.com/s/9h68lf6k7izph14/CBE%20Tools.zip

Big 5 in Reading

1. Phonemic Awareness
2. Alphabetic Principle
3. Fluency
4. Comprehension
5. Vocabulary

Examples of Big 5

1. What is the last sound in b-i-g? *(phonemic awareness)*

2. S - what sound does this letter make? *(alphabetic principle)*

3. “I went to the store yesterday” *(fluency)*

4. I felt jumpy before our presentation *(comprehension)*

5. Bacchanalian CSSP silent auction *(vocabulary)*

Big 5 Quiz

What component is lacking?

1) “I w-w….went….to the…..store”

2) Boot read as “butt”

3) Why were you jumping before your presentation?

4) Bag rhymes with peg!

5) Transparent means moving to a new place

What is CBE?

"CBE is a systematic problem-solving process for making education decisions."

(Howell et al., 2008; p. 353)

- What to teach and how to teach it.
- If ____ then ____
- Traditional assessment practices vs. curriculum-based approaches
    - Curriculum-based approaches "provide teachers with a level of specificity about student performance so as to pinpoint where to begin instructionally"
      (National Center on Accessible Instructional Materials)

When to use CBE…

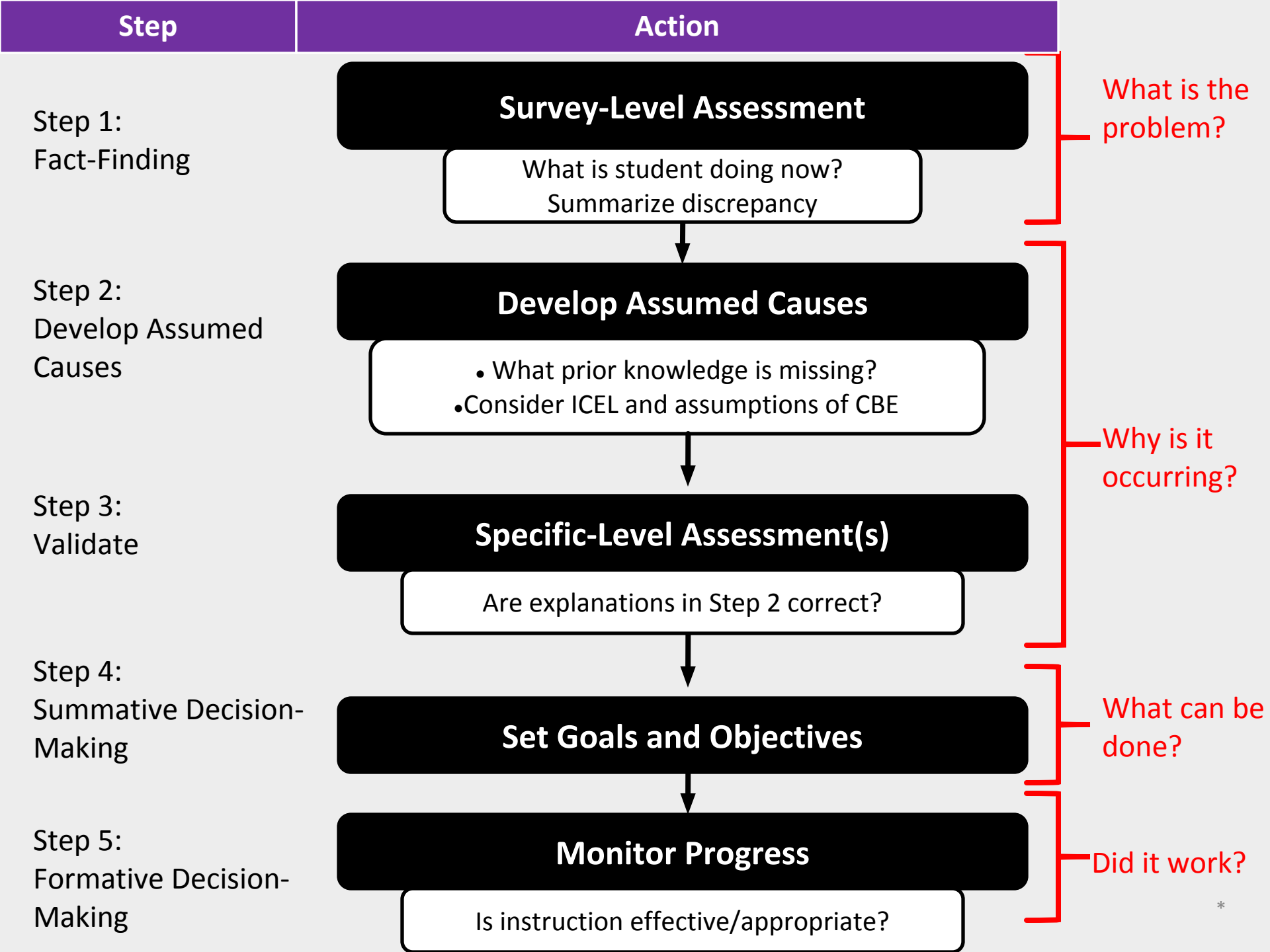
- As a part of your school's problem solving RtI/MTSS process to determine tier II and tier III interventions for students

- Can be included in our individualized evaluations for Special Education to inform instruction

CBE Process of Inquiry

Credit: Jason Harlacher, PhD, NCSP
Colorado Department of Education, Denver, CO
Tami Sakelaris, PhD, NCSP
Kelly Humphreys, PhD, NCSP
Washoe County School District, Reno, NV

NASP 2011


Step
Action
Step 1:
Fact-Finding
Survey-Level Assessment
What is student doing now?
Summarize discrepancy
Step 2:
Develop Assumed
Causes
Develop Assumed Causes
• What prior knowledge is missing?
•Consider ICEL and assumptions of CBE
Step 3:
Validate
Specific-Level Assessment(s)
Are explanations in Step 2 correct?
Step 4:
Summative Decision-
Making
Set Goals and Objectives
Step 5:
Formative Decision-
Making
Monitor Progress
Is instruction effective/appropriate?
What is the problem?
Why is it occurring?
What can be done?
Did it work?

Step 1: Survey Level Assessment
(Define and examine the Problem)

- **Difference between current performance and the expected performance**
  - Example: Susie is currently reading 30 words correct per minute on a grade level DIBELS passage. The expectation is that she is reading 44 words correct per minute. This represents a difference of 14 words correct per minute.

- RIOT
  - Review (grades, running records, cumulative files)
  - Interview (teacher, student, parents)
  - Observe (instruction, time on task, etc.)
  - Test (In areas of suspected deficits)

2. Analyze the Problem and Develop Assumed Causes

- What prerequisite skills are missing?
- Is it a skill acquisition, fluency, or performance problem?
- In CBE the focus is on alterable variables

	Step 1: Fact-Finding	Step 2: Assumed Causes	Step 3: Specific-Level Assessments	Step 4: Summative Decisions
Evaluator 1	Slow and inaccurate decoding	Is student weak in visual processing?	Measure of cognitive/ perceptual ability	Conclusions about things *not* in curriculum
Evaluator 2	Slow and inaccurate decoding	Does the student know phonics?	Phonics measure	Conclusions about things *in* curriculum

(Howell et al., 2000)

3. Validate (Specific-Level Assessment)

Administer assessments to validate or invalidate hypotheses.

CBM!!

- AIMSweb
- DIBELS Next
- EasyCBM

4. Summative Decision Making

- Summarize the information collected so far and select goals. Develop instructional plan
  - *When given a 3rd grade reading passage, Bart will read 66 WRC with at least 95% accuracy by Jan 15, 2014.*
  - *Justin will improve his decoding skills to 32 words correct per minute with 95% accuracy on AIMSweb Nonsense Word Fluency probes by December 19, 2013.*

*

5. Formative Decision Making

To confirm and check that the instructional plan is effective for the student.

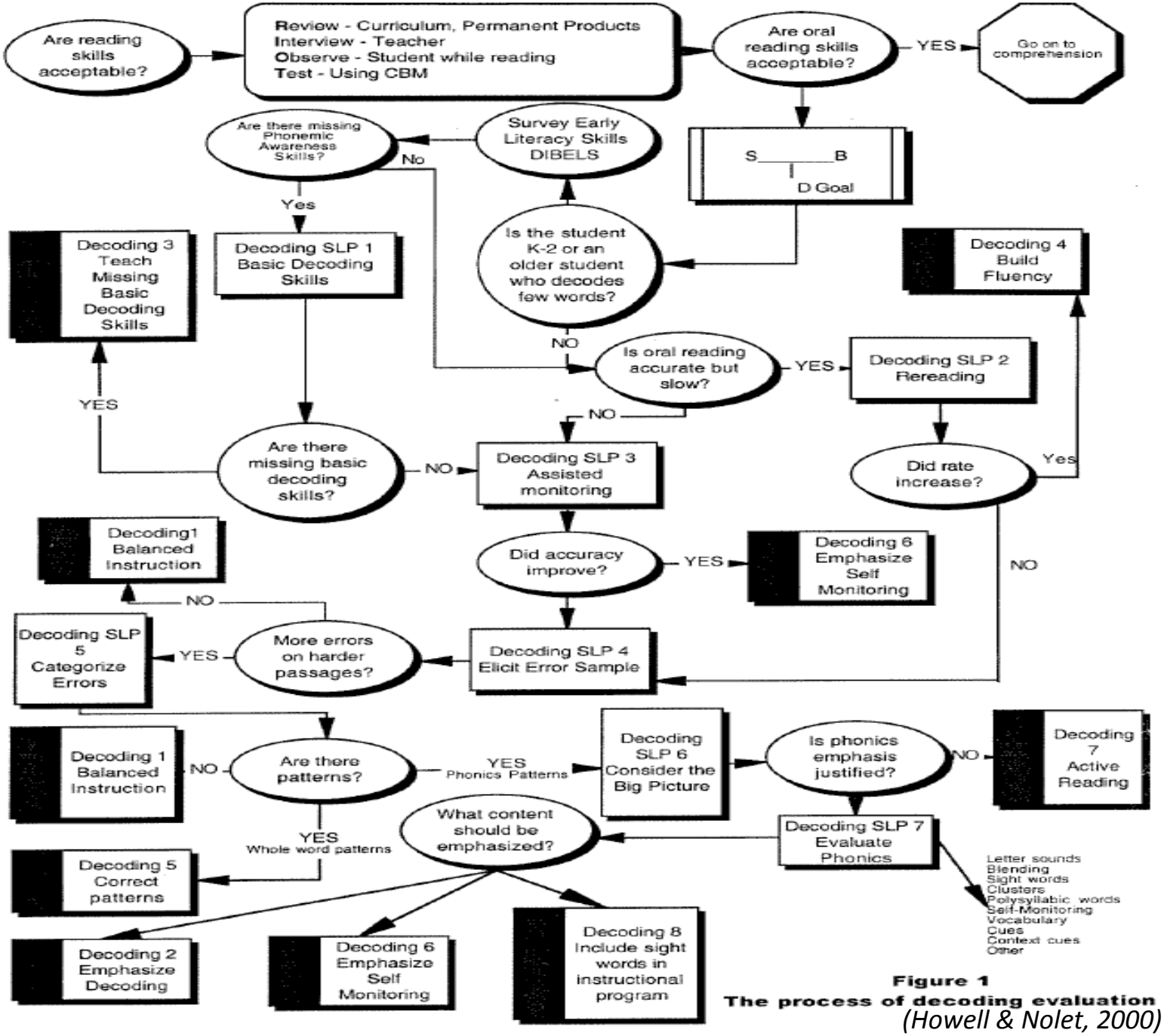
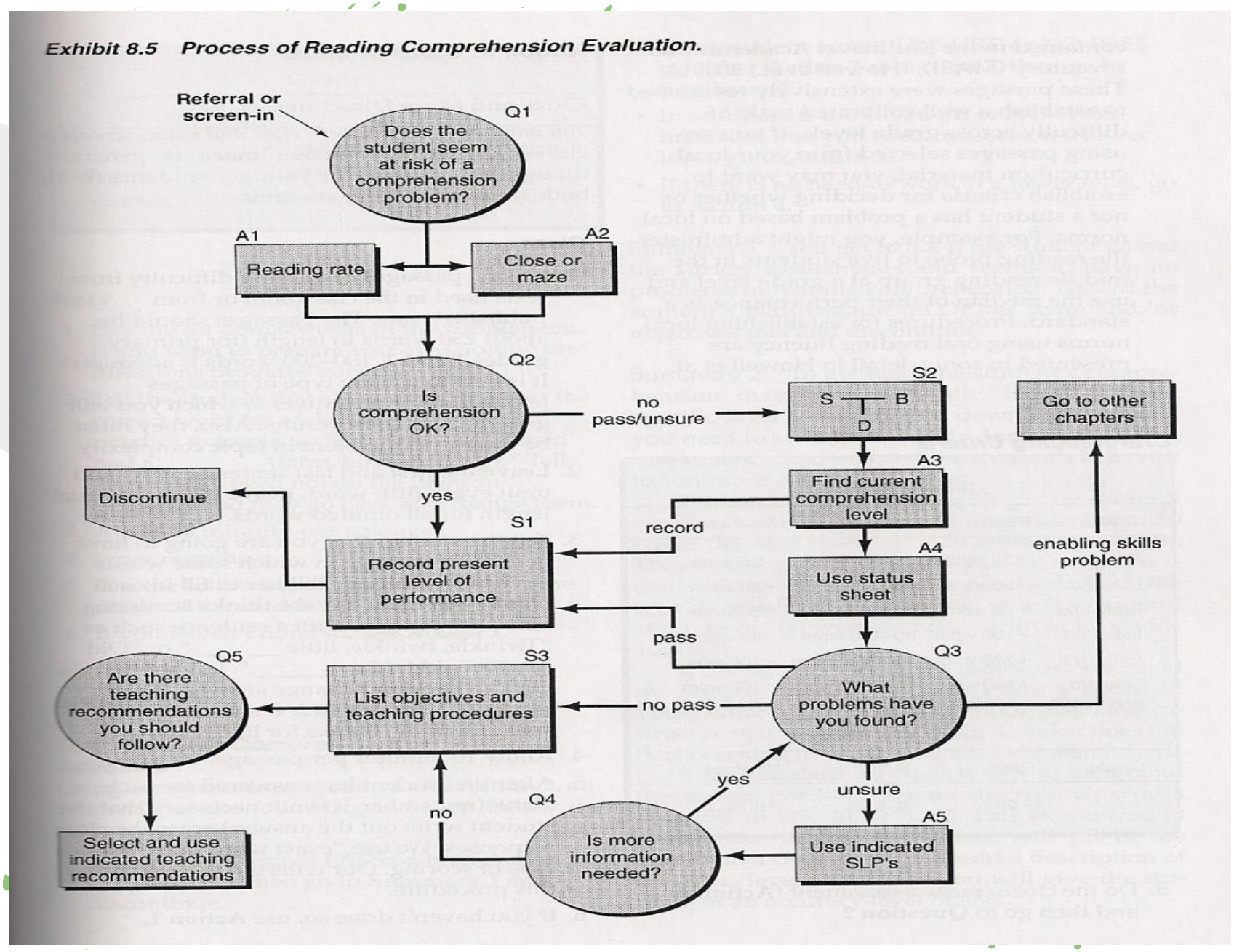


Figure 1
The process of decoding evaluation
(Howell & Nolet, 2000)

Exhibit 8.5 Process of Reading Comprehension Evaluation.



(Howell & Nolet, 2000)

The new aimsweb Rate of Improvement

- ROI Growth Norms are percentile norms that indicate the percentage of students in the large representative norm sample who had ROIs equal to or smaller than the particular ROI.

- What do we know about student growth?

ROI Growth Norms

- Five separate sets of ROI growth norms were developed for each grade and time interval (fall- winter, winter-spring, and fall-spring) that correspond to five ranges of initial scores (very low, low, average, high, very high).
- Helps teachers more accurately interpret each student's progress and set realistic yet challenging goals.

AIMSweb

AIMSweb ROI Growth Norms Tables—Reading–CBM *(continued)*

Grade	Initial Level	Percentile	ROI			Percentile
			Fall–Winter	Winter–Spring	Fall–Spring	
2	Very High	95	≥ 2.11	≥ 1.73	≥ 1.53	95
		85	1.68–2.10	1.34–1.72	1.29–1.52	85
		75	1.40–1.67	1.07–1.33	1.12–1.28	75
		65	1.17–1.39	0.83–1.06	0.99–1.11	65
		55	0.94–1.16	0.61–0.82	0.86–0.98	55
		45	0.71–0.93	0.41–0.60	0.73–0.85	45
		35	0.47–0.70	0.18–0.40	0.60–0.72	35
		25	0.19–0.46	−0.07–0.17	0.44–0.59	25
		15	−0.25–0.18	−0.49–−0.08	0.20–0.43	15
		5	≤ −0.26	≤ −0.50	≤ 0.19	5
	High	95	≥ 2.43	≥ 1.81	≥ 1.73	95
		85	2.05–2.42	1.42–1.80	1.50–1.72	85
		75	1.76–2.04	1.19–1.41	1.34–1.49	75
		65	1.54–1.75	0.98–1.18	1.20–1.33	65
		55	1.34–1.53	0.79–0.97	1.08–1.19	55
		45	1.14–1.33	0.61–0.78	0.97–1.07	45
		35	0.93–1.13	0.41–0.60	0.85–0.96	35
		25	0.67–0.92	0.19–0.40	0.71–0.84	25
		15	0.35–0.66	−0.14–0.18	0.51–0.70	15
		5	≤ 0.34	≤ −0.15	≤ 0.50	5
	Average	95	≥ 2.48	≥ 1.83	≥ 1.82	95
		85	2.13–2.47	1.51–1.82	1.59–1.81	85
		75	1.88–2.12	1.28–1.50	1.44–1.58	75
		65	1.68–1.87	1.10–1.27	1.32–1.43	65
		55	1.50–1.67	0.93–1.09	1.21–1.31	55
		45	1.33–1.49	0.77–0.92	1.10–1.20	45
		35	1.15–1.32	0.60–0.76	0.99–1.09	35
		25	0.94–1.14	0.40–0.59	0.86–0.98	25
		15	0.66–0.93	0.13–0.39	0.70–0.85	15
		5	≤ 0.65	≤ 0.12	≤ 0.69	5
	Low	95	≥ 2.59	≥ 1.84	≥ 1.92	95
		85	2.25–2.58	1.54–1.83	1.71–1.91	85
		75	2.05–2.24	1.34–1.53	1.57–1.70	75
		65	1.87–2.04	1.19–1.33	1.44–1.56	65
		55	1.70–1.86	1.04–1.18	1.34–1.43	55
		45	1.52–1.69	0.89–1.03	1.24–1.33	45
		35	1.32–1.51	0.74–0.88	1.13–1.23	35
		25	1.08–1.31	0.57–0.73	1.01–1.12	25
		15	0.73–1.07	0.34–0.56	0.83–1.00	15
		5	≤ 0.72	≤ 0.33	≤ 0.82	5
	Very Low	95	≥ 2.01	≥ 1.88	≥ 1.70	95
		85	1.53–2.00	1.56–1.87	1.44–1.69	85
		75	1.22–1.52	1.32–1.55	1.27–1.43	75
		65	1.00–1.21	1.13–1.31	1.11–1.26	65
		55	0.81–0.99	0.93–1.12	0.94–1.10	55
		45	0.64–0.80	0.73–0.92	0.76–0.93	45
		35	0.49–0.63	0.55–0.72	0.59–0.75	35
		25	0.34–0.48	0.36–0.54	0.43–0.58	25
		15	0.17–0.33	0.14–0.35	0.24–0.42	15
		5	≤ 0.16	≤ 0.13	≤ 0.23	5

continued

What about the Common Core State Standards?

- “The primary value of AIMSweb is not to serve as content valid measures of the CCSS. Consistency is important, but the primary usefulness of AIMSweb is to complement the attainment of the CCSS by facilitating early intervention for those students at risk by time and cost effective universal screening and frequent progress monitoring.” (Shinn, 2012)

- http://www.aimsweb.com/wp-content/uploads/CBM-Common-Core_Mark-Shinn1.pdf

Case Vignette #1 - Miley Cyrus

- First-grade student
- Parent referral to PST due to reading concerns and strange adult-themed behaviors

Existing data (AIMSweb)

- Nonsense Word Fluency- 10 (7%ile)
- Phoneme Segmentation Fluency- 14 (10%ile)
- Letter Naming Fluency- 37 (28%ile)
- Letter Sound Fluency- 17 (16%ile)

Tier Two Intervention

Intervention: letter names and sounds

-Selected due to low LSF and NWF

Student Progress (LSW):

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
18	24	12	27	26	32

Progress made on LSW, but winter benchmark reveals very low NWF

CBE Data

Based on phoneme segmentation score (at risk range) and teacher report of Miley's struggles combining sounds...

Additional data collection:

- Rhyming probe -> inconsistent
- Blending and Segmenting probe -> unable to blend sounds at compound word level
- Above results corroborate segmentation data

New Intervention Plan

- Rhyme Time
  - Student generate rhymes to words in story
- Making Words
  - Student combines letters/sounds to make simple words
- Stretch and Shrink
  - Classroom to provide opportunities for student to stretch and shrink words during class

Benefits of CBE

- Although initial intervention was successful in improving one skill, CBE revealed further skill deficits to explain low performance
  - Tier 1 is not meeting Miley's needs in more than one area

- New intervention plan targets wider range of deficit skills

Case Vignette #2 - Von Miller

- Third-grade student
- Teacher-referred to PST due to reading difficulties, poor decision making skills

Existing data (DIBELS):

- Oral Reading Fluency- 40 (at risk)

Tier Two Intervention

Intervention: repeated readings

-Selected due to very low ORF

Student Progress (ORF):

Week 1	Week 2	Week 3	Week 4	Week 5	Week 6
43	38	41	44	39	36

Consistently low accuracy rate on ORF passages

CBE Data

Error analysis of ORF passages

Consistent mistakes with consonant digraphs within text

Quick phonics screener

–3 out of 10 consonant digraphs correct in list

•e.g., sh<u>ap</u>, wh<u>um</u>, ga<u>ck</u>, mi<u>ch</u>

–4 out of 10 consonant digraphs correct in text

•e.g., th<u>at</u>, du<u>ck</u>, wh<u>en</u>, wi<u>th</u>

New Intervention Plan

- Phonics Instruction Intervention

–Instructor creates a list of sounds for student to practice (focusing on consonant digraphs)

- e.g., th, ck, wh

–Instructor prompts student to read sounds in isolation, then within words, then within a story

- Progress monitoring continues weekly

Benefits of CBE

- Assessment revealed specific skill deficit
  - Targeted data collection provided information beyond existing information provided to PST
- Intervention tied directly to instruction level and instructional needs of the student
  - Likely to lead to more progress!

Case Vignette #3 - Peyton Manning

- 9th grade student
- Parent referral due to low grades in English and other subjects
- Well-liked, influential family

Existing data

- D in English I
- CSAP score-PP in writing, Unsat in reading

Tier Two Intervention

Intervention: ?

How many reasons can you think of for why a 9th grade boy would struggle in English?

(low motivation, distractibility, poor organization, academic skill deficit, low work completion, poor relationship with teacher, etc.)

CBE Data

EasyCBM Passage Reading Fluency (grade 8)

180 words correct (between 50-75%ile)

EasyCBM Multiple Choice Reading Comp

10 correct (between 10-20%ile)

Metacomprehension Strategy Index

10/25 correct; low scores in self-questioning and drawing from background knowledge

New Intervention Plan

Student placed in reading strategies class

-Instruction to focus on reading comprehension strategies

Progress monitored using EasyCBM Multiple Choice Reading Comprehension

Benefits of CBE

- Instructionally relevant data that can be used to inform an intervention
- Provides starting point for progress monitoring data necessary for eligibility determination
- Rules out fluency as an area of concern

Your Turn!

- Divide into groups based on where you'd like to practice going through the CBE process

  - Lower Elementary
  - Upper Elementary
  - Secondary

Questions?

Posttest

Get out your smartphone or computer

- Go to m.socrative.com
- Enter Virtual Room Number: 315810

**Please answer all questions

References

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