

Decision Utility of DIBELS Next for the California Standards Test

Description:

The presenters will review a decision utility study of DIBELS Next with a diverse sample of students using the California Standards Test (CST) as the criterion. Participants will learn (a) DIBELS Next performance levels that predict that a student is likely to score at or above proficient on the CST and (2) levels that predict that a student is unlikely to perform at or above proficient. Criteria for determining adequate progress on DIBELS Next will be examined.

Speaker(s):

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Placentia Yorba Linda Unified School District

- Located in Orange County (10 miles north of Disneyland)
- K-12 school district
- 25,000 students
- 23% Free or Reduced Lunches
- 17% English Learners
- 9% Students with Disabilities
- District API 868



Our Need

Take a high performing district and address the Board Goal:

“Ensure all students have the opportunity to reach their full potential.”

California Standards Assessment

School Performance - API Growth

School Type	Number with API growth	Percent of schools that made growth targets
Elementary	22	81.8%
Middle	5	80%
High School	4	75%
<u>All schools with an API growth target</u>	33	81.8%

Collaborating on Instruction: Our RTI Experience

- Professional learning communities training
 - Site Team Leaders Training
 - Site training
 - Designated time and plan for PLC at each site
- District Steering Committee Team meets monthly:
 - District and Site Administration, Program Specialist, Psychologist
 - Diagnostic Center,
 - University partners
 - Publisher representatives
- Nine pilot sites identified
 - Chosen based on ability to replicate results
 - Large/Medium/Small, SDC/No SDC, Large/Small EL population

Collaborating on Instruction: Our RTI Experience

- Steering Committee analyzes data from first pilot year and recommends all schools participate in DIBELS testing
- Pilot schools share Rtl plans with similar schools and Steering Committee
- Steering Committee develops “Response to Intervention Tool-Kit” and begins training site leaders at all K-8 schools including information regarding a pyramid of interventions that incorporate general education and special education support.
- “Must Dos” were created and included the first Rtl planning template.
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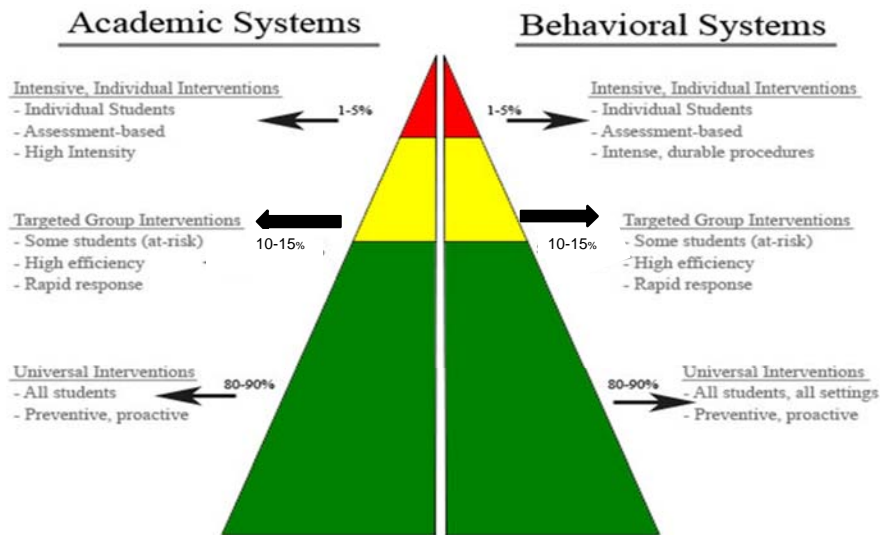
Collaborating on Instruction: Our RTI Experience

- District wide training was provided for instructional teams schools regarding:
 - Passport/Journeys
 - DIBELS Next
 - Language/SRA
- Using DIBELS NEXT data and a district template, schools developed a site Rtl plan.
- Sites began hiring support staff to assist with small group intervention implementation

Collaborating on Instruction: Our RTI Experience

- Universally screening and monitoring of student reading progress using DIBELS Next (K-5) and Voyager (6-8) has been institutionalized. Data from these assessments form the foundation for decisions regarding reading intervention.
- A tiered approach to reading intervention has also been institutionalized and include:
 - HM Core curriculum is the foundation
 - Walk to Read with Project Read (K-2)
 - Voyager Passport and Journeys curriculum, Project Read, Comprehension and reading fluency practice.
 - Language!/SRA
- Progress Monitoring/ Placement/Exit Strategies

Tiers of Intervention:



Decision Making Tools

Spring CST Results

- K-1 District Multiple Measure
- 2nd Grade All Students
- 3rd- Grade Proficient and Below
- 4th-6th-Basic or Below

DIBELS Next Score

- Core/Challenge
- Strategic
- Intensive

PLC Dialogue

- Professional Judgment

Multiple Measures are utilized by the RTI Team to determine initial placement and exit

What does RTI look like?

- Universal screening tool (DIBELS NEXT(K-6))
 - Benchmark 1-September/October
 - Benchmark 2- January/February
 - Benchmark 3- May/June
- Research based intervention of increasing intensity
 - Dedicated block of reading (90 minutes)
 - Walk to Read With Project Read
 - Passport/Journeys
 - Language!/SRA
- Collaborative problem-solving teams
 - Teachers (PLCs) (Speech, RSP, SDC)
 - Psychologist
 - Administrator



Issue

To have teachers adopt benchmarking measures and integrate into their instructional practices, they must believe that the assessments they are using to make progress throughout the year are explicitly linked to the state assessment to which they are ultimately measured.



Replication Questions

- Does DIBELS Next Composite Score provide additional information about reading proficiency?
- Does DIBELS Next Retell provide an indicator of reading comprehension and reading proficiency?
- Does DIBELS Next identify an appropriate number of students as needing support?
- Are students identified as At or Above Benchmark on DIBELS Next likely to achieve literacy goals (i.e., 80% to 90% odds)?
- Are students identified as Below Benchmark uncertain to achieve literacy goals (i.e., about 40% to 50% odds)?
- Are students identified as Well Below Benchmark unlikely to achieve literacy goals (i.e., about 10% to 20% odds) without additional support?
- Do Pathways of Progress™ during the school year matter?

Data Sources for Analysis and Discussion

- **Blue: Placentia Yorba Linda Unified School District Replication Study with California Standards Test outcome.**
- **Green: DMG Benchmark Goal Study with GRADE outcome.**
 - **Official DIBELS Next benchmark goals and cut points for risk** are available at:
 - <http://dibels.org/papers/DIBELSNextBenchmarkGoals.pdf>
 - A detailed description of the design and development of the official DIBELS Next benchmark goals and cut points for risk is provided in the **DIBELS Next Technical Manual** available on the DIBELS Next download page at:
 - <http://dibels.org/pubs.html>
 - **Pathways of Progress™** introduced and reported at Pacific Coast Research Conference, February 8, 2013.
 - <http://dibels.org/pubs.html>

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Placentia Yorba Linda Unified School District Replication Study

- Data to compare DIBELS Next and the California Standards Test were available for
 - 1128 to 1228 students per comparison in second through fifth grades.
- California Standards Test: The benchmark goal is a standard score of 350 or above, or a performance level of proficient or advanced.
 - **“Proficient:** This level represents a solid performance. Students demonstrate a competent and adequate understanding of the knowledge and skills measured by this assessment, at this grade, in this content area.”
 - **“Advanced:** This level represents a superior performance. Students demonstrate a comprehensive and complex understanding of the knowledge and skills measured by this assessment, at this grade, in this content area.”

Does DIBELS Next Composite Score provide additional information about reading proficiency?

- As a predictor, the DIBELS Next Composite is valuable because students who are at or above benchmark on the DIBELS Composite Score are *reading for meaning* at an *adequate rate* and with a *high degree of accuracy*.
 - Students who are just reading as quickly as they can will not score well on the DIBELS Next Composite.
- When multiple measures are administered, it can be confusing to determine an overall level of risk – the DIBELS Next Composite provides an overall indicator of likely need for support.
- **DORF Words Correct alone is a good predictor of reading outcomes, in DMG research, the DIBELS Composite Score is better.**

Common Core Reading Standards: Foundational Skills (K–5)

Grade 1 to 5 Students

Fluency

4. Read with sufficient **accuracy** and **fluency** to support **comprehension**.
- Read on-level text with purpose and understanding.
 - Read on-level prose and poetry orally with accuracy, appropriate rate, and expression on successive readings
 - Use **context to confirm** or self-correct word recognition and **understanding**, rereading as necessary.

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Reading Comprehension Convergence of Information

Beginning of Year Benchmark

DORF Words Correct = _____ [1]

Retell Score _____ x 2 = _____ [2]

Daze Adjusted Score _____ x 4 = _____ [3]

DORF Accuracy Percent: _____ %
100 x (Words Correct / (Words Correct + Errors))

Accuracy Value from Table = _____ [4]

DIBELS Composite Score (add values 1–4) = _____

If DORF is below 40 and Retell is not administered, use 0 for the Retell value only for calculating the DIBELS Composite Score. Do not calculate the composite score if any of the values are missing.

- Reading at an appropriate rate
- Reading orally with understanding
- Reading silently for meaning in context
- With a high degree of accuracy

Students who are at or above benchmark on the DIBELS[®] Composite Score are **reading for meaning** at an **adequate rate** and with a **high degree of accuracy**.

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Group Reading Assessment and Diagnostic Evaluation

- DIBELS Composite Score explains more variance in reading outcomes than DORF Words Correct alone.
- Median 9% more, range 3% to 17%.
- DORF Words Correct alone is good, DIBELS Composite Score is better.**

Grade and Time of Year	DORF Words Correct Predicting GRADE Total	DIBELS Composite Score Predicting by DIBELS GRADE Total	Additional Variance Explained Composite Score
Grade 2 Beginning of Year	0.69	0.75	8%
Grade 2 Middle of Year	0.76	0.80	5%
Grade 2 End of Year	0.73	0.75	3%
Grade 3 Beginning of Year	0.66	0.73	10%
Grade 3 Middle of Year	0.67	0.78	15%
Grade 3 End of Year	0.66	0.75	13%
Grade 4 Beginning of Year	0.76	0.80	5%
Grade 4 Middle of Year	0.76	0.80	6%
Grade 4 End of Year	0.75	0.80	8%
Grade 5 Beginning of Year	0.69	0.76	11%
Grade 5 Middle of Year	0.64	0.76	17%
Grade 5 End of Year	0.66	0.77	17%
Minimum	0.64	0.71	9%
Median	0.59	0.68	12%
Maximum	0.61	0.73	16%

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California Standards Test Replication District

- DIBELS Composite Score explains more variance in reading outcomes than DORF Words Correct alone.
- Median 6% more, range 0% to 15%.
- DORF Words Correct alone is good, DIBELS Composite Score is better.**

Grade and Time of Year	DORF Words Correct Predicting CST	DIBELS Composite Score Predicting CST	Additional Variance Explained Composite Score
Grade 2 Beginning of Year	.74	.75	1%
Grade 2 Middle of Year	.76	.76	0%
Grade 2 End of Year	.75	.76	2%
Grade 3 Beginning of Year	.68	.71	4%
Grade 3 Middle of Year	.69	.71	3%
Grade 3 End of Year	.69	.73	6%
Grade 4 Beginning of Year	.70	.78	12%
Grade 4 Middle of Year	.72	.77	7%
Grade 4 End of Year	.71	.76	7%
Grade 5 Beginning of Year	.71	.74	4%
Grade 5 Middle of Year	.69	.73	6%
Grade 5 End of Year	.67	.74	10%
Minimum	.67	.71	0%
Median	.71	.75	5%
Maximum	.76	.78	12%

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DIBELS Next Retell

- Does DIBELS Next Retell provide an indicator of reading comprehension and reading proficiency?
- Median $r = .58$.**
- Similar to other high quality measures of reading comprehension.

Grade and Time of Year	Correlation of Retell with	
	GRADE Total	GRADE Comprehension Composite
Grade 2 Beginning of Year	.53	.53
Grade 2 Middle of Year	.54	.54
Grade 2 End of Year	.52	.52
Grade 3 Beginning of Year	.53	.55
Grade 3 Middle of Year	.57	.60
Grade 3 End of Year	.53	.57
Grade 4 Beginning of Year	.59	.56
Grade 4 Middle of Year	.62	.60
Grade 4 End of Year	.63	.61
Grade 5 Beginning of Year	.61	.59
Grade 5 Middle of Year	.63	.60
Grade 5 End of Year	.65	.64
Minimum	.52	.52
Median	.58	.58
Maximum	.65	.64

DIBELS Next Retell

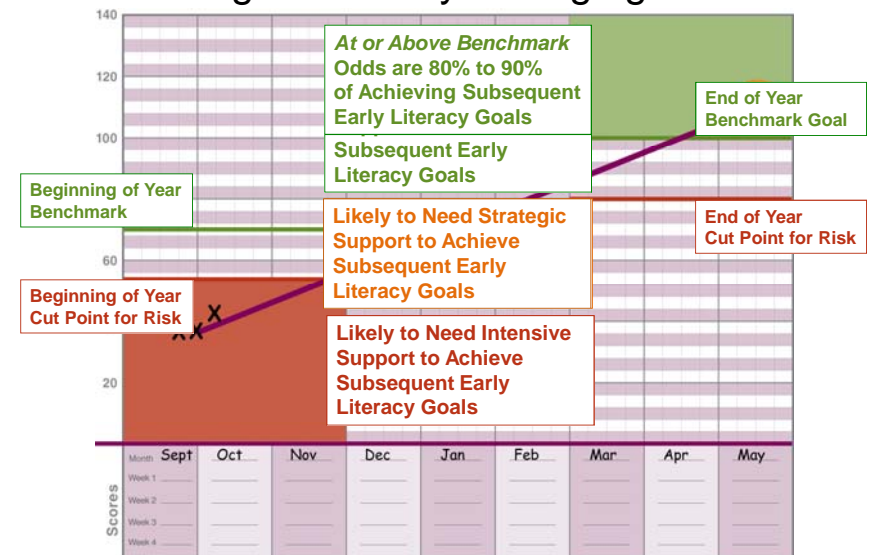
- Does DIBELS Next Retell provide an indicator of reading comprehension and reading proficiency?
- Median $r = .53$.**
- Similar to other high quality measures of reading comprehension and BGS Study.

Grade and Time of Year	Correlation of DIBELS Next Retell with CST
Grade 2 Beginning of Year	.48
Grade 2 Middle of Year	.53
Grade 2 End of Year	.56
Grade 3 Beginning of Year	.52
Grade 3 Middle of Year	.55
Grade 3 End of Year	.52
Grade 4 Beginning of Year	.56
Grade 4 Middle of Year	.58
Grade 4 End of Year	.57
Grade 5 Beginning of Year	.40
Grade 5 Middle of Year	.46
Grade 5 End of Year	.43
Minimum	.40
Median	.53
Maximum	.58

Official DIBELS Next® Benchmark Goals for Educational Decisions

- Primary design specifications for benchmark goals were based on the odds of achieving subsequent benchmark goals and the student's likely need for support to make adequate progress.
 - At or Above Benchmark:** Odds are generally 80% to 90% of achieving subsequent benchmark goals and important reading outcomes. **Students scoring at or above benchmark are likely to make adequate progress with effective core instruction.**
 - Below Benchmark:** Odds are generally 40% to 60% of achieving subsequent benchmark goals and important reading outcomes. **Students scoring below benchmark are likely to need strategic support to make adequate progress.**
 - Well Below Benchmark:** Odds are generally 10% to 20% of achieving subsequent benchmark goals and important reading outcomes. **Students scoring well below benchmark are likely to need intensive support to make adequate progress.**

Building Futures by Changing Odds



Does DIBELS Next identify an appropriate number of students as needing support?

District End of Year CST Outcomes Median

- Proficient or advanced: 73%
- Basic or below: 27%

DIBELS Next Composite Score

- At or Above Benchmark: 72%
- Below or Well Below Benchmark: 28%

Grade and Time of Year	Percent Likely to Need Support	
	DIBELS Next Composite Score	California Standards Test
Grade 2 Beginning of Year	17%	27%
Grade 2 Middle of Year	22%	26%
Grade 2 End of Year	24%	26%
Grade 3 Beginning of Year	18%	39%
Grade 3 Middle of Year	28%	38%
Grade 3 End of Year	28%	40%
Grade 4 Beginning of Year	26%	23%
Grade 4 Middle of Year	28%	23%
Grade 4 End of Year	33%	23%
Grade 5 Beginning of Year	36%	27%
Grade 5 Middle of Year	35%	27%
Grade 5 End of Year	37%	27%
Minimum	17%	23%
Median	28%	27%
Maximum	37%	40%

Goal Utility: Making Educational Decisions

Status	Target odds of achieving outcomes for educational decisions	Likely need for support to achieve outcomes
At or above benchmark	80% to 90%	Core support
Below benchmark	40% to 60%	Strategic support
Well below benchmark	10% to 20%	Intensive support

Replication Questions:

- Are students identified as At or Above Benchmark on DIBELS Next likely to achieve literacy goals (i.e., 80% to 90% odds)?
- Are students identified as Below Benchmark uncertain to achieve literacy goals (i.e., about 40% to 50% odds)?
- Are students identified as Well Below Benchmark unlikely to achieve literacy goals (i.e., about 10% to 20% odds) without additional support?

Decision Utility: At or Above Benchmark

Students who are At or Above Benchmark, Odds of achieving literacy outcomes:

- Grade 2: very comparable
- Grade 3: odds not as strongly in favor for CST, somewhat less than design.
- Grades 4 and 5: odds more strongly in favor for CST

Grade and Time of Year	Percent of Students who are At or Above Benchmark who Achieve Outcome Goal	
	Benchmark Goal Study GRADE	Replication Study California Standards Test
Grade 2 Beginning of Year		85%
Grade 2 Middle of Year		89%
Grade 2 End of Year	89%	90%
Grade 3 Beginning of Year		71%
Grade 3 Middle of Year		77%
Grade 3 End of Year	90%	77%
Grade 4 Beginning of Year		92%
Grade 4 Middle of Year		91%
Grade 4 End of Year	84%	93%
Grade 5 Beginning of Year		92%
Grade 5 Middle of Year		92%
Grade 5 End of Year	87%	92%
Minimum	84%	71%
Median	88%	91%
Maximum	90%	93%

Decision Utility: Below Benchmark

Students who are Below Benchmark, odds of achieving literacy outcomes:

- Grade 2, 4, and 5: very comparable and consistent with design parameters
- Grade 3: odds not as strongly in favor for CST

Grade and Time of Year	Percent of Students who are Below Benchmark who Achieve Outcome Goal	
	Benchmark Goal Study GRADE	Replication Study California Standards Test
Grade 2 Beginning of Year		30%
Grade 2 Middle of Year		36%
Grade 2 End of Year	45%	39%
Grade 3 Beginning of Year		25%
Grade 3 Middle of Year		34%
Grade 3 End of Year	48%	25%
Grade 4 Beginning of Year		62%
Grade 4 Middle of Year		62%
Grade 4 End of Year	58%	59%
Grade 5 Beginning of Year		50%
Grade 5 Middle of Year		49%
Grade 5 End of Year	45%	51%
Minimum	45%	25%
Median	47%	44%
Maximum	58%	62%

Decision Utility: **Well Below Benchmark**

Students who are Well Below Benchmark, odds of achieving literacy outcomes:

- Grades 2 and 3: very comparable and consistent with design parameters.
- Grade 4 and 5: odds more strongly in favor for CST, still consistent with design parameters.

Grade and Time of Year	Percent of Students who are Well Below Benchmark who Achieve Outcome Goal	
	Benchmark Goal Study GRADE	Replication Study California Standards Test
Grade 2 Beginning of Year		9%
Grade 2 Middle of Year		9%
Grade 2 End of Year	14%	8%
Grade 3 Beginning of Year		8%
Grade 3 Middle of Year		11%
Grade 3 End of Year	7%	8%
Grade 4 Beginning of Year		20%
Grade 4 Middle of Year		25%
Grade 4 End of Year	3%	19%
Grade 5 Beginning of Year		10%
Grade 5 Middle of Year		14%
Grade 5 End of Year	7%	20%
Minimum	3%	8%
Median	7%	11%
Maximum	14%	25%

Goal Utility: Making Educational Decisions

Status	Target odds of achieving outcomes for educational decisions	Likely need for support to achieve outcomes
At or above benchmark	80% to 90%	Core support
Below benchmark	40% to 60%	Strategic support
Well below benchmark	10% to 20%	Intensive support

Official DIBELS Next Goals

In Placentia Yorba Linda Unified School District replication, the median odds of achieving proficient or advanced on the California Standards Test given DIBELS Next likely need for support:

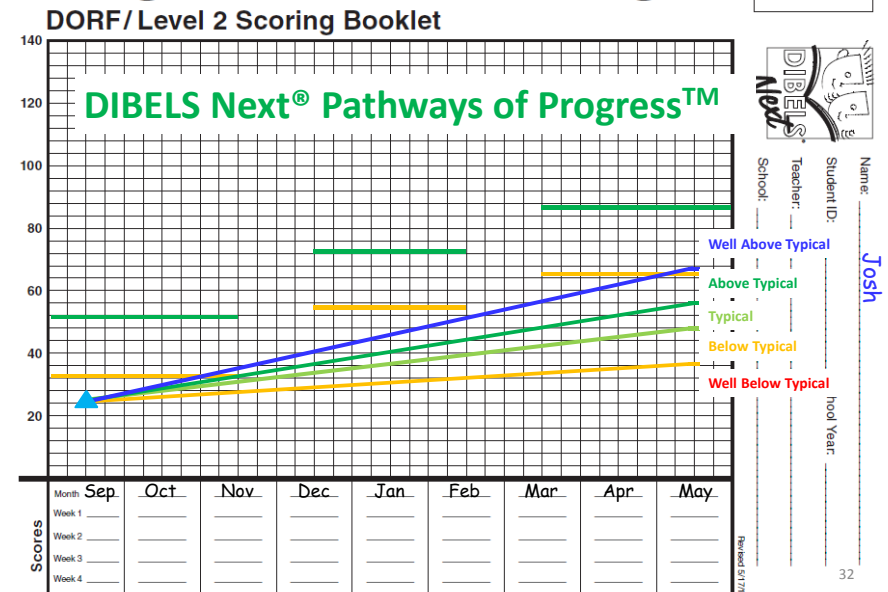
- Likely to Need Core support: 89%
- Likely to Need Strategic support: 36%
- Likely to Need Intensive support: 10%

Official DIBELS Next® Benchmark Goals are Robust and Valuable in Practice

Official DIBELS Next benchmark goals are functioning as designed to inform educational decisions.

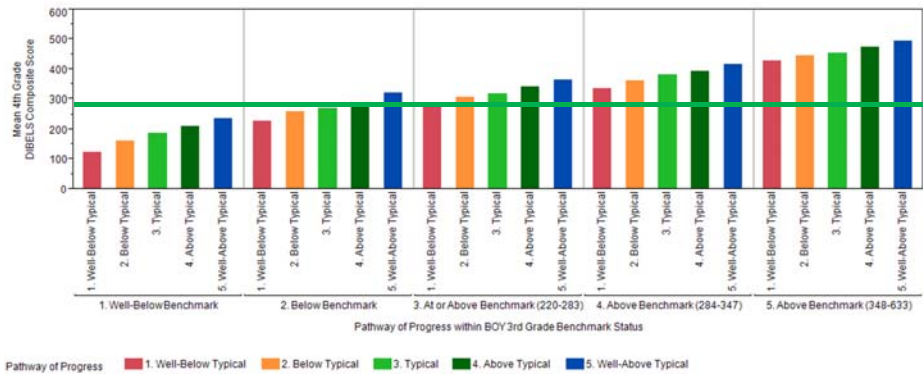
- Students who are well below benchmark are probably not going to achieve proficient on the CST – unless we provide intensive support and ruin the prediction.
- For students who are below benchmark, we are not able to make a strong prediction that they will or will not achieve proficient on the CST. They are likely to need strategic support to achieve proficient.

Progress Monitoring

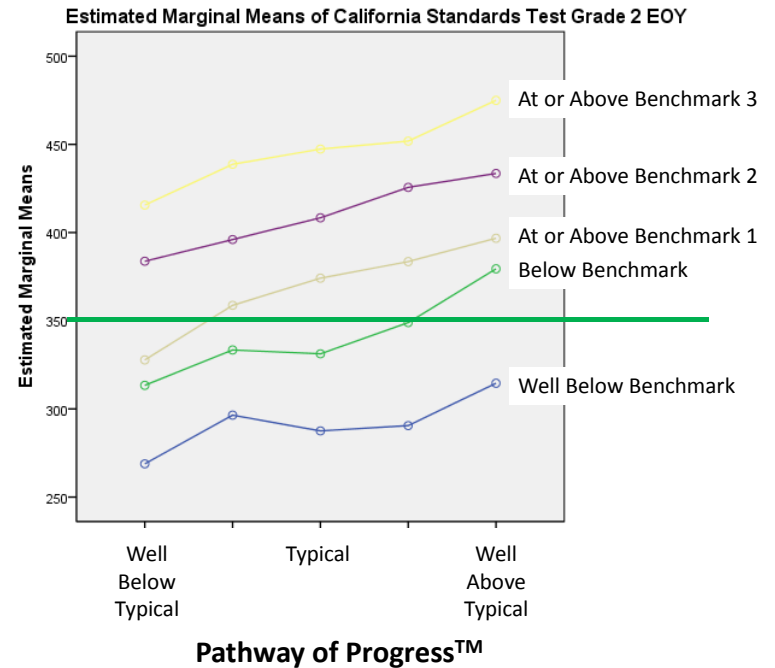


Beginning of Year Skills Matter – Pathway of Progress Matters

Beginning of third grade skills and pathway of progress in third grade both impact student skills as they enter fourth grade.



DIBELSnet Pathways of Progress Analysis. PCRC Presentation.



Replication Questions

Yes and Yes

- Does DIBELS Next Composite Score provide additional information about reading proficiency? **Yes, Yes**
- Does DIBELS Next Retell provide an indicator of reading comprehension and reading proficiency? **Yes, Yes**
- Does DIBELS Next identify an appropriate number of students as needing support? **Yes, Yes**
- Are students identified as At or Above Benchmark on DIBELS Next likely to achieve literacy goals (i.e., 80% to 90% odds)? **Yes, Yes**
- Are students identified as Below Benchmark uncertain to achieve literacy goals (i.e., about 40% to 50% odds)? **Yes, Yes**
- Are students identified as Well Below Benchmark unlikely to achieve literacy goals (i.e., about 10% to 20% odds) without additional support? **Yes, Yes**
- Do Pathways of Progress™ during the school year matter? **Yes, Yes**

Summary

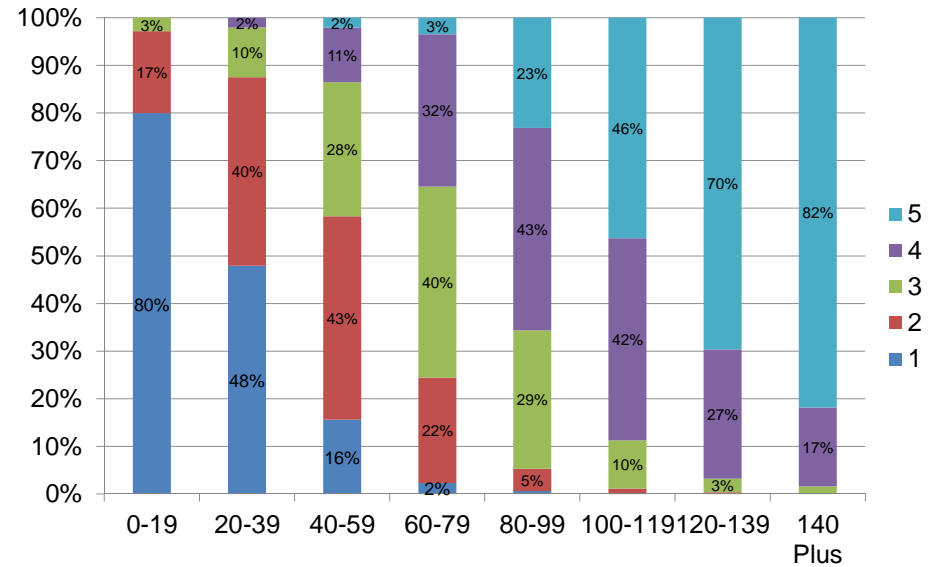
- The official DIBELS Next Benchmark Goals provide a strong basis for educational decision making.
 1. The official DIBELS Next Benchmark Goals are developed and validated for educational decision making.
 2. The official DIBELS Next Benchmark Goals use procedures that are designed to generalize to different groups of students and many reading outcome measures.
 3. The official DIBELS Next benchmark goals are robust and valuable in practice. They identify an appropriate number of students as likely to need additional support. **When students are identified as likely to need intensive support, the odds are against achieving important goals – unless intensive intervention is provided.**
 4. The DIBELS Next Composite is valuable both as a predictor and as an outcome measure.

See for Yourself

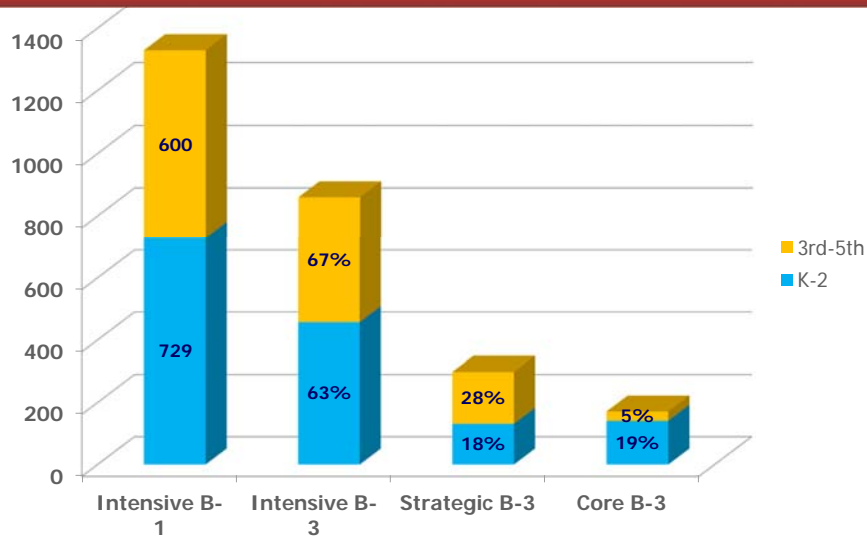
- Schools using DIBELSnet® <https://dibels.net/> can import their own state outcome measure of reading proficiency and examine the utility of the official DIBELS Next benchmark goals for their educational context.
 - Contact us at info@dibels.org if you would like to examine your district and your state outcome measure.
 - DIBELSnet is developed by the authors of DIBELS and provides complete data entry and reporting of DIBELS Next data consistent with the prevention-oriented vision of educational decision making that drove the development of DIBELS.

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Second Grade: DORF and CST Alignment



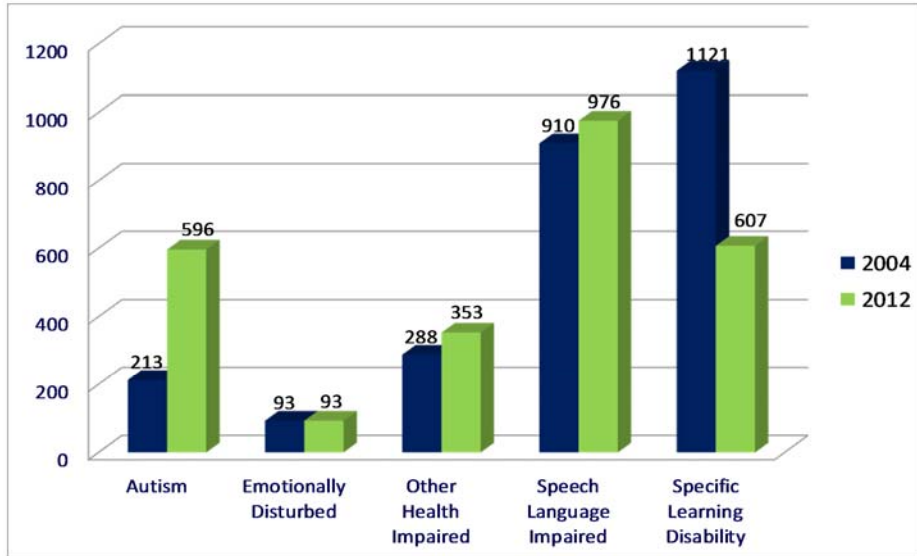
Results- Intensive at Benchmark 1



Summary of Growth by School K-5

# Tested	# Students Making Growth	% Making Growth
312	264	85%
426	396	93%
282	260	92%
613	584	95%
327	297	91%
369	334	91%
411	364	89%
525	465	89%
405	380	94%
367	321	87%
326	298	91%
581	553	95%
417	400	96%
789	737	93%
332	298	90%
351	322	92%
294	248	84%
391	370	95%
437	394	90%
381	349	92%
282	268	95%
7598	6982	92%

Specific Disability Data



Questions

Acknowledgements

- Placentia Yorba Linda Unified
- Dynamic Measurement Group
- Cambium Learning Group: Sopris/Voyager Divisions