DIBELS Pathways of Progress: Setting Ambitious, Meaningful, and Attainable Goals in Grade Level Material

Roland H. Good III, Ph. D. / Kelly A. Powell-Smith, Ph.D. / Elizabeth N. Dewey, M.S. / Dynamic Measurement Group

Introduction

Currently, educators have a variety of means to set academic goals. The three most typical ways to set goals are by using: (1) data from previous research on the amount of progress expected for students in various grades (i.e., number of words correct gain per week); (2) data on local or national percentiles; or (3) data from empirically-based benchmarks. All of these methods offer valuable guidance for setting goals, in particular in the context of monitoring the progress of students receiving additional instructional support. However, a concern with each of these methods is that they don't take into account different measurement materials used, different times of year, and different levels of student's initial skills.

In this poster, we present student progress percentiles as a proposed method to assist and inform educators in setting meaningful, ambitious, and attainable goals. We will illustrate the development and use of student progress percentiles using third grade as an exemplar. The student progress percentiles are based on a normative sample of 8,900 third-grade students in 56 districts and 150 schools.

DIBELS[°] Pathways of Progress[™] are based on student progress percentiles. They are designed to be used with *DIBELS Next*[°] to assist educators in: (a) setting an ambitious, meaningful, attainable goal and an aim line for individual, grade-level progress monitoring; and (b) evaluating rates of progress for individual students. Pathways of Progress are based on student rates of read-ing progress relative to other students with similar initial skills. This information provides a normative reference for professionals to consider when establishing a goal and aim line for an individual student. Pathways of Progress are intended to be one of several frames of reference that should be considered when establishing a goal.

Considerations in Making Progress and Establishing Individual Student Goals

Considerations for the Rates of Progress for Establishing Individual Student Goa	ls
--	----

Rate of progress necessary to

- Achieve important benchmark goals.
- · Increase odds of achieving subsequent goals.
- Narrow the achievement gap with students making adequate progress.

Rate of progress that is

- · Possible with a very effective, research-based intervention.
- Typical or expected relative to other students with similar initial skills.

Statistical Considerations

Nonlinearity of the relationship between the composite score and the outcome measure.

Homoscedasticity between groups of students separated by their beginning-of-year scores.

Change in variance from the lower-end to the upper-end of the scoring range of the composite score.

Goal Setting Logic and Methodology

By observing a student's current skills and later benchmark goals, we are able to set *meaningful* goals for the student that will either achieve or increase the odds of achieving subsequent goals.

Pathways of Progress emphasizes the end point of the pathway and provides a normative framework for comparison in setting goals and evaluating individual student progress. Student progress is evaluated relative to the student's peers, that is, growth is **compared to students with similar initial skills at the same grade level on the same material.** Progress that is typical or above typical is considered attainable progress. Progress that is above typical or well-above typical can be considered ambitious progress.

Statistical Considerations and Analysis

First, we created a prediction expression that modeled student outcomes across the school year given the student's beginning-ofyear skills. Second, we modeled the variability of actual outcomes around the predicted outcome for each level of initial skills. Third, we divided the actual outcomes relative to predicted outcomes into five categories that we labeled *well-below typical progress* to *well-above typical progress*.

With one prediction expression, we created four outcome levels, and each outcome level represents the end-point of a pathway of progress border (well-below to well-above typical progress). The expression follows this format:

	[Prediction Equation] + [Z-Score] x [Variance Component]
Prediction Equation	The prediction of the mean based on a model predicting the EOY individual <i>DIBELS</i> measure from the BOY Composite Score.
Z-Score	The 20th, 40th, 60th, or 80th quantile from the standard normal distribution. These quantiles repre- sent the borders for the pathways.
Variance Component	The prediction for the variance based on a separate model predicting the standard deviation from the mean BOY composite score. In cases where the assumption of homoscedasticity is not violated, we used the Root Mean Squared Error (RMSE) as the Variance Component.

Within the borders, we define the rates of progress as follows:

Quantile Range	Definition of Rate of Progress
Above 79%	Well Above Typical Progress
60%–79%	Above Typical Progress
40%–59%	Typical Progress
20%–39%	Below Typical Progress
Below 20%	Well-Below Typical Progress

Models were fit individually for each grade and time of year. Model fit was evaluated in myriad ways: residual plots, fit statistics, and variability charts. Care was taken not to over-fit to the sample, i.e., the predictability of the model is not localized to this sample. Whenever possible, the simpler model was chosen.

An Illustrated Example

To illustrate the concept of Pathways of Progress, we present an example from third grade (N \approx 8,900) focusing on the *DIBELS Next* Composite Score (DCS) and examining *DIBELS Next* Oral Reading Fluency Words Correct (DORF Words Correct). Data on approximately 166,000 students in kindergarten through sixth grade from 502 schools within 164 school districts from across the United States was exported from users who entered their data into Dynamic Measurement Group's data system, *DIBELSnet*^{*}. The sample was approximately 60% white, 23% Hispanic, and 7% Black with a free-reduced lunch rate of 35%. From this larger sample, we selected all third grade students with reported scores for beginning- and end-of-year composite score. Our third-grade sample size was approximately 8,900.



	Pathwa	ays of Progress for	EOY Outcomes		
DIBELS Next Composite and Components	Well Above Typical Progress	Above Typical Progress	Typical Progress	Below Typical Progress	Well Below Typical Progress
DIBELS Composite Score	272 and above	271 to 231	230 to 191	190 to 143	142 and below

In third grade, the best fit for the end-of-year DCS was a cubic regression with a quadratic variance component (see Figure 1). The residual variance of the prediction indicated heteroscedasicity, i.e., the variance was not stable across groups (see Figure 2). Instead of using the RMSE of the prediction to define our borders, we used the model for the variance. In Figure 1, Pathways of Progress end-of-year DCS outcomes are illustrated for a beginning-of-year composite score of 75.



	Pathwa	ays of Progress for	EOY Outcomes		
DIBELS Next Composite and Components	Well Above Typical Progress	Above Typical Progress	Typical Progress	Below Typical Progress	Well Below Typical Progress
DIBELS Composite Score	272 and above	271 to 231	230 to 191	190 to 143	142 and below
DORF Words Correct	72 and above	71 to 62	61 to 54	53 to 44	43 and below

For third-grade DORF Words Correct, analysis of the data suggested that a model for the entire score range would be a poor fit at the lower-end of the scoring range. After a thorough investigation of multiple ways to model the data, the best fit proved to be a piece-wise regression with a linear variance component (see Figure 3).

For the first piece, we fit a simple linear regression predicting to the raw scores of end-of-year DORF Words Correct. For the second piece, we fit a stiff spline regression to the quantiles of end-of-year DORF Words Correct (see Figure 4). Overlaying the two regressions on top of the data revealed a natural cut-point for the piece-wise fit, which was approximately 40. Thus, for BOY DCS scores greater than 40, the simple linear regression modeled the data well. For scores less than 40, the stiff spline regression modeled the quantiles well. While we feel that this fit is the best solution, the prediction is less precise at the extreme lower-end of the DCS scoring range. In addition, for instructional purposes when DCS scores are below 40 we recommend *DIBELS Next Survey* to consider of out-of-grade-level progress monitoring, and *DIBELS Deep* to identify areas of instructional need.

The residual variance of the prediction indicated increasing variance across groups. Again, instead of using the RMSE of the prediction to define our borders, we modeled the variance with a simple linear regression (see Figure 5). In Figure 3, Pathways of Progress end-of-year DORF outcomes are illustrated for a beginning-of-year composite score of 75.

Similar analyses were conducted at all grade levels and for all DIBELS Next component measures.

Case Studies

Along with DIBELS Next Benchmark Goals, Pathways of Progress is a powerful tool to enable teachers and administrators to set short and long-term goals for their students. The recommended goals for each case study shown were designed to be:

- Meaningful: At or above benchmark or reduce risk
- Attainable: Typical or above typical progress is attainable
- Ambitious: Based on BOY skills, progress is appropriately ambitious.

DIBELS Next measures, on which Pathways of Progress are based, are powerful, reliable, and valid indicators of student's reading proficiency. They are also brief and efficient. **The goal is always to make good decisions.** The end-of-year goals will be a professional judgment informed by the end-of-year benchmark goals and the Pathways of Progress. We present four, unique case studies to illustrate how the Pathways of Progress can be used to set individual goals and to evaluate individual student progress.

Penelope, Strategic Support Case Study

	Beginning of	Specify				EOYC	Jutcomes			
DIBELS Next Composite and Components	Year Initial Skills	End of Yes Goal	ar	At or a Bench	Above nmark	B Ben	elow chmark	W Be	ell Below nchmark	
DIBELS Composite Score	214	370		330 an	d above	329	to 280	279	and below	
DORF Words Correct	92	105		100 an	d above	99	to 80	79 :	and below	
DORF Accuracy (Percent)	85	97	%	97% an	d above	96%	to 94%	93%	and below	
DORF Retell	43	45		30 and	above	29	to 20	19	and below	
Daze Comp	9 oonent Check:	20 371	* Pat	19 and	above rogress for	18 r EOY C	to 14	13	and below	
Daze Comp DIBELS Next Composite and	9 ponent Check: Well Above T	20 371	* Pat	19 and hways of P	above rogress for	18 r EOY C	to 14 Outcomes Below Ty	13 a	well Below	N
Daze Comp DIBELS Next Composite and Components	9 ponent Check: Well Above T Progress	20 371 ypical	* Pat Above Pros	19 and hways of P Typical gress	rogress for Typic Progres	18 r EOY C cal	to 14 Outcomes Below Ty Progre	13 a	Well Below	w
Daze Comp DIBELS Next Composite and Components DIBELS Composite Score	9 ponent Check: Well Above T Progress 394 and ab	20 371 ypical sove	* Pat Above Prog 393 t	19 and hways of P : Typical gress to 360	rogress for Typic Progre 359 to	18 r EOY C cal ess 331	outcomes Below Ty Progre 330 to	13 i ypical ess 298	Well Below Well Belov Typical Progr 297 and bel	w ress ow
Daze Comp DIBELS Next Composite and Components DIBELS Composite Score DORF Words Correct	9 Doonent Check: Well Above T Progress 394 and ab 115 and ab	20 371 ypical sove ove	* Pat Above Prog 393 t 114 t	19 and hways of P Typical gress to 360 to 104	above rogress for Progre 359 to 103 to	18 r EOY C cal ess 331 94	Dutcomes Below Ty Progree 330 to 93 to	13 : ypical ess 298 83	Well Below Typical Prog 297 and bel 82 and belo	w ress ow ow
Daze Comp DIBELS Next Composite and <u>Components</u> DIBELS Composite Score DORF Words Correct DORF Accuracy (Percent)	9 Doonent Check: Well Above T Progress 394 and ab 115 and ab At least 97	20 371 ypical ove ove 7%	* Pat Above Prog 393 t 114 t At lea	19 and hways of P a Typical gress to 360 to 104 st 97%	rogress for Typic Progre 359 to 103 to At least	18 r EOY C cal ess 331 94 97%	Dutcomes Below Ty Progree 330 to 93 to At least	13 : ypical ess 298 83 95%	Well Below Typical Prog 297 and bel 82 and belo Below 959	w ress ow ow
Daze Comp DIBELS Next Composite and <u>Components</u> DIBELS Composite Score DORF Words Correct DORF Accuracy (Percent) DORF Retell	9 Doonent Check: Well Above T Progress 394 and ab 115 and ab At least 97 51 and abo	20 371 ypical sove ove 7% ove	* Pat Above Pros 393 t 114 t At lea 50 t	19 and hways of P Typical gress to 360 to 104 st 97% to 42	rogress for Typic Progre 359 to 103 to At least 41 to	18 r EOY C cal ess 331 94 97% 34	Dutcomes Below Ty Progre 330 to 93 to At least 33 to	13 : ypical ess 298 83 95% 25	Well Below Typical Progr 297 and bel 82 and belo Below 959 24 and belo	w ress low ow % ow

Figure 6: Penelope's Beginning-of-year DIBELS scores and end-of-year Pathway of Progress goals.

Penelope began the year below the benchmark on the *DIBELS* Composite Score, and is likely to need strategic support. Penelope's fluency score is adequate for her grade level, but she lacks accuracy in decoding.

An appropriate EOY goal for Penelope would be...

Penelope will read grade-level text orally

- at a rate of 105 or more words correct per minute (above-typical progress),
- with at least 97% accuracy (at least typical progress),
- be able to talk about what she has read with at least 45 words relevant to the passage (*above-typical progress*),
- She will read grade-level text silently, using context for meaning, with a Daze adjusted score of 20 words correct (*above typical progress*).

Penelope's Goal is...

- Meaningful: This goal achieves the benchmark and increases the odds of meeting future goals.
- Attainable: Penelope is making typical or above typical progress.
- Ambitious: In areas where Penelope is currently below benchmark, abovetypical progress is appropriate.

If Penelope achieves this goal, she will be at or above benchmark on all measures by the end of year, and reading at an adequate rate with a high degree of accuracy for meaning.



Penelope's DORF Words Correct aimline is relatively flat; she needs to dramatically increase her accuracy while maintaining an adequate rate of reading.

Tabitha, Strategic Support Case Study

	Beginning of	Specify				EOY	Jutcomes		
DIBELS Next Composite and	Year Initial	End of Ye	ar	At or A	\bove	E	Below	W	ell Below
Components	Skills	Goal	_	Bench	mark	Ber	nchmark	Ве	nchmark
DIBELS Composite Score	205	374		330 and	l above	329	9 to 280	279	and below
DORF Words Correct	63	100		100 and	labove	99	9 to 80	79 a	and below
DORF Accuracy (Percent)	98	98	%	97% and	d above	96%	6 to 94%	93%	and below
DORF Retell	15	45		30 and	above	29	9 to 20	19 8	and below
Daze	2	20		19 and	above	18	8 to 14	13 :	and below
DIBELS Next Composite and	Well Above T	ypical	Above	Typical	Typi	cal	Below T	ypical	Well Below
COMPONENTS	Flogless		385 t	0 352	351 to	323	322 to	289	288 and below
DIBELS Composite Score	386 and ah			0 332	331 (0	525	522 (0	205	200 4114 5010
DIBELS Composite Score	386 and ab	ove	111 t	o 101	100 to	92	91 to	81	80 and below
DIBELS Composite Score DORF Words Correct DORF Accuracy (Percent)	386 and ab 112 and ab At least 97	ove ove 7%	111 t At leas	o 101 st 97%	100 to At least	92 96%	91 to At least	81 94%	80 and below Below 94%
DIBELS Composite Score DORF Words Correct DORF Accuracy (Percent) DORF Retell	386 and ab 112 and ab At least 97 50 and abo	ove 7% ove	111 t At leas 49 t	o 101 st 97% o 41	100 to At least 40 to	92 96% 33	91 to At least 32 to	81 94% 24	80 and below Below 94% 23 and below
DIBELS Composite Score DORF Words Correct DORF Accuracy (Percent) DORF Retell Daze	386 and ab 112 and ab At least 97 50 and abo 23 and abo	ove 7% ove ove	111 t At leas 49 t 22 t	o 101 st 97% o 41 o 20	100 to At least 40 to 19 to	92 96% 33 17	91 to At least 32 to 16 to	81 94% 24 14	80 and below Below 94% 23 and below 13 and below

Figure 6a: Tabitha's Beginning-of-year DIBELS scores and end-of-year Pathway of Progress goals.

Tabitha also began the school year below benchmark on the **DIBELS** Composite Score, and is likely to need strategic support. An evalution of her scores reveal that she has a different set of academic concerns than Penelope; her reading accuracy is good, but her fluency and comprehension are below benchmark.

Tabitha's goal is similar to Penelope's goal because their initial skills were similar, but Tabitha has different instructional needs, which are reflected in each component skill's pathway.

An appropriate EOY goal for Tabitha would be	Tabitha's Goal is
 Tabitha will read grade-level text orally at a rate of 100 or more words correct per minute (above-typical progress), 	 Meaningful: This goal achieves the benchmark and increases the odds of meeting future goals.
 with at least 98% accuracy (at least <i>typical progress</i>), be able to talk about what she has read with at least 45 words relevant to the passage (<i>above-typical progress</i>), She will read grade-level text silently, using context for meaning, with a Daze adjusted score of 20 words correct (<i>above typical progress</i>). 	 Attainable: Tabitha is making typical or above typical progress. Ambitious: In areas where Tabitha is currently below benchmark, above- typical progress is appropriately ambitious.

If Tabitha achieves this goal, she will be at or above benchmark on all measures by the end of year, and reading at an adequate rate with a high degree of accuracy for meaning.



Because Tabitha started out below benchmark, her progress needs to be above-typical or greater to reach a score that is above the benchmark goal by the end of the year.

Alistair, Intensive Support Case Study

	Beginning of	Specify				EUY	Jutcomes			
DIBELS Next Composite and Components	Year Initial Skills	End of Ye Goal	ar	At or A Bench	Above Imark	Ben	Below Nichmark	W Be	ell Below enchmark	
DIBELS Composite Score	12	109		330 and	l above	329	9 to 280	279	and below	
DORF Words Correct	12	45		100 and	above	99	9 to 80	79	and below	
DORF Accuracy (Percent)	60	70	%	97% and	d above	96%	6 to 94%	93%	and below	
DORF Retell	0	20		30 and	above	29	9 to 20	19	and below	
Daze	0 Donent Check:	6 109	* Pat	19 and hways of Pr	above rogress for	18 r EOY (3 to 14 Dutcomes	13	and below	_
Daze Comp DIBELS Next Composite and	0 ponent Check: Well Above T	6 109	* Pat	19 and hways of Pr	above rogress for Typic	18 r EOY (3 to 14 Dutcomes Below T	13	and below Well Belov	v
Daze Comp DIBELS Next Composite and Components	0 bonent Check: Well Above T Progress	6 109 ypical s	* Pat Above Prop	19 and hways of Pr Typical gress	above rogress for Typic Progre	18 r EOY (cal ess	3 to 14 Dutcomes Below T Progra	13 ypical ess	and below Well Belov Typical Progr	v
Daze Comp DIBELS Next Composite and Components DIBELS Composite Score	0 bonent Check: Well Above T Progress 116 and ab	6 109 ypical s ove	* Pat Above Pro	19 and hways of Pr Typical gress to 74	above rogress for Typic Progre 73 to	18 r EOY C cal ess 51	3 to 14 Dutcomes Below T Progru 50 to	ypical ess 33	Well Below Well Belov Typical Progr 32 and belo	v es
Daze Comp DIBELS Next Composite and Components DIBELS Composite Score DORF Words Correct	0 bonent Check: Well Above T Progress 116 and ab 41 and abo	6 109 ypical s ove	* Pat Above Pro 115 40 t	19 and hways of Pr Typical gress to 74 to 30	above rogress for Progre 73 to 29 to	18 r EOY C cal ess 51 23	3 to 14 Dutcomes Below T Progru 50 to 22 to	13 ypical ess 33 17	Well Belov Typical Progr 32 and belo 16 and belo	v ies iw
Daze Comp DIBELS Next Composite and <u>Components</u> DIBELS Composite Score DORF Words Correct DORF Accuracy (Percent)	0 bonent Check: Well Above T Progress 116 and ab 41 and abo At least 60	6 109 Vypical s vove ove 0%	* Pat Above Proj 115 40 t At lea	19 and hways of Pr Typical gress to 74 to 30 ist 60%	above rogress for Typic Progre 73 to 29 to At least	18 r EOY C cal ess 51 23 60%	3 to 14 Dutcomes Below T Progra 50 to 22 to At least	13 ypical ess 33 17 60%	Well Below Typical Progr 32 and belo 16 and belo Below 609	v es w w
Daze Comp DIBELS Next Composite and Components DIBELS Composite Score DORF Words Correct DORF Accuracy (Percent) DORF Retell	0 bonent Check: Well Above T Progress 116 and ab 41 and ab At least 60 23 and abo	6 109 vypical s vove ove 0% ove	* Pat Above Pro 115 40 t At lea 22 t	19 and hways of Pr Typical gress to 74 to 30 ist 60% to 19	above rogress for Progre 73 to 29 to At least 18 to	18 r EOY (cal ess 51 23 60% 16	3 to 14 Dutcomes Below T Progri 50 to 22 to At least 15 to	13 ypical ess 33 17 60% 12	Well Below Typical Progr 32 and belo 16 and belo Below 609 11 and belo	v es w w

Figure 7: Alistair's Beginning-of-year DIBELS scores and end-of-year Pathway of Progress goals.

Alistair started out the school year below the cut-point for risk on the *DIBELS* Composite Score, and is likely to need intensive support to reach future benchmark goals.

Alistair would be an excellent candidate for *DIBELS Deep* to identify word reading and decoding deficits and *DIBELS Next Survey* to identify out-of-level progress monitoring level.

An appropriate EOY goal for Alistair would be	Alistair's Goal is
 Alistair will read grade-level text orally at a rate of 53 or more words correct per minute (above-typical progress), with at least 75% accuracy (improve upon his current score), be able to talk about what he has read with at least 20 words relevant to the passage (above-typical progress), He will read grade-level text silently, using context for meaning, with a Daze adjusted score of 6 words correct (above typical progress). 	 Meaningful: The Pathways of Progress inform us that aiming for the benchmark goal is not realistic for Alistair, and that he will need a more intensive and long-term approach. Thus, in order to increases the odds of meeting future goals, Alistair needs to make above typical to well-above typical progress. Attainable: Alistair is already behind, but by focusing on what is possible, he can catch up by making above- to well-above typical progress. Ambitious: Above typical progress or greater is appropriate for Alistair given how far below expectations he is currently performing.
If Alistoir achieves this goal he will be on his way to reading	at an adaguate rate with a high degree of accuracy for

If Alistair achieves this goal, he will be on his way to reading at an adequate rate with a high degree of accuracy for meaning. Using Pathways of Progress, we need to maintain above-typical progress to achieve benchmark status by the end of his fourth- or fifth-grade year.



Alistair's actual progress: Alistair made significant gains throughout the year, making *well-above typical progress* on DORF a rate of 61 words correct per minute, surpassing his Pathways of Progress end-of-year goal. He also made significant gains in other areas as well; he read with 88% accuracy, and was able to talk about what he read with 23 words relevant to the passage. He ended the year with a composite score of 139–*well-above typical progress. Alistair's teachers are ROCK STARS!*



But the support for Alistair won't end there, as he is still likely to require intensive support in the coming school year to reach his subsequent fourth-grade benchmark goals.

Sebastian, Benchmark Case Study

	Beginning of	Specify				EOY	Outcomes	_	
DIBELS Next Composite and	Year Initial	End of Yea	r	At or A	Above	B	Below	W	ell Below
Components	Skills	Goal		Bench	nmark	Ben	nchmark	Be	enchmark
DIBELS Composite Score	295	432		330 and	d above	329	9 to 280	279	and below
DORF Words Correct	95	130		100 and	d above	99	9 to 80	79	and below
DORF Accuracy (Percent)	96	97	%	97% and	d above	96%	6 to 94%	93%	and below
	36	51		30 and	above	20) to 20	19	and below
Dom neten	00	01							
Daze	10 ponent Check:	26 432	* Pat	19 and hways of P	above above	18 r EOY (3 to 14	13	and below
Daze Comp	10 ponent Check:	26 432	* Pat	19 and hways of P	above	18 r EOY (3 to 14 Outcomes	13	Well Polou
Daze Comp DIBELS Next Composite and Components	10 ponent Check: Well Above T Progres	26 432	* Pat Above	19 and hways of P Typical gress	above rogress fo Typi Progr	18 r EOY (cal	3 to 14 Dutcomes Below T Progr	13 ypical ess	Well Below
Daze Comp DIBELS Next Composite and Components DIBELS Composite Score	10 ponent Check: Well Above T Progres 461 and ab	26 432	* Pat Above Prog 460 t	19 and hways of P Typical gress to 429	above rogress fo Typi Progre 428 to	18 r EOY (cal ess 401	3 to 14 Dutcomes Below T Progr 400 to	13 ypical ess 369	Well Below Typical Progres 368 and belov
DiBELS Next Composite and Components DIBELS Composite Score DORF Words Correct	10 ponent Check: Well Above T Progres 461 and ab 140 and ab	26 432 ypical s vove	* Pat Above Prog 460 t 139 t	19 and hways of P Typical gress to 429 to 128	above rogress fo Progri 428 to 127 to	18 r EOY C cal ess 401 118	3 to 14 Dutcomes Below T Progr 400 to 117 to	ypical ess 369 106	Well Below Typical Progres 368 and belov 105 and belov
DiBELS Next Composite and Components DIBELS Composite Score DORF Words Correct DORF Accuracy (Percent)	10 ponent Check: Well Above T Progres 461 and ab 140 and ab At least 9	26 432 'ypical s ove ove 7%	* Pat Above Prog 460 t 139 t At lea	19 and hways of P Typical gress to 429 to 128 ist 97%	rogress fo Typi Progre 428 to 127 to At least	18 r EOY C cal ess 401 118 97%	3 to 14 Dutcomes Below T Progr 400 to 117 to At least	13 ypical ess 369 106 97%	Well Below Typical Progres 368 and belov 105 and belov Below 97%
DiBELS Next Composite and Components DIBELS Composite Score DORF Words Correct DORF Accuracy (Percent) DORF Retell	10 ponent Check: Well Above T Progres 461 and ab 140 and ab At least 9 60 and ab	26 432 ypical s ove ove 7% ove	* Pat Above Prog 460 t 139 t 139 t At lea 59 t	19 and hways of P e Typical gress to 429 to 128 ist 97% to 51	rogress fo Typin Progre 428 to 127 to At least 50 to	18 r EOY (cal ess 401 118 97% 42	Dutcomes Below T Progr 400 to 117 to At least 41 to	13 ypical ess 369 106 97% 33	Well Below Typical Progres 368 and belov 105 and belov Below 97% 32 and below

Figure 8: Sebastian's Beginning-of-year DIBELS scores and end-of-year Pathway of Progress goals.

Sebastian began the school year well above the benchmark goal on the *DIBELS* Composite Score, and is likely to need core support. An evaluation of his scores revealed that he performed well on nearly every reading skill area.

An appropriate EOY goal for Sebastian would be	Sebastian's Goal is
 Sebastian will read grade-level text orally at a rate of 130 or more words correct per minute (above-typical progress), with at least 97% accuracy (at least typical progress), be able to talk about what he has read with at least 51 words relevant to the passage (above-typical progress), He will read grade-level text silently, using context for meaning, with a Daze adjusted score of 26 words correct. 	 Meaningful: TThis goal achieves the end- of-year benchmark goal and maintains Sebastian's adequate progress. Attainable: Sebastian is making typical or above typical progress. Ambitious: Because Sebastian is well above benchmark at beginning-of-year, typical progress or greater is appropriately ambitious.

By the end of the year, Sebastian will read at an adequate rate with a high degree of accuracy for meaning. While Sebastian only needs to maintain at least typical progress, above typical or well-above typical progress is attainable.



Caveats And Considerations

Consider the quality of the data.

Students may have a difficult day or otherwise obtain an inaccurate score, and if teachers or administrators believe that *DIBELS Next* scores are not accurate for any reason, we should always be ready to validate the decision with additional information. The quality of data-based decisions is only as good as the quality of the data.

Consider the fidelity of the assessment.

DIBELS Next should be administered by trained personnel using standardized directions and procedures. Specific forms must not be used for practice or instruction. Practice and instruction should emphasize the skills, the form should be new to the student.

Do The Pathways Matter?



Are the Pathways of Progress meaningful for helping students achieve important end-of-year outcomes?

Figure 9: The impact of third-grade beginning-of-year benchmark status and Pathways of Progress performance on fourth-grade beginning-of-year DIBELS Composite Score.

If students are going to make reasonable gains throughout the year, those gains need to be related to important differences in outcomes. One important outcome for third grade instruction is the initial skills with which students enter fourth grade. As illustrated in Figure 9, beginning of third grade skills are an important predictor of beginning of fourth grade skills, explaining 67% of the variance. Student's Pathway of Progress in third grade contributes significant additional variance explained (6%).

For example, from Figure 9, students who are below benchmark and making at least typical progress or better are performing better at the beginning of fourth grade than students who are barely at or above benchmark (220-283) and making below to well-below typical progress.

Summary

The Pathways of Progress analysis is an innovative approach to setting individual instructional goals and evaluating individual student progress. Using the *DIBELS Next* Benchmark Goals and Pathways of Progress, educators are empowered to set goals that are meaningful, ambitious, and attainable for students at every level of initial skill. Pathways of Progress provides a normative context for evaluating progress compared to other students with similar initial skills. Pathways of Progress, when combined with the *DIBELS Next* benchmark goals and the *DIBELS Next* Composite Score, provides educators with important tools for examining where their students are, specifying where they need to get to, and evaluating whether they are making adequate progress.

References

Good, R. H., Kaminski, R. A. Cummings, K., Dufour-Martel, C., Petersen, K., Powell-Smith, K. Stollar, S., & Wallin, J. (2010). *Dynamic Indicators of Basic Early Literacy Skills Next.* Longmont, CO: Sopris. Available: <u>http://dibels.org</u>/.

Contact information:

Roland H. Good / rhgood @dibels.org Kelly A. Powell-Smith / kpowellsmith @dibels.org Elizabeth N. Dewey / edewey @dibels.org General information / info@dibels.org

Or visit our website at: http://www.dibels.org/



