

Charting RTI

There are usually many questions related to the charting of data, and how to set goals for the RTI process. Because most students require RTI services for Reading, reading data will be included. Math data, due to the cumulative nature of most math processes, provides structure that is not always obvious in reading.

First the question of what chart might work. The attached Excel file provides a chart recommended by Wayne Callender. The graph includes a goal statement, what is the purpose of RTI, and space to graph daily progress on a scale of 0 to 100.

Perhaps the second concept is that of an aimline. The aimline is simply the rate at which a child needs to increase skills in order to make a specified target. If the child is reading at a rate of 30 words per minute in third grade, it is possible to use the norms for Oral Reading Fluency and determine the expected reading rate for a third grader in the 50th percentile on the fall assessment is 71 words per minute. Using this data it seems logical that the RTI team simply draw a line indicating the child will reach 71 words per minute in six weeks, like this:

However, looking at an additional chart, the average growth chart indicates the RTI team will need to rethink this one. A third grader reading at the 50 percentile increases, on average, only about 1.1 words per week. IF the RTI team decides to provide an intervention for 6 weeks they might can expect a reading fluency increase of about 7 words or a reading rate of 37 words per minute at the end of six weeks of intensive intervention. The chart would then look like this:

Average Growth

2005 Hasbrouck & Tindal Oral Reading Fluency Data

Jan Hasbrouck and Gerald Tindal completed an extensive study of oral reading fluency in 2004. The results of their study are published in a technical report outlined "Oral Reading Fluency: 90 Years of Measurement which is available on the university of Oregon's website at brt.uoregon.edu/tech_reports.htm

This table shows the oral reading fluency rates of students grades 1 through 8 as determined by Hasbrouck and Tindal's study.

You can use the information in this table to draw conclusions and make decisions about the oral reading fluency of your students. Students scoring below the 50th percentile using the average score of two unpracticed readings from grade-level materials need a fluency building program. In addition, teachers can use the table to set the long-term fluency goals for their struggling readers.

Average weekly improvement is the average words per week growth you can expect from a student. It was calculated by subtracting the fall score from the spring score and dividing the difference by 32, the typical number of weeks between the fall and spring assessments. For grade 1, since there is no fall assessment, the average weekly improvement was calculated by subtracting the winter score from the spring score and dividing the difference by 16, the typical number of weeks between the winter and spring assessments.

Grade	Percentile	Fall WCPM*	Winter WCPM*	SPRING WCPM*	Average Weekly Improvement**
1	90		81	111	1.9
	75		47	82	2.2
	50		23	53	1.9
	25		12	28	1
	10		6	15	0.6
2	90	106	125	142	1.1
	75	79	100	117	1.2
	50	51	75	89	1.2
	25	25	42	61	1.1
	10	11	18	31	0.6
3	90	128	146	162	1.1
	75	99	120	137	1.2
	50	71	92	107	1.1
	25	44	62	78	1.1
	10	21	36	48	0.8
4	90	145	166	180	1.1
	75	119	139	152	1
	50	94	112	123	0.9
	25	68	87	98	0.9
	10	45	61	72	0.8
5	90	166	182	194	0.9
	75	139	156	168	0.9
	50	110	127	139	0.9
	25	85	99	109	0.8
	10	61	74	83	0.7
6	90	177	195	204	0.8
	75	153	167	177	0.8
	50	127	140	150	0.7
	25	98	111	122	0.8
	10	68	82	93	0.8

7	90	180	192	202	0.7
	75	156	165	177	0.7
	50	128	136	150	0.7
	25	102	109	123	0.7
	10	79	88	98	0.6
8	90	185	199	199	0.4
	75	161	173	177	0.5
	50	133	146	151	0.6
	25	106	115	124	0.6
	10	77	84	97	0.6

* WCPM = Words Correct Per Minute

** Average words per minute growth

You also need to note that the chart indicates the RTI team will identify a research-based intervention, Reading Mastery; completing one lesson each day, and weekly progress monitoring assessments.

Student's Name _____ Dist/Bldg: _____ Grade ____ Teacher: _____

Goal Statement: _____

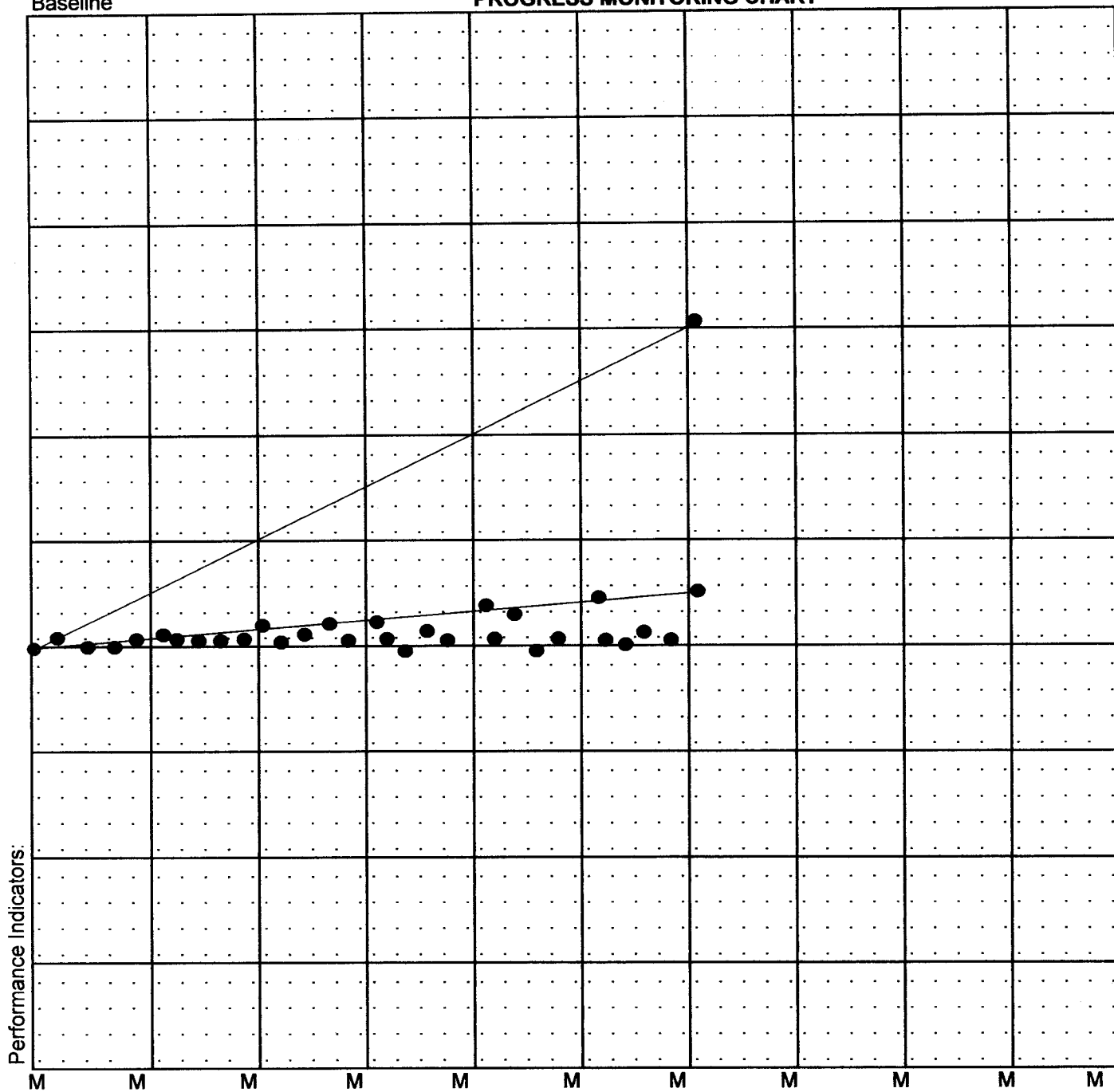
Expected Level of Performance: Objective 1 _____ Objective 2 _____

Service Provider: Primary: _____ Support: _____

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Baseline

PROGRESS MONITORING CHART



M	10/05/09	10/12/09	10/19/09	10/26/09	11/02/09	11/09/09					
T	10/06/09	10/13/09	10/20/09	10/27/09	11/03/09	11/10/09					
W	10/07/09	10/14/09	10/21/09	10/28/09	11/04/09	11/11/09					
R	10/08/09	10/15/09	10/22/09	10/29/09	11/05/09	11/12/09					
F	10/09/09	10/16/09	10/23/09	10/30/09	11/06/09	11/13/09					

	WCPM
10/5/2009 Basline DIBELS reading fluency	30
10/6/2009 Reading Mastery lesson 1	31
10/07/09 Reading Mastery lesson 2	30
10/08/09 Reading Mastery lesson 3	30
10/09/09 Reading Mastery lesson 4	31
10/12/09 ORF Assessment DIBELS 31 WCPM	Reading Mastery lesson 5
10/13/09 Reading Mastery lesson 6	31
10/14/09 Reading Mastery lesson 7	31
10/15/09 Reading Mastery lesson 8	31
10/16/09 Reading Mastery lesson 9	31
10/19/09 ORF Assessment DIBELS 31 WCPM	Reading Mastery lesson 10
10/20/09 Reading Mastery lesson 11	31
10/21/09 Reading Mastery lesson 12	32
10/22/09 Reading Mastery lesson 13	33
10/23/09 Reading Mastery lesson 14	31
10/26/09 ORF Assessment DIBELS 31 WCPM	Reading Mastery lesson 15
10/27/09 Reading Mastery lesson 16	31
10/28/09 Reading Mastery lesson 17	29
10/29/09 Reading Mastery lesson 18	31
10/30/09 Reading Mastery lesson 19	30
11/02/09 ORF Assessment DIBELS 31 WCPM	Reading Mastery lesson 20
11/03/09 Reading Mastery lesson 21	31
11/04/09 Reading Mastery lesson 22	33
11/05/09 Reading Mastery lesson 23	29
11/06/09 Reading Mastery lesson 24	31
11/09/09 ORF Assessment DIBELS 31 WCPM	Reading Mastery lesson 25
11/10/09 Reading Mastery lesson 26	31
11/11/09 Reading Mastery lesson 27	30
11/12/09 Reading Mastery lesson 28	32
11/13/09 Reading Mastery lesson 29	31

However, after three weeks, or three data points it should become obvious to the RTI team the child will not meet this goal. This should cause the RTI team to question the benefit of the instructional program. The student is making gains, but questions of whether those gains are enough and whether or not the RTI team has selected the right materials need to be answered. The general expectation for decision making rules is: if the teacher and/or RTI team see three data points below the aimline, the RTI team needs to change either the instructional strategy or the stated goal. THE RTI team can also look at other alterable variables, all the things the RTI team might change to improve achievement. These include:

Alterable Variables Chart

Alterable components	Specific Adjustments					
Opportunities to Learn (Time/or concentration of Instruction)	Increase attendance	Provide instruction daily	Increase opportunities to respond	Vary schedule of easy/hard tasks/skills	Add another instructional period (double does)	
Program Efficiency	Preteach components of core program	Use extensions of the core program	Supplement core with appropriate materials	Replace current core program	Implement specially designed program	
Program Implementation	Model lesson delivery	Monitor implementation frequently	Provide coaching and ongoing support	Provide additional staff development	Vary program/lesson schedule	
Grouping for Instruction	Check group placement	Reduce Group size	Increase teacher led instruction	Provide individual instruction	Change Instructor	
Coordination of Instruction	Clarify Instructional priorities	Establish concurrent reading periods	Provide complimentary reading instruction	Establish communication across instructors	Meet frequently to examine progress	

The RTI team also needs to add another term here. The general trend of the data is called the trend line, which is included in the Progress Monitoring Chart in red.

If the program is working, and the child is making gains in reading, it may be of benefit to consider one of the alterable variables. In the row of opportunities to learn, the RTI team might recommend double dosing, providing two reading lessons per day. With double dipping it may be possible to double the academic gains, increasing reading skills growth to 2.2 words per week, or 13 words in six weeks. This decision requires the RTI team to identify additional instructional time, implement the instructional program, collect daily and weekly assessment data, and assess the benefits of doubling the instructional time, or double dipping.

At this point the RTI team needs to think about other variables and/or programs that might be used to teach reading. Since this child is almost old enough to receive Corrective Reading intervention the RTI team has reviewed the data and decided that it might be appropriate to change interventions. Since the RTI team also knows, based upon the oral reading fluency chart, the average reading growth for a 4th grade student is 1.1 words per week, it is unreasonable to believe a child will go from reading 41 words per minute to 71 words per minute in 6 weeks. However, in order to "catch up" with peers, the child must read add reading vocabulary at a rate greater than 1.1 words per week otherwise the child will experience parallel growth where the child is learning to read, but always reads at a rate 60 WCPM slower than their peers. Assuming the RTI team can double the expected rate through intensive Corrective Reading services, a goal of 2.2 words per week, or 14 words growth in six weeks, from 41 to 55 words per minute seems a viable goal. Charting this change in the aimline along with the results of a corrective reading intervention results in a graph like this:

Student's Name _____ Dist/Bldg: _____ Grade ____ Teacher: _____

Goal Statement: _____

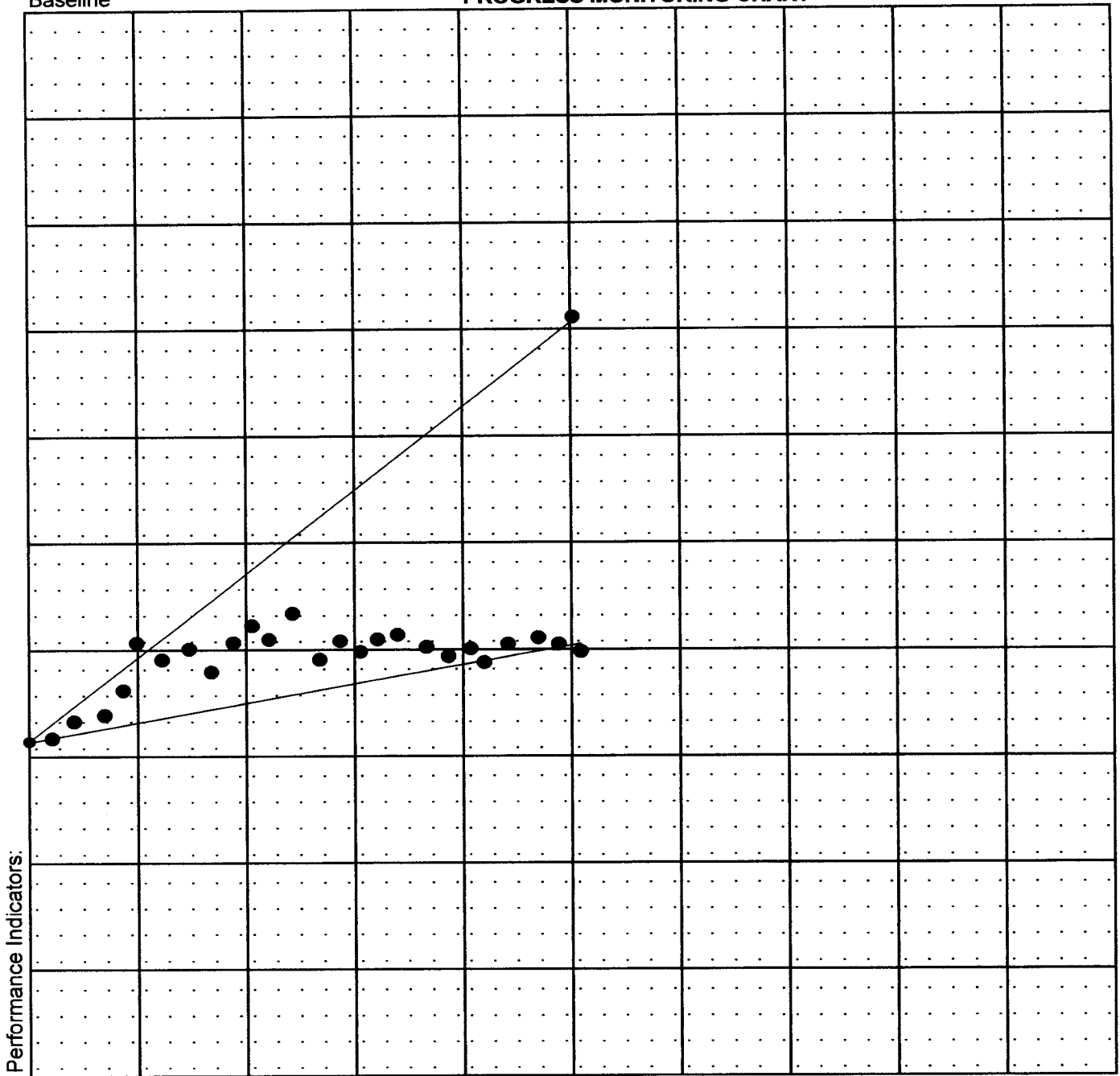
Expected Level of Performance: Objective 1 _____ Objective 2 _____

Service Provider: Primary: _____ Support: _____

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Baseline

PROGRESS MONITORING CHART



Performance Indicators:

M M M M M M M M M M

M	11/16/09	11/13/09	11/30/09	12/07/09	12/14/09	12/21/09			
T	11/17/09	11/24/09	12/01/09	12/08/09	12/15/09	12/22/09			
W	11/18/09	11/25/09	12/02/09	12/09/09	12/16/09	12/23/09			
R	11/19/09	11/26/09	12/03/09	12/10/09	12/17/09	12/24/09			
F	11/20/09	11/27/09	12/04/09	12/11/09	12/18/09	12/25/09			

	WCPM
11/16/09 DIBELS reading fluency from previous intervention	
11/17/09 Reading Mastery lesson 30, 31	32
11/18/09 Reading Mastery lesson 32, 33	34
11/19/09 Reading Mastery lesson 33, 34	35
11/20/09 Reading Mastery lesson 34, 35	37
11/13/09 ORF Assessment DIBELS 40 WPM	Reading Mastery lesson 36, 37
11/24/09 Reading Mastery lesson 38, 39	39
11/25/09 Reading Mastery lesson 40, 41	40
11/26/09 Reading Mastery lesson 42, 43	38
11/27/09 Reading Mastery lesson 44, 45	41
11/30/09 ORF Assessment DIBELS 43 WPM	Reading Mastery lesson 46, 47
12/01/09 Reading Mastery lesson 48, 49	42
12/02/09 Reading Mastery lesson 50, 51	44
12/03/09 Reading Mastery lesson 52, 53	39
12/04/09 Reading Mastery lesson 54, 55	41
12/07/09 ORF Assessment DIBELS 40 WPM	Reading Mastery lesson 56, 57
12/08/09 Reading Mastery lesson 58, 59	42
12/09/09 Reading Mastery lesson 60, 61	37
12/10/09 Reading Mastery lesson 62, 63	39
12/11/09 Reading Mastery lesson 64, 65	41
12/14/09 ORF Assessment DIBELS 41 WPM	Reading Mastery lesson 66, 67
12/15/09 Reading Mastery lesson 68, 69	41
12/16/09 Reading Mastery lesson 70, 71	42
12/17/09 Reading Mastery lesson 72, 73	40
12/18/09 Reading Mastery lesson 74, 75	39
12/21/09 ORF Assessment DIBELS 41 WPM	Reading Mastery lesson 76, 77
12/22/09 Reading Mastery lesson 78, 79	38
12/23/09 Reading Mastery lesson 80, 81	41
12/24/09 Reading Mastery lesson 82, 83	42
12/25/09 Reading Mastery lesson 84, 85	41

While this student showed some progress when providing Reading Mastery instruction one time per day, double dipping, or teaching two lessons per day initially looked like it was reaching the aim line. However, data points and the trend line indicate that rather than continuing gains, the student has reached a plateau at about 40 words per minute. An important point in RTI is the concept that, if the intervention does not work, doing more is probably not going to show sudden improvement.

Student's Name _____ Dist/Bldg: _____ Grade ____ Teacher: _____

Goal Statement: _____

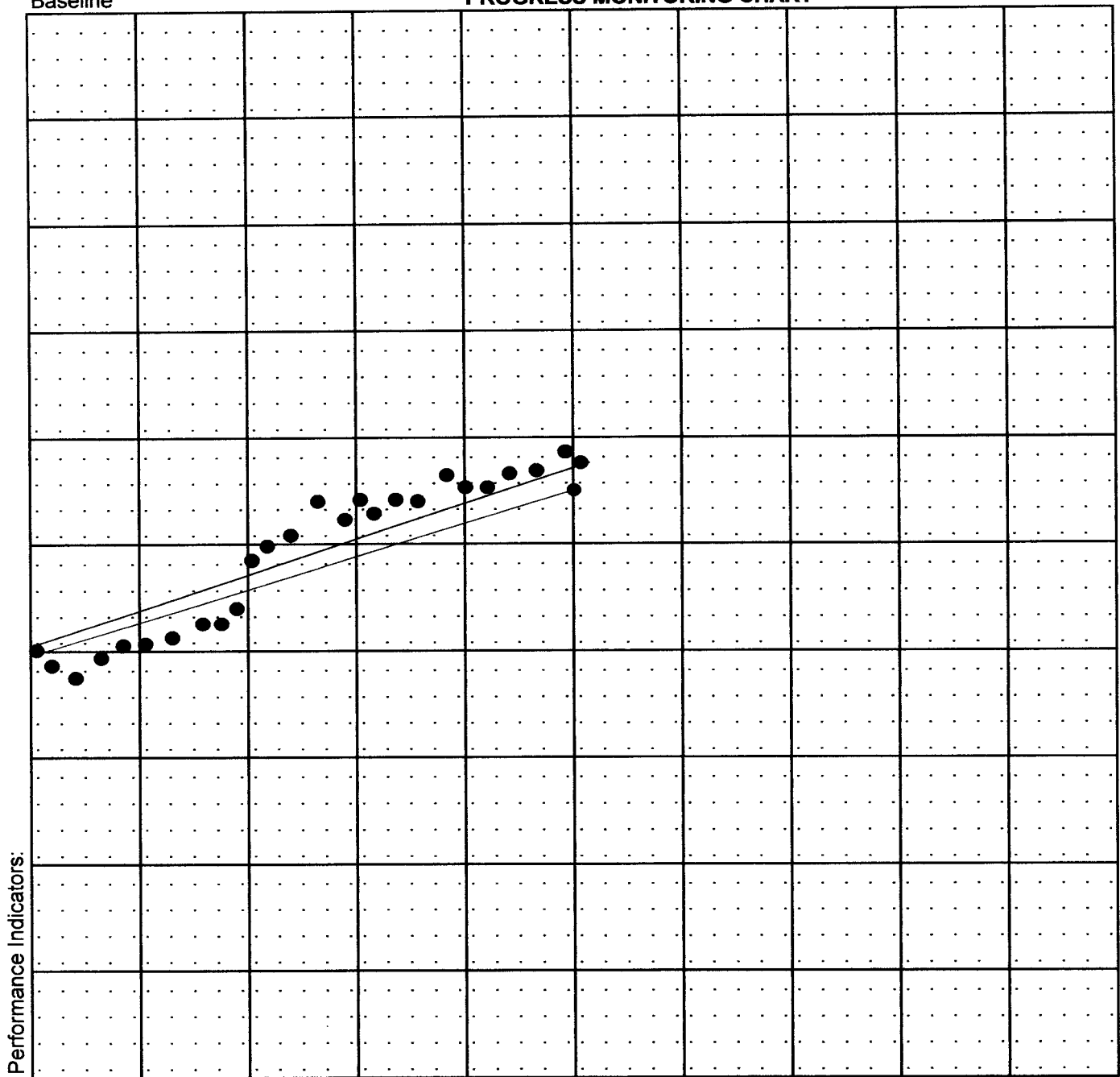
Expected Level of Performance: Objective 1 _____ Objective 2 _____

Service Provider: Primary: _____ Support: _____

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Baseline

PROGRESS MONITORING CHART



Performance Indicators:

M M M M M M M M M M

M	1/4/2010	1/11/2010	1/18/2010	1/25/2010	2/1/2010	2/8/2010				
T	1/5/2010	1/12/2010	1/19/2010	1/26/2010	2/2/2010	2/9/2010				
W	1/6/2010	1/13/2010	1/20/2010	1/27/2010	2/3/2010	2/10/2010				
R	1/7/2010	1/14/2010	1/21/2010	1/28/2010	2/4/2010	2/11/2010				
F	1/8/2010	1/15/2010	1/22/2010	1/29/2010	2/5/2010	2/12/2010				

1/4/2010	DIBELS reading fluency from previous intervention	41 WCPM
1/5/2010	Corrective Reading Lesson 1	39 WCPM
1/6/2010	Corrective Reading Lesson 2	38 WCPM
1/7/2010	Corrective Reading Lesson 3	40 WCPM
1/8/2010	Corrective Reading Lesson 4	41 WCPM
1/11/2010	ORF Assessment DIBELS 41 WPM	Corrective Reading Lesson 5
1/12/2010	Corrective Reading Lesson 6	42WCPM
1/13/2010	Corrective Reading Lesson 7	44 WCPM
1/14/2010	Corrective Reading Lesson 8	44 WCPM
1/15/2010	Corrective Reading Lesson 9	45 WCPM
1/18/2010	ORF Assessment DIBELS 48 WPM	Corrective Reading Lesson 10
1/19/2010	Corrective Reading Lesson 11	48 WCPM
1/20/2010	Corrective Reading Lesson 12	47 WCPM
1/21/2010	Corrective Reading Lesson 13	50 WCPM
1/22/2010	Corrective Reading Lesson 14	50 WCPM
1/25/2010	ORF Assessment DIBELS 49 WPM	Corrective Reading Lesson 15
1/26/2010	Corrective Reading Lesson 16	50 WCPM
1/27/2010	Corrective Reading Lesson 17	52 WCPM
1/28/2010	Corrective Reading Lesson 18	55 WCPM
1/29/2010	Corrective Reading Lesson 19	53 WCPM
2/1/2010	ORF Assessment DIBELS 54 WPM	Corrective Reading Lesson 20
2/2/2010	Corrective Reading Lesson 21	54 WCPM
2/3/2010	Corrective Reading Lesson 22	55 WCPM
2/4/2010	Corrective Reading Lesson 23	57 WCPM
2/5/2010	Corrective Reading Lesson 24	57 WCPM
2/8/2010	ORF Assessment DIBELS 55 WPM	Corrective Reading Lesson 25
2/9/2010	Corrective Reading Lesson 26	55 WCPM
2/10/2010	Corrective Reading Lesson 27	57 WCPM
2/11/2010	Corrective Reading Lesson 28	56 WCPM
2/12/2010	Corrective Reading Lesson 29	58WCPM

Another important point to consider is how the RTI team might change the intervention during a six week time period. An example might be changing from a 60 minute supplemental reading block to a 90 minute reading block, or moving this supplemental block from the morning to the afternoon. A vertical line (in this case starting the seventh week of intervention), and a note indicating the change in the data log works well, and looks like this:

Student's Name _____ Dist/Bldg: _____ Grade ____ Teacher: _____

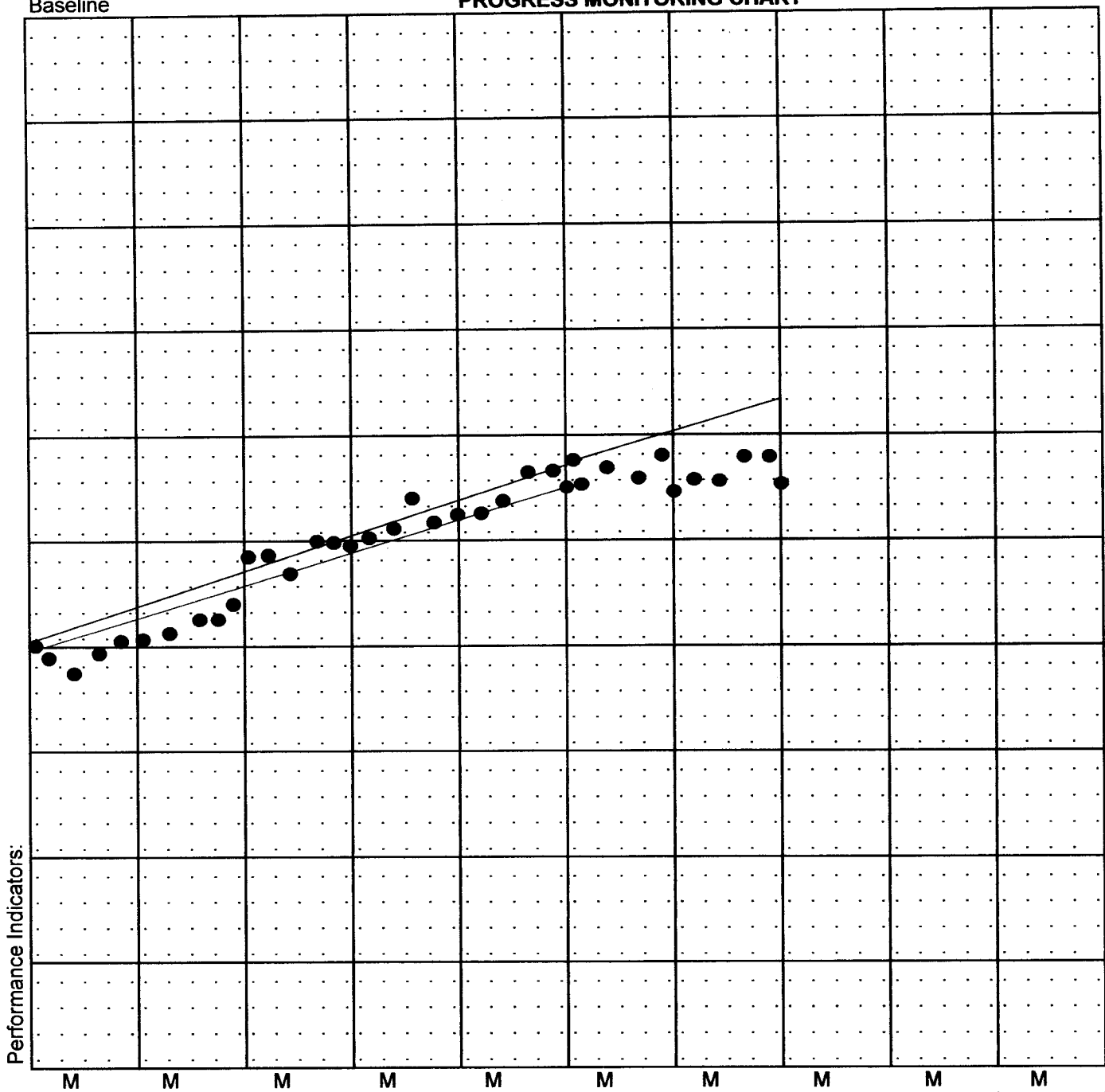
Goal Statement: _____

Expected Level of Performance: Objective 1 _____ Objective 2 _____

Service Provider: Primary: _____ Support: _____

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Baseline **PROGRESS MONITORING CHART**



Performance Indicators:

M	1/4/2010	1/11/2010	1/18/2010	1/25/2010	2/1/2010	2/8/2010			
T	1/5/2010	1/12/2010	1/19/2010	1/26/2010	2/2/2010	2/9/2010			
W	1/6/2010	1/13/2010	1/20/2010	1/27/2010	2/3/2010	2/10/2010			
R	1/7/2010	1/14/2010	1/21/2010	1/28/2010	2/4/2010	2/11/2010			
F	1/8/2010	1/15/2010	1/22/2010	1/29/2010	2/5/2010	2/12/2010			

1/4/2010	DIBELS reading fluency from previous intervention	41 WCPM
1/5/2010	Corrective Reading Lesson 1	39 WCPM
1/6/2010	Corrective Reading Lesson 2	38 WCPM
1/7/2010	Corrective Reading Lesson 3	40 WCPM
1/8/2010	Corrective Reading Lesson 4	41 WCPM
1/11/2010	ORF Assessment DIBELS 41 WPM	Corrective Reading Lesson 5
1/12/2010	Corrective Reading Lesson 6	42WCPM
1/13/2010	Corrective Reading Lesson 7	44 WCPM
1/14/2010	Corrective Reading Lesson 8	44 WCPM
1/15/2010	Corrective Reading Lesson 9	45 WCPM
1/18/2010	ORF Assessment DIBELS 48 WPM	Corrective Reading Lesson 10
1/19/2010	Corrective Reading Lesson 11	48 WCPM
1/20/2010	Corrective Reading Lesson 12	47 WCPM
1/21/2010	Corrective Reading Lesson 13	50 WCPM
1/22/2010	Corrective Reading Lesson 14	50 WCPM
1/25/2010	ORF Assessment DIBELS 49 WPM	Corrective Reading Lesson 15
1/26/2010	Corrective Reading Lesson 16	50 WCPM
1/27/2010	Corrective Reading Lesson 17	52 WCPM
1/28/2010	Corrective Reading Lesson 18	55 WCPM
1/29/2010	Corrective Reading Lesson 19	53 WCPM
2/1/2010	ORF Assessment DIBELS 54 WPM	Corrective Reading Lesson 20
2/2/2010	Corrective Reading Lesson 21	54 WCPM
2/3/2010	Corrective Reading Lesson 22	55 WCPM
2/4/2010	Corrective Reading Lesson 23	57 WCPM
2/5/2010	Corrective Reading Lesson 24	57 WCPM
2/8/2010	ORF Assessment DIBELS 55 WPM	Corrective Reading Lesson 25
2/9/2010	Corrective Reading Lesson 26	55 WCPM
2/10/2010	Corrective Reading Lesson 27	57 WCPM
2/11/2010	Corrective Reading Lesson 28	56 WCPM
2/12/2010	Corrective Reading Lesson 29	58WCPM
2/15/2010	Added second session of Corrective reading: Baseline of	55 WCPM
12/5/2010	Corrective Reading Lessons 30, 31	56 WCPM
12/6/2010	Corrective Reading Lessons 32, 33	56 WCPM
12/7/2010	Corrective Reading Lessons 34, 35	58 WCPM
12/8/2010	Corrective Reading Lessons 36, 37	58 WCPM
12/9/2010	Corrective Reading Lessons 38, 39	56 WCPM

Now the RTI team begins to make long-term identification decisions. In partnership with special education staff there are many questions to be answered:

- The trend line for the Corrective Reading intervention did not meet expectations, but the data does indicate improved reading skills. Should the Corrective Reading Intervention be continued?
- Is there a benefit in teaching Corrective Reading twice as often, doubling dipping to accelerate skills acquisition?
- Is the skills acquisition sufficient to close the achievement gap?
- Is the achievement gain enough that the Corrective Reading Intervention should be continued?
- Is the level of instruction so individualized that it looks, feels, and is essentially special education? If so, is it time to identify this child as a child with a learning disability?
- Is there sufficient, organized data, both daily intervention and assessment data to document a learning disability?

Conclusion:

While RTI is always talked about as being a three tier intervention, it is possible that a child will move into your district and is so far behind in skills that the child's instructional need begins with a Tier 3 intervention. However, if we are providing good research-based instruction in our classrooms, Tier 1 interventions are a part of classroom instruction. Tier 2 intervention begins as we begin to try other methods to teach the child. Tier 3 intervention is tailoring instruction to better meet the needs of the child. We already do many of these tasks. What we often forget to do is collect and use meaningful data that helps us to better tailor instructional programs to student need.

In reading about RTI, you begin to realize that Tier 3 intervention does not immediately end the Tier 1 interventions, Tier 2 and Tier 3 interventions are intended to be extension of core curriculum materials, providing additional instruction tailored to meet the child's needs. Each intervention also serves to provide data. Good data is far more meaningful than an assessment. If you really think about it, which causes you to believe you really understand the child's needs, 6 to 18 weeks of instructional data, or a one hour assessment? RTI is good teaching, with a commitment to generating and using data to provide better instruction. Ultimately, the best instruction may be in the classroom, in a specialized group, in Title 1, or in special education. The true measure of efficacy is student achievement.