

Data-Based Decision Making

Definition

Using Student Data to Support Instructional Decisions

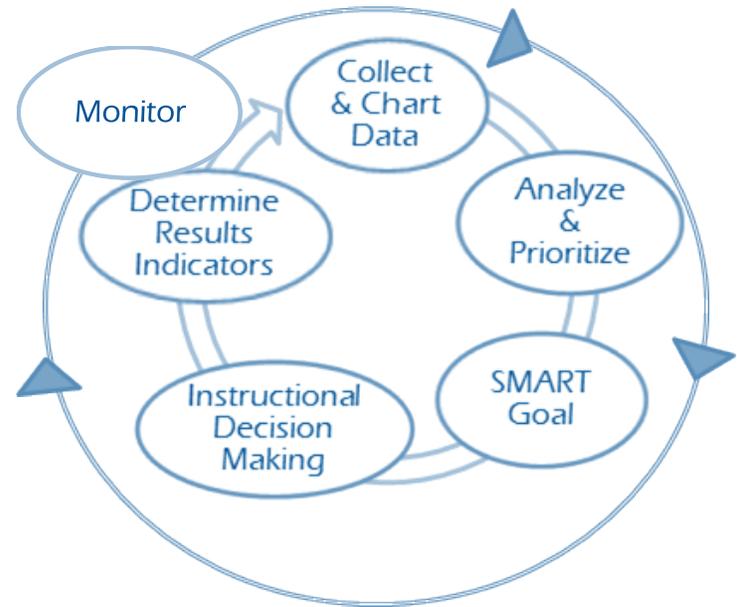
Data-Based Decision Making (DBDM) = small teams meet regularly and use an explicit, data-driven structure to

- ❑ disaggregate data,
- ❑ analyze student performance,
- ❑ set incremental student learning goals,
- ❑ engage in dialogue around explicit and deliberate classroom instruction, and
- ❑ create a plan to continuously monitor instruction and student learning.

Purpose

- ❑ Make data part of an ongoing cycle of instructional improvement
- ❑ Teach students to examine their own data and learning goals
- ❑ Establish a clear vision for school-wide data use by teachers and teaching teams
- ❑ Provide supports that foster a data-driven culture within the school

The Process



Benefits

Using a DBDM process shifts the work of school teams from a reactive or crisis driven process to a pro-active, outcomes driven process, and sets the stage for continuous improvement.

Gilbert, 1978; McIntosh, Horner & Sugai, 2009

Guiding Questions

How many students are succeeding in the subject I/we teach?

Within those subjects, what are the areas of strengths and weakness?

How can I/we establish and sustain a culture and process for strategic instructional decision-making across our building, teams and classrooms?



Mike Schmoker

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Letter to Data-Based Decision Making Professional Learning Module for Teams

The professional learning is designed for attendance by school teams:

- Administrator(s)
- Teacher leaders
- Entire certificated staff

Requirements for Effective Data-based Decision Making

- Leadership
- Collaborative Culture
- Structured and protected collaborative time
- Consistent process for DBDM Cycles
- Efficient Data Collection & Reporting Systems
- Fidelity of implementation data
- Research based instructional practices & strategies
- Additional Student Data (e.g., gender, race/ethnicity, school /classroom attendance, etc.)

Committing to Data-based Decision Making

- Adequate team professional learning to master the process
- Weekly team meetings (45-60 minutes)
- Time for each teacher to administer and score common formative assessments (CFA), chart classroom level CFA data, investigate effective teaching and learning practices and strategies, gather data on implementation of effective teaching and learning practices and strategies, reflect on professional practice
- Follow up professional learning and/or technical assistance (distance and/or onsite) as needed to provide formative input into data processes



Preparatory work to be completed by each participant (see handout with directions)

- Two short readings
- Reflection questions
- Prepared to share ratings and thoughts at beginning of professional learning module

Outcomes:

During the training participants will develop knowledge and applies steps of DBDM “Cycles” (Data Teams) with example data sets:

- Develop classroom system of data collection and charting
- Analyze and disaggregate student learning
- Establish student goals based on results
- Select instructional practices
- Determine results indicators, using cause and effect data
- Design ongoing monitoring of results (monitor, reflect, adjust, repeat)

After training, participants will utilize steps of DBDM Cycles with classroom data

- Teacher will collect, chart, analyze and disaggregate student learning data as well as implementation data.
- Teacher will explain results indicators for process (cause) and product (effect)
- Teacher will design ongoing monitoring of results (monitor, reflect, adjust, repeat)



Data-based Decision-making Preparatory Reading Assignments

Reading 1

REL Northwest, (2009) Using Student Data to Support Instructional Decision Making. *Institute of Educational Sciences (IES) Practice Guide Summary*.

A two-page summary of the IES guide to *Using Student Data to Support Instructional Decision Making*

<http://ies.ed.gov/ncee/wwc/PracticeGuide.aspx?sid=12>

- Review the 5 recommendations in the IES Practice Guide Summary
- Mark with the star which of those recommendations and specific steps, with support, you as a classroom teacher can work to implement into your professional practice
- Be ready to share your starred items during professional learning

Reading 2

Schmoker, M. (2003). First things first: Demystifying data analysis. *Educational Leadership*, 60(5), 22-24.

A three-page discussion of 1) how the use of data to drive instructional decision-making has been poorly done, and 2) how to make this critical process for improved student outcomes work more effectively.

Mike Schmoker poses 2 guiding questions for educators to answer:

- How many students are succeeding in the subject I teach?
- Within those subjects, what are the areas of strengths and weakness?
- How do you or your grade level or departmental team answer these questions now?
- How can the answers to these questions efficiently drive instructional decision-making at the classroom, grade level and/or departmental level?





IES Practice Guide Summary

Using Student Achievement Data to Support Instructional Decision Making



Audience Teachers and administrators.

Grade level K–12.

Link http://ies.ed.gov/ncee/wwc/pdf/practiceguides/dddm_pg_092909.pdf

Introduction

More data are available in schools, but the question of what to do with the data remains primarily unanswered. This guide provides a framework for using student achievement data to support instructional decision making. Data provide a way to assess what students are learning and the extent to which students are making progress toward goals. However, making sense of data requires concepts, theories, and interpretative frames of reference. Using data systematically to ask questions and obtain insight about student progress is a logical way to monitor continuous improvement and tailor instruction to the needs of each student. Armed with data and the means to harness the information data can provide, educators can make instructional changes aimed at improving student achievement, such as:

- Prioritizing instructional time
- Targeting additional individual instruction for students who are struggling with particular topics
- More easily identifying individual students' strengths and instructional interventions that can help students continue to progress
- Gauging the instructional effectiveness of classroom lessons
- Refining instructional methods
- Examining schoolwide data to consider whether and how to adapt the curriculum based on information about students' strengths and weaknesses

The guide also provides recommendations for creating the organizational and technological conditions that foster effective data use.

This guide focuses on how schools can make use of common assessment data to improve teaching and learning. Common assessments are those that are routinely, consistently

administered by the school, district, or state. They include annual accountability tests, end-of-course tests, and commercial- or district-produced interim or benchmark assessments. Assessments may be administered at multiple points to provide feedback on student learning or summatively assess learning at the end of the course or year. Although schools and districts may collect perceptual, behavioral, and administrative data, this guide is concerned with data that measures academic progress and achievement.

Recommendations

1. Make data part of an ongoing cycle of instructional improvement.

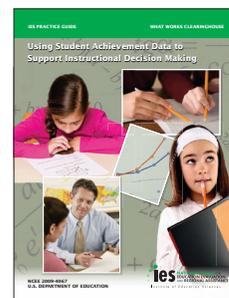
- Collect and prepare a variety of data about student learning.
- Interpret data and develop hypotheses about how to improve student learning.
- Modify instruction to test hypotheses and increase student learning.

2. Teach students to examine their own data and set learning goals.

- Explain expectations and assessment criteria.
- Provide feedback to students that is timely, specific, well formatted, and constructive.
- Provide tools that help students learn from feedback.
- Use students' data analyses to guide instructional changes.

3. Establish a clear vision for schoolwide data use.

- Establish a schoolwide data team that sets the tone for ongoing data use.
- Define critical teaching and learning concepts.
- Develop a written plan that articulates activities, roles, and responsibilities.
- Provide ongoing data leadership.



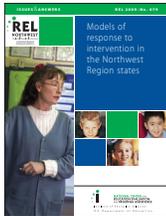
4. Provide supports that foster a data-driven culture within the school.

- Designate a school-based facilitator who meets with teacher teams to discuss data.
- Dedicate structured time for staff collaboration.
- Provide targeted professional development regularly.

5. Develop and maintain a districtwide data system.

- Involve a variety of stakeholders in selecting a data system.
- Clearly articulate system requirements relative to user needs.
- Determine whether to build or buy the data system.
- Plan and stage the implementation of the data system.

Related REL Publications



Models of Response to Intervention in Northwest Region States

(September 2009)

This report provides information on the

Response to Intervention (RtI) models supported by state education agencies in the Northwest Region and identifies states' RtI-related resources, policies, and activities.

http://ies.ed.gov/ncee/edlabs/regions/northwest/pdf/REL_2009079.pdf

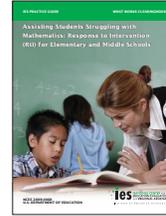


Assisting Students Struggling with Reading: Response to Intervention (RtI) and Multi-Tier Intervention in the Elementary Grades

(February 2009)

This guide offers five specific recommendations to help educators identify struggling readers and implement evidence-based strategies to promote their reading achievement. Teachers and reading specialists can utilize these strategies to implement RtI and multi-tier intervention methods and frameworks at the classroom or school level. Recommendations cover how to screen students for reading problems, design a multi-tier intervention program, adjust instruction to help struggling readers, and monitor student progress.

http://ies.ed.gov/ncee/www/pdf/practiceguides/rti_reading_pg_021809.pdf



Assisting Students Struggling with Mathematics: Response to Intervention (RtI) for Elementary and Middle Schools

(April 2009)

Taking early action may be key to helping students struggling with mathematics. The eight recommendations in this guide are designed to help teachers, principals, and administrators use RtI for the early detection, preventions, and support of students struggling with mathematics.

http://ies.ed.gov/ncee/www/pdf/practiceguides/rti_math_pg_042109.pdf

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Wiley I

Name: Wiley I

Problem Solving Pretest

Directions: Read the following problems and solve. Make sure you PROVE your answers!!

222
222
222
222
222

1. There were 400 people at the circus. 178 of them were children and the rest were adults. How many adults were at the circus?

XO

$$\begin{array}{r} 400 \\ + 178 \\ \hline 578 \end{array}$$

$$\begin{array}{r} 400 \\ - 178 \\ \hline 222 \end{array}$$

2. The party supply store had 345 red balloons. They also had 257 blue balloons. How many more red balloons than blue balloons did the party store have?

222
222
222

XO

$$\begin{array}{r} 345 \\ + 257 \\ \hline 602 \end{array}$$

$$\begin{array}{r} 345 \\ - 257 \\ \hline 88 \end{array}$$

3. Sarah read 159 pages of her new book on Monday. She read 83 pages on Tuesday. How many pages has she read so far?

159

XO

$$\begin{array}{r} 159 \\ + 83 \\ \hline 242 \end{array}$$

4. Nicole has 273 stickers. Ashley has 156 stickers. Beth has 192 stickers. How many stickers do Nicole and Beth have altogether?

~~Handwritten~~ x1

$$\begin{array}{r} 273 \\ + 156 \\ \hline 429 \end{array}$$

5. Nick wanted a total of 300 rocks for his collection. He already has 168 rocks. How many more rocks does he need?

x0

$$\begin{array}{r} 300 \\ - 168 \\ \hline 132 \end{array}$$

6. Derek has 351 marbles. Mike has 89 less than Derek. How many marbles do they have all together?

x2

$$\begin{array}{r} 351 \\ - 89 \\ \hline 262 \end{array}$$

$$\frac{6}{14}$$

Name: Clair

Problem Solving Pre/Posttest

Directions: Read the following problems and solve. Make sure you PROVE your answers!!

1. There were 400 people at the circus. 178 of them were children and the rest were adults. How many adults were at the circus?

$\begin{array}{r} 400 \\ - 178 \\ \hline \end{array}$	<table border="1" style="border-collapse: collapse;"> <tr><td style="text-align: center;">400</td></tr> <tr><td style="text-align: center;">178 ?</td></tr> </table>	400	178 ?
400			
178 ?			

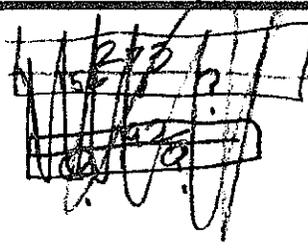
2. The party supply store had 345 red balloons. They also had 257 blue balloons. How many more red balloons than blue balloons did the party store have?

$\begin{array}{r} 345 \\ + 257 \\ \hline 602 \end{array}$	<table border="1" style="border-collapse: collapse;"> <tr><td style="text-align: center;">?</td></tr> <tr><td style="text-align: center;">345 257</td></tr> </table>	?	345 257
?			
345 257			

3. Sarah read 159 pages of her new book on Monday. She read 83 pages on Tuesday. How many pages has she read so far?

$\begin{array}{r} 159 \\ + 83 \\ \hline 242 \end{array}$	<table border="1" style="border-collapse: collapse;"> <tr><td style="text-align: center;">?</td></tr> <tr><td style="text-align: center;">159 83</td></tr> </table>	?	159 83
?			
159 83			

4. Nicole has 273 stickers. Ashley has 156 stickers. Beth has 192 stickers. How many stickers do Nicole and Beth have altogether?



$$\begin{array}{r}
 21 \\
 273 \\
 + 192 \\
 + 156 \\
 \hline
 621
 \end{array}$$



5. Nick wanted a total of 300 rocks for his collection. He already has 168 rocks. How many more rocks does he need?

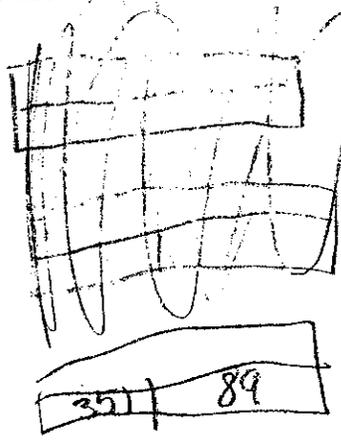
$$\begin{array}{r}
 210 \\
 300 \\
 - 168 \\
 \hline
 132
 \end{array}$$

300	
168	?

6. Derek has 351 marbles. Mike has 89 less than Derek. How many marbles do they have all together?

$$\begin{array}{r}
 11 \\
 351 \\
 + 89 \\
 \hline
 440
 \end{array}$$

$$= 4$$



4. Nicole has 273 stickers. Ashley has 156 stickers. Beth has 192 stickers. How many stickers do Nicole and Beth have altogether?

$$\begin{array}{r} 273 \\ + 192 \\ \hline 465 \end{array}$$

273	192

5. Nick wanted a total of 300 rocks for his collection. He already has 168 rocks. How many more rocks does he need?

-2

$$\begin{array}{r} 300 \\ - 168 \\ \hline 132 \end{array}$$

300	168

6. Derek has 351 marbles. Mike has 89 less than Derek. How many marbles do they have all together?

$$\begin{array}{r} 351 \\ - 89 \\ \hline 262 \end{array}$$

$$\begin{array}{r} 262 \\ + 89 \\ \hline 351 \end{array}$$

-3

$$\frac{6}{14}$$

Name: Nathan

Problem Solving Pre/Posttest

Directions: Read the following problems and solve. Make sure you PROVE your answers!!

1. There were 400 people at the circus. 178 of them were children and the rest were adults. How many adults were at the circus?

$\begin{array}{r} 400 \\ -178 \\ \hline 222 \end{array}$	$\begin{array}{r} 400 \\ -178 \\ \hline \end{array}$
--	--

2. The party supply store had 345 red balloons. They also had 257 blue balloons. How many more red balloons than blue balloons did the party store have?

$\begin{array}{r} 345 \\ +257 \\ \hline 602 \end{array}$	$\begin{array}{r} 345 \\ -257 \\ \hline \end{array}$
--	--

3. Sarah read 159 pages of her new book on Monday. She read 83 pages on Tuesday. How many pages has she read so far?

$\begin{array}{r} 159 \\ +83 \\ \hline \end{array}$	$\begin{array}{r} 159 \\ +257 \\ \hline \end{array}$
---	--

4. Nicole has 273 stickers. Ashley has 156 stickers. Beth has 192 stickers. How many stickers do Nicole and Beth have altogether?

-2

$$\begin{array}{r} 273 \\ - 156 \\ \hline 117 \end{array}$$

273
156
117

5. Nick wanted a total of 300 rocks for his collection. He already has 168 rocks. How many more rocks does he need?

-2

$$\begin{array}{r} 300 \\ + 168 \\ \hline 468 \end{array}$$

300
168
468

6. Derek has 351 marbles. Mike has 89 less than Derek. How many marbles do they have all together?

-3

$$\begin{array}{r} 351 \\ - 89 \\ \hline 262 \end{array}$$

351
89
262

$$\frac{6}{14}$$

Name: Asht & Palme

Problem Solving Pre/Posttest

Directions: Read the following problems and solve. Make sure you **ROVE** your answers!!

1. There were 400 people at the circus. 178 of them were children and the rest were adults. How many adults were at the circus?

$$\begin{array}{r} 400 \\ -178 \\ \hline 222 \end{array}$$

$$\begin{array}{r} 400 \\ -178 \\ \hline \end{array}$$

2. The party supply store had 345 red balloons. They also had 257 blue balloons. How many more red balloons than blue balloons did the party store have?

$$\begin{array}{r} 345 \\ -257 \\ \hline 88 \end{array}$$

$$\begin{array}{r} 345 \\ -257 \\ \hline 88 \end{array}$$

3. Sarah read 159 pages of her new book on Monday. She read 83 pages on Tuesday. How many pages has she read so far?

$$\begin{array}{r} 159 \\ + 83 \\ \hline 242 \end{array}$$

$$\begin{array}{r} 159 \\ + 83 \\ \hline 242 \end{array}$$

$$\frac{4}{14}$$

Name: Angelina

Problem Solving Pre/Posttest

Directions: Read the following problems and solve. Make sure you PROVE your answers!!

1. There were 400 people at the circus. 178 of them were children and the rest were adults. How many adults were at the circus?

$$\begin{array}{r} 400 \\ -178 \\ \hline 222 \end{array}$$

$$\begin{array}{l} 400 \\ \swarrow \searrow \\ 178 \quad 222 \end{array}$$

2. The party supply store had 345 red balloons. They also had 257 blue balloons. How many more red balloons than blue balloons did the party store have?

$$\begin{array}{r} 345 \\ -257 \\ \hline 88 \end{array}$$

$$\begin{array}{l} 345 \\ \swarrow \searrow \\ 257 \quad 88 \end{array}$$

3. Sarah read 159 pages of her new book on Monday. She read 83 pages on Tuesday. How many pages has she read so far?

$$\begin{array}{r} 159 \\ +83 \\ \hline 242 \end{array}$$

$$\begin{array}{l} 159 \\ \swarrow \searrow \\ 83 \quad 242 \end{array}$$

4. Nicole has 273 stickers. Ashley has 156 stickers. Beth has 192 stickers. How many stickers do Nicole and Beth have altogether?

$$\begin{array}{r}
 273 \\
 +156 \\
 +192 \\
 \hline
 621
 \end{array}$$

$273 + 156 + 192 = 621$

5. Nick wanted a total of 300 rocks for his collection. He already has 168 rocks. How many more rocks does he need?

$$\begin{array}{r}
 \cancel{300} \\
 +168 \\
 \hline
 472
 \end{array}$$

$300 - 168 = 132$

6. Derek has 351 marbles. Mike has 89 less than Derek. How many marbles do they have all together?

$$\begin{array}{r}
 351 \\
 -89 \\
 \hline
 338
 \end{array}$$

$$\begin{array}{r}
 351 \\
 +89 \\
 \hline
 440
 \end{array}$$

-0

Name: Andy

Problem Solving Pre/Posttest

Directions: Read the following problems and solve. Make sure you PROVE your answers!!

1. There were 400 people at the circus. 178 of them were children and the rest were adults. How many adults were at the circus?

$$\begin{array}{r} 400 \\ - 178 \\ \hline 222 \end{array}$$

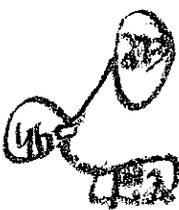
2. The party supply store had 345 red balloons. They also had 257 blue balloons. How many more red balloons than blue balloons did the party store have?

$$\begin{array}{r} 345 \\ - 257 \\ \hline 88 \end{array}$$

3. Sarah read 159 pages of her new book on Monday. She read 83 pages on Tuesday. How many pages has she read so far?

$$\begin{array}{r} 159 \\ + 83 \\ \hline 242 \end{array}$$

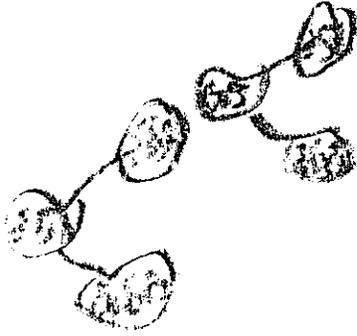
4. Nicole has 273 stickers. Ashley has 156 stickers. Beth has 192 stickers. How many stickers do Nicole and Beth have altogether?

$$\begin{array}{r} 273 \\ + 192 \\ \hline 465 \end{array}$$


5. Nick wanted a total of 300 rocks for his collection. He already has 168 rocks. How many more rocks does he need?

$$\begin{array}{r} 300 \\ - 168 \\ \hline 132 \end{array}$$


6. Derek has 351 marbles. Mike has 89 less than Derek. How many marbles do they have all together?

$$\begin{array}{r} 351 \\ + 262 \\ \hline 613 \end{array}$$


-0 ~~1~~

Name: Caroline

Problem Solving Pre/Posttest

Directions: Read the following problems and solve. Make sure you PROVE your answers!!

1. There were 400 people at the circus. 178 of them were children and the rest were adults. How many adults were at the circus?

222

$$\begin{array}{r} 39 \\ 400 \\ - 178 \\ \hline 222 \end{array}$$

400, 178, 222

2. The party supply store had 345 red balloons. They also had 257 blue balloons. How many more red balloons than blue balloons did the party store have?

88

$$\begin{array}{r} 213 \\ 345 \\ - 257 \\ \hline 88 \end{array}$$

345, 257, 88

3. Sarah read 159 pages of her new book on Monday. She read 83 pages on Tuesday. How many pages has she read so far?

$$\begin{array}{r} 159 \\ + 83 \\ \hline 242 \end{array}$$

242, 159, 83

4. Nicole has 273 stickers. Ashley has 156 stickers. Beth has 192 stickers. How many stickers do Nicole and Beth have altogether?

$$\begin{array}{r} 273 \\ + 192 \\ \hline 465 \end{array}$$

5. Nick wanted a total of 300 rocks for his collection. He already has 168 rocks. How many more rocks does he need?

$$\begin{array}{r} 29 \\ 300 \\ - 168 \\ \hline 132 \end{array}$$

6. Derek has 351 marbles. Mike has 89 less than Derek. How many marbles do they have all together?

$$\begin{array}{r} 262 \\ - 89 \\ \hline 173 \end{array}$$

$$\begin{array}{r} 1 \\ 262 \\ + 351 \\ \hline 613 \end{array}$$

$$\frac{12}{14}$$

Bad Good
 Name: Camille Amie

Problem Solving Pre/Posttest

Directions: Read the following problems and solve. Make sure you PROVE your answers!!

- There were 400 people at the circus. 178 of them were children and the rest were adults. How many adults were at the circus?

$$\begin{array}{r} 400 \\ - 178 \\ \hline 222 \end{array}$$

- The party supply store had 345 red balloons. They also had 257 blue balloons. How many more red balloons than blue balloons did the party store have?

$$\begin{array}{r} 345 \\ - 257 \\ \hline 88 \end{array}$$

- Sarah read 159 pages of her new book on Monday. She read 83 pages on Tuesday. How many pages has she read so far?

$$\begin{array}{r} 159 \\ + 83 \\ \hline 242 \end{array}$$

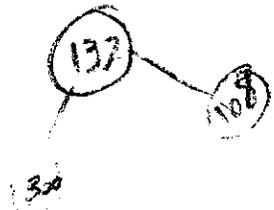
4. Nicole has 273 stickers. Ashley has 156 stickers. Beth has 192 stickers. How many stickers do Nicole and Beth have altogether?

$$\begin{array}{r} 273 \\ + 192 \\ \hline 465 \end{array}$$

5. Nick wanted a total of 300 rocks for his collection. He already has 168 rocks. How many more rocks does he need?

$$\begin{array}{r} 300 \\ - 168 \\ \hline 132 \end{array}$$

$$132$$



6. Derek has 351 marbles. Mike has 89 less than Derek. How many marbles do they have all together?

$$\begin{array}{r} 1 \\ + 262 \\ + 351 \\ \hline 613 \end{array}$$

$$\begin{array}{r} 351 \\ - 89 \\ \hline 262 \end{array}$$

$$\begin{array}{r} 13 \\ \hline 14 \end{array}$$

Name: Savannah

Problem Solving Pre/Posttest

Directions: Read the following problems and solve. Make sure you PROVE your answers!!

1. There were 400 people at the circus. 178 of them were children and the rest were adults. How many adults were at the circus?

$$\begin{array}{r} 39 \\ 400 \\ - 178 \\ \hline 222 \end{array} \quad \begin{array}{|l} \hline 400 \\ \hline 178 | ? \\ \hline \end{array}$$

2. The party supply store had 345 red balloons. They also had 257 blue balloons. How many more red balloons than blue balloons did the party store have?

$$\begin{array}{r} 213 \\ 345 \\ - 257 \\ \hline 88 \end{array} \quad \begin{array}{|l} \hline 345 \\ \hline 257 | ? \\ \hline \end{array}$$

3. Sarah read 159 pages of her new book on Monday. She read 83 pages on Tuesday. How many pages has she read so far?

$$\begin{array}{r} 159 \\ + 83 \\ \hline 242 \end{array} \quad \begin{array}{|l} \hline ? \\ \hline 83 | 159 \\ \hline \end{array}$$

4. Nicole has 273 stickers. Ashley has 156 stickers. Beth has 192 stickers. How many stickers do Nicole and Beth have altogether?

$$\begin{array}{r}
 1 \\
 + 273 \\
 + 192 \\
 \hline
 465
 \end{array}$$

?
192 273

5. Nick wanted a total of 300 rocks for his collection. He already has 168 rocks. How many more rocks does he need?

$$\begin{array}{r}
 24 \\
 \cancel{300} \\
 - 168 \\
 \hline
 132
 \end{array}$$

300
168 ?

6. Derek has 351 marbles. Mike has 89 less than Derek. How many marbles do they have all together?

$$\begin{array}{r}
 24 \\
 \cancel{351} \\
 - 89 \\
 \hline
 272
 \end{array}$$

351
89 ?

-

?
272 351

$\frac{13}{14}$

Name: Bon

Problem Solving Pre/Posttest

Directions: Read the following problems and solve. Make sure you PROVE your answers!!

1. There were 400 people at the circus. 178 of them were children and the rest were adults. How many adults were at the circus?

Handwritten work for problem 1:

~~$$\begin{array}{r} 400 \\ - 178 \\ \hline 222 \end{array}$$~~

~~$$\begin{array}{r} 400 \\ + 178 \\ \hline 578 \end{array}$$~~

~~$$\begin{array}{r} 400 \\ - 178 \\ \hline 222 \end{array}$$~~

~~$$\begin{array}{r} 400 \\ - 178 \\ \hline 222 \end{array}$$~~

2. The party supply store had 345 red balloons. They also had 257 blue balloons. How many more red balloons than blue balloons did the party store have?

Handwritten work for problem 2:

~~$$\begin{array}{r} 345 \\ - 257 \\ \hline 88 \end{array}$$~~

~~$$\begin{array}{r} 345 \\ + 257 \\ \hline 602 \end{array}$$~~

3. Sarah read 159 pages of her new book on Monday. She read 83 pages on Tuesday. How many pages has she read so far?

Handwritten work for problem 3:

~~$$\begin{array}{r} 159 \\ + 83 \\ \hline 242 \end{array}$$~~

~~$$\begin{array}{r} 159 \\ - 83 \\ \hline 76 \end{array}$$~~

4. Nicole has 273 stickers. Ashley has 156 stickers. Beth has 192 stickers. How many stickers do Nicole and Beth have altogether?

$$\begin{array}{r} 273 \\ + 192 \\ \hline 465 \end{array}$$

$$\begin{array}{r} 273 \\ + 192 \\ \hline 465 \end{array}$$

5. Nick wanted a total of 300 rocks for his collection. He already has 168 rocks. How many more rocks does he need?

$$\begin{array}{r} 300 \\ - 168 \\ \hline 132 \end{array}$$

6. Derek has 351 marbles. Mike has 89 less than Derek. How many marbles do they have all together?

$$\begin{array}{r} 351 \\ - 89 \\ \hline 262 \end{array}$$

$$\begin{array}{r} 351 \\ + 89 \\ \hline 440 \end{array}$$

$$\begin{array}{r} 262 \\ + 351 \\ \hline 613 \end{array}$$

o A

Name: Bryan P.

Problem Solving Pre/Posttest

Directions: Read the following problems and solve. Make sure you PROVE your answers!!

1. There were 400 people at the circus. 178 of them were children and the rest were adults. How many adults were at the circus?

$$\begin{array}{r} 400 \\ - 178 \\ \hline 222 \end{array}$$



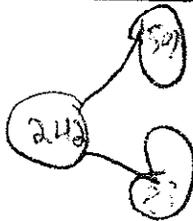
2. The party supply store had 345 red balloons. They also had 257 blue balloons. How many more red balloons than blue balloons did the party store have?

$$\begin{array}{r} 345 \\ - 257 \\ \hline 88 \end{array}$$



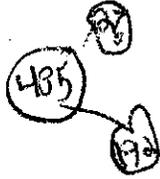
3. Sarah read 159 pages of her new book on Monday. She read 83 pages on Tuesday. How many pages has she read so far?

$$\begin{array}{r} 159 \\ + 83 \\ \hline 242 \end{array}$$



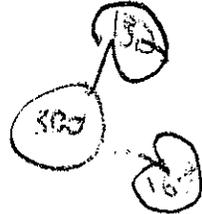
4. Nicole has 273 stickers. Ashley has 156 stickers. Beth has 192 stickers. How many stickers do Nicole and Beth have altogether?

$$\begin{array}{r} 273 \\ + 192 \\ \hline 465 \end{array}$$



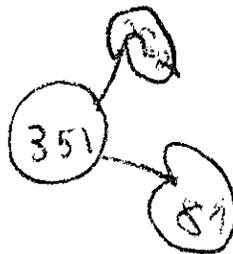
5. Nick wanted a total of 300 rocks for his collection. He already has 168 rocks. How many more rocks does he need?

$$\begin{array}{r} 300 \\ - 168 \\ \hline 132 \end{array}$$



6. Derek has 351 marbles. Mike has 89 less than Derek. How many marbles do they have all together?

$$\begin{array}{r} 351 \\ - 89 \\ \hline 262 \end{array}$$



$$\begin{array}{r} 351 \\ + 262 \\ \hline 613 \end{array}$$



11
14

Name: Cole

Problem Solving Pre/Posttest

Directions: Read the following problems and solve. Make sure you PROVE your answers!!

1. There were 400 people at the circus. 178 of them were children and the rest were adults. How many adults were at the circus?

39
~~400~~
- 178

222

(222) (178)
 (400)

2. The party supply store had 345 red balloons. They also had 257 blue balloons. How many more red balloons than blue balloons did the party store have?

-2

11
345
+ 257

602

(257) (345)
 (602)

3. Sarah read 159 pages of her new book on Monday. She read 83 pages on Tuesday. How many pages has she read so far?

11
159
+ 83

242

159	83	242
-----	----	-----

4. Nicole has 273 stickers. Ashley has 156 stickers. Beth has 192 stickers. How many stickers do Nicole and Beth have altogether?

Handwritten work for problem 4:

$$\begin{array}{r} 273 \\ + 192 \\ \hline 465 \end{array}$$

A box containing the numbers 465, 273, and 192, with lines indicating the addition of 273 and 192 to get 465.

5. Nick wanted a total of 300 rocks for his collection. He already has 168 rocks. How many more rocks does he need?

Handwritten work for problem 5:

$$\begin{array}{r} 300 \\ - 168 \\ \hline 132 \end{array}$$

A diagram showing a circle with 300 at the bottom, connected by lines to two circles above it, one with 168 and one with 132.

6. Derek has 351 marbles. Mike has 89 less than Derek. How many marbles do they have all together?

Handwritten work for problem 6:

351	89
264	

Handwritten work for problem 6 (continued):

$$\begin{array}{r} 351 \\ + 264 \\ \hline 615 \end{array}$$

A diagram showing a circle with 615 at the bottom, connected by lines to two circles above it, one with 264 and one with 351.

$$\frac{11}{14}$$

Name: Tyia

Problem Solving Pre/Posttest

Directions: Read the following problems and solve. Make sure you PROVE your answers!!

1. There were 400 people at the circus. 178 of them were children and the rest were adults. How many adults were at the circus?

Handwritten solution for problem 1:

$$\begin{array}{r} 400 \\ - 178 \\ \hline 222 \end{array}$$

~~400~~

400
178
222

adults

2. The party supply store had 345 red balloons. They also had 257 blue balloons. How many more red balloons than blue balloons did the party store have?

Handwritten solution for problem 2:

$$\begin{array}{r} 345 \\ - 257 \\ \hline 88 \end{array}$$

345
257
88

the difference

3. Sarah read 159 pages of her new book on Monday. She read 83 pages on Tuesday. How many pages has she read so far?

Handwritten solution for problem 3:

$$\begin{array}{r} 159 \\ + 83 \\ \hline 242 \end{array}$$

159
83
242

Sarah read 242 pages

4. Nicole has 273 stickers. Ashley has 156 stickers. Beth has 192 stickers. How many stickers do Nicole and Beth have altogether?

Handwritten work for problem 4:

$$\begin{array}{r} 273 \\ + 192 \\ \hline 465 \end{array}$$

Both all

273
192
465

5. Nick wanted a total of 300 rocks for his collection. He already has 168 rocks. How many more rocks does he need?

Handwritten work for problem 5:

$$\begin{array}{r} 300 \\ - 168 \\ \hline 132 \end{array}$$

300
168
132

6. Derek has 351 marbles. Mike has 89 less than Derek. How many marbles do they have all together?

Handwritten work for problem 6:

$$\begin{array}{r} 351 \\ - 89 \\ \hline 262 \end{array}$$

$$\begin{array}{r} 351 \\ + 262 \\ \hline 613 \end{array}$$

613
351
262

~~Handwritten scribbles~~

9
14

Name: Ryan M

Problem Solving Pre/Posttest

Directions: Read the following problems and solve. Make sure you PROVE your answers!!

1. There were 400 people at the circus. 178 of them were children and the rest were adults. How many adults were at the circus?

Handwritten work for problem 1:

$$\begin{array}{r} 39 \\ 400 \\ - 178 \\ \hline 222 \end{array}$$

Diagram showing 400 in a box, 178 in a box, and a question mark in a box.

2. The party supply store had 345 red balloons. They also had 257 blue balloons. How many more red balloons than blue balloons did the party store have?

Handwritten work for problem 2:

$$\begin{array}{r} 39 \\ 345 \\ - 257 \\ \hline 88 \end{array}$$

Diagram showing 345 in a box, 257 in a box, and a question mark in a box.

3. Sarah read 158 pages of her new book on Monday. She read 83 pages on Tuesday. How many pages has she read so far?

Handwritten work for problem 3:

$$\begin{array}{r} 158 \\ + 83 \\ \hline 241 \end{array}$$

4. Nicole has 273 stickers. Ashley has 156 stickers. Beth has 192 stickers. How many stickers do Nicole and Beth have altogether?

$$\begin{array}{r} 27 \\ 273 \\ + 156 \\ + 192 \\ \hline 621 \end{array} = 1$$

5. Nick wanted a total of 300 rocks for his collection. He already has 168 rocks. How many more rocks does he need?

$$\begin{array}{r} 29 \\ 300 \\ - 168 \\ \hline 132 \end{array}$$

6. Derek has 351 marbles. Mike has 89 less than Derek. How many marbles do they have all together?

$$\begin{array}{r} 214 \\ 351 \\ - 89 \\ \hline 262 \end{array} = 2$$

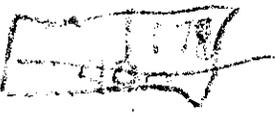
~~11~~
14

Name: Ayden

Problem Solving Pre/Posttest

Directions: Read the following problems and solve. Make sure you PROVE your answers!!

1. There were 400 people at the circus. 178 of them were children and the rest were adults. How many adults were at the circus?



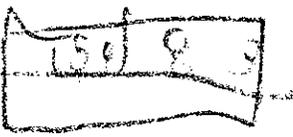
$$\begin{array}{r} 400 \\ - 178 \\ \hline 222 \end{array}$$

2. The party supply store had 345 red balloons. They also had 257 blue balloons. How many more red balloons than blue balloons did the party store have?



$$\begin{array}{r} 345 \\ - 257 \\ \hline 88 \end{array}$$

3. Sarah read 159 pages of her new book on Monday. She read 83 pages on Tuesday. How many pages has she read so far?



$$\begin{array}{r} 159 \\ + 83 \\ \hline 242 \end{array}$$

4. Nicole has 273 stickers. Ashley has 156 stickers. Beth has 192 stickers. How many stickers do Nicole and Beth have altogether?

5. Nick wanted a total of 300 rocks for his collection. He already has 168 rocks. How many more rocks does he need?

6. Derek has 351 marbles. Mike has 89 less than Derek. How many marbles do they have all together?

~~5~~
14

Name: Brayden

Problem Solving Pre/Posttest

Directions: Read the following problems and solve. Make sure you PROVE your answers!!

1. There were 400 people at the circus. 178 of them were children and the rest were adults. How many adults were at the circus?

$$\begin{array}{r} 3 \text{ } 4 \\ 400 \\ - 178 \\ \hline 222 \end{array}$$



2. The party supply store had 345 red balloons. They also had 257 blue balloons. How many more red balloons than blue balloons did the party store have?

-2

$$\begin{array}{r} 1 \quad 1 \\ 345 \\ + 257 \\ \hline 602 \end{array}$$



3. Sarah read 159 pages of her new book on Monday. She read 83 pages on Tuesday. How many pages has she read so far?

-2

$$\begin{array}{r} 0 \\ 159 \\ + 83 \\ \hline 242 \end{array}$$



$$\begin{array}{r} 1 \\ 76 \\ + 159 \\ \hline 235 \end{array}$$



This form, developed by St. Louis RPDC under the Missouri SPDG, is an example of something a team might use to guide data-based discussions based on instructional practices. This is only an example and can be adapted to meet individual teacher, consultant, or building needs.

Date of Discussion:	(mm/dd/yy)	Participants:	3rd grade math team		
	Strengths & Misconceptions				
	Strengths		Misconceptions		
Proficient	-mental strategies		minor mistakes and in computation, may not have full concept of p/p/h shown with bar model		
Close to Proficient	-build correct models for addition and subtraction, proper set up for problems		-missing steps in multi-step problem, incorrect operation chosen		
Far from Proficient	-some accuracy (mostly with +), numbers aligned in problem and big number on top		same as "close", errors regroup, unable to complete models, difficulty choosing correct function		
Intervention	-adding small numbers		-same as "far", trouble setting up problems, difficulty regrouping		
Instructional Practice:	Differentiated Instruction				
	Instructional Strategy	Learning Environment	Time, Frequency, Duration	Materials for Teachers & Students	Assignments & Assessments
Proficient	-Cooperative learning/Think-pair-share	Groups work together (using think, pair, share) to prove mathematical problems beyond the model from the level of knowing to understanding-with words,	2 times a week during math workshop	Problems, manipulatives, whiteboards, direction cards for students	Various problems increasing in depth of knowledge to include critical thinking. EXIT ticket - proof sheet with problem, solution, model, and written explanation
Close to Proficient	Work backward	Using completed models, students will show the problem from which they originated and explain how they got it	3 times a week during math workshop in small group with teacher and then independently	Various problems (including word problems) blank math bar models and manipulatives	Practice working backward with completed models and writing word problems to go with solved problems. For assessment student will show this process on an exit
Far from Proficient	Break apart strategy to increase number sense and place value	Students will break apart 2 and 3 digit numbers for addition and subtraction through guided/independent practice working toward word problems using bar	3 times a week, small group rotation with teacher during math workshop and use word problems when setting up numbers for problems.	graphic organizer for place value, various problem +/-, whiteboards	Various problem +/-, word problems with small group. Exit ticket - students solve problems using break apart strategy
Intervention	Problem solving +/- with manipulatives	Students will use a variety of manipulatives to represent numbers and solve for both +/-, work toward break apart strategy	Daily small group work with teacher during math workshop and independent work time	Variety of manipulatives (cubes, rekenreks, etc.), various problems, whiteboards	Model numbers and solve various problems with use of manipulatives. Exit ticket - model and solve 2 digit +/-

This form, developed by St. Louis RPDC under the Missouri SPDG, is an example of something a team might use to guide data-based discussions based on instructional practices. This is only an example and can be adapted to meet individual teacher, consultant, or building needs.

Assessment Name:					
Date of Discussion:		Participants:			
Strengths, Misconceptions/Errors & Inferences					
	Strengths		Errors/Misconceptions		Inferences
Proficient:					
Close to proficient:					
Far to go:					
Intervention:					
Instructional Practice					
	Instructional Strategy	Learning Environment	Time, Frequency, Duration	Materials for Teachers & Students	Assignments & Assessments
Proficient:					
Close to proficient:					
Far to go:					
Intervention:					

DBDM Cause and Effect Activity Strips

% of students passing the formative quiz given on Friday

of teachers using bell to bell activities to review the science objectives

10 students responded with full credit answers on the assessment

Teachers who displayed the rubric, instructed on the rubric, and used exemplars

Results on the fluency screening assessment in January

of teachers adhering to the allocated instructional minutes for science

Scores on the math chapter test

Using the supplemental questions to practice the format of the test

% of students who have 3-5 office referrals for the year

% of teachers teaching the social skills lessons on a weekly basis

The % of teachers who give 0s for missing work

45% of our 8th graders have 6 zeros or less

29% of our 10th graders are failing Algebra I

100% of our teachers have been trained in Cognitive Coaching

55% of our students missed the higher DOK questions

25% of our teachers have a partner with whom they plan or bounce planning ideas off of

45% of our teachers have observed another teacher this quarter

89% of our freshman girls missed 3-5 of their p.e. class first quarter

Our Communication Arts index for grade 4 was 769

of teachers using the reading materials with which they are provided

97% attendance rate

20 students were able to answer the 5 questions correctly

An annual drop-out rate of 5%

22% of our African American boys achieved in the proficient range

3 kindergartners knew all their letters by Sept. 30

50% of the freshman received a D or an F for first quarter

29% of the sophomores passed the first biology test

96% attendance rate for September

89% of the second graders read at a Level 18 by the end of the year

Our average ACT score for the senior class is 23

100% of the juniors read 10-12 books over the course of their junior year

69% of our 5th graders were advanced on the practice MAP test

50% of the 7th graders scored Prof/Adv on the Comm. Arts MAP test

76% of the freshman earned enough credits to be classified as sophomores at the end of the year

23% of the teachers read the assigned article on class management

87% of the teachers implemented the NO-Zero policy

36% of our teachers missed between 10-12 days of school

96% of our new teachers attended the pd on “how to teach reading”

50% of our new teachers met with their mentors regularly.

47% of our teachers regularly examine their students’ behavior data

60% of the teachers engaged in collaborative scoring of student work

of teams who consistently meet during their collaboration time

% of teachers using the studied cooperative learning strategy with their students

71% of our teachers implemented a research based strategy within the last month

% of teachers understanding the 5 keys to quality assessment

% of kindergarten teachers using the team identified strategies for teaching the letters of the alphabet



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CFA Data Submission on MoEduSail

(moedu-sail-cfa.org)

This is what the online submission looks like. The teacher or Data Team representative completes all appropriate sections online. Then data is “submitted.”

(*) Required Fields

RPDC*: -- Select RPDC --	Building*: -- Select RPDC First --
District Name*: -- Select RPDC First --	# SWD in Grade*: [Dropdown]
Grade Level*: [Text]	Total Teachers in Grade*: [Dropdown]
Total Grade Size (Total Number of Students)*: [Text]	Instructional Practices: Assessment Capable Learners Class Discussion Feedback Reciprocal Teaching Student-Teacher Relationship Student-Teacher Relationship
Content Area*: Math	Date Submitted to RPDC*: yyyy-mm-dd
Core Standard Addressed*: [Text]	

1st Strategies Used

Proficient and Higher

Close to Proficiency

Far to Go (likely to become proficient)

Intervention Students (not likely to become proficient)

2nd Strategies Used

Proficient and Higher

Close to Proficiency

Far to Go (likely to become proficient)

Intervention Students (not likely to become proficient)

Mid Instruction CFA Date Administered*

yyyy-mm-dd

Groups	Total Possible Score for Levels*# All Students*	# SWD*	% All Students	% SWD
Proficient and Higher	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Close to Proficiency	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Far to Go (likely to become proficient)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Intervention Students (not likely to become proficient)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Total	<input type="text"/>	<input type="text"/>		
# SWD Not Taking CFA*	<input type="text"/>			

Reason(s) SWD Not Taking CFA

Reteaching CFA Date Administered*

yyyy-mm-dd

Groups	Total Possible Score for Levels*# All Students*	# SWD*	% All Students	% SWD
Proficient and Higher	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Close to Proficiency	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Far to Go (likely to become proficient)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Intervention Students (not likely to become proficient)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Total	<input type="text"/>		<input type="text"/>	<input type="text"/>
# SWD Not Taking CFA*	<input type="text"/>			

Reason(s) SWD Not Taking CFA

% Change from 1st CFA to Reteaching

Group	% All Students	% SWD
Proficient and Higher	<input type="text"/>	<input type="text"/>
Close to Proficient	<input type="text"/>	<input type="text"/>
Far to Go	<input type="text"/>	<input type="text"/>
Intervention Students	<input type="text"/>	<input type="text"/>

After data is submitted online, it appears in a form like this below.

1st CFA – Reteaching CFA (GRADE-LEVEL SUMMARY)															
RPOC	8-St. Louis				Consultant	Julie Sperry									
District Name	Fort Zumwalt-Rll				Building Name	Forest Park Elementary									
Grade-level	Grade 4	Total Grade Size	149		#SWD in Grade	26			# Teachers in Grade	6					
Content Area	<input type="checkbox"/> Math <input checked="" type="checkbox"/> ELA		Instructional Practices												
Core Standard Addressed	Main Idea- R.I.4.2				Date Submitted to RPOC	5/28/14									
1st Strategies Used						2nd Strategies Used									
Proficient and Higher					Proficient and Higher										
Close to Proficiency					Close to Proficiency										
Far to Go (likely to become proficient)					Far to Go (likely to become proficient)										
Intervention Students (not likely to become proficient)					Intervention Students (not likely to become proficient)										
Total Possible Score for 1st CFA	6		1st CFA Date(s) Administered		2/26/14		Total Possible Score for Reteaching CFA	6		Reteaching CFA Date(s) Administered		3/20/14		% Change from 1st CFA to Reteaching	
Groups	Total Possible Score for Levels	# All Students	# SWD	% All Students	% SWD	Groups	Total Possible Score for Levels	# All Students	# SWD	% All Students	% SWD	% All Students	% SWD		
Proficient and Higher	5	27	5	28.4%	25.0%	Proficient and Higher	5	55	11	57.9%	55.0%	29.5%	30.0%		
Close to Proficiency	4	17	4	17.9%	20.0%	Close to Proficiency	4	20	5	21.1%	25.0%	3.2%	5.0%		
Far to Go (likely to become proficient)	3	17	4	17.9%	20.0%	Far to Go (likely to become proficient)	3	10	2	10.5%	10.0%	-7.4%	-10.0%		
Intervention Students (not likely to become proficient)	1	34	7	35.8%	35.0%	Intervention Students (not likely to become proficient)	1	10	2	10.5%	10.0%	-25.3%	-25.0%		
TOTALS		95	20					95	20						
# SWD Not Taking CFA	Reason(s) not taking				# SWD Not Taking CFA	Reason(s) not taking									

CFA Data Submission on MoEduSail (moedu-sail-cfa.org)

This is what the online submission looks like. The teacher or Data Team representative completes all appropriate sections online. Then dta is “submitted.”

(*) Required Fields

RPDC*: -- Select RPDC --	Building*: -- Select RPDC First --
District Name*: -- Select RPDC First --	# SWD in Grade*:
Grade Level*: 	Total Teachers in Grade*:
Total Grade Size (Total Number of Students)*: 	Instructional Practices: Assessment Capable Learners Class Discussion Feedback Reciprocal Teaching Student-Teacher Relationship Student-Teacher Cooperation/Modeling
Content Area*: Math	Date Submitted to RPDC*: yyyy-mm-dd
Core Standard Addressed*: 	

1st Strategies Used

Proficient and Higher

Close to Proficiency

Far to Go (likely to become proficient)

Intervention Students (not likely to become proficient)

2nd Strategies Used

Proficient and Higher

Close to Proficiency

Far to Go (likely to become proficient)

Intervention Students (not likely to become proficient)

Mid Instruction CFA Date Administered*

yyyy-mm-dd

Groups	Total Possible Score for Levels*# All Students*	# SWD*	% All Students	% SWD
Proficient and Higher	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Close to Proficiency	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Far to Go (likely to become proficient)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Intervention Students (not likely to become proficient)	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Total	<input type="text"/>	<input type="text"/>		
# SWD Not Taking CFA*	<input type="text"/>			
Reason(s) SWD Not Taking CFA	<input type="text"/>			

Reteaching CFA Date Administered*

yyyy-mm-dd

Groups	Total Possible Score for Levels*# All Students*	# SWD*	% All Students	% SWD
Proficient and Higher	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>
Close to Proficiency	<input type="text"/>	<input type="text"/>	<input type="text"/>	<input type="text"/>

Far to Go (likely to become proficient)

Intervention Students (not likely to become proficient)

Total

SWD Not Taking CFA*

Reason(s) SWD Not Taking CFA

% Change from 1st CFA to Reteaching

Group	% All Students	% SWD
Proficient and Higher	<input type="text"/>	<input type="text"/>
Close to Proficient	<input type="text"/>	<input type="text"/>
Far to Go	<input type="text"/>	<input type="text"/>
Intervention Students	<input type="text"/>	<input type="text"/>

After data is submitted online, it appears in a form like this below.

1st CFA – Reteaching CFA (GRADE-LEVEL SUMMARY)														
RPDC	8-St. Louis			Consultant			Julie Sperry							
District Name	Fort Zumwalt-Rll			Building Name			Forest Park Elementary							
Grade-level	Grade 4	Total Grade Size		149		#SWD in Grade		26		# Teachers in Grade		6		
Content Area	<input type="checkbox"/> Math <input checked="" type="checkbox"/> ELA			Instructional Practices										
Core Standard Addressed	Main Idea- R.I.4.2						Date Submitted to RPDC			5/28/14				
1st Strategies Used							2nd Strategies Used							
Proficient and Higher							Proficient and Higher							
Close to Proficiency							Close to Proficiency							
Far to Go (likely to become proficient)							Far to Go (likely to become proficient)							
Intervention Students (not likely to become proficient)							Intervention Students (not likely to become proficient)							
Total Possible Score for 1st CFA	6		1st CFA Date(s) Administered		2/26/14		Total Possible Score for Reteaching CFA	6		Reteaching CFA Date(s) Administered		3/20/14		% Change from 1st CFA to Reteaching
Groups	Total Possible Score for Levels	# All Students	# SWD	% All Students	% SWD	Groups	Total Possible Score for Levels	# All Students	# SWD	% All Students	% SWD	% All Students	% SWD	
Proficient and Higher	5	27	5	28.4%	25.0%	Proficient and Higher	5	55	11	57.9%	55.0%	29.5%	30.0%	
Close to Proficiency	4	17	4	17.9%	20.0%	Close to Proficiency	4	20	5	21.1%	25.0%	3.2%	5.0%	
Far to Go (likely to become proficient)	3	17	4	17.9%	20.0%	Far to Go (likely to become proficient)	3	10	2	10.5%	10.0%	-7.4%	-10.0%	
Intervention Students (not likely to become proficient)	1	34	7	35.8%	35.0%	Intervention Students (not likely to become proficient)	1	10	2	10.5%	10.0%	-25.3%	-25.0%	
TOTALS		95	20					95	20					
# SWD Not Taking CFA	Reason(s) not taking						# SWD Not Taking CFA	Reason(s) not taking						

Next Steps: Actions = Results

Content Focus

Collaborative Teams Common Formative Assessment Data-Based Decision Making

School: _____

Date Next Steps Form Written: _____

Teams (e.g. grade level or content): _____

<u>Action Planned</u> What?	<u>Responsible Person(s)</u> Who?	<u>Timeline</u> When?	<u>Resources/Support Needed</u>	<u>Results</u> So What?



Data-Based Decision Making Pre/Post-Assessment

District: _____

School: _____

The pre- and post-test provided with this module can be used to measure the gains made in participants' knowledge of the training content. They can also be used to guide the trainer in knowing which concepts were well taught and which concepts need additional time and/or revision in delivery.

Directions: The following questions have only ONE right answer. Circle the correct answer.

1. What must occur before the start of a DBDM cycle?
 - a. Select a common learning standard
 - b. Create a common formative assessment
 - c. Administer a common formative assessment
 - d. All of the above

2. In Step 2 of the DBDM process (Analyze and Prioritize) which group would NOT have strengths identified:
 - a. Close to Proficient
 - b. Far but Likely
 - c. Intervention
 - d. None of the Above

3. How is the target goal in the SMART goal determined in Step 3?
 - a. Proficient + Close + Far but Likely/Total Number
 - b. Proficient + Close/Total Number
 - c. All groups added together/Total Number
 - d. Team determined

4. Which of the following would be considered "cause data" as opposed to "effect data"?
 - a. The percentage of students scoring proficient on a CFA
 - b. Number of students who completed a homework assignment
 - c. Number of minutes teachers spend in reading instruction
 - d. Dropout rate

5. Data-Based Decision Making includes all of the following except:
 - a. Disaggregated Data
 - b. Student Learning Goals
 - c. Monitoring instruction and student learning
 - d. A grading process for students



Data-Based Decision Making Pre/Post Assessment KEY

District: _____

School: _____

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Data-Based Decision Making Practice Profile

Implementation with fidelity requires clearly described implementation criteria. The Practice Profile framework has recently been developed by the National Implementation Research Network (NIRN) as a way of outlining implementation criteria using a rubric structure with clearly defined practice-level characteristics (NIRN, 2011). According to NIRN, the Practice Profile emerged from the conceptualization of the change process outline in the work of Hall and Hord's (2006) Innovation Configuration Mapping (NIRN, 2011).

The Practice Profile template includes four pieces and is anchored by the essential functions. First, as a header is the foundation of implementation that philosophically grounds implementation. Then moving from left to right across the template are the essential functions of the practice, implementation performance levels, and lastly, evidence which provides data or documentation for determining implementation levels.

How to Use the Practice Profile

The essential functions align with the teaching/ learning objectives for each learning package. For each teaching/learning objective are levels of implementation. For some essential functions, proficient and exemplary implementation criteria are the same and in others, criteria differ. Close to proficient levels of implementation suggest the skill or practice is emerging and coaching is recommended for moving toward more proficient implementation. When implementation is reported at the unacceptable variation level, follow-up professional development in addition to coaching is recommended. The professional development provider should walk through the practice profile with the educator-learners, referring to the data and artifacts listed as suggested evidence. It is an important tool for self-monitoring their own implementation because it serves as a reminder as to the implementation criteria and is also aligned with the fidelity checklist and the electronic practice profile self-assessment tool. These sources provide data regarding further training or coaching.



Missouri Collaborative Work Practice Profile

Foundations present in the implementation of each essential function: *Commitment to the success of all students and to improving the quality of instruction.*

Data-Based Decision Making Process

	Essential Function	Exemplary Ideal Implementation	Proficient	Close to Proficient <i>(Skill is emerging, but not yet to ideal proficiency. Coaching is recommended.)</i>	Far from Proficient <i>(Follow-up professional development and coaching is critical.)</i>	Evidence
1	Educators collect, chart, and disaggregate student learning data.	<ul style="list-style-type: none"> • ≥90% of teachers administer common formative assessment and use common scoring method to evaluate student proficiency. • ≥90% of teachers share charted class data with the data team prior to meeting. • Sums and percentages are correct. • Results are disaggregated into 4 proficiency groups according to specific school needs (e.g., specific subgroups). • Results are available electronically to all team members and administration at all times. 	<ul style="list-style-type: none"> • ≥80% of teachers administer common formative assessment and use common method to evaluate student proficiency. • ≥80% of teachers share charted class data with the data team prior to meeting. • Sums and percentages are correct. • Results are disaggregated into 4 proficiency groups according to specific school needs (e.g., specific subgroups). • Results are available to all team members at all times. 	<ul style="list-style-type: none"> • ≥70% of teachers administer common formative assessment and use common scoring method to evaluate student proficiency. • ≥70% teachers share charted class data with the data team prior to meeting. • Sums and percentages are calculated, and contain <25% errors. • Results are disaggregated into ≤3 proficiency groups. • Results are available only to team members present for the meeting. 	<ul style="list-style-type: none"> • ≤69% of teachers administer common pre-assessment and use common scoring method to evaluate student proficiency. • ≤69% teachers share charted class data with the data team prior to meeting. • Sums and percentages are calculated, but contain ≥25% errors. • Results are not disaggregated. • Results are available only to team data recorder. 	Examples: CT minutes, data protocols, reporting charts
2	Educators analyze results to identify priority learning needs.	<ul style="list-style-type: none"> • Team lists strengths, misconceptions, and inferences for 4 proficiency groups. • Strengths and misconceptions are directly related to the common formative assessment and all essential standards. • Learning needs are prioritized. 	<ul style="list-style-type: none"> • Team lists strengths, misconceptions, and inferences for 4 proficiency groups. • Strengths and misconceptions are directly related to the common formative assessment and a targeted standard. • Learning needs are prioritized. 	<ul style="list-style-type: none"> • Team lists strengths, misconceptions, and inferences for 3 proficiency groups. • Strengths and misconceptions are directly related to the common formative assessment and targeted standard(s). • Learning needs are prioritized. 	<ul style="list-style-type: none"> • Team lists strengths, misconceptions, and inferences but does not list by proficiency groups. • Any strengths and misconceptions listed are not directly related to the common formative assessment and targeted standard(s). • Learning needs are not prioritized. 	Examples: CT minutes, data protocols

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Data-Based Decision Making Process

Essential Function	Exemplary Ideal Implementation	Proficient	Close to Proficient <i>(Skill is emerging, but not yet to ideal proficiency. Coaching is recommended.)</i>	Far from Proficient <i>(Follow-up professional development and coaching is critical.)</i>	Evidence
	<ul style="list-style-type: none"> Prioritized needs are categorized according to a hierarchy of prerequisite skills. 	<ul style="list-style-type: none"> Prioritized needs are categorized. 	<ul style="list-style-type: none"> Prioritized needs are not categorized. 	<ul style="list-style-type: none"> Prioritized needs are not categorized. 	
3 Educators establish SMART goals based on data identified student learning needs.	<p>Team meets the 5 criteria of SMART goals and ≥ 7 of the additional criteria:</p> <ol style="list-style-type: none"> Are specific to targeted subject area, grade level, and student population Are measureable and how measurement will occur is specified. Are attainable demonstration of percentage gains or increases in terms of expected change. Are results oriented, and must be something learners can do and that is relevant. Are time-bound with a set timeframe established. <p>Additional Criteria:</p> <ul style="list-style-type: none"> Percentages are calculated correctly. Reflect $\geq 80\%$ of proficient, close, and far students to be 	<p>Team meets the 5 criteria of SMART goals and ≥ 4 of the additional criteria:</p> <ol style="list-style-type: none"> Are specific to targeted subject area, grade level, and student population Are measureable and how measurement will occur is specified. Are attainable demonstration of percentage gains or increases in terms of expected change. Are results oriented, and must be something learners can do and is relevant. Are time-bound with timeframe set. <p>Additional criteria.</p> <ul style="list-style-type: none"> Percentages are calculated correctly. Reflect $>80\%$ of proficient, close, and far students to be proficient by post-assessment. 	<p>Team meets the 5 criteria of SMART goals and < 4 of the additional criteria:</p> <ol style="list-style-type: none"> Are specific to targeted subject area, grade level, and student population Are measureable and how measurement will occur is specified. Are attainable demonstration of percentage gains or increases in terms of expected change. Are results oriented, and must be something learners can do and is relevant. Are time-bound with timeframe set. <p>Additional Criteria:</p> <ul style="list-style-type: none"> Percentages are calculated correctly. Reflect $>80\%$ of proficient, close, and far students to be proficient by post-assessment. 	<p>Team meets ≤ 4 criteria of SMART goals:</p> <ul style="list-style-type: none"> Are specific to targeted subject area, grade level, and student population Are measureable and how measurement will occur is specified. Are attainable demonstration of percentage gains or increases in terms of expected change. Are results oriented, and must be something learners can do and is relevant. Are time-bound with timeframe set. 	Examples: CT minutes, data protocols

Missouri Collaborative Work Practice Profile

Foundations present in the implementation of each essential function: *Commitment to the success of all students and to improving the quality of instruction.*

Data-Based Decision Making Process

Essential Function	Exemplary Ideal Implementation	Proficient	Close to Proficient <i>(Skill is emerging, but not yet to ideal proficiency. Coaching is recommended.)</i>	Far from Proficient <i>(Follow-up professional development and coaching is critical.)</i>	Evidence
	<p>proficient by post-assessment.</p> <ul style="list-style-type: none"> • Reflect a separate goal for the growth of students in intervention, on a case-by-case basis. • Are derived from specific team inferences. • Include baseline (pre-assessment) to anticipated midline (mid-assessment) and midline to anticipated outcome (post-assessment) for all essential standards. • Indicate closure of achievement gaps for targeted student groups. • Are few and prioritized. • Have scheduled time set for formal analysis of results. 	<ul style="list-style-type: none"> • Reflect a separate goal for the growth of students in intervention, on a case-by-case basis. • Are derived from specific team inferences. • Include midline (mid-assessment) and outcome (post-assessment) for an essential standard. • Indicate closure of achievement gaps for targeted student groups. • Are few and prioritized. • Have scheduled time set for formal analysis of results. 	<ul style="list-style-type: none"> • Reflect a separate goal for the growth of students in intervention, on a case-by-case basis. • Are derived from specific team inferences. • Include baseline and anticipated post-assessment. • Indicate closure of achievement gaps for targeted student groups. • Are few and prioritized. • Have scheduled time set for formal analysis of results. 		
4	<p>Educators use data to select a common instructional practice/strategy to implement with fidelity.</p> <ul style="list-style-type: none"> • Selected instructional practices/strategies target prioritized needs and are evidence-based. • Selected instructional practices/strategies have an effect size $\geq .60$ impact on student growth. • Selected instructional practices/strategies are 	<ul style="list-style-type: none"> • Selected instructional practices/strategies target prioritized needs and are evidence-based. • Selected instructional practices/strategies have an effect size of $\geq .40$ impact on student growth. • Selected instructional practices/strategies are 	<ul style="list-style-type: none"> • Selected instructional practices/strategies target prioritized needs. • Selected instructional practices/strategies have an effect size $\geq .40$ impact on student growth. • Selected instructional practices/strategies are described in detail to allow for replication. 	<ul style="list-style-type: none"> • Selected instructional practices/strategies target prioritized needs. • Selected instructional practices/strategies have an effect size $\geq .40$ impact on student growth. 	Examples: CT minutes, data protocols

Missouri Collaborative Work Practice Profile

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Data-Based Decision Making Process

Essential Function	Exemplary Ideal Implementation	Proficient	Close to Proficient <i>(Skill is emerging, but not yet to ideal proficiency. Coaching is recommended.)</i>	Far from Proficient <i>(Follow-up professional development and coaching is critical.)</i>	Evidence
	<p>described in detail to allow for replication.</p> <ul style="list-style-type: none"> Selected instructional practices/strategies are linked to prioritized needs for each proficiency group. Selected instructional practices/strategies include learning environment, time, frequency, and duration to be used. 	<p>described in detail to allow for replication.</p> <ul style="list-style-type: none"> Selected instructional practices/strategies are linked to prioritized needs for each proficiency group. Selected instructional practices/strategies include learning environment, time, frequency, and duration to be used. 	<ul style="list-style-type: none"> Selected instructional practices/strategies are linked to prioritized needs for each proficiency group. 		
<p>5 Educators explain results indicators for process (cause) and product (effect)</p>	<ul style="list-style-type: none"> Weekly or more frequently, team discusses expected cause data (teacher behavior) related to expected student results (effect data) for each proficiency group, with detail for replication. Weekly or more frequently, discrepancies in student results are examined in relation to difference in implementation data. Monthly, based on data, improved implementation processes are recommended or alternative instructional practice and/or strategy is chosen. 	<ul style="list-style-type: none"> At least every two weeks, team discusses expected cause data (teacher behavior) related to expected student results (effect data) for each proficiency group, with detail for replication. At least every two weeks, discrepancies in student results are examined in relation to difference in implementation data. Quarterly, based on data, improved implementation processes are recommended or alternative instructional practice and/or strategy is chosen. 	<ul style="list-style-type: none"> At least quarterly, team discusses expected cause data (teacher behavior) related to expected student results (effect data) for each proficiency group, with detail for replication. At least quarterly, discrepancies in student results are examined in relation to difference in implementation data. Semi-annually, based on data, improved implementation processes are recommended or alternative instructional practice and/or strategy is chosen. 	<ul style="list-style-type: none"> Team discussion about expected cause data (teacher behavior) and student results (effect data) occurs but does not include a cause/effect discussion, or uses incomplete data. Discrepancies in student results are not examined. Improved implementation processes are not recommended. 	<p>Examples: CT minutes, data protocols</p>

Missouri Collaborative Work Practice Profile

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Data-Based Decision Making Process

Essential Function	Exemplary Ideal Implementation	Proficient	Close to Proficient <i>(Skill is emerging, but not yet to ideal proficiency. Coaching is recommended.)</i>	Far from Proficient <i>(Follow-up professional development and coaching is critical.)</i>	Evidence
6 Educators design <i>and practice</i> ongoing monitoring of results (monitor, reflect, adjust, repeat)	<ul style="list-style-type: none"> • Weekly or more frequently, teams use data to self-reflect and self-assess for implementation fidelity and record discussion. • Once ≥ 2 assessments (pre-, mid, post-) for the timeframe have been completed, visual representation of growth is displayed. • Visual representation of results is kept electronically. • Effect size(s) is/are calculated and recorded. • Times are scheduled for formal analysis of results. 	<ul style="list-style-type: none"> • Every two weeks, teams use data to self-reflect and self-assess for implementation fidelity and record discussion. • Once >2 assessments (pre-, mid, post-) for the timeframe have been completed, visual representation of growth is displayed. • Visual representation of results is kept electronically. • Effect size(s) is/are calculated and recorded. • Times are scheduled for formal analysis of results. 	<ul style="list-style-type: none"> • Quarterly, teams use data to self-reflect and self-assess for implementation fidelity and record discussion. • Once >2 assessments (pre-, mid, post-) for the timeframe have been completed, visual representation of growth is displayed. • Visual representation of results is kept electronically. • Effect size(s) is/are calculated and recorded. • Times are scheduled for formal analysis of results. 	<ul style="list-style-type: none"> • Two times per year, teams use data to self-reflect and self-assess for implementation fidelity but discussion is not recorded. • Once >2 assessments (pre-, mid, post-) for the timeframe have been completed, visual representation of growth is displayed. • Visual representation of results is not kept electronically. • Effect size is not calculated. • Times are not scheduled for formal analysis of results. 	Examples: CT minutes, visuals in print and/or electronic formats, team calendars

Professional Development to Practice

5. Results Indicators

Proficient & Higher Students

Prioritized Next Step

Adult Behaviors (Cause)	Student Behaviors (Effect)	What to Look For in Student Work

Professional Development to Practice

5. Results Indicators

Close to Proficient Students

Prioritized Next Step:

Adult Behaviors (Cause)	Student Behaviors (Effect)	What to Look For in Student Work

Professional Development to Practice

5. Results Indicators

Far to Go Students

Prioritized Next Step:

Adult Behaviors (Cause)	Student Behaviors (Effect)	What to Look For in Student Work

Professional Development to Practice

5. Results Indicator

Intervention Students

Prioritized Next Step

Adult Behaviors (Cause)	Student Behaviors (Effect)	What to look for in student work.