Creating a Data-Driven Culture to Increase Student Achievement

Presented by
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Backpack Bingo

In your groups, find each of the items listed. Once all items have been found, have 1 person in your group to stand up and say "BINGO". You will be asked to present each of your items.

Round I

- ❑ Pair of glasses that makes your vision clear
- ❑ A "To Do" list
- ❑ Something you can use to collect any kind of data

Round II

- ❑ A highlighter/ colored pen used to analyze data
- ❑ A common item that all of your tablemates have
- ❑ A copy of an assessment

Round III

- ❑ A calendar
- ❑ A picture of students engaged in learning
- ❑ Something you can use to monitor time for a quick turnaround

Objectives

- Understand the key components of data-driven instruction to drive dramatic student achievement

Who’s in the room?

Apollo 13

As you watch this clip from Apollo 13, think about the following :

- In the face of great adversity, how did the Houston team respond?
- What key actions and statements helped the team save Apollo 13?


HD

Apollo 13

As you watch this clip from Apollo 13, think about the following :

- In the face of great adversity, how did the Houston team respond?
- What key actions and statements helped the team save Apollo 13?

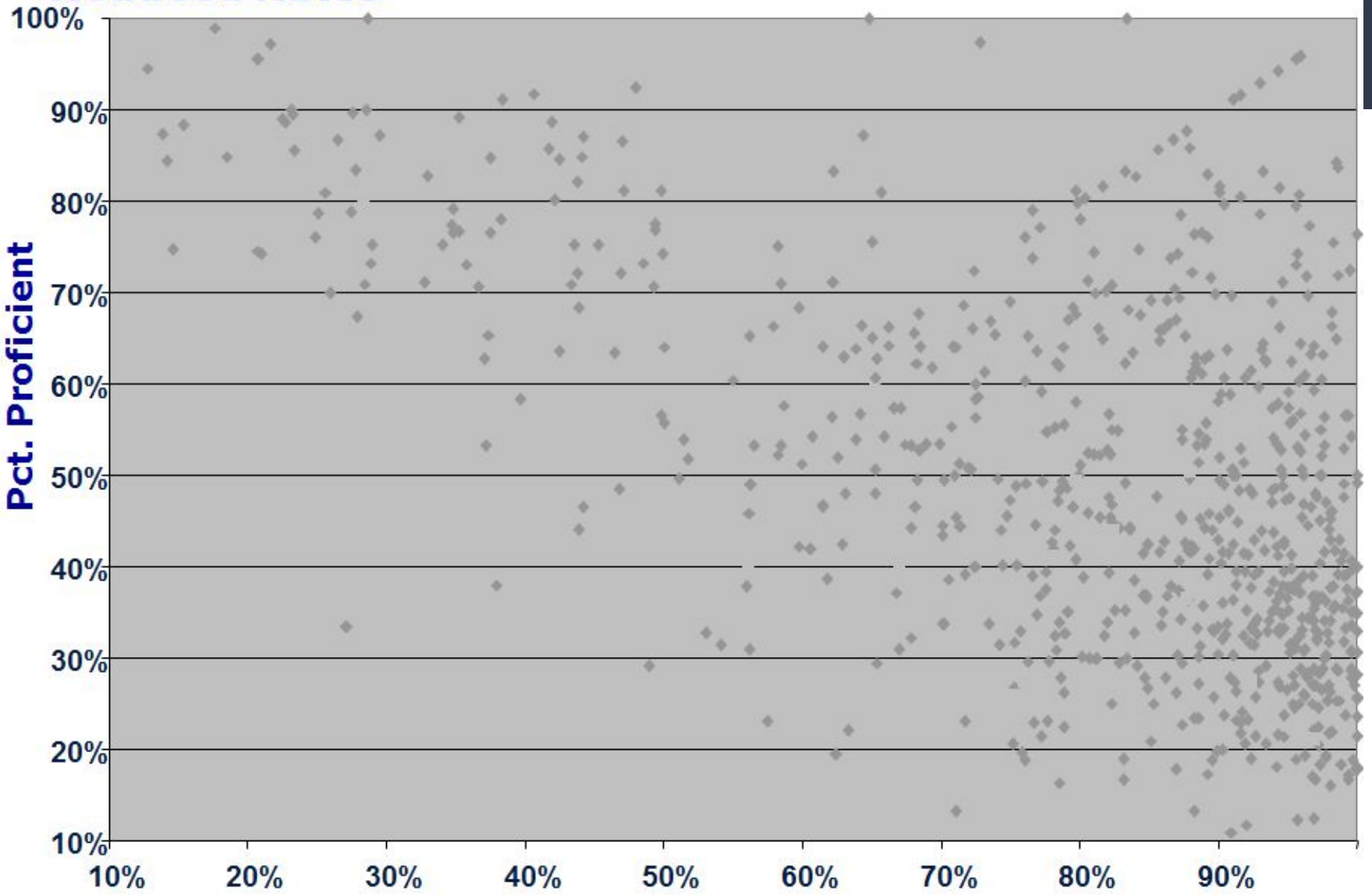
Core Idea

We can absolutely find a solution to every problem if we're willing to dig deep.

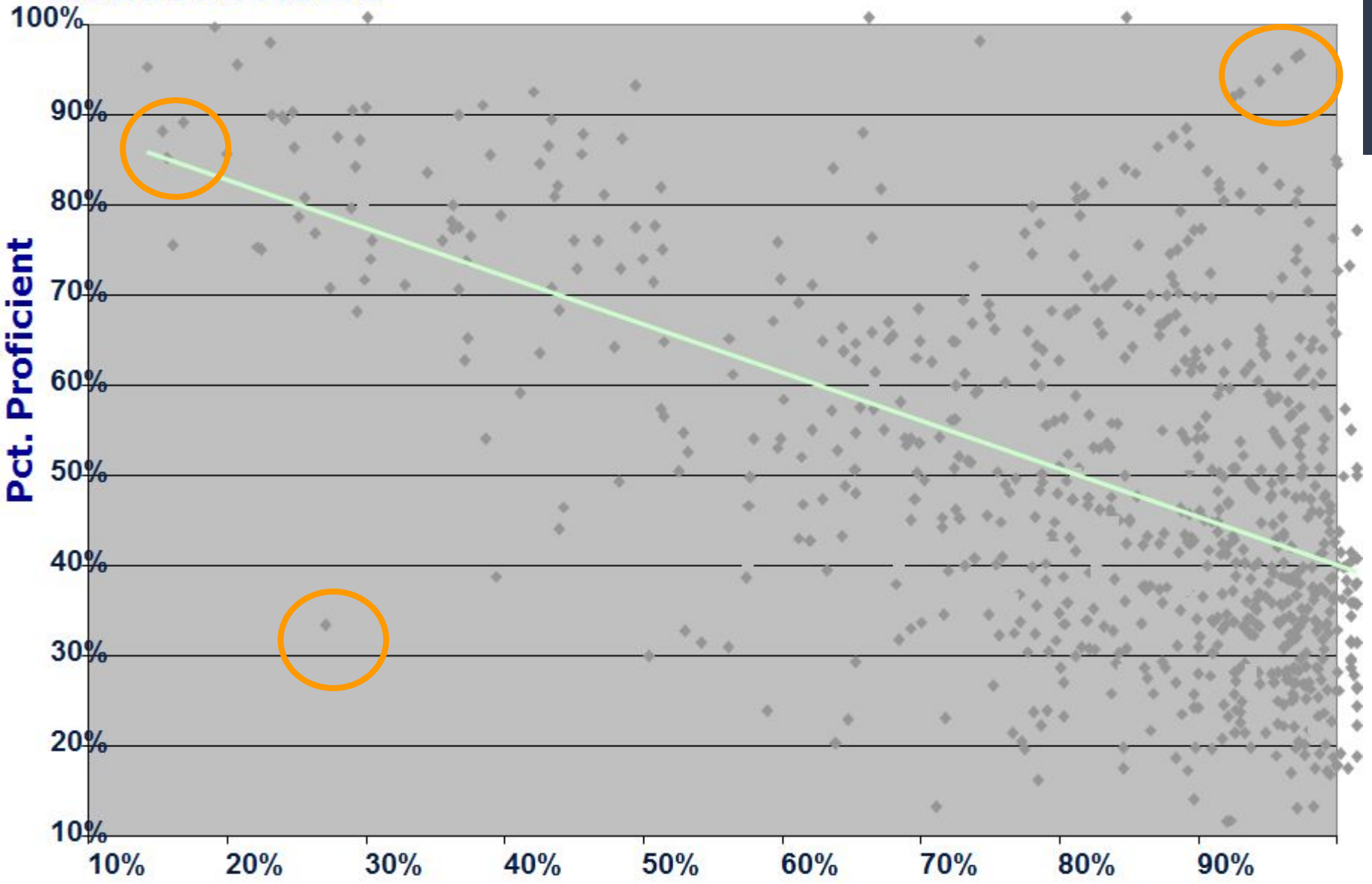
Failure is not an option.

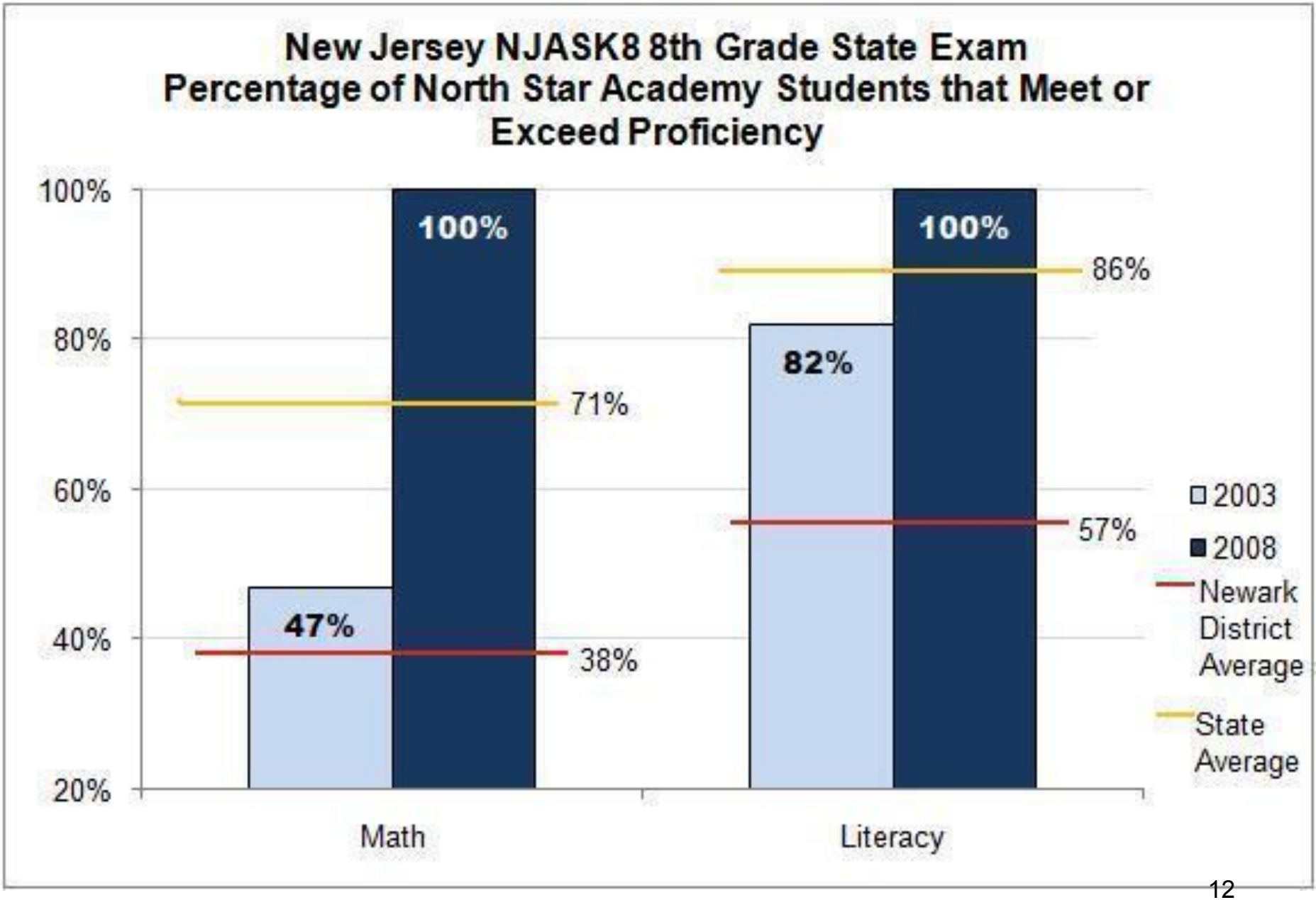
Observing the Impact

NY State Public School ELA 4th Performance vs. Free-Reduced Rates



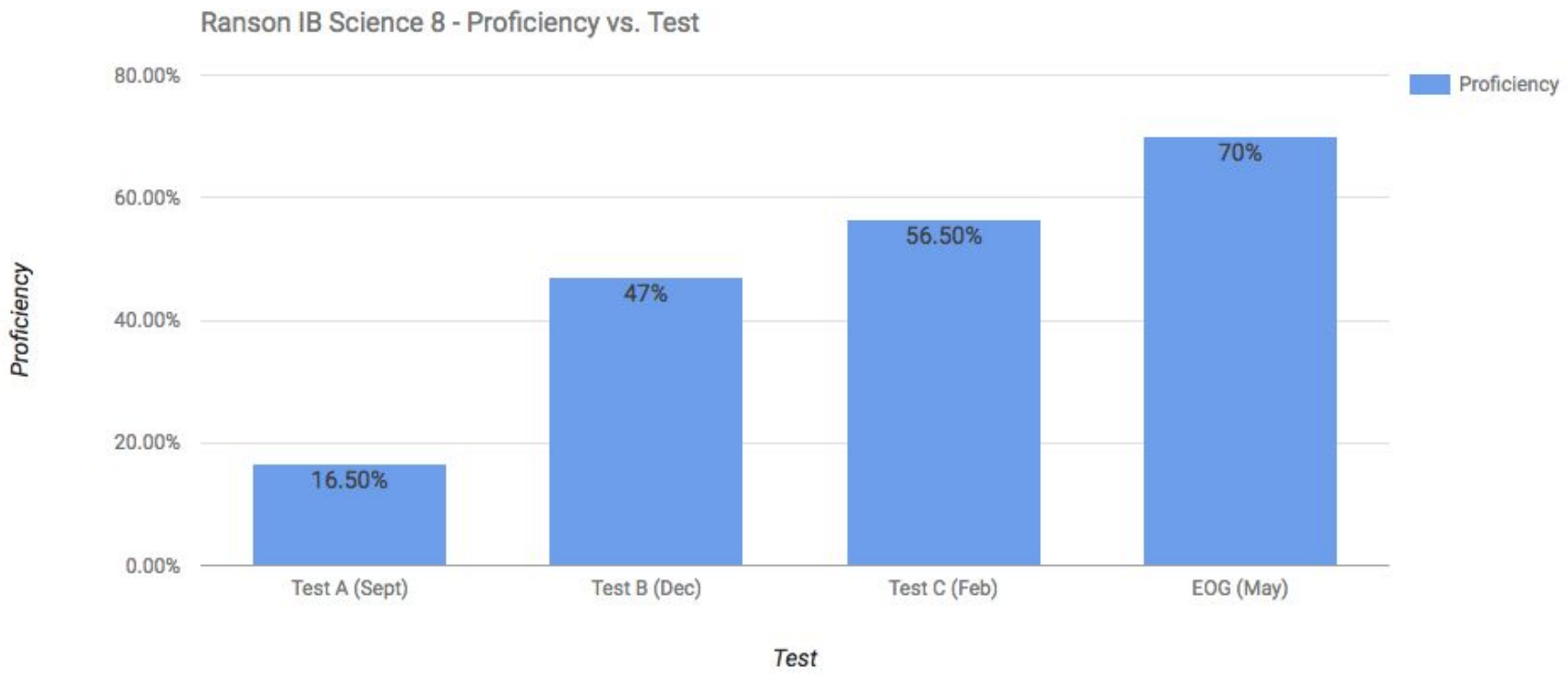
NY State Public School ELA 4th Performance vs. Free-Reduced Rates



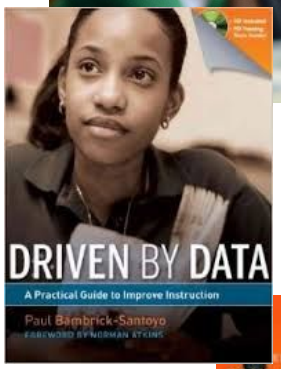

New Jersey NJASK8 8th Grade State Exam
Percentage of North Star Academy Students that Meet or Exceed Proficiency
100%
80%
60%
40%
20%
100%
47%
71%
38%
82%
100%
86%
57%
Math
Literacy
2003
2008
Newark District Average
State Average

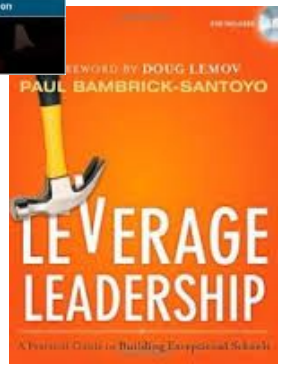
2014- 2015 Science 8 Proficiency

Ranson IB Middle School , Charlotte, NC



Driven by Data





Implemented well, data-driven instruction has the power to dramatically improve student performance. This book presents the four building blocks of data-driven instruction used by effective data-driven schools and provides the professional development activities to develop them.

Also, the book provides the type of concrete tools to put data-driven instruction into practice rarely found in books. At the end of the first four chapters are implementation suggestions for teachers, principals, and district leaders.

The Four Key Principles:

DATA-DRIVEN INSTRUCTION AT ITS ESSENCE:

ASSESSMENTS

ANALYSIS

ACTION

in a Data-driven CULTURE

The DDI cycle is sequential and there is overlap in each of the four components.

Assessment

Power of the Question

Assessment Items

6th Grade Math:
Use ratio and rate reasoning to solve real-world and mathematical problems.

- *Use ratio reasoning to convert measurement units; manipulate and transform units appropriately when multiplying or dividing quantities*

What are the differences between these five questions?

Based on these examples, what conclusions can you draw about assessments?

1. Joe can mow a lawn in 2 hours. At this rate, how long will it take him to mow three lawns?

2. Joe can mow three lawns in 4 hours. At this rate, how long will it take him to mow six lawns?

3. If it took 7 hours to mow 4 lawns, then at that rate, how many lawns could be mowed in 35 hours? At what rate were lawns being mowed?

4. If it took 2 hours to mow 3 lawns, how much can be mowed in 20 minutes at that rate?

5. Jeremy has two 7-foot-long boards. He needs to cut pieces that are 15 inches long from the boards. What is the greatest number of 15-inch pieces he can cut from the two boards?

CORE IDEA

Standards and objectives are meaningless until you define how to assess them.

Because of this, assessments are the starting point for instruction, not the end.

Criteria for Assessment

COMMON INTERIM:

- At least quarterly
- Common across all teachers of the same content grade level

ALIGNED TO DEFINED STANDARDS:

- To state test (format, content, & length)
- To college-ready expectations to increase rigor

ALIGNED TO INSTRUCTIONAL SEQUENCE :

- Matches sequence of curriculum

REASSESSES:

- Standards that are not mastered are on subsequent interim assessments

WRONG ANSWERS:

- Illuminate misunderstanding

TRANSPARENT:

- Teachers see the assessments in advance of beginning instruction

Analysis

Moving from the “What” to the “Why”

Sample Data Set

Skill	text structures	point of view	text structures	text structures	point of view	text structures	point of view	text structures	author's purpose	point of view	author's purpose	point of view
CCSS Objective	RI.6.5	RL.6.6	RI.6.5	RI.6.5	RL.6.6	RI.6.5	RL.6.6	RI.6.5	RL.6.6	RL.6.6	RL.6.6	RL.6.6
Question Number	1	2	3	4	5	6	7	8	9	10	11	12
Student 1	100	100	0	100	100	0	100	100	100	100	100	100
Student 2	100	100	0	100	0	0	100	100	100	100	100	100
Student 3	100	100	0	100	0	100	0	100	0	100	100	0
Student 4	100	0	100	100	100	100	100	100	0	100	100	100
Student 5	100	100	100	0	100	100	100	0	0	100	100	100
Student 6	100	100	0	100	100	100	100	0	0	100	100	100
Student 7	0	100	100	100	0	0	100	100	0	0	100	100
Student 8	100	100	100	100	100	0	100	100	0	100	100	100
Student 9	100	100	0	100	0	100	0	100	0	100	100	0
Student 10	100	100	100	100	0	0	0	0	0	100	100	0
Student 11	100	100	100	100	100	100	0	100	0	100	100	100
Student 12	100	100	100	100	0	0	100	100	0	100	100	100
Student 13	100	100	100	100	100	100	100	100	0	100	100	0
Student 14	100	100	100	100	100	100	100	100	0	100	100	100
Student 15	100	100	100	0	100	100	0	0	0	100	100	100
Student 16	100	100	100	100	100	0	100	100	100	100	100	100
Student 17	100	100	100	0	100	0	100	0	100	100	100	100
Student 18	100	100	0	100	100	100	0	100	0	100	100	0
Student 19	100	100	0	100	100	100	0	0	0	100	100	0
Student 20	100	100	100	100	100	100	100	0	100	100	100	100
Student 21	100	100	100	0	100	0	100	0	0	100	100	100
Student 22	100	100	100	100	100	0	100	100	0	100	100	100
Student 23	100	100	100	100	100	0	100	100	0	100	100	100
	95.7	95.7	69.6	82.6	73.9	52.2	69.6	65.2	21.7	95.7	100	73.9
	RI.6.5		73		RI.6.6		76.6		RL.6.4		32.6	

Global Impressions

Guiding Questions:

- **How well did the class do as a whole?**
- **What are the strengths and weaknesses in the standards: where do we need to work the most?**
- How did the class do on old vs. new standards? Are they forgetting or improving on old material?
- How were the results in the different question types (multiple choice vs. open-ended, reading vs. writing)?
- Who are the strong/weak students?

Deeper Analysis

Guiding questions:

- **Did students do better on some questions than others? What can explain that?**
- **Are there any bombed questions? If yes, what were the most popular answers and why?**
- Are there questions that separate strong from struggling students?
- How does this impact our action plan? What needs to be re-taught for the whole group? For small groups? What will we do differently?

CORE IDEA

If we spend time on a deep analysis, we have a better understanding of student misconceptions and how to move forward.

The better our analysis of the data, the deeper our understanding.

Criteria for Analysis

IMMEDIATE:

- Ideal 48 hrs, max 1 wk turnaround

BOTTOM LINE:

- Includes analysis at question level, standards level and overall—how well did the students do as a whole

T**EACHER-OWNED** analysis

- Teacher does the cognitive lift in the meeting

TEST-IN-HAND analysis:

- Teacher & instructional leader together

DEEP analysis**:**

- Moves beyond “what” to “why”

Action

Where the magic happens

Sample Action Plan

Prioritized Standard/ Explicit Instruction:	**Instructional Strategy/ Approach:**
- CCSS.Math.Content.HSA-CED.A.2 Create equations in two or more variables to represent relationships between quantities; graph equations on coordinate axes with labels and scales.	**-Warm Up Problems** **-Station Review day**
Assignment/ Activities: -Hands on Graphing Activity with Coordinate Plane Geo-Boards -Coordinate Plane Artwork	**Assessment/ Accountability:** • Exit Ticket

CORE IDEA

Analysis is only meaningful if you combine it with action.

With intentional action planning, there is a targeted focus on closing learning gaps for students that will lead to overall student achievement gains.

Criteria for Action

PLAN:

- New lessons based on data analysis

ACTION PLAN:

- Implement what you plan (dates, times, standards & specific strategies)

INSTRUCTIONAL LEADER FEEDBACK:

- Provide feedback on re-teaching plans prior to implementation

ACCOUNTABILITY:

- Observe changes classroom observations, in-class assessments

ENGAGED STUDENTS:

- Students know the end goal, how they did, and what actions they're taking to improve

Culture

Building the Foundation

Criteria for Culture

“HIGHLY ACTIVE” LEADERSHIP TEAM:
- Trained, focused, and action-orientated

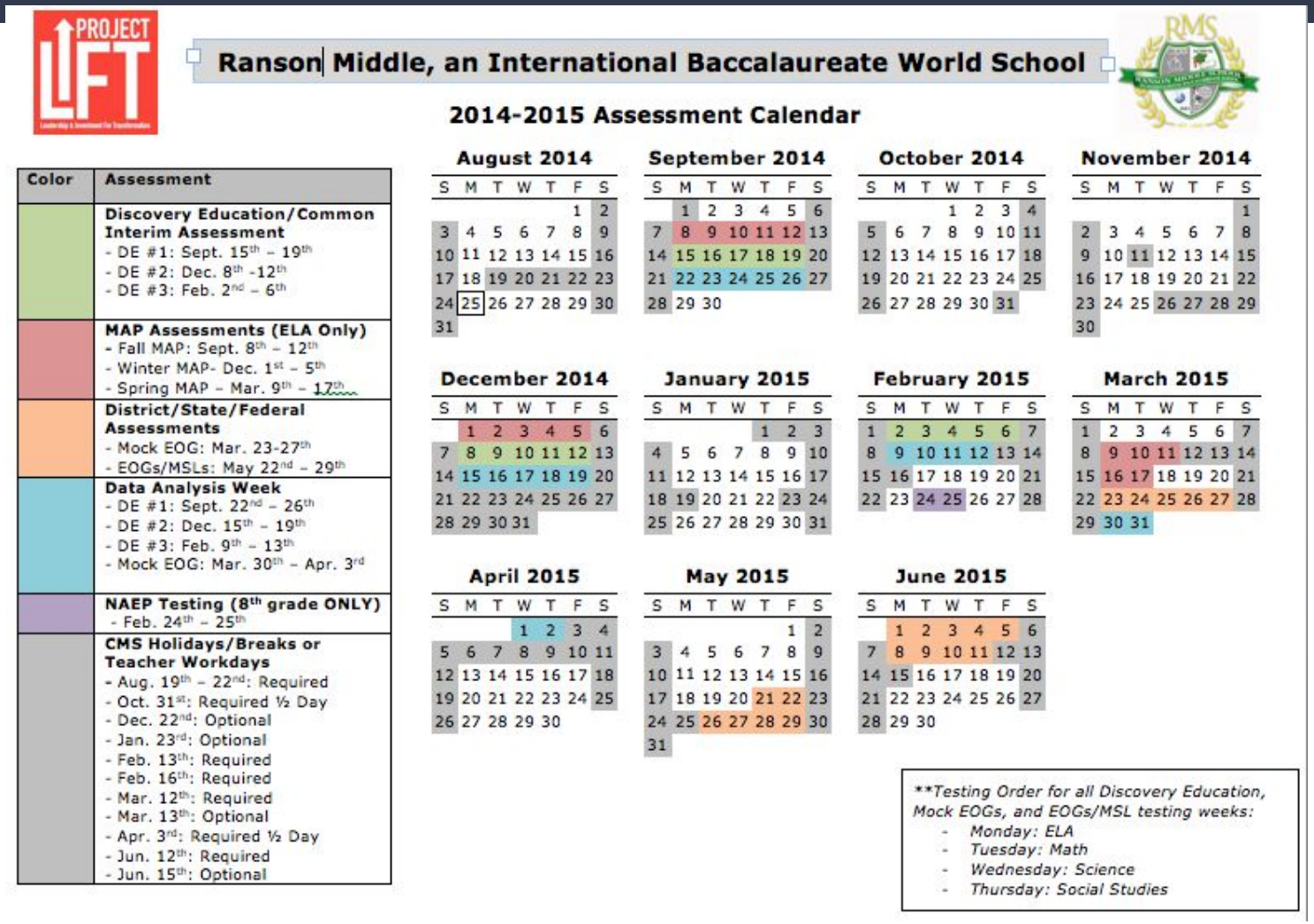
INTRO DDI TRAINING:
- Leaders and teachers have received DDI training

CALENDAR:
- Calendar in advance with built-in time for assessments, analysis & action

PROFESSIONAL DEVELOPMENT:
- Ongoing and aligned

BORROW FROM THE BEST:
- Identified and implemented best practices from high-achieving

Assessment Calendar



Ranson Middle, an International Baccalaureate World School

2014-2015 Assessment Calendar

Color	Assessment
	Discovery Education/Common Interim Assessment - DE #1: Sept. 15th – 19th - DE #2: Dec. 8th -12th - DE #3: Feb. 2nd – 6th
	MAP Assessments (ELA Only) - Fall MAP: Sept. 8th – 12th - Winter MAP- Dec. 1st – 5th - Spring MAP – Mar. 9th – 17th
	District/State/Federal Assessments - Mock EOG: Mar. 23-27th - EOGs/MSLs: May 22nd – 29th
	Data Analysis Week - DE #1: Sept. 22nd – 26th - DE #2: Dec. 15th – 19th - DE #3: Feb. 9th – 13th - Mock EOG: Mar. 30th – Apr. 3rd
	NAEP Testing (8th grade ONLY) - Feb. 24th – 25th
	CMS Holidays/Breaks or Teacher Workdays - Aug. 19th – 22nd: Required - Oct. 31st: Required ½ Day - Dec. 22nd: Optional - Jan. 23rd: Optional - Feb. 13th: Required - Feb. 16th: Required - Mar. 12th: Required - Mar. 13th: Optional - Apr. 3rd: Required ½ Day - Jun. 12th: Required - Jun. 15th: Optional

August 2014

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

September 2014

S	M	T	W	T	F	S
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7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

October 2014

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12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30	31	

November 2014

S	M	T	W	T	F	S
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9	10	11	12	13	14	15
16	17	18	19	20	21	22
23	24	25	26	27	28	29
30						

December 2014

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7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30	31			

January 2015

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				1	2	3
4	5	6	7	8	9	10
11	12	13	14	15	16	17
18	19	20	21	22	23	24
25	26	27	28	29	30	31

February 2015

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28

March 2015

S	M	T	W	T	F	S
1	2	3	4	5	6	7
8	9	10	11	12	13	14
15	16	17	18	19	20	21
22	23	24	25	26	27	28
29	30	31				

April 2015

S	M	T	W	T	F	S
			1	2	3	4
5	6	7	8	9	10	11
12	13	14	15	16	17	18
19	20	21	22	23	24	25
26	27	28	29	30		

May 2015

S	M	T	W	T	F	S
					1	2
3	4	5	6	7	8	9
10	11	12	13	14	15	16
17	18	19	20	21	22	23
24	25	26	27	28	29	30
31						

June 2015

S	M	T	W	T	F	S
	1	2	3	4	5	6
7	8	9	10	11	12	13
14	15	16	17	18	19	20
21	22	23	24	25	26	27
28	29	30				

***Testing Order for all Discovery Education, Mock EOGs, and EOGs/MSL testing weeks:*

- *Monday: ELA*
- *Tuesday: Math*
- *Wednesday: Science*
- *Thursday: Social Studies*

CORE IDEA

Exceptional teachers, leaders, schools, and districts succeed because of how they use their time.

Through strategic planning, exceptional schools ground their work in data-driven instruction.

Critical Key Points

The DDI cycle is sequential and there is overlap in each of the four components.

1. Quality analysis and action cannot happen without quality assessment.

2. In order for the components of the DDI cycle to become pervasive, there must be a culture of DDI

Final Reflection

When thinking about the 4 key components of DDI (Assessment, Analysis, Action, and Culture)

- Which key do you feel is most prevalent in your context?
- Which key do you feel like would be the biggest challenge to implement in you context?
- What is the next step that you could take to create a Data-Driven Culture in your context?

Q & A

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To learn more about Data-Driven Instruction, check out the book: