ACADEMIC DATA FOR CHARTER BOARDS

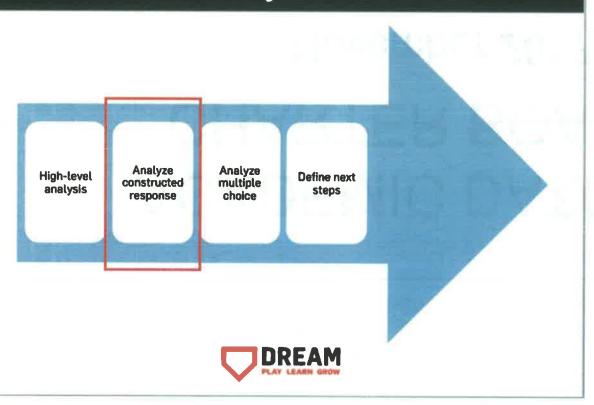
November 2017



CASE STUDY: NYS Test Math Constructed Response

	MC	CR
2016	8%	3%
2017	10%	9%

Math Analysis Process



- In 2014, we implemented a new ELA protocol for looking at student writing, but we didn't create a corresponding protocol for Math.
- In 2016, the NYS Test item analysis reports showed a significant gap between Math MC and CR performance.
- We implemented a
 Math CR protocol as
 part of our Data day
 and saw significant
 increase in Math CR
 performance on 2017
 NYS Test.

DREAM Common Assessment Framework

Diagnostic

- Early childhood inventories (Pre-K and K)
- Fountas and Pinnell Benchmark Assessment (K-8) 4x/year
- Reading and Math Inventory (HS)

- Placement
- Individualized Goals
- Small Group Instruction

Formative

- PALS, ECR Language & Literacy, and Math (Pre-K) 5x/year
- Interim Assessments in Math (K-9), ELA (2-9), Science and SS (9th) – 4x/year
- End-of-unit Assessments in ELA (K-9), Math (K-9), Science and SS (6-9)
- FUNdations assessments (K-2)

- Curriculum Design
- Re-Teaching

Summative

- MAP (3x/year, K-2)
- NYS Standardized Exams (1x/year, 3rd-8th)
- NYS Regents (1x/year, 9th)

- Growth
- Performance Evaluation
- Vision and Charter



DREAM Assessment Framework

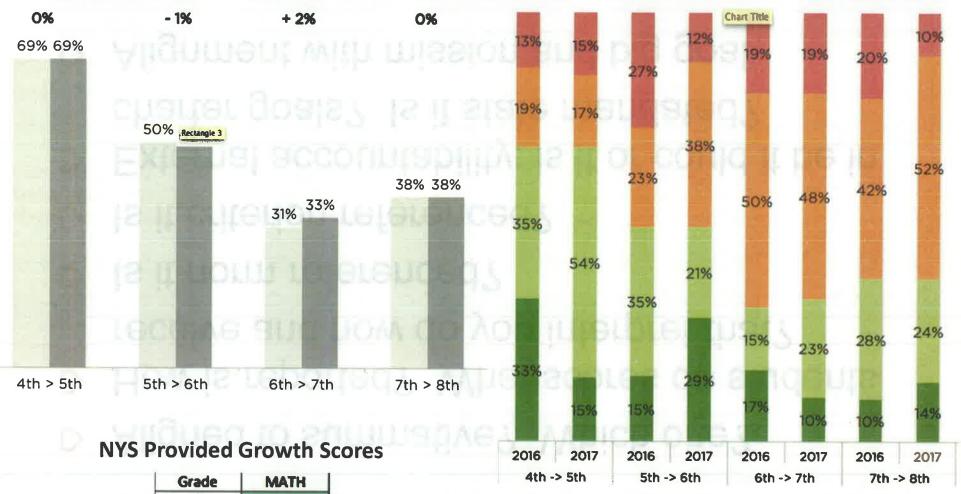
	Design	Measures	Strengths	Limitations			
Fountas and Pinnell Benchmark Assessment (K-8) - 4x/year	Teachers observe student reading behaviors one-on-one and engage in comprehension conversations to determine students' independent and instructional reading levels	 % students reading at or above grade level % of students on track to grow year or more in reading 	 Placement Individualized Goals Small Group Instruction 	Subjectivity			
Interim Assessments (K-9) - 4x/year	 Criterion-referenced assessment that assesses the standards taught over the last 6-8 weeks (but also serves as a check that we are teaching the right things) When possible, items pulled from summative assessments 	 Average percent correct OR % of students scoring above a certain score Comparison to external referent (NYS average) 	 Curriculum Design Informs instruction and reteaching Give teachers data on what students know and are able to do for a specific set of standards 	 Doesn't usually measure growth Doesn't offer robust data for students far below or above grade level 			
End-of-unit Assessments	Criterion-referenced assessment that assesses the standards taught over the last unit of instruction	Average percent correct (cross-sectional year over year performance)	 Curriculum Design Informs instruction and reteaching 	 Doesn't usually measure growth or offer robust data for students far below or above grade level 			
NWEA MAP (3x/year, K- 2)	 Measures relative performance on the CCSS in reading, math and language on a K-12 continuum Yields norm-referenced absolute performance scores, as well as norm-referenced growth goals 	 % of students at or above 50th percentile (performance) % of students at or above 50th percentile (growth) OR % of students that met their growth target 	 Growth Performance Evaluation Adaptive assessment along K-12 continuum means we have robust information for students who are far below or far above grade level. 	 Because it is adaptive, not all students take the same questions, so teachers can't perform item analysis which limits how instructionally useful it is. 			
NYS Test (1x/year, 3 rd - 8 th)	Criterion-referenced assessment with extensive comparative data	 % proficiency % of students in each performance level Average proficiency rating Median growth percentile 	 Growth Performance Evaluation Vision and Charter 	Doesn't offer robust data for students far below or above grade level			
NYS Regents (1x/year, 9 th)	Criterion-referenced assessment with extensive comparative data	 % of students that pass Average score % of students earning CUNY cut mark 	Performance EvaluationVision and Charter	 Difficult to measure growth Doesn't offer robust data for students far below or above grade level 			

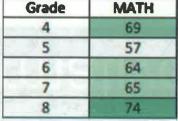
Formative Assessment Criteria

- Aligned to summative? Which one?
- How is reported? What scores do students receive and how do you interpret that?
- Is it norm referenced?
- Is it criterion referenced?
- External accountability: is it or could it be in charter goals? Is it state mandated?
- Alignment with mission and big goal



How much does the context or comparison with other schools matter?







APPENDIX



NYS Test Item Analysis Report

Domain	▼ Star		Standard	Y Qu			Released *	Answer	Point	S	NYS -1 N	YC	DREAM -	Diff		Standard	# Ques	NYC	DREAM	Diff
MD		D.A.3	Area and			MC	•)	C		1	32%	329	6 36%	4%		4.MD.A.3		34%	38%	5%
MD		D.A.3	Area and	Per		CR	•		2	2	32%	359	6 41%	6%		4.OA.A.3		47%	62%	15%
NF		A.1	Equivalen	_		MC	•	В		1	36%	393	55%	16%		4.G.A.1		61%	64%	3%
NF		.B.3	Add/Sub !	Mix		MC	•	A		1	41%	429	6 74%	32%		4.OA.C.5		56%	66%	10%
NF		F.B.3	Fraction V	Vot		CR	•		2	2	43%	443	6 53%	9%		4.NF.A.2		54%	67%	13%
OA		A.A.3	Multistep			MC	•	В		1	44%	429	6 58%	16%		4.NF.A.1		56%	71%	15%
NBT		3T.8.5	Multiply \		53		•		3	3	46%	429	6 45%	5%		3.G.A.1		55%	72%	17%
NF		.A.2	Compare		49		0		2	- 2	48%	49)	61%	13%		4.NF.B.3		54%	72%	19%
NBT		3T.8.5	Multiply V		47		*		2	2	52%	529	6 66%	15%		4.MD.C.5		74%	75%	2%
NF		.B.4	Multiply F		54		*		3	3	52%	529	6 61%	9%		4.MD.C.6		61%	75%	14%
OA		A.A.3	Multistep	W	52		•		3	3	53%	519	6 65%	14%		4.NF.B.4		62%	76%	14%
G	3.G.		Categorie			MC	•	C		1	55%	559	6 72%	17%		4.N8T.8.5		65%	76%	12%
MD		D.C.7	Understar	nd /		MC	•	В		1	55%	533	6 8170	28%		4.N8T.A.3		72%	79%	7%
G	4.G.		Draw Line	is a	48		•		2	2	55%	55%	6 53%	-2%		4.OA.A.2		73%	BIN	7%
OA		A.A.2	Multiplica	itio	55		•		3	3	58%	56%	6 65%	9%		4.N9T.A.2		76%	81%	6%
G	4.G.		Draw Line	is al		MC	•	A		1	59%	599	6 45%	-14%		4.MD.C.7		61%	82%	21%
NE	4.N	.A.1	Equivalen	t Fr	6	MC		A		1	59%	60%	6 75%	15%		4.MD.B.4		71%	B5%	14%
NF	4.NF	.A.2	Compare	Fra		MC	•	В		1	59%	599	6 72%	13%		4.G.A.3		67%	67%	20%
MD		D.B.4	Fraction N	/lea		MC	•	В		1	61%	599	6 74%	15%		4.N8T.8.6	3	73%	88%	15%
NF	4.NF	.A.1	Equivalen	R Fr	41	MC	•	В		1	61%	60%	6 66%	5%		4.OA.B.4			B9%	5%
MD	4.M	D.C.5	Angles and	d D		MC	•	D		1	62%	59%		1%		3.MD.D.8		75%	96%	21%
NF	4.NF		Equivalen	t Fr		MC	•	D		1	66%	65%	6 89%	24%		4.0A.A.1	1		98%	5%
G	4.G.		Line of Syr	mn	29	MC	*	A		1	66%	67%	6 87%	20%						
NBT		ST.8.5	Multiply V	Nho	40	MC	•	В		1	66%	68%	6 79%	11%		Domain	# Ques	NYC	DREAM	Diff
NF	4.NF		Fraction V	Yor		MC	•	D		1	70%	72%	6 91%	19%		NF	13		74%	15%
Ģ	4.G.		Draw Line		36	MC	•	В		1	70%	68%	92%	24%		MD	11	61%	73%	12%
	2017	3rd	PART	4th		5th	100	ES					2017	6th		7th	8th	ATTENTO	MS	100000
OA			13%		Q	%	6%	_	9%	1		EE			9%		%	139	_	9%
NBT			9%			_						_					_	137	0	
					12	_	12%		11%			RP			7%		%			5%
NF			9%		15	%	13%		12%			NS			6%	7	%			7%
G			10%		9	%	14%		11%			G			12%	0	%	109	5	7%
MD			11%		12	%	9%		11%			SP				4		109	_	7%
										-		F		+			70		_	
												Ir_						119		11%
	2017	2 est		4th	2.2	5th		Cab		794.1		Del		Latt						
MC	2017	SIU		-+LII		- Limited Co		6th	A RES	7th		8th		All						
MC			10%		13	_	11%		8%	_	49		11%		10%					
CR			8%		9	%	13%		9%		49	22	14%		9%					

DREAM Boxscore

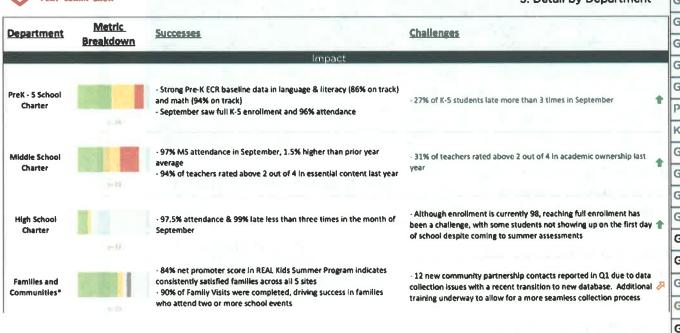


Boxscore - September 2017 3. Detail by Department

Pre-K: PALS Letter ID % on track Pre-K: PALS Letter Sound % on track Kindergarten % students reading above grade level Grade 1 % students reading above grade level Grade 2 % above NYS average ELA Grade 3 % above NYS average ELA Grade 4 % above NYS average ELA Grade 5 % above NYS average ELA Pre-K: ECR math % on track Kindergarten % students Math above 60% Grade 1 % students Math above 60% Grade 2 % above NYS average in math Grade 3 % above NYS average in math Grade 4 % above NYS average in math Grade 5 % above NYS average in math Grade 6 % above NYS average in ELA Grade 7 % above NYS average in ELA Grade 8 % above NYS average in ELA Grade 6 % above NYS average in math

Grade 7 % above NYS average in math Grade 8 % above NYS average in math

Metric





6 phases of adopting data-driven instruction

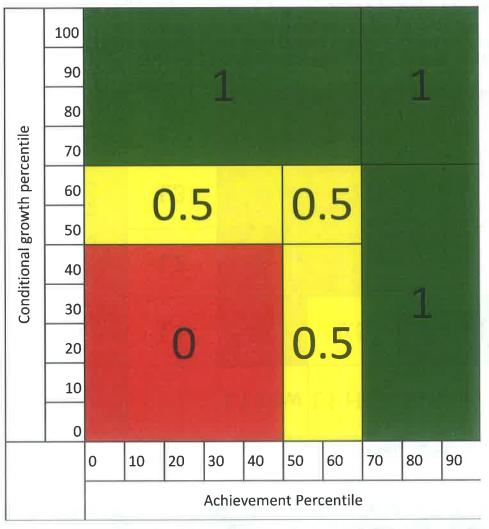
Challenging the test	"Question #3 is poorly worded." "Answer 'b' is a trick answer." "The students made silly mistakes."
Feeling inadequate or distrustful	"How can two questions establish mastery?" "We don't teach it in this format."
Confusion, overload	"This is too much! How can I really use all of this?"
Analytical but surface	"Students do poorly on word problems, so we'll do more word problems." "We need more reading."
Looking for causes	"The wrong answers show that students can't tell the difference between a summary and a theme."
Changing teaching practice and improving student learning	"I need to write lesson plans for re-teaching that differentiate between the different needs of my student groups."



Source: "Using Test Score Data to Focus Instruction" by Susan Trimble, Anne Gay, and Jan Matthews in *Middle School Journal*, March 2005

Student Achievement Growth Model (K-

2)



- Based on Spring 2016MAP scores
- Achievement percentile: shows how well each student performed relative to students in that grade.
- Conditional growth percentile: shows how well each student grew relative to academic peers (students with similar starting point).



Student Achievement Growth Model (4-8)

	Post-Test: 2017 NYS Test										
est		L1 Low	L1 High	L2 Low	L2 High	L3 Low	L3 High	L4			
NYS Te	L1	0	0.5	1	1.	1	1	1			
2016	L2	0	0	0	0.5	1	1	1			
Pre-test: 2016 NYS Test	L3	0	0	0	0	1	1	1			
Pre	L4	0	0	0	0_	0.5	1				

All teachers do not teach the same number of students so once a final number of points is determined, the total points will be divided by the number of students who sat for the accompanying assessments. By dividing by the total number of points earned by the total possible number of points earned (1 point per student), this step equalizes the evaluation for all teachers regardless of the number of students she teaches.

