



KENTUCKY CENTER FOR MATHEMATICS

Math Intervention Expert Talks with Jackie Damron

Welcome!



Expert Math Interventionist

Jackie Damron

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More About Me

- Interventionist 3 years
- Educator 30 years
- Enjoy going to car shows, lifting weights, and reading
- Excited to meet my first grandchild soon!



KY Math Intervention

Kentucky legislators created the Mathematics Achievement Fund in 2005.

Thank You!

The goal of the MAF is...

"to provide developmentally appropriate diagnostic assessment and intervention services to students, primary through grade 12, to help them reach proficiency in mathematics on the state assessments."



Agenda

- Using Data to Drive Instruction
- Why measure student growth?
- Do we give reading and math equal validation?
- Why should teachers be involved?
- Collaboration as a Basic Structure
- Schoolwide Positive Math Culture





Using Data to Drive Instruction





Why Measure Student Growth?



- The teacher gets insight into the student's starting point and progress throughout the year so that he/she can adapt instruction accordingly;
- The student is encouraged and applauded for his achievements and given feedback on areas that remain challenging
- His future teachers understand his achievement and his starting point for new learning.
- With growth data, educators are able to better pinpoint whether specific instructional strategies and interventions hold promise and adjust over the course of the school year.



AVMR Progression Data

Teacher	Student	MAP	FNWS	BNWS	#ID	Struct.	+/-	Notes:
		2	5	4	3	0	2	Subtraction past 10 (Reading IEP)
		6	4	3	3	0	1	Retained first grade being referred
		10	1	1	2	0	1	
		11	5	3	3	1	2	Subtraction past 10
		15	4	3	4	0	1	Add past fingers/Concept of Subtraction
		16	5	5	4	1	3	
		23	5	4	3	1	3	
		10	5	4	3	1	2	Subtraction past 10
		20	5	4	3	0	2	Subtraction past 10
		23	5	3	3	0	1	Difficulty adding above 10/Subtraction con
		23	5	4	4	1	2	PossibleReferral Process
		28	5	5	4	0	1	Concept of Subtraction
		27	3	3	3	0	2	
		3	3	1	1	0	1	Reading IEP
		16	5	5	4	1	2	
		23	3	3	1	0	1	Adding past 10/Concept of subtraction
		27	4	3	4	1	2	Subtraction past 10
		8	5	3	3	1	1	Subtraction concept
		9	5	5	4	0	1	Subtraction concept
		10	4	4	4	0	2	Subtraction concept
		18	5	5	4	1	2	Difficulty counting back from/to (absentee
		18	5	4	3	1	2	Adding past 10/Subtraction past 10
		18	4	3	3	1	2	Subtraction concept
		23	5	5	4	0	1	Understanding of +/-
		28	4	3	3	0	1	Count Up /Count Back



AVMR Progression Data

Student	Student Teacher FNWS BNWS		#ID	Structrue	+/-	Comments		
		3/4	0/5	1/ <mark>3</mark>	0/2	1/ <mark>2</mark>		
		2/3	0/1	1/ <mark>1</mark>	0/1	1/ <mark>2</mark>	Focus on #ID	
	22 (1 C2)	3/4	2/3	1/3	0/1	1/ <mark>2</mark>		
		3/5	3/5	3/ <mark>3</mark>	0/2	1/ <mark>2</mark>		
		3/4	0/3	1/3	0/1	0/1		
		3/ <mark>3</mark>	3/ <mark>3</mark>	1/ <mark>1</mark>	0/1	1/ <mark>1</mark>	Referral process	
14	2.2	4/ <mark>4</mark>	2/ <mark>4</mark>	2/3	0/1	1/ <mark>2</mark>	p	
		3/ <mark>3</mark>	0/3	1/ <mark>1</mark>	0/1	1/2	Possible Retention	
		3	2	2	0	1	January	
		3/5	2/5	3/ <mark>3</mark>	0/ <mark>0</mark>	1/ <mark>1</mark>	**Watch	
		1/3	0/3	1/ <mark>1</mark>	0/1	0/2		
	Section and an and a section of the	2/4	2/ <mark>3</mark>	1/ <mark>2</mark>	0/1	1/ <mark>2</mark>		
		3/5	3/ <mark>3</mark>	1/ <mark>2</mark>	0/1	1/ <mark>1</mark>	Possible Retention	
		3/5	<mark>4/5</mark>	1/3	0/2	1/ <mark>2</mark>		
-	5 - 1000000000000	<mark>3/5</mark>	3/ <mark>3</mark>	1/ <mark>3</mark>	0/2	1/3		
		3/5	2/ <mark>4</mark>	1/ <mark>3</mark>	0/1	1/ <mark>2</mark>		
		1/3	0/3	1/2	0/1	0/ <mark>2</mark>		
		<mark>3/5</mark>	1/3	1/2	0/1	1/ <mark>2</mark>		
		3/ <mark>3</mark>	2/3	1/ <mark>1</mark>	0/1	1/ <mark>2</mark>		
		3/5	2/4	3/4	0/2	1/2		



MAP Data

Student Last	Student	BOY		MOY			EOY			Growth
	First	Fall	Leve	Winter	+/-	Level	Spring	+/-	Leve	BOY-
										EOY
1		160	NH	163	+3	NH	173	+10	NH	+13
2		167	Α	174	+7	Α	190	+16	PL	+23
3		164	AL	174	+10	A	191	+17	PL	+27
4		159	NH	164	+5	NH	186	+22	AH	+27
5		151	NL	155	+4	NL	168	+13	N	+17
6		165	AL	170	+5	AL	187	+17	AH	+22
7		167	A	174	+7	А	178	+4	A	+11
8		152	NL	165	+13	NH	169	+4	NH	+17
9		169	A	173	+4	А	185	+12	A	+16
10		163	AL	165	+2	NH	173	+8	NH	+10
11		169	A	178	+9	AH	174	-4	NH	+5
12		164	AL	179	+15	AH	189	+10	AH	+25
13		165	AL	177	+12	AH	182	+5	A	+17
14		160	NH	184	+24	PL	188	+4	AH	+28
15		158	NH	176	+18	Α	186	+10	AH	+28
16		169	A	180	+11	AH	187	+7	AH	+18
17		167	A	Moved				3		
18		167	A	182	+15	AH	188	+6	AH	+21
19		166	AL	177	+11	AH	187	+10	AH	+21
20		169	Α	176	+7	Α				
21		167	A	184	+17	PL	183	-1	A	+16
22		160	NH	161	+1	Ν	192	+31	PL	+32
23		161	NH	169	+8	AL	181	+12	A	+20
24		156	N	165	+9	NH	174	+9	NH	+18
25 (January)	8	175	AH	171	-4	AL	186	+15	AH	+11
26										
27		177		184.2			189.5			
	212	1.2		1	1 C		L	E.C.	E2 1	



Jackie Damron's Formative Assessment Wall





Flexible Schedule & Groupings

- At least 3 times per year my groups will change depending on the formative assessments that I administer, teacher Observation (PLC), AVMR Data, and MAP Data.
- These groupings may change in size 4 students per group to 6 students per group or vice versa.
- There is not just one data point but all the above. However, I have found that the MAP and AVMR data do correlate to the structures and number progression documentation.
- This flexible grouping occurs in grades K-2 in which I see approximately 50 students per day 4 days per week.
- Fridays are saved for make up days, doing individual intervention with at risk students, co-teaching, providing resources for K-5 teachers, and attending grade level PLC meetings.



Do we give reading and math equal validation?

https://www.brookings.edu/research/new-evidence-on-the-benefits-of -small-group-math-instruction-for-young-children/





My Lightbulb Moment!



I have taught math to students in grades 2-5 for 30 years. In second grade, I wondered why they didn't know their addition/subtraction facts! In third grade, I wondered why they couldn't "regroup" or borrow and carry as I was taught. In 4th grade and still in 5th grade, I had no clue why students could not learn and apply multiplication facts!!

AHA!! Students had not yet mastered a solid foundation of number sense - procedural and conceptual! They were trying to reach the top of the ladder with several rungs (steps) missing in between!!



Why should teachers be involved?

"Without involvement there is no commitment.Mark it down, asterisk it, circle it, underline it. No involvement, no commitment."

Stephen Covey p. 143(1989)





We are not an island!



The most crucial finding was that the most effective schools, based on test score improvement over time after controlling for demographic factors, had developed an unusually high degree of "relational trust" among their administrators, teachers, and parents. Five organizational features contributed to this success:

- A coherent instructional guidance system, in which curriculum and assessment were coordinated within and across grades with meaningful teacher involvement.
- An effective system to improve professional capacity by providing ongoing support and guidance for teachers, including opening teachers' classroom work for examination by colleagues and external consultants.
- Strong ties among school personnel, parents, and community service providers, with an integrated support network for students.
- A student-centered learning climate that identified and responded to problems individual students were experiencing.



ASCD How We Know Collaboration Works Feb.2015

Why should we use collaboration as our basic structure?

"A team can make better decisions, solve more complex problems, and do more to enhance creativity and build skills than individuals working alone... They have to become the vehicle for moving organizations into the future. Teams are not just nice to have. They are hard-core units of the production."

Blanchard, 2007,p.17





Schoolwide Positive Math Culture

How to Promote a Positive Math Culture at Your School

- 1. Recognize & Support Effective Math Teaching
- 2. Promote a Growth Mindset in Math...Teachers & Students
- 3. Recognize that being "smart" in math does not have to do with speed but **FLUENCY**
- 4. Ensure that the five strands of math proficiency are being addressed
- 5. Be a facilitator of change





M- Multiple I- Individuals = T- Team





Upcoming Virtual Professional Learning

APRIL 13 - 17 2:00-2:30 PM EST Focus on Place Value! w/ KY Math Leaders Monday, April 13 - Place Value to 10 Tuesday, April 14 - Place Value to 100 Wednesday, April 15 - More Place Value to 100 Thursday, April 16 - Place Value with Multidigit Numbers Friday, April 17 - Place Value with Decimals



Visit Our KCM Website

www.kentuckymathematics.org



Good News!

The KCM is hard at work to ensure Kentucky teachers have access to innovative professional development from home.

Through the newly launched <u>KCM Virtual</u> site, mathematics teachers from all grade levels will have access to live zoom meetings, video records and corresponding materials. <u>Read more</u>.

Elementary: Make 'n Take Supporting Number Sense and Fluency - Mar. 23-27

<u>Middle: Fractions, Decimals & Percents - Mar. 30-Apr.</u> <u>3</u>

<u>High: Algebra & Geometry - Thursdays, Mar. 26 - Apr.</u> 16

Math Intervention Expert Talks - Apr. 6 - Apr. 10

Focus on Place Value - Apr. 13 - Apr. 17



KCM is here to support teachers!



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