

6 Review the Mean Points Scored for the Power Standards

Insert #1 for Process Step 6

It is also helpful to review how your students scored on the items related to the power standards, so that you can determine how much you can achieve by increasing instructional time on the power standards.

- Let's look at sixth grade math as an example. The mean points scored for each standard are shown in the 4th column on the School Summary Report. Let's convert these to a percentage. The procedure is similar to the calculating the percentage of the total score for the power standards. For each domain, focal point or discipline, divide the mean points scored by the points possible. Follow along using the data from your School Summary Report for the calculations.

GLCE Code	FOCAL POINT Abbreviated GLCE Descriptor	No. of Students Assessed	Mean Points	Points Possible	Percent of Students Scoring			
					0	1	2	3
	Decimal, Fraction Operations	73	3.9	10				
N.FL.05.14	Add and subtract fractions with unlike denominators	73	0.7	2	59	15	26	
N.FL.05.18	Write statements involving + and - of fractions	73	0.7	2	44	38	18	
N.FL.05.20	Solve applied problems using fractions & decimals	73	0.9	2	33	48	19	
N.MR.05.19	Solve contextual problems involving +/- fractions	73	0.7	2	56	21	23	
N.MR.05.21	Solve for the unknown in equations with fractions	73	1.0	2	34	34	32	
	Whole-Number Division	73	12.6	23				
N.MR.05.01	Understand the meaning of division of whole numbers	73						62
N.MR.05.02	Know division of whole numbers in form $a = bq + r$	73	1.2	2	22	37	41	
N.MR.05.03	Write mathematical statements involving division	73	1.3	2	22	25	53	
N.FL.05.04	Multiply a multi-digit number by a two-digit number	73	1.5	2	14	22	64	
N.FL.05.05	Solve problems involving \times and \div of whole numbers	73	0.9	2	23	64	12	
N.MR.05.15	\times a whole number by powers of 10, identify patterns	73	1.3	2	11	47	42	
N.MR.05.17	Multiply decimals to 100ths by whole numbers	73	1.9	3	10	22	34	34
M.UN.05.01	Know equivalence of 1 liter, 1000 ml and 1000 cc	73	0.9	2	30	52	18	
M.UN.05.02	Know the units of measure of volume	73	0.5	2	52	44	4	
M.UN.05.03	Compare relative sizes of cubic measures	73	0.4	1	62	38		
M.UN.05.04	Convert measurements within a given system	73	1.2	3	27	36	29	8
	Properties of 2D Shapes/Angles	73	5.6	11				
G.GS.05.02	Measure angles with a protractor and classify	73	2.2	3	8	15	23	53
G.GS.05.03	Identify angles on a straight line & vertical angles	73	0.4	1	62	38		
G.GS.05.04	Find unknown angles in problems	73	1.5	3	19	33	27	21
G.GS.05.05	Know straight angle and angles surrounding a point	73	0.6	2	51	41	8	
G.TR.05.01	Associate an angle with a certain amount of turning	73	0.9	2	34	40	26	
	Connections	73	8.2	16				
N.ME.05.08	Understand the relative magnitude base-10 system	73	0.7	1	33	55		
N.ME.05.10	Understand & show fractions as a statement of +	73	1.4	2	16	23	60	
N.ME.05.11	Compare two fractions using common denominators	73	1.8	3	18	21	26	36
N.ME.05.12	Multiply two unit fractions using area model	73	1.1	2	12	70	18	
N.MR.05.13	Divide using fractions and whole numbers	73	0.5	1	45	55		
M.PS.05.10	Solve volume problems of rectangular prisms	73	0.9	2	42	25	33	
D.RE.05.01	Read and interpret line graphs, and solve problems	73	1.0	3	34	32	32	3
D.RE.05.02	Construct line graphs from tables of data	73	1.4	2	14	33	53	

- a. Let's start with Whole-Number Division. First, use a calculator to divide the mean points scored, 12.6, by the points possible for this standard, 23, which equals .55. Then, multiply your answer by 100 to get it into a percent format, so in this example, the mean score for Whole-Number Division is only 55%. [click]

Mean Percentage for Whole-Number Division = $12.6/23 * 100 = 55\%$

- b. The Mean Points scored for Connections are 8.2 out of a possible 16 points, which using the same calculation equates to only 48%!

Mean Percentage for Comprehension = $8.2/16 * 100 = 51\%$

2. In these focal points, which were earlier calculated to be 65% of the points possible, on average students are scoring only a little above 50%. Does it make sense to spend an equal amount of time on all focal points and standards? Should you spend the same amount of time on Decimal and Fraction Operations, which is only worth 17% ($10/60 * 100$) of the total points as you do on Whole-Number Division or Connections? Are you starting to see how this data can help you create a redistributed instructional time calendar?

While doing this activity, have you noticed that not all of the standards are assessed? We are not saying that the other standards are not important, but the standards that make up each of the domains, focal points or disciplines are the critical skills that students need to succeed in later grades, so they need the appropriate amount of emphasis. Emphasizing the power standards in instruction will improve student achievement and positively affect a school's ranking along with having a positive effect on teacher evaluations, which are also partly based on the state assessment scores.

3. Now do the calculations for the power standards in the other subjects assessed at your grade level.
4. You should repeat the same process on the data for Students with Disabilities and All Except Students with Disabilities, if appropriate.