

Teacher Effectiveness and Teacher Quality: What's the Difference

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Think Tank Session 605

Sponsored by Pre-K – 12 Educational Evaluation Topical Interest Group (TIG)

Friday, Nov. 12, 2010, 1:40 PM to 3:10 PM

Agenda

- Overview (1:40-2:35)
- Small Group Discussions (2:35-2:55)
- Check & Connect (2:55-3:05)
- Q & A Overflow (3:05)

Key Ideas

- “Break It Down”
- “**Analytics**” (Information + Insights → Action)

	Past	Present	Future
Information	☑	☑	☑
Insights	☑	☑	☑
Action	☑	☑	☑

Definitions

Highly Qualified Teacher (Certification focused)

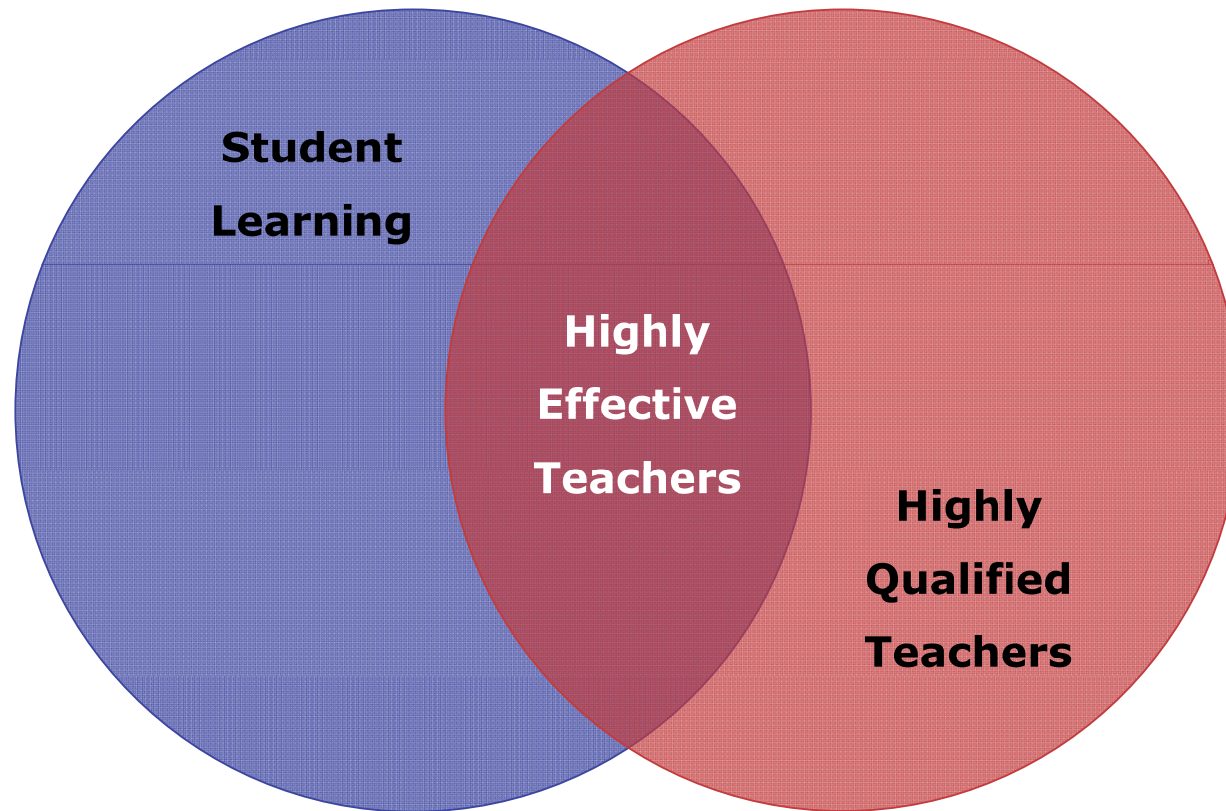
Per the *No Child Left Behind Act of 2001*, a "highly qualified teacher" (HQT) is one who holds at least a bachelor's degree, has obtained full State certification, and has demonstrated **knowledge** in the core academic subjects he or she teaches.

Highly Effective Teacher* (Student Learning focused)

Per our **working definition**, a "highly effective teacher*" is one who has at least 67% of his or her students making a year or more than a year's growth in a year's time.

And an effective teacher is one who has at least 50% of his or her student making a year or more than a year's growth in a year's time.

Highly Effective vs. Highly Qualified



What and how much are students learning?

Norm-Referenced Assessments

Percentile Scores

Criterion-Referenced Assessments

Scale Scores

Value-Added Analyses

Performance Index Scores
(one approach)

Some common questions that these scores & analyses might help answer

How does a student's achievement stack up against the achievement of **other** similar **students**?

What is the relative standing of the student across a broad domain of **content**?

How does a student stack up against the established **benchmarks** of achievement?

What content and skills has the student **mastered**?

How does a student's current level of achievement stack up against the student's **past level** of achievement?

What instructional strategies (used by a **teacher**) might be contributing to student's growth in learning?

Understanding scale scores*

A scale score is a transformation of a raw score (number of items answered correctly) into an equal-interval scale, using **cut scores** determined through the process of **standard setting**. For e.g.,

Table 7.2 Proficiency Level Ranges for Grades 3 – 8, and 11 Reading

Grade	Below Basic	Basic	Proficient	Advanced
3	300 - 519	520 - 583	584 - 660	661 - 975
4	300 - 569	570 - 633	634 - 699	700 - 975
5	300 - 586	587 - 638	639 - 706	707 - 975
6	300 - 593	594 - 649	650 - 717	718 - 975
7	300 - 609	610 - 667	668 - 745	746 - 975
8	300 - 623	624 - 675	676 - 748	749 - 975
11	50 - 144	145 - 158	159 - 177	178 - 250

* From 2009 PAWS Technical Report. See pp. 89-90 for complete list

Achievement and Growth Definitions

PAWS (Proficiency Assessments For Wyoming Students) Proficiency Levels =>
4.00-4.99 = Advanced; 3.00-3.99 = Proficient;
2.00-2.99 = Basic; 1.00-1.99 = Below Basic

Performance Index = Proficiency Level + Incremental Proficiency
Incremental Proficiency = (Student Scale Score – LOSS)/(HOSS – LOSS)

High Achievement \geq Proficient = **3.00 or above**

Low Achievement $<$ Proficient = **2.99 or below**

Value-added Growth = Students' PAWS Performance Index (Year N) - Students' PAWS Performance Index (Year N-1)

Low Growth \leq **-0.01 or below**

High Growth \geq **+0.01 or above**

Typical Growth = 0.00

Two Key Performance Indicators



Quadrant Model with Labels

PLC, Q5

High Achievement

+ = LOOKING QUADRANT

Low Growth

PLC, Q3

Low Achievement

+ = LABORING QUADRANT

Low Growth

Achievement (Ability/KABATD Indicator)

PLC, Q4

High Achievement

+ = LEADING QUADRANT

High Growth

Growth (Progress Indicator)

Low Achievement

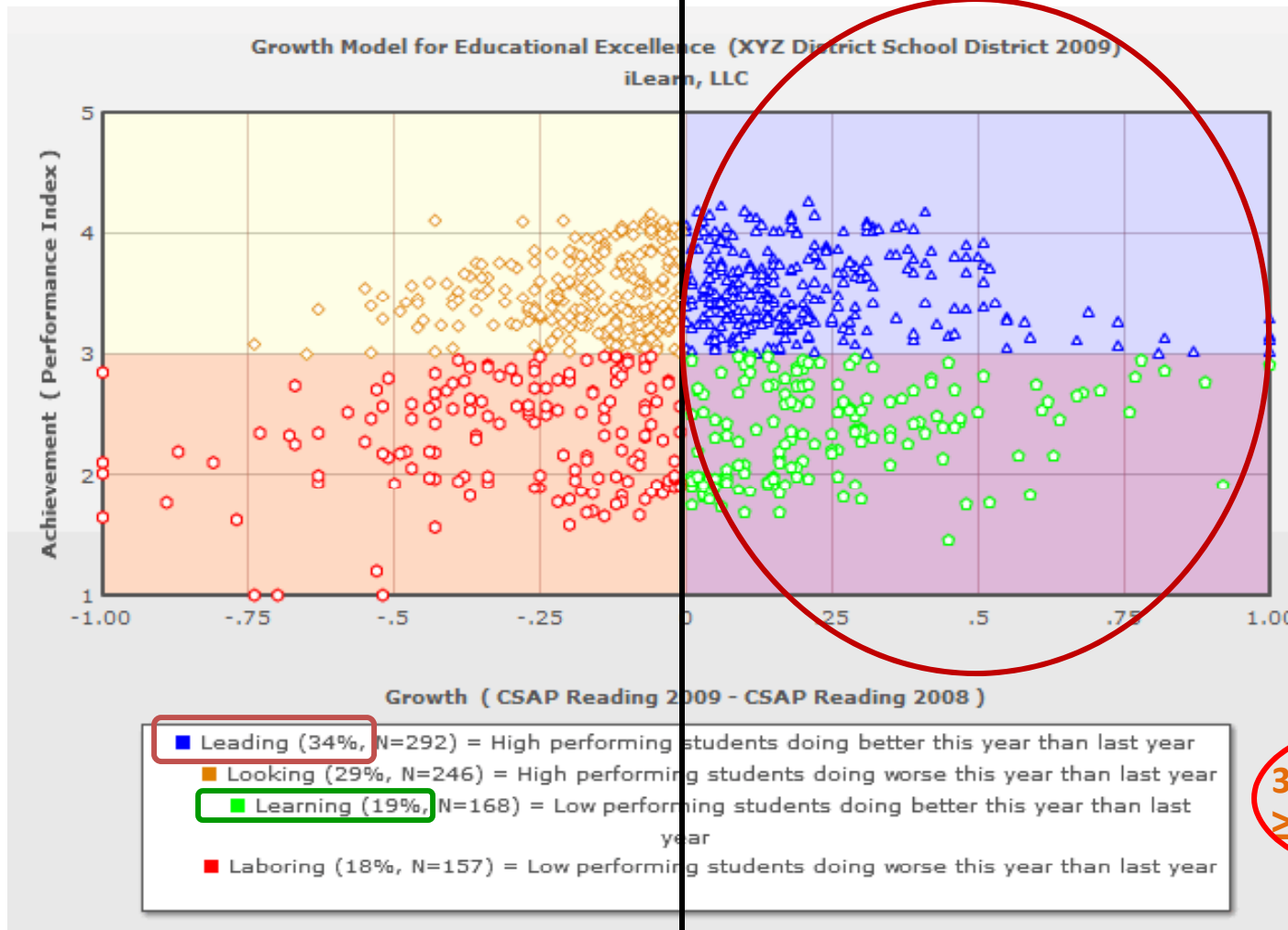
+ = LEARNING QUADRANT

High Growth

PLC, Q6

Quadrant Model – Visualizing Data

Students making a YEAR or MORE THAN a YEAR'S GROWTH in one year



Advanced

Proficient

Basic

Below Basic

34% + 19% = 53%
≥ year's growth

Students LOSING GROUND in one year

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Franzen, Bauman, & Miller, 2010

Strength Charts – Mining Data

Norm-Referenced

Content Standards

PLC Quadrant, Growth Percentile, and CSAP 2009 Results													
Student	DistrictStudentID	Quadrant	Student Growth Percentile	Overall	Reading Comprehension	Thinking Skills	Use of Literary Information	Literature	Fiction	Fiction and Poetry	Nonfiction	Vocabulary	Poetry
Ackerman, Desiree	536166		39.00	2.43	2.58	2.09	2.81	2.28	2.17		1.00	3.01	2.68
Acosta, Xala	520287	Leading	66.00	3.11	3.11	2.95	2.72	3.57		3.30	2.81	3.28	
Aldaz-Cobarrubia, Whitley	507803	Laboring	36.00	2.70	2.81	2.70	2.38	2.91	2.64		3.61	3.00	2.11
Alonzo, Colton	421041	Leading	22.00	3.43	3.88	3.11	3.32	3.30		3.21	3.67	4.07	
Alvarado, Jerry	520017			3.14	3.24	3.21	2.49	3.20		3.15	2.88	4.99	
Alvarado, Lauren	474756	Looking	55.00	3.28	3.30	3.18	3.20	3.49	3.56		2.15	3.42	3.20
Alvarez, Alexander	334914	Looking	12.00	3.22	3.36	3.25	3.13	3.05		3.09	3.35	2.68	
Amos, Cesar	490761	Learning	79.00	1.70	1.74	1.62	1.00	1.88	1.67		1.00	1.85	1.81
Andersen, Omar	431775	Learning	85.00	2.26	1.97	2.34	2.51	2.53	2.43		1.00	1.94	2.85
Anderson, Fely	360815	Looking	12.00	3.45	3.36	3.31	3.83	3.49		3.54	3.39	2.86	
Anderson, Jorge	396048	Learning	24.00	1.24	1.00	1.65	1.00	1.00	1.40		2.34	1.00	1.00
Arellano, Juan	479055	Leading	59.00	3.00	2.75	3.07	3.03	3.15	3.22		3.02	1.97	3.41
Arritola Rios, Austin	384360	Leading	71.00	3.40	3.41	3.60	2.86	3.85		3.54	3.70	3.10	
Arrona de Jesus, Diana	441033	Learning	61.00	1.98	2.34	1.93	2.16	1.87		2.10	1.92	1.93	
Ashing, Elias	515418	Leading	77.00	4.06	4.09	4.12	3.83	4.11		4.22	3.91	4.99	
Astorga, Kelly	409773		15.00	3.30	3.11	3.22	3.58	3.57	3.51		2.60	3.17	3.39
Avitia, Gabriel	397806	Learning	70.00	2.68	2.60	2.65	3.31	2.00		2.63	2.39	2.16	
Babuska, Brandon	377691	Learning	24.00	2.02	1.99	1.90	3.14	1.95		1.78	2.11	2.21	
Baena, Elias	322134	Laboring	7.00	2.95	3.00	2.79	3.39	2.61		2.96	2.40	3.18	
Baldwin, Abbigail	428571	Looking	64.00	3.86	3.78	4.08	3.75	3.82	4.05		4.00	3.54	4.07

Value-Added

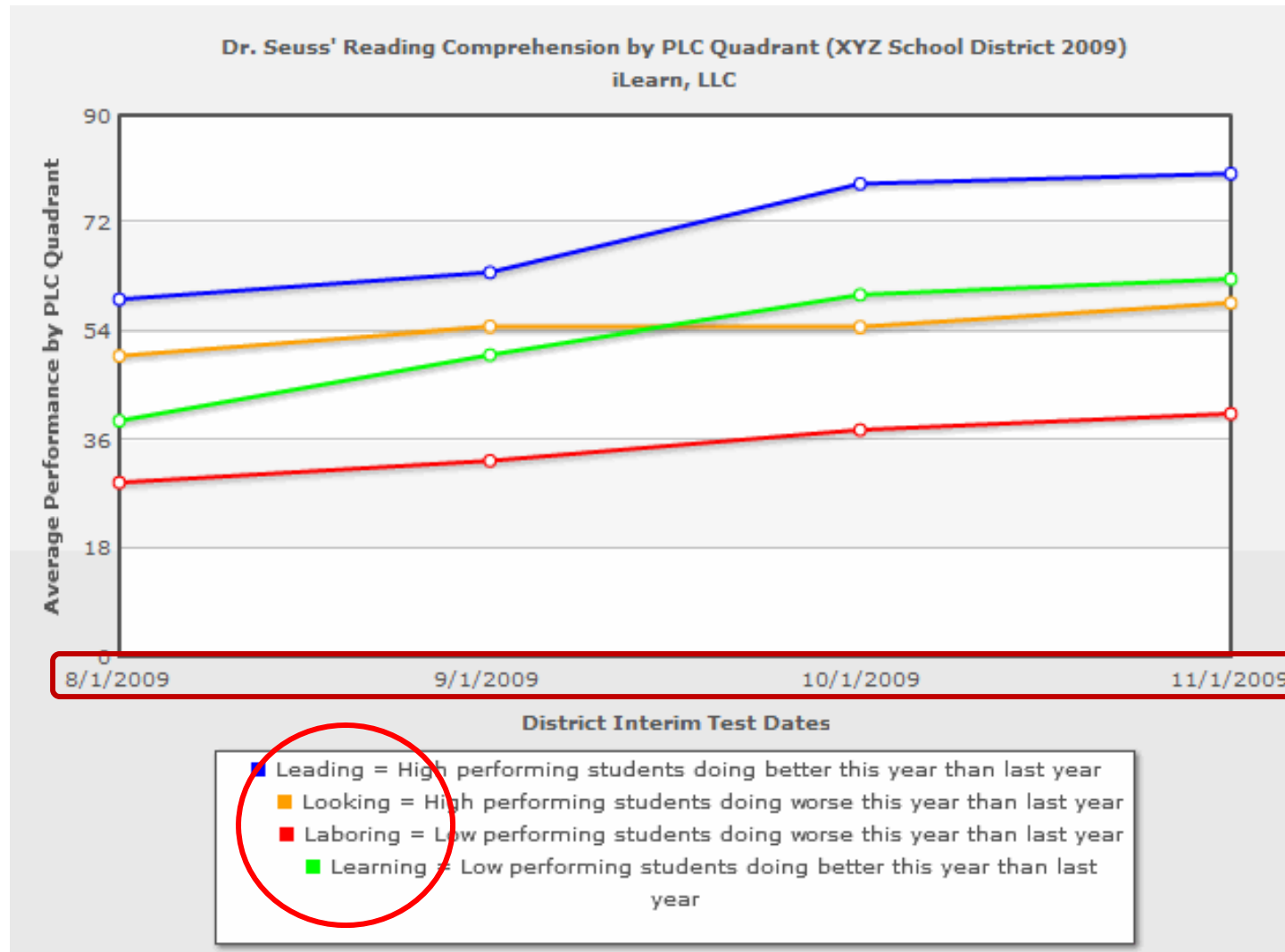
Criterion-Referenced

Sub-content Areas

Kid/Teacher Maps – Insights from Data

Performance Index	Performance Skill	Point for CR	Item Type	DOK
4.52	Explain the text's main point and use relevant details to support the explanation.	3 of 3	CR	3
4.49	Make predictions and draw conclusions from text in various genre.	2 of 2	CR	3
4.49	Make predictions and draw conclusions from text in various genre.	3 of 3	CR	3
4.16	Use reading to define and solve problems and answer questions.	2 of 2	CR	3
4.14	Make predictions and draw conclusions from text in various genre.	2 of 3	CR	3
4.06	Make predictions and draw conclusions from text in various genre.		MC	2
4.03	Explain the text's main point and use relevant details to support the explanation.	2 of 3	CR	3
4.01	Make predictions and draw conclusions from text in various genre.	1 of 3	CR	3
3.91	Differentiate fact from opinion in a variety of texts.		MC	2
3.74	Use reading to define and solve problems and answer questions.		MC	1
3.55	Use reading to define and solve problems and answer questions.	1 of 2	CR	3
3.51	Explain the text's main point and use relevant details to support the explanation.	3 of 3	CR	1
3.47	Explain the text's main point and use relevant details to support the explanation.	1 of 3	CR	3
3.33	Make predictions and draw conclusions from text in various genre.	1 of 2	CR	3
2.75	Use reading to define and solve problems and answer questions.		MC	1
2.66	Explain the text's main point and use relevant details to support the explanation.	2 of 3	CR	1
2.59	Determine author's purpose.		MC	3
2.48	Explain the text's main point and use relevant details to support the explanation.	1 of 3	CR	1
2.12	Determine author's purpose.		MC	3
1.92	Make predictions and draw conclusions from text in various genre.		MC	3

Evidence of Learning – Aggregating Data



Fort Morgan Story



- Priority District
- Comprehensive Review findings
 - Need to establish essential learning targets
 - Need to understand and act on important data
 - Need shared leadership/accountability
- New accountability system
 - Emphasis on growth for every student

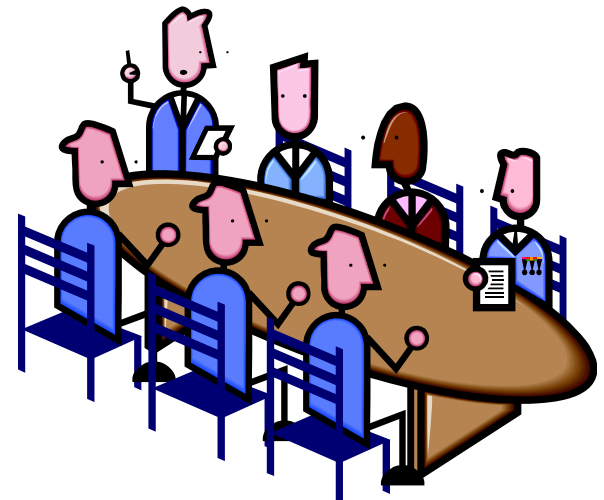
Fort Morgan Story

- Demographics
 - 69 % free/reduced lunch
 - 60% Hispanic
 - 35% ELL
 - Rapidly increasing immigrant population
 - Status data showing steady decline
 - Graduation and drop out statistics troublesome
 - Results not commensurate with effort



How do we improve?

- Curriculum alignment process
- Establishing Professional Learning Communities (PLCs)
- Establish culture of continuous improvement
- Use of meaningful data
 - HarnessData™ pilot at FMMS



What is meaningful data?

- Understand existing state
- Plan for desired state
- Bring focus and intentionality to the work
- Use the data to ask questions and tell the story
- Use data to evaluate progress



How are we using HarnessData™?

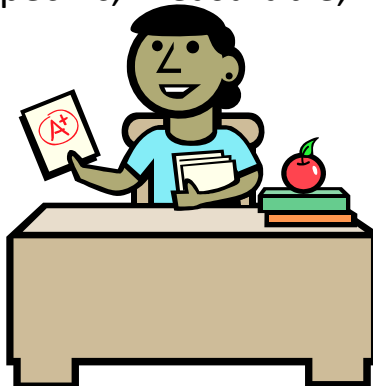
- To understand student strengths and weaknesses (standards-based)
- To identify student growth
- To establish an approximate “learning progression”
 - Used DOK and list of skills for each proficiency level taken from test item maps
- To inform student interventions (RAM time)



How are we using HarnessData™?

- To identify high performing teachers
- To support teacher self evaluation “How did I do?”
- To support peer observation and professional growth
- To set and review SMART* goals

* Specific, Measurable, Attainable, Research-based, and Time-phased



Fort Morgan Middle School Story

- Demographics
 - 481 Students/38 certified staff members
 - 72 % free/reduced lunch
 - 63% Hispanic
 - 3% Black or African American
 - 34% ELL

Schedule

- Each student has 6 classes and 2 Unified Arts Classes
- Classes are 50 minutes long – UA's are 40 minutes
- 85 minute common plan time
- Teams meet at least twice a week
 - PLC work
 - Instruction planning
 - Student meetings
- RAM Time – (Reading and Mentoring)
 - Added math this year
 - Incorporating HarnessData™ discussions with students
- MASH (Mandatory After School Help)

Conclusion

- Thinking ahead to student results in August 2011
- Lessons learned



Keenesburg Story

- How are we doing as a school, as a grade and by teacher?
- If the school/grade/teacher is not performing as well as needed, does this indicate a curriculum, instructional or assessment alignment issue?
- What does it mean when 2/3 of the students are making a year's growth or more in a year's time?

Principal Data Sheet

- Communication from district to school

The screenshot shows an Excel spreadsheet titled "Practice High School - Microsoft Excel". The ribbon includes Home, Insert, Page Layout, Formulas, Data, Review, and View. A "Copy (Ctrl+C)" tooltip is visible over the SAP data. The spreadsheet data is as follows:

	SAP				Acuity				Median Growth Percentile		HarnessData			
	At or Above		Below Proficient		Form C 09-10	Form A 10-11	Form B 10-11	Form C 10-11	Observed Growth	Adequate Growth	CSAP			
	Unsatisfactory	Partially Proficient	Proficient	Advanced							Laboring %	Looking %	Learning %	Leading %
4	Grade Level													
5	Math													
6	9th Grade	32	38	19	8	29	41				54	22	21	4

Principal Data Sheet

Practice High School - Microsoft Excel

Home Insert Page Layout Formulas Data Review View Add-Ins

Clipboard Font Alignment Number Styles Cells Editing

K8

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P	Q	R					
2	Grade Level/Subject	At or Above		Below Proficient		Form C 09-10	Form A 10-11	Form B 10-11	Form C 10-11	Percentile		CSAP											
3		Unsatisfactory	Partially Proficient	Proficient	Advanced					Observed Growth	Adequate Growth	Laboring %	Looking %	Learning %	Leading %								
4																							
5																							
6	Reading	7	29	63	2	68	71	62		53	52	29	12	4	56								
7	Writing	7	57	33	2	NA	NA	NA		34	57	54	13	10	23								

Entire School Jones LA Smith Math

Principal Data Sheet

	A	B	C	D	E	F	G	H	I	J	K	L	M	N	O	P
	<u>Student</u>	<u>District Student ID</u>	<u>Quadrant</u>	<u>Student Growth Percentile</u>	<u>Overall</u>	<u>Write for a Variety of Purposes</u>	<u>Write Using Conventions</u>	<u>Paragraph Writing</u>	<u>Extended Writing</u>	<u>Grammar & Usage</u>	<u>Mechanics</u>					
1																
2	Agnes Ogawa, Kaitan	41145701	Laboring	26	2.72	2.68	2.76	2.19	3.23	2.92	2.65					
3	Alex Ashie	461145701	Leading	63	3.23	3.26	3.2	3.19	3.23	3.21	3.09					
4	Alex Ashleigh	357046301	Laboring	57	2.77	2.76	2.79	2.81	2.16	3	2.52					
5	Bedard Nathan	237021881	Laboring	16	2.79	2.82	2.77	2.97	2.16	2.86	2.86					
6	Begler Matthew	774879501	Laboring	20	2.81	2.46	3.12	1.96	3.23	3.37	2.82					
7	Bell Nicholas	981418819	Laboring	56	2.45	2.84	2.26	2.69	2.66	2.4	2.18					
8	Bell Trevor	449023421	Laboring	25	2.61	2.52	2.66	2.55	2.16	2.97	2.3					
9	Bermudez Jamie	970592531	Laboring	26	2.74	2.87	2.66	3.12	2.16	2.66	2.84					
10	Brockway Sarah	325992301	Leading	60	3.48	3.31	3.75	2.85	4.99	3.41	3.84					
11	Brockmaster Alexis	386722531	Leading	98	3.57	3.3	4.03	3.34	3.23	4.99	3.83					
12	Camel Connor	876361921	Learning	34	2.85	2.77	2.89	2.64	2.16	3.25	2.66					
13	Carl Justin	358847711	Learning	66	2.87	2.66	3.04	2.75	2.16	3.01	3.08					
14	Castillo-Olmos Nora	859070281	Laboring	2	2.46	2.66	2.37	3.28	1.66	2.61	1.98					
15	Castro Ramon	974034281	Laboring	51	2.69	2.51	2.82	2.54	2.16	2.71	3.25					

Keenesburg: A High School Story

- Interventions for individual students are specific and targeted to meet their needs
- Data is providing needed conversations around curriculum and instruction
- Essential information about students and instructional strategies
- How am I doing instructionally? Am I meeting instructional targets?

Sample High School Teacher Perspectives

- Lets me focus on the holes of knowledge in my students.
- Very useful in looking at places where I can improve based on standards. Useful to have conversations with students where they can improve.
- This is the most useful way to look at data I have looked at in nearly a decade of education.

Keenesburg: An Elementary School Story

- Aligning teacher job targets to student achievement
- Aligning school improvement plan to job targets and student achievement
- Spring board to formative data and back to state assessment data

Summary

- Non-threatening, transparent, self-evaluative, web-based, outcome-analytic tool
- Constructive and timely feedback to teachers and administrators
- Personalized instructional strategies and interventions
- Collaborative, Continuous Instructional Improvement Processes and Practices

Thank You Very Much For Your Time

Here is our Contact Information

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