

The Challenges and Lessons Learned Integrating and Using Data Across a Cooperative of Rural Districts:

*Progressing Toward an RTI
(Response to Intervention)
Model*

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HIAWATHA VALLEY EDUCATION DISTRICT (HVED)

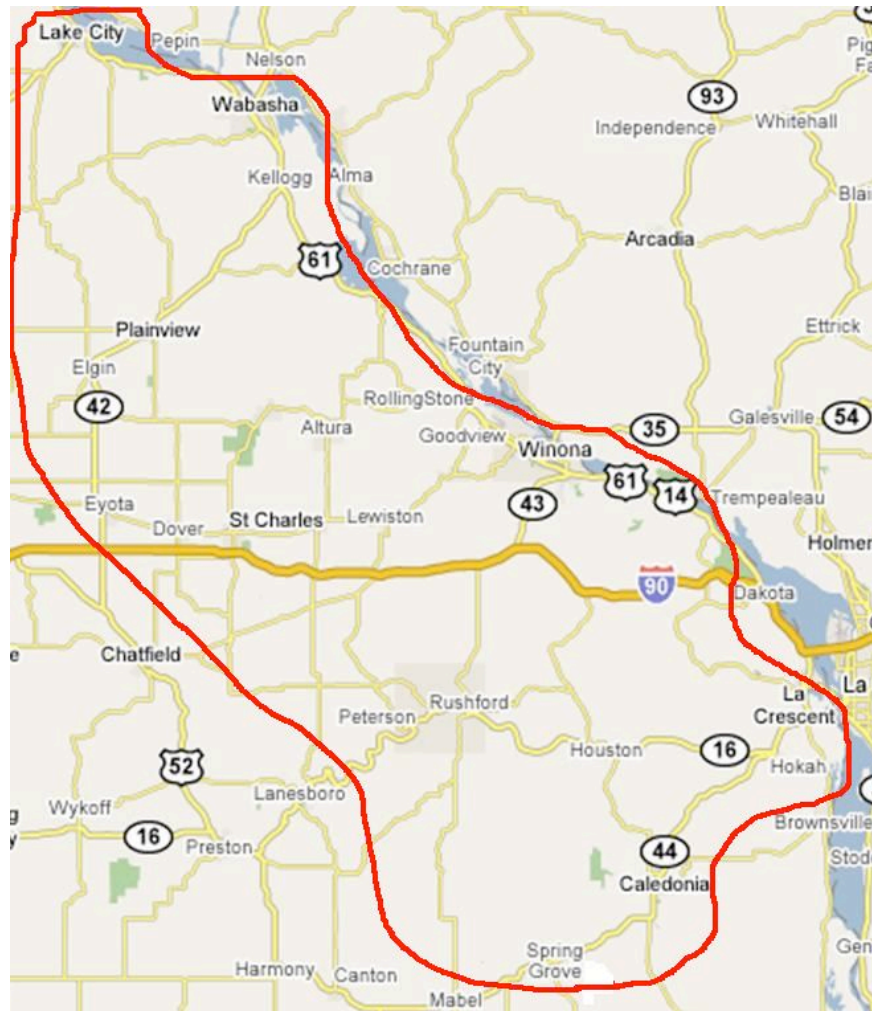


Advance Organizer

- Background on HVED
- The catalyst and our plan for data integration
- Technological and data use challenges faced
- Examples of solutions to these challenges
- Uses of integrated data
- Integrated data and RTI

About HVED

- Cooperative serving ~18,000 students
- 18 districts with 5 charter schools in SE MN



*First task = finding and integrating the data

*Tools = DW, MS Excel, MS Access, SPSS, and a text editor



The Catalyst

- Need to access varied forms of data together (MCA-II results, CBMs, NWEA assessment results, demographic data)
- Desire to integrate with common assessments, perception data, fitness data
- Prediction using existing relationships between data sources
- HVED move toward RTI



Exciting Summer Adventures...

■ **Data Collection Trips**

- (Boxes of MCA and BST Assessment CDs, music, and the Winona-area countryside)

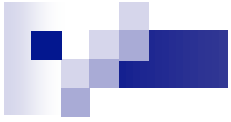
■ **File Formats**

- (How many characters of that text file should be imported into the next field?)

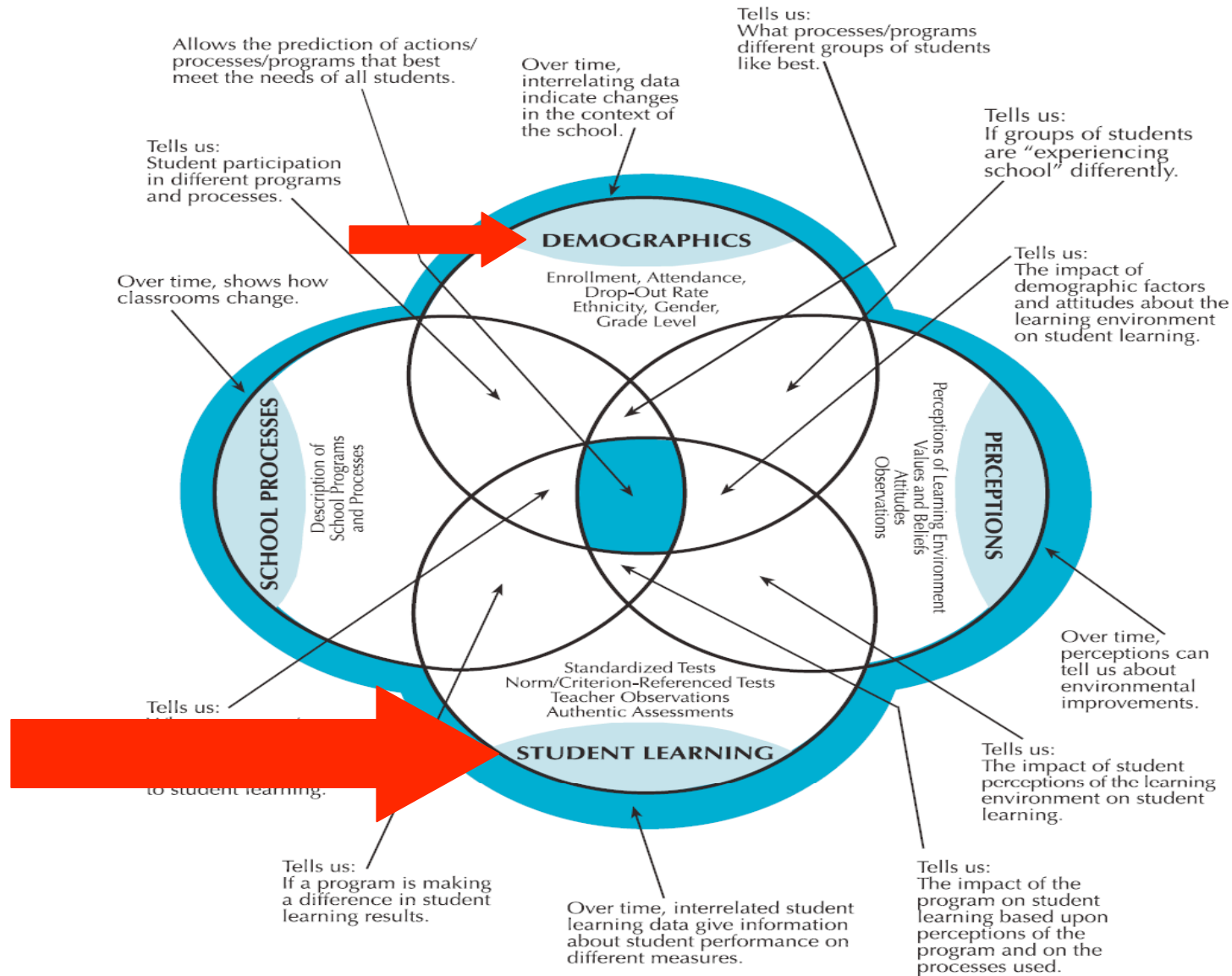
■ **Demos of Data Warehouse Software**

- (How will functionality and ease of use coexist? What about cost?)

■ **Changing Standards and Scales**



MULTIPLE MEASURES OF DATA




Note. From *Data Analysis for Comprehensive Schoolwide Improvement* (p.15), by Victoria L. Bernhardt, 1998, Larchmont, NY: Eye on Education. Copyright © 1998 Eye on Education, Inc. Reprinted with permission.




The Plan

- Find a data warehouse (DW) solution flexible enough to accommodate the needs of diverse HVED member districts
- Implement this DW with our current Instructional Management and Assessment (IMAs) tools
- Convert data from unique and separate formats to common format & location
- Increase knowledge of the types of data that are desired by, and would be utilized by districts



Technological Challenges- Data Integration

- Cost (~\$40,000/; ~\$87,000; \$108,000)
- Secure transmission of confidential data
- Staff development to increase proficiency with technology
- District differences in types of SISs and customization of SISs
- School foci with data tools versus systemic focus (e.g., AW Unique IDs)



Technological Challenges- Data Integration

- System for formatting data
 - Code
 - Strings of Macros
 - DW software will format?
- Software for formatting
 - Commonly available (MS Excel, MS Access)
 - Less common, but easier (SAS, SPSS)...and more costly
- Outputs for other data (scanning, web survey): .xls, delimited, fixed, etc.



Technological Challenges- Proficiency with DW tool

- Finding formats that make the data readily accessible in a usable format
 - Conditional formatted spreadsheets
 - Pivot tables
- Distance across districts; easy access for meeting
(secure transmission)
 - Macromedia Breeze
 - Second Life



Wabasha-Kellogg	Demographics Last Updated: 03/01/07
	Assessment Data Last Updated: 03/06/07
Teacher Access:	http://d0811n03.ties.k12.mn.us/toas/apps/tsis_login_secure.asp?redirect=oneclick
Admin Access:	http://d0811n03.ties.k12.mn.us/toas/apps/tsis_login_admin.asp?

Data Analysis Tools

[K-6 Mathematics Risk Template](#)

[K-6 Reading Risk Template](#)

TIES Enterprise

<http://d6013n03.ties.k12.mn.us/tiesasp/enterprise.asp>

DW Training Docs

[Data Security and Use Issues](#)

[iCue Tests - Administration Guide](#)

[iCue Tests - Teacher's Guide](#)

[On1-Que](#)

DW Training Video Segments

[I-Cue Admin Tests and Assessments Training-HVED \(33 min, 37 secs\)](#)

(This video segment is intended as a supplement to, not in place of in-school training by HVED staff. It is for TIES Data Warehouse users who have administrative access. It is best used in conjunction with the I-Cue Tests Administration Guide and the On1-Cue document also on this page.)



Technological Challenges- Proficiency with DW tool

- Security and confidentiality within new environment
- Proceeding with a “Question of Interest” into the labyrinth of data
 - What question are we attempting to answer?
 - What data will provide that answer
 - How are these data available within our DW?
 - In which format will they most easily depict an answer?



Data Use Challenges

- Perceptions of data usefulness
- Interpretation of scores
- Moving beyond stage 1:
 - “Analysis for its own sake”

to

- Improving educational efficiency
- and
- Sustained achievement

(McIntire, 2005)



Data Use Challenges

- Ensuring data are relevant to teachers
 - Let me see my students.
 - How do scores help me focus instruction?
 - How do they help me differentiate instruction?
 - Where did I begin?
 - How will I know when I've progressed?
 - How will I know when I've reached a goal?
- The issue: relevance and clarity differ across user groups (Tchrs, Admins)



GOOD BASELINE DATA



Frequent formative assessments

Professional learning communities rooted in student information

Making instructional changes



**MEASURABLE
INSTRUCTIONAL GOALS**



Examples of Data Use

- Questions of Interest:
 - Which 4th grade students are at risk for reading in fall 2006 and winter 2007?
 - Which specific curricular areas could we focus upon for elementary mathematics?
 - What is a reasonable growth goal for MS reading for Fall 2006-Spr 2007?

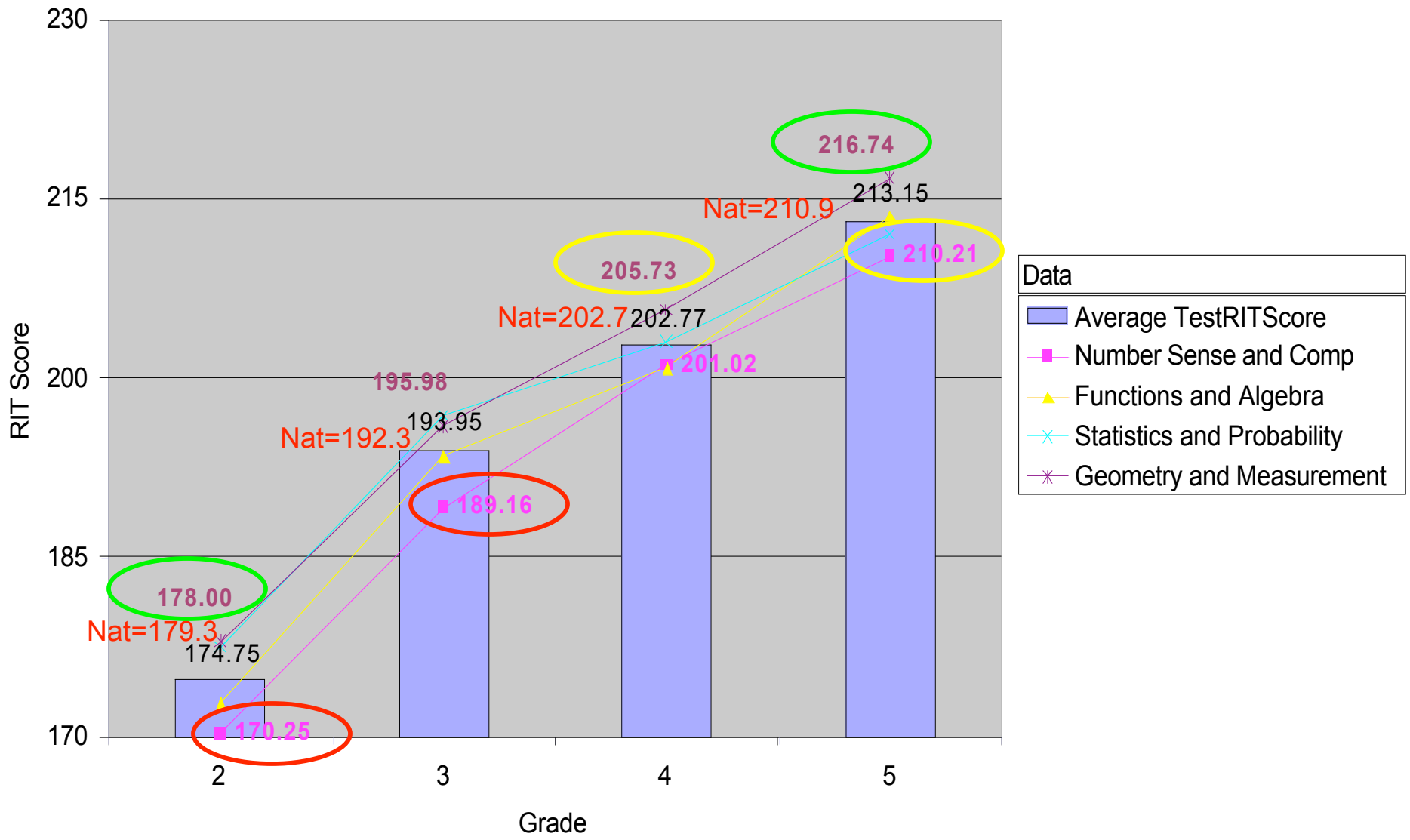
Reading Risk (Grade 4)

Grade	Prev Spr MCA-II ScScr	MAPR:Fall RIT Score	ORF Fall	ORF Win	Gender	Ethnicity	G/T	LEP	Sped
4	398	204	92	112	M	White			
4	386	217	113	140	F	White			
4	371	206	136	170	F	White			
4	386	191	76	101	M	White			
4	399	221	140	150	M	White			
4	375	199	91	121	M	White			
4	398	199	86	146	F	White			
4	353	184	70	105	F	White			
4	375	204	100	103	M	White			
4	386	203	131	126	M	White			
4	350	178	75	93	M	White			
4	365	215	127	150	F	White			
4	363	189	94	104	F	White			
4	357	189	56	82	F	White			
4	336	178	52	74	M	White			
4	398	216	146	157	M	White			
4	358	189	85	82	M	White			
4					F	Am Indian			
4	371	211	138	177	F	White			
4	334	180	84	90	M	Asian			Y
4	375	206	83	99	M	White			
4	* ALT				F	White			Y
4	379	197	88	109	M	White			
4	375	199	90	108	F	White			
4	336	175	24	35	M	White			Y
4	360	188	86	95	F	White			
4		209	92	116	M	White			
4	325	178	23	43	F	White			Y
4	322	155	19	20	F	White			Y
4	* ALT		12	16	F	Asian			Y
4		199	76	90	F	White			
4	379	209	115	162	F	White			
4	399	226	130	184	F	White			
4	* ALT		10	11	F	White			Y
4	379	205	202	211	F	White			
4	398	218	152	163	F	White			
4		200	96	118	F	White			
4	365	186	66	86	M	White			
4	398	199	102	148	M	White			
4		195	101	143	F	White			
4	319	157	19	34	M	White			Y
4	340	159	22	55	F	White			
4	363	201	89	118	M	White			
4	386	219	131	174	F	White			
4	368				M	Black			
4	357	191	97	117	F	White			
4		157	31	53	M	Black			Y
4	386	205	136	162	M	White			
4	327	181	48	83	M	Black			Y
4	375	190	68	85	M	White			
4		202	71	96	M	White			
4	363	189	93	113	M	White			
4		209	103	136	M	White			

Reading Risk (Grade 4 by ORF Winter Score)

Grade	Prev Spr MCA-II ScScr	MAPR:Fall RIT Score	ORF Fall	ORF Win	Gender	Ethnicity	G/T	LEP	Sped
4	* ALT			10	11	F	White		Y
4	* ALT			12	16	F	Asian		Y
4		322	155	19	20	F	White		Y
4		327	160	21	26	M	White		Y
4		319	157	19	34	M	White		Y
4		336	175	24	35	M	White		Y
4		344	177	24	39	M	White		Y
4		325	178	23	43	F	White		Y
4			157	31	53	M	Black		Y
4		340	159	22	55	F	White		
4		343	181	50	72	F	Black		
4		336	178	52	74	M	White		
4		337	180	37	74	M	White		Y
4		350	188	73	76	M	White		
4		343	187	54	77	M	White		Y
4		355	189	61	81	F	White		
4		357	189	56	82	F	White		
4		358	189	85	82	M	White		
4		355	192	63	82	F	White		
4		327	181	48	83	M	Black		Y
4		375	190	68	85	M	White		
4		365	186	66	86	M	White		
4		334	180	84	90	M	Asian		Y
4			199	76	90	F	White		
4		350	178	75	93	M	White		
4					93	M	White		
4		360	188	86	95	F	White		
4			202	71	96	M	White		
4		375	206	83	99	M	White		
4		386	191	76	101	M	White		
4		375	204	100	103	M	White		
4		363	189	94	104	F	White		
4		358	200	83	104	F	White		
4		353	184	70	105	F	White		
4		348	207	75	106	M	White		
4			200	81	107	M	White		
4		375	199	90	108	F	White		
4		379	197	88	109	M	White		
4		352	202	104	109	M	White		Y
4		365	199	119	109	F	White		
4		371	194	93	111	F	Black		
4		398	204	92	112	M	White		
4		363	189	93	113	M	White		
4		363	204	95	113	M	White		
4		368	194	99	115	F	White		
4		350	194	87	115	F	White		
4		368	210	101	115	M	White		Y
4		371	190	85	115	F	White		
4			209	92	116	M	White		
4		357	191	97	117	F	White		
4			200	96	118	F	White		
4		363	201	89	118	M	White		
4		368	204	81	118	M	White		
4		375	199	91	121	M	White		
4		379	196	110	121	F	White		
4		398	204	102	123	F	White		

Fall 2006 NWEA MAP Mathematics Results

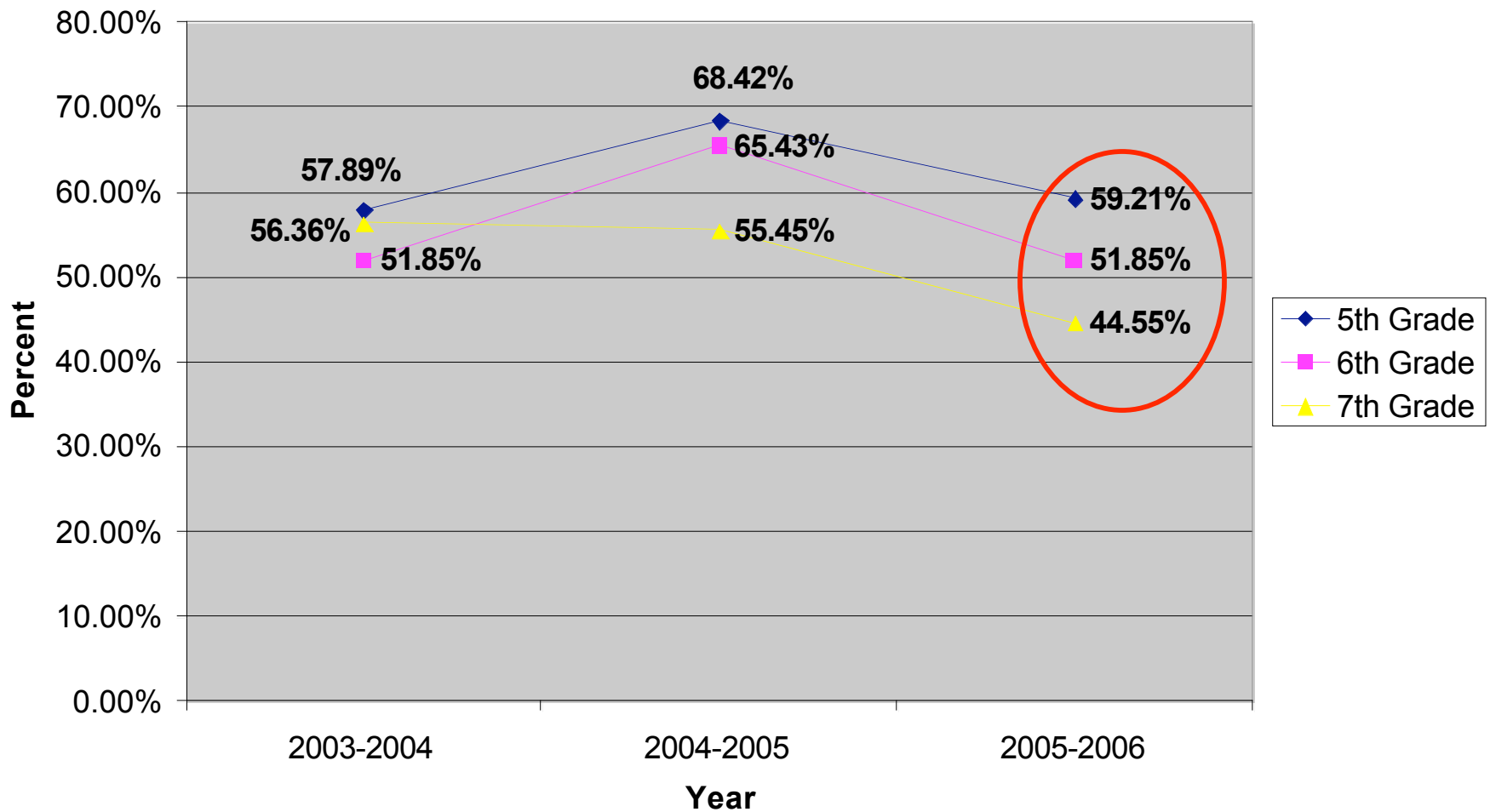


StuGrdLvl



Goal Setting

Percent of Students Making Expected Growth in Reading Over Time





So, What Does This Mean?

Table 5– School percentile ranks for fall to spring percentage of students meeting or exceeding their RIT point growth target – reading

59.21% 51.85% 44.55%

Percentile Table									
	Grade 2	Grade 3	Grade 4	Grade 5	Grade 6	Grade 7	Grade 8	Grade 9	Grade 10
1	18.4%	16.5%	19.0%	23.1%	22.8%	25.9%	21.6%	19.0%	20.7%
5	29.9%	26.7%	30.6%	32.6%	31.8%	34.2%	33.0%	30.9%	27.1%
10	36.2%	34.0%	36.0%	38.2%	39.0%	37.5%	38.5%	36.5%	33.0%
20	44.1%	41.5%	43.1%	44.4%	43.6%	43.0%	42.6%	40.7%	36.4%
30	48.8%	46.5%	47.6%	48.0%	46.9%	46.1%	45.6%	43.4%	39.2%
40	53.0%	51.2%	50.8%	51.3%	50.0%	48.4%	48.2%	45.8%	41.6%
50	56.7%	54.9%	54.2%	54.2%	53.6%	51.1%	50.0%	47.7%	44.6%
60	60.7%	58.1%	57.6%	57.1%	56.2%	53.6%	52.5%	49.7%	47.3%
70	64.4%	62.4%	60.9%	60.0%	59.2%	56.4%	55.1%	52.2%	51.6%
80	69.5%	66.7%	64.9%	64.1%	62.4%	59.1%	58.2%	55.5%	56.4%
90	74.5%	72.2%	70.0%	69.4%	67.1%	63.9%	62.8%	60.2%	61.5%
95	79.6%	76.0%	73.9%	74.0%	70.5%	68.7%	66.5%	63.9%	66.7%
99	87.6%	84.9%	82.7%	82.6%	79.7%	77.8%	76.4%	69.0%	80.3%
Summary Information									
Count	879	1387	1375	1521	1002	598	550	430	183
Mean	56.07%	53.79%	53.63%	54.02%	52.78%	51.14%	50.32%	47.77%	45.79%
SD	15.00%	14.80%	13.15%	12.38%	11.47%	10.49%	10.35%	9.71%	11.65%

66.40% 41.31% 40.65%



Essential RTI Premises

- Research-based instruction implemented with integrity
- Universal screening and monitoring
- ~80% of kids in class making targets
- Research-based interventions (for purpose used & in addition to general instruction time) implemented with integrity
- Regular progress monitoring with valid and reliable measure



Integrated Data and RTI



Questions/Comments?

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