

# DODGE CITY MIDDLE SCHOOL

## District Improvement Advisory Council Report

(Select the following link to view online presentation: [Dodge City Middle School DIAC Report 2011](#))

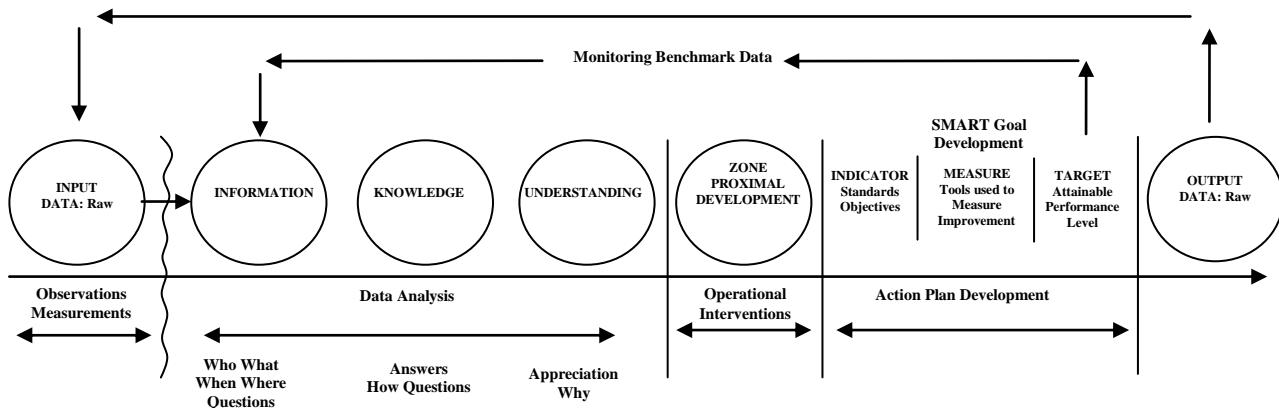
**January 2011**

### **KNOWLEDGE MANAGEMENT AND DATA DRIVEN DECISION MAKING by Michael King**

There is probably no segment of activity in the education world attracting as much attention at present as that of knowledge management in terms of data driven decision making. In this portion of our presentation we will define the content of the five categories we use in knowledge management of data in the pre-development stages of our action plan. The first four categories relate to the past; they deal with what has been or what is known. The fifth category deals with the future because it incorporates present data trends for designing operational interventions within the system to support current educational needs. In designing operational interventions educators can create a Zone of Proximal Development rather than just grasp the present and past. But achieving operational interventions isn't easy; our teachers must move successively through four succinct activities when using data to create a zone of proximal development when designing operational interventions. The five categories we use in developing operational interventions include;

1. Data: Raw Observations and Measurements
2. Information: data that are processed to be useful; provides answers to "who", "what", "where", and "when" questions
3. Knowledge: application of data and information; answers "how" questions
4. Understanding: appreciation of "why"
5. Zone of Proximal Development; Designing Operational Interventions and SMART Goals

**Knowledge Management and Data Driven Decision Making Flow Chart®**



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The Zone of Proximal Development, or ZPD, was originally established by the Russian psychologist Lev Vygotsky and refers to the distance between what a child can do with assistance and what the child can accomplish without assistance. The term used within the context of Data Management has a similar connotation except that within the data analysis system it becomes both a precursor to action plan development and is a provision for the continuous construction of operational interventions. Operational interventions play a key role within the data loop since it defines the process needed to scaffold data as it is being monitored against attainable performance levels established within the action plan. (See Knowledge Management and Data Driven Decision Making Flow Chart)®

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### **Raw Observations and Measurements**

At the first level of creating operational interventions, is data and it comes in the form of raw observations and measurements. In the past we have used raw data as a source of determining our rate of success. We also prematurely used the data in its raw form to construct our action plan by measuring student abilities as they enter and exit our school as well as designing immediate interventions to gage our future success rates. This process is no longer used since it is in this step that we have recognized that raw data in isolation is not useful in terms of relationships to current practices. This data is only useful as we reach the second level in operational intervention development; that of information building.

### **Information: "Who", "What", "Where", and "When"**

At the second level of creating operational interventions we begin the process of information building. At this level data is converted into meaning by way of relational connection. This "meaning" can be useful, but at times becomes distorted through mythical assumptions about current practices that may not be substantiated through knowledge. For example when we look at our current data of students transitioning into our school we may make the general assumption that the transition itself is the cause for a dip in student performance. We may make general assumptions known as myths on multiple reasons why this dip is occurring that range from teaching practices, school scheduling, to students developmental readiness. It is at the third level of creating operational interventions that knowledge is applied to the data gathering process. Traditionally it has been at this stage where we have generated SMART Goals and developed long range action plans. SMART Goals and action plans that may have been constructed around general assumptions about data.

### **Knowledge: Application of Data and Information; Answers "How" Questions**

At the third level of creating operational interventions knowledge becomes essential in the appropriate collection of information, such that it's intent is to be useful. Knowledge is a deterministic process. When someone "memorizes" information (as less-aspiring test-bound students often do), then they have amassed knowledge. This knowledge has useful meaning to them, but it does not provide for, in and of itself, an integration such as would infer further knowledge. For example our school has set a yearly goal for making AYP. To accomplish this goal we measure the schools comprehensive ability to make specific growth as it relates to a specific grade level. In other words we use grade level data that has no relevance to individual student learning. In this current system the relevance on student learning is not on mastery but on the individual schools strategies in making AYP, thus within the system each school becomes its own test preparatory island of AYP obtainment. To correctly establish a SMART Goal or create an action plan built on data requires a true cognitive and analytical ability that is only encompassed in the fourth level and that is generating an understanding of how data becomes a probabilistic process.

### **Understanding: Appreciation of "Why"**

At the fourth level of creating operational interventions is the process of understanding the data in terms of relevance to knowledge. In other words what is the data telling us so we can synthesize and construct new knowledge from the previously held knowledge. For example, as we review our current level of mastery based on four mastery checks we can gage our current level of progress by making the following statement;

"The Mastery Percentage Range chart reflects the curent mastery level for four out of five mastery checks in math and reading for grades seven and eight. Our goal is to have all students at the mastery level of 80% by the end of the 2011 school year. To acomplish this goal in reading we will need 14% increase in 8th grade, and and a 4% increase in 7th grade by the time we reach mastery check five retakes. To accomplish an 80% mastery goal in math we will need a 26.25% increase in 8th grade and a 13% increase in 7th grade by the time we reach mastery check five retakes."

What the aforementioned statement does not tell us is how we will reach our goal of 80% and what stradagies we will need to ajust through operational interventions.

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### **Zone of Proximal Development: Designing Operational Interventions**

The fifth stage of creating operational interventions becomes the zone of approximate development. The fifth stage of creating operational interventions, undertakes useful actions because teachers can synthesize data into new knowledge, based the understanding of the data and provide new information from what is previously practiced in terms of interventions. This is what we call the Zone of Proximal Development. The zone of proximal development is the gap between what the school has achieved (the actual level of accomplishment "without intervention") and what the school can achieve when creating operational interventions to meet potential development. It is at this level through professional learning communities where we generate SMART goals like the following;

- Reading: By Spring 2011, all students and all subgroups will meet or exceed AYP Reading target of 87.8 and/or achieve safe harbor status in all subcategories.
- Math: By the end of the 2011 school year, the math goal is to see the percentage of students currently below proficiency decreased by at least 13.3%, and the overall math scores will increase by 10% over the previous year's scores.

There are four levels in understanding raw data that must be completed before creating SMART Goals and developing an action plan based upon data driven decision making. The whole purpose in collecting data, information, and knowledge is to be able to create a zone of proximal development. This zone of proximal development allows teachers to make complex decisions on how to construct operational interventions before the term of a goal expires. However, if the data sources are flawed based upon distorted mythical assumptions, personal biases about student abilities, and a perceived lack of rigor in system accountability, then in most cases, the resulting decisions in developing SMART Goals founded in operational interventions will also be flawed.

### **DEVELOPING A PLAN OF ACTION** by Sarah Schaeffer

The next part of the process is for each subject level PLC to develop a three part action plan that will support their SMART Goal that includes, indicators, measures and target. An action plan is a description of what indicators are weak, and strategies we use to meet targets. You have in your information packet the complete action plans and we encourage you to take the time to read them. They outline a comprehensive, dedicated plan for student success. [See Sample Form for Grade Level PLC Goal Development Work Page](#) (This template is used by each grade level PLC to develop a set of instructional goals for the upcoming school year. Grade level PLC Data Analysis Collaborative Work Pages are posted on the [Cardinal Spaces Wiki](#)).

#### **Indicators**

The first level of an action plan is entitled indicators. This is what we are doing to meet these goals. This is a set of steps or processes that we use to improve student learning, retention and performance in preparation for state testing. Data analysis of mastery checks occurs here and then drives student placement for intervention opportunities and re-teaching. Also at this level, SMART goals are written by students and reading and math PLC's review the weakest indicators of the mastery checks and repeat the four step process of creating operational interventions.

#### **Measure**

The next level of the plan is called measure. Here tools are used to determine where students are now and whether they are improving. Examples of some of these tools would be, student placement after mastery checks in intervention opportunities such KMA, KRA, before and after school intervention, Saturday academy, and Homebase prevention interventions through re-teaching.

**Target**

The final level of the action plan is called Target. Here is where attainable levels of performance for students are delineated. Mastery checks goals are aligned with state standards in order to achieve 80% mastery and AYP proficiency mandates. The teachers will implement testing and teaching strategies to facilitate student success in classroom activities, on all mastery checks and state assessments.

**ELL ACTION PLAN** by Lisa Scarrow

The ELL plan of action is somewhat different than reading and math. It begins as the other do with a SMART goal.

- Increase the percentage of student making progress in acquiring English language by 20% in the 2010-2011 school year as demonstrated on the KELPA

An inclusion model for level 1 & 2 ELL students with bilingual para support in all core classrooms was adopted to ensure individual student KELPA scores increase by 4%. Teachers will meet with the Secondary ELL Interventionist to determine needs and resources necessary to insure effective instruction of ELLs.

A new class called Content Language was created to build background knowledge of academic language in social studies and science. Teachers of the Content Language class provide Level 1 & 2 ELLs opportunities to use and practice academic language that will carry over into the core classroom so that at least 70% of these students will score 80% or higher on their core class mastery checks.

An ELL PLC was created to ensure Content Language teachers are developing and implementing Language objectives that are posted and communicated to their students every day.

**SPED ACTION PLAN** by David Linsenmeyer

Our special education program also has an adapted plan of action but it all begins with a SMART goal.

- By Spring of 2011, based on the past state test indicator average scores for special education students, our PLC goal is to raise the average score for identified problem indicators listed by 15%.

In addition to the school-wide interventions that apply to all students at DCMS, there are several special education specific interventions that have been implemented for this school year as a means to reaching our Special Education SMART goal.

The first is the movement away from the special education resource rooms and towards increased inclusion through co-teaching. Four of our six special education teachers are co-teaching exclusively this year, and a fifth co-teaches on an occasional basis. This intervention addresses the SMART goal through an improvement in the instructional environment.

The second is the creation of the Special Education PLC. Five of the special education teachers meet together twice a week during Homebase to address upcoming mastery check indicators and discuss implementation of teaching strategies specific to chosen indicators. We also compare the past state assessment average indicator scores for special education students with the current mastery check average indicator scores, to look for areas of significant improvement and areas of concern. This PLC process applies directly to the SMART goal in identifying instructional needs and focusing on increasing indicator average scores.

## **EFFECTIVE INSTRUCTIONAL STRATEGIES AND STUDENT ENGAGEMENT** by Sarah Schaeffer

The educational journey of a school is an ever changing path. As we continually strive to make the best and most rewarding experience for all of our students, we seek out the best and most effective programs and strategies for our ever changing student body in an every changing world. Let me take a moment to briefly outline a few of the reorganization strategies that are now a part of the middle school path.

### **Inclusion**

It has long been researched and documented that a system of inclusion is most affective for all students. In order to offer the best educational experience, our ELL and SPED students have been included in the core curriculum classes.

### **Professional Learning Communities**

Professional Learning Communities have been a part our school system for years but DCMS has focused attention on PLC work on a weekly basis. Every Wednesday, PLC groups meet with coaches or administrators to take a critical look at mastery check scores, content objectives, classroom instruction for ELL learners, student placement and content specific plans and strategies. Building a strong, unified, collaborative teaching team is the goal of these groups.

### **Interdisciplinary Teaming**

Interdisciplinary teaming has been one of the mainstays of middle level education from the outset. The National Middle School Association survey results directed us to seek assistance in this essential component. With help from NMSA's Jack Berckemeyer, our academic teams are building bridges to one another. They are finding ways to help students understand the connection between courses. They are building units and activities that draw upon the team family. Students are cared for and nurtured as individuals with the goal of the best education possible for each student.

### **Homebase Advisory Program**

Another middle school component that was addressed in the NMSA survey was the advisory program. Dr. Neila Connors of the National Middle School Association worked with our professional development program last year to dialog with teachers on effective advocacy programming. Beginning this fall, our master schedule includes a designated time for a student advocacy program. Small groups of students meet during "Homebase" time with staff members. The focus of the time is to build a safe, trusting environment where students can discuss school issues, work on collaborative projects, celebrate accomplishments and at the same time be held responsible for class assignments and testing. Recently, another feature has been added to the Homebase time. Enrichment activities have been added to the homebase time. Teams restructure the groupings after each mastery check and students that do not succeed at the mastery checks have opportunities to work with a teacher in very small groups to hone their skills. The other students attend enrichment activities. These activities are specifically designed to address intended outcomes through a completely different modality.

### **Exploratory Classes**

Exploratory classes are yet another fundamental component of middle schools and ours not only give students opportunities to explore hidden talents but also address tested indicators with unique teaching strategies. Exploratory teachers focus their attention throughout the year on targeted indicators, those that are of most concern after master checks. These indicators are woven into the fabric of music, art, video, life skills and other exploratory classes. Students will often find a hook to a difficult concept in a class outside the core curriculum.

### **New Technologies**

As the world continues to shrink in the digital age, we as educators must continue to grow and adapt to new technologies. Traditional education is giving way to tra-digital approaches and we at Dodge City Middle School are moving forward. School wide, teachers are embracing a wide variety of technological strategies. From SMART boards to media rich teaching and our multi functional wiki, Cardinal Spaces, the teachers at DCMS are becoming more and more tech savvy. As the needs of our students continue to change, we at Dodge City Middle School will continue to implement the best teaching strategies needed to address those needs.

## **PROFESSIONAL DEVELOPMENT** by Pam Algrim

Professional development at DCMS has become an integral and fully embedding part of our educational planning. It began with our school's involvement with the National Middle School association and the comprehensive survey that was taken by all concerned. The results of that survey and the recommendations made by the association have driven our professional development opportunities. Advisors from NMSA worked with our staff on the characteristics of an exemplary middle school. This year we have been focusing on those areas that were identified as needing improvement. Our Homebase time, a 20 minute block at the beginning of the day serves as not only an advisory time but also as an enrichment and intervention opportunity. A variety of highly engaging activities have been instituted during the Wednesday and Thursday sessions.

A focus on walkthrough assessments have also been explored during this year's professional development. These sessions included objective setting, planning masterfully, Marzano's (Nine) High-Yield Instructional Strategies, Inclusion, Creating Personal Learning Environments, and the development of High Engaging Lessons through Differentiated Learning Styles was also explored during professional development at our school. Hands-on, practical classroom applications were given to our staff by peer coaches.

Middle level students have learning needs that are different than elementary or high school students and we are working hard to hone the skills that will make use the exemplary school we know that we can be.

Our staff, administration and student body are something special and we are striving everyday for the best education for the students of Dodge City Middle School. As a result of our efforts we are continually see a consistent increase in student performance. This consistent growth can be summed up in the following statements.

## **Resource Links**

### **[Cardinal Spaces Resource Hyperlink Links](#)**

- [Leadership Plan](#)
- [District PLC Meetings and Guide](#)
- [Curriculum Pacing Guide](#)
- [WestEd Project](#)
- [21st Century Technology](#)
- [Success at the Core](#) (Website)
- [What is a Content Objective?](#)
- [What is a Language Objective?](#)
- [Renovations in Teaching and Learning](#)
- [Mastery Check 09 -10 Comparison charts.pdf](#)
- [DOKChart2.pdf](#)
- [Marzano's \(Nine\) High-Yield Instructional Strategies](#)
- [Math Target Indicators](#)
- [Reading Target Indicators](#)

### **[Dodge City Middle School Interventions](#)**

- [After School Proposal](#)
- [DCMS Guide to Tier Intervention](#)

### **[Dodge City Middle School Improvement Plan](#)**

- [DCMS NMSA School Assessment Report.pdf](#)
- [Dodge City Middle School DIAC Report 4 2 2010.pdf](#)
- [DIAC Dodge City Middle School Revised 3 28 10.pptx](#)

# DODGE CITY MIDDLE SCHOOL

## DIAC DATA REPORT

### 2010 – 2011

#### **GOALS**

In establishing SMART goals at the beginning of the school year will help our school to recognize that formalized goal-setting can lead to improved student learning outcomes. All SMART goals created by PLC teams will have the following six components

1. A measurable baseline (64%);
2. A measurable target (82%);
3. A specific time frame (Spring 2010 to Spring 2011);
4. Specificity about what is being assessed (percentage of seventh grade students scoring at (Level 3 in math or higher);
5. Specificity about the method of assessment (the state mathematics test or mastery check); and
6. Focus areas that guide future action needed to reach the learning target (number sense, computation, and measurement).

#### **Math Goal**

- By the end of the 2011 school year, the math goal is to see the percentage of students currently below proficiency in math decreased by at least 13.3%. (19 Students in 8th Grade) and (8 Student in the 7th Grade)
- By the end of the 2011 school year, overall math scores will increase by 10% over the previous year's scores. (69% of all Dodge City Middle School students will score at proficiency or above in math.)

#### **Reading Goal**

- By the end of the 2011 school year, the reading goal is to see the percentage of students currently below proficiency in reading decreased by at least 13.2%. (8 students in 8th Grade) and (8 student in the 7th Grade)
- By the end of the 2011 school year, overall reading scores will increase by 10% over the previous year's scores. (87.1% of all Dodge City Middle School students will score at proficiency or above in reading.)

#### **Special Education Goal**

- Based on the past state test indicator average scores for special education students, our PLC goal is to raise the score for identified problem indicators listed in math and reading in grades seven and eight by 15%. This will be done by specific teaching techniques relevant to targeted historically low indicators, and these techniques will be identified and discussed during PLC time for the indicators of concern for the current mastery check.

#### **English Language Learner Goal**

- Increase the percentage of student making progress in acquiring English language by 20% in the 2010-2011 school year as demonstrated on the KELPA.

# DATA SUMMARIES

## **CHART I: At Risk Factor One: Grade Point Average (Page 11)**

- In one year we have seen a decrease in the number of students of who have a grade point average of 2.0 or below by 8.78%. (2009 – 2010)

## **CHART II: At Risk Factor Two: Student Absences (Page 11)**

- Over the past two years we have reduced the number of students who are absent more than eighteen days by 60.95%.

## **CHART III: At Risk Factor Three: Scoring Below Math and Reading Proficiency (Page 11)**

- In the last two years we have reduced the number of students scoring below proficiency in math on the state assessment by 6.5%. And in reading by 5.85% reading.

## **CHART IV: Special Education Inclusion Report (Page 12)**

- Over the past year we have reduced the amount of special education pullout time by 14.82% while increasing the number of special education students by 22.36% an overall increase of 36 students.

## **CHART V: Math 7th Grade Special Education State Assessment Mastery Check Progress Report (Page 13)**

- According to the seventh grade math indicator report we are currently scoring above the past two years in state achievement on all historically low indicators as measured by this year's mastery check.

## **CHART VI: Math 8th Grade Special Education State Assessment Mastery Check Progress Report (Page 13)**

- According to the eighth grade math indicator report we are currently scoring above the past two years in state achievement on only two of the four historically low indicators as measured by this year's mastery check.

## **CHART VII: Reading 7th Grade Special Education State Assessment Mastery Check Progress Report (Page 14)**

- According to the seventh grade reading indicator report we are currently scoring above the past two years in state achievement on nine out of the eleven historically low indicators as measured by this year's mastery check

## **CHART VIII: Reading Eighth Grade Special Education State Assessment Mastery Check Progress Report (Page 14)**

- According to the eighth grade special education reading indicator report we are currently scoring above the past two years in state achievement on five out of the twelve historically low indicators as measured by this year's mastery check.

## **CHART IX: Math Seven Standard Achievement Range (Page 15)**

- In the past two years we have seen an average reduction of seventh grade math students scoring at or below the meets standards mark by 9.1%. Last year our percentage of increase was 7.2% from the previous year's seventh grade math students who scored below proficiency. To make AYP this year we will need to reduce the number of students scoring below proficiency by 10%.

## **CHART X: Math Eight Standard Achievement Range (Page 15)**

- In the past two years we have seen an average reduction of eighth grade math students scoring at or below the meets standards mark by 4.6%. Last year we saw an increase of 1.7% from the previous year's eighth grade math students who scored below proficiency. This means that more students were below proficiency in eighth grade math last year than that of the previous year.



**CHART XI: Reading Seven Standardized Achievement Range (Page 16)**

- In the past two years we have seen an average reduction of seventh grade reading students scoring at or below the meets standards mark by 5.9%. Last year our percentage of decrease was 8.8% from the previous year's seventh grade reading students who scored below proficiency. To make AYP this year we will need to reduce the number of students scoring below proficiency by 10%. (87.1% of all Dodge City Middle School students will score at proficiency or above in reading.)

**CHART XII: Reading Eight Standardized Achievement Range (Page 16)**

- In the past two years we have seen an average reduction of eighth grade reading students scoring at or below the meets standards mark by 15.3%. Last year we had a percentage of increase of a -7.4% of students who did not make proficiency in 8th grade reading. (87.1% of all Dodge City Middle School students will score at proficiency or above in reading.)

**CHART XIII: Math AYP: Four Year Comparison Progress Report (Page 17)**

- In the past four years we have increase overall student proficiency in math by 6.7% while ELL students have made a gain of 13.3% with special education students making the largest gain of 16.7%.
  - ELL Average Four Year Increase = 13.3%
  - ALL STUDENTS Average Four Year Increase = 6.7%
  - SPECIAL EDUCATION Average Four Year Increase = 16.7%

**CHART XIV: Reading AYP: Four Year Comparison Progress Report (Page 17)**

- In the past four years we have increase overall student proficiency in reading by 12.4% while ELL students have made a gain of 19% with special education students making the largest gain of 36.1%.
  - ELL Average Four Year Increase = 19%
  - ALL STUDENTS Average Four Year Increase = 12.4%
  - SPECIAL EDUCATION Average Four Year Increase = 36.1%

**CHART XV: Tier Intervention Data Analysis (Page 18)**

- In a three year study of MTSS intervention strategies we found that the highest performance gains in math and reading occurred when all three tiers were in place. These three tier interventions did not include tier one grade level intervention. Tier two intervention included KRA, KMA, and after school intervention. Tier three intervention included foundational math and reading. This year we have added intervention prevention during homebase for all tier one grade level math and reading.

**CHART XVI: ACT Explore Exam Three Year Comparison (Page 19)**

- How our students compare to the national norm of college readiness is calculated on a range of 1 to 25 with 25 being the highest available score. In the range of 1 to 25, our students composite score for 2010 was +.6 above the national norm. This is an increase of +1.9 over the previous two year composite scores of those students taking the exam. According to the three year study the English component of the exam is consistently below the national average for college readiness. (Additional Explore Data is Available Upon Request)

**CHART XVII: Team Baseline Self Evaluation Efficiency Study (Not Available)**

**CHART XVIII: Math and Reading: 80% Mastery Percentage Range 2010 – 2011 (Mastery Check 1-4) (Page 20)**

- The Mastery Percentage Range chart reflects the current mastery level for four out of five mastery checks in math and reading for grades seven and eight. Our goal is to have all students at the mastery level of 80% by the end of the 2011 school year. To accomplish this goal in reading we will need 14% increase in 8th grade, and a 4% increase in 7th grade by the time we reach mastery check five retakes. To accomplish an 80% mastery goal in math we will need a 26.25% increase in 8th grade and a 13% increase in 7th grade by the time we reach mastery check five retakes.

**CHART XIX: Math & Reading: Proficiency Range for State Assessments 2010 – 2011 (Mastery Check 1-4) Page 20**

- The Math and Reading Proficiency chart reflects the current proficiency level based on the state cut scores for four out of five mastery checks in math and reading for grades seven and eight. Our goal is to have an overall 10% proficiency increase over last year's state achievement scores in both math and reading. This year 86.7 percent of our students must score (56% 7<sup>th</sup>) (58% 8<sup>th</sup>) or better in Math and 87.8 percent of our students must score (63% 7<sup>th</sup>)(64%8<sup>th</sup>) in reading to make state required AYP.

**CHART XX: ESL Students 2010 – 2011: (KELPA Language Acquisition Level) (Page 21)**

- This year we will need an annual percentage increase of all children making progress in learning English by 20% If students score proficient two years in a row then they are no longer required to take the KELPA. Sixty-four 64% of students at DCMS have at one time taken the KELPA exam. Currently we have 363 (48%) of students who are taking the KELPA. This year we will need to have 73 students improve on their KELPA score over last year.

**CHART XXI: Professional Development Ratings (Page 21)**

- In a one month period of time we have seen an increase in the DCMS staff overall satisfaction rating for professional development planning and implementation.

**CHART XXII: Four Year Historical Transitional Math Proficiency Study (Page 22)**

- In a four year cohort study we found that Comanche students have shown less of a decrease in math proficiency performance over Soule students.

**CHART XXIII: Four Year Historical Transitional Reading Proficiency Study (Page 23)**

- In a four year cohort proficiency study in mathematics we have found that Comanche students had an increase in proficiency of 3.5 % in reading while Soule students had a decrease in reading proficiency by -3.5%.

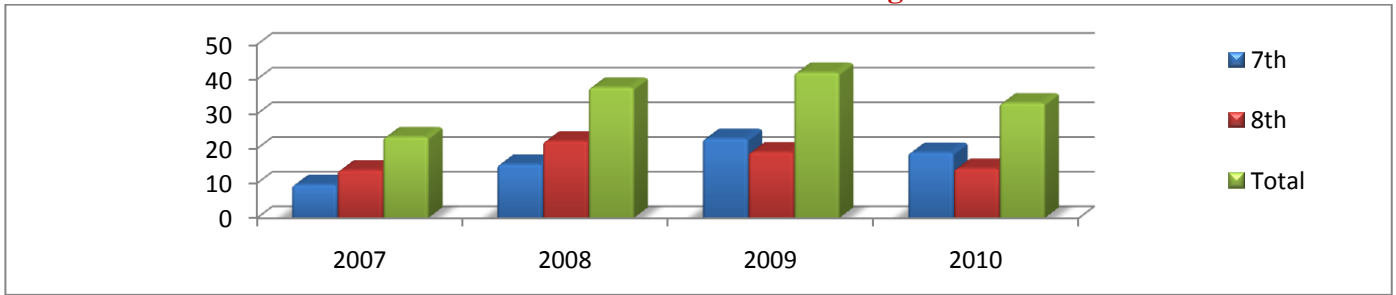
**CONTENT ANALYSIS**

This type information is valuable as baseline data to measure the effects of the school improvement plan as it is tracked from one year to the next. For example, the shift in the percentage of students scoring limited and unsatisfactory would be reduced. A second type of data analysis tool is one that reports overall student performances in specific content areas. This analyses specific content areas by units of learning. The content analysis chart in Reading and Math displays student proficiency percentages within specific reading or math content areas tested. The content analysis chart is helpful in identifying specific content areas that are, over time, showing weakness in student performances within specific content areas of the curriculum. The benchmark for mastery should be set at 80% for each content area.

**Links to Content Analysis Work Spaces (Also See Indicator Trends Pages 25 - 26)**

- [Soule Math 6 Cut 80 Indicators.docx](#)
- [Soule Reading 6 Cut 80 Indicators.docx](#)
- [Comanche Reading 6 Cut 80 Indicators.docx](#)
- [Comanche Math 6 Cut 80 Indicators.docx](#)
- [2010 Reading 7 Cut 80 Indicators.docx](#)
- [2010 Math 7 Cut 80 Indicators.docx](#)
- [2009 Reading 8 Cut 80 Indicators \(Instructional Coaches Provide\)](#)
- [2010 Math 8 Cut 80 Indicators \(Instructional Coaches Provide\)](#)

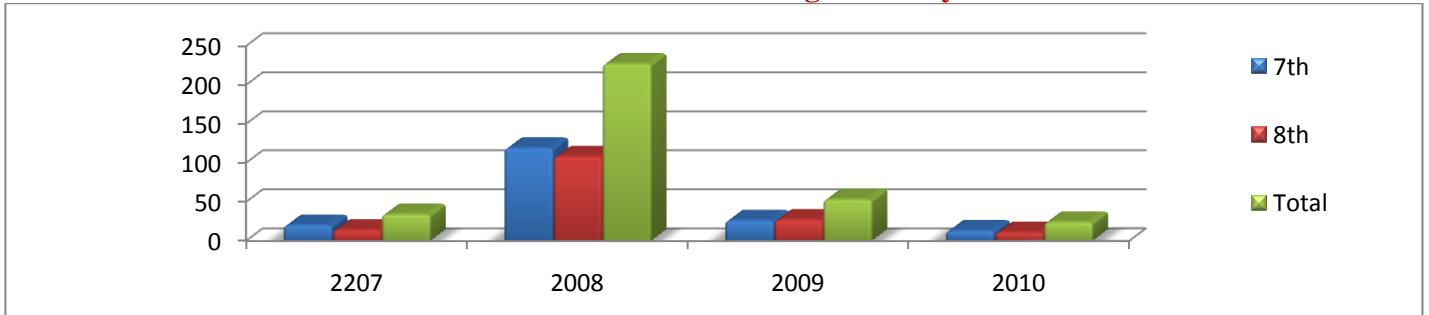
**CHART I**  
**At Risk Factor One: Student Grade Average Below 2.0**



**NUMBER OF STUDENTS BY GRADE SCORING BELOW AN OVERALL AVERAGE OF 2.0**

Grade	2007	2008	Dif	2008	2009	Dif	2009	2010	Dif
Seventh	(40) 9.6%	(64) 15.50%	-5.9%	(64)15.50%	(88)22.92%	- 7.42%	(88)22.92%	<b>(70) 18.9%</b>	<b>+ 4.02%</b>
Eighth	(55)13.8%	(88) 22.17%	-8.37%	(88)22.17%	(75)19.04%	+ 3.13%	(75)19.04%	<b>(54) 14.28%</b>	<b>+ .76%</b>
Total	23.4%	37.67%	-14.27%	37.67%	41.96%	- 4.29	41.96%	<b>(124) 33.18%</b>	<b>+8.78%</b>

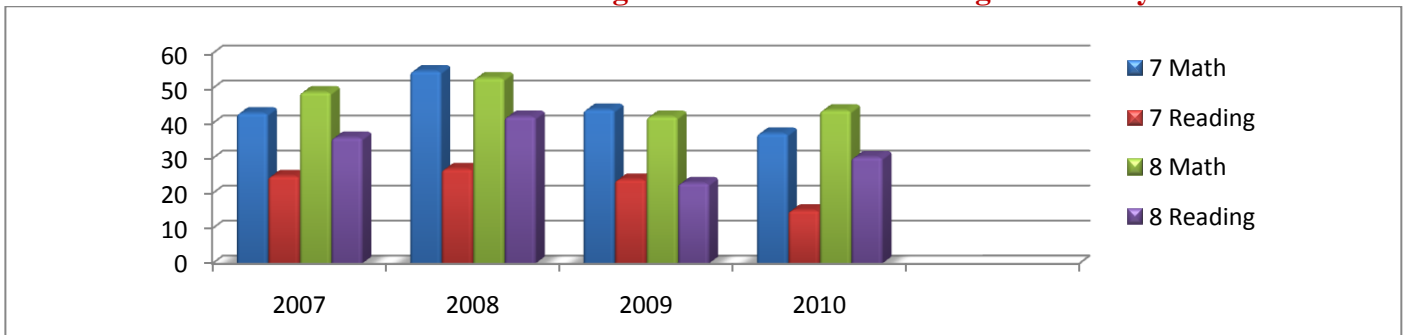
**CHART II**  
**At Risk Factor Two: Student Absent Eighteen Days Or More**



**NUMBER OF STUDENTS ABSENT MORE THAN EIGHTEEN DAYS**

Grade	2007	2008	Dif	2008	2009	Dif	2009	2010	Dif
Seventh	20	119	99	119	26	93	26	13	13
Eighth	14	108	94	108	27	81	27	11	16
Total	34	227	193	227	53	174	53	24	29

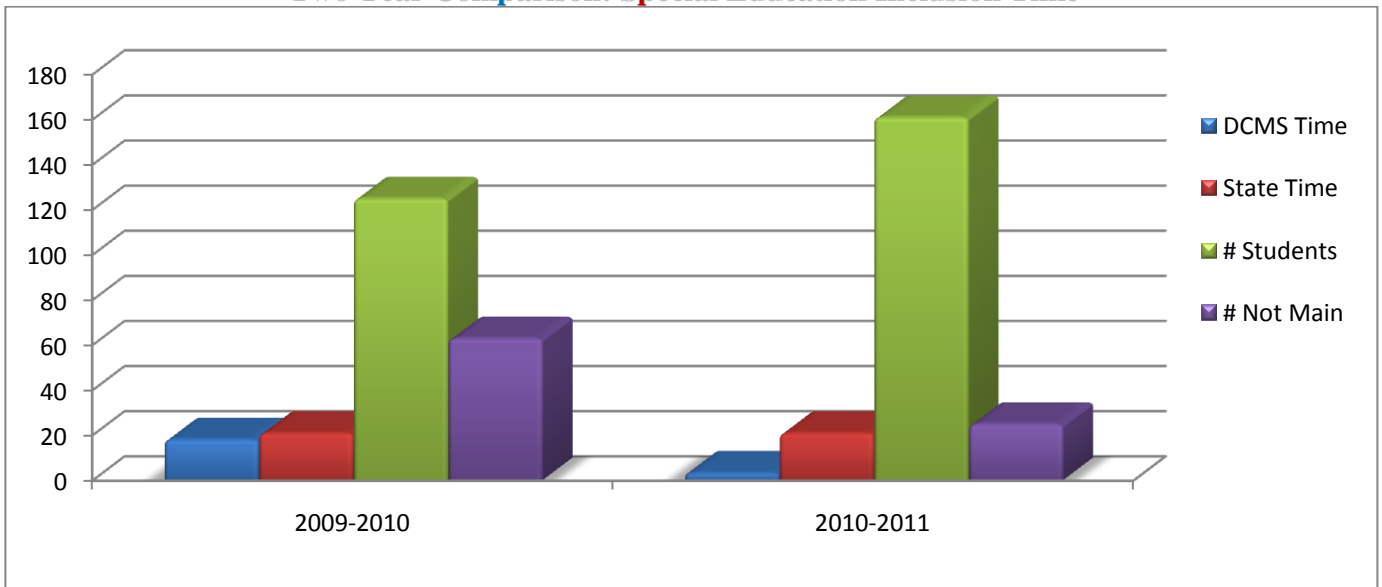
**CHART III**  
**At Risk Factor Three: Scoring Below Math And Reading Proficiency**



**NUMBER OF STUDENTS SCORING APPROACHING STANDARDS/ACADEMIC WARNING**

Subject	2007	2008	Dif	2008	2009	Dif	2009	2010	Dif
Math 7	43%(173)	55%(220)	-11%	55%(220)	44%(160)	+ 10%	44%(160)	<b>37.2% (126)</b>	<b>+6.8%(34)</b>
Reading 7	25%(96)	27%(109)	-3%	27%(109)	24%(87)	+ 3%	24%(87)	<b>15.2%(52)</b>	<b>+8.8% (35)</b>
Subject	2007	2008	Dif	2008	2009	Dif	2009	2010	Dif
Math 8	49% (190)	53% (205)	- 4%	53%(205)	42%(163)	+ 11%	42%(163)	<b>43.8% (152)</b>	<b>-1.8% (11)</b>
Reading 8	36% (135)	42% (161)	- 6%	42%(161)	23%(86)	+ 19%	23%(86)	<b>30.4% (107)</b>	<b>-7.4% (21)</b>

**CHART IV**  
**Two Year Comparison: Special Education Inclusion Time**

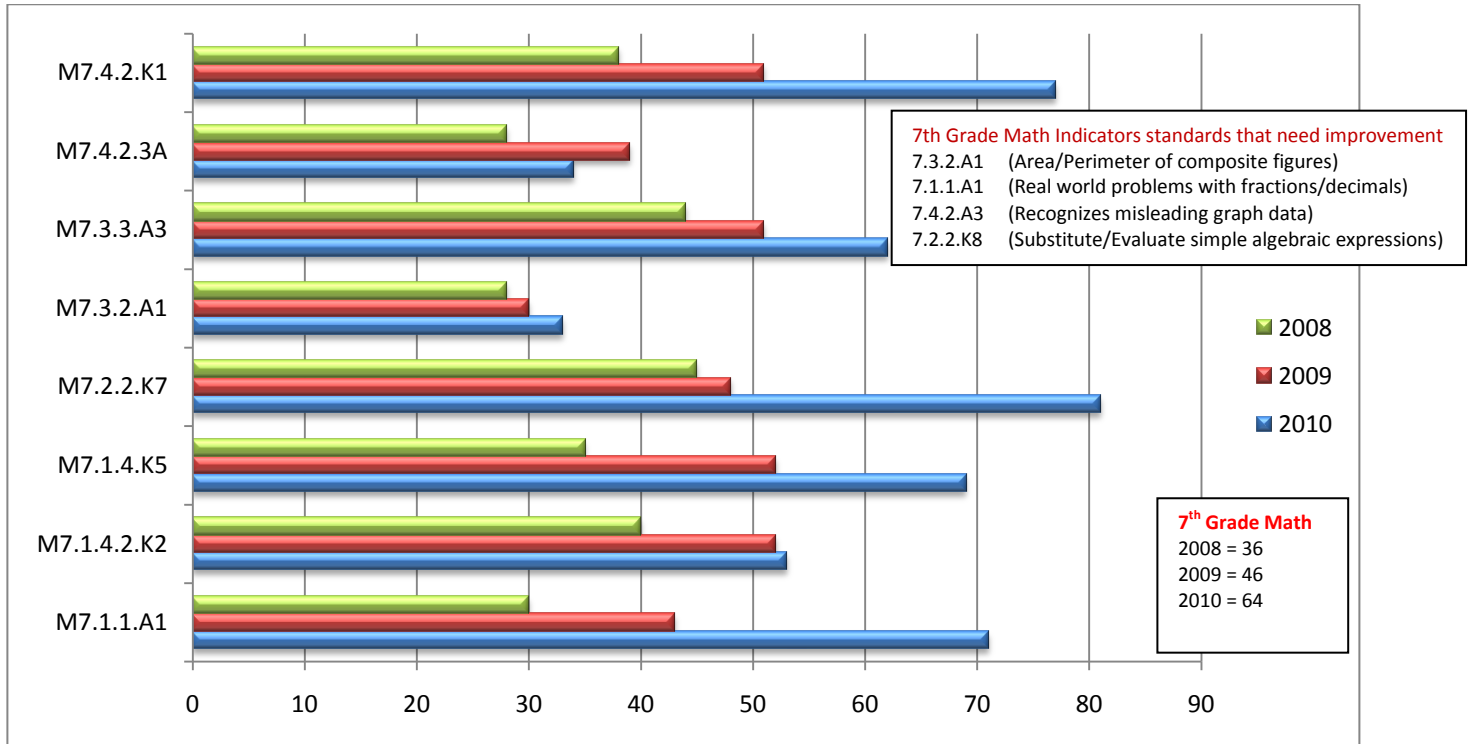


**SPECIAL EDUCATION PULL OUT TIME: TWO YEAR COMPARISON**

No. Students 2009-2010	Time Out of Class	Time Mainstreamed	Number of Students Not Mainstreamed	Mainstreamed Time	Percentage Difference
Total students with an IEP	Students pulled out of the classroom	# Students mainstreamed	Total time pulled out 63 students	Mainstreamed time 385 mins per day available	Difference
125	63	62	8,754 min/day	48,125 min/day	18.19%
			8,754 day 8,754 x 5 = 43,770 wk 43,770 x 37 = 1,619,490 yr	125 x 385 = 48,125 day 48,125 x 5 = 240,625 wk 240,625 x 37 = 8,903,125 yr	
No. Students 2010-2011	Time Out of Class	Time Mainstreamed	Number of Students Not Mainstreamed	Mainstreamed Time	Percentage Difference
Total students with an IEP	Students pulled out of the classroom	# Students Mainstreamed	Total time pulled out 25 students	Mainstreamed time 385 min per day available	Difference
161	25	136	2,092 min /day	61,985 mins/day	3.37%
			2,092 day 2,092 x 5 = 10,460 wk 10,460 x 37 = 387,020 yr	161 x 385 = 61,985 day 61,985 x 5 = 309,925 wk 309,925 x 37 = 11,467,225 yr	
Two Year Comparison	Time Out of Class	Time Mainstreamed	Number of Students Not Mainstreamed	Mainstreamed Time	Percentage Difference
# of Sped Students	Students pulled	# Students Mainstreamed	Time pulled out total	Mainstreamed time 385 min per day available	
+ 36	-38	+74	- 6,662 min/day	+13,860 min/day	-14.82 %

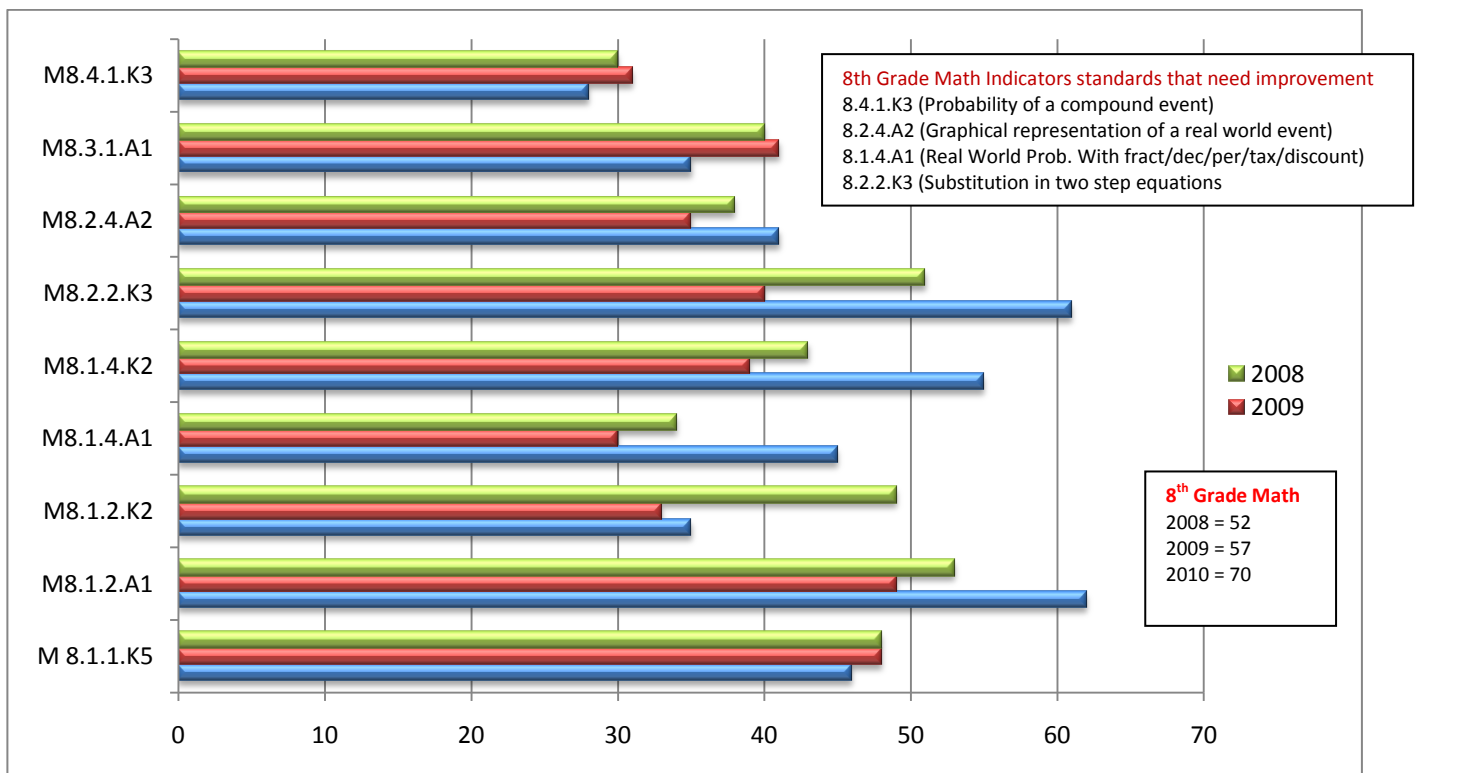
### CHART V

## Math 7th Grade Special Education State Assessment Mastery Check Progress Report



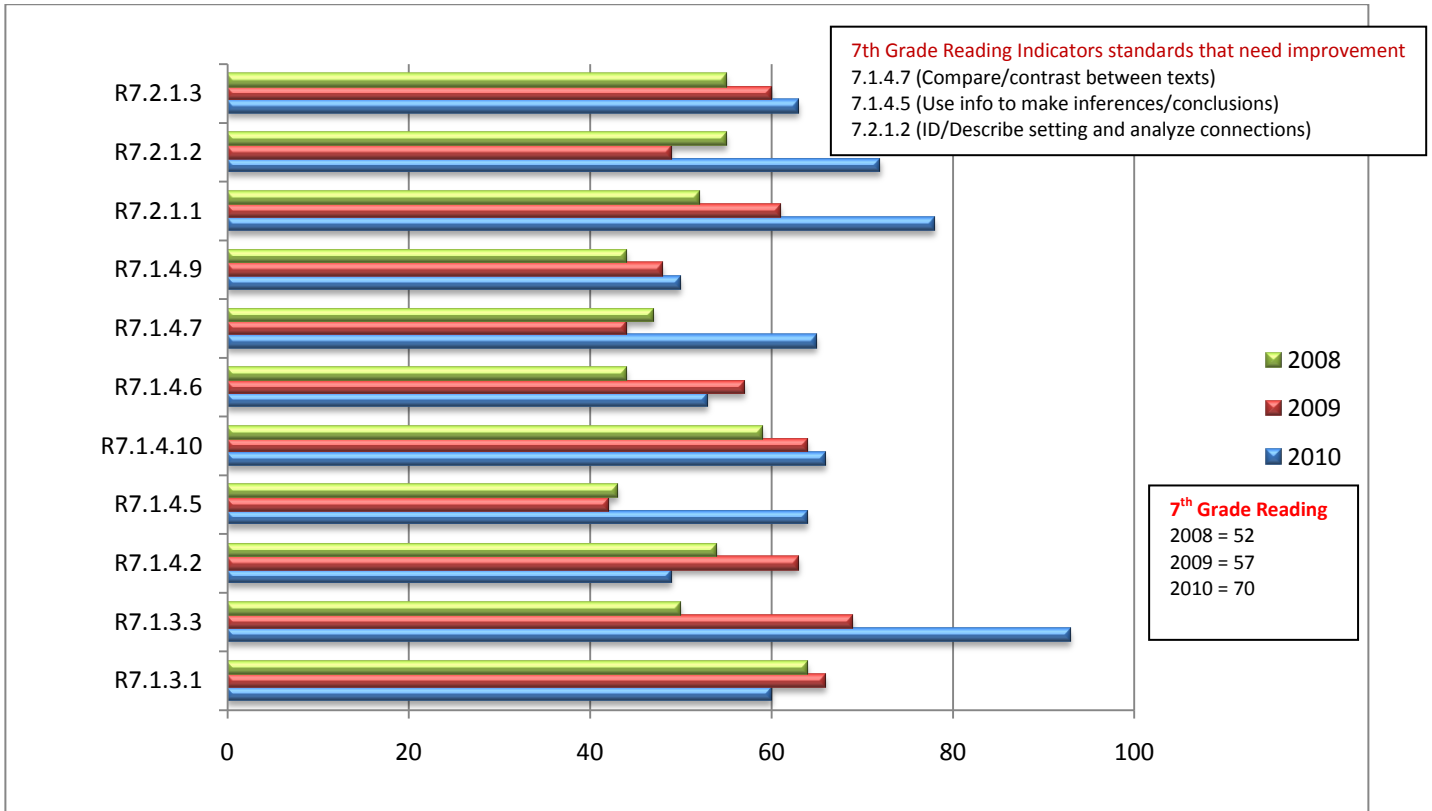
### CHART VI

## Math 8th Grade Special Education State Assessment Mastery Check Progress Report



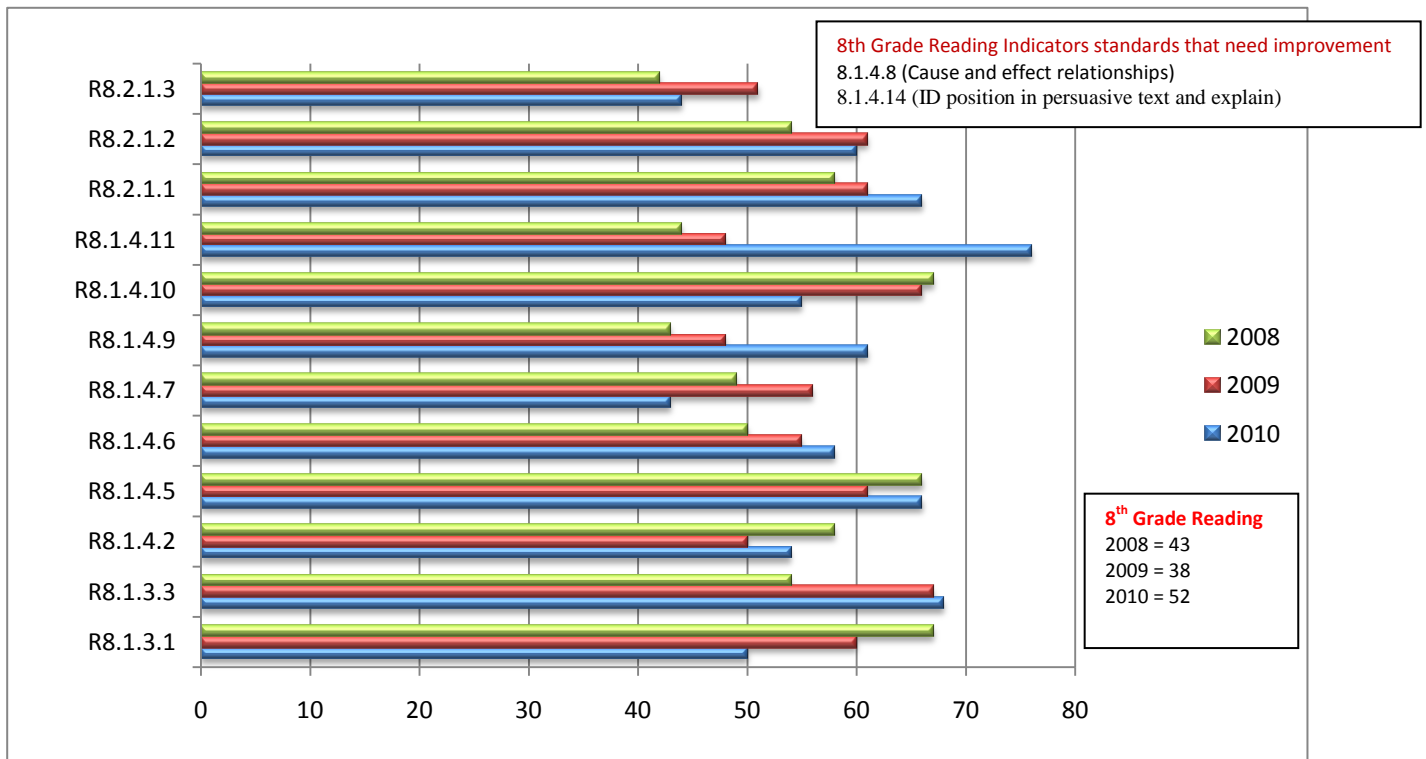
### CHART VII

## Reading 7th Grade Special Education State Assessment Mastery Check Progress Report

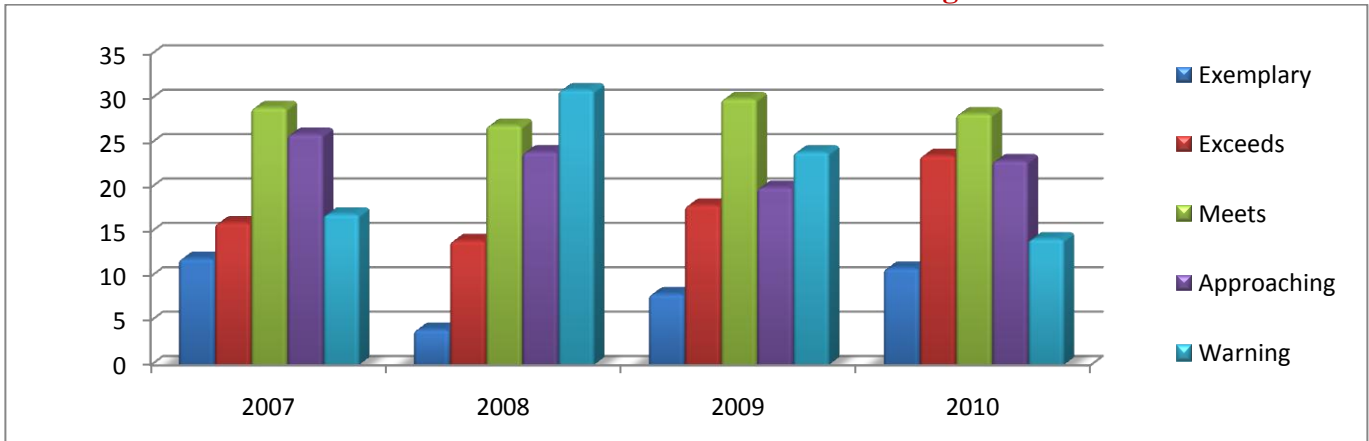


### CHART VIII

## Reading Eighth Grade Special Education State Assessment Mastery Check Progress Report



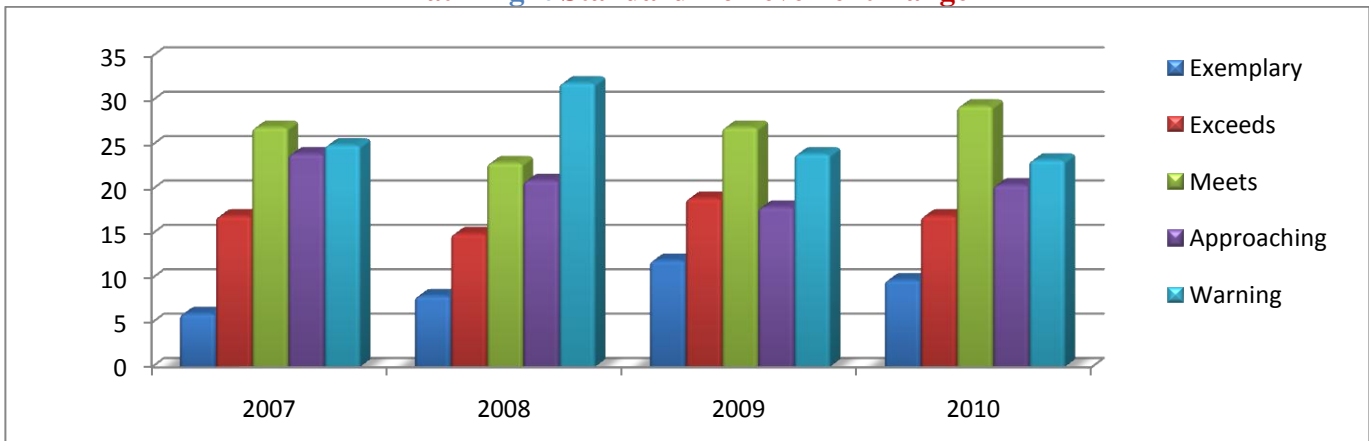
**CHART IX**  
**Math Seven Standard Achievement Range**



**MATH (7<sup>TH</sup>) SEVENTH GRADE: STANDARDIZED ACHIEVEMENT RANGE**

Year	Exemplary	Exceeds Expectations	Meets Standards	Approaching Standards	Academic Warning
2006	3% (10)	12% (46)	33% (124)	26% (96)	26% (96)
2007	12% (46)	16% (65)	29% (116)	26% (105)	17% (68)
2008	4% (17)	14% (57)	27% (109)	24% (97)	31% (123)
2009	8% (29)	18% (67)	30% (108)	20% (72)	24% (88)
2010*	10.9% (37)	23.6% (80)	28.3% (96)	23.0% (78)	14.2% (48)

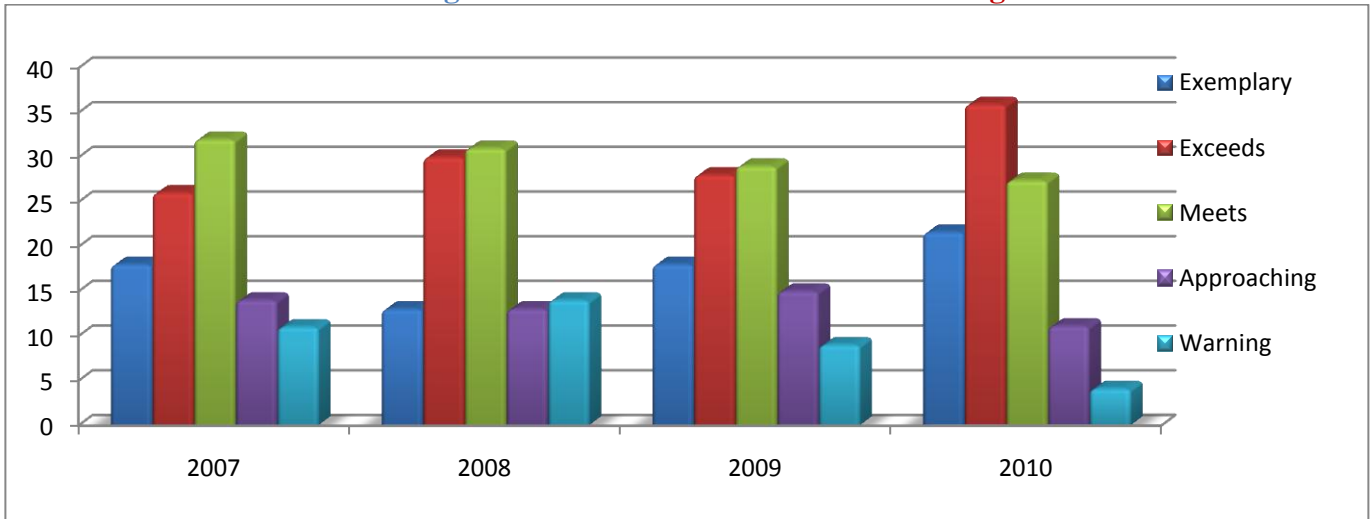
**CHART X**  
**Math Eight Standard Achievement Range**



**MATH (8<sup>th</sup>) Eighth Grade: STANDARDIZED ACHIEVEMENT RANGE**

Year	Exemplary	Exceeds Expectations	Meets Standards	Approaching Standards	Academic Warning
2006	5% (19)	13% (51)	26% (100)	26% (101)	30% (115)
2007	6% (25)	17% (67)	27% (103)	24% (92)	25% (98)
2008	8% (33)	15% (56)	23% (89)	21% (82)	32% (123)
2009	12% (46)	19% (72)	27% (104)	18% (70)	24% (93)
2010*	9.8% (34)	17.0% (59)	29.4% (102)	20.5% (71)	23.3% (81)

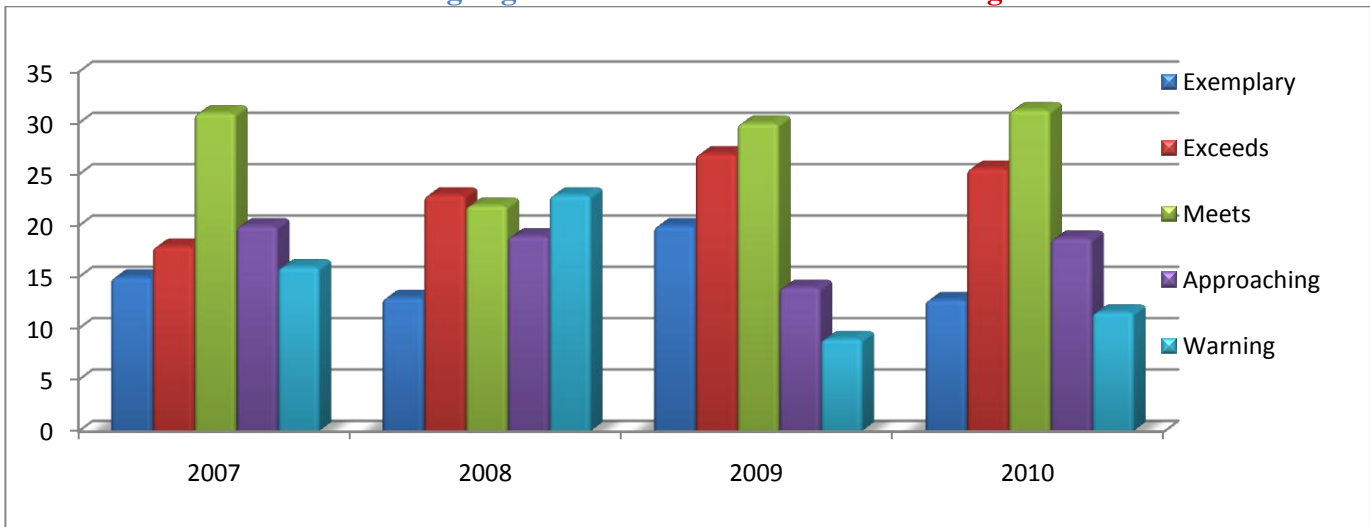
**CHART XI**  
**Reading Seven Standardized Achievement Range**



**READING (7<sup>TH</sup>) SEVENTH GRADE: STANDARDIZED ACHIEVEMENT RANGE**

Year	Exemplary	Exceeds Expectations	Meets Standards	Approaching Standards	Academic Warning
2006	11% (42)	19% (73)	30% (111)	16% (59)	24% (90)
2007	18% (71)	26% (104)	32% (129)	14% (54)	11% (42)
2008	13% (52)	30% (120)	31% (123)	13% (53)	14% (58)
2009	18% (67)	28% (102)	29% (107)	15% (56)	9% (31)
2010*	21.6% (74)	35.9% (123)	27.4% (94)	11.1% (38)	4.1% (14)

**CHART XII**  
**Reading Eight Standardized Achievement Range**

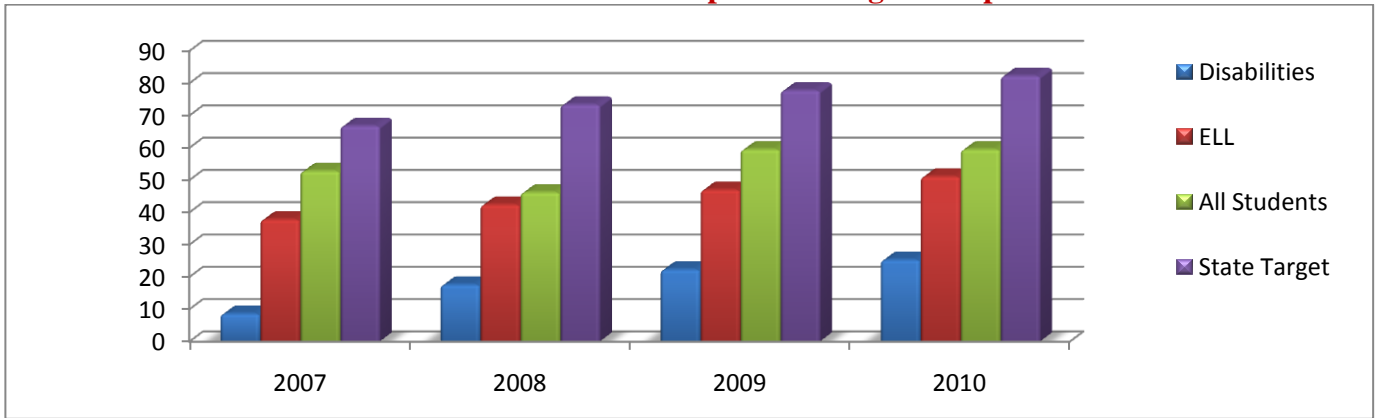


**READING (8<sup>TH</sup>) EIGHTH GRADE: STANDARDIZED ACHIEVEMENT RANGE**

Year	Exemplary	Exceeds Expectations	Meets Standards	Approaching Standards	Academic Warning
2006	9% (34)	21% (81)	26% (101)	19% (74)	24% (93)
2007	15% (56)	18% (70)	31% (118)	20% (75)	16% (60)
2008	13% (50)	23% (89)	22% (83)	19% (73)	23% (88)
2009	20% (76)	27% (101)	30% (111)	14% (51)	9% (35)
2010*	12.8% (45)	25.6% (90)	31.3% (110)	18.8% (66)	11.6% (41)



**CHART XIII**  
**Math AYP: Four Year Comparison Progress Report**

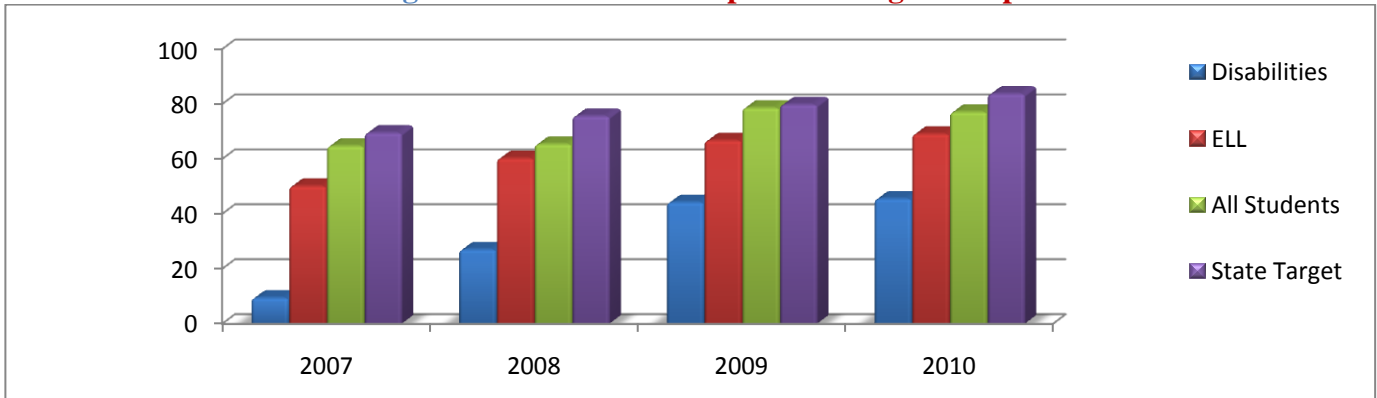


**MATH AYP: PROGRESS REPORT (2003 - 2010)**

YEAR	2003	2004	2005	2006	2007	2008	2009	2010**
<b>TARGET</b>	<b>46.8%</b>	<b>53.5%</b>	<b>60.1%</b>	<b>60.1%</b>	<b>66.8%</b>	<b>73.4%</b>	<b>77.8%</b>	<b>82.3</b>
All Students	34.1%	31.2%	51.2%	49.3%	52.8%	46.2%	59.5%	59.5%
Free Reduced	24.7%	22.0%	42.5%	42.4%	44.6%	39.5%	54.6%	57.7%
<b>w/Disabilities</b>		<b>13.5%</b>	<b>59.1%</b>	<b>22.4%</b>	<b>8.6%</b>	<b>17.6%</b>	<b>22.3%</b>	<b>25.3%</b>
<b>ELL</b>	<b>25.8%</b>	<b>10.8%</b>	<b>30.2%</b>	<b>43.6%</b>	<b>37.8%</b>	<b>42.4%</b>	<b>47.0%</b>	<b>51.1%</b>
<b>Hispanic</b>	<b>25.6%</b>	<b>19.9%</b>	<b>45.0%</b>	<b>43.%</b>	<b>46.5%</b>	<b>42.5%</b>	<b>55.4%</b>	<b>57%</b>
Whites	50.4%	51.8%	62.2%	63.4%	70.2%	59.7%	78.3%	67.3%

- **ELL** Average Four Year Increase = **13.3%**
- **ALL STUDENTS** Average Four Year Increase = **6.7%**
- **SPECIAL EDUCATION** Average Four Year Increase = **16.7%**

**CHART: XIV**  
**Reading AYP: Four Year Comparison Progress Report**



**READING AYP PROGRESS REPORT (2003 – 2010)**

YEAR	2003	2004	2005	2006	2007	2008	2009	2010**
<b>TARGET</b>	<b>51.2%</b>	<b>57.3%</b>	<b>63.4%</b>	<b>63.4%</b>	<b>69.5%</b>	<b>75.6%</b>	<b>79.8%</b>	<b>83.7</b>
All Students	70.2%	60.6%	61.3%	59.9%	64.7%	65.4%	78.6%	77.1%
Free Reduced	67.3%	52.7%	53.9%	52.8%	57.6%	60.1%	75.7%	75.5%
<b>w/Disabilities</b>		<b>48.9%</b>	<b>72.4%</b>	<b>23.2%</b>	<b>9.4%</b>	<b>27%</b>	<b>44.2%</b>	<b>45.5%</b>
<b>ELL</b>	<b>74.5%</b>	<b>42%</b>	<b>34.8%</b>	<b>52.7%</b>	<b>50.1%</b>	<b>60.2%</b>	<b>66.7%</b>	<b>69.1%</b>
Hispanic	66.3%	51.7%	51%	53.7%	59.0%	61.9%	75.1%	75.7%
Whites	76.5%	74.8%	81.7%	7%	77.9%	76.9%	90.2%	81.4%

- **ELL** Average Four Year Increase = **19%**
- **ALL STUDENTS** Average Four Year Increase = **12.4%**
- **SPECIAL EDUCATION** Average Four Year Increase = **36.1%**

## CHART: XV Tier Intervention Data Analysis

**Essential Question One:** To what degree was the difference between the 2006 - 2007 math and reading scores as compared to 2007 - 2008 scores when a *Tier II* Intervention Program was in place?

In 2007 - 2008 a revised after school program was initiated to provide students with immediate instructional support after each mastery check was administered in 7th and 8th grade reading and math. During the 2007-2008 school year our state report card showed that students at Dodge City Middle School scored 65.4 % in reading proficiency while 55.1% scored proficient in math. As compared to the previous year's performance in both math and reading scores the school showed an overall increase of (+ 8%). A comparative chart below supports the initiative that having a *Tier II* After School Intervention Program may serve as a direct variable in improving student performance gains in both reading and math.

### CHART ONE

2006 – 2007 Reading Score	2007 – 2008 Reading Score	Difference Growth Factor	2006 – 2007 Math Score	2007 – 2008 Math Score	Difference Growth Factor
58.6 %	65.4 %	7.8% Increase	47.1%	55.1%	8% Increase
100 (65.4/58.6 - 1) = <b>11.6041% Reading Gain</b>			100 (55.1/47.1 - 1) = <b>16.9851% Math Gain</b>		

**Essential Question Two:** To what degree was the difference between the 2007 - 2008 math and reading scores as compared to 2008 - 2009 scores when **both** *Tier II* and *Tier III* Intervention Programs were in place?

During the next school year 2008-2009 a *Tier II* and *Tier III* Intervention Program was revised and implemented using the RTI model. The RTI model specified that the Tier III program would provide students with additional time in math and reading during the school day. While the revised Tier II After School Immediate Response to Intervention program provided students with eight hours of additional instructional time to master essential standards after each mastery check. During the 2008-2009 school year our state report card showed that our school increased reading proficiency to 78.6% (13.2% Increase) while math scores increased to 59.5% (13.3% Increase). A comparative chart below supports the initiative that having both a *Tier II* and *Tier III* Intervention Program in place may serve as a direct variable in improving student performance gains in reading and math.

### CHART TWO

2007 – 2008 Reading Score	2008 – 2009 Reading Score	Difference Growth Factor	2007 – 2008 Math Score	2008 – 2009 Math Score	Difference Growth Factor
65.4 %	78.6 %	13.2% Increase	46.2 %	59.5 %	13.3% Increase
100 (78.6/65.4 - 1) = <b>20.1835% Reading Gain</b>			100 (59.5/46.2 - 1) = <b>28.7879% Math Gain</b>		

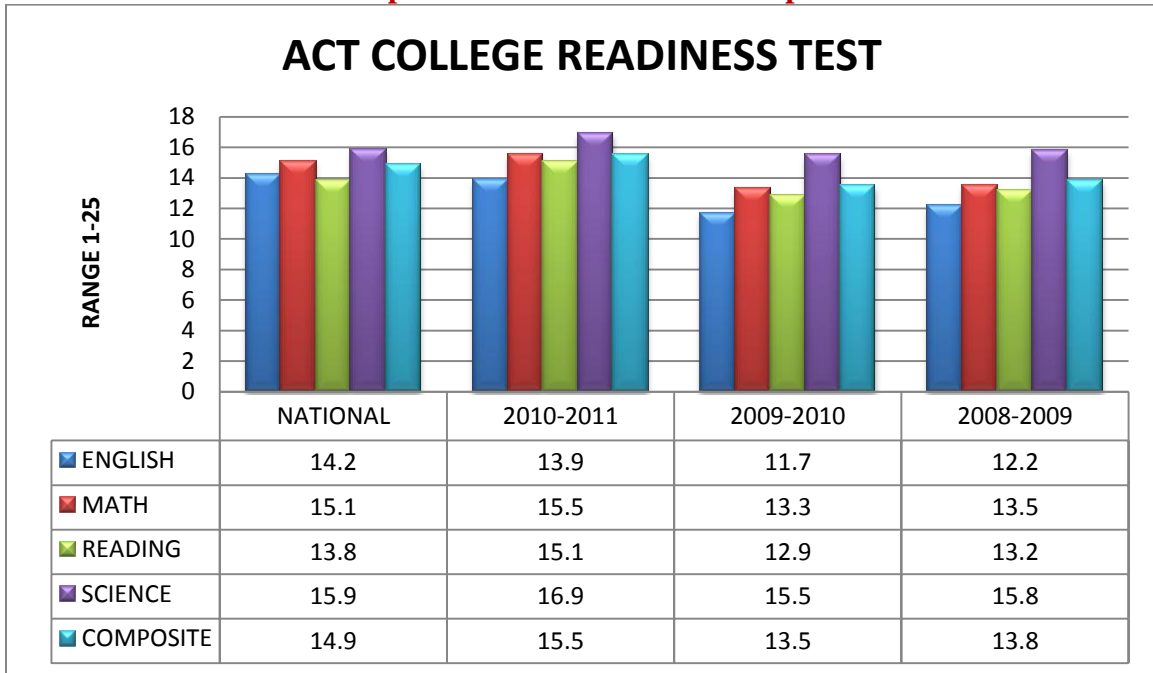
**Essential Question Three:** To what degree was the difference between the 2008 - 2009 math and reading scores as compared to 2009 - 2010 scores when only a *Tier III* Intervention Program was in place?

During the 2009-2010 school year with the continuation of the Tier III Intervention Program and the decision to drop the Tier II After School Intervention Program based on state's financial shortfall our state report card showed that our school scored 76% in reading proficiency while being 58% proficient in math. As compared to the previous year's performance, in both math and reading scores, the school showed an overall decrease of (+-2%). A comparative chart below supports the initiative that not having a Tier II After School Intervention Program may serve as a direct variable in establishing the significant impact that the Tier II After School Intervention Program has on student performance gains in both reading and math.

### CHART THREE

2008 – 2009 Reading Score	2009 – 2010 Reading Score	Difference Growth Factor	2007 – 2008 Math Score	2009 – 2010 Math Score	Difference Growth Factor
78.6 %	76%	-2.6% Decrease	59.5 %	58%	-1.5% Decrease
100 (1 - 76/78.6) = <b>- 3.30789% Reading Decrease</b>			100 (1 - 58/59.5) = <b>- 2.52101% Math Decrease</b>		

**CHART: XVI**  
**ACT Explore Exam Three Year Comparison**



How our students compare to the national norm of college readiness is calculated on a range of 1 to 25 with 25 being the highest available score. In the range of 1 to 25, our students composite score for 2010 was +1.6 above the national norm. This is an increase of +1.9 over the previous two year composite scores of those students taking the exam. According to the three year study the English component of the exam is consistently below the national average for college readiness. (Additional Explore Data is Available Upon Request)

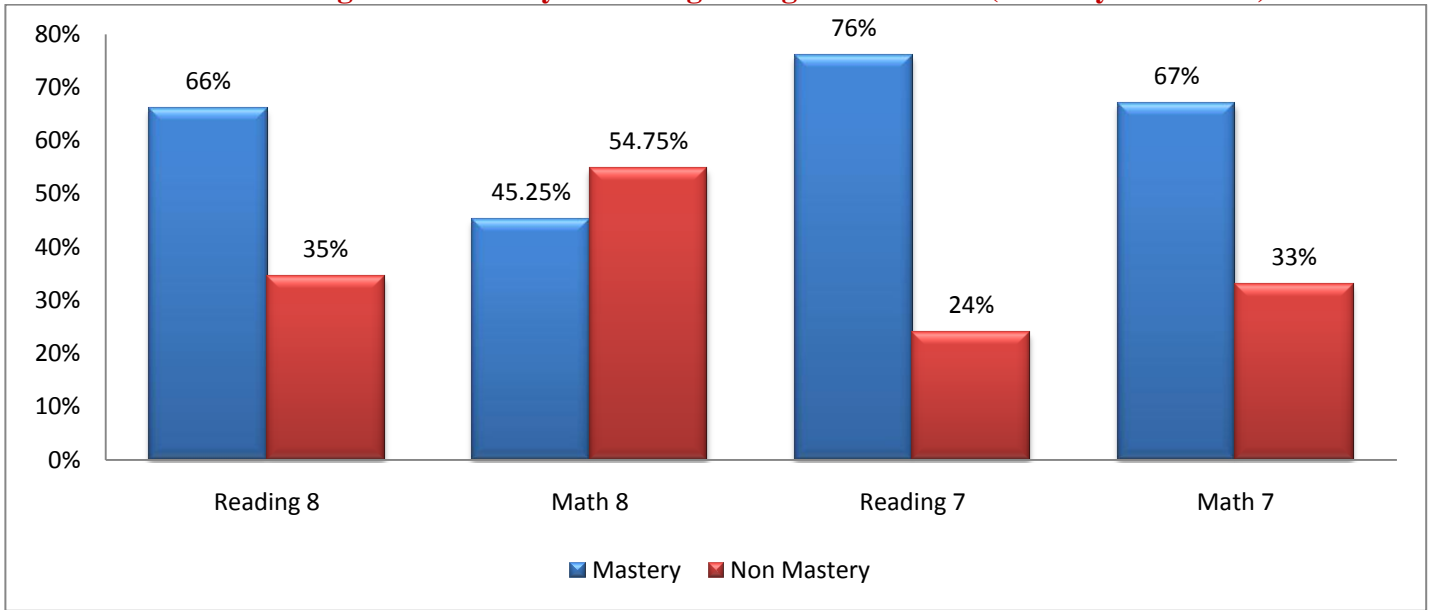
**CHART: XVII**  
**Team Baseline Self Evaluation Efficiency Study**

4 = Always	3 = Frequently
2 = Infrequently	1 = Never

Categories	Arkansas	Cimarron	Kiowa	Chikaskia	Pawnee	Walnut	Neosho Math	Neosho Reading	Medicine Lodge	DCMS
Use of Time Organization	3.8214	3.450	3.5625	2.7916	3.30	3.4250	3.5208	3.5833	3.0795	3.3926
Collegiality	3.5714	3.1	3.9375	2.5	2.8	3.100	3.25	3.33	3.0909	3.1866
Student Centered – Differentiated Instruction	3.5714	3.000	3.05	2.9333	2.4400	2.6000	3.2333	2.8333	2.4727	2.9037
Collaboration w/others	3.500	2.900	3.375	3.00	3.100	3.300	3.1666	3.500	3.0909	3.2147
Decision Making	3.7142	3.2666	3.7083	3.7777	3.5333	3.000	3.6666	3.8888	3.3939	3.5499
Goal Oriented	3.7142	3.13333	3.6666	2.888	3.3333	3.2666	3.6111	3.6111	3.1818	3.37844
Technology Focus	3.4285	3.1	3.4375	3.5	3.00	3.00	3.333	3.25	2.9090	3.2172
Curriculum Focus	3.333	3.4	3.0416	1.7777	2.6	2.866	2.8333	3.4	2.5151	2.8629
Parent Involvement	3.2857	2.20	1.4	1.200	2.20	2.00	2.33	2.8333	1.9090	2.1508
Consistency	3.4285	2.550	2.6875	1.333	1.85	3.1	2.75	2.8750	2.2727	2.5385

**CHART: XVIII**

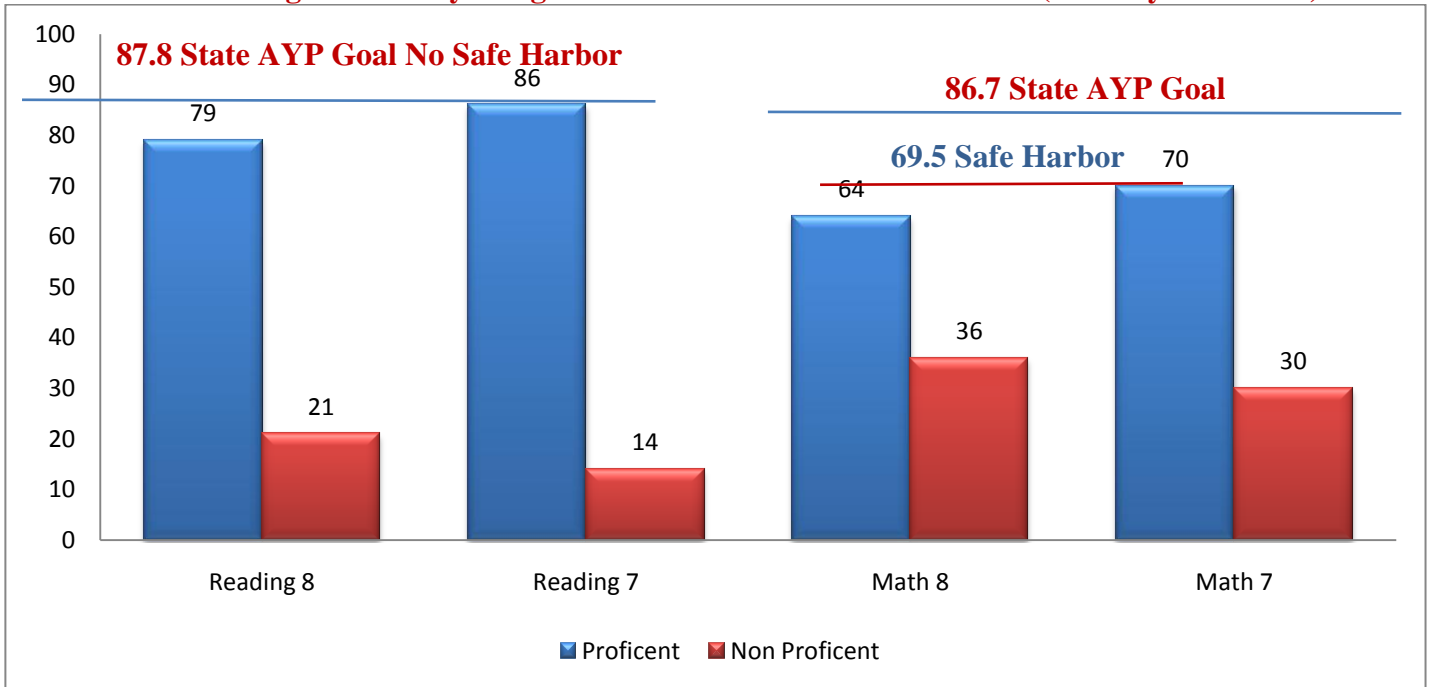
**Math and Reading: 80% Mastery Percentage Range 2010 – 2011 (Mastery Check 1-4)**



The Mastery Percentage Range chart reflects the current mastery level for four out of five mastery checks in math and reading for grades seven and eight. Our goal is to have all students at the mastery level of 80% by the end of the 2011 school year. To accomplish this goal in reading we will need 14% increase in 8th grade, and a 4% increase in 7th grade by the time we reach mastery check five retakes. To accomplish an 80% mastery goal in math we will need a 26.25% increase in 8th grade and a 13% increase in 7th grade by the time we reach mastery check five retakes.

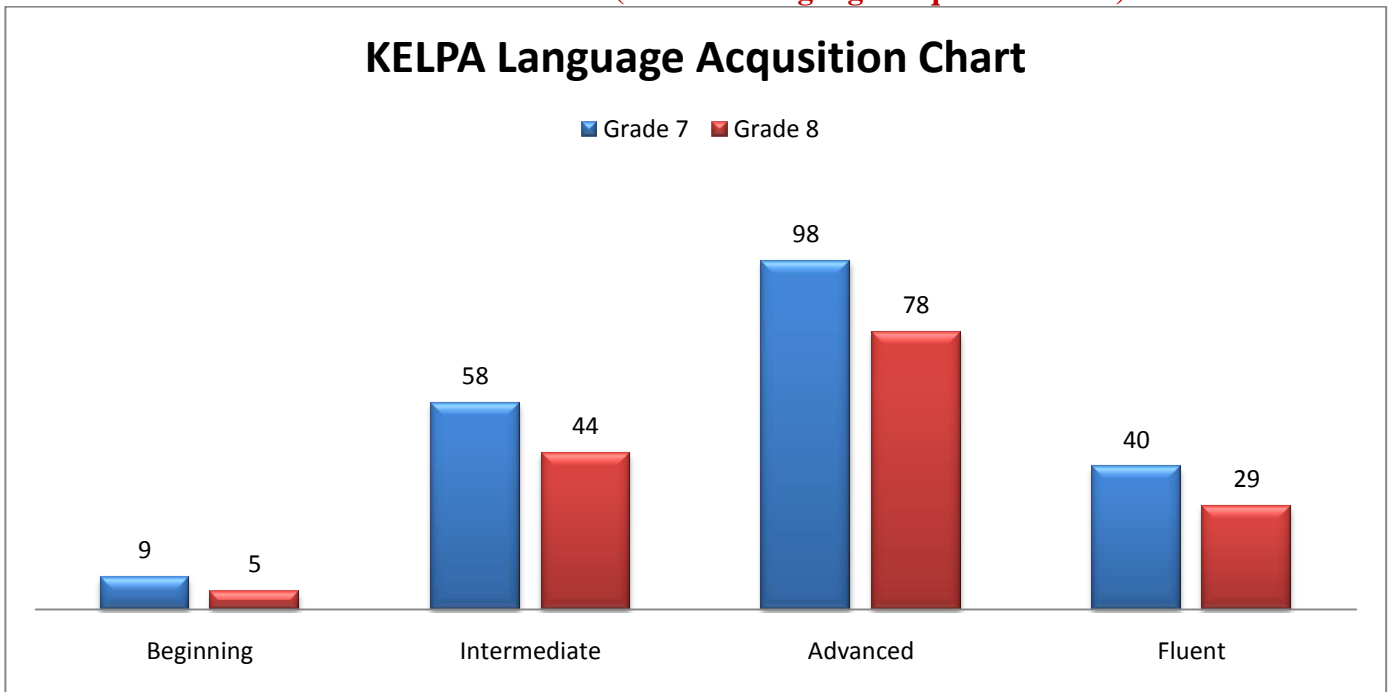
**CHART: XIX**

**Math and Reading: Proficiency Range for State Assessments 2010 – 2011 (Mastery Check 1-4)**



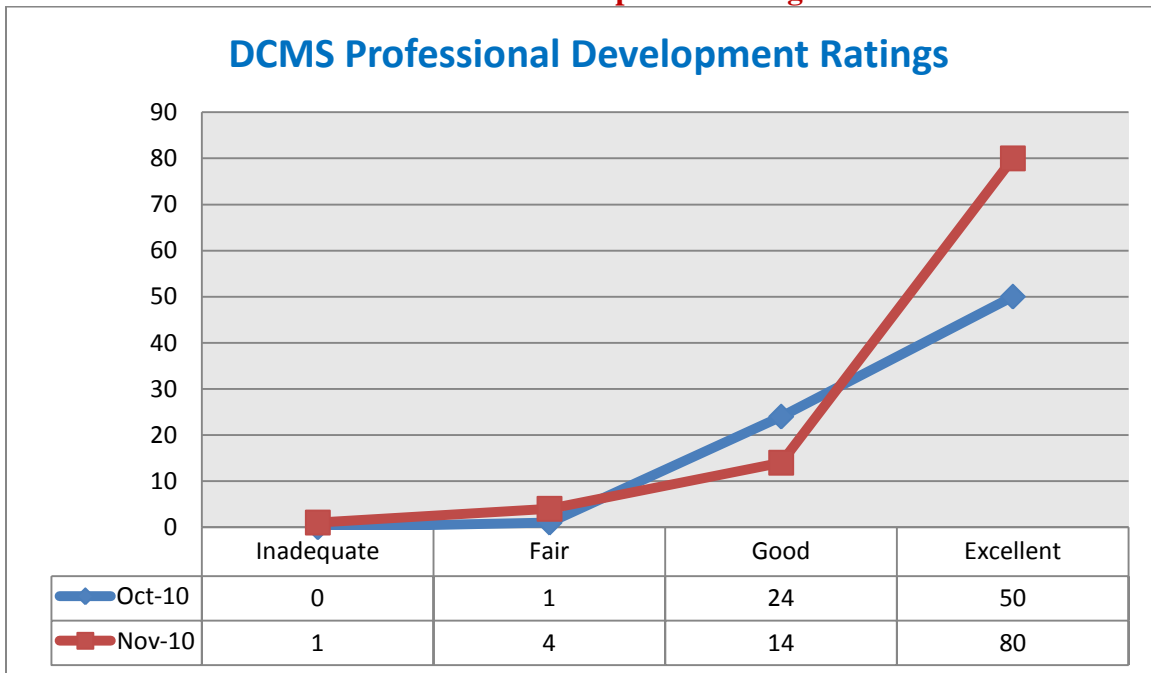
The Math and Reading Proficiency chart reflects the current proficiency level based on the state cut scores for four out of five mastery checks in math and reading for grades seven and eight. Our goal is to have an overall 10% proficiency increase over last year's state achievement scores in both math and reading. This year 86.7 percent of our students must score (56% 7<sup>th</sup>) (58% 8<sup>th</sup>) or better in Math and 87.8 percent of our students must score (63% 7<sup>th</sup>) (64% 8<sup>th</sup>) in reading to make state required AYP.

**CHART: XX**  
**ESL Students 2010 – 2011: (KELPA Language Acquisition Level)**



This year we will need an annual percentage increase of all children making progress in learning English by 20%. If students score proficient two years in a row then they are no longer required to take the KELPA. Sixty-four 64% of students at DCMS have at one time taken the KELPA exam. Currently we have 363 (48%) of students who are taking the KELPA. This year we will need to have 73 students improve on their KELPA score over last year.

**CHART: XXI**  
**Professional Development Ratings**



In a one month period of time we have seen an increase in the DCMS staff overall satisfaction rating for professional development planning and implementation.

**CHART: XXII**  
**Four Year Historical Transitional Math Proficiency Study**

**One Year Comparisons Mathematics 2006 – 2007**

Year	Number	School	% Proficient	Difference	% Not Prof	% Dif
2006	283	6 <sup>th</sup> Grade Comanche	46%		54%	
2007	252	7 <sup>th</sup> Grade DCMS	58%	+12	42%	+12
2006	135	6 <sup>th</sup> Grade Soule	71%		29%	
2007	112	7 <sup>th</sup> Grade DCMS	61%	-10	39%	-10

**One Year Comparisons Mathematics 2007 – 2008**

Year	Number	School	% Proficient	Difference	% Not Prof	% Dif
2007	304	6 <sup>th</sup> Grade Comanche	65%	-19	35%	
2008	260	7 <sup>th</sup> Grade DCMS	46%		54%	-19
2007	134	6 <sup>th</sup> Grade Soule	87%	-38	13%	
2008	110	7 <sup>th</sup> Grade DCMS	49%		51%	-38

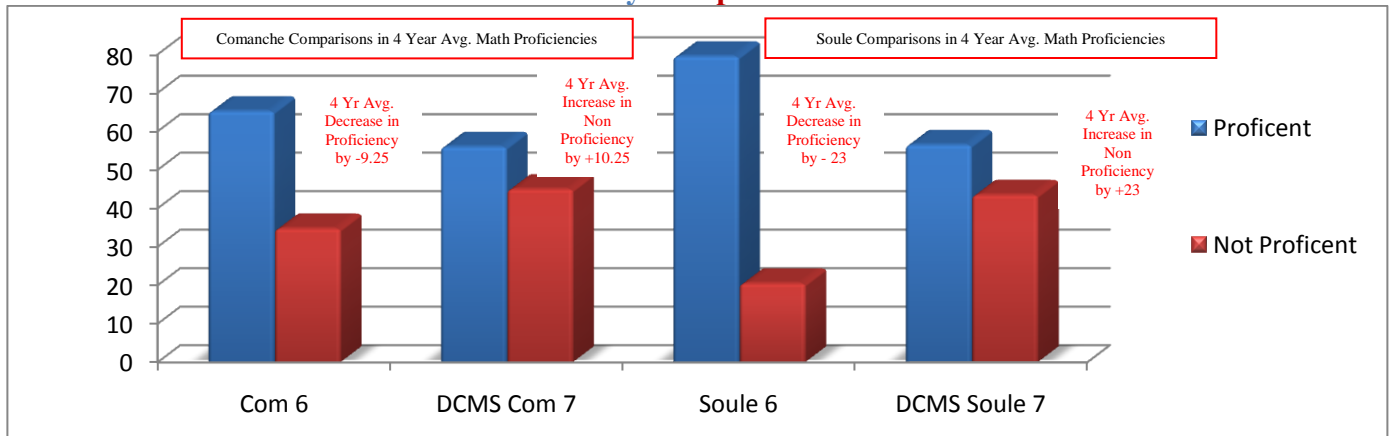
**One Year Comparisons Mathematics 2008 – 2009**

Year	Number	School	% Proficient	Difference	% Not Prof	% Dif
2008	263	6 <sup>th</sup> Grade Comanche	76%	-18	24%	
2009	219	7 <sup>th</sup> Grade DCMS	58%		42%	-18
2008	118	6 <sup>th</sup> Grade Soule	74%	-22	26%	
2009	102	7 <sup>th</sup> Grade DCMS	52%		48%	-22

**One Year Comparisons Mathematics 2009 – 2010**

Year	Number	School	% Proficient	Difference	% Not Prof	% Dif
2009	255	6 <sup>th</sup> Grade Comanche	74%	-12	26%	
2010	223	7 <sup>th</sup> Grade DCMS	62%		38%	-12
2009	120	6 <sup>th</sup> Grade Soule	86%	-22	14%	
2010	102	7 <sup>th</sup> Grade DCMS	64%		36%	-22

**Math Four Year Proficiency Comparison Soule and Comanche**



**Four Year Average Comparisons Mathematics 2006 – 2010**

Year	Number	School	% Proficient	Difference	% Not Prof	% Difference
2006		6 <sup>th</sup> Grade Comanche	65.25%		34.75%	
2010		7 <sup>th</sup> Grade DCMS	56%	-9.25	45%	+10.25
2006		6 <sup>th</sup> Grade Soule	79.5%		20.5%	
2010		7 <sup>th</sup> Grade DCMS	56.5%	-23	43.5%	+23

**CHART: XXIII**  
**Four Year Historical Transitional Reading Proficiency Study**

**One Year Comparisons Reading 2006 – 2007**

Year	Number	School	% Proficient	Difference	% Not Prof	Difference
2006	282	6 <sup>th</sup> Grade Comanche	55%		45%	
2007	250	7 <sup>th</sup> Grade DCMS	78%	+23	22%	+23
2006	136	6 <sup>th</sup> Grade Soule	75%		25%	
2007	114	7 <sup>th</sup> Grade DCMS	82%	+7	18%	+7

**One Year Comparisons Reading 2007 – 2008**

Year	Number	School	% Proficient	Difference	% Not Prof	Difference
2007	298	6 <sup>th</sup> Grade Comanche	75%		25%	
2008	255	7 <sup>th</sup> Grade DCMS	77%	+2	23%	+2
2007	133	6 <sup>th</sup> Grade Soule	85%		15%	
2008	110	7 <sup>th</sup> Grade DCMS	72%	-13	28%	-13

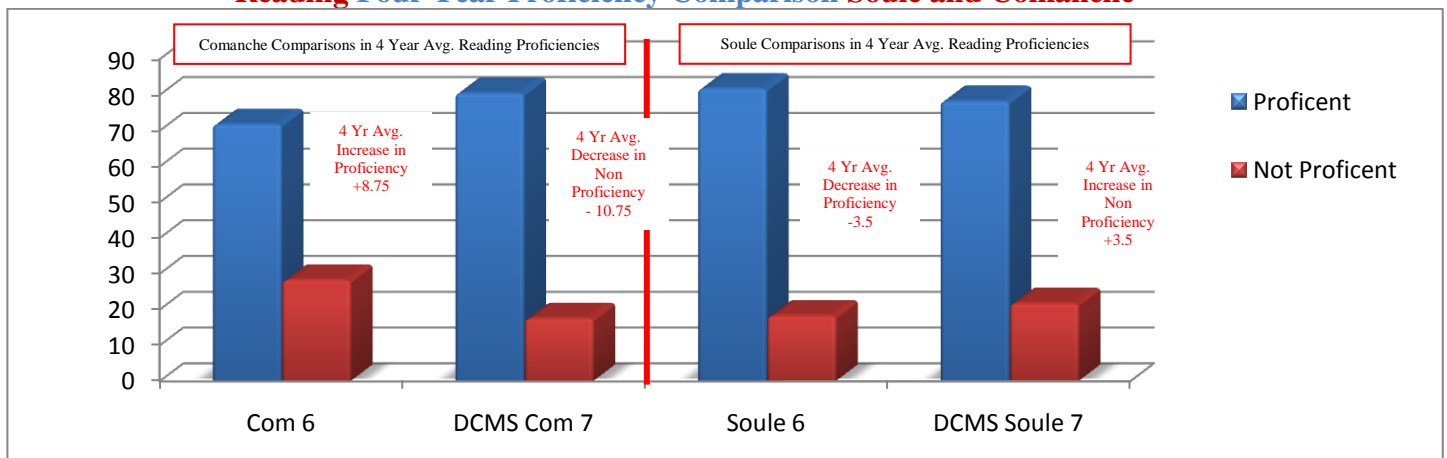
**One Year Comparisons Reading 2008 – 2009**

Year	Number	School	% Proficient	Difference	% Not Prof	Difference
2008	263	6 <sup>th</sup> Grade Comanche	77%		23%	
2009	220	7 <sup>th</sup> Grade DCMS	80%	+3	20%	-3
2008	118	6 <sup>th</sup> Grade Soule	77%		23%	
2009	102	7 <sup>th</sup> Grade DCMS	72%	-5	28%	-5

**One Year Comparisons Reading 2009 – 2010**

Year	Number	School	% Proficient	Difference	% Not Prof	Difference
2009	251	6 <sup>th</sup> Grade Comanche	80%		20%	
2010	220	7 <sup>th</sup> Grade DCMS	87%	+7	13%	+7
2009	120	6 <sup>th</sup> Grade Soule	90%		10%	
2010	103	7 <sup>th</sup> Grade DCMS	87%	-3	13%	-3

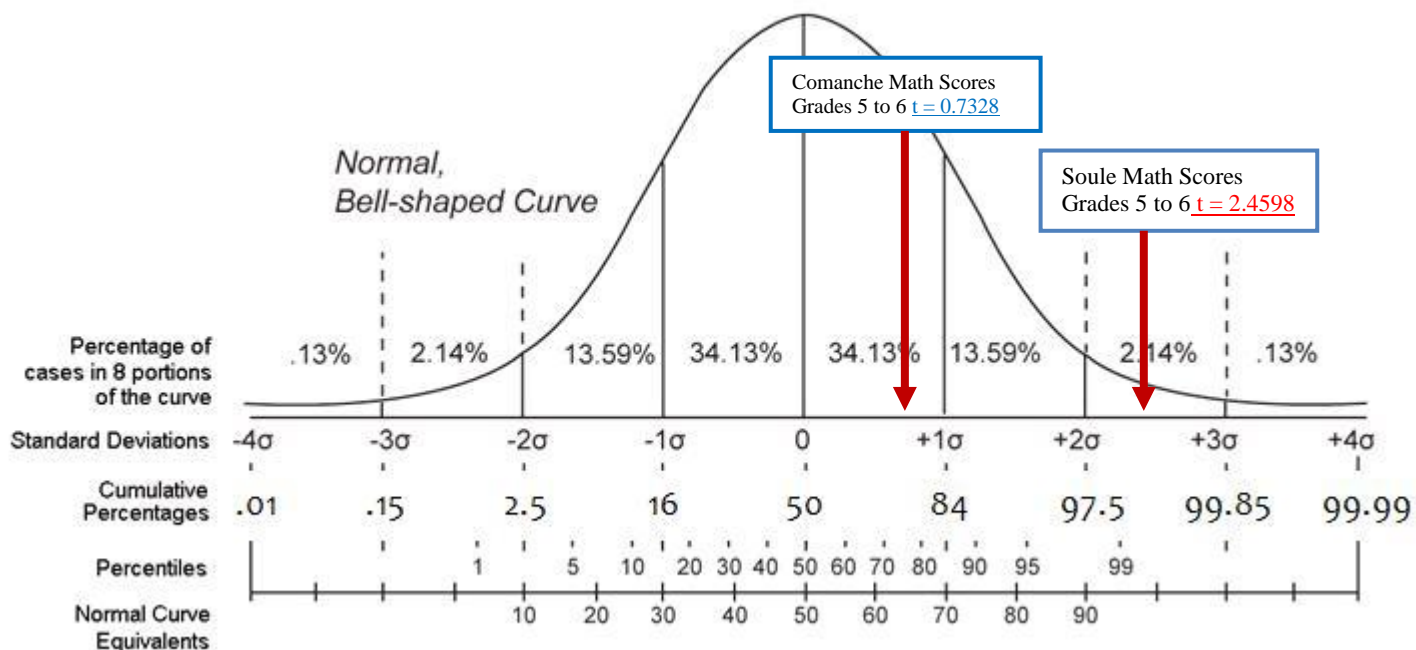
**Reading Four Year Proficiency Comparison Soule and Comanche**



**Four Year Average Comparisons Mathematics 2006 – 2010**

Year	Number	School	% Proficient	Difference	% Not Proficient	Difference
2006	251	6 <sup>th</sup> Grade Comanche	71.75		28.25%	
2010	220	7 <sup>th</sup> Grade DCMS	80.5	+8.75 increase	17.5%	- 10.75 Decrease
2006	120	6 <sup>th</sup> Grade Soule	81.75		18.25%	
2010	103	7 <sup>th</sup> Grade DCMS	78.25	-3.5 Decrease	21.75%	+ 3.5 Increase

## Four Year Cohort Proficiency Study of Grades Five through Seven



### Interpreting t-Scores

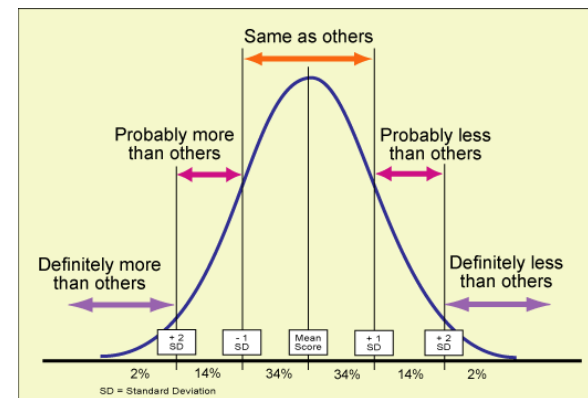
The t-score for a subject indicates how many standard deviations away from the mean the subject scored. Therefore, a t-score of 1.3 means that the subject scored 1.3 SD's above the mean. Similarly, a z-score of  $-.70$  means that the subject scored  $.70$  SD's below the mean. And, a t-score of  $0.00$  means that the subject scored zero SD's above or below the mean; in other words, the person scored exactly the same as the mean.

Notice how the t-score, all by itself, tells us

- (1) whether a person scored at the mean, above the mean, or below the mean, and
- (2) how far away from the mean the person scored. Negative t-scores indicate a subject scored below the mean; positive t-scores indicate the subject scored above the mean. T-scores that are larger in absolute value ( $.50$  versus  $-2.20$ ) are further away from the mean from t-scores that are smaller in absolute value ( $-2.20$  is further from the mean than  $.50$ ).

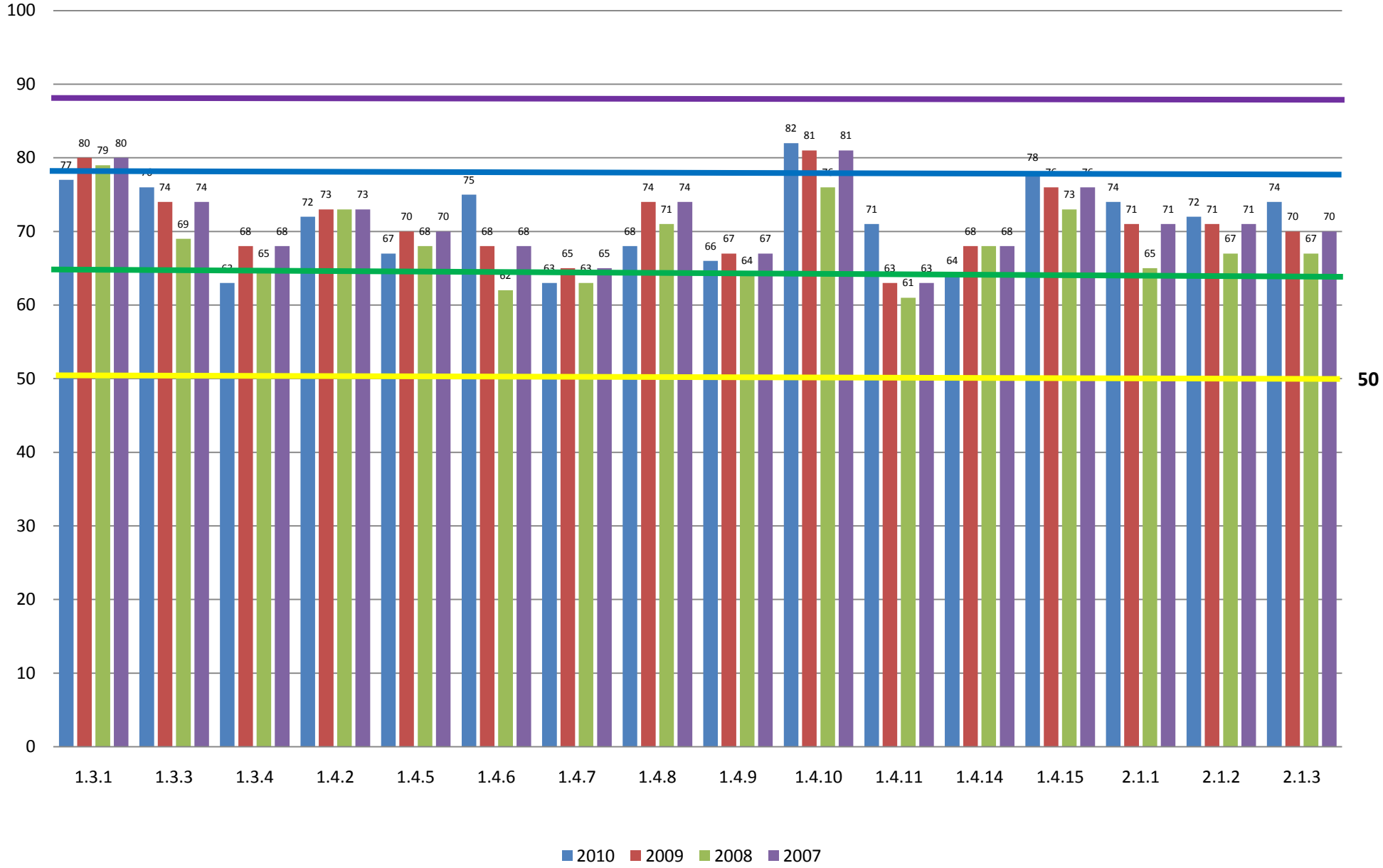
If we calculate t-scores for every subject in our sample, we have essentially re-scaled, or re-numbered the scores. In other words, we have essentially changed the scores from their original values to new values that are directly interpretable. Because t-scores are linear transformations, we have not changed the shape of the distribution.

\*\*\*Please remember that we cannot make inferences about percentile rank or percentage of participants above or below a certain score unless the distribution of scores is normal.



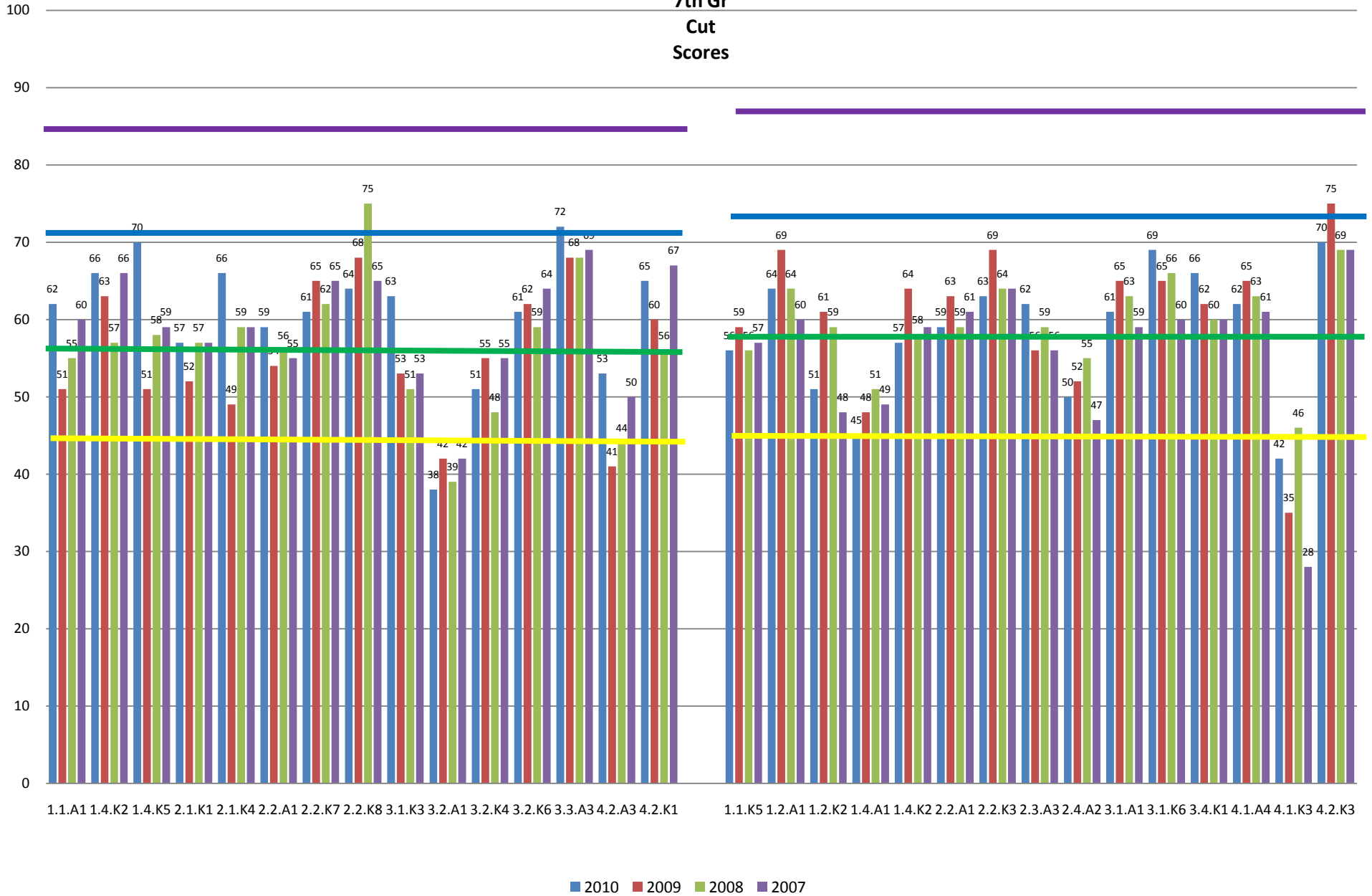


# DCMS, Reading Indicator Trends



# DCMS, Math Indicator Trends

**7th Gr  
Cut  
Scores**



INSERT ACTION PLANS



