

Use of Data Mining to Inform Instructional Practices for High-Risk 9th Grade Learners

CCSSO National Conference on
Student Assessment

June 16th 2008

Orlando, Florida

Opening and District Profile

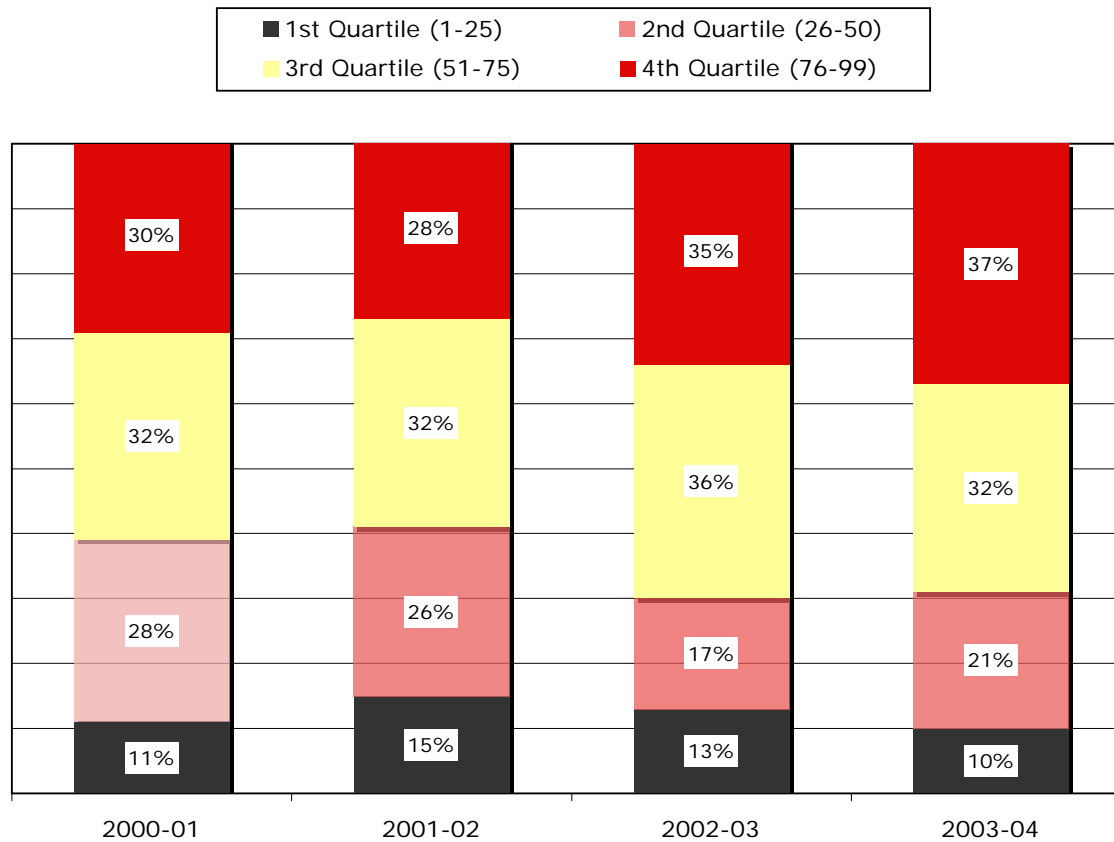
- Demographic and Enrollment Growth
- Graduation Rate
- College Prep
- ACT
- General High Performing School

North Central School Improvement Cycle 2000-2005

- Reading focus
- Gains in the top two quartiles
- A push to further disaggregate the bottom two quartiles – The time was right.

Previous School Improvement Cycle

**EHS Stanford 9 Ninth Grade
Total Reading Quartile Comparison**



Note: Third and fourth quartiles are considered mastery level.

The time to act was now...

Stanford 10 Grade Level Comparisons Group Percentile Rank Scores show that 7th graders in 2005 had low scores district-wide in reading, math, science, social studies, and language.

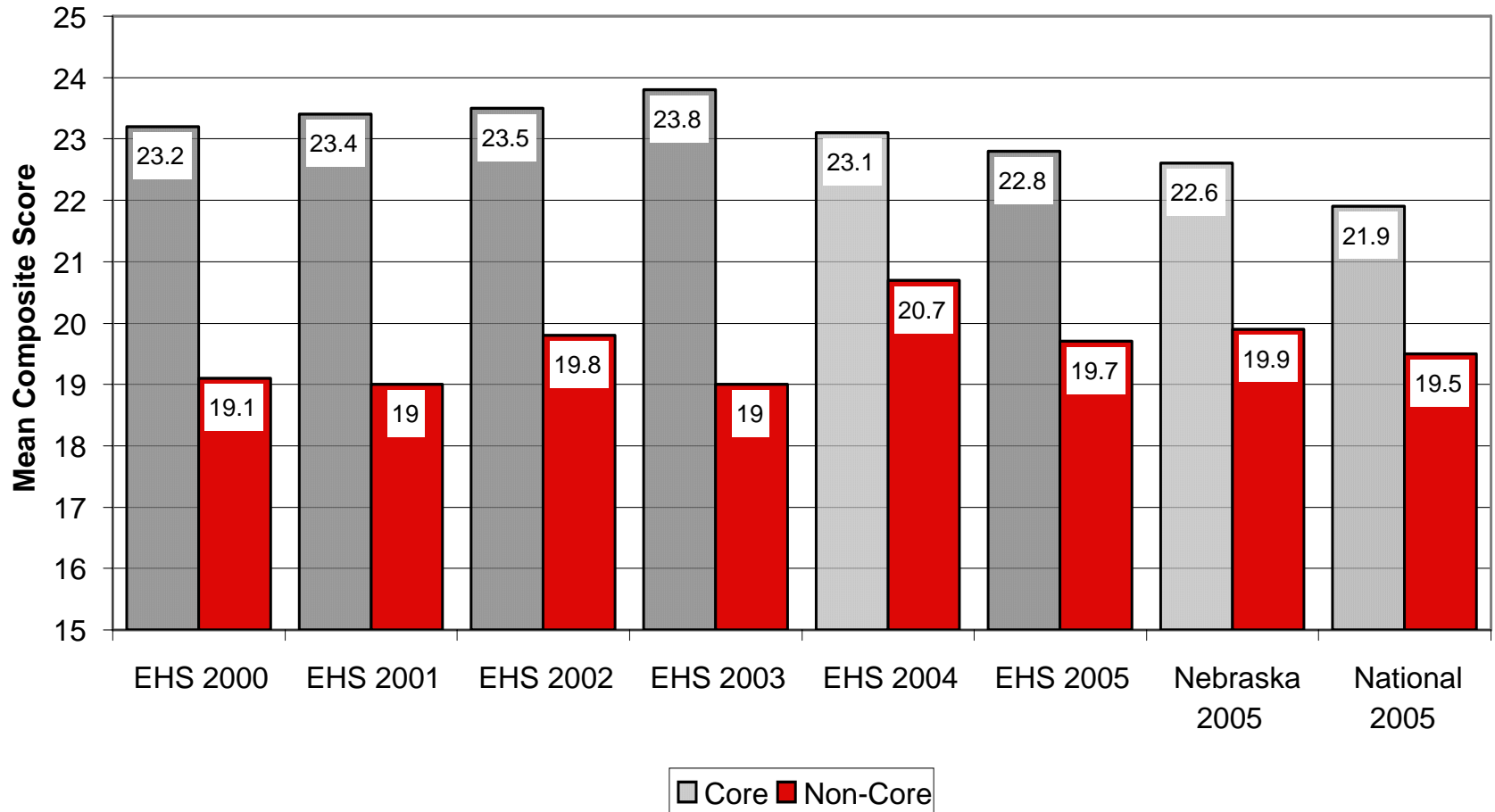
	Rdg '00	Rdg '01	Rdg '02	Rdg '03	Rdg '04	Rdg '05*	Rdg '06	Rdg '07	Rdg '08
Grd 3	62	61	71	66	71	68	74	75	76
Grd 4	70	68	69	74	71	75	76	74	80
Grd 5	70	69	71	70	73	74	76	76	77
Grd 6	68	66	69	70	69	71	68	75	75
Grd 7	64	65	67	66	69	67	69	68	71
Grd 8	65	62	70	67	66	72	69	71	73
Grd 9	62	60	57	61	64	76	72	71	76

*A new version of Stanford was administered in 05 - direct comparisons cannot be made

Data Mining

- Composite ACT results were generally strong
- EHS seniors taking core curriculum consistently scored above both state and national averages.
- HOWEVER -- Between 2000 and 2005 seniors taking a non-core curriculum were typically performing below state non-core averages -- In some cases the non-core performance also fell below the national non-core average.

ACT Comparison of Scores for Seniors Taking Core and Non-Core Curriculum 2000-2005



Data Mining

Trend ACT Score Comparison
Less than Core vs. Core

Question

Was our non-core too non-core?

This data forced an examination of our curriculum and instructional practices

Basic English

(Who are these kids, why are they placed here?)

versus

College Prep- Regular English

(We have proof that this curriculum prepares our students for college.)

A Difficult Question to Ask...

- How do we justify giving students who are behind in reading and writing.....
 - less curriculum
 - slower pace

These students needed more time, more support, more instruction.

*

Where do we begin to find the curricular solutions?

- Visited School Districts
- Studied “canned” reading programs

In the end, there was no one “right” or “easy” way to increase adolescent literacy.

Structures that support literacy

- Increase time for Language Arts
- Emphasize literacy throughout content areas
- Provide literacy electives for struggling readers
- Common plan time
- Instructional strategies that impact achievement

National Association of Secondary School Principals
Creating a Culture of Literacy

Indispensable key elements to successful literacy programs:

- Direct, explicit comprehension instruction
- Text-based collaborative learning
- Strategic tutoring
- Ongoing formative assessment
- Extended time for literacy
- Professional development
- Coordinated literacy program

Carnegie Corp. of New York & Alliance for
Excellent Education, Biancarosa and Snow(2004)

Ah Ha Moment.....

During the mission to search for answers outside of Elkhorn High School.....

Our journey led us back to our school to ask ourselves this question.....

Could we create a class that incorporated the research?



Before we could build a culture of literacy.....

- We needed to tear down the curricular structures that were broken.

Positive Attributes of Basic English

- Well intended credit focused
- Slower pace
- Student to teacher ratio were lower than regular English
- Students received more time to read aloud and write in class

So why change?

Did the Basic English Curriculum really meet the Guaranteed Curriculum?

If the regular English teachers are hard pressed to meet the guaranteed curriculum, how can a class with a slower pace meet the requirements?

Mining the Basic English Dynamics

-Cohorts are grouped in Basic English 9, Basic Algebra, and resource study halls.

Limited availability of Basic Track courses led to a schedule that grouped struggling students throughout the day

RESULTED in.....

Homogeneous tracking of lower socio/economic males

Group Norms and Behavioral Interventions

Anecdotal observations from administrators and teachers who taught basic classes.

-More referrals and behavioral interventions were needed because of the “group-think” cultured that lowered expectations.

-The same students in regular education courses act differently because of the positive peer groups.

*

In mining the criteria for Basic English Placement, we studied.....

8th grade Teacher Recommendations

Statewide Writing Assessments

In mining the criteria for Basic English Placement, we found.....

Teacher Recommendations were biased toward behavior and apathy not achievement.

In fact, there were 29 students in Basic English out of 237

17 of 29 students in Basic English scored below the 30th percentile in reading (SAT 10).....

12 students who scored below 30th% were not in Basic English.

However, 12 students in Basic English 9 scored above the 30th percentile. (41%, 47%, 50%, 62%)

In mining the criteria for Basic English Placement, we found.....

The results of an ungraded 8th grade Descriptive Writing Assessment *were used for placement- Effort ? Motivation ?*

None of us can really be sure with only one measurement. How do we discern between ability and apathy on a writing sample?

Reader subjectivity, reader burnout, student apathy toward the writing prompt, hand writing

The Basic English Curriculum

Less Reading, Less Writing, Less Vocabulary,
Less Homework, Lower Expectations.

With the Basic English curriculum, why would we expect better scores, more learning, closing of the achievement gap?

Our hearts were in the right place.....but the data suggested that we needed to examine our current practices.

“Caring but misguided, teachers often ignore the real problem of struggling readers and simply provide notes or give students the facts on which they will be tested.”

National Association Secondary School Principals
Creating a Culture of Literacy

This was the time to act!

The brutal data told us that these were our students and they needed a solution.

We needed to address the problem and let hard working teachers help figure out what to do next.

We asked the District Language Arts Curriculum Committee and Board of Education to eliminate Basic English and add Essential Skills Language Arts 9 to the curriculum for the 2006-2007 school year.

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Essential Skills in Language Arts 9

(ESLA 9)

Guiding Principle of ESLA

- Belief in the power of high expectations
- Understanding the importance of our best teachers teaching our most struggling learners
- Solid, explicit, rich instruction is paramount

We believe.....

- Students who perform poorly on diagnostic reading tests
- Students who score below the 30th percentile on the Stanford 10 reading section
- Students who demonstrate a pattern of low achieving grades on their transcripts
- Students who are identified by 8th grade teachers as struggling learners

Needed a Comprehensive Literacy Support Curriculum

These students need MORE English/Language Arts not LESS.

These students are scheduled in two periods of instruction.

Regular English 9 and the directed-elective parallel course (ESLA 9)

Skeptics thought.....

- “Students will not want to give up an elective to take another period of their least favorite subject.”
- “It is too late to make a difference in the reading ability of adolescents.”

The power of being proactive.....

- Identified 8th grade students (below the 40th percentile on SAT 10 Reading) were tested by the EHS Administration using the Gates-MacGinitie diagnostic reading test.
- Administration called parents in the spring to explain and get approval for the support class.
- The teachers met with the students and parents prior to enrolling to discuss the program.

-All parents in this targeted pilot group supported the plan.

*

ESLA Curriculum

- Reading
- Writing
- Grammar
- Vocabulary

Engagement

- Classroom Performance System (CPS) Radio Frequency Remote



Reading Comprehension

- Individual work with reading comprehension
- Large group analysis and discussion of both fiction (supplemental novel) and non-fiction (articles and short essays)
- Intervention with individuals
- Standardized test practice frequently to monitor practice and isolate skills

Writing

- Grammar Review and practice
- Work on sentence composing
- Work on sentence style
- Paragraph revision in peer edit for English 9 assignments
- Intervention with individuals based on AIMSweb results

Vocabulary

- Support English 9 curriculum with Greek and Latin practice and review
- Strengthen vocabulary skills with non-fiction pieces
- Strengthen vocabulary development with supplemental materials

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Measurements

- AIMSweb for reading fluency and writing
- Gates MacGinitie Tests (Jan.& May)
- Stanford 10 results (April)
- State Assessments(embedded in curriculum)
- Grades (1st and 2nd Semester)

Pygmalion Effect

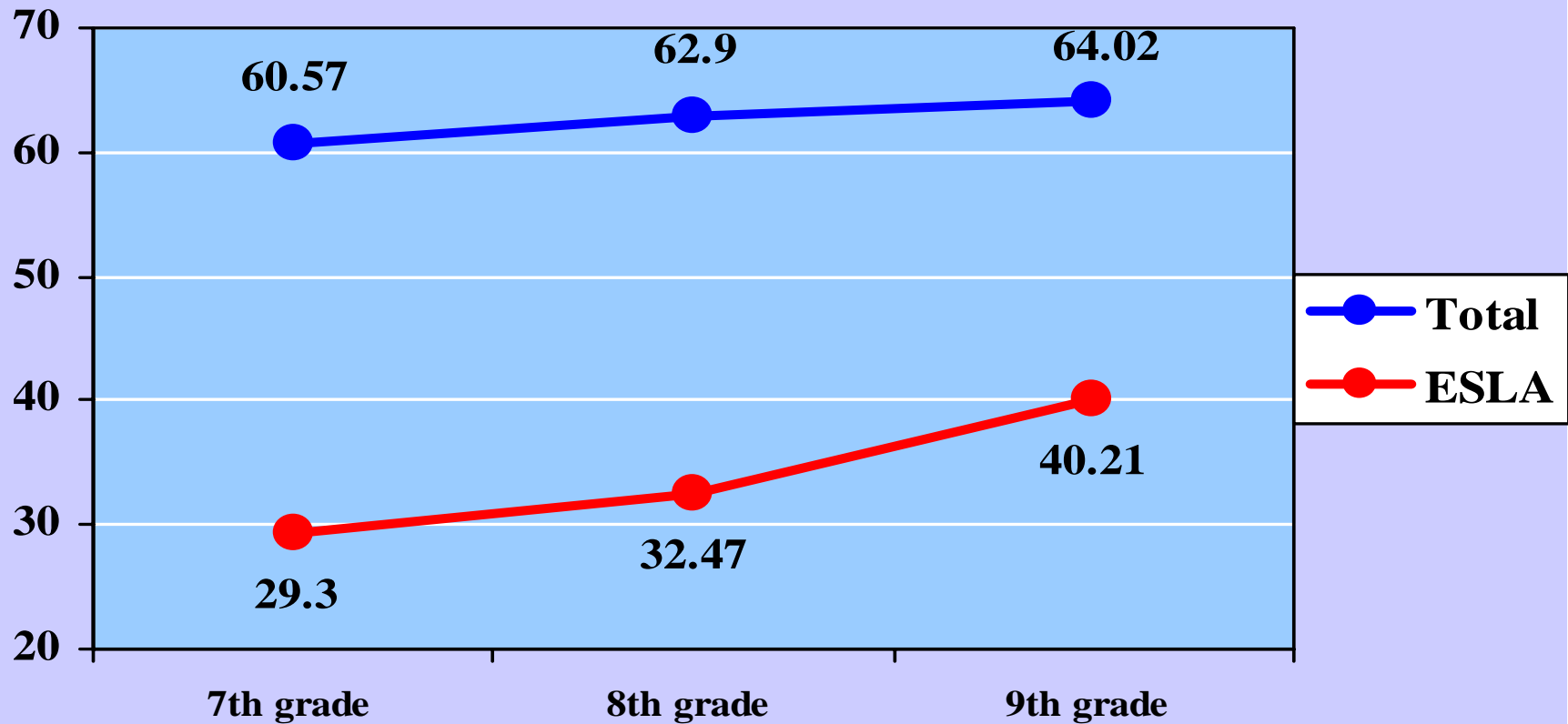
- “If you believe that adults make a difference in student achievement, you are right. If you believe that adults are helpless bystanders while demographic characteristics work their inexorable will on the academic lives of students, you are right.”

Douglas Reeves, The Learning Leader

ESLA 9 Results Year 1

Stanford Achievement Test

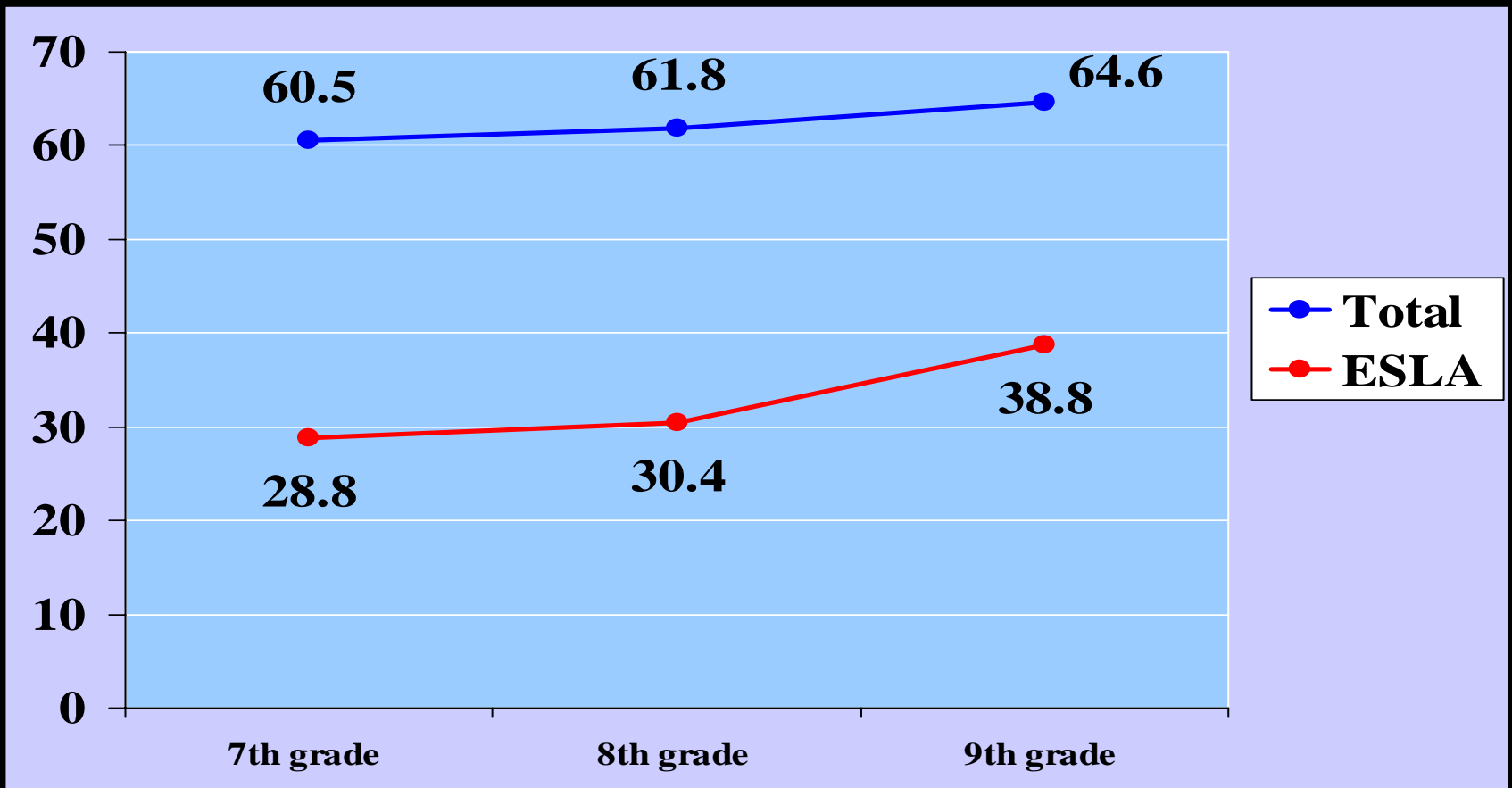
NCE scores for Total Reading



ESLA 9 Results Year 2

Stanford Achievement Test

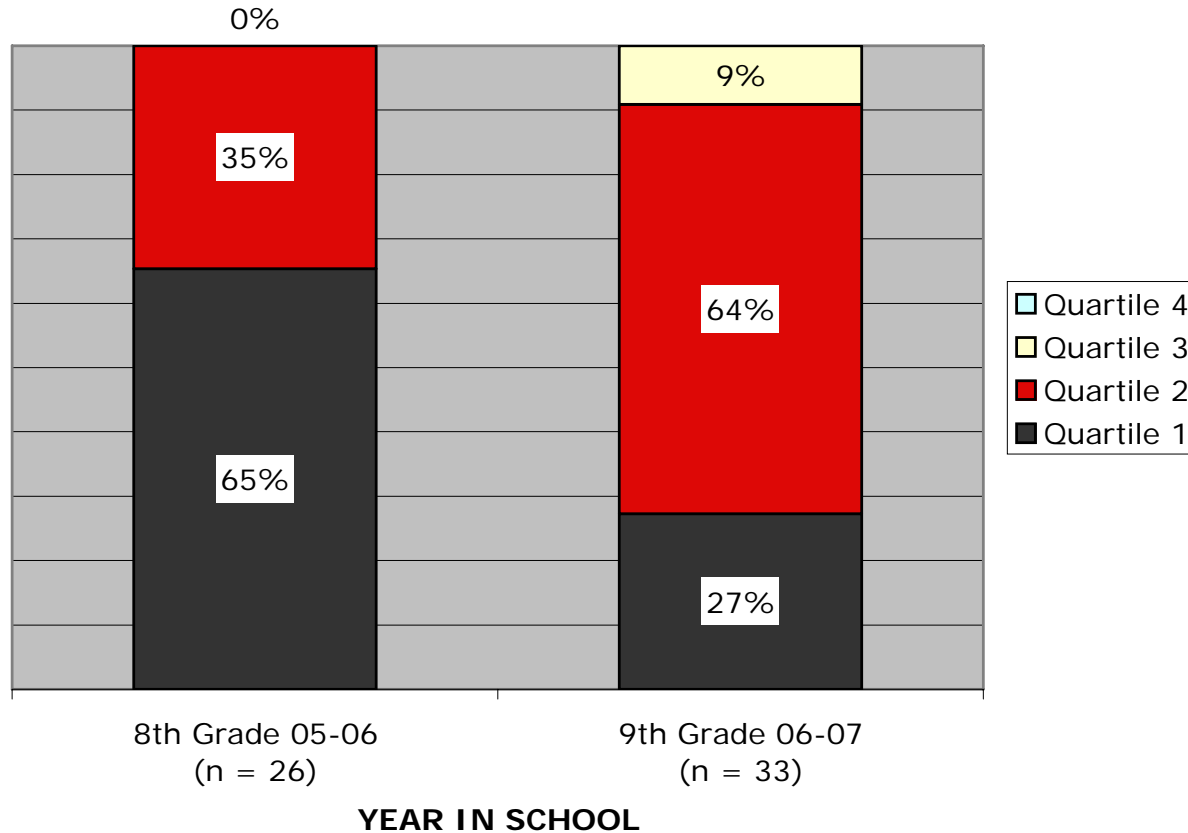
NCE scores for Total Reading



ESLA 9 Results Year 1.....

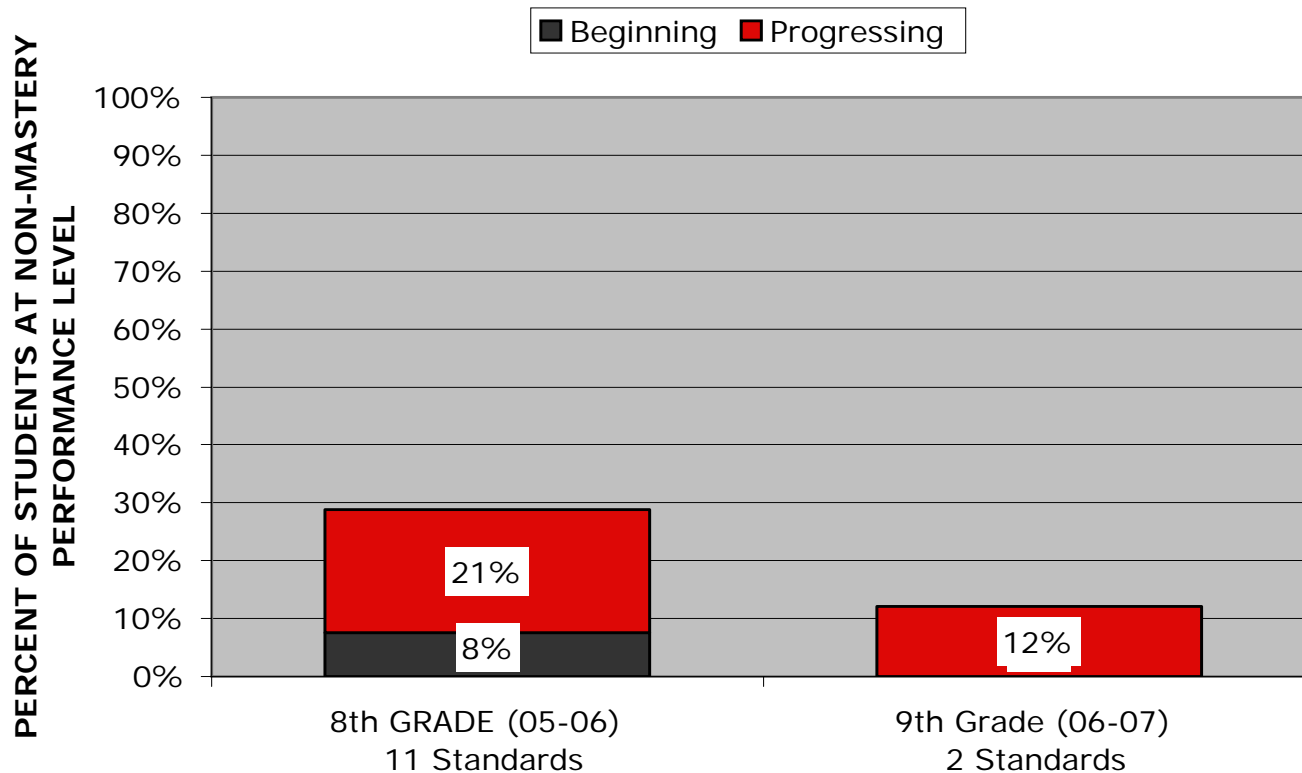


**Stanford Achievement Test v10 Reading
% of ESLA Students in Each Quartile**



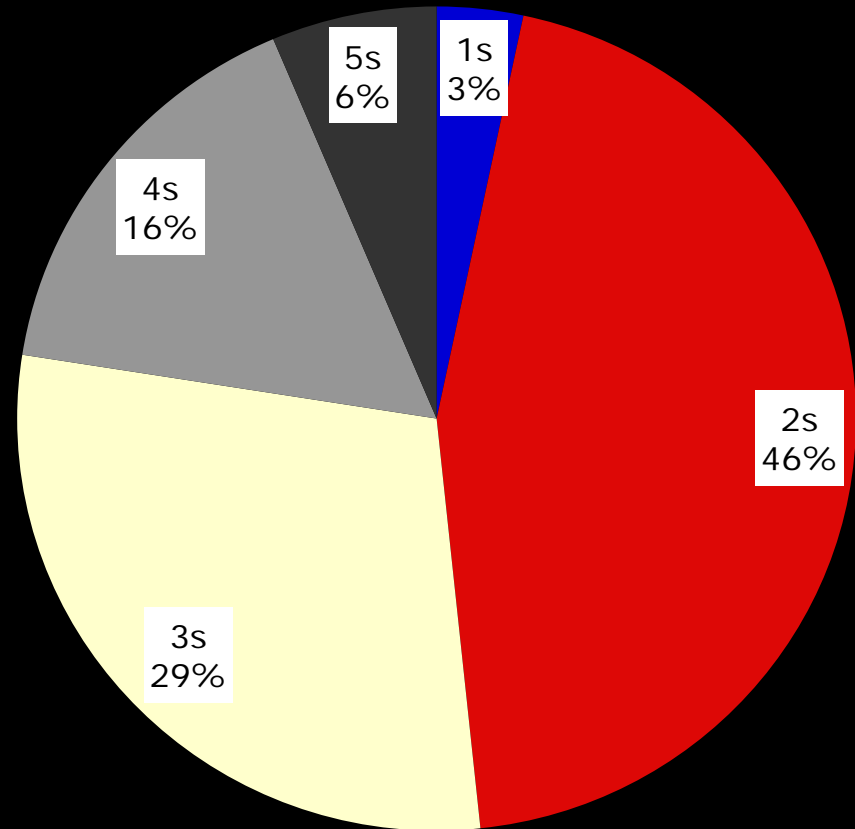
ESLA 9 Results Year 1 (06-07)

Elkhorn Public Schools
STARS State Assessments
% of Students Not Mastering (8th to 9th Grades)



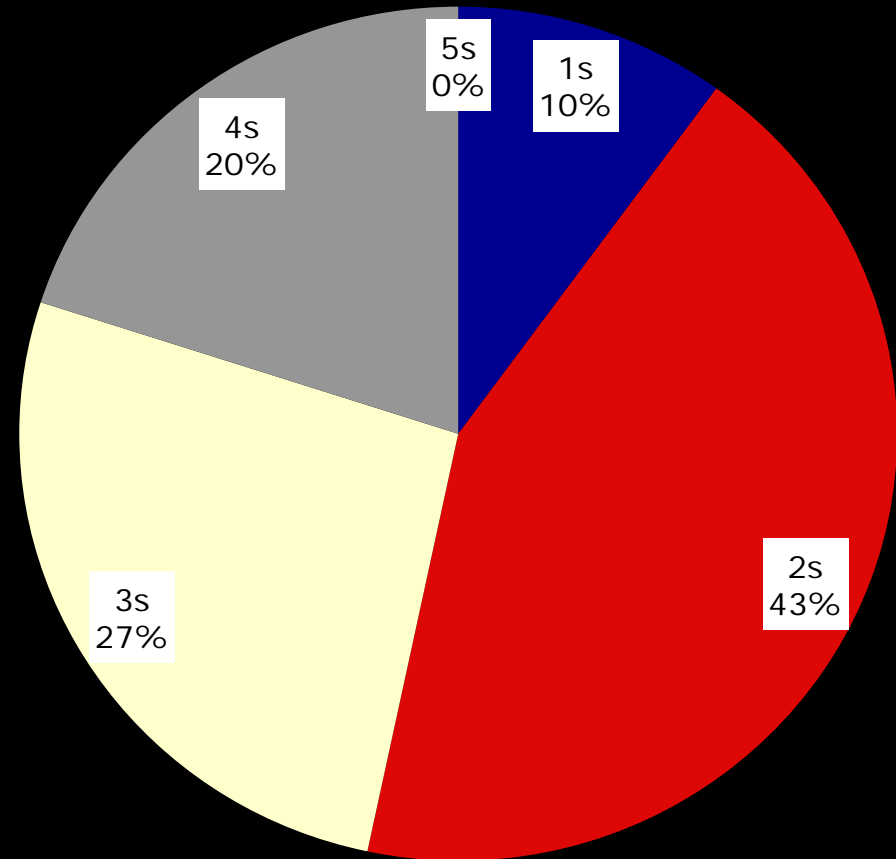
ESLA 9 Results Year 1 (06-07)

ELKHORN PUBLIC SCHOOLS
English 9
1st Semester Grades
of ESLA Students
(n = 31)



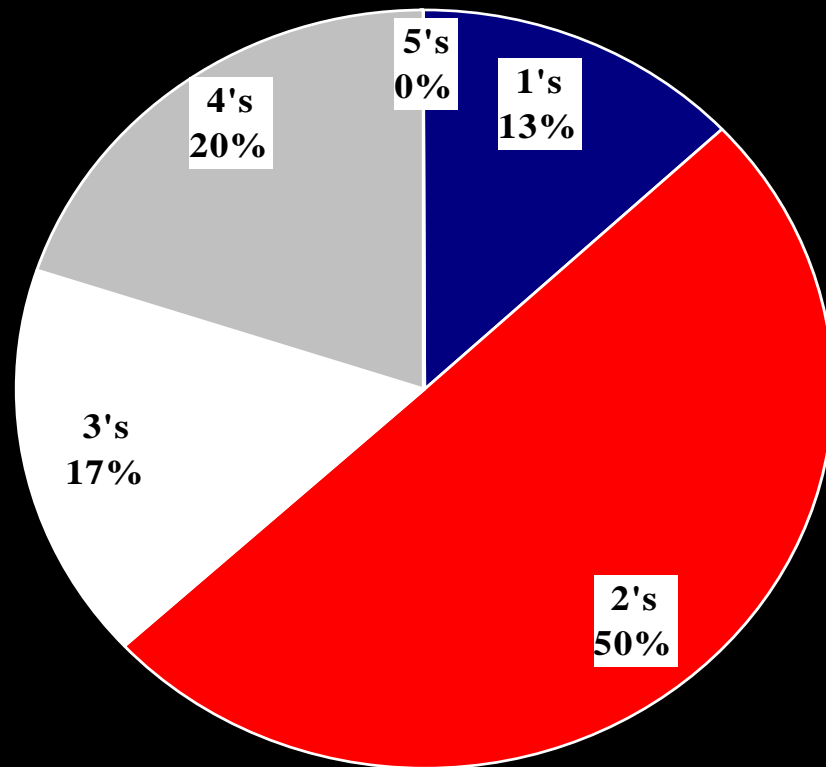
ESLA 9 Results Year 1 (06-07)

ELKHORN PUBLIC
SCHOOLS
English 9
2nd Semester Grades
of ESLA Students
(n = 30)



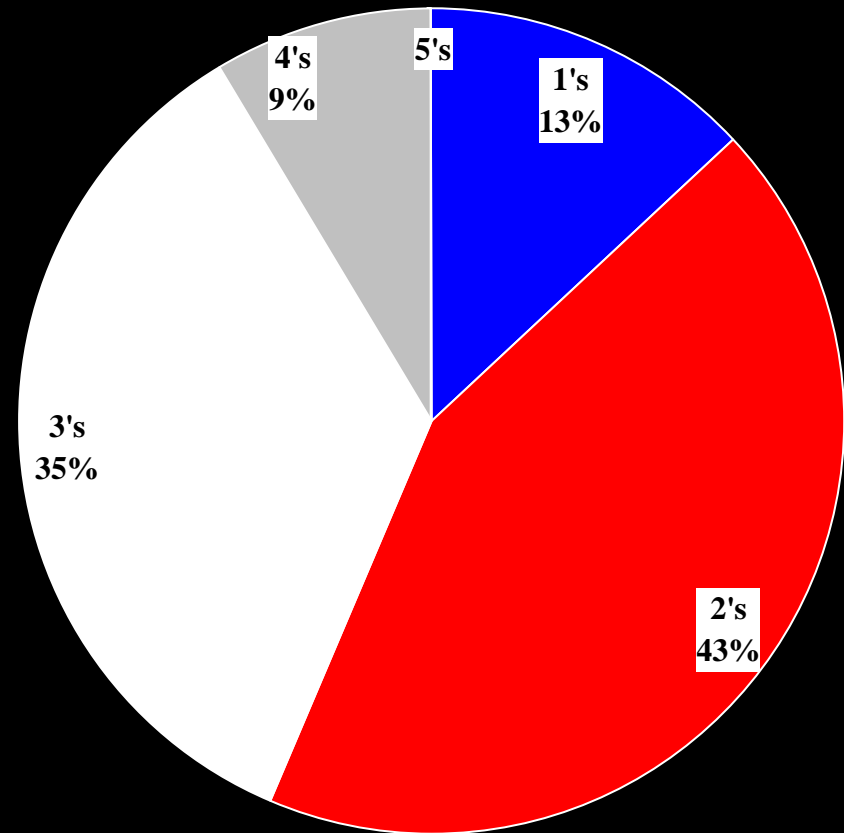
ESLA 9 Results Year 2 (07-08)

ELKHORN PUBLIC
SCHOOLS
English 9
1st Semester Grades
of ESLA Students
(n = 23)



ESLA 9 Results Year 2 (07-08)

ELKHORN PUBLIC
SCHOOLS
English 9
2nd Semester Grades
of ESLA Students
(n = 23)



ESLA 9 Results compared to Basic English 9

During the 1st semester of 2005-06 ...

23 out of 28 (82%) students earned a grade of 3 or higher in Basic English 9.

1 out of 28 students failed Basic English 9 but accumulated a total of 53 failures in other classes.

ESLA 9 Results Year 1 (06-07)

During the 1st semester of 2006-07 ...

29 out of 35 ESLA 9 (83%) students earned a grade of a 3 or higher in English 9.

2 out of 35 ESLA 9 students failed 1st semester regular English 9 and accumulated a total of 17 failures in other classes.

ESLA 9 Results Year 2 (07-08)

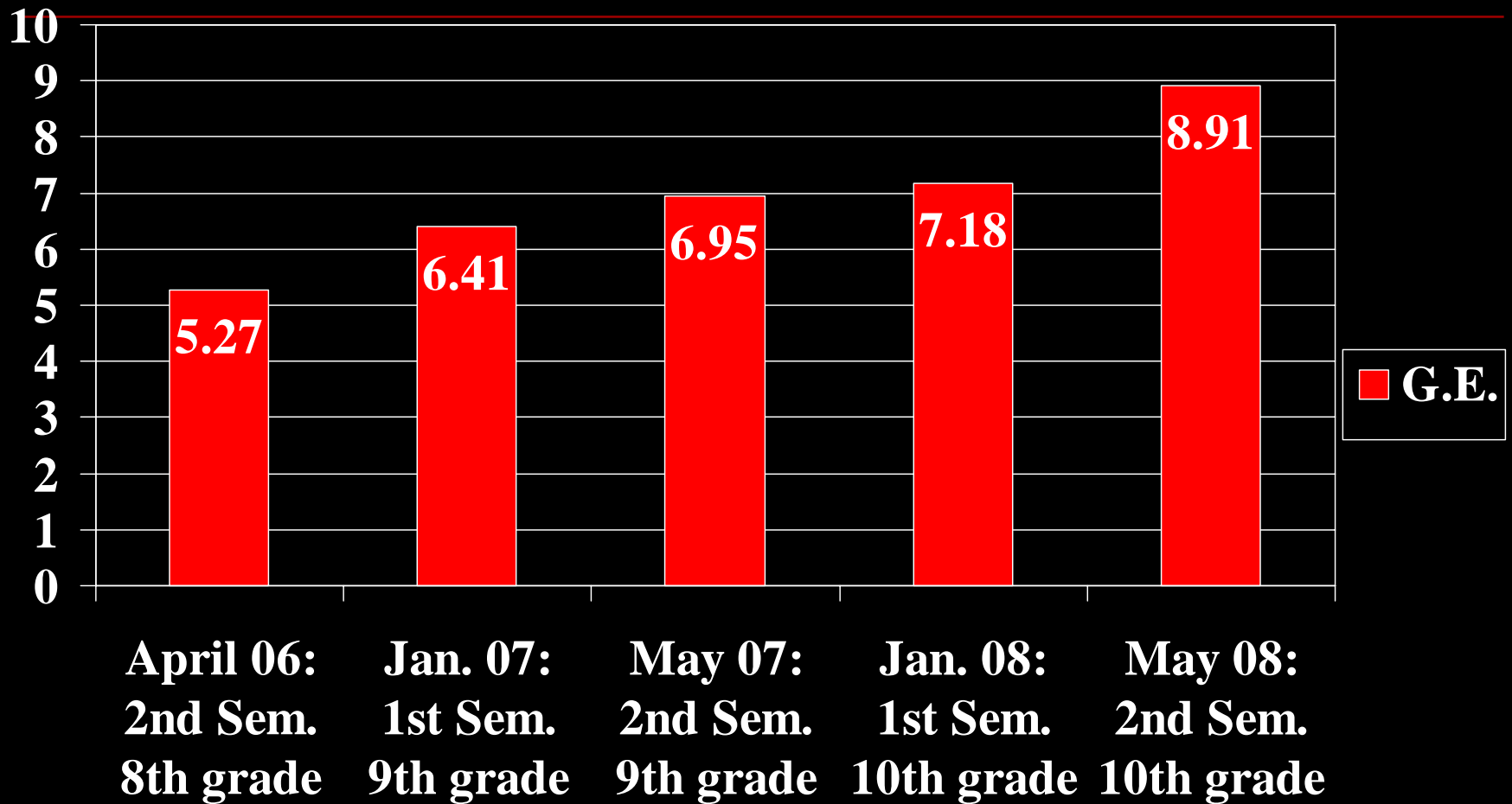
During the 1st semester of 2007-08 ...

18 out of the 23 ELSA 9 (78%) students earned a grade of a 3 or better in a college-prep English/Language Arts curriculum.

Zero students failed English 9 and accumulated a total of 14 failures in other classes.

Gates-MacGinitie Reading Test ESLA 9-10 Students 2006-08

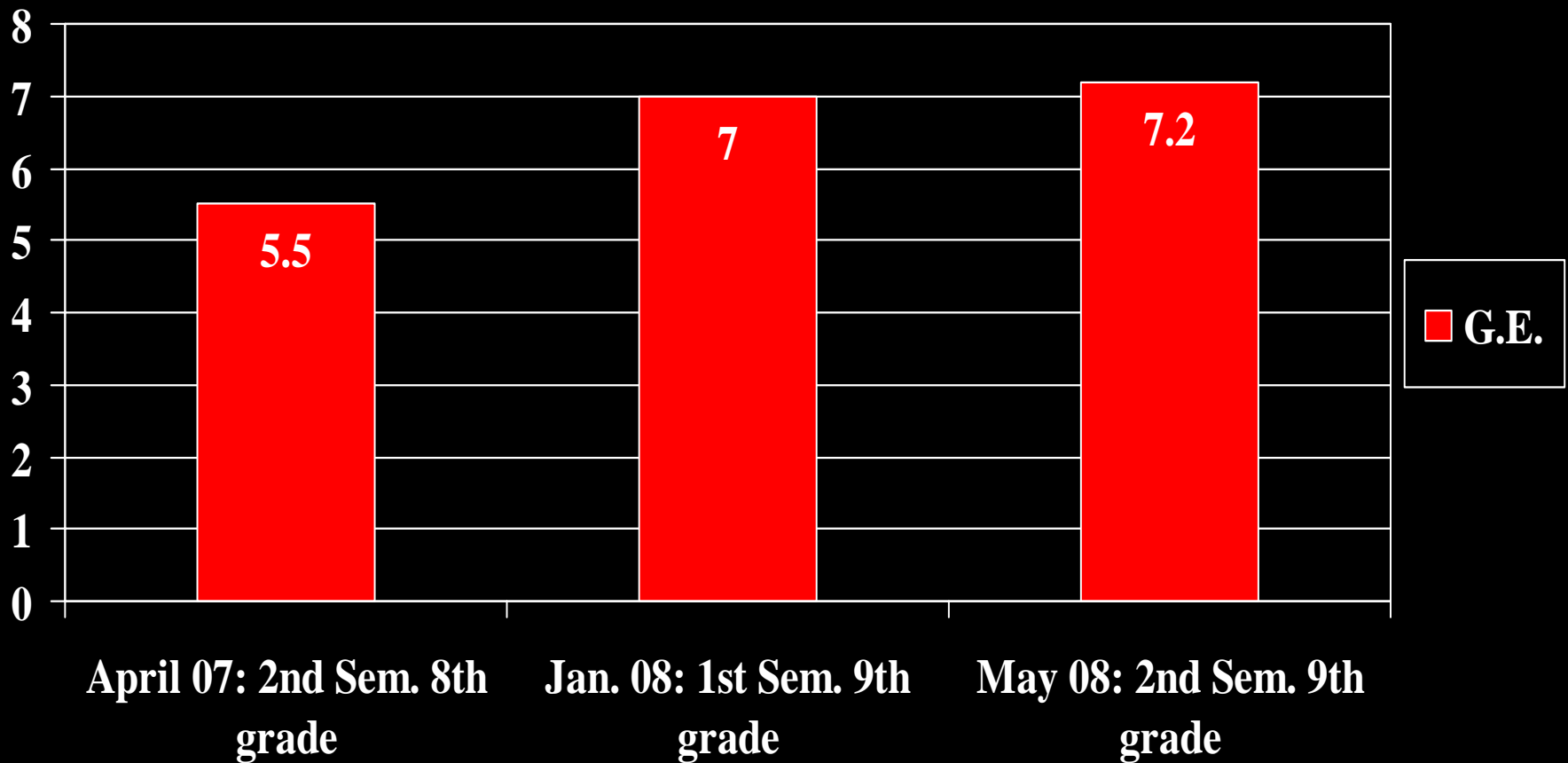
GRADE EQUIVALENCY



Gates-MacGinitie Reading Test

ESLA 9 Students 2007-08

GRADE EQUIVALENCY



6 students tested out of ESLA in Jan. 08

More Results from ESLA 9

Teacher collaboration has increased for English 9-10 teachers.

Common Pacing- Vocabulary Exercises/Test and Writing Assignments.

Common Lessons- grammar, writing, vocabulary, speeches.

Teacher Leaders- (3) English 9 teachers have less than 2 years experience with EHS curriculum.

Collaboration with Special Education support that has increased the consulting and teaching model. *

Good? Good Enough? Getting Better?

Data mining has facilitated many conversations related to building systems and creating an unprecedented focus on student achievement.

All Kid Agenda – Unprecedented Challenge

- “I would rather fail at doing the right thing than succeed at doing the wrong thing.” –
Doug Christensen

Nebraska’s Commissioner of Education

Efforts to “Ensure Success”

- Freshman Transition Focus with Peer Mentors
- After-school Academy
- Guided Study
- Essential Skills in Algebra Course
- Essential Skills in Language Arts (ESLA) Course
- Grade-level Teacher Advisors
- SRA Reading Program
- Math Help Lab

More Meaningful Work to Re-culture our School

- Common Planning Time & Department Collaboration
- Elimination of the “Basic Track”
- Opening the door to Advanced Placement courses
- Conversations about homework and grading
- Promoting persistence – role of responsibility
- Conversations about accountability for learning and impact of over-accommodating

It's About Teaching.....

- Quality teaching can have a profound impact across all socio-economic levels and sub-populations
- “Continuous common-sense efforts to even roughly conform to effective practices and essential standards will make life-changing differences for students.” - Mike Schmoker

Thanks!

■ Questions and Discussion.....

“..... step by step, action by action, decision by decision By pushing in a constant direction over an extended period of time, they inevitably hit a point of breakthrough”

- Jim Collins, Good to Great