

**STATUS REPORT- GOAL TWO
West Point Middle School**

June 2009

Student Performance Goal and Interventions

Goal Statement: All students will improve their problem solving across the curriculum.

Interventions:

Teachers and students will implement the Big 6 with a focus on Step 1: Task Definition for this school year in all curricular areas and on all grade levels. The Big 6 model provides a framework that offers a shared vision and a vocabulary for task definition for students and teachers to use when instructing and assessing problem solving. The qualities of problem solving are defined for both students and teachers using a common rubric to evaluate progress. Daily activities and annual assessments provide a way to identify and document students' problem solving strengths and weaknesses.

Assessments:

1. TerraNova Mathematics subset
2. TerraNova Science subset
3. Annual Local Problem Solving Assessment

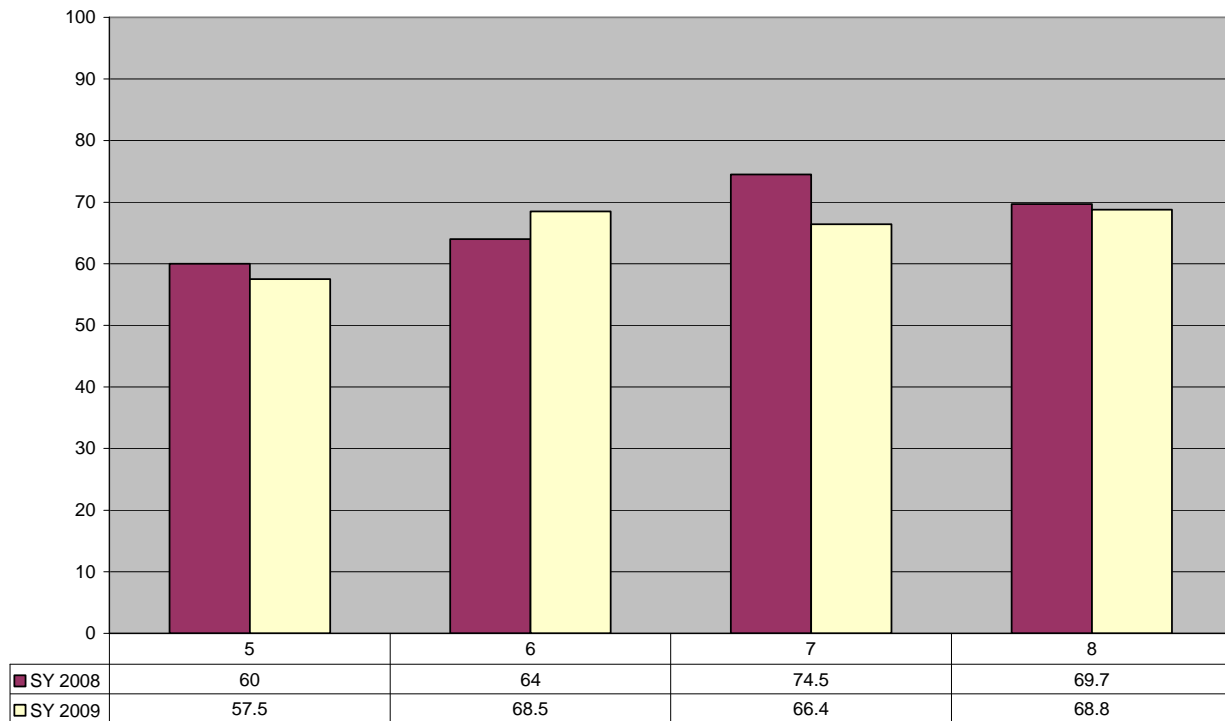
DATA ANALYSIS PROCEDURES

Baseline data SY 2007-2008 was disaggregated by grade level and analyzed. Our Baseline data was collected from TerraNova standardized assessment using Science Inquiry and Math Problem Solving and Reasoning, and a local assessment from SY 2008-2009: school-wide annual problem solving assessment. The TerraNova data from SY 2007-2008 was reported for Math and Science and sorted by the Top Two and Bottom National Quartiles. The percentage of students scoring in each range was reported. The National Curve Equivalent (NCE) and Objective Performance Index (OPI) for the math and science strand were reported. The results were disaggregated and analyzed by grade level.

An ASU of	Interpretation
.3 or greater	Shows growth that is substantial
.2 or greater but less than .3	Shows growth that is quite good
.1 or greater but less than .2	Shows growth that is enough to mention
Less than .1 but greater than -.1	Shows growth that is not enough to mention
-.1 and -.2	Shows decline that is enough to mention
-.2 and -.3	Shows decline that is quite bad
-.3 or greater	Shows decline that is substantial

TerraNova Median Normal Curve Equivalent Mathematics

TerraNova Median Normal Curve Equivalent
Math Scores by Grade Level



At the beginning of SY 2008-2009 the median NCE Math span for problem solving ranged from sixty to seventy-five percent, which influenced our decision to incorporate problem solving in our school improvement plan. At the end of this school year, all but one grade showed growth that is enough or not enough to mention and seventh grade showed a decline that is quite bad.

Fifth Grade: The performance for this grade level shows growth that is not enough to mention (Z=-0.05)

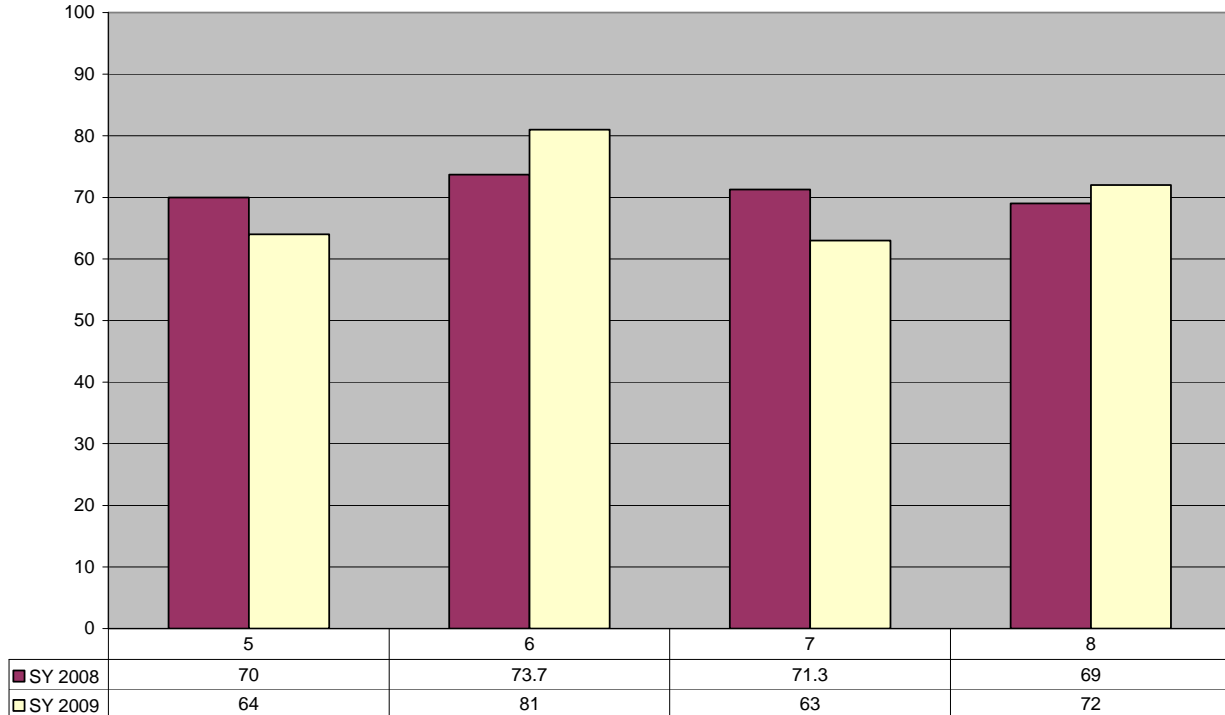
Sixth Grade: The performance for this grade level shows growth that is enough to mention. (Z=0.14)

Seventh Grade: The performance for this grade level shows decline which is quite bad. (Z=-0.26)

Eighth Grade: The performance for this grade level shows growth that is not enough to mention. (Z=-0.02)

TerraNova Median Normal Curve Equivalent Science

TerraNova Median Normal Curve Equivalent
Science Scores by Grade Level



At the end of SY 2008, the median NCE span for science inquiry ranges from sixty-nine to seventy-four percent which influenced our decision to incorporate problem solving in our school improvement plan. At the end of SY 2009, the median NCE span for science inquiry ranges from sixty-three to eighty-one percent. Grades five and seven showed decline, while grade six showed growth that is quite good. Grade eight showed growth that is not enough to mention.

Fifth Grade: The performance for this grade level shows decline that is enough to mention. (Z=-0.16)

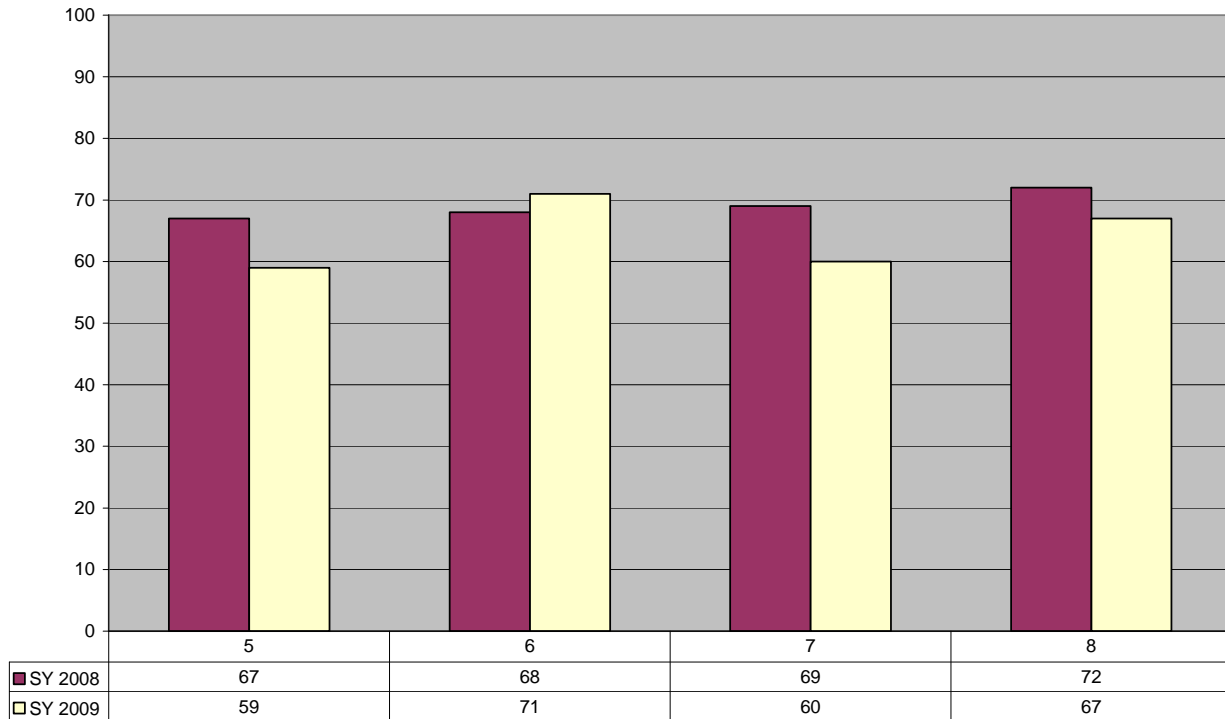
Sixth Grade: The performance for this grade level shows growth shows growth that is quite good. (Z=0.24)

Seventh Grade: The performance for this grade level shows decline which is quite bad. (Z=-0.22)

Eighth Grade: The performance for this grade level shows growth that is not enough to mention. (Z=0.08)

TerraNova Objective Performance Index Mathematics Problem Solving and Reasoning

TerraNova Objective Performance Index
Problem Solving and Reasoning by Grade Level (percents)



The OPI mastery levels for problem solving and reasoning at the beginning of SY 08-09 showed that we fell slightly within or above the moderate mastery range, indicating that improvement is warranted. At the end of school year 2009, effect scores indicate that we still need to work with this goal.

Fifth Grade: The performance for this grade level shows decline that is quite bad. (Z=-0.21)

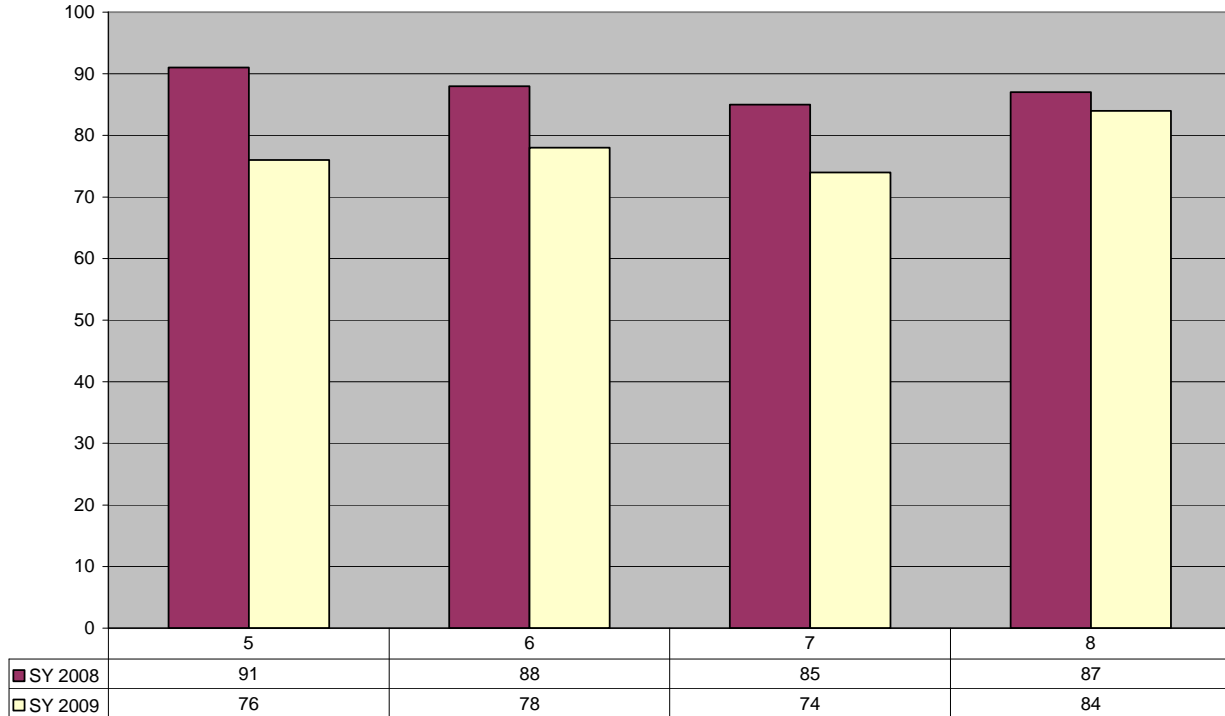
Sixth Grade: The performance for this grade level shows growth that is not enough to mention. (Z=0.08)

Seventh Grade: The performance for this grade level shows decline which is quite bad. (Z=-0.25)

Eighth Grade: The performance for this grade level shows decline that is enough to mention. (Z=-0.14)

TerraNova Objective Performance Index Science Inquiry

TerraNova Objective Performance Index
Science Inquiry by Grade Level (percents)



The OPI mastery levels for science inquiry showed that we fell slightly above the moderate mastery range, validating that problem solving and reasoning skills across curriculum can always be improved. At the end of the school year 2009, our effect scores demonstrate a decline in three of the four grade levels.

Fifth Grade: The performance for this grade level shows decline that is substantial. (Z=-0.63)

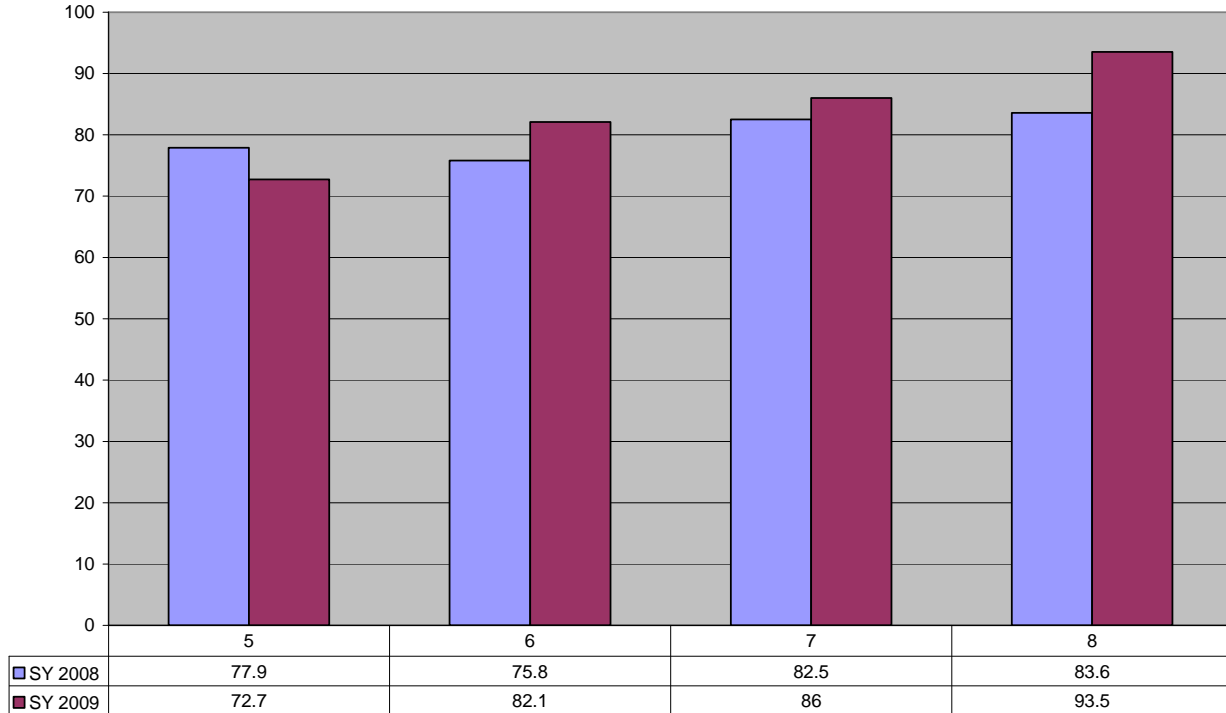
Sixth Grade: The performance for this grade level shows decline that is substantial. (Z=-0.41)

Seventh Grade: The performance for this grade level shows decline that is substantial. (Z=-0.4)

Eighth Grade: The performance for this grade level shows growth that is not enough to mention. (Z=-0.14)

TerraNova Mathematics Subset – Top Two National Quartiles

TerraNova Mathematics
Top Two Quartiles (percents)



Our goal of Problem Solving using the Big6 Intervention should aid in seeing upward movement within the third and fourth math quartiles along with higher percentages over all in our upper two quartiles. In May of 2009, all but one grade level indicated a growth that was at least enough to mention.

Fifth Grade: The performance for this grade level shows decline that is enough to mention. (Z=-0.16)

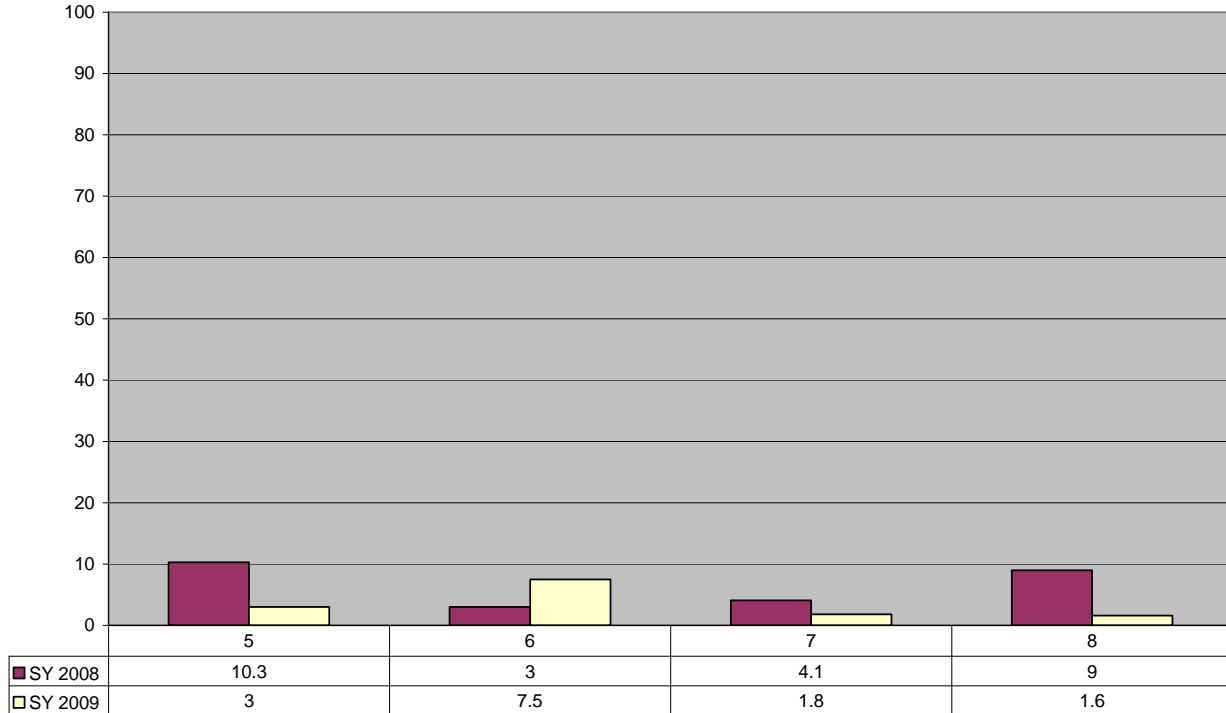
Sixth Grade: The performance for this grade level shows growth that is quite good. (Z=0.21)

Seventh Grade: The performance for this grade level shows growth that is enough to mention. (Z=0.13)

Eighth Grade: The performance for this grade level shows growth that is substantial. (Z=0.57)

TerraNova Mathematics Subset – Bottom National Quartile

TerraNova Mathematics
Bottom Quartile (percents)



Problem solving across the curriculum using the Big6 Intervention will help us meet the DoDEA goal of no more than eight percent in the lower quartile. At the end of SY 2009, we see a decline in the number of students in the lowest quartile for three out of the four grade levels.

Fifth Grade: The performance for this grade level shows a decline that is substantial. (Z=-0.6)

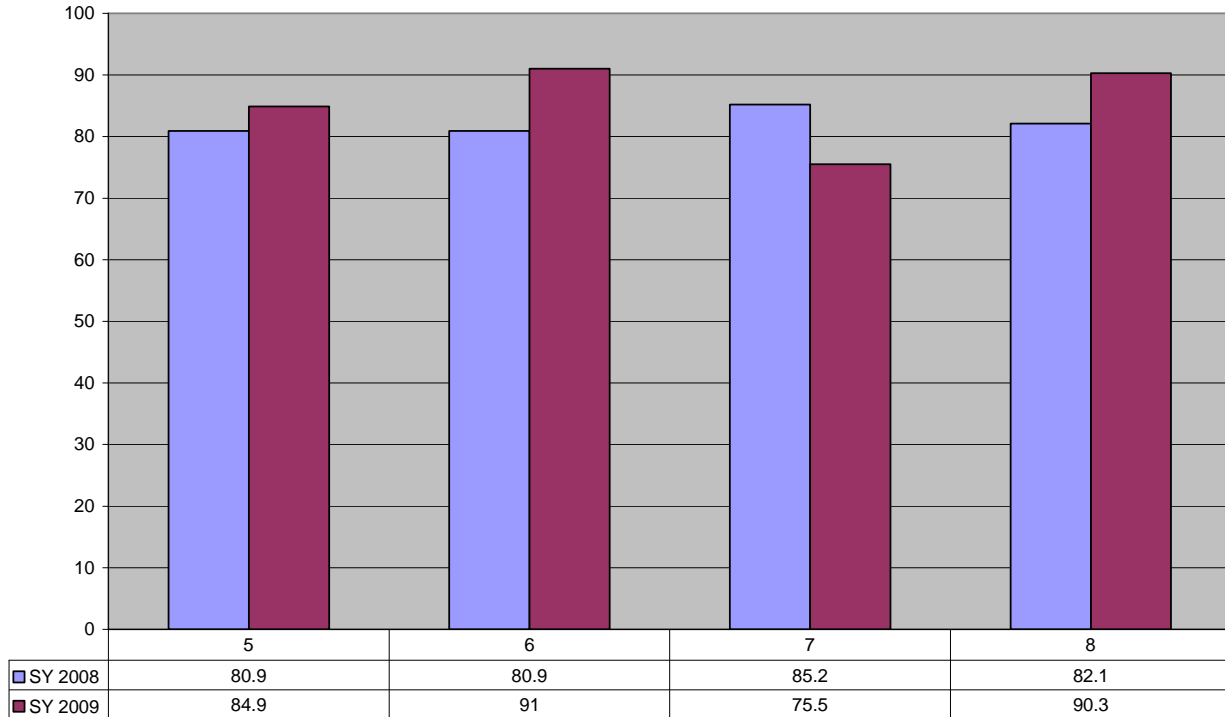
Sixth Grade: The performance for this grade level shows growth that is substantial. (Z=0.4)

Seventh Grade: The performance for this grade level shows decline that is quite bad. (Z=-0.3)

Eighth Grade: The performance for this grade level shows decline that is substantial. (Z=-0.71)

TerraNova Science Subset – Top Two National Quartiles

TerraNova Science
Top Two Quartiles (percents)



We are including Science data to monitor the progress of problem solving across the curriculum even though high percentages of our students have scored in the top two quartiles. At the end of SY 08-09, we see growth in all but one grade level.

Fifth Grade: The performance for this grade level shows growth that is enough to mention. (Z=0.16)

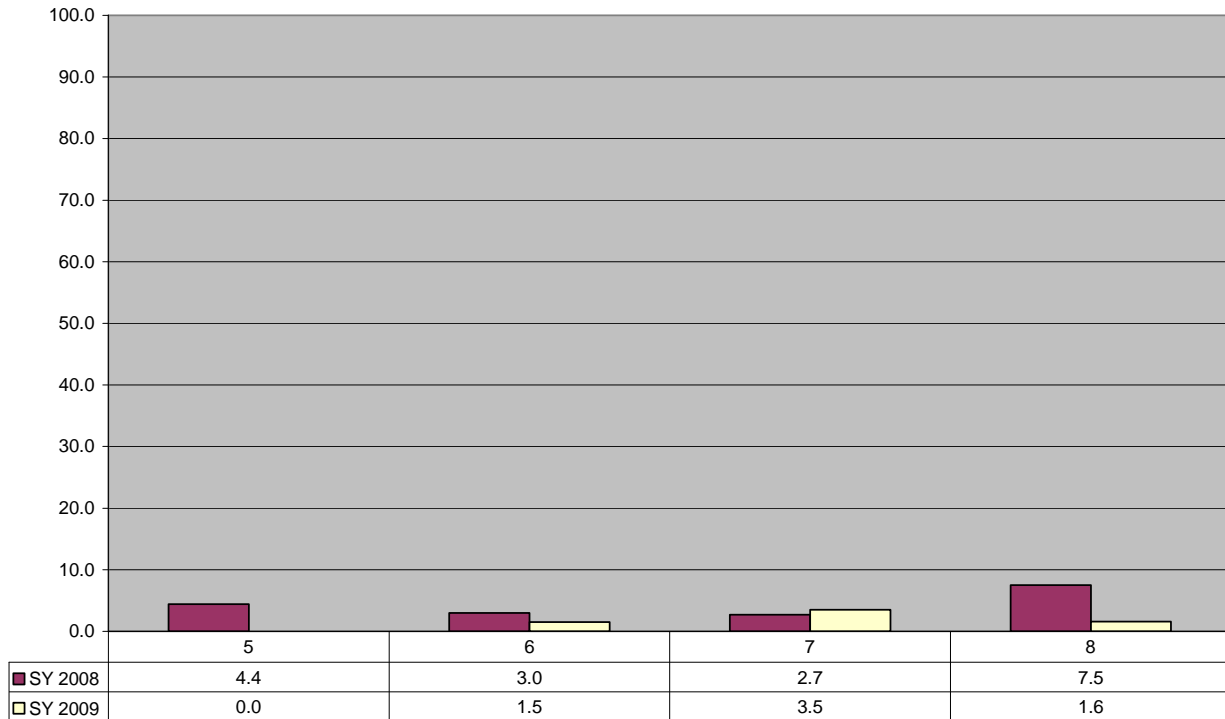
Sixth Grade: The performance for this grade level shows growth that is substantial. (Z= 0.46)

Seventh Grade: The performance for this grade level shows decline that is substantial. (Z=-0.33)

Eighth Grade: The performance for this grade level shows growth that is substantial. (Z=0.36)

TerraNova Science Subset – Bottom National Quartile

**TerraNova Science
Bottom Quartile (percents)**



The bottom quartile as of 2008 is below the standards set by DoDEA. Incorporating the Big6 intervention will produce even fewer students in this lower quartile range. We met this challenge in all but one grade level.

Fifth Grade: The performance for this grade level shows a decline that is substantial. (Z=-1.25)

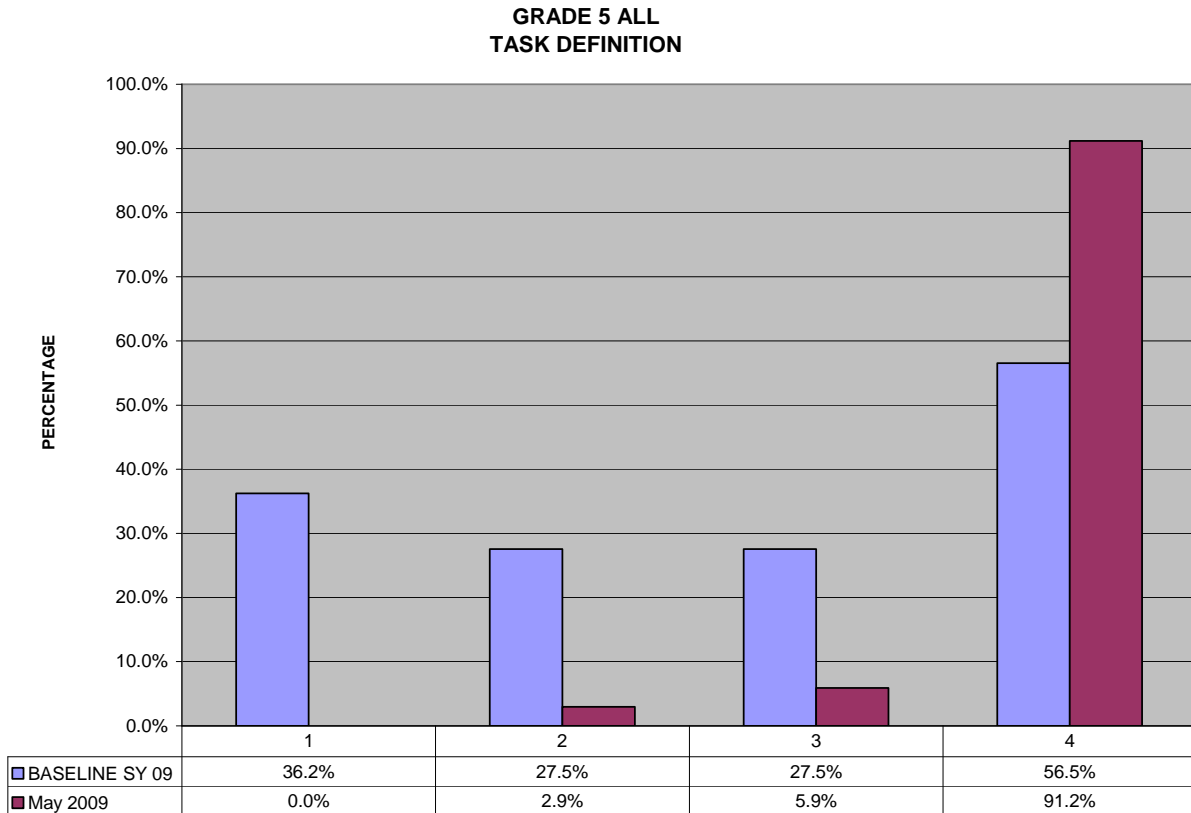
Sixth Grade: The performance for this grade level shows decline that is enough to mention. (Z=-0.17)

Seventh Grade: The performance for this grade level shows growth that is enough to mention. (Z=0.13)

Eighth Grade: The performance for this grade level shows decline that is substantial. (Z=-0.64)

The graphs below indicate our level of success for all grades. The level of success is defined in our rubric as category three or four.

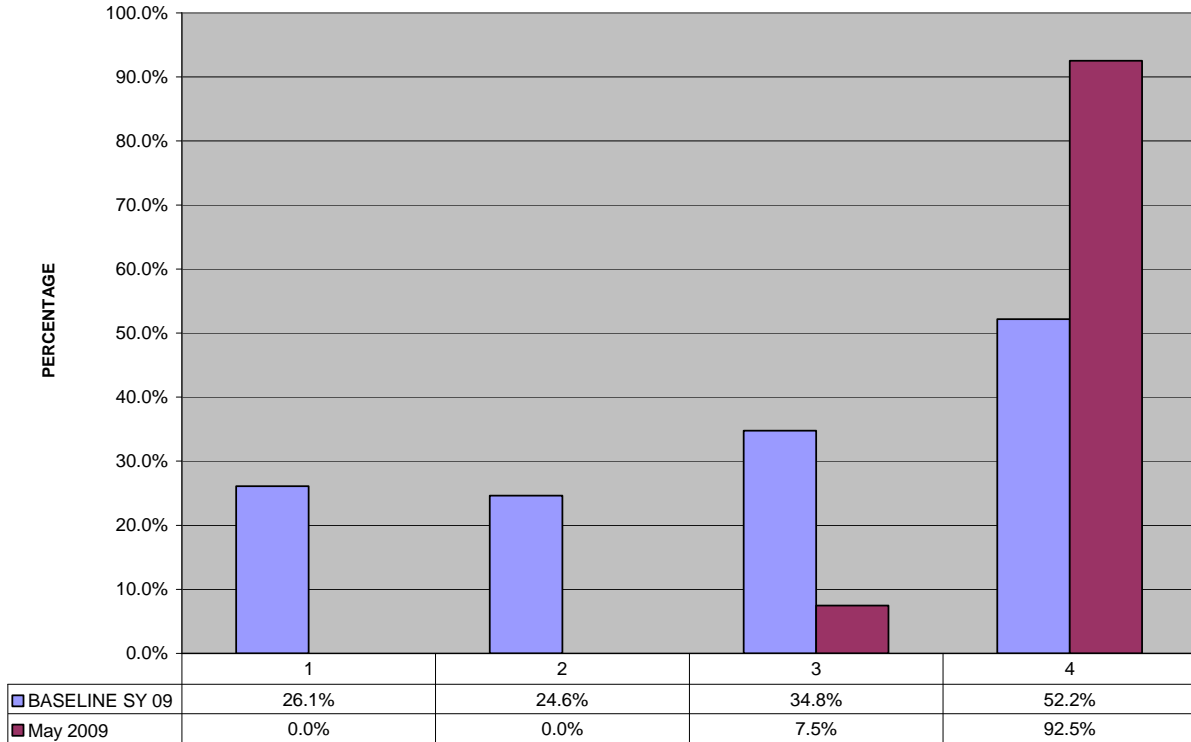
Local Assessment Grade 5



Ninety-seven percent achieved a three or four on the Big6 rubric for Task Definition.

Local Assessment Grade 6

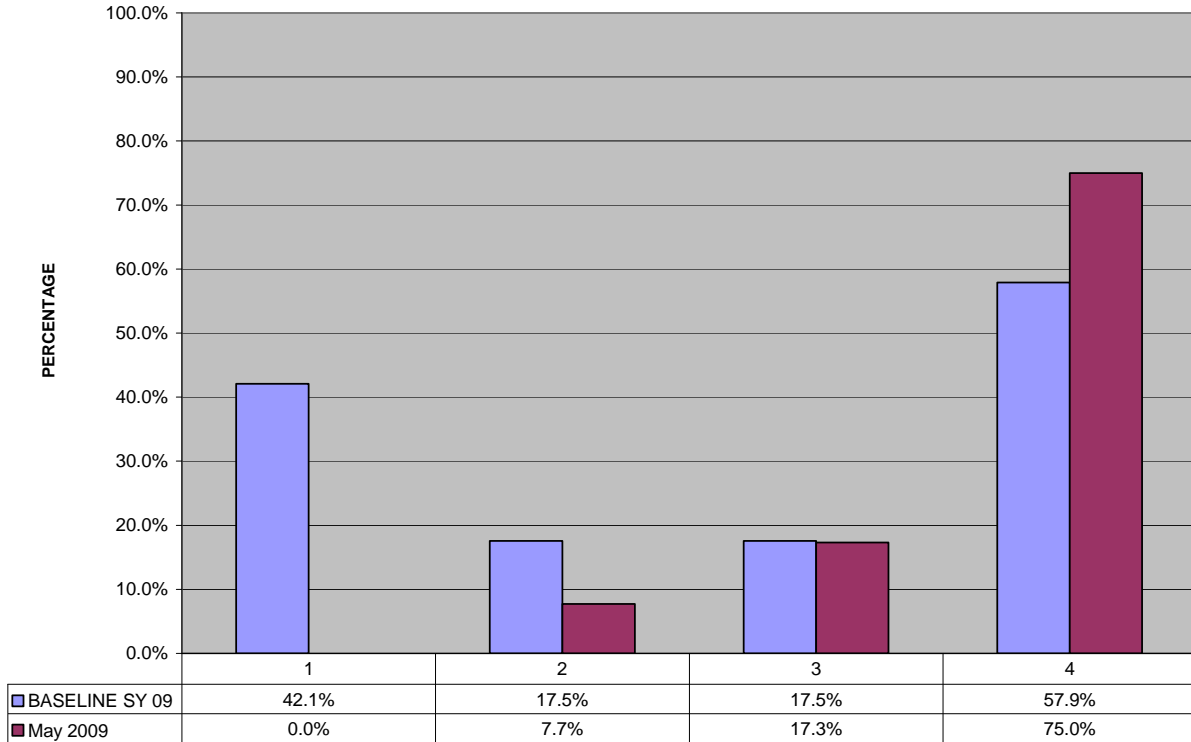
GRADE 6 ALL TASK DEFINITION



One hundred percent of our sixth graders achieved a three or four on the Big6 rubric for Task Definition.

Local Assessment Grade 7

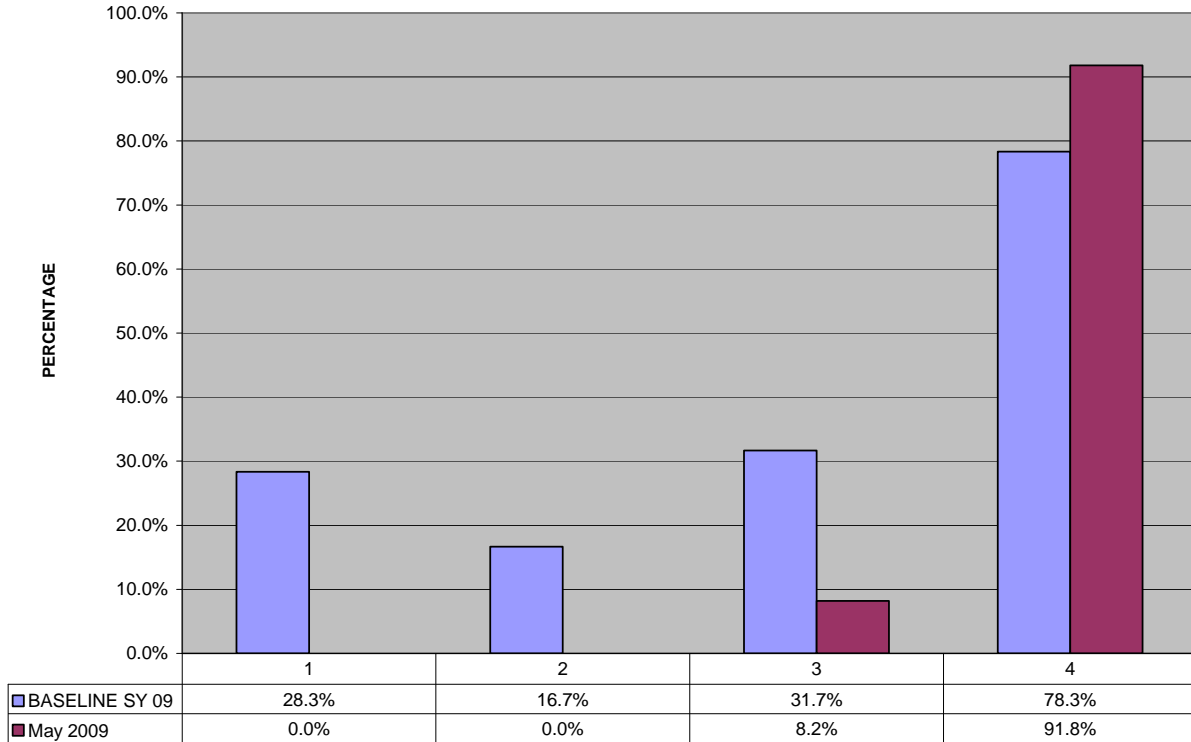
GRADE 7 ALL TASK DEFINITION



In grade seven, ninety-two percent achieved a three or four on the Big6 rubric for Task Definition.

Local Assessment Grade 8

GRADE 8 ALL TASK DEFINITION



One hundred percent of eighth graders achieved a three or four on the Big6 rubric for Task Definition.

Analysis

The TerraNova test that was used for SY 2009 is a new edition which may have impacted some of our test scores. In evaluating the results, we see some decreases that may be a result of this new edition of the test.

The student performance as measured in our findings indicates an increase in performance in six out of eight grade level categories when looking at the standardized assessments. Results of localized assessments based on task definition indicate that we have mastered this topic.

The TerraNova Normal Curve Equivalent demonstrates a variety of results for both Math and Science. We realize that this goal was incorporated into our school improvement plan this year and we need more time to see results in this standardized test.

The changes in performance measured on the OPI across the grade levels are shown to be consistent with the NCE results. Please note that OPI problem solving and reasoning as well as science inquiry for all grade levels exceeds the mastery range as stated by TerraNova.

In TerraNova Math subtest, at least seventy-three percent of our students placed in the top two quartiles in the nation, with our highest level of 94 percent. Our bottom quartile is below eight percent for every grade level which meets the DoDEA goal. In the TerraNova Science subtest, seventy-six percent or higher placed in the top two quartiles, with 91% being the highest. Our bottom quartile is below eight percent for every grade level.

In reviewing the results of the baseline for our local annual assessment, task definition, it is noted each grade level achieved the goal of three or four percent on the Big6 rubric over 90% of the time.

Recommendations

We see a need to continue with Goal 2 of problem solving across the curriculum. Our test data shows that our students have mastered step one of the Big6 program (Task Definition). There will be a continued emphasis of the Big6 as our intervention for our school wide focus of problem solving across the curriculum incorporating steps 2 and 3 (Information Seeking Strategies and Location and Access).