Brockton High School

Brockton, Massachusetts

“City of Champions”

How Do High Schools Become Exemplary?
The Achievement Gap Initiative
at Harvard University
April 14, 2010
Brockton High School

School Demographics
- Comprehensive 9 – 12
- Enrollment: over 4,300
- Poverty Level: 72%
- Minority population: 71%
- Between 50-60% speak a language other than English in their home
- 38% do not speak English as their primary language
- Approximately 12% in Transitional Bilingual Ed.
- Approximately 11% receive Special Education Services

Student Population
- 55.5% Black - includes African-American, Cape Verdean, Haitian, Jamaican, and others
- 28% White
- 11.2% Hispanic
- 2.5% Asian
- .8% Native American
- 2% Multi-Race
Brockton High School
Achieving Instructional Improvement & Maintaining Instructional Quality

- Improving Student Academic Achievement: Informing decisions through data analysis
  - Analyzed data to target needs
  - **Our Restructuring Goals:**
    - To improve student academic achievement
    - To personalize the educational experience for every student
Brockton High School
Achieving Instructional Improvement &
Maintaining Instructional Quality

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  **Our Restructuring Goals:**
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Essential Groups: Empowering Leadership Teams to Take Action and Innovate

- Restructuring Committee serves as our “think tank”
- Administrative Leadership Team has positional authority
- Data Analysis Team identifies areas in need of improvement
- Department Steering Committees examine and revise curriculum
Core Learning

LITERACY CHART: READING

- for content (both literal and inferential)
- to apply pre-reading, during reading and post-reading strategies to all reading assignments, including determining purpose and pre-learning vocabulary
- to research a topic
- to gather information
- to comprehend an argument
- to determine the main idea of a passage
- to understand a concept and construct meaning
- to expand one’s experiences

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Core Learning

LITERACY CHART: WRITING

- to take notes
- to explain one’s thinking
- to argue a thesis and support one’s thinking
- to compare and contrast
- to write an open response
- to describe an experiment, report one’s findings, and report one’s conclusion
- to generate a response to what one has read, viewed, or heard
- to convey one’s thinking in complete sentences
- to develop an expository essay with a formal structure

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Core Learning

LITERACY CHART: SPEAKING

- to convey one’s thinking in complete sentences
- to interpret a passage orally
- to debate an issue
- to participate in class discussion or a public forum
- to make an oral presentation to one’s class, one’s peers, one’s community
- to present one’s portfolio
- to respond to what one has read, viewed, or heard
- to communicate in a manner that allows one to be both heard and understood
Core Learning

- to create, interpret and explain a table, chart or graph
- to compute, interpret and explain numbers
- to read, break down, and solve a word problem
- to interpret and present statistics that support an argument or hypothesis
- to identify a pattern, explain a pattern, and/or make a prediction based on a pattern
- to detect the fallacy in an argument or a proof
- to explain the logic of an argument or solution
- to use analogies and/or evidence to support one’s thinking
- to explain and/or interpret relationships of space and time

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Engaging the faculty

- Interdisciplinary workshops with faculty leaders
- Interdisciplinary small group discussions
- Department workshops
- Full faculty meetings
- Key groups
Our Professional Development Model: Adopting Effective Instructional Practices

- Identify literacy area of focus
- Develop workshop scripts
- Train the trainer
- Conduct Interdisciplinary and Department Workshops
- Implement literacy skills in the classroom
- Follow-up and monitor
Monitoring: What gets monitored is what gets done

- Associate Principal develops calendar of Implementation
- Faculty uses common assessment rubrics
- Department Heads assist teachers, collect samples of student work and provide feedback
- Associate Principal collects department samples, assesses, and provides feedback to department heads
Professional Development
Literacy Workshops

- Open Response - Revised with new rubric to reflect stretch learning
- Graphing - Revised to reflect stretch learning
- Teaching Multiple Choice Strategies
- Using Visuals to Preview a Chapter
- Previewing the Table of Contents
- Speaking Skills – Graded Discussions
- Oral Presentation Rubric
- Vocabulary in Context
- Thinking About Words
- Non-Fiction Reading Strategies
- ELL Training
- School-wide active reading strategies
- Summarizing
- Assessment
<table>
<thead>
<tr>
<th>CONTENT</th>
<th>FORM</th>
<th>LEGIBILITY</th>
<th>LENGTH</th>
</tr>
</thead>
<tbody>
<tr>
<td>8 •Response contains a clear thesis and insightfully answers all parts of the question. •Response provides relevant and specific textual evidence. •Explanations of evidence are clear and accurate, and demonstrate superior understanding of the material.</td>
<td>4 •Response contains sophisticated and effective use of transitions and strategic repetition indicating complete control of the material. •Response is logically and effectively organized in its thesis, paragraphing, and sequencing of examples. •Response contains clear sentence structure with few or no errors.</td>
<td>1 •Easy to read</td>
<td>1 •Sufficient</td>
</tr>
<tr>
<td>6 •Response contains a clear thesis and adequately answers all parts of the question. •Response provides relevant but general textual evidence. •Explanations of evidence are mostly clear and accurate, and demonstrate good understanding of the material.</td>
<td>3 •Response contains adequate but simplistic use of transitions and strategic repetition. •Response is organized in its thesis, paragraphing, and sequencing of examples. •Response contains clear sentence structure with no distracting errors.</td>
<td>0 •Difficult to read</td>
<td>0 •Insufficient</td>
</tr>
<tr>
<td>4 •Response contains a thesis but only partially answers the question. •Response provides a mix of accurate and inaccurate textual evidence. •Explanations of evidence are vague and/or demonstrate limited understanding of the material.</td>
<td>2 •Response contains some inappropriate use of transitions and strategic repetition. •Response demonstrates lapses in the organization of its thesis, paragraphing, and/or sequencing of examples. •Response contains lapses in sentence structure that interfere with the clarity of thought.</td>
<td>1 •Easy to read</td>
<td>1 •Sufficient</td>
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<tr>
<td>2 •Response contains a thesis but only minimally answers the question. •Response provides insufficient and/or largely inaccurate textual evidence. •Explanations of evidence are unclear and/or demonstrate minimal understanding of the material.</td>
<td>1 •Response contains incorrect or inadequate use of transitions and strategic repetition. •Response reflects minimal organization of its thesis, paragraphing, and/or sequencing of examples. •Response contains major errors in sentence structure.</td>
<td>0 •Difficult to read</td>
<td>0 •Insufficient</td>
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<td>0 •Response is incorrect. •Response contains insufficient evidence to show understanding of the material. •Response is off-topic and/or contains irrelevant content.</td>
<td>0 •Response contains no evidence of transitions and strategic repetition. •Response reflects no organization. •Response contains little to no evidence of sentence structure.</td>
<td>0 •Easy to read</td>
<td>0 •Sufficient</td>
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Evaluated by: Self Peer Teacher (Circle One) SCORING 13-14 = Advanced 11-12 = Proficient 8-10 = Needs Improvement 0-7 = Failing
Active Reading Strategies

1. Read the question.

2. a. **Circle** key direction verbs.
   - For example – write, draw, explain, compare, show, copy

   b. **Underline** important information.
      - Often there is information in a question that is irrelevant to finding the answer.

3. In your own words, write what the question is asking you to do.

4. Develop your plan/Answer the question.
LITERACY IN REASONING

PROBLEM SOLVING STRATEGIES ACROSS THE CURRICULUM
LITERACY OBJECTIVES:

- TO READ, BREAK DOWN, AND SOLVE A WORD PROBLEM
- TO IDENTIFY A PATTERN, EXPLAIN A PATTERN AND OR MAKE A PREDICTION BASED ON A PATTERN
- TO DETECT A FALLACY IN AN ARGUMENT OR PROOF
- TO EXPLAIN THE LOGIC OF AN ARGUMENT OR SOLUTION
- TO USE ANALOGIES OR EVIDENCE TO SUPPORT ONE’S THINKING
AGENDA

- INTRODUCTION: WHY WE ARE DOING THIS?
- II. WHAT IS PROBLEM SOLVING?
- III. FOUR PROBLEM SOLVING STRATEGIES
- IV. PROBLEM SOLVING RUBRIC
WORKING BACKWARDS

- USEFUL WHEN YOU HAVE THE ANSWER TO A PROBLEM OR A QUESTION, BUT NEED TO FIGURE OUT HOW TO GET TO THE SOLUTION

- PERFORM THE OPPOSITE STEPS IN REVERSE ORDER TO FIND A STARTING POINT OR MISSING INFORMATION
WORKING BACKWARDS

Create a timeline that illustrates what led up to the outbreak of WWII in 1939 with the attack on Poland by Germany in 1939.

1925
Mein Kampf published

1931
Japan invades Manchuria

1933
Hitler elected Chancellor of Germany

1935
Hitler violates Treaty of Versailles by introducing military conscription

1936
Mussolini’s Italian forces take Ethiopia

1938
Hitler demands (and receives) part of Czechoslovakia

1939
Hitler and Stalin sign a non-aggression pact

1939
Attack on Poland by Germany
WORKING BACKWARDS

Steps to follow when working backwards to solve a problem:

● Actively read the question or problem.
● Break down the problem and determine what the problem is asking.
● Restate the problem in your own words.
● Identify the solution or end point presented in the problem.
● Figure out what information is needed and/or missing to get to the end point or solution presented.
● Organize the information in a way that makes sense or seems reasonable given the end point or solution. You might use other problem solving strategies such as systematic lists or drawing a diagram to do this.
● Put the information together to make sure that it leads to the end point or solution presented.
Notes for teaching the strategy

- Model the strategy for students.
- Emphasize that there are decision points at which a change in strategy or approach to solving the problem may be needed. In other words, while solving the problem one way, a student may realize that the problem is better or more easily solved another way with a different organizational strategy.
- Stress that starting over may be helpful and necessary.
- In order to work backwards to solve a problem, the other strategies presented may be used.
PROBLEM SOLVING RUBRIC

● HELP STUDENTS DEVELOP THEIR ABILITY TO SOLVE PROBLEMS

● RECOGNIZE THAT STUDENTS HAVE ATTEMPTED TO USE ONE OF THE FOUR STRATEGIES IN SOLVING A PROBLEM

● ASSESS HOW WELL THEY HAVE USED THEIR REASONING SKILLS
PROBLEM SOLVING RUBRIC

Understanding the problem

- 0 – Completely misinterprets the problem.
- 1 – Misinterprets part of the problem.
- 2 – Shows complete understanding of the problem.
Choosing a solution strategy

- 0 – Does not give evidence of using a strategy or uses a totally inappropriate strategy.

- 1 – Chooses a strategy that could possibly lead to a correct solution, or chooses a strategy that will get them partway through the problem but fails to change strategies when appropriate. Also, uses a correct strategy but fails to state the name of the strategy.

- 2 – Chooses a correct strategy that could lead to a correct solution if used without error.
PROBLEM SOLVING RUBRIC

Implementing the strategy

- 0 – Makes no attempt to solve, uses a totally inappropriate strategy, or uses a correct strategy totally incorrectly.

- 1 – Implements a partly correct strategy based on interpreting part of the problem correctly, or chooses a correct strategy and implements it poorly.

- 2 – Implements a correct strategy with minor errors or no errors.
PROBLEM SOLVING RUBRIC

*Getting the answer*

- **0** – Gets no answer, fails to state the answer, or gets a wrong answer based on an inappropriate solution strategy.
- **1** – Makes copying error or computational error, gets partial answer to a problem with multiple answers, or labels answer incorrectly.
- **2** – Gets correct answer, states it, and labels it properly.
PROBLEM SOLVING RUBRIC

Explanation

- 0 – Makes no explanation or incoherent explanation.
- 1 – Gives an incomplete explanation, or the explanation is hard to follow.
- 2 – Gives a clear, coherent, complete explanation.
Hard Work, Hard Work, Hard Work

Consistency and Tenacity

- Clear and consistent focus:
  - School-wide Literacy Initiative -
  - Non-negotiable skills that ALL students must master – no exceptions
- New teachers trained in all previous literacy workshops
- Safety nets and interventions for struggling learners
SAME STANDARDS, SAME CURRICULUM, DIFFERENT APPROACH TO INSTRUCTION

Addressing needs of special populations:
Special Education students and English Language Learners

- **Inclusion**
  - Provides specialized instruction as part of an inclusive model (co-teaching) within regular education classes

- **Sheltered English Immersion**
  - Provides specialized instruction focused on language acquisition while maintaining rigorous standards
What Gets Monitored Is What Gets Done

Evaluation structure:
- Formal
- Informal
- Common evaluation standards
- Common vocabulary
- Common process
ANALYSIS: TRANSLATING IT INTO WRITING

CLAIM
a statement that a teacher performs a certain teaching skill or carries out a certain pattern in his or her instruction (thus, a generalization).

He makes a point of coming back to students who are confused. She communicated standards for quality and quantity of work in several ways.

EVIDENCE
a quote or literal description of something said or done.

“I don’t want to drop you just yet, Maria. What would be the next step?” Pointing to the list on the board, she said, “Now remember, you need to give five different ways he solved his problem. And, they need to be in the correct sequence.”

INTERPRETATION
a statement of what the behavior accomplished or intended to accomplish, what was significant about it, and its effect on students.

Thus Maria had a chance to say what she understood in her own words and not just be passive. Thus students knew exactly what good work should look like.

JUDGMENT
a sentence, phrase, or adjective that lets the reader know what the writer thought of the behavior.

This pattern of persevering and returning is particularly helpful for students who are struggling. She did an admirable job of establishing conditions for success.
### Excerpt from a Fine Arts Department Evaluation

| 2. Shows evidence of planning and organization of teaching activities | X | The class agenda and literacy objectives were clearly posted on the white board and articulated to students. “We are also going to be writing in our reflection journals that will be collected next class.” It was unclear what the objective of the class was. Scenic Design content objectives that outline what you want a student to know and be able to do as a result of the lesson or activity should be posted and be clearly articulated to your students. Requirements for a particular project including due dates and the assignment criteria must be conveyed both verbally and in writing |

<p>| 7. Maintains effective rapport with students | X | You pulled Marquis aside on a couple of occasions in an attempt to get him working. “What are we going to be able to do to help you get this project done Marquis? How can I help you because you do not seem to be working during class?” These personal interactions are important in getting students to focus on their work. |</p>
<table>
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<tr>
<th>An Excerpt from a Social Studies Department Evaluation</th>
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<td>3. Demonstrates effective instructional techniques.</td>
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</table>

Xxx instructional techniques are not effective. Time was spent at the beginning of class going over the homework from the night before. This homework consisted of a 14 question, fill-in-the-blank worksheet. Students used the textbook to find the answers. Students were asked to take out homework, it wasn’t evident that xxx stopped to ensure that all students had completed their homework. “Take out your homework and have a seat. Ladies, take a seat please. Take a seat and take out your homework. Take out your homework. I asked multiple times to take out the homework. We are going over it.” XXX simply read each question out loud and students offered their one word answers. Students were allowed to grade their own paper. There was no mention of accountability.

Students were engaged with this lesson was when they were offering their response to questions posed by XXX. Otherwise, XXX merely fed information to the students as they sat passively in the classroom.

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Changing Attitudes:

- **Everyone** is responsible for every student
- Believing that every student **CAN** and **MUST**
- Our responsibility: to figure out how to help
Brockton High School
Achieving Instructional Improvement &
Maintaining Instructional Quality

We always look in the mirror:
- WHAT are we teaching?
- HOW are we teaching it?
- HOW do we know our students are learning it?