Curriculum and Instruction in Bernards Township

Status Report
November 14, 2005
Cheryl Dyer
Director of Curriculum and Instruction
Presentation Objectives

- To review BOE goals and objectives related to Curriculum and Instruction from the Strategic Plan and the current status of these objectives
- To provide information on the “Good to Great” initiative and Rigor and Relevance
- To summarize recommendations from recent program evaluations
BOE Goal from Strategic Plan

- Bernards Township School District will create and maintain a climate and curriculum in which student achievement is maximized through:
  - Attracting, developing, and maintaining a superior professional staff
  - Presenting a rigorous, fully articulated pre-K through 12 curriculum
Quality Instruction Objectives

- Develop a district-wide coordinated staff development program
- Develop a supportive and systematic process for identification and implementation of superior teaching strategies
- Research professional resources on a regular basis
- Survey student body, parents, and community
- Initiate a 2-year research/development cycle to align with the 5-year cycle
- Provide common planning time
Quality Curriculum Objectives

- Continually assess and improve curriculum and student performance using goals set by benchmarking against programs recognized to be excellent
- Insure that the use of technology is effectively and efficiently integrated into the curriculum
- Research learning theories, creative scheduling and effective school practices in order to make proactive curricular decisions based upon the research
The Benchmarking Objectives

- To determine the effectiveness of our curriculum when compared to other schools similar to ours.
- To determine the effectiveness of our curriculum across grade levels (vertical articulation).
- To determine the effectiveness of our curriculum as a catalyst for student achievement.
- To determine the relevance of the education provided through the K-12 curriculum as a means of preparing students for the future.
Lessons Learned from Benchmarking

- We far exceed state standards
- Our graduates are extremely competitive
- Greater standardization and articulation than in other districts
- Alignment with standards
- Best practices begin in kindergarten
- Stakeholder satisfaction could be better
- Relevance could be improved upon
Recommendations from Benchmarking Project

- Continue to analyze data diligently and monitor and adjust accordingly
- Maintain professional relationships with other districts and organizations
- Continue the high level of Staff Development and teacher training
- Continue to implement the recommendations from program evaluations
Quality Curriculum Objectives

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Moving from Good to Great in Bernards Township Public Schools

Re-Inventing New Jersey’s Schools: Meeting the Unique Needs of Our Students as They Face Tomorrow’s Challenges
Key Components of Great Schools

- Visionary Leadership
- Emphasis on active/relevant student learning
- Real world use of technology
- Interdisciplinary instruction
- Literacy across the curriculum
- Transition pieces
Summit for Change Goals

- Change the nature of instruction to a student-centered, project based model utilizing technology, resulting in the examination of the design of assessment. (K-12)
- Teach a course in ethics (K-12)
- Convert schools to a totally wireless Internet capability.
- Expand the educational options for 12th grade students.
- Teach technical and content specific reading strategies across the curriculum.
- Offer a summer camp for 8th graders.
Why?

- Teaching is only as good as the learning that takes place.
- Research confirms the need for effective strategies.
- The majority of students learn best when instruction emphasizes application.

“In this country, education is largely a spectator sport.” Willard Daggett
Teaching is only as good as the learning that takes place:

- A lesson is only as effective as it is reflected in student achievement.
- A lesson may be successful for some students in a particular setting and not for others in a different setting.
- Teachers must search for strategies that work, and use different strategies for different students.
Research confirms the need for effective strategies:

- Students use all five senses to incorporate new information.
- The brain is stimulated through the senses, but information is only retained through rehearsal, practice, or connection to other knowledge or experience.
- We really do learn best by experience.
Students learn best when instruction emphasizes application:

- The US led the other 9 highly industrialized countries of the world in the number of content requirements and objectives in science, math and language arts.
- The US was at the bottom in teaching students how to use the knowledge that they are acquiring.
- The US relies on assessments that do not require application.
## Learning Activity Retention

<table>
<thead>
<tr>
<th>Activity</th>
<th>Amount of Transfer</th>
</tr>
</thead>
<tbody>
<tr>
<td>Teach Others/Use Learning</td>
<td>90%</td>
</tr>
<tr>
<td>Practice &amp; Real Application</td>
<td>75%</td>
</tr>
<tr>
<td>Discussion Group</td>
<td>50%</td>
</tr>
<tr>
<td>Demonstration</td>
<td>30%</td>
</tr>
<tr>
<td>Audio Visual</td>
<td>20%</td>
</tr>
<tr>
<td>Reading</td>
<td>10%</td>
</tr>
<tr>
<td>Lecture</td>
<td>5%</td>
</tr>
</tbody>
</table>

William Glasser, The Quality School
Thinking Continuum

Assimilation of knowledge

Acquisition of knowledge
Rigor/Relevance Framework

Knowledge

Application
Knowledge = Rigor

1. Awareness
2. Comprehension
3. Application
4. Analysis
5. Synthesis
6. Evaluation
Application = Relevance

1. Knowledge in one discipline
2. Application within discipline
3. Application across disciplines
4. Application to real-world predictable situations
5. Application to real-world unpredictable situations
## Rigor/Relevance Framework

### Application Model
1. Knowledge in one discipline
2. Application *within* discipline
3. Application *across* disciplines
4. Application to real-world *predictable* situations
5. Application to real-world *unpredictable* situations

### Knowledge Taxonomy
1. Awareness
2. Comprehension
3. Application
4. Analysis
5. Synthesis
6. Evaluation
Rigor/Relevance Framework

Knowledge Taxonomy

<table>
<thead>
<tr>
<th>Level</th>
<th>Knowledge Area</th>
<th>Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>6</td>
<td>Evaluation</td>
<td></td>
</tr>
<tr>
<td>5</td>
<td>Synthesis</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>Analysis</td>
<td></td>
</tr>
<tr>
<td>3</td>
<td>Application</td>
<td></td>
</tr>
<tr>
<td>2</td>
<td>Comprehension</td>
<td></td>
</tr>
<tr>
<td>1</td>
<td>Awareness</td>
<td></td>
</tr>
</tbody>
</table>

Application Model

<table>
<thead>
<tr>
<th>Level</th>
<th>Application Model</th>
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</thead>
<tbody>
<tr>
<td>1</td>
<td>Knowledge in one discipline</td>
</tr>
<tr>
<td>2</td>
<td>Apply in discipline</td>
</tr>
<tr>
<td>3</td>
<td>Apply across disciplines</td>
</tr>
<tr>
<td>4</td>
<td>Apply to real-world predictable situations</td>
</tr>
<tr>
<td>5</td>
<td>Apply to real-world unpredictable situations</td>
</tr>
<tr>
<td>Knowledge</td>
<td>Application</td>
</tr>
<tr>
<td>-----------</td>
<td>-------------</td>
</tr>
<tr>
<td>Student thinking</td>
<td>Student thinking and working</td>
</tr>
<tr>
<td>Teacher working</td>
<td>Student working</td>
</tr>
</tbody>
</table>
Quadrant A: Gather and store bits of knowledge and information. Expected to remember or understand this knowledge. Example: Copy the definition from glossary.
Quadrant B:
Apply knowledge in real-world situations.
Example: Compare definition to real world example
Quadrant C: Use knowledge to analyze and solve school-based problems and create solutions. Example: Organize terms into functional framework.
Quadrant D: Apply knowledge and skills in complex ways to analyze and solve problems and create real-world solutions. Example: Negotiate specialized meaning in academic discipline.
Teaching Strategies by Quadrant

- Inquiry
- Presentations
- Lecture
- Demonstration
<table>
<thead>
<tr>
<th>Knowledge</th>
<th>Application</th>
</tr>
</thead>
<tbody>
<tr>
<td>Research Paper</td>
<td>Portfolio or Exhibition</td>
</tr>
<tr>
<td>Quiz</td>
<td>Constructed Response</td>
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## Additional “Good to Great” Programs and Progress

<table>
<thead>
<tr>
<th>Key Component</th>
<th>Progress Indicator</th>
<th>Progress Indicator</th>
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<tbody>
<tr>
<td>9th grade transition</td>
<td>Guidance counselors</td>
<td>“Camp BRidge”</td>
</tr>
<tr>
<td>12th grade options</td>
<td>18 students currently</td>
<td></td>
</tr>
<tr>
<td>Interdisciplinary instruction</td>
<td>Core Teams</td>
<td></td>
</tr>
<tr>
<td>Real world use of technology</td>
<td>Smart rooms</td>
<td>Laptop carts</td>
</tr>
<tr>
<td>Literacy across the curriculum</td>
<td>Curriculum connections</td>
<td>MLA handbook</td>
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Recommendations from program evaluations are evaluated in terms of district goals and the “Good to Great” initiative.
Science 9-12

- Develop Meteorology and Oceanography as semester course offerings
- Refurbish lab rooms 307 and 309
- Review current technology hardware and conduct a needs assessment
- Survey seniors to determine number of students planning to pursue careers in science
- Conduct articulation meetings between Annin and Ridge
Social Studies 6-8

- Provide common planning time between eighth grade teachers
- Plan for additional interdisciplinary applications in skill-based areas
- Align more topic areas into themes
Language Arts 6-8

- Curriculum revisions
  - Include more non-fiction, more variety, current young adult literature
  - Expand word study
  - Focus on relevant writing strategies and prompts

- Instructional strategies
  - Provide a broad scope of activities linked to rigor and relevance
  - Infuse a variety of instructional strategies, genres, and assessments into thematic units
World Languages K-5

- Explore ways in which to increase time and intensity without impacting other areas of the curriculum
- Develop a district-wide oral and written assessment to gauge effectives of the elementary program
- Increase articulation with the middle school
Library and Information Skills

- K-12 Recommendations
  - Develop tracking forms
  - Conduct separate department meetings
  - Upgrade the current OPAC system
Physical Education

- **K-12 Recommendations**
  - Evaluate current indoor and outdoor facilities and budget for improvements as needed

- **6-12 Recommendations**
  - Develop a formal means of communication between teachers and community
  - Evaluate effectiveness of current grading system

- **9-12 Recommendations**
  - Consider additional course offerings (ex. Swimming)
Health

- **K-5 Recommendations**
  - Preview programs and evaluate Great Body curriculum against other options
  - Update curriculum to align with revised NJCCCS
- **6-8 Recommendations**
  - Evaluate current text against alternatives
- **9-12 Recommendations**
  - Evaluate scheduling efficiency
  - Integrate additional technology
Summary

Strategic Planning

Curriculum Goals and Objectives

Curriculum Benchmarking

Good to Great Initiative

Real World Use of Technology

Literacy Across the Curriculum

Interdisciplinary Connections

Rigor and Relevance

9th grade Transitions

12th grade Options

Program Evaluations

Recommendations for Change