The State of New Jersey has proposed moving its competency test of basic skills from the 9th to the 11th grade, in order to allow for more content learning, more maturity, and more test-taking skills on the part of students. Since vocational students are more likely than other students to score low on the basic skills competency test, having the test later has both good and bad consequences for these students. Students who take the test later should be more mature, have taken more vocational courses, and have survived the age-16 dropout plateau. However, students who fail the later test have less time for remediation in order to pass the test in grade 12 and graduate. Recommendations are made for early testing to serve as an "early warning" for those students most likely to fail the basic skills test and for remediation measures for those who fail early tests. Other recommendations for vocational education in New Jersey include open entry/open exit programs, mastery measured by competency rather than time spent, inclusion of basic skills in all vocational courses, and training for teachers in integrating reading, writing, and mathematics instruction in vocational courses. (KC)
CAN WE COMPETE? -- The Implications of the Proposed
Revised New Jersey Statewide Testing
Program for Vocational Students

Claudia Merkel-Keller
New Jersey State Department of Education

Paper presented at the Annual Meeting of the American Educational
Research Association, San Francisco, California, March 27-31, 1989
CAN WE COMPETE? -- The Implications of the Proposed Revised New Jersey Statewide Testing Program for Vocational Students

BACKGROUND:

As outlined in the March, 1988 Report, Preparing to Enter the Twenty-first Century: Revising New Jersey's Statewide Testing Program raising the level of academic achievement of all students in New Jersey has been a major goal of the administration of Governor Thomas H. Kean since its inception in 1982. To that end, the State Board of Education has implemented several reforms including increasing the number of courses and credits needed to receive a state-endorsed high school diploma and, moving from the Minimum Basic Skills (MBS) program to the more rigorous demands of the High School Proficiency Test (HSPT).

By proposing, developing, and implementing the HSPT, the State Board of Education has made the following two statements about the importance of basic skills instruction in New Jersey's schools:

- the basic skills are the building blocks upon which all other learning rests; and
- the basic skills standards must keep pace with the current and future demands of an increasingly complex and technological society.

Despite significant basic skills improvement in New Jersey and the nation in recent years, the following conditions remain:

- the gap between academic performance in the United States and that in other industrial nations continues to indicate that the U.S. is at a distinct competitive disadvantage;
- performance on nationwide tests (most notably the National Assessment of Educational Progress [NAEP]) indicates serious levels of underachievement in demonstrating thinking, problem solving, reasoning, and decision-making skills;
- service-producing industries continue to outstrip manufacturing in the maintenance and development of jobs -- jobs which require workers to do more than read, write, and compute at current expectation levels; and
- projected demographic changes favor the advancement of women and minorities in society, but only if these groups possess the requisite skills to take advantage of these opportunities.

In response to continuing basic skill deficits of New Jersey students, the Governor has once again directed the Commissioner to examine "the feasibility and efficacy" of moving the New Jersey high school graduation test from its current grade nine administration to a grade placement closer to the time of graduation. This placement would allow for the assessment of higher order skills measuring a more complete array of students' abilities to think critically, solve problems, reason, evaluate and make decisions.
PROPOSED TESTING PROGRAM:
The proposed Statewide Testing Program would embody the following components:

- The high school graduation test should be administered as a December grade-eleven test, thus allowing skills which are generally taught in secondary schools through the middle of the eleventh grade to be assessed while still permitting students who do not pass to receive adequate remediation and re-testing opportunities.

- The test should remain one of basic skills (reading, mathematics, and writing) with an emphasis on thinking, problem solving, reasoning, and decision-making skills.

- Three years of "due-notice" testing should be implemented, giving school districts one year more to prepare students than was allotted when the HSPT replaced the MBS test.

- An eighth-grade test closely aligned with the eleventh-grade test should be developed to serve as an "early warning system" for the graduation test.

A time sequence for implementation of the new statewide testing program has been proposed and is stated below:

<table>
<thead>
<tr>
<th>Activity</th>
<th>School Year</th>
</tr>
</thead>
<tbody>
<tr>
<td>Statewide committees identify skills to be tested</td>
<td>1988-89</td>
</tr>
<tr>
<td>Development of test items by committees of educators</td>
<td>1989-90</td>
</tr>
<tr>
<td>Dissemination of skills and training programs</td>
<td>1989-90</td>
</tr>
<tr>
<td>&quot;Due notice&quot; testing (for three years)</td>
<td>1990-91, 1991-92, 1992-93</td>
</tr>
<tr>
<td>First actual testing for June 1995 graduating class</td>
<td>1993-94</td>
</tr>
</tbody>
</table>

CURRENT STATUS OF BASIC SKILLS PERFORMANCE OF VOCATIONAL STUDENTS:

From a vocational point of view, occupational skill development is the vehicle to train and sustain a strong work force for economic survivability.

Concurrent with occupational skill development is the need to provide a strong foundation in the basic skills for vocational students. The State Board of Education has reiterated that commitment for vocational students in a 1987 resolution embodying four principles which led to the adoption of the following goals for secondary vocational education in New Jersey.
All secondary vocational education students will attain the same level of basic skills as nonvocational students in New Jersey.

Secondary vocational education occupational training programs should result in the student obtaining a job in the occupation for which he or she was trained or in a related job.

Of significant concern, however, is the fact that basic skill achievement levels of vocational education students in New Jersey are lower than those of nonvocational students. Whether on the MBS or the HSPT, statewide results for students who identified themselves as "vocational/industrial arts students" produced mean scores which fell below the mean scores of all of the other self-identified groups in the sampling. The "business/commercial students," considered to be the most proficient in basic skills within the vocational education community, fell below every group (except the vocational/industrial arts group) on every test (Results of 1982-83 MBS Program and 1986 HSPT Data -- Table I and Table II).

**IMPACT OF ADMINISTERING A HIGH SCHOOL PROFICIENCY TEST AT GRADE 11 ON VOCATIONAL STUDENTS:**

The State Board of Education by adopting the four principles and two goal statements for vocational education has sent a strong message that all students in New Jersey, regardless of their high school program selections, must adhere to the same standards and must attain the same level of basic skills proficiency.

Vocational students will be held up to the same benchmarks as their nonvocational counterparts. It is only through demanding more of our students and equipping them with academic skills, basic skills and occupational competencies that they will be the productive future workers who can successfully compete in the marketplace.

The Division of Vocational Education does not advocate any type of differentiated diploma for vocational students or for any other graduate of New Jersey High Schools. This would signal a dual system, perhaps an inferior system, that would not serve students, the state, or the economy at large.

The Division of Vocational Education recognizes that the future requires workers who "will need to be resilient, versatile, independent and able to interact cooperatively and ethically with others." As the U.S. Department of Education points out, "as new technologies make old job skills obsolete, the best vocational education will be solid preparation in reading, writing, mathematics, and reasoning." Hence the Division strongly supports any efforts to upgrade and enhance basic skills instruction for vocational students and indeed all students in the state.
<table>
<thead>
<tr>
<th></th>
<th>Business/Commercial*</th>
<th>College Prep/Academic*</th>
<th>Vocational/Ind. Arts*</th>
<th>General*</th>
<th>No Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Writing Essay</td>
<td>5.83</td>
<td>7.55</td>
<td>5.45</td>
<td>6.30</td>
<td>6.24</td>
</tr>
<tr>
<td>Writing Multiple Choice Test</td>
<td>73.04</td>
<td>86.23</td>
<td>70.40</td>
<td>75.28</td>
<td>71.43</td>
</tr>
<tr>
<td>Writing Total</td>
<td>74.59</td>
<td>83.64</td>
<td>72.51</td>
<td>76.84</td>
<td>75.49</td>
</tr>
<tr>
<td>MBS Reading</td>
<td>83.93</td>
<td>94.62</td>
<td>82.61</td>
<td>86.26</td>
<td>83.84</td>
</tr>
<tr>
<td>MBS Math Test</td>
<td>77.78</td>
<td>88.69</td>
<td>76.31</td>
<td>79.20</td>
<td>77.70</td>
</tr>
</tbody>
</table>

*Based on a 10 percent sample of student responses to the following general information question asked by the Department of Education at the time of test administration.

Which one of the following best describes your present high school program?

A. Business or Commercial  
B. College Preparatory or Academic  
C. Vocational or Industrial Arts  
D. General
# TABLE 2

1986 HSPT DATA: MEAN SCORES FOR STUDENTS CATEGORIZED BY THEIR RESPONSES TO THE GENERAL INFORMATION QUESTIONS

<table>
<thead>
<tr>
<th></th>
<th>Business/Commercial*</th>
<th>College Prep/Academic*</th>
<th>Vocational/Ind. Arts*</th>
<th>General*</th>
<th>No Response</th>
</tr>
</thead>
<tbody>
<tr>
<td>Writing Essay</td>
<td></td>
<td></td>
<td></td>
<td>7.5</td>
<td>8.2</td>
</tr>
<tr>
<td>Test</td>
<td></td>
<td></td>
<td></td>
<td>7.1</td>
<td>7.1</td>
</tr>
<tr>
<td>Writing Total</td>
<td>78.9</td>
<td>85.0</td>
<td>76.7</td>
<td>79.6</td>
<td>78.0</td>
</tr>
<tr>
<td>Test</td>
<td></td>
<td></td>
<td></td>
<td>78.9</td>
<td>78.9</td>
</tr>
<tr>
<td>Reading Total</td>
<td>78.9</td>
<td>39.5</td>
<td>76.9</td>
<td>80.9</td>
<td>78.8</td>
</tr>
<tr>
<td>Test</td>
<td></td>
<td></td>
<td></td>
<td>78.9</td>
<td>78.8</td>
</tr>
<tr>
<td>Mathematics</td>
<td>62.4</td>
<td>78.5</td>
<td>59.5</td>
<td>65.2</td>
<td>63.3</td>
</tr>
<tr>
<td>Total Test</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Based on a 10 percent sample of student responses to the following general information question asked by the Department of Education at the time of test administration.

Which one of the following best describes your present high school program?

A. Business or Commercial  
B. College Preparatory or Academic  
C. Vocational or Industrial Arts  
D. General
CURRICULUM:

As the New Jersey Education Commissioner has stated:

Both the credibility and validity of a testing requirement for high school graduation purposes depend in part on the time in the student's academic career when the test is administered. The Department of Education will study the feasibility and efficacy of moving the state high school graduation testing requirement closer to the time of graduation. This move would permit the testing of skills more directly related to the main objective for testing, i.e., to determine "...the preparation of individuals to function politically, economically and socially in a democratic society."

Moving the test to a time closer to high school graduation automatically changes the scope and content of the present test. Additionally, a later testing will witness students who have been exposed to more content learning (time on task), students who are more mature and sophisticated, and students who ideally have better test taking skills and a more positive motivational level to succeed on the test.

Listed below are some other issues which need to be considered in the development of a eleventh grade test:

- Should a test closer to the time of graduation measure an expanded set of basic skills?

- Should a test closer to the time of graduation measure the same basic skills which are tested now but with more difficult items?

- Should a test closer to the time of graduation measure the same basic skills which are tested now but at a different level along with taxonomy (knowledge, comprehension, application, analysis, synthesis, and evaluation)?

Given the nature of the new proposed testing system, raises significant issues for the vocational curriculum in terms of what curricular modifications need to be made to accommodate basic skills instruction and remediation which need to take place to adequately prepare vocational students to take the new test. Curriculum alignment and curriculum revisions are already under way to strengthen and reinforce the teaching of the basic skills through the vocational curriculum. Without a doubt, vocational instructors implement basic skills in their curricula. However, concerted programmatic effects need to be made to reinforce this instruction if students are to meet with success when they take a high school proficiency test which is one of the state mandated criterion for the award of a New Jersey state endorsed diploma for graduation.

Significant lead time must be provided to districts, including shared time and full-time vocational technical schools as well as comprehensive high schools offering a range of vocational programming, to allow them adequate time to:
- 7 -

- include programmatic changes and staff training requirements in their district budget;
- prepare appropriate curriculum materials in the basic skills and in their vocational courses and programs;
- provide appropriate staff inservice;
- provide outreach to parents; and
- work with students.

Along with curriculum modifications, comes the issue of how to accommodate increased requirements into the school day, especially for vocational students. Lengthening the school day and/or school year is always an option which the European system of education has already embodied. However, when one raises the issue of a lengthened school day, issues of staffing, compensation and teacher contracts come into play. Given the performance of vocational students on previous administrations of the High School Proficiency Test (HSPT) point to the fact that, potentially, vocational students will continue to have problems with the test when it is moved to a higher grade closer to graduation lessening the remediation opportunities to demonstrate competency, pass the test and graduate. The curricular issues are closely intertwined with the remediation aspect which will be discussed.

**REMEDIATION:**

The placement of the test at grade 11 more than ever necessitates that benchmark skills in grades 3 and 6 be kept in place in addition to an early warning system in grade 8 for those students potentially in jeopardy of not passing the test at a later time. Grade 8 is suggested as the appropriate grade placement for the present ninth grade test. A test at the eighth grade level would hold elementary school districts accountable for the content mastery of basic skills acquired during a youngster's educational experience grades 1-8.

Assuming that curricular benchmarks in grades 3 and 6 would be kept in place in addition to an early warning system in grade 8 would allow for remediation triggers should a youngster "fail" the grade 8 test. Opportunities for remediation would be provided during the ninth, tenth and eleventh grades until such time that the new test would be administered. Should a youngster fail the test at grade 11, there would still be opportunities, admittedly more limited (i.e. grade 12), to demonstrate competency, pass the test and graduate from a New Jersey school.

What are the profiles of the student population at grades 9 and 11, especially the vocational student cohort?

At grade 9, we see a population, especially in urban settings, that is still in school by mandate. By age 16, those youngsters for whom school is no longer meaningful will have dropped out. It should be pointed out that research suggests that raising standards does not significantly affect the drop out rate. Youngsters, especially from urban and rural settings who drop out were heading along that course from their earliest negative school experiences (i.e. a youngster in the early elementary grades who does not see school as a rewarding and enriching undertaking for himself/herself).
Ideally by grade 11 we see students who:

- have been exposed to more content learning;
- are more mature;
- are better test takers;
- are more motivated;
- have survived and not dropped out; and
- more than likely have persevered through most of their other curricular requirements and will graduate.

By grade 11, we also see a committed student population who have selected vocational education as their program choice and who have completed most of their high school course requirements. These students are now enrolled in vocational, occupationally specific programs.

Moving the test to grade 11 most probably will not significantly alter the dropout rates as was mentioned earlier since the literature and research point to the fact that the best predictors of whether a student will drop out are socioeconomic in nature. Dropping out must be viewed as a result of a complex social, economic, and academic factors.

However, if a vocational student fails the HSPT at grade 11 there are substantially less opportunities for remediation and for demonstration of competency on the test necessary for graduation. From a pedagogic standpoint, it becomes a question of how to fit the remediation into a vocational student's schedule. From a monetary point of view, modifying the testing program will not necessarily cause an increased fiscal burden on the state or on the local educational agencies since state compensatory programs as well as Chapter I programs are already in place and substantial.

RECOMMENDATION FOR ACTION:

The Division of Vocational Education is currently reviewing the work of the blue ribbon panel which has been charged with studying the delivery of vocational education in New Jersey. At the same time the division is providing the leadership to deal with the complex issues surrounding the proposed revised statewide testing program and its impact on vocational students.

Recommendations are provided below which stem from a staff paper (Dopkin and Cappello, 1989) which if implemented would move vocational education forward in New Jersey. The recommendations though broad in scope, if actuated, would provide solutions in the areas of delivery of vocational education, curriculum, teacher training, student assessment, student proficiencies, and student mastery of the basic skills.

Flexible Time Move

- Vocational schools and vocational programs within comprehensive schools should move to a flexible time mode. This is defined as an upgraded, year round program. Programs, especially those offered in the vocational schools,
Open Entry Open Exit

- Vocational students should be allowed to enter and exit a program on an ongoing basis.

Credit Based on Content Mastery

- Credit should be awarded based on the mastery of competencies rather than on time spent in the classroom.

Proficiencies

- Proficiencies should be developed for all major vocational areas according to the format and to meet the graduation requirements.

Competencies

- Specific competencies should be developed for each course based on the broader proficiencies.

Basic Skills

- Basic skills concepts related to each occupational area should be built into every list of competencies.

Remediation

- Remediation in basic skills should be provided in the vocational setting by appropriately trained staff working in close cooperation with vocational educators.

Basic Skills for Vocational Staff

- In addition to the current reading requirement for teacher certification, all vocational teachers should be trained in the processes needed for the integration of basic skills in mathematics, science and communications into vocational programs.
REFERENCES


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