This fourth volume of a four-volume evaluation of the 1988-89 New York City School Community Education Program (also known as the Umbrella Program) comprises reports evaluating six innovative projects that offered a variety of educational experiences to participants. Three of these projects were designed for prekindergarten children; the other three were designed to teach elementary school students health maintenance concepts, improve their acceptance rates to special high schools, and foster career awareness. Evaluation sources included student preprogram and postprogram test outcomes, writing samples, teacher and student questionnaires, and the number of acceptances of participants into special high schools. Overall, the program was not as successful in meeting its stated objectives as in previous years. Each report contains a brief project overview, describes the research methodology, presents the findings, and provides recommendations for improvement. The following projects are evaluated: (1) High School Preparation and Choice; (2) the East Harlem Pre-Kindergarten Center; (3) the Brooklyn College Prekindergarten Center; (4) the Publishing Activity Center; (5) the Basic Skills After School Program; and (6) the Traveling Body Shop. Statistical data are included on nine tables. Each report also includes examples of evaluation instruments.
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1/1/90
BACKGROUND

The School Community Education Program (also known as the Umbrella Program), administered by the Division of Curriculum and Instruction, provides a variety of educational and training experiences to a wide range of participants, including preschoolers and their parents, and elementary, intermediate, and high school students, teachers, and supervisors. The program consists of 37 different projects designed to provide innovative solutions to local educational and school problems. Ten projects provide basic skills, English as a Second Language, and computer literacy instruction; ten focus on social issues and environmental studies; seven offer staff development workshops; five involve curriculum development, and three are designed for prekindergarten children. The remaining projects provide participants with a variety of educational experiences.

POPULATION SERVED

In 1988-89, the program served some 25,000 students, primarily elementary school pupils. In addition, the program served 1,100 teachers and supervisors and 100 prekindergarten children, as well as neighborhood adults in the 32 community school districts and selected high schools. Each project established different selection criteria for program participation.

PROGRAM OBJECTIVES

Although program objectives were designed for each specific project and therefore varied, most focused on increasing the competence of project participants through mastery of specific skills and abilities. Most objectives also set quantitative criteria to be met by a minimum percentage of participants for the program to be considered successful.

This summary is based on the final evaluation report of the School Community Education Program in New York City 1988-89, prepared by the Office of Research, Evaluation, and Assessment/Instructional Support Evaluation Unit.
EVALUATION METHODOLOGY

The evaluation of the program is based on a number of data sources: student performance outcomes on standardized or project-developed tests, pupil writing samples, teacher and student survey questionnaires, number of acceptances to special high schools, and review of five curriculum documents. These manuals and lesson plans were sent to different units of the New York City Board of Education's Division of Curriculum and Instruction for evaluation. Preprogram and postprogram test outcomes were compared to determine mean differences and, when appropriate, correlated t-tests and effect sizes were also computed to establish statistical significance and educational meaningfulness, respectively. The percentage of participants meeting quantitative project-set criteria for success was also determined.

FINDINGS

The 1988-89 evaluation findings indicate that the School Community Education Program was not as successful as it had been in previous years. Only 15 projects met their stated objectives, compared to 19 in 1987-88. In general, those projects providing staff development training and curriculum development were the most successful. In addition, two projects that provide remedial instruction (Harlem School-Community Tutorial Project, and Mathematics Improvement Program) were also found to be particularly successful. The evaluation also showed that although some projects met their objectives, these results should be treated with caution because of the vagueness of the objectives or because the evaluation instruments could not adequately measure project impact. This is a particular problem shared by staff development projects that seek to measure teacher ability to implement specific teaching skills in the classroom without including instruments which measure these skills.

Four projects were successful in meeting one of their objectives, yet unsuccessful in meeting a second objective. Sixteen projects did not meet their evaluation objectives, and two projects could not be evaluated because test data were lacking. As indicated in previous years' evaluations, a few of these projects need extensive modifications, such as revision of testing instruments to avoid ceiling effect, development of project activities appropriate for different grade levels, or establishment of more stringent participant selection criteria. Most of the unsuccessful projects, however, failed to meet their objectives because their criteria for success were too stringent or because the testing instrument could not adequately measure project objectives. In some of these projects, participants achieved large mean gains, but the percentage of successful participants remained below the percentage established in the project-set criterion for success. In some cases, this criterion was beyond what could be reasonably expected of program
participants.

RECOMMENDATIONS

In addition, to the recommendations made for each project, the following suggestions are made for the overall improvement of the School Community Education Program:

* Closely monitor those projects that fail to meet their stated objectives.

* Assist project staff in making necessary project modifications such as the revision of project activities, revision or replacement of testing instruments, establishment of adequate selection criteria of participants, or amendments in project objectives.
ACKNOWLEDGEMENTS

The production of this report is the result of a collaborative effort of full-time staff and consultants. In addition to those whose names appear on the cover, Maria Cheung undertook the analysis of the statistical data, and Sandra DuBose duplicated this report. The unit could not have produced this evaluation without their participation.
INTRODUCTION

In 1988-89, the New York City Public Schools received $2,375,000 in funding from the New York State Legislature to operate the School Community Education program (also known as the Umbrella program). It consisted of 37 different projects designed to provide innovative solutions to local educational and school programs.

The program provided services to about 25,000 participants in 32 community school districts and selected high schools. While most of these participants were elementary school students, the program also served some 1,000 intermediate and high school students, 100 preschool children, and 1,100 teachers and supervisors. Some projects also included parenting components and/or sought to involve the parents of participating students in project activities.

Evaluation reports are presented in four volumes. Volume I contains evaluations of ten projects that provided reading, mathematics, writing, English as a Second Language, and computer literacy instruction. Volume II includes evaluations of nine projects on social, ethnic, and environmental studies. Four of these projects also provided staff development workshops. Volume III contains evaluations of seven staff development and five curriculum development projects. The remaining six projects, presented in Volume IV, offered a variety of educational experiences to participants. Three of these projects were designed for prekindergarten children, and the other three projects were designed to teach students health maintenance concepts, to improve their acceptance rate to special high schools, and foster career awareness among students.

Each report contains a brief project overview, describes the evaluation methodology, presents the findings, and provides recommendations for improvement. The reports are listed in order of budgeted function number in the Table of Contents.
<table>
<thead>
<tr>
<th>Project</th>
<th>Title</th>
<th>Project Number</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>High School Preparation and Choice</td>
<td>93412</td>
</tr>
<tr>
<td>2</td>
<td>East Harlem Pre-kindergarten Center</td>
<td>93416</td>
</tr>
<tr>
<td>3</td>
<td>Brooklyn College Pre-kindergarten Center</td>
<td>93419</td>
</tr>
<tr>
<td>4</td>
<td>Publishing Activity Center</td>
<td>93421</td>
</tr>
<tr>
<td>5</td>
<td>Basic Skills After-School Program</td>
<td>93426</td>
</tr>
<tr>
<td>6</td>
<td>Traveling Body Shop</td>
<td>93437</td>
</tr>
</tbody>
</table>
HIGH SCHOOL PREPARATION AND CHOICE, 1988-89

School-Community Education Program
Program Administrator: M. Morris Speiser
Project Coordinator: Robert Rogers

Prepared by:
Office of Research, Evaluation, and Assessment
Instructional Support Evaluation Unit
New York City Public Schools

PROJECT DESCRIPTION

The High School Preparation and Choice project is designed to prepare seventh and eighth grade students in Community School District (C.S.D.) 17 for acceptance at special high schools. The goal of the project is to provide students who show academic potential and interest in continuing their education with skills necessary to succeed in the competitive high school selection process. The New York State Legislature provided $21 thousand to fund the project.

In 1988-89, 140 students from seven intermediate schools participated in the program. School principals, guidance counselors, and teachers selected 20 pupils in each school from those who planned to apply to a special high school. The students had a range of achievement levels in reading and mathematics.

Participants met with project teachers for a maximum of three after-school sessions of two hours each every week. Group instruction was supplemented with small group and individual tutoring sessions. Instructional activities were designed to
familiarize students with high school programs, entrance requirements and application procedures. Participants took practice high school admission tests and received individualized advice regarding career and high school choices. The project objective was for participants to show a higher acceptance rate to special high schools than a comparable group of non-participating students applying to similar high schools.

EVALUATION METHODOLOGY AND FINDINGS

The primary data source consisted of students participating in the project and those who were accepted by special high schools, and the same number of non-participating students that were also accepted by these schools (see Table 1). Students in the control group were selected by the project coordinator and displayed a range of reading scored on the Progress of Reading Power (P.R.P.) comparable to the students participating in the project. The special high schools were Stuyvesant, Brooklyn Technical, Bronx High School of Science, Fiorello H. La Guardia, and High School of Performing Arts.

Thirty percent of participants gained acceptance to special high schools. Only three percent of students who did not receive project services were accepted by these schools. Analyzed by school, data show that P.S. 189 had the largest percentage (85 percent) of successful students.
TABLE 1
Number of Special High School Acceptances
of Project Participants and Non-Project Participants,
by School
High School Preparation and Choice, 1988-89

<table>
<thead>
<tr>
<th>School</th>
<th>Project Participants</th>
<th>Non-Project Participants</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Number of Acceptances</td>
<td>Percent</td>
</tr>
<tr>
<td>I.S. 61</td>
<td>20</td>
<td>2</td>
</tr>
<tr>
<td>I.S. 210</td>
<td>20</td>
<td>0</td>
</tr>
<tr>
<td>I.S. 246</td>
<td>20</td>
<td>2</td>
</tr>
<tr>
<td>I.S. 320</td>
<td>20</td>
<td>10</td>
</tr>
<tr>
<td>I.S. 390</td>
<td>20</td>
<td>6</td>
</tr>
<tr>
<td>I.S. 391</td>
<td>20</td>
<td>5</td>
</tr>
<tr>
<td>P.S. 189</td>
<td>20</td>
<td>17</td>
</tr>
<tr>
<td>TOTAL</td>
<td>140</td>
<td>42</td>
</tr>
</tbody>
</table>

A larger percentage of project participants (30 percent) than non-project participants (3.6 percent) gained acceptance to special high schools.
CONCLUSIONS AND RECOMMENDATIONS

The High School Preparation and Choice project was a successful program with a positive impact on participating students. A comparison of their performance with that of the control group of students who did not participate in the project shows that intensive instruction and tutoring helped project participants gain acceptance to special high schools at a higher rate than non-project participants.

Although the project was successful overall, certain sites performed better than others. P.S. 189 had the largest acceptance rate (85 percent) whereas I.S. 210 had no project participants accepted to special high schools. It is unclear which factors contributed to the difference between sites. In the future, it may be helpful to examine the differences and similarities between the sites to understand why some sites perform better than others.

It is also recommended that the number of contact hours for eighth grade students be increased by employing staff before the regular school day and also after school, wherever possible.
EAST HARLEM PRE-KINDERGARTEN CENTER, 1988-89.

School-Community Education Program
Program Administrator: M. Morris Speiser
Project Coordinator: Evelyn Castro

Prepared By:
Office of Research, Evaluation, and Assessment
Instructional Support Evaluation Unit
New York City Public Schools

PROJECT DESCRIPTION

The East Harlem Pre-Kindergarten Center provides learning experiences to three- and four-year-old children in the East Harlem area. The program is designed to build specific skills in areas that include language arts, problem solving, sensory awareness, fine- and gross-motor coordination, and physical development. The project also seeks to develop a positive self-image among participants.

The preschool program operated at P.S. 171 in Community School District (C.S.D.) 4, served some 15 children. The children attended sessions five days a week and were selected from families whose older children were low achievers in school and showed poor socialization. Instructional activities focused on listening and speaking, first-hand experiences, learning the alphabet, and experimenting with discovery and tactile materials. The program objective for 1988-89 was for participants to demonstrate a 20 percent increase in readiness and developmental skills as measured by their performance on the Developmental Checklist.
Project staff consisted of one early-childhood teacher and a paraprofessional. In addition, one family associate served as a liaison between the school and the community to help parents support and reinforce program activities. Parents also attended monthly workshops involving information on health, welfare, housing, child care, and child development. The New York State Legislature contributed $44 thousand to cover program expenditures, and purchase instructional equipment and supplies.

EVALUATION METHODOLOGY

Evaluation activities focused on the analysis of the participants' pre- and posttest scores on the developmental checklist (see appendix A). The Developmental Checklist is designed to assess four levels of child development: personal and social behavior, physical development, intellectual development, and creative expression. The checklist consists of 48 items. Teachers rate the participants on a scale of 1 to 3, with 1=the child does not exhibit this behavior and 3=the child exhibits this behavior most of the time.

FINDINGS

Pretest and posttest scores were submitted for 15 children. The results of the analyses are presented in Table 1. Mean pretest raw score was 137 points (73.7% correct)
### TABLE 1

Children's Mean Raw Scores* on the Developmental Checklist  
East Harlem Pre-Kindergarten Center, 1988-89

<table>
<thead>
<tr>
<th></th>
<th>Pretest Mean</th>
<th></th>
<th>Posttest Mean</th>
<th></th>
<th>Mean Gain</th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Raw Score</td>
<td>Percent Correct</td>
<td>Raw Score</td>
<td>Percent Correct</td>
<td>Raw Score</td>
<td>Percent Correct</td>
</tr>
<tr>
<td>Students Meeting Criterion (N=6)</td>
<td>125.3</td>
<td>67.4%</td>
<td>168.3</td>
<td>90.5%</td>
<td>43.0</td>
<td>23.1%</td>
</tr>
<tr>
<td>Students Not Meeting Criterion (N=9)</td>
<td>144.8</td>
<td>77.9%</td>
<td>174.9</td>
<td>94.0%</td>
<td>30.1</td>
<td>16.2%</td>
</tr>
<tr>
<td>Total (N=15)</td>
<td>137.0</td>
<td>73.7%</td>
<td>172.3</td>
<td>92.6%</td>
<td>35.3</td>
<td>19.0%</td>
</tr>
</tbody>
</table>

*Perfect raw score=186.

Forty percent of the participants met or surpassed the project-set criterion of a 20 percent increase.
children who did not participate in the program. The age period of three to four is a time of growth, both physically and mentally, for all children, and although a prekindergarten program may help promote that growth, it is not possible to examine its impact beyond normal development without a comparison group.

Finally, the present objective should be revised in more concrete terms. At present, the objective is ambiguously worded stating that "participants will achieve a 20 percent gain." It is unclear whether this refers to each child individually or to the average score received by the group of children. It is not reasonable to expect all children to receive gains. Therefore it is recommended that the objective be revised to a specific quantitative goal, for example "80 percent of participants will achieve a 20 percent gain."
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Child __________________________ Date of Birth __________

Pre-kindergarten Class __________________________

Pre-kindergarten Teacher __________________________

<table>
<thead>
<tr>
<th>Personal and Social Behavior</th>
<th>Not yet</th>
<th>Some of the time</th>
<th>Most of the time</th>
</tr>
</thead>
<tbody>
<tr>
<td>1. Buttons coat or jacket without assistance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>2. Zips coat or jacket without assistance</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>3. Removes and puts on rainboots without assistance (not tied)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>4. Fastens own shoes (not tied)</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>5. Knows full name</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6. Knows home address</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7. Replaces toys and materials</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8. Evaluates own behavior</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>9. Makes friends with other children</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10. Shows reasonable self control</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>11. Follows class rules</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12. Accepts changes in routines</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>13. Shares with other children</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>14. Knows and uses names of adults in classroom</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>15. Tries new things</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>16. Is able to take turns</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

0017F
Physical Development

17. Uses large muscles to:
   - hop
   - jump
   - run
   - gallop
   - throw a ball

18. Uses small muscles to:
   - cut with scissors
   - paste
   - draw with crayons
   - manipulate toys
   - play with puzzles
   - work with clay

19. Walks up and down steps using two feet alternately

20. Climbs, slides, swings on outdoor equipment

21. Is able to place pegs in holes

22. Strings one-inch beads

23. Erects simple block structures
<table>
<thead>
<tr>
<th>Number</th>
<th>Activity Description</th>
</tr>
</thead>
<tbody>
<tr>
<td>38.</td>
<td>Shows an interest in books and stories</td>
</tr>
<tr>
<td>39.</td>
<td>Recites simple poems and finger plays</td>
</tr>
<tr>
<td>40.</td>
<td>Memorizes and sings simple songs</td>
</tr>
<tr>
<td>41.</td>
<td>Participates in group discussions and meetings</td>
</tr>
<tr>
<td></td>
<td><strong>Creative Expression</strong></td>
</tr>
<tr>
<td>42.</td>
<td>Sings songs</td>
</tr>
<tr>
<td>43.</td>
<td>Experiments with paints</td>
</tr>
<tr>
<td>44.</td>
<td>Dramatizes simple stories and poems</td>
</tr>
<tr>
<td>45.</td>
<td>Explores the sounds of rhythm instruments</td>
</tr>
<tr>
<td>46.</td>
<td>Responds to music through movement</td>
</tr>
<tr>
<td>47.</td>
<td>Models with clay</td>
</tr>
<tr>
<td>48.</td>
<td>Uses a variety of tools in drawing</td>
</tr>
<tr>
<td></td>
<td>Not yet</td>
</tr>
<tr>
<td>---</td>
<td>---------</td>
</tr>
<tr>
<td>38.</td>
<td>Shows an interest in books and stories</td>
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<td>Recites simple poems and finger plays</td>
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</tr>
<tr>
<td>41.</td>
<td>Participates in group discussions and meetings</td>
</tr>
</tbody>
</table>

**Creative Expression**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>42.</td>
<td>Sings songs</td>
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<td>46.</td>
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<td>47.</td>
<td>Models with clay</td>
</tr>
<tr>
<td>48.</td>
<td>Uses a variety of tools in drawing</td>
</tr>
</tbody>
</table>

0017F
PROJECT DESCRIPTION

The Brooklyn College Tutorial Center provides children with experiences and opportunities to enhance their intellectual, social, emotional, and physical development, and provides them with the knowledge of basic concepts necessary for achievement in school. The program also includes a parenting workshop for participants' parents to learn to deal more effectively with their children. The New York State Legislature contributed $114 thousand to cover personnel expenses and to purchase educational supplies.

A total of 60 children participated in the program in 1988-89. All participants were residents of Brooklyn and were between the ages of two years and nine months to three years and eight months. Children were selected for participation by a lottery. Consideration was given to those children developmentally able to benefit from the program and attempts were made to establish an ethnically diverse population. The parenting workshops were open to participants' parents.

Instruction focused on the development of language arts, and social and physical skills, emphasizing divergent thinking.
creativity, fluency, and flexibility. In addition, children were provided with individual library cards and encouraged to take out a book each week from the "circulating library." Each class was staffed by one full-time teacher and a paraprofessional.

The program objective was for participants to increase by at least 20 percent their knowledge of basic concepts necessary for achievement in school, as measured by their performance on the Developmental Checklist.

The parenting workshop series was designed to broaden parents' knowledge of child development, provide instruction in skills such as reflective listening, examine reasons for and means of controlling children's misbehavior, and to encourage parents to read to their children. Workshops also included lectures on topics such as nutrition. A program objective for this component of the program was not specified.

EVALUATION METHODOLOGY

Evaluation activities focused on the analysis of the participants pre- and posttest scores on the developmental checklist (see Appendix A). The Developmental Checklist is designed to assess four levels of child development: personal and social behavior, physical development, intellectual development, and creative expression. Teachers rate the participants for each item on a scale of 1 to 3, with 1 = the child does not exhibit this behavior, to 3 = the child exhibits this behavior most of the time.
FINDINGS

Complete test scores were submitted for 60 children. The results of the analyses are presented in Table 1. Overall, mean pretest raw score was 107.2 points (58.6 percent correct responses), and mean posttest raw score was 159.5 points (87.2 percent correct), for a mean gain of 52.3 points or 28.6 percent increase. Overall, 95 percent of participants met or surpassed the project-set criterion of a 20 percent increase on posttest.

CONCLUSIONS AND RECOMMENDATIONS

In 1988-89, the Brooklyn Prekindergarten Center was successful in improving children's performance on the Developmental Checklist. Ninety-five percent of the participants achieved gains of at least 20 percent. This is a higher percentage of successful students than in previous years. Only three participants did not meet this project-set criterion and these children received high pretest scores which leave little room for a 20 percent gain.

It is recommended that in the future, alternative evaluation instruments be explored. The current evaluation checklist relies on teachers' appraisals of students. Although such appraisals can yield useful information, they may also be influenced by factors unrelated to the project, for instance, the teachers'
TABLE 1
children's Mean Raw Scores,* on the Developmental Checklist
Brooklyn Prekindergarten Center, 1987-88

<table>
<thead>
<tr>
<th></th>
<th>Pretest Mean</th>
<th>Posttest Mean</th>
<th>Mean Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>Raw Score</td>
<td>Percent Correct</td>
<td>Raw Score</td>
</tr>
<tr>
<td>Students Meeting Criterion (N=57)</td>
<td>106.0</td>
<td>57.9%</td>
<td>159.7</td>
</tr>
<tr>
<td>Students Not Meeting Criterion (N=3)</td>
<td>129.0</td>
<td>70.5%</td>
<td>154.7</td>
</tr>
<tr>
<td>Total (N=60)</td>
<td>107.2</td>
<td>58.6%</td>
<td>159.5</td>
</tr>
</tbody>
</table>

*Perfect raw score=183.

Ninety-five percent of participants met or surpassed the project-set criterion of a 20 percent increase.
increased familiarity with the child over the course of the program. This is especially true for the first part of the checklist, evaluating social behavior.

In addition, it is difficult to attribute participants' improvement solely to the program without a comparison group of children who did not participate in the program. The age period of three to four is a time of growth, both physically and mentally, for all children, and although a prekindergarten program may help promote that growth, it is not possible to examine its impact beyond normal development without a comparison group.

Finally, the present objective should be revised in more concrete terms. At present, the objective is ambiguously worded, stating that "participants will achieve a 20 percent gain." It is unclear whether this refers to each child individually or to the average score received by the group of children. It is not reasonable to expect all children to receive gains. Therefore it is recommended that the objective be revised to a specific quantitative goal, for example, "80 percent of participants will achieve a 20 percent gain."
EVALUATION
DEVELOPMENTAL CHECKLIST

Child ________________________________ Date of Birth ______

Pre-kindergarten Class ________________________________

Pre-kindergarten Teacher ________________________________

<table>
<thead>
<tr>
<th>Not yet</th>
<th>Some of the time</th>
<th>Most of the time</th>
</tr>
</thead>
</table>

**Personal and Social Behavior**

1. Buttons coat or jacket without assistance
2. Zips coat or jacket without assistance
3. Removes and puts on rainboots without assistance (not tied)
4. Fastens own shoes (not tied)
5. Knows full name
6. Knows home address
7. Replaces toys and materials
8. Evaluates own behavior
9. Makes friends with other children
10. Shows reasonable self control
11. Follows class rules
12. Accepts changes in routines
13. Shares with other children
14. Knows and uses names of adults in classroom
15. Tries new things
16. Is able to take turns

0019F
Physical Development

17. Uses large muscles to:
   - hop
   - jump
   - run
   - gallop
   - throw a ball

18. Uses small muscles to:
   - cut with scissors
   - paste
   - draw with crayons
   - manipulate toys
   - play with puzzles
   - work with clay

19. Walks up and down steps using two feet alternately

20. Climbs, slides, swings on outdoor equipment

21. Is able to place pegs in holes

22. Strings one-inch beads

23. Erects simple block structures

Intellectual development

24. Expresses curiosity

25. Recalls a sequence of events

26. Recognizes likenesses and differences in a variety of materials

27. Understands basic concepts:
   - up/down
   - sweet/sour
   - more/less
   - big/little
   - under/over
   - soft/hard
<table>
<thead>
<tr>
<th></th>
<th>Not yet</th>
<th>Some of the time</th>
<th>Most of the time</th>
</tr>
</thead>
<tbody>
<tr>
<td>23.</td>
<td>Counts from one to five</td>
<td></td>
<td></td>
</tr>
<tr>
<td>29.</td>
<td>Participates in dramatic play</td>
<td></td>
<td></td>
</tr>
<tr>
<td>30.</td>
<td>Speaks in an understandable manner</td>
<td></td>
<td></td>
</tr>
<tr>
<td>31.</td>
<td>Relates incidents in simple language</td>
<td></td>
<td></td>
</tr>
<tr>
<td>32.</td>
<td>Uses sentences averaging five or six words</td>
<td></td>
<td></td>
</tr>
<tr>
<td>33.</td>
<td>Makes up nonsense words or rhymes</td>
<td></td>
<td></td>
</tr>
<tr>
<td>34.</td>
<td>Talks freely to other children</td>
<td></td>
<td></td>
</tr>
<tr>
<td>35.</td>
<td>Talks freely to adults in room</td>
<td></td>
<td></td>
</tr>
<tr>
<td>36.</td>
<td>Identifies common objects</td>
<td></td>
<td></td>
</tr>
<tr>
<td>37.</td>
<td>Retells a story</td>
<td></td>
<td></td>
</tr>
<tr>
<td>38.</td>
<td>Shows an interest in books and stories</td>
<td></td>
<td></td>
</tr>
<tr>
<td>39.</td>
<td>Recites simple poems and finger plays</td>
<td></td>
<td></td>
</tr>
<tr>
<td>40.</td>
<td>Memorizes and sings simple songs</td>
<td></td>
<td></td>
</tr>
<tr>
<td>41.</td>
<td>Participates in group discussions and meetings</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

**Creative Expression**

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>42.</td>
<td>Sings songs</td>
</tr>
<tr>
<td>43.</td>
<td>Experiments with paints</td>
</tr>
<tr>
<td>44.</td>
<td>Dramatizes simple stories and poems</td>
</tr>
</tbody>
</table>

0019F
<table>
<thead>
<tr>
<th></th>
<th>45. Explores the sounds of rhythm instruments</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>46. Responds to music through movement</td>
</tr>
<tr>
<td></td>
<td>47. Models with clay</td>
</tr>
<tr>
<td></td>
<td>48. Uses a variety of tools in drawing</td>
</tr>
</tbody>
</table>

0019F
PROJECT DESCRIPTION

The Publishing Activity Center is a career education and industrial arts project designed for elementary school pupils in Community School Districts (C.S.D.s) 14, 20, 21, and 22. The project seeks to foster career awareness among students, and motivate them to improve their reading and writing abilities. In 1979, the State Education Department validated the Publishing Activity Center as an Exemplary Project.

In 1988-89, the program served some 1,450 kindergarten through grade six students. Selected pupils represented a cross section of the student population at each district. School principals and professional staff selected an appropriate sample of students for each site, according to locally determined sampling methods.

There are some 20 Publishing Activity Centers established in selected schools. Each center is equipped with a binding machine, typewriters, mimeographs, and other publishing equipment. Three educational assistants, working under the supervision of a licensed teacher, visited these centers. Project activities were organized to promote students' creative writing
and artwork. Students wrote, typed, and published their own materials. Other activities included instruction in the use of a variety of publishing equipment and an introduction to publishing careers. The New York State Legislature contributed $73 thousand to fund the program.

The project objective was for 75 percent of participants to achieve a 25 percent gain in their knowledge of publishing equipment and procedures as measured by a project developed test.

**EVALUATION METHODOLOGY**

Project impact was assessed by analyses of student scores on a project-developed test that was designed to measure students' knowledge of publishing equipment, production processes, and awareness of careers in publishing. The test consisted of 20 multiple-choice items and potential scores ranged from zero to 20 (see Appendix A). The test was administered and scored by project paraprofessionals. Mean scores were computed for each grade and for all participants, across grades.

**FINDINGS**

Scores on the test were submitted for a random sample of 394 participants in grades two through eight. A breakdown by grade is given in Table 1. A maximum of 20 points could be scored on this test. Mean pretest raw scores for each grade ranged from 6.2 to 12.8 points, with an overall mean pretest score of 10.9 points (54.5 percent correct). Mean posttest scores ranged from 13.3 to 17.3 points, with an overall posttest mean of 14.4 points.
TABLE 1

Students' Mean Raw Scores* on a Project-Developed Test, by Grade
Publishing Activity Center, 1988-89

<table>
<thead>
<tr>
<th>Grade</th>
<th>N</th>
<th>Prettest Mean Raw Score</th>
<th>Prettest Mean Percent Correct</th>
<th>Posttest Mean Raw Score</th>
<th>Posttest Mean Percent Correct</th>
<th>Mean Gain Raw Score</th>
<th>Mean Gain Percent Correct</th>
</tr>
</thead>
<tbody>
<tr>
<td>2</td>
<td>60</td>
<td>8.2</td>
<td>41.0%</td>
<td>14.6</td>
<td>73.0%</td>
<td>6.4</td>
<td>32.0%</td>
</tr>
<tr>
<td>3</td>
<td>26</td>
<td>6.2</td>
<td>31.0%</td>
<td>17.3</td>
<td>86.5%</td>
<td>11.0</td>
<td>55.0%</td>
</tr>
<tr>
<td>4</td>
<td>100</td>
<td>9.9</td>
<td>49.5%</td>
<td>14.9</td>
<td>74.5%</td>
<td>5.0</td>
<td>25.0%</td>
</tr>
<tr>
<td>5</td>
<td>69</td>
<td>12.3</td>
<td>61.5%</td>
<td>13.3</td>
<td>66.5%</td>
<td>1.0</td>
<td>5.0%</td>
</tr>
<tr>
<td>6</td>
<td>122</td>
<td>12.8</td>
<td>64.0%</td>
<td>14.1</td>
<td>70.5%</td>
<td>1.4</td>
<td>7.0%</td>
</tr>
<tr>
<td>7</td>
<td>8</td>
<td>13.4</td>
<td>67.0%</td>
<td>13.2</td>
<td>66.0%</td>
<td>-0.2</td>
<td>-1.0%</td>
</tr>
<tr>
<td>8</td>
<td>9</td>
<td>13.7</td>
<td>68.5%</td>
<td>13.4</td>
<td>67.0%</td>
<td>-0.3</td>
<td>-1.5%</td>
</tr>
<tr>
<td>TOTAL</td>
<td>394</td>
<td>10.9</td>
<td>54.5%</td>
<td>14.4</td>
<td>72.0%</td>
<td>3.5</td>
<td>17.5%</td>
</tr>
</tbody>
</table>

*Perfect raw score = 20.

*Overall mean gain was 17.5 percent.

*Third graders outperformed students in other grades.
(72 percent correct). Mean gains ranged from 1.0 to 11 points, with an overall mean gain of 3.5 points (17.5 percent).

Table 2 presents the percentage of students who met the project-set criterion of achieving a gain of at least 25 percent from pretest to posttest. Overall, 34 percent of participants met this objective. All of the third grade students sampled met or surpassed the project-set criterion. No students sampled from grades seven or eight met the criterion.

CONCLUSIONS AND RECOMMENDATIONS

In 1988-89, the Publishing Activity Center project was not successful in meeting its objective of 75 percent of the students achieving a 25 percent gain at posttest. Overall, only 34 percent of the students met this criterion, but there was a large variation in scores between grades. One hundred percent of the third grade students met or surpassed the project-set criterion, whereas no seventh or eighth grade students met this criterion. An examination of the data reveals that students in grades seven and eight scored the highest pretest scores with 67 to 68 percent correct responses. Such high pretest scores preclude a 25 percent increase on posttest (ceiling effect) and suggest that the test is too easy for these students. It is recommended that project staff revise the testing instrument to accommodate
TABLE 2

Percentage of Students Meeting Project-Set Criterion* on a Project-Developed Test, by Grade
Publishing Activity Center, 1988-89

<table>
<thead>
<tr>
<th>Grade</th>
<th>N</th>
<th>Meeting Criterion</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>N</td>
</tr>
<tr>
<td>2</td>
<td>60</td>
<td>41</td>
</tr>
<tr>
<td>3</td>
<td>26</td>
<td>26</td>
</tr>
<tr>
<td>4</td>
<td>100</td>
<td>47</td>
</tr>
<tr>
<td>5</td>
<td>69</td>
<td>8</td>
</tr>
<tr>
<td>6</td>
<td>122</td>
<td>11</td>
</tr>
<tr>
<td>7</td>
<td>8</td>
<td>0</td>
</tr>
<tr>
<td>8</td>
<td>9</td>
<td>0</td>
</tr>
<tr>
<td>TOTAL</td>
<td>394</td>
<td>133</td>
</tr>
</tbody>
</table>

*Seventy-percent of participants will achieve a gain at posttest of at least 25.

Overall, 33.8 percent of participants met the project-set criterion.
these students in the higher grades. One possible way to accomplish this is to develop different tests for each grade level. Another possibility is to expand the test varying the difficulty level of the questions to accommodate all grade levels.
Circle the correct answer to these questions. There is only one correct answer to each question. Don't be worried if you don't know all the answers - just do your best!

These are machines we use in the Publishing Activity Center. Can you name them?

This machine makes many copies.

This is a  

A) stencil maker  
B) washing machine  
C) mimeo  
D) varityper

2. This machine makes one stencil from the original.

This is a  

A) stencil maker  
B) binder  
C) proof-press  
D) radio
3. We can use this machine to write and correct our work when we don't use a pencil.

This is a A) off-set press  B) calculator  C) Line-o-scribe  D) Computer

4. This piece of equipment is used to make copies without a stencil or printing plate.

This is a A) Off-set press  B) Calculator  C) Copy Machine  D) Binder

5. This piece of equipment is used when large numbers of high quality copies are needed.

This is a A) Off-set press  B) Scrabble Board  C) Computer  D) Typewriter

HOW DO WE USE OUR MACHINES?

6. Can you mix different sizes of type in one line when you use a word processing program?

   A) Yes  B) Sometimes  C) Never  D) every other time
7. If the door to the disk drive is not shut tightly, what will happen.

A) The Disk will fall out  B) The computer can't save or retrieve information  
C) The Disk will rip  D) The computer will produce a double image

8. Do the holes at the top of the stencil fit the notches on the mimeo machine?

A) every other time  B) sometimes  C) yes  D) never

9. How do you set the Xerox for 15 copies?

A) 1 5 0  B) 0 1 5  C) 0 5 1  D) 1 0 5

10. Which is a sample of 24pt type?

A) T  B) Type  C) Type  D) Type

MATERIAL WE USE IN OUR PUBLISHING ACTIVITY CENTER

11. In our publishing activity center, we use____ to prepare our layout sheet.

A) rubber cement  B) Elmer's glue  C) Crazy glue  D) scotch tape

12. In our center, we use________ to make corrections on our writings and drawings.

A) correction fluid  B) Crazy glue  C) Wite-out  D) masking tape

13. Which is a sample of Italic type?

A) Type  B) Type  C) Type  D) Type

14. Photographs must be converted to________ before they are printed.

A) slides  B) half-tones  C) Fonts  D) Platens
15. Which is a sample of Bold type?

A) Type  B) Type  C) Type  D) Type

16. I seek out the news story wherever I go, so that everyone is in the know.

WHO AM I?
A) a reporter  B) an editor  C) a proofreader  D) a publisher

17. My hands are always full of ink.

WHO AM I?
A) a newscaster  B) an astronaut  C) a printer  D) a publisher

18. I deliver newspapers all over town.
   In all kinds of weather, I'm always around.

WHO AM I?
A) a secretary  B) a printer  C) a newsboy  D) a shop teacher

19. Any misspelled words create a fuss, so correcting them is always a must.

WHO AM I?
A) an editor  B) a newscaster  C) a proofreader  D) a milkman

20. I group the pages together so that, the reader knows where they are at.

WHO AM I?
A) a collator  B) a reporter  C) a printer  D) a newscaster
PROJECT DESCRIPTION

The Basic Skills After-School program is designed to prepare pre-kindergarten children from Community School District (C.S.D.) 17 for formal school. The project seeks to provide stimulating instruction in reading, mathematics, and language skills. Other aspects of the project involve providing English as a Second Language instruction to limited English proficient (LEP) participants, and the promotion of parent involvement in the program.

In 1988-89, 22 children participated in the project. The children were selected according to criteria from needs assessments, including family eligibility for free lunch, the school's knowledge of the family's needs, and recommendations from school and community agencies. Interviews were also used to select LEP participants.

Instructional activities emphasized the development of language, letter, and number recognition, motor skills, and social interaction. Classes were held for two hours a day, three days per week. The project objective was for participants to demonstrate a 25 percent improvement in readiness and
developmental skills as measured by the developmental checklist.

The voluntary component for parents involved workshops designed to help them better understand their children's development and learn techniques to support school performance. Project staff consisted of para-professionals, two part-time teachers, and one part-time supervisor. The New York State Legislature contributed $9 thousand to fund the program.

EVALUATION METHODOLOGY

The evaluation focused on analysis of participants' pre- and posttest scores on the developmental checklist (see Appendix A). The developmental checklist assesses four levels of child development: personal and social behavior, physical development, intellectual development, and creative expression. Teachers rate participants on a scale of 1 to 3, with 1=the child does not exhibit this behavior, to 3=the child exhibits this behavior most of the time.

FINDINGS

Complete test scores for 22 children were submitted on two separate data retrieval forms. These scores, distinguished as pre-kindergarten classes one and two, are reported in Table 1. Overall mean gain was 34.7 raw points. Pretest mean raw score was 124 points (66.7 percent correct responses), and posttest mean raw score was 158.7 points (85.3 percent correct).
TABLE 1

Pre-School Children's Mean Raw Scores* on the Developmental Checklist Basic Skills After-School Program, 1988-89

<table>
<thead>
<tr>
<th>Class</th>
<th>N</th>
<th>Pretest Mean</th>
<th>Posttest Mean</th>
<th>Mean Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Raw Score</td>
<td>Percent Correct</td>
<td>Raw Score</td>
</tr>
<tr>
<td>Pre-K (1)</td>
<td>11</td>
<td>117.9</td>
<td>63.4%</td>
<td>155.5</td>
</tr>
<tr>
<td>Pre-K (2)</td>
<td>11</td>
<td>130.1</td>
<td>69.9</td>
<td>162.0</td>
</tr>
<tr>
<td>TOTAL</td>
<td>22</td>
<td>124.0</td>
<td>66.7</td>
<td>158.7</td>
</tr>
</tbody>
</table>

*Perfect raw score=186.

Overall, mean gain was 34.7 raw points.
Table 2 shows the percentage of participants who achieved the program set objective. Overall, 13.6 percent of the children achieved a 25 percent improvement in readiness and developmental skills from pretest to posttest.

CONCLUSIONS AND RECOMMENDATIONS

The evaluation findings indicate that the Basic Skills After-School program was not successful in 1988-89. Only 13.6 percent of participants achieved a 25 percent improvement in readiness and developmental skills. One explanation for these findings is the ceiling effect. Those participants who did not meet the objective scored a mean pretest score of 78 percent. This left very little room for a twenty percent increase. It is possible that these high pretest scores are a result of the subjective nature of the developmental checklist.

It is recommended that in the future, alternative evaluation instruments be explored. The current evaluation checklist relies on teachers' appraisals of students. Although such appraisals can yield useful information, they can also be influenced by factors unrelated to the project, for instance, a teacher's increased familiarity with the child over the course of the program. This is especially true for the first part of the checklist, which evaluates social behavior.

In addition, it is difficult to attribute participants' improvement solely to the program without a comparison group of children who did not participate in the program. The age period
TABLE 2

Participants' Achievement of Stated Program Objective on the Developmental Checklist
Basic Skills After-School Program, 1988-89

<table>
<thead>
<tr>
<th>Grade</th>
<th>Total Number of Children Who Took Both the Pretest and Posttest</th>
<th>Number of Children Achieving a 25% Gain From Pre- to Posttest</th>
<th>Percentage Achieving Program Objective</th>
</tr>
</thead>
<tbody>
<tr>
<td>Pre-K (1)</td>
<td>11</td>
<td>1</td>
<td>9.1%</td>
</tr>
<tr>
<td>Pre-K (2)</td>
<td>11</td>
<td>2</td>
<td>18.2</td>
</tr>
<tr>
<td>TOTAL</td>
<td>22</td>
<td>3</td>
<td>13.6</td>
</tr>
</tbody>
</table>

*Program objective: Participants will achieve a 25 percent improvement in readiness and developmental skills.

* Overall, 13.6 percent of participants met the project set criterion.
of three to four is a time of growth, both physically and mentally, for all children, and although a prekindergarten program may help promote that growth, it is not possible to examine its impact beyond normal development without a comparison group.

Finally, the present objective should be revised in more concrete terms. At present, the objective is ambiguously worded, stating that "participants will achieve a 20 percent gain." It is unclear whether this refers to each child individually or to the average score received by the group of children. It is not reasonable to expect all children to receive gains. Therefore it is recommended that the objective be revised to a specific quantitative goal, for example, "75 percent of participants will achieve a 20 percent gain."
EVALUATION
DEVELOPMENTAL CHECKLIST

Child ___________________________ Date of Birth ________

Pre-kindergarten Class ___________________________

Pre-kindergarten Teacher ___________________________

Not yet Some of the time Most of the time

Personal and Social Behavior

1. Buttons coat or jacket without assistance
2. Zips coat or jacket without assistance
3. Removes and puts on rainboots without assistance (not tied)
4. Fastens own shoes (not tied)
5. Knows full name
6. Knows home address
7. Replaces toys and materials
8. Evaluates own behavior
9. Makes friends with other children
10. Shows reasonable self control
11. Follows class rules
12. Accepts changes in routines
13. Shares with other children
14. Knows and uses names of adults in classroom
15. Tries new things
16. Is able to take turns

0019F
Physical Development

17. Uses large muscles to:
   hop
   jump
   run
   gallop
   throw a ball

18. Uses small muscles to:
   cut with scissors
   paste
   draw with crayons
   manipulate toys
   play with puzzles
   work with clay

19. Walks up and down steps using two feet alternately

20. Climbs, slides, swings on outdoor equipment

21. Is able to place pegs in holes

22. Strings one-inch beads

23. Erects simple block structures

Intellectual Development

24. Expresses curiosity

25. Recalls a sequence of events

26. Recognizes likenesses and differences in a variety of materials

27. Understands basic concepts:
   up/down
   sweet/sour
   more/less
   big/little
   under/over
   soft/hard

0019F
45. Explores the sounds of rhythm instruments

46. Responds to music through movement

47. Models with clay

48. Uses a variety of tools in drawing
45. Explores the sounds of rhythm instruments
46. Responds to music through movement
47. Models with clay
48. Uses a variety of tools in drawing
PROJECT DESCRIPTION

The Traveling Body Shop provides intensive instruction on the human body functions and on health maintenance and improvement to elementary school pupils in Community School District (C.S.D.) 31. In 1988-89, some 1,800 fourth and fifth graders from 18 schools participated in the program. In selecting these schools, priority was given to those which were located in low-income areas, had experienced cutbacks in health services, and were not participating in other School-Community Education projects.

Project staff consisted of one full-time and one part-time teacher. They visited every participating class for two weeks in each school where they held 75-minute classes. Instructional activities varied according to grade level, focusing on the human body functioning and maintenance, health, and nutrition. Students were also taught to measure lung capacity, blood pressure, and pulse rates. Classroom teachers received follow-up instruction in order to build on the lessons and activities of the two weeks of intensive instruction. The project objective for 1988-89 was for 75 percent of the participating pupils to
improve their knowledge of the major body systems, nutrition, and health, by 25 percent or more at posttest, as measured by a project-developed test. The New York State Legislature provided $97 thousand to purchase instructional supplies and cover traveling expenses.

EVALUATION METHODOLOGY

Project impact was assessed by an analysis of students' scores on a program-developed test administered at the beginning and end of project activities (see Appendix A). The test was given on a pretest and posttest basis to determine whether the performance of students improved as a result of their participation in the project. Project staff collected data from classes at randomly selected schools. Approximately ten percent of the total students at each grade level were selected as sample groups.

FINDINGS

Pretest and posttest scores were reported for 200 students. Table 1 presents evaluation findings by grade. Overall, mean pretest raw score was 9.4 points (47 percent correct responses), mean posttest raw score was 15.8 points (79 percent correct responses), for a mean gain of 6.4 points or 32 percent. Fifth graders achieved the largest mean gain.

Table 2 presents the number of students who met the project-set criterion of achieving a 25 percent gain at posttest.
TABLE 1

Students' Mean Raw Scores* on a Project-Developed Test, by Grade
Traveling Body Shop, 1988-89

<table>
<thead>
<tr>
<th>Grade</th>
<th>N</th>
<th>Pretest Mean</th>
<th>Posttest Mean</th>
<th>Mean Gain</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td></td>
<td>Raw Score</td>
<td>Percent Correct</td>
<td>Raw Score</td>
</tr>
<tr>
<td></td>
<td></td>
<td>8.4</td>
<td>0%</td>
<td>14.6</td>
</tr>
<tr>
<td>4</td>
<td>32</td>
<td>9.6</td>
<td>48.0</td>
<td>16.0</td>
</tr>
<tr>
<td>5</td>
<td>168</td>
<td>9.4</td>
<td>47.0</td>
<td>15.8</td>
</tr>
<tr>
<td>TOT.</td>
<td>166</td>
<td>9.4</td>
<td>47.0</td>
<td>15.8</td>
</tr>
</tbody>
</table>

*Perfect raw score=20.

Participating students showed an overall mean gain of 32 percent points.
TABLE 2
Percentage of Students Meeting Project-Set Criterion,* by Grade
Traveling Body Shop, 1988-89

<table>
<thead>
<tr>
<th>Grade</th>
<th>N</th>
<th>Meeting Criterion</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>N</td>
<td></td>
</tr>
<tr>
<td>4</td>
<td>32</td>
<td>22</td>
</tr>
<tr>
<td>5</td>
<td>168</td>
<td>128</td>
</tr>
<tr>
<td>TOTAL</td>
<td>200</td>
<td>150</td>
</tr>
</tbody>
</table>

*Seventy-five percent of participants will achieve a 25 percent gain on a project-developed test.

* Students in grades five met the project-set criterion for success.
Overall, 75 percent of the students met or surpassed the project-set criterion. Fifth grade students demonstrated a higher success rate than fourth grade students.

CONCLUSIONS AND RECOMMENDATIONS

In 1988-89, the Traveling Body Shop project was partially successful in meeting its objective. Overall, 75 percent of participants achieved at least a 25 percent gain in their knowledge of the major body systems, nutrition, and health, at posttest. Although the program was successful overall, an examination of the data reveals that fourth grade students did not perform as well as fifth grade students. Only sixty-nine percent of the fourth grade students sampled met or surpassed the project-set criterion. In 1987-88 the results were just the opposite, with fourth grade students receiving higher gains than fifth grade students. It is unclear what factors could have caused this difference between grades. In the future, project staff may wish to examine the content and presentation of the lessons at various sites to determine which factors may be affecting students' performance.
APPENDIX A

BRAIN STRAIN

1. Breathing rates vary according to the individual and his or her activities. Your breathing is probably slowest when you are:
   a) running  b) jumping  c) sitting  d) walking

2. Your vital lung capacity is the amount of air you can force out of your lungs. The amount of air can be measured by blowing into a device called a spirometer. Which of the following pictures is a spirometer?
   a)  
   b)  
   c)  
   d)  

3. Calcium is the mineral needed for the growth of bones and teeth. Who would have a greater need for calcium?
   a) adult  b) young child  c) senior citizen  d) same for all

4. You can make your heart and lungs work better by doing certain activities. Which activity listed below would most benefit your heart and lungs?
   a) lifting weights  b) jogging  c) playing baseball  d) playing football

5. The Heimlich Maneuver has been used successfully to aid people who are choking. In this technique, the object blocking the windpipe may be removed by pressing firmly on a large smooth muscle called the:
   a) tricep  b) bicep  c) diaphragm  d) heart

6. To which food group do eggs belong?
   a) milk  b) meat  c) fruits & vegetables  d) grain

7. Your body has two blood pressure rates. One rate represents each beat or pump of your heart. The other rate represents between beats or when the heart is resting. The name of the blood pressure when the heart is resting is called:
   a) base rate pressure  b) systolic pressure  c) diastolic pressure  d) venal pressure

8. Every pump of your heart sends out a surge of blood. This surge passes along each portion of your blood vessel and forces the blood vessel wall outward. This action of stretching and springing back of the blood vessel wall produces a:
   a) heartbeat  b) pulse  c) breath  d) reflex

9. Your body needs nutrients and oxygen transported by your blood. Feeling your pulse is a method to determine if your blood is moving. Which picture below shows the correct way to take your pulse?
   a)  
   b)  
   c)  
   d)  

10. A sign of physical fitness is the time it takes the pulse rate to return to normal. A person in good physical condition has a pulse rate that, after exercise, will return to normal:
    a) quickly  b) slowly  c) little by little  d) none of these
11. Blood circulates around the body through thousands of miles of vessels. The largest of your blood vessels are called:

a) veins  b) capillaries  c) tracheas  d) arteries

12. The food group that gives us the greatest amount of vitamins A and C is:

a) milk  b) meat  c) fruits & vegetables  d) grain

13. The number 1 cause of death in the United States is:

a) cancer  b) heart disease  c) aids  d) none of these

14. Fat is necessary to carry certain vitamins in your body. However, some types of fat can be very dangerous for your health. A fat known to increase your chances of developing heart disease is:

a) coconut oil  b) lard  c) palm oil  d) all of these

15. The pumping of your heart sends out a surge of blood causing pressure on the blood vessels. Your blood pressure can be measured by using an instrument called a sphygmomanometer. Which picture below is a sphygmomanometer?

16. You are what you eat therefore, it is important to read the list of ingredients on the package. The ingredients on packaged food products are listed:

a) by amounts  b) alphabetically  c) in any order  d) with natural items first

17. Your pulse recovery rate is a simple method of measuring your physical fitness. When judging your physical fitness improvement you should compare yourself to:

a) a trained athlete  b) yourself  c) an adult  d) another student

18. You have over 600 muscles in your body. Since these muscles can only move one way, they usually work in pairs. To keep our muscles working properly, it is important that we get:

a) proper diet  b) proper rest  c) proper exercise  d) all of these

19. Which part of the air we breathe combines with the food we eat to give us energy?

a) carbon dioxide  b) oxygen  c) helium  d) nitrogen

20. The human body is incredible! The best way to take care of your body is by developing and maintaining good health habits. You should start to develop these good health habits:

a) when you feel sick  b) today  c) tomorrow  d) when the doctor tells you to.