Project STAR (Secondary) in the Cleveland Public Schools is designed to improve reading and vocabulary skills for grades 7-9 by training and providing teachers and teacher aides in STAR Learning Centers in 24 secondary schools. Eligible students work in the Learning Centers every day in an individualized, self-paced, audio approach to remedial reading instruction. This final evaluation report for the 1982-83 school year shows that the project successfully provided project teachers and aides with training, and that they provided STAR students with individualized support. Preservice sessions for teachers and aides took place as planned, but because of budget limitations only two of the scheduled inservice sessions were conducted. The single product objective, gains in reading achievement, was not attained by the sample of students whose test scores were analyzed. The project appears to have been effectively implemented; student achievement goals, however, remain unmet. (CMG)
PROJECT STAR (SECONDARY)
DISADVANTAGED PUPIL PROGRAM FUND

FINAL EVALUATION REPORT
1982-1983
Prepared by
Jim Lanose
Evaluator
Typed by
Eleanor Haithcox

Cleveland Public Schools
RESEARCH AND ANALYSIS DEPARTMENT
July, 1983
PROJECT STAR SECONDARY
1982-83 DPPF Final Evaluation

PURPOSE AND OVERVIEW

Project STAR (Secondary) is designed to improve pupils' achievement in reading and vocabulary skills by training and providing teacher and educational aides in Star Learning Centers in 24 secondary schools (grades 7-9). Eligible students are scheduled into the Learning Centers on a daily basis for an individualized, self-paced audio approach in remedial reading instruction.

SERVICE SUMMARY

Pupils Served: 6,237 Grades Served: 7-9 Years in Operation: 16
Schools: 24 public Staffing: 1 Project Manager, PT
2 Consultant Teachers, FT
55 Learning Center Teachers, FT
55 Educational Aides, FT
2 Clerks, PT

SUMMARY OF FINDINGS

Project STAR (Secondary) progressed adequately towards the successful attainment of its three process objectives. Significant progress has been evidenced towards the provision of individualized remedial reading assistance for eligible students by teachers and educational aides. Though impacted by budgetary constraints, one inservice objective was partially achieved.

The single product objective concerning the reading achievement gain of 4 NCE's among at least 80% of the project students was not attained. The proportion of pupils evidencing the gain of 4 NCE's was 41.5% in grade seven, 54.5% in grade eight, and 43.7% in grade nine. However, 52.5% of grade seven students, 65.1% of grade eight students, and 48.9% of grade nine students tested had NCE gains of one or more NCE units representing progress greater than expectancy.
OBJECTIVES AND OUTCOMES

Objective 1: Eighty percent (80%) of the students participating in the project will evidence a gain of at least four NCE's as reflected by pre-post Stanford Diagnostic Reading Test scores in reading comprehension (Brown Level, Form B).

Outcome: This objective was not attained.

During September and October, 1982, all grade 7-9 students were administered the Stanford Diagnostic Reading Test (Brown Level, Form B) as part of the City-wide Testing Program. Secondary STAR students were a part of the tested population; their test results were selected from the city-wide results and compared with post-test SDRT results which were available in June, 1983, as a result of STAR project testing at that time. The following table illustrates the pre-to-post analysis of the Project STAR scores.

**TABLE 1**

<table>
<thead>
<tr>
<th>GRADE</th>
<th>N</th>
<th>Pre-test MEAN</th>
<th>NCE</th>
<th>Post-test MEAN</th>
<th>NCE</th>
<th>MEAN GAIN (NCE)</th>
<th>GAINING 4 NCE</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>1153</td>
<td>30.98</td>
<td></td>
<td>32.04</td>
<td></td>
<td>1.06</td>
<td>41.5</td>
</tr>
<tr>
<td>8</td>
<td>1436</td>
<td>33.05</td>
<td></td>
<td>36.55</td>
<td></td>
<td>3.51</td>
<td>54.5</td>
</tr>
<tr>
<td>9</td>
<td>1113</td>
<td>32.64</td>
<td></td>
<td>32.55</td>
<td></td>
<td>-0.09</td>
<td>34.7</td>
</tr>
</tbody>
</table>

Normal Curve Equivalents (NCE's) are normalized, equal-interval standard scores. Using NCE'S from nationally normed tests, it is possible to derive a no-treatment expectation (the pre-test NCE score), which can be compared to the observed post-treatment performance to yield a measure of the project impact. Therefore, the pre-to-post NCE mean scores reported by grade level in the table for the Project STAR participants provided the requisite data to make the above mentioned assessment. The data indicated that 41.5% of the grade 7 participants, 54.5% of the grade 8 participants, and 34.7% of the grade 9 participants achieved the targeted NCE gain. However, these percents were lower than the 80% proposed in the objective.

A gain of at least 1 NCE does represent an accelerated rate of student progress. Post scores which were higher than expected (i.e. one or more NCE units greater than the pretest NCE) were evidenced by 52.5% of the seventh grade, 65.1% of the eighth grade, and 48.9% of the ninth grade project students.
Results for this analysis were originally intended to be derived from pre-post test results of the entire student project population. A total of 6,237 students were enrolled in the STAR Project classes during the academic year. A total of 4,302 students had valid pre and post-test results which were matched together to comprise the sample data for analysis. Although attendance factors usually account for missing data (at the secondary school level), the existence of a city-wide bus drivers' strike at the time of post-testing (the week of April 25, 1983) accounts for the 31% level of missing pre-post test data.

Objective 2: One teacher and one aide will be assigned to each affirmative reading program lab operating within all junior high schools to provide additional support reinforcement assistance to students who exhibit a wide-range of reading needs.

Outcome: This objective was achieved.

An inspection of project records as well as independent school site visits yielded evidence to support that 55 Learning Center teachers and 55 educational aides were assigned and were functioning in 24 secondary STAR schools. (A list of the school sites is contained in Appendix A). The STAR Learning Centers were established in all junior high schools prior to October 1, 1982. This included the installation of laboratory equipment and fixtures, the staffing by teachers and aides, and the assignment of eligible students to the daily schedule. Two facilities in only one school (A.B. Hart) were unavailable for use until October 18 and 25 respectively. However, STAR classes were conducted during the interim in the existing Center in the building.

Additionally, the results of a survey of all STAR Educational Aides conducted at the end of the project year, all of the 41 respondents indicated that they had been assigned full-time throughout the academic year. Project records also indicate that all teachers and aides did function full-time throughout the academic term.

Objective 3: The STAR teacher and aide will provide students with individualized reading skill support throughout the duration of their reading lab participation.

Outcome: This objective was attained.

Visits to the secondary STAR Learning Center sites documented the attainment of this objective. Self-paced audio lessons provide reading exercises which are designed to progress from reading readiness to beginning reading to comprehension skills for each participant. Project teachers provide the support and guidance to promote individual student progress.
In the survey of educational aides serving the DPPF STAR classes, the 41 respondents ranked their activities based upon time involvement as follows. (A copy of the survey instrument is contained in Appendix B.)

1. Helping students on an individual basis.
2. Clerical assistance (marking papers, duplicating materials, etc.)
3. Conferring with the teachers of pupils in the project.
4. Working with pupils in small groups.
5. Supervising class during study sessions, lunch period, etc.)
6. Conferring with parents via school visits.
7. Scheduling parent conferences.

Additional comments indicated that aides spend time cleaning, straightening, ordering and replenishing lab equipment, materials, and supplies.

The rank order was obtained from a tally of responses to indicate the three greatest and three least time consumers by the educational aides.

This ranking would indicate that aides do provide students with individualized reading skill support as well as provide the support required to keep the laboratory functioning smoothly.

Objective 4: STAR teachers and aides participating in the project's preservice/inservice session will indicate at least a 4.00 mean rating, based upon a one to five rating scale, for each item included on a locally constructed rating questionnaire designed to measure the effectiveness of the training activities.

Outcome: This objective has been partially achieved.

Two preservice sessions were conducted prior to initiation of STAR Center classes in September, 1982. Since that time, only two scheduled sessions were conducted. The following table summarizes the inservice activity for secondary STAR teachers and aides.
TABLE 2
Project STAR (Secondary)
Inservice Activities

<table>
<thead>
<tr>
<th>DATE (S)</th>
<th>TOPIC</th>
<th>TEACHER/AIDES</th>
<th>COMMENT</th>
</tr>
</thead>
<tbody>
<tr>
<td>05-24-82</td>
<td>New Century Lab</td>
<td>31 Teachers</td>
<td>Preservice training* for '82-'83 Staff (3 days)</td>
</tr>
<tr>
<td>05-27-82</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>09-07-82</td>
<td>New Century Lab</td>
<td>55 Teachers</td>
<td>Preservice training*</td>
</tr>
<tr>
<td>09-09-82</td>
<td>New Century Lab</td>
<td>55 Ed. Aides</td>
<td>Preservice training*</td>
</tr>
<tr>
<td>to</td>
<td></td>
<td></td>
<td>(3 days)</td>
</tr>
<tr>
<td>09-10-82</td>
<td>New Century Lab</td>
<td>3 Teachers</td>
<td>Preservice Training*</td>
</tr>
<tr>
<td>to</td>
<td></td>
<td></td>
<td>(3 days)</td>
</tr>
<tr>
<td>09-13-82</td>
<td>New Century Lab</td>
<td></td>
<td></td>
</tr>
<tr>
<td>to</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>09-16-82</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>10-28-82</td>
<td>Affirmative Reading</td>
<td>55 Teachers</td>
<td>Thursday Evening Program, Spellbinder</td>
</tr>
<tr>
<td>Program, Spellbinder</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12-02-82</td>
<td>Written, Oral Communications</td>
<td>55 Teachers</td>
<td>Evening and Saturday Sessions</td>
</tr>
<tr>
<td>and</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>12-04-82</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Conducted by New Century Inc.

Due to budget limitations, scheduled mandatory inservice sessions for STAR secondary teachers and educational aides were not available for the remainder of the academic year.

Insofar as the budget allocation prohibited additional prescribed inservice activities, a rating instrument was not circulated to any participants.

ADDITIONAL FINDINGS

The following observations are derived from site visits and interviews conducted with 53 of the 55 secondary STAR Learning Center teachers. Topics, most commonly expressed by teachers are represented as follows.

Most teachers felt that class sizes are too large to meet the individualized remedial objective of the project. (The recommended STAR class size is 24 at the secondary level). Classes approaching this size are not conducive to an atmosphere of remedial exercises supported by the individual attention of the teacher and/or the educational aide.
Some teachers reported problems with the Learning Center equipment, the quality of its repair, or the sufficiency of its backup.

Learning Center materials presented occasional problems for STAR teachers and aides. Delayed, or in some cases, cancelled orders from New Century hindered the smooth progression of students in the Centers.

Many teachers indicated that Project STAR is evidencing visible improved reading skills among project students were noted.

Year end attendance was also reported for Project STAR students. Table 3 below contains the attendance rates data.

TABLE 3

<table>
<thead>
<tr>
<th>Grade</th>
<th>STAR N</th>
<th>Rate (%)</th>
<th>Non-STAR N</th>
<th>Rate (%)</th>
<th>STAR Minus Non-STAR (%)</th>
</tr>
</thead>
<tbody>
<tr>
<td>7</td>
<td>2399</td>
<td>83.5</td>
<td>4516</td>
<td>82.3</td>
<td>+ 1.2</td>
</tr>
<tr>
<td>8</td>
<td>2006</td>
<td>83.2</td>
<td>4016</td>
<td>79.8</td>
<td>+ 3.9</td>
</tr>
<tr>
<td>9</td>
<td>1608</td>
<td>84.5</td>
<td>4198</td>
<td>79.5</td>
<td>+ 5.0</td>
</tr>
</tbody>
</table>

*180 days of instruction were scheduled.

The data contained in Table 3 indicate that STAR students exhibit attendance rates which exceed those demonstrated by non-STAR students in the system. The rate differences cited in the table translate into 2, 6, and 9 days better attendance by Project students than non-STAR students in the seventh, eighth, and ninth grades respectively. The current year's rate also exceed those reported for the previous academic year for STAR students at these grade levels.
CONCLUSIONS

Project STAR (Secondary) successfully provided the resources and training targeted in the project's objectives. Project teachers and educational aides were trained, assigned, and did proceed to provide the STAR students with individualized reading skill support. The process objectives were attained (with the exception of the inservice plans limited by budgetary constraints). The single product objective concerning the student achievement gain in reading comprehension was not attained by the sample of students whose test scores were analyzed. The project appears to be implemented effectively as designed, however, student achievement goals remain unmet.
APPENDIX A

Project STAR Secondary Sites
1982-83 School Year

Junior High Schools

1. Albert B. Hart
2. Alexander Hamilton
3. Audubon
4. Carl F. Shuler
5. Central
6. Charles Mooney
7. Charles Eliot
8. Clara Westropp
9. Empire
10. Franklin D. Roosevelt
11. Harry E. Davis
12. Joseph M. Gallagher
13. Lincoln
14. Margaret Spellacy
15. Martin L. King
16. Nathan Hale
17. Newton D. Baker
18. Patrick Henry
19. Robert H. Jamison
20. Thomas Jefferson
21. Whitney M. Young
22. Wilbur Wright
23. Wilison

Senior High School

24. Collinwood
**APPENDIX B**

**SURVEY OF EDUCATIONAL AIDES SERVING DPPF PROJECT STAR CLASSES**

**EDUCATIONAL AIDE ASSIGNMENT**

Please indicate the information about your current assignment by placing an "X" in front of the description which applies. Mark one answer only.

- I have served in this assignment _all year_.
- I have not served in this assignment _all year_.
- I am assigned _full_ time.
- I am assigned _less than full_ time.

**ACTIVITIES OF EDUCATIONAL AIDES**

In the column below, check the three activities which involve the greatest amount of your time. Check the three activities which involve the least amount of your time.

1. Clerical assistance (marking papers, duplicating materials, etc.)
2. Helping pupils on an individual basis.
3. Working with pupils in small groups.
4. Supervising class (during study sessions, lunch period, etc.)
5. Scheduling parent conferences
6. Conferring with parents via school visits
7. Conferring with teachers of pupils in project
8. Other (please specify)

<table>
<thead>
<tr>
<th>Activity</th>
<th>Greatest</th>
<th>Least</th>
</tr>
</thead>
<tbody>
<tr>
<td>Clerical assistance</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Helping pupils on an individual basis</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Working with pupils in small groups</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Supervising class</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Scheduling parent conferences</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conferring with parents via school visits</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Conferring with teachers of pupils in project</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Other (please specify)</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*(Specify)*

**NOTE:** PLEASE COMPLETE THIS SURVEY AND RETURN PROMPTLY TO JIM LANESE, ROOM 600-S ADMINISTRATION BUILDING