Academic Literacy was a year-long course focused on reading strategy development for all ninth graders at Thurgood Marshall Academic High School in the San Francisco Unified School District. Course goals were to help students become engaged, fluent, and competent readers of the variety of texts necessary for them to master to be successful in high school and beyond. Three units—Reading Self and Society, Reading Media, and Reading History—provided the text materials and content of the course. Key components of the course were: sustained silent reading, reciprocal teaching, teacher think alouds, guided reading of exposition, "chunking" (breaking down complex sentences in expository texts to understandable bites), vocabulary building, metacognitive writing and talking about reading processes, and a focus on controlling attention and reading process. To evaluate the course's impact on student learning, standardized measures were collected from the entire ninth grade and a broader set of qualitative measures were collected in two of the four teachers' classrooms, selecting a subset of students in these classrooms for closer study. Both quantitative and qualitative measures were used. Additionally, intensive case studies of 8 of the 30 students were carried out. Results to date, interpretations, and recommendations are discussed. (NKA)
Impact of the Pilot Academic Literacy Course on Ninth Grade Students' Reading Development: Academic Year 1996-1997.

A Report to the Stuart Foundations

By Cynthia L. Greenleaf, Faye L. Mueller and Christine Cziko
Impact of the Pilot Academic Literacy Course on Ninth Grade Students' Reading Development: Academic Year 1996 - 1997

A Report to the Stuart Foundations

(September 1997)

Cynthia L. Greenleaf and Faye L. Mueller, Strategic Literacy Initiative, WestEd with Christine Cziko, Thurgood Marshall Academic High School

The Course

Academic Literacy was a year-long course focused on reading strategy development for all ninth graders at Thurgood Marshall Academic High School in the San Francisco Unified School District. The goals of the course were to help students become engaged, fluent and competent readers of the variety of texts necessary for them to master in order to be successful in high school and beyond. Three units, Reading Self and Society, Reading Media, and Reading History, provided the text materials and content of the course. Key components of the course were:

- Sustained Silent Reading with accountability through reading logs and projects
• Reciprocal Teaching and its components of questioning, summarizing, clarifying, and predicting with expository texts

• "Teacher Think Alouds" modeling reading and problem-solving with common texts

• Guided reading of exposition

• "Chunking" or breaking down complex sentences in expository texts to understandable bites

• Vocabulary building

• Metacognitive writing and talking about reading processes

• A focus on taking control of one's own attention and reading process

Evaluating the Impact of the Course on Student Learning

To evaluate the impact of the course on student learning, we collected standardized measures from the entire ninth grade and collected a broader set of qualitative measures in two of the four teachers' classrooms, selecting a subset of students in these classrooms for closer study.

Quantitative measures included:

• 8th grade and 9th grade CTBS scores in reading

• Pre- and post-tests of reading proficiency using the Degrees of Reading Power test

Qualitative measures included:

• Pre- and post-course reading surveys

• Student written reflections and course evaluations

• Focus group interviews

• Classroom observations

• Samples of course work for 30 students selected randomly from the class rosters of two of the Academic Literacy teachers

In addition, we carried out intensive case studies of 8 of these 30 students, videotaping interviews with them three times during the year as they carried out their reading assignments for the course.
Results To Date

**DRP Results**

Ninth grade students were tested with one form of the test at the end of October and seven months later, at the end of May, with a parallel form of the test.

Ninth graders made a significant gain of four score points from Fall to Spring, an amount identified by the test designers as significantly greater than one year's expected growth at the ninth grade level ($t = -7.558, df= 215, p = .000$).

This corresponds to an increase in the students' independent reading level from the equivalent of texts like *Charlottes Web* at 50 DRP Units to *To Kill a Mockingbird* at 54 DRP Units.

When the Special Education students in the ninth grade were excluded from analysis, the remaining group of students again gained an average of 4 points in raw score from the Fall to the Spring ($Z = -7.332, df = 202, p = .000$), but their mean scores were higher. In addition, their percentile scores increased over 2 percentage points from 49% (below the national norm) in the Fall to nearly 50.5% (above the national norm) in the Spring ($Z = -2.152, df = 202, p = .031$).

This represents an increase in the students' independent reading level of texts like *Old Yeller* at 51 DRP Units to texts like *The Adventures of Tom Sawyer* at 55 DRP Units.

The instructional reading level of these students reached a mean of 66 DRP Units in the Spring, corresponding to texts like *The Prince*, rated at 65 DRP Units or *The Scarlet Letter* rated at 67 DRP Units.

In terms of trade materials, these students moved from independently being able to manage children's magazines to teen fiction and adult fiction magazines.

With instructional support, they should be able to manage all but the most difficult of high school textbooks, 50% of which range from 62 to 68 DRP Units.

There were no significant teacher effects on student progress, indicating that differences among teachers did not result in differences in terms of student learning.

All groups of students made impressive gains from Fall to Spring, without regard to ethnicity or language background.
Interpretations

These results gain significance when one considers that the norming sample against which the ninth grade students were ranked was developed to approximate a national population. In this norming population, only 29.7% of ninth graders were of low socioeconomic status and only 13.6% were eligible for free or reduced school lunch programs. Although SES information is not directly available on the ninth grade students at Thurgood Marshall, 33.2% of all Marshall students were eligible for free or reduced school lunches according to the School Profile published in Fall of 1996.

Given that the school draws from the Bayview/Hunters Point area, low socioeconomic indicators for the school are very likely to exceed the 29.7% of the norming population. In addition, the percentages of students in the norming sample are 0.3% American Indian, 11.7% African-American, 1.4% Asian, 4.6% Spanish Surname, and 62.9% Other White, a sample which while representative of the nation is clearly not representative of the language and cultural minority population of Thurgood Marshall.

Language minority students, in particular, might be expected to read less well than age-matched peers whose primary language is English. The norming sample does not include students with identified learning disabilities.

While the ninth grade students at Thurgood Marshall made significant progress as readers during the 1996 - 1997 school year, it is important to measure this success against a benchmark that shows just how far the students have to go to reach the kind of proficiency we would like to see in a literate population. The front page stories in major metropolitan newspapers range from 67 to 71 DRP Units, a range beyond all but the highest 25% of the ninth grade readers in the Spring. Adult general interest magazines range from 62 DRP Units for topics like people and sports to 67 DRP Units for daily living magazines and 68 to 71 DRP Units for science, national or international interest, or business magazines. The reading materials required of employees in various positions within a major insurance company range from 63 to 72 DRP Units, with an average of 69 DRP Units. Unsurprisingly, the lowest reading demands occur for the lowest paid positions.

Survey Results

Students in nine of the Academic Literacy classes were given Reading Surveys to complete during September 1996 and again in June of 1997. These surveys consisted of a series of questions about their reading histories, reading habits, likes and
dislikes, as well as an estimate of the number of books they had read during the previous year. Here is a sampling of their responses:

In the Pre-Course Survey students reported reading an average of 5.58 books in the previous year; in the Post-Course Survey students reported reading an average of 10.99 books during the current year.

In response to the question "What does someone have to do in order to be a good reader?", 71% of student answers on the Pre-Course Survey were about practicing reading to improve; on the Post-Course Survey students referred to many more ways to improve:

• Twice as many students said that you must understand what you read

• Over twice as many students mentioned specific strategies good readers must use to make sense of what they read

• Twice as many students thought that to become a good reader one must enjoy reading and pick books that interest them

In response to the question "How do you decide which books you read?", the number of students who described previewing a book in order to decide whether to read it nearly doubled from Pre to Post-Course Survey. By spring, 80% (134 students) sampled a book by either skimming its pages or by actually reading parts of the book to see if they liked it.

In response to the question "Who are your favorite authors?" 42% of the students could not name one favorite author in the Pre-Course Survey, while in the Post-Course Survey only 20% could not name a favorite author.

In response to the final question "In general, how do you feel about reading?", in the Pre-Course Survey 42% of the students said they liked or loved reading, while 38% said it was okay and 17% said they did not enjoy it. In the Post-Course Survey, 67% of the students said they liked or loved reading, 27% said it was okay and only 6% said they did not enjoy it.

**Interpretations**

In general, the students began to think about reading as a sense-making activity that they can control by using strategies and choosing books they like, rather than as a set of skills that one either has or does not have. Students responses demonstrate that they acquired a greater sense of their own agency,
responsibility and control of how they read over the course of the school year, as well as a much more elaborate set of ideas, strategies and resources for doing so. Students grew more knowledgeable about selecting books to read, knew how to create reading situations that worked for them and valued reading in new ways.

Recommendations

While the students at Thurgood Marshall have made significant progress in one year through the Academic Literacy Course and interventions piloted, they must continue to develop as readers in order to meet the demands for higher level literacy required of the college students and professionals these students aspire to become. This suggests a whole-school, multi-year instructional program focused on reading to consolidate and continue the progress the students have made to date.

Further, the Pre and Post-Course Surveys indicate that students reading habits were still largely reliant on reading during the school day (SSR) and required a school or classroom culture of valuing reading to support their reading. If we are to win students over to reading as lifelong recreation and enrichment we must continue to provide time and incentives for reading during the school day.

About the Degrees of Reading Power (DRP) Test

To evaluate the impact of the Academic Literacy course on student reading development, we wanted to measure any changes in student reading processes and proficiencies using a pre- and post-course assessment. Given the intense focus on curriculum and instruction demanded when teachers are first implementing a new curriculum, we wanted the assessment to demand little from the teachers in the way of time and interpretation, while yielding information useful in instructional decision-making. Ideally, the reading assessment would be standardized, that is, norm-referenced against a larger population of students against which we could measure ninth grade student performance and progress.

For instructional purposes, it would be best if the test were able to give reading levels for individual students and classes of students. Finally, we hoped to find a test which would measure some of the explicit foci of the course itself and thereby measure our success in meeting our own goals.

We were hard pressed to find a test that would serve all of these purposes. The Degrees of Reading Power (*DRP) test by Touchstone Applied Science Associates came closest to
meeting our needs. The test measures students ability to "process and understand increasingly more difficult prose material" (DRP Handbook: G&H Test Forms, p. 11), focusing on student comprehension of the surface meaning of texts in order to measure "the process of reading rather than products of reading such as main idea and author purpose" (DRP Handbook: G&H Test Forms, p.1).

The test consists of nonfiction paragraphs on a variety of topics. Within these paragraphs, words have been deleted and the student is asked to select the correct word for each deletion in text from a set of multiple-choice options. The items assess students ability to use the information in the text to figure out the meaning of the text and thereby select the correct word from the multiple-choice options given. The test items require that students read and understand the entire passage in order to answer correctly. Omitted words are all common words even if the passage is difficult; thus, failure to respond correctly should indicate failure to comprehend the passage rather than failure to understand the response options. The test is constructed to eliminate the likelihood that guessing or other non-reading activities can be used to generate correct responses.

Student performance on DRP tests is reported on a readability scale (the DRP unit scale) which describes the most difficult text the student can read with different levels of comprehension. The DRP readability scale indexes the relative proportion of common or frequently used words in the text; the relative proportion of short to long words in the text; and the relative length and complexity of sentences in the text. A mathematical formula based on the Bormuth mean cloze readability formula (DRP Handbook: G&H Test Forms, p. 13) combines these features to predict the difficulty (readability) of a text. Touchstones Applied Sciences Associates, Inc. have applied the DRP readability index to a variety of popular textbooks as well as common literature at all grade levels. In addition, they have measured the readability of trade publications for various aged reading audiences. These measures of text difficulty for particular types of text provide real-world anchors for the interpretation of student performance on DRP tests.

Readability indices are admittedly flawed as measures of text difficulty. For instance, these indices notably omit measures of text difficulty having to do with the readers familiarity with the topic or background knowledge relevant to the topic of text passages. However, they do give a standard metric against which student reading ability can be measured. More importantly, they report student performance in terms of the kinds of texts the student should be able to read with various degrees of comprehension. Student performance on the DRP
tests is reported in terms of the most difficult text the student can be expected to read with a given level of comprehension. Student raw scores are converted to DRP scores which are reported in DRP Units. Importantly for our purposes, DRP Units can be converted to norm-referenced scales such as national percentiles and Normal Curve Equivalent scales.

To document student growth in reading, the test developers recommend pre- and post-testing with alternate forms of the test. For the ninth grade, test forms G4 and H4 are recommended. Thurgood Marshall purchased the Fall testing materials from Touchstone Applied Science Associates, Inc. with departmental funds and the Strategic Literacy Initiative purchased the spring testing materials when these school funds were exhausted. Two forms of the Standard DRP test were administered: Test G-4 in the Fall at the end of October, and Test H-4 in the Spring at the end of May. Each of these tests presents students with 70 test items. (See Appendix A for a sample passage of these tests.)

Answer sheets for the Fall and Spring tests were scored and a computer database of student performance on the test was created. This database contained information about the student: district identification number, name, ethnicity, Fall test score, Spring test score. Each raw score was then converted into a readability score, a percentile rank, and a normal curve equivalent, using the lookup tables supplied with the test. These conversions were also entered into the database. The database was then transferred into a statistical analysis program: SPSS Base 7.5 for Windows for analysis.

The Course | Impact on Learning | DRP Results | DRP Interpretations |
Survey Results | Survey Interpretations | Recommendations | About DRP Test

This information can be found at http://www.wested.org/stratlit/StudentLearning/impact.shtml
Last modified March 4, 2002
©2002 WestEd® || (415) 565-3000 || www.WestEd.org
All rights reserved. No portion may be reproduced without permission of WestEd.
NOTICE

Reproduction Basis

☐ This document is covered by a signed "Reproduction Release (Blanket)" form (on file within the ERIC system), encompassing all or classes of documents from its source organization and, therefore, does not require a "Specific Document" Release form.

☒ This document is Federally-funded, or carries its own permission to reproduce, or is otherwise in the public domain and, therefore, may be reproduced by ERIC without a signed Reproduction Release form (either "Specific Document" or "Blanket").