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The Questions
The two primary questions I hope to answer are: 1. “How does the Read-Along Tapes program (R.A.T. R.O.A.R.S.) affect achievement in reading for language minority students?” 2. “How does the R.A.T. program affect achievement in the three reading intensive core classes (i.e. History, Science and English) for language minority students?” An additional question is, “Is there a difference between the effects of a R.A.T. program on language minority students and native English speakers?”

The Purpose/Significance
Our school has a very diverse population of students with a high percentage of ESL and LD students. Moreover, a significant number of our students are low readers. In fact, according to DRP data, more than ten percent fall below the lowest tenth in the country. In addition, many of our students failed all of their 5th grade SOL tests. It has been suggested that there is a correlation between reading achievement and success on the SOLs. Furthermore, one of our ESL teachers has targeted 12 students who were born in the United States but have yet to exit from the ESL program. Many school systems across the country are experiencing these issues. Some research suggests that the R.A.T. program helps low readers make substantial gains in reading ability, while fostering achievement in their classes.

Literature Review
I began this review with the work of the women who developed the R.A.T. R.O.A.R.S. program. In 1987 at Lake Braddock Secondary School in Fairfax they set out “to analyze the kids who were failing tests, not doing homework, not completing assignments, not bringing supplies and books to class, and those who were discipline problems. . . the common denominator was that these students did not read on grade level.” The developers of R.A.T. R.O.A.R.S shared some concerns, namely: 1. How to make time to teach reading to a minority of students; 2. How would singling students out affect their self-esteem; 3. Other methods hadn’t worked. They decided to use one of students’ favorite pastimes – listening to walkmans – to help students improve reading and content knowledge. Thus, giving the students the power to choose when and where they can use the program. . .” The developers of R.A.T. R.O.A.R.S didn’t discover any research supporting the provision of books on tape for a “regular” classroom of diverse learners. They did cite the work of Dr. Marie Carbo with special
education students, which demonstrates “as much as 2 ½ years of reading growth over a period of one year.” In addition, Jim Trelease was referred to as an authority who recognizes the value of read-along tapes.

Browsing through the ERIC database I found hundreds of relevant research studies, dating from the 1960s to this school year (1999), many of which focus on language minority students (see the attached 23 abstracts). Richard Wade Gates published An Analysis of Student Outcomes Using Audio tapes to Supplement Reading in the Level One Course of the Intermediate Science Curriculum Study in 1970. The study involved one hundred students (two groups of 50) classified as poor readers over the course of a year. The study design and instruments seemed solid and effective. Results: other than rating of teacher performance, “students using the audio tapes as a supplement to reading showed significantly greater results in every other aspect” including reading vocabulary, reading grade level, reading comprehension and understanding of science. Reading Comprehension in Bilingual Students with the Aid of Taped Stories (Strauss and Knafle, 1984) compared the effects of “reading silently and reading silently with the support of an audiotape” in 9 Spanish-English bilingual fifth through seventh grade public school students. They found a significant difference, suggesting that, “auditory supported reading is a more effective means of enhancing comprehension than silent reading alone.” A “study of the effect of supplying audio tapes to accompany leisure reading books in Irish found that the tapes considerably increased native-English-speaking elementary school students’ motivation to read, facilitated comprehension, and increased the children’s reading rate and pronunciation accuracy,” (Hickey, 1991). Here’s a title all practicing educators can appreciate: Increasing Beginning Readers’ Reading Success without Increasing Direct Instruction Time [my bold] by Using Books on Tape. Sixty-three at risk kindergarten and first grade students in West Virginia were divided into two groups: one read along to taped versions of books; the other watched and listened to videotapes of the pages of the books. “Results indicate that the audiotape condition was more beneficial than the videotape condition for developing children’s concepts about print.”

Methods

Approximately 50 7th grade students who had failed all of their 5th grade SOLs were identified and invited to a special lunch to hear about the program. While parent volunteers served pizza and soda, students filled out applications and contracts to be a part of the program. They were told that the program was voluntary – not mandatory. The following week, February 15, 2000, approximately 20 students returned their contracts signed by a parent or guardian.

Upon returning the contracts, students were issued personal cassette players with headsets and batteries. They were also assigned mentors. The mentors distributed taped recordings of their students’ science, history and English texts. Once a week mentors met with their three or four students to
monitor the use of the program, distribute tapes, teach a reading strategy and discuss any problems.

Students’ DRP scores before and after implementation of the program will be analyzed. In addition, their grades in English, history, and science before and after the program, will also be compared and analyzed.

Results

These preliminary results do not include grades. (That data was not available at the time that this draft was written). Furthermore, the DRP data on these students is largely incomplete. As soon as this data is available comparisons to the control will be examined. However, almost all participants completed the survey.

Background information

The first part of the survey given to participants asked for general and language information. From this section we learned that 8 RATS were female and 10 male. Ten of them listed English as their first language, and eight list Spanish. As their second language, eight list English, two Spanish, two Arabic, one Urdu, one Somali, and one Indian. However, when asked what language is spoken most at home, nine replied English, eight Spanish and one Indian. Most of these students had lived in the United States all of their lives. One had lived in the US for twelve years, one for eleven, two for eight and one had lived here for just three and a half.

Self-evaluations

Five students indicated that their reading ability was poor before the program, while zero indicated that their ability was poor after the program. Eleven students indicated that their reading ability was fair before the program and seven after. Only two children felt their reading was “good” before the program, but eleven students reported feeling good on the survey day. In addition, according to the survey, the number of students who believed their grades were poor dwindled to two after the program. Moreover, the number who believed their grades were “good” increased from two to eight.

Program evaluation

At the end of the program, not one participant said that the program was “no help.” In fact, nine indicated it was a little help and nine said it was very helpful. More importantly, seventeen declared “yes” they would like to participate in the program next year.
Table 1
DRP Scores

<table>
<thead>
<tr>
<th>Name</th>
<th>6th grade, '98-'99</th>
<th>7th grade, '99 - '00</th>
</tr>
</thead>
<tbody>
<tr>
<td>Patrick C.</td>
<td>6.6</td>
<td>6.6</td>
</tr>
<tr>
<td>Mayra G.</td>
<td>1.9</td>
<td>3.6</td>
</tr>
<tr>
<td>Murshed K.</td>
<td>4.9</td>
<td>4.7</td>
</tr>
<tr>
<td>Jessica M.</td>
<td>2.6</td>
<td>4.2</td>
</tr>
<tr>
<td>Jose M.</td>
<td>3.4</td>
<td>3.9</td>
</tr>
<tr>
<td>Ingrid P.</td>
<td>2.4</td>
<td>2.3</td>
</tr>
<tr>
<td>Lucy R.</td>
<td>5.1</td>
<td>5.1</td>
</tr>
</tbody>
</table>

Conclusions

The primary function of the R.A.T. R.O.A.R.S. program is not the teaching of reading, but rather the provision of support and scaffolding for content area knowledge and perhaps the acquisition of CALPS (Cognitive Academic Language Proficiency). Thus, grades are a better tool than DRP scores for analyzing the success of the program. Furthermore, the fact that the students continued to participate on a voluntary basis when it required taking time during lunch or after school – which would usually be free time with friends – and it required some extra work on their part suggests that students believed the program was helpful, or at least enjoyable. According to the survey all but one want to do it again next year.

Moreover, we know attitudes affect achievement and the survey suggests that participants feel like they are better readers and that their grades have improved. Steps need to be taken to improve the efficacy of the program: More tapes need to be made available. The response to tape requests should be quicker. Mentors need to meet more consistently with their groups. Cooperation with the Mentor-Mentee program, utilization of a grant, and tapping into our parent and student volunteer resources should expedite these improvements.