A 6-year ex post facto study compared the word study skills, word reading/reading vocabulary, reading comprehension, and total reading achievement of Choctaw Indian first and second grade classes that participated in the Sing, Spell, Read, & Write (SSRW) program and classes that had not participated in the program. Subjects were 84 students in 6 Choctaw Indian elementary schools operated by the Mississippi Band of Choctaw Indians. Seven intact first-grade and seven second-grade classrooms participated. During the first 4 years (1989-90 through 1992-93), no classes participated in the program. During the last 2 years, all first and second grade classes participated. The Stanford Achievement Test Primary Level 1, Form J was used to measure first graders' word study skills, word reading, reading comprehension, and total reading achievement, and the Primary Level 2, Form J was used to measure second graders' word study skills, reading vocabulary, reading comprehension, and total reading achievement. Class means were used as the units of study. Scaled scores for the first 4 years were averaged to provide baseline data for comparison. Data from the last 2 years were averaged for first grade classes and compared to the baseline. Second-grade test results for 1994 and 1995 were compared to the baseline separately, since the 1995 data reflected scores of students who participated in SSRW when they were in first grade. Results indicated no statistically significant differences between the baseline group and the SSRW group in any of the four areas of reading for first or second grade. (Contains 57 references and 2 tables of data.)

(Author/RS)
A Comparison of the Sing, Spell, Read, & Write Program and the Traditional Approach to Reading Instruction

Laura Bryan and James S. Turner
Mississippi State University

A Paper presented at the Twenty-Fifth Annual Meeting of the Mid-South Educational Research Association

Tuscaloosa, Alabama
November 6-8, 1996
# TABLE OF CONTENTS

Abstract ......................................................... 3

Introduction .................................................. 5

Literature Review .............................................. 8

Methodology .................................................. 14
   Sample and Setting ......................................... 14
   Instrument .................................................. 14
   Procedures .................................................. 15
   Data Analysis .............................................. 16

Results and Discussion ...................................... 16

Conclusions and Recommendations ....................... 20

References ..................................................... 22
Abstract

The purpose of this six-year ex post facto study was to compare the word study skills, word reading/reading vocabulary, reading comprehension, and total reading achievement of Choctaw Indian first and second grade classes that participated in the Sing, Spell, Read & Write (SSRW) program and Choctaw Indian first and second grade classes that had not participated in the program.

Subjects for the study included 84 first and second grade classes in six Choctaw Indian elementary schools operated by the Mississippi Band of Choctaw Indians. There were seven first grade classes and seven second grade classes each year of the six-year study. The classes were all intact groups with one certified teacher and one teaching assistant. During the first four years of the study (1989-90 through 1992-93), no classes participated in the SSRW program. During the last two years of the study (1993-94 and 1994-95), all first and second grade classes participated in the program.

The data-gathering instrument used in this study was the Stanford Achievement Test. Primary Level 1, Form J was used to measure the four reading subtests in first grade (word study skills, word reading, reading comprehension, and total reading achievement). Primary Level 2, Form J was used to measure the four reading subtests in second grade (word study skills, reading vocabulary, reading comprehension, and total reading achievement). Class means were used as the units of study.

Scaled scores from the first four years of the study were averaged to provide baseline data for comparison. Data from the last two years of the study were averaged for first grade classes.
and compared to the baseline. Second grade test results for 1994 and 1995 were compared to the baseline separately. This was necessary since the 1995 data reflected scores of students who participated in SSRW when they were in first grade.

The comparisons were made using 12 one-way analyses of variance. The level of significance was .05. No statistically significant differences were found between the baseline group and the SSRW group in any of the four areas of reading for first or second grade.
Introduction

Historically, many educators have felt that the number of children who read less effectively than they should is far too high (Roswell & Natchez, 1964). In the 1960s, authorities reported that about 18 to 25% of America’s school-age children were suffering from some form of reading impediment (Wallenberg, 1968). A controversy exists as to whether today’s students read better than yesterday’s students. Studies with different groups indicate both gains and losses (Kibby, 1994). However, it has been reported that approximately 1 million illiterate teenagers drop out of school each year (Hodges, 1991). Consequently, although there are many challenges to education and teaching, higher literacy levels in reading and writing are at the top of the list (Templeton, 1991).

As students approach reading instruction, they face the job of developing certain fundamental concepts. For instance, it is becoming increasingly clear that a relationship exists between oral language and reading. Adequate mastery of spoken language is important for progress in reading and is dependent on many factors such as student characteristics, the instructional environment, and the home environment (Christenson, 1990).

According to Roswell and Natchez (1964), the home environment or the setting in which children live has an important influence on their lives and significantly affects their learning. If a second language is spoken in the home, children do not have normal opportunities to acquire adequate language backgrounds. They often develop a very limited English vocabulary,
incorrect pronunciation, and faulty sentence structure, all of which have a negative effect on reading ability (Roswell & Natchez, 1964; Harris, 1970).

When data on the academic achievement of language minority students was examined, a striking pattern emerged. The groups that tended to experience the most severe underachievement were those that had been subjected to external control and discrimination for several generations. Included in these groups are Native American Indians (Cumins, 1987). The National Center for Education Statistics reports a wide performance gap between White students and American Indian students (National Education Goals Panel, 1994).

Members of the Mississippi Band of Choctaw Indians are no exception. Throughout most of their history, the Choctaws have lived as an isolated rural minority. As a result, they did not have access to many of the developments which took place in the larger society (Peterson, 1970). Peterson also reported that 95% of the Choctaw Indians used the Choctaw language as their dominant means of communication. Later reports indicated that the Choctaw language was still the major means of communication for over 80% of the Choctaw people (Greenbaum, 1983; Fortune, 1990).

In 1983, tribal leaders, concerned that students were not performing adequately, commissioned an in-depth study of the educational system. This inquiry found (a) low achievement test scores, (b) a high drop-out rate, (c) persistent low educational attainment, (d) lack of success in higher education, (e) parental reports of lack of school cooperation, and (f) a limited curriculum (Walters, 1993). Two years after this study, a reform effort was launched, and one recommendation stated that a new look at curriculum was needed.
One program that has been implemented in six Choctaw Indian elementary schools in Mississippi for the past two years is the Sing, Spell, Read & Write (SSRW) program. This program is used as a supplement to the combination whole-language and basal reading approach already present in the schools. The program combines music and phonics to teach reading. The SSRW program was designed to be highly motivating with success built in for every child (Dickson, 1984). The program is specifically recommended for remedial reading and for English-as-a-second-language classes.

In view of the literature regarding its salient features, SSRW appears to have a sound theoretical base. Whether or not the program produces positive effects on reading ability cannot be determined without empirical evidence. Therefore, the purpose of this study was to compare the word study skills, word reading/reading vocabulary, reading comprehension, and total reading achievement of Choctaw Indian first and second grade classes that participated in the SSRW program and Choctaw Indian first and second grade classes that had not participated in the program.

For the first decade after its inception in 1972, SSRW received little publicity. In 1983, the Christian Broadcasting Network used the program for their national literacy outreach. SSRW gained national recognition and schools began trying the new program (International Learning Systems (ILS), 1994). A review of the literature revealed an overall lack of research concerning the program. This study was designed to fill a void in the existing literature and to provide the framework for further studies.
Literature Review

The literature review first examined studies relevant to phonics instruction. Reports suggested that the phonics method of teaching reading produced positive results (Meyer, 1982; Blumenfeld, 1983; Gurren & Hughes, 1983; Delcamp, 1987; Groff, 1987; Chall, 1989; Adams, 1990; Adams & Osborn, 1990; Snider, 1990; Stahl & Osborn, 1994).

Section two of the review examined literature relevant to music and reading instruction. Research studies and the writings of leading music educators indicated that the use of music to teach reading can have positive effects (McDonald 1975; Wright, 1977; Baxley, 1979; McDonald, 1983; Boyd, 1989; Collett, 1991; Fitzgerald, 1994; Manins, 1994).

The next two sections of the literature review examined both published and unpublished studies concerning the Sing, Spell, Read & Write (SSRW) program. During the 1991-1992 school year, SSRW was implemented in 11 Memphis, Tennessee, schools. Of these 11 schools, 9 were randomly selected for the purpose of evaluation. The nine treatment schools were matched with nine control schools which used basal reading instruction and did not have the SSRW program in any grade level. The sample contained schools from the low, middle, and high socioeconomic strata. Students in kindergarten through grade two in all of the treatment and control classes were given pretests and posttests in reading, using the Durrell Analysis of Reading Difficulty and Woodcock Language Proficiency Battery. Letter-word identification posttests administered to 161 SSRW kindergartners and 137 control kindergartners revealed that SSRW students outperformed control students at each stratum. The two-way ANOVA yielded significant differences for both treatment (SSRW), $p = .002$, and strata, $p = .001$, with no
significant interaction effects. This indicated that kindergartners participating in SSRW outperformed their control peers on letter-word identification regardless of the socioeconomic stratum of their school. Word attack posttests were administered to 134 SSRW kindergartners and 75 control kindergartners. Mean scores at each stratum favored the SSRW group, but were statistically significant only at the low socioeconomic stratum, \( p = .001 \). In first and second grades, class type was added as another independent variable and the results were reported in effect sizes. First grade posttest effects favored SSRW for all tests at every stratum. A moderately strong positive effect was observed for letter-word identification and a strong positive effect was observed for word attack skills. In second grade, moderately strong positive effect sizes were observed for word attack skills and letter-word identification (Bond, Ross, Smith, Nunnery, Goldstein, & Bowie, 1992).

A three-year longitudinal study was also conducted in the Memphis, Tennessee, school district (Bond, Ross, Smith, Casey, & Campbell, 1995). This longitudinal study was the result of concern by the researchers over the issue of reading comprehension and whether or not it was affected by the SSRW program. Three schools reflecting three socioeconomic strata (high, middle, and low) were selected to represent the SSRW schools. Each of these schools was matched with a comparison school on the basis of socioeconomic strata and race. The comparison schools did not implement SSRW. Three subtests of the Woodcock Reading Mastery Test were used in the study. These subtests included Letter Identification, Word Identification, and Word Attack. The Durrell Analysis of Reading Difficulty and an informal spelling test were also used in the study. Statistical comparisons between the SSRW and the
comparison groups were conducted using Multiple Analysis of Variance (MANOVA). Effect sizes were computed for each of the subtests. In the first year of the study, the most dramatic effect sizes for the SSRW classes, in all three strata, were found in word attack. The second year, in the middle and low strata SSRW classes, the effect sizes continued to remain positive for the reading subtests. In the high stratum, SSRW classes continued to be higher in word attack, but were below the comparison schools in all other measures of reading ability. The posttest results of the third year of the study are the least supportive of SSRW. In word attack, the high stratum and middle stratum SSRW students performed approximately the same as their counterparts, whereas, the low stratum SSRW students did less well. For word identification, the SSRW students were equal to the comparison students in the high stratum, excelled in the middle stratum, but did less well in the low stratum. The Durrell Analysis of Reading Difficulty was administered to determine if SSRW was effective in improving comprehension. The high stratum SSRW students scored lower than the comparison students with an even stronger negative effect size than was found in the second year results. While the middle stratum SSRW student scores remained higher than the comparison student scores, the effect size had decreased from the previous year. The low stratum SSRW students scored less well than the comparison students. This differed from the previous year when the effect size was positive and strong. The researchers concluded that although the SSRW students in this study could do well in word attack in kindergarten, that foundation did not appear to be enough for improving overall reading skills.
Clifton (1986) reported results from the Selma Unified School District, one of the first districts in California to implement SSRW. SSRW had been adopted district-wide in Selma County for kindergarten, first, second, and third grades. In 1980, only 30% of Selma United School District first-graders were at or above grade level. Although the reading scores of most Selma school children had shown steady improvement since the program was introduced, it was at Washington School (part of the Selma district) that the growth rate was remarkable. More than 50% of the students at Washington began kindergarten or first grade with no knowledge of English. By 1985, 85% of the Washington first-graders were above the 50th percentile on the CAT for reading, compared to the 62% of the students district-wide achieving at or above grade level.

Eide (1988) described a pilot study in Aberdeen, Mississippi, which compared first grade achievement test scores for the school year 1987-1988, after the students had participated in SSRW, with test scores from the 1986-1987 school year before SSRW was implemented. There was a 59 percentile point gain in word reading, and a 42 percentile point gain in total reading achievement.

Row (1990) reported that 17 of the 25 students in her third grade classroom gained over 50 scaled points on the Stanford Achievement Test. This occurred after one year's participation in SSRW. Row also reported that overall, while the other sections of third grade gained an average of 26 scaled points — a normal yearly gain on the SAT—her class had an average gain almost double that. Her class was the only class using SSRW.
After learning of the success in Aberdeen, Lepanto (1991) conducted research comparing two school systems. The experimental group used SSRW as a supplement to their basal program, and the control group used only the basal reading series. It was found that there was no statistically significant difference between the reading achievement of the two groups. Lepanto reported that although not statistically significant, gains were achieved and behavioral changes were observed by the faculty.

In addition to these published reports, there have been several unpublished reports concerning SSRW. In 1991, Hodges reported being in the second year of a three-year study investigating the effects of SSRW in first grade classes. The study was described as “control-experimental research design. Two comparable first grade classes were selected in each of 25 public school districts in Mississippi. Both groups used the same basal readers, but the experimental group also used SSRW” (Hodges, 1991, p. 4). The Stanford Achievement Test was used as the measuring instrument for the study. Hodges did not wish to release data until the project was completed. She did, however, make available some test data from three of the districts involved in the study. This data was sent to Hodges by administrators from the three school districts. Principal Lynda Crawford of Neshoba Central Elementary School in Philadelphia, Mississippi, reported positive results from the experimental (SSRW) group (Hodges, personal communication, June 25, 1990). The experimental group scored 75.1 percentile points on the Total Reading Subtest of the Stanford Achievement Test. This was 18.0 points higher than the first grade average of 57.1. The experimental group also scored higher than any other individual first grade class. There were no comparisons between the experimental
group and the control group given in the report. Principal Ethel Whisler of West Clay County
Elementary School in Montpelier, Mississippi, reported impressive results from the SSRW group
(Hodges, personal communication, September 12, 1990). In the area of word study skills, the
experimental group scored 62.13 percentile points, while the control group scored 29.86. In
word reading, the experimental group scored 70.25 percentile points compared to 36.68
percentile points for the control group. In reading comprehension, the experimental group scored
47.13 percentile points, and the control group scored 30.04. Finally, in total reading
achievement, the SSRW group scored 57.94 percentile points, and the control group scored
32.22. Principal Janet Rogers of Taylorsville Elementary School in Taylorsville, Mississippi,
also reported positive results from the experimental group (Hodges, personal communication, no
date). In the area of word study skills, the experimental group scored 95 percentile points, while
the control group scored 36 percentile points. In word reading, the SSRW group scored 80
percentile points, and the control group scored 32 percentile points. In reading comprehension,
the experimental group scored 90 percentile points, and the control group scored 37 percentile
points. Finally, in total reading achievement, the experimental group scored 82 percentile points,
while the control group scored 36 percentile points. Data sent from the preceding three school
districts did not include the number of students in the classes or any other information that might
have been relevant.
Methodology

Sample and Setting

Subjects for the study included all first and second grade classes in six Choctaw Indian elementary schools operated by the Mississippi Band of Choctaw Indians. Data from 84 first and second grade classes were studied for a period of six years. There were seven first grade classes and seven second grade classes each year of the six year study. The classes were all intact groups with one certified teacher and one teaching assistant per group. The schools are located in central and southern Mississippi. Three of the communities have populations of less than 500 people and are rural in nature. The other three communities have populations of over 500 people. Two of these larger communities are considered rural. The other larger community is becoming more urbanized due to the addition of businesses and industries.

Instrument

The testing instrument used for this study was the Stanford Achievement Test. Data obtained from Primary Level 1, Form J provided the measures of achievement for first grade classes. Data from Primary Level 2, Form J provided the measures of achievement for second grade. The tests had been administered to all subjects each year from 1990 through 1994 (six years), and scaled scores were collected as data. According to Subkoviak and Farley (1985), the Stanford Achievement Test is described as having a long history of excellence. Its development was guided by “highly qualified test authors” (p. 1450). It is a norm-referenced, objective-based test designed to measure achievement in the basic skills commonly found in state and district curricula. Raw scores on the Stanford can be converted to scaled scores, percentile ranks, grade
equivalents, stanines, and normal curve equivalents. Scaled scores, such as the ones used in this study, are useful for measuring growth from one year to the next. Mehrens and Lehmann (1987) describe the Stanford Achievement Test as being one of the most popular and useful standardized survey achievement test batteries used in our schools.

Procedures

During the first four years of the study (1989-90 through 1992-93), no first or second grade class participated in the Sing, Spell, Read & Write program. The students had been taught using an eclectic approach which included whole language and basal reader instruction. The SSRW program was implemented during the last two years of the study (1993-94 and 1994-95), supplementing the combination approach already being used for reading instruction. (Explicit directions accompany SSRW as to its use as a supplementary program.)

All classes were tested each year and data obtained from these achievement tests provided the scaled scores used to compare achievement. The following four areas were the focus of the study: (a) word study skills, (b) word reading/reading vocabulary, (c) reading comprehension, and (d) total reading achievement.

Scaled scores in each area from the first four years were averaged and used to provide baseline data for both first and second grades. The 1994 and 1995 scaled scores in each of the four areas were averaged for first grade. This average was compared to the baseline data for first grade. The 1994 and 1995 scores in each area were examined separately in second grade. This was necessary since the 1995 test results reflected scores of students who had participated in the
SSRW program when they were in first grade. Data from 1994 and 1995 were compared separately to the baseline data.

Data Analysis

Four separate analyses of variance were used to test the null hypotheses concerning first grade achievement. Eight analyses of variance were used to test the null hypotheses concerning second grade achievement, since the 1994 and 1995 test results had to be examined separately. The level of significance was established at .05.

Results and Discussion

Class means in all areas of reading were slightly higher for the SSRW group in both first and second grades with the exception of the second grade 1994 reading vocabulary scores. For a population in which 80% still speak another language in the home (Greenbaum, 1983; Fortune, 1990), this might be slightly encouraging. However, no statistically significant differences were found between the baseline group and the 1994-1995 combined scores of the SSRW group in first grade (see Table 1).
Table 1

ANOVA Results for First Grade Word Study Skills, Word Reading, Reading Comprehension, and Total Reading Achievement.

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F Ratio</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td>WORD STUDY SKILLS</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>1</td>
<td>800</td>
<td>800</td>
<td>2.37</td>
<td>0.150</td>
</tr>
<tr>
<td>Within Groups</td>
<td>12</td>
<td>4053</td>
<td>338</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>13</td>
<td>4853</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>WORD READING</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>1</td>
<td>51</td>
<td>51</td>
<td>0.20</td>
<td>0.663</td>
</tr>
<tr>
<td>Within Groups</td>
<td>12</td>
<td>3054</td>
<td>254</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>13</td>
<td>3105</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>READING COMPREHENSION</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>1</td>
<td>257</td>
<td>257</td>
<td>1.37</td>
<td>0.265</td>
</tr>
<tr>
<td>Within Groups</td>
<td>12</td>
<td>2258</td>
<td>188</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>13</td>
<td>2215</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL READING ACHIEVEMENT</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>1</td>
<td>251</td>
<td>251</td>
<td>1.33</td>
<td>0.271</td>
</tr>
<tr>
<td>Within Groups</td>
<td>12</td>
<td>2264</td>
<td>189</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>13</td>
<td>2515</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Significant at .05

NOTE: ANOVA - Analysis of Variance

df - Degrees of Freedom
SS - Sum of Squares
MS - Mean Square

Likewise, no statistically significant differences were found between the baseline group and the 1994 or 1995 scores of the SSRW group in second grade (see Table 2).
### Table 2

**ANOVA Results for Second Grade Word Study Skills, Reading Vocabulary, Reading Comprehension, and Total Reading Achievement**

#### Reading Achievement

<table>
<thead>
<tr>
<th>SOURCE</th>
<th>df</th>
<th>SS</th>
<th>MS</th>
<th>F Ratio</th>
<th>Probability</th>
</tr>
</thead>
<tbody>
<tr>
<td><strong>WORD STUDY SKILLS (Baseline Group vs 1994 SSRW Group)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>1</td>
<td>402</td>
<td>402</td>
<td>2.76</td>
<td>0.122</td>
</tr>
<tr>
<td>Within Groups</td>
<td>12</td>
<td>1745</td>
<td>145</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>13</td>
<td>2147</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>WORD STUDY SKILLS (Baseline Group vs 1995 SSRW Group)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>2</td>
<td>538</td>
<td>269</td>
<td>1.63</td>
<td>0.223</td>
</tr>
<tr>
<td>Within Groups</td>
<td>18</td>
<td>2962</td>
<td>165</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>20</td>
<td>3500</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>READING VOCABULARY (Baseline Group vs 1994 SSRW Group)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>1</td>
<td>366</td>
<td>366</td>
<td>2.04</td>
<td>0.178</td>
</tr>
<tr>
<td>Within Groups</td>
<td>12</td>
<td>2149</td>
<td>179</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>13</td>
<td>2515</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>READING VOCABULARY (Baseline Group vs 1995 SSRW Group)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>2</td>
<td>805</td>
<td>403</td>
<td>2.89</td>
<td>0.082</td>
</tr>
<tr>
<td>Within Groups</td>
<td>18</td>
<td>2508</td>
<td>139</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>20</td>
<td>3314</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>READING COMPREHENSION (Baseline Group vs 1994 SSRW Group)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>1</td>
<td>103</td>
<td>103</td>
<td>1.00</td>
<td>0.338</td>
</tr>
<tr>
<td>Within Groups</td>
<td>12</td>
<td>1241</td>
<td>103</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>13</td>
<td>1344</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>READING COMPREHENSION (Baseline Group vs 1995 SSRW Group)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>2</td>
<td>110</td>
<td>55</td>
<td>0.59</td>
<td>0.567</td>
</tr>
<tr>
<td>Within Groups</td>
<td>18</td>
<td>1695</td>
<td>94</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>13</td>
<td>1806</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL READING ACHIEVEMENT (Baseline Group vs 1994 SSRW Group)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>1</td>
<td>1.5</td>
<td>1.5</td>
<td>0.02</td>
<td>0.886</td>
</tr>
<tr>
<td>Within Groups</td>
<td>12</td>
<td>852.5</td>
<td>71.0</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>13</td>
<td>854.0</td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td><strong>TOTAL READING ACHIEVEMENT (Baseline Group vs 1995 SSRW Group)</strong></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>Between Groups</td>
<td>2</td>
<td>2119</td>
<td>1059</td>
<td>1.78</td>
<td>0.197</td>
</tr>
<tr>
<td>Within Groups</td>
<td>18</td>
<td>10715</td>
<td>595</td>
<td></td>
<td></td>
</tr>
<tr>
<td>Total</td>
<td>20</td>
<td>12834</td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

*Significant at .05
The results of this study indicated that Choctaw Indian first and second grade classes that participated in the SSRW program did not score statistically significantly higher in any of the four areas of reading. These results are consistent with the reports presented in the review of literature by Lepanto (1990), which indicated no statistically significant gains by the SSRW group in the third year of a three year longitudinal study. The results of this study were not consistent with the small-scale studies reported in the review of literature indicating positive effects of SSRW (Bond, et al., 1992; Clifton, 1986; Eide, 1988; Rowe, 1990; Kikiforuk, 1994; Crawford, 1990; Whisler, 1990; Rogers, 1990).

Conclusions and Recommendations

The SSRW program and its effects on reading achievement has been researched far less than many other approaches to reading instruction. Due to the ex post facto design, the findings of this study cannot be generalized to any populations. However, the following recommendations can be made:

(1) Additional studies concerning the effects of SSRW should be conducted under rigorous conditions in which subjects receive identical treatments in control group settings.
(2) Data should be gathered which include explicit instructional methods and materials utilized by classroom teachers who supplement their program with SSRW or who use SSRW as the sole instructional method for teaching reading.

(3) Further studies investigating effects of the SSRW program should be conducted with other subjects who speak English as a second language and/or who live in other geographical areas.

(4) The use of SSRW as an approach to reading instruction should be examined over a longer period of time, since many of the skills introduced in kindergarten and first grade are continued in second and third grade.

(5) Studies should be conducted by school districts and/or administrators to determine the cost-effectiveness of SSRW.
References


Hodges, J. (1991, April 5). Let’s call an end to the great debate: We have the answer to our literacy. Speech presented at a seminar for teachers and administrators, Mississippi School Supply, Jackson, MS.


III. DOCUMENT AVAILABILITY INFORMATION (FROM NON-ERIC SOURCE):

If permission to reproduce is not granted to ERIC, or, if you wish ERIC to cite the availability of the document from another source, please provide the following information regarding the availability of the document. (ERIC will not announce a document unless it is publicly available, and a dependable source can be specified. Contributors should also be aware that ERIC selection criteria are significantly more stringent for documents that cannot be made available through EDRS.)

Publisher/Distributor:

Address:

Price:

IV. REFERRAL OF ERIC TO COPYRIGHT/REPRODUCTION RIGHTS HOLDER:

If the right to grant reproduction release is held by someone other than the addressee, please provide the appropriate name and address:

Name:

Address:

V. WHERE TO SEND THIS FORM:

Send this form to the following ERIC Clearinghouse:

ERIC Acquisitions
ERIC Clearinghouse on Assessment and Evaluation
210 O'Boyle Hall
The Catholic University of America
Washington, DC 20064

However, if solicited by the ERIC Facility, or if making an unsolicited contribution to ERIC, return this form (and the document being contributed) to:

ERIC Processing and Reference Facility
1100 West Street, 2d Floor
Laurel, Maryland 20707-3598

Telephone: 301-497-4080
Toll Free: 800-799-3742
FAX: 301-953-0263
e-mail: ericfac@inet.ed.gov
WWW: http://ericfac.piccard.csc.com

(Rev. 6/96)