1974

Attitudes of black and white students in a semi-urban integrated high school

Marsha B. Martin

Follow this and additional works at: http://scholarworks.lib.csusb.edu/etd-project

Part of the Bilingual, Multilingual, and Multicultural Education Commons, and the Race and Ethnicity Commons

Recommended Citation
http://scholarworks.lib.csusb.edu/etd-project/14

This Project is brought to you for free and open access by the John M. Pfau Library at CSUSB ScholarWorks. It has been accepted for inclusion in Theses Digitization Project by an authorized administrator of CSUSB ScholarWorks. For more information, please contact scholarworks@csusb.edu.
ATTITUDES OF BLACK AND WHITE STUDENTS IN A SEMI-URBAN INTEGRATED HIGH SCHOOL

A Project Submitted to The Faculty of the School of Education In Partial Fulfillment of the Requirements of the Degree of Master of Arts In Education: Counseling Option

By

MARSHA B. MARTIN, M.A.
San Bernardino, California

1974

APPROVED BY:

[Signature]
ADVISOR

[Signature]
COMMITTEE MEMBER
TABLE OF CONTENTS

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Introduction</td>
<td>1</td>
</tr>
<tr>
<td>Purpose</td>
<td>2</td>
</tr>
<tr>
<td>Hypotheses</td>
<td>2</td>
</tr>
<tr>
<td>Review of Literature</td>
<td>2</td>
</tr>
<tr>
<td>Research Design</td>
<td>13</td>
</tr>
<tr>
<td>Limitations of the Study</td>
<td>14</td>
</tr>
<tr>
<td>Sample</td>
<td>14</td>
</tr>
<tr>
<td>Measure</td>
<td>15</td>
</tr>
<tr>
<td>Analysis of Data</td>
<td>16</td>
</tr>
<tr>
<td>Findings</td>
<td>17</td>
</tr>
<tr>
<td>Conclusion</td>
<td>19</td>
</tr>
<tr>
<td>Summary</td>
<td>19</td>
</tr>
<tr>
<td>Recommendations and Implications</td>
<td>20</td>
</tr>
<tr>
<td>Appendix</td>
<td>23</td>
</tr>
<tr>
<td>Bibliography</td>
<td>26</td>
</tr>
</tbody>
</table>
INTRODUCTION

I have worked as a high school counselor on a part-time basis for one year (1972-73). My school day was divided into two fifty-five minute periods of teaching and three periods of equal length of counseling. My counseling assignment load varied from 198 to 220 students. This next year (1973-74), I will be assigned to the counseling staff on a full-time basis. The average counseling load for a full-time counselor is approximately 350.

Our high school has a student population of 1,250 students. Twenty-five percent of the students are black, seventy percent are white, four percent are of Spanish-surname and the remaining one percent are classified as other.

I am interested in exploring ways of making my counseling more effective. It is with this purpose in mind that I have addressed myself to the area of student attitude towards counseling and counselors. I feel that a knowledge of student attitudes will be a valuable tool in my efforts.
PURPOSE

The purpose of this project will be to find if there are differences in the way black and white students view counselors and counseling at my particular high school. If the differences are found, an attempt will be made to determine if they are the result of sex, race, or a combination of both.

HYPOTHESES

(1) There is no significant difference between the attitudes of black and white students toward counselors and counseling in an integrated semiurban high school.

(2) There is no significant difference between males and females in their attitudes toward counseling and counselors regardless of whether the students are black or white.

(3) There is no significant effect on student attitude toward counseling and counselors due to the interaction of the student's sex and race.

REVIEW OF THE LITERATURE

Wilson defines an attitude as a perceptual orientation and response readiness in relation to a particular object or class of objects. He further characterizes attitudes as being 1) reasonably enduring, 2) showing variation between individ-
uals and cultures, and 3) necessarily evaluative or effective. Osgoode states that attitudes are learned and implicit. Attitudes are tendencies of approval or avoidance. An attitude is often defined as a tendency to react favorably or unfavorably toward a designated class of stimuli.

"An attitude is usually thought of as having three components: an affective component, which consists of an individual's feelings about the attitude object; a cognitive component which is the individual's beliefs or knowledge about the attitude object; and a behavioral component, which is the individual's predisposition to act toward the attitude object in a particular way." 

The instruments used to measure attitudes usually take one of two forms. The first group consists of measuring scales that give directional statements of opinion. Examples of these are the F - scales and the Dogmatism scales. The second form consists of those scales which present non-directional concepts. The Semantic Differential is an example of a non-directive concept scale.

Gerberich says that attitude measurement is influenced by the absence of correct answers such as found in tangible knowledge and skill outcomes.

"...anonymous expressions of attitudes may provide a closer approximation to private attitudes; but the two cannot
be assumed to be identical. Moreover, the individual's verbally expressed attitudes, even when reported 'privately' or anonymously, may sometimes differ from his general unvocalized attitudinal responses. The latter represent vague feelings or other implicit reactions that have not been overtly verbalized by the individual.\(^{1:544}\)

The interpersonal relationship of counselor and counselee is the large factor in determining counselor effectiveness. Schneiders feels that the key to the relationship is communication both verbal and non-verbal. "Depending on the type of subliminal cues he (the counselee) picks up, he will want to terminate the relationship, prolong the interview, plead for acceptance, react with counterhostility, or lapse into muted silence."\(^{18:283}\) A study of language compatibility in minority group counseling by Schumacher showed a lack of communication between the counselor and the minority child.\(^{18}\) Hardy also found that students both black and white were not communicating with the counselor when abstract words were being used. There were no differences between sexes, but there were definite racial differences with blacks understanding much less than the whites. Hardy states, "Attitudes of both the counselor and the counselee are, of course, obviously affected by the effectiveness of the communication process."\(^{9:67}\)

The amount of rapport which exists between a counselor and counselee was measured by Anderson. Anderson observed that
rapport is of importance early in counseling, it is relevant to communication, it can be felt by both of the participants in the relationship, and it can be assessed by an observer.\(^2\)

In studies which contrast black and white perceptions of counselors, Roll found that white and black prisoners share the same view of trustworthiness of counselors in a prison setting.\(^{16}\) However, Heath, in measuring the Control-identities of Negro and white students, found the Negro youngster to be more likely to mistrust than his white counterpart.\(^{10}\)

Larkin stated that "sex was found to be a more powerful influence on preadolescent attitude than race or social status."\(^{12,22}\)

Other studies seem to indicate that there are differences in the effectiveness of counseling depending on the race of the student. In his article, "Counseling Blacks," Vontress points out that there are differences not only between blacks and whites in the counseling situation, but between black boys and girls as well. The counselor can establish rapport with the black female easier than with the black male. The Southern black male is also more receptive to counseling than the Northern black male.\(^{22}\) Douglas' study of attitudinal variance among urban youths from diverse racial groups found that blacks were significantly more positive in their attitudes toward education and classroom activities. Whites and blacks showed no difference in attitudes toward teachers and school.\(^4\)
Russell's point of view on the black student's perception of guidance is a negative one. The students are described as being residents of the North, Midwest, and West, who attend school where most of the administrators and teachers are white. "The student perceives guidance as an instrument of repression, controlled by counselors who constitute a roadblock he must somehow manage to get around if he has ambitions that do not coincide with those his counselors consider appropriate for him. ...He believes with all his heart that his counselors have racial biases that preclude their regarding treating him as an individual who possesses the same emotions, aspirations, and potentials as whites."17:722

"It appears that counselors are remarkably ineffective in dealing with certain subpopulations with whom society expects us to have some positive effect. The subpopulation known as the 'culturally disadvantaged' seems remarkably immune to the traditional approaches employed by the middle class counselor."11:199

My review of the literature included a search for scales which measure attitudes toward counselors and counseling. The ones which were most closely related to this study were the Counseling Attitude Scale by Arnold Form5, the Interview Rating Scale by Anderson and Anderson,2 and the Counseling Evaluation Inventory by Linden, Stone and Shertzer.13
The Counseling Attitude Scale was developed in 1952. It was designed to explore the relationship between student attitudes toward counselors on a college campus and different factors in the students' background (personal and social). In the summary of the study, it is indicated that the instrument appears to be a reliable instrument for obtaining student attitudes toward counselors and counseling services. Form goes on to state, that it needs refinement and that its present value for general use in its present form is not yet ascertained.5

It was my opinion that the Counseling Attitude Scale was not suited to the purposes of this project. It is geared to the college-level student and this reflected in the language used in the test items. All the items, except one, make direct reference to the Counseling Center rather than the counselor. There is no classification of the items into areas such as counselor and client comfort, client satisfaction, and general counseling climate.

The Interview Rating Scale was developed in 1962. Its purpose was to measure rapport between counselor and counselee. The development of the scale was based on the assumption that rapport could be perceived by both participants in the counseling relationship and that it could be assessed by an outside observer.
The original items were collected from transcribed case material, clients, and counselors. These items were screened, in terms of 1) those reflecting good or poor rapport, 2) those which were ambiguous or unrelated to rapport, and 3) those defying classification, by seven psychologists and one psychiatrist. The items which were agreed upon as relating to rapport were put into a ninety-nine item scale. This ninety-nine item scale was then rated by sixty-nine psychologists, fifty-five of whom were involved in some form of counseling, and by thirty-four clients. Each item checked as unclassifiable by at least ten percent of the counselors was eliminated. There were seventy-seven items remaining.

The medians and quartile deviations were computed for each item. Twenty-eight items indicating poor rapport had medians ranging from 0.00 to 1.49. Twenty-six of the items indicating good rapport had medians ranging from 6.50 to 7.99. Fifty items with a Q value of 1.00 or less, representing the extremes of good and poor rapport, and showing the least amount of disagreement among the judges, were selected for inclusion in the scale.

Medians for each item rated by clients were computed. Fifty-four differences in medians between counselor and client ratings were less than 0.80 score points. The medians of the fifty items from the counselors' ratings were correlated with the same item medians from clients' ratings. The Pearson r's
between the two arrays of medians were .98. The results were fifty items on which both counselors and clients agreed as representing extremes of rapport.

These fifty items were evenly divided into groups representing good and poor rapport. Eighteen of the items refer to client behavior and attitudes while the remaining items refer to counselor behavior. The items are of four types: 1) positive client, 2) negative client, 3) positive counselor, and 4) negative counselor.

The directions on the scale asked the respondent to indicate the degree to which an item described a behavior or attitude present in a counseling experience. The range was from "always" through "occasionally" to "never" with five points provided for checking on the continuum. The scale is scored by having 1) weights from 1 to 5 assigned to the points on the continuum, 2) good rapport items receive a score of 5 for "always" and a score of 1 for "never", and 3) items indicating poor rapport scored in the reverse. The scores range from a maximum of 250 for ideal rapport to a minimum of 50.

Correll used the scale to measure rapport in the initial counseling interview. He had three judges rate fifty-two typescripts of initial interviews. His conclusions were that judges can rate initial counseling interviews on the basis of what constitutes good and poor communication situations and that
the Interview Rating Scale is a sensitive instrument for determining the quality of communication in an initial interview.

Linden, Stone, and Shertzer state, "Specifically, this research was an effort to modify and refine for client use the 50-item Interview Rating Scale (IRS) devised by Anderson and Anderson (1962) and employed as a criterion measure by Correll . . . in studies pertaining to communication in the counseling relationship. It was intended that such an instrument might provide a vehicle for subsequent research by the authors and others in exploring the value of client ratings as a criterion of counselor effectiveness."\textsuperscript{13:268}

The development of Linden, Stone, and Shertzer's Counseling Evaluation Inventory started with sixty-eight items which included the fifty items from the Anderson and Anderson Interview Rating Scale. The 68 item scale was rated on the basis of social favorability on a nine-point Thurstone scale by 446 school counselors and 289 high school students. There was no significant difference in the counselor and student ratings at the .05 level. All 68 items were retained.

The response format was changed to a five-point Likert scale and the 68 item scale was administered to 336 secondary students. The responses of the students were scored according to provisional weights arbitrarily determined from the
social favorability data already collected.

An intercorrelation matrix and total score was computed and factor analyzed by the Thurstone Multiple Group Centroid Method. Communalities for this analysis were estimated by the image covariance procedure developed by Guttman. This method gave four correlated factors of significance. The four correlated factors were labeled Counseling Climate (X), Counselor Comfort (Y), and Client Satisfaction (Z-1 and Z-2). To be retained on the scale an item had to load .40 or greater on one factor and less than .40 on all other factors. Nine items were retained in Scale X, five in Scale Y, and seven in Scale Z (a combination of correlated factors Z-1 and Z-2). There were twenty-one critical items.

The empirical scoring weights for all responses were determined by an item analysis using a sample of 336 clients. Interim scoring weights based on the rounded square of the factor loading were used to score the scales provisionally for the item analysis. The upper and lower 27 percent of these scores were identified and final response weights were found for each item using the Flanagan r statistic.

Two studies of reliability were done. One involved 102 high school students and the other involved 163 high school students. The students were exposed to the instrument twice.
In each case the administration was the same. First, half the students received the long form and half received the short form. Then on the second administration, half the students received the same form they had completed earlier and the others were given the alternate form. All but three of the critical 21 items were shown to be reliable at or beyond the .05 level for both groups. Item no. 20 was shown to be reliable when included in the long form. Items no. 14 and 21 suggested adequate reliability when included in the short form.

Validity significant at or beyond the .05 level was demonstrated on the 21 items (CEI - Short Form) by the use of counselor candidates' practicum grades as a provisional criterion. Correlational and analysis of variance procedures were used to analyze the data. The data consisted of the practicum grades (quantified on a 9-point scale), the Median CEI score, and the total client rating score given to the counselor candidate. Each of the counselor candidates was rated by at least five of his or her clients. There were 139 counselor candidates involved.

All CEI factor scales and CEI total scores exhibited adequate reliability and at least limited discriminative validity for practicum grades. Most scales and total scores demonstrated significant congruent validity when related to the female counselor candidates.
I feel that the instrument has shown good reliability and validity. It has been used more often and by larger groups of subjects than the Counseling Attitude Scale. It was designed for use by the client and has already been used several times with high school students. It is also brief enough to score quickly. In a comparison of the Interview Rating Scale and the Short Form - Counseling Evaluation Inventory, I find that at least 17 of the 21 items on the CEI are taken from the IRS almost verbatim. This means that most of the items on the CEI - Short Form have been judged appropriate to the counseling relationship several times.

RESEARCH DESIGN

The research design for this project was the cross-sectional survey.

The Counseling Evaluation Inventory - Short Form was administered to the students in two fifty-five minute sessions. It was hoped that most of the students would be present for the first session. The second session was held three days later for those who were absent during the first session.

The students were informed of the importance of their honest opinions. In order to remove any feelings of threat on their part, they were asked to mark B or W for black or white and M or F for male or female. There was no other method of identification.
LIMITATIONS OF THE STUDY

The research was limited. There was no consideration of the socio-economic level of the students in the study. Their academic achievement level (GPA) and Intelligence Quotient (IQ) were not reflected in the study.

The counseling department consists of five members. There was no consideration of the sex or race of the counselors. There was no consideration of the individual counselor to whom the individual students were assigned.

SAMPLE

Since I was interested in the attitudes of students toward counseling and counselors at our particular school, I confined the sample to eleventh and twelfth graders. The tenth graders had been exposed to counseling in the junior high school, but were probably not as familiar with our counseling program.

There were a total of one-hundred students chosen to participate in the survey. These one-hundred students were divided into four groups of twenty-five each. One group consisted of twenty-five while males. The other groups consisted of twenty-five black males, twenty-five white females, and twenty-five black females.
The fifty white students were chosen at random from the total white population of the eleventh and twelfth grades. The fifty black students were chosen in the same manner from the total black population of the eleventh and twelfth grades.

**MEASURE**

The measure which was used was a modified version of the Counseling Evaluation Inventory - Short Form developed by James D. Linden, Shelly C. Stone, and Bruce Shertzer in 1965. It is a twenty-one item scale which consists of three factors. The three factors are counseling climate, counselor comfort and client satisfaction. In analyzing their data the developers found that all but three of the twenty-one items were shown reliable at or beyond the .05 level. Item no. 20 was found to be reliable when presented in the long form, and items no. 14 and 21 suggested adequate reliability when included in the short form.

The modifications of the Counseling Evaluation Inventory were of two types. First, all items were stated in the present tense. I wanted the students to respond according to their feelings at the time the survey is given. Example: Item no. 6—"The counselor acted cold and distant," became "The counselor acts cold and distant." Secondly, some of the vocabulary was changed to ensure understanding even for stu-
dents with low levels of reading ability. Example: Item no. 11—"I believe the counselor had a genuine desire to be of service to me," was changed to "I believe the counselor really wants to help me."

The original and modified version of the Counseling Evaluation Inventory are shown in the appendix.

The students were asked to respond to each of the twenty-one items by marking the boxes designated Always, Often, Sometimes, Rarely, and Never.

The final scoring weights ranged from 5 to 1 on all items. All positively worded statements were scored by giving 5 points for the "Always" response, 4 points for "Often", 3 points for "Sometimes", 2 points for "Rarely", and 1 point for the "Never" response. The negative worded statements were scored in the reverse with "Always" receiving 1 point and "Never" receiving 5 points. The highest possible number of points (all statements responded to in the most positive manner) was 105 points.

Statements to which the individual students did not respond were not counted. The frequency of no response to a statement was quite low.

ANALYSIS OF DATA

I obtained data for the four groups of students. I wished to compare the groups by race and sex. Since it was
necessary to compare several means, I applied an analysis of variance to the data. If the F ratio had been significant (p = .05) I would have rejected the null hypotheses, and computed the complete analysis of variance for the main effects and their interaction, following the procedure outlined in Guilford. 8:246-281

FINDINGS

Each group had 25 students. In one group only 23 of the students were present on the days the survey was administered. It was necessary to level the groups. The groups were leveled by the random elimination of two student surveys from each of the remaining three groups. The data was then compiled on the resulting four groups of 23 each.
### DISTRIBUTION OF SCORES CEI MODIFIED VERSION

#### RACE

<table>
<thead>
<tr>
<th></th>
<th>BLACK</th>
<th>WHITE</th>
</tr>
</thead>
<tbody>
<tr>
<td>MALE</td>
<td></td>
<td></td>
</tr>
<tr>
<td></td>
<td>94</td>
<td>94</td>
</tr>
<tr>
<td></td>
<td>93</td>
<td>73</td>
</tr>
<tr>
<td></td>
<td>50</td>
<td>90</td>
</tr>
<tr>
<td></td>
<td>74</td>
<td>88</td>
</tr>
<tr>
<td></td>
<td>74</td>
<td>55</td>
</tr>
<tr>
<td></td>
<td>93</td>
<td>62</td>
</tr>
<tr>
<td></td>
<td>81</td>
<td>79</td>
</tr>
<tr>
<td></td>
<td>81</td>
<td>93</td>
</tr>
<tr>
<td></td>
<td>48</td>
<td>81</td>
</tr>
<tr>
<td></td>
<td>84</td>
<td>49</td>
</tr>
<tr>
<td></td>
<td>70</td>
<td>81</td>
</tr>
<tr>
<td></td>
<td>58</td>
<td>97</td>
</tr>
<tr>
<td>MEAN:</td>
<td>73.695</td>
<td>79.391</td>
</tr>
</tbody>
</table>

|        |       |       |
|        | 87    | 79    |
|        | 97    | 72    |
|        | 93    | 58    |
|        | 69    | 76    |
|        | 63    | 94    |
|        | 98    | 78    |
|        | 98    | 86    |
|        | 99    | 99    |
|        | 102   | 91    |
|        | 79    | 87    |
|        | 92    | 99    |
| MEAN:  | 84.434| 79.434|

#### SUMMARY: TWO PART ANALYSIS OF VARIANCE

<table>
<thead>
<tr>
<th>SOURCE OF VARIATION</th>
<th>SS</th>
<th>MS</th>
<th>df</th>
<th>F</th>
<th>P</th>
</tr>
</thead>
<tbody>
<tr>
<td>Between Groups</td>
<td>1329.087</td>
<td>443.029</td>
<td>3</td>
<td>1.575</td>
<td>ns</td>
</tr>
<tr>
<td>Within Groups</td>
<td>24749.652</td>
<td>281.246</td>
<td>88</td>
<td></td>
<td></td>
</tr>
<tr>
<td>TOTAL</td>
<td>26078.739</td>
<td></td>
<td>91</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
CONCLUSION

The F-ratio yielded a p value which was not significant at the .05 level. No further analysis of the data was indicated.

I, therefore, accept the null hypotheses:

1. There is no significant difference between the attitudes of black and white students toward counselors and counseling in an integrated semi-urban high school.

2. There is no significant difference between males and females in their attitudes toward counseling and counselors regardless of whether the students are black or white.

3. There is no significant effect on student attitude toward counseling and counselors due to the interaction of the student's sex and race.

SUMMARY

The study employed the cross-sectional survey research design. The purpose of the study was to find if there were significant differences in the student's view of counseling and counselors at our particular high school depending on the race and sex of the student.
A modified version of the Counseling Evaluation Inventory was administered to 92 students divided into four equal groups. The divisions were white male, black males, white females, and black females.

The Counseling Evaluation Inventory was scored on a five point continuum. The maximum score of 105 indicated the most positive attitude, while 21 was the minimum score. The means for the groups were as follows: black males = 73.6959, white males = 79.391, black females = 84.434, and white females = 79.434. The highest score (105) was made by a white male and the lowest score (22) was made by a black female. The black females had the highest mean, while black males had the lowest.

After computing the analysis of variance for the four groups, it was shown that there was no significant difference in the attitudes of the students toward counseling and counselors regardless of the student's race or sex. In addition, the interaction of the two factors (sex and race) produced no significant difference.

RECOMMENDATIONS AND IMPLICATIONS

As a counselor at the high school, my personal observations led me to believe that a student's race and sex would have an impact on his attitude toward counseling and counselors. This point of view was shared by Russell, Heath, and Vontress
in my review of literature. I would suggest that further research be done in the area of student attitudes toward counseling and counselors. Perhaps these future studies should also consider the race and sex of the counselor.

This study can perhaps be looked upon as complimentary to our counseling department. Both races appear to feel the same way about the counseling they have been receiving. This could suggest that all students are getting the same kind of treatment by the members of the department. This survey shows no indication of racial favoritism.

The grand mean of the scores was 79. This may indicate a generally positive attitude is held by the students. There is still a need for improvement and growth in our relationships with our counselees.

The group of black males were seen as having the least positive attitudes. Perhaps there is a need for special attention to the establishment of more effective communication and good rapport with this group. Group counseling might prove useful. Other techniques and methods of working with this group might be explored.

This survey might be done in another high school in the same city with quite different results. Perhaps repeating this study on the same campus but with a different sample would not yield the same findings.
I feel the study has provided me with an additional awareness of the vast amount of work that needs to be done to make counseling more effective and meaningful for all students.
APPENDIX

The Counseling Evaluation Inventory

1. I felt the counselor accepted me as an individual.
2. I felt comfortable in my interviews with the counselor.
3. The counselor acted as though he thought my concerns and problems were important to him.
4. The counselor acted uncertain of himself.
5. The counselor helped me to see how taking tests would be helpful to me.
6. The counselor seemed restless while talking to me.
7. I felt at ease with the counselor.
8. The counselor seemed restless while talking to me.
9. In our talks, the counselor acted as if he were better than I.
10. The counselor's comments helped me to see more clearly what I need to do to gain my objectives in life.
11. I believe the counselor had a genuine desire to be of service to me.
12. The counselor was awkward in starting our interviews.
13. I felt satisfied as a result of my talks with the counselor.
14. The counselor was very patient.
15. Other students could be helped by talking with counselors.
16. In opening our conversations, the counselor was relaxed and at ease.
17. I distrusted the counselor.
18. The counselor's discussion of test results was helpful to me.
19. The counselor insisted on being right always.
20. The counselor gave the impression of "feeling at ease."
21. The counselor acted as if he had a job to do and didn't care how he accomplished it.
Modified Version of the Counseling Evaluation Inventory

1. I feel that the counselor accepts me as an individual.
2. I feel comfortable in my sessions with the counselor.
3. The counselor acts as though he thinks my concerns and problems are important to him.
4. The counselor acts uncertain of himself.
5. The counselor helps me to see how taking tests can be helpful to me.
6. The counselor acts cold and distant.
7. I feel at ease with the counselor.
8. The counselor seems restless while talking to me.
9. In our talks, the counselor acts as if he is better than I.
10. The counselor's comments help me to see more clearly what I need to do to reach my goals in life.
11. I believe the counselor really wants to help me.
12. The counselor is awkward in starting our talks.
13. I feel satisfied after talks with my counselor.
14. The counselor is very patient.
15. Other students could be helped by talking with counselors.
16. In opening our talks, the counselor is relaxed and at ease.
17. I distrust the counselor.
18. The counselor's discussion of test results is helpful to me.
19. The counselor insists on being right always.
20. The counselor gives the impression of "feeling at ease."
21. The counselor acts as if he has a job to do and doesn't care how he accomplishes it.
BIBLIOGRAPHY


CALIFORNIA STATE COLLEGE
San Bernardino

THE EFFECTIVENESS OF AN INTERDISCIPLINARY APPROACH TO READING INSTRUCTION
A Project Submitted to
The Faculty of the School of Education
In Fulfillment of the Requirements of the Degree of Master of Arts
in
Education: Reading Option
By
Ellen Sparrowgrove, M.A.
San Bernardino, California
1980

APPROVED BY:

Advisor
Committee Member
CALIFORNIA STATE COLLEGE
San Bernardino

THE EFFECTIVENESS OF AN INTERDISCIPLINARY APPROACH TO READING INSTRUCTION

A Project Submitted to
The Faculty of the School of Education
In Fulfillment of the Requirements of the Degree of
Master of Arts
in
Education: Reading Option

By
Ellen Sparrowgrove, M.A.
San Bernardino, California
1980

APPROVED BY:

Advisor

Committee Member
# Table of Contents

Abstract 1

Introduction 2

Definition of Terms 3

Review of Literature 3

Purpose 6

Hypothesis 7

Method

Subjects

Procedure 8

Results 9

Discussion 10

Limitations 11

Appendix

<table>
<thead>
<tr>
<th>Table</th>
<th>Description</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>I</td>
<td>Student Characteristics - Part A</td>
<td>12</td>
</tr>
<tr>
<td>II</td>
<td>Student Characteristics - Part B</td>
<td>15</td>
</tr>
<tr>
<td>III</td>
<td>Instructional Materials - Reading</td>
<td>16</td>
</tr>
<tr>
<td>IV</td>
<td>Instructional Materials - Social Studies</td>
<td>18</td>
</tr>
<tr>
<td>V</td>
<td>Teacher Characteristics</td>
<td>20</td>
</tr>
<tr>
<td>VI</td>
<td>Descriptive Statistics</td>
<td>21</td>
</tr>
</tbody>
</table>

Bibliography 23
ABSTRACT

The Effectiveness of an Interdisciplinary Approach to Reading Instruction

Ellen Sparrowgrove

This research examines the effectiveness of an interdisciplinary approach to reading instruction. The subjects were twenty-seven juniors and seniors enrolled in a Reading/U.S. History course at La Sierra High School in Riverside, California. The data indicate that there was a significant gain in the reading scores from September 1979 to January 1980 for subjects in the interdisciplinary course.
INTRODUCTION

There has been a growing concern in the United States regarding reading, reading instruction, and reading improvement. The decline of reading scores has encouraged educators to examine the effectiveness of various reading programs. (Fay 1963, Herber 1970, Dechant 1973)

Reading instruction is being taught in the reading classroom, the reading lab, and in the content areas. Students are being taught by reading teachers, reading specialists, and content area teachers. The instruction is being conducted in a regular classroom situation, within a block scheduling, in a "pull-out" program, or in an interdisciplinary environment by individual or team teachers. There is a need for reading instruction at the secondary level. (Johnson 1973, Cassidy 1978, Lundstrum 1978) The search continues to find effective secondary reading programs in the reading and content area classes.

In keeping with the need for curriculum improvement in all areas, an interdisciplinary approach to instruction has been adopted at La Sierra High School. This is referred to as the pontoon transitional design for curriculum change. The "pontoon" serves as a bridge to the rest of the school.

The pontoon design was first adopted at La Sierra during the 1973-74 school year. Several pontoons have been conducted including: a three-period block with Algebra, English 9, and Cities/Environment; a two-period block with Intermediate Math and Chemistry; and, a two-period block with Individualized Reading and U.S. History. (Burch 1978) This research
studied the two disciplines of reading and social studies. The pontoon design incorporates large group presentations, small discussion groups, and individual study in a flexible block of time. In this pontoon two teachers provide instruction in reading, listening, speaking, writing, study, and survival skills with an emphasis on social studies content.

This pontoon has been taught since the 1976-77 school year; however, no evaluation has been conducted on the pontoon design at the school. The research from this study will provide students, parents, and school and district staff with evidence of its effectiveness.

DEFINITION OF TERMS

Pontoon - The pontoon transitional design for curriculum change has been developed by William Georgiades at the Center for Excellence in Education, University of Southern California, Los Angeles, California. This organizational pattern facilitates learning through an interdisciplinary approach. The design incorporates large group presentations, small discussion groups, and individual study within a flexible block of time. The pontoon may be considered a higher form of team teaching in which teachers from different disciplines work together.

REVIEW OF LITERATURE

According to Criscuolo (1976), "Programs which develop reading skills on an interdisciplinary basis appear to have the most lasting value." The New Haven public school system has encouraged educators to initiate reading programs in content area classes. This has been fostered by grants provided by Connecticut's Title II Right to Read program. (Gotowala 1978)
A study was conducted at Hofstra University in Hempstead, New York which combined a program of reading improvement with the study of history. This was an interdisciplinary effort by the reading center and the history department. The pilot program investigated the causes of student difficulty with a course requiring extensive reading, analyzed course content, and provided instruction to improve reading and study skills. The experimental group was comprised of two sections of 15 students each who also met once a week for three hours at the reading center for instruction and practice in reading skills, study skills, and note taking. This instruction was in addition to the regular time spent in the history course. The control group of 15 students each from two other history sections did not receive instruction at the reading center. The experimental group of freshmen received two grades at the end of the grading period while the control group of freshmen received one grade for the history class. Further evaluative research has not been published regarding this program. (Rauch and Schleich 1967)

The Georgia Right to Read Program has written a plan to provide workable techniques for improving reading skills in social studies. Included are: directed reading lessons, unit samples, techniques for evaluation, classroom organizational patterns, techniques to determine reading levels, and readability. (Georgia Right to Read Program 1975) At this time no evaluative study has been conducted on this project. (Hammond 1978)

(Herber 1961 and Fay 1963) He knows the vocabulary, concepts, and generalizations necessary for the specific subject area. (Burmeister 1974) However, many students have had little if any instruction in reading skills necessary for content areas. (Dechant 1973) Students may have problems in social studies because they have not developed necessary social studies reading skills. (Herber 1972)

In theory, reading instruction in the reading class focuses on anticipation and interaction while the content area focuses on synthesis. Transfer from the reading class to the content area should take place. It is important that all these skills be learned. (Vaughan 1977) Students need to be able to obtain and retain information. There is a difference in teaching reading in a reading class or reading lab and teaching reading in a content area class. (Herber 1970, Vaughan 1977)

Several evaluative studies have been conducted on the pontoon transitional design for curriculum change. From 1967-68 a study was conducted to evaluate the achievement and attitudes of low ability ninth grade students. The study showed that there was no significant difference in mathematics, geography, reading, listening, or writing achievement for those students in the pontoon as compared to those students in the traditional classroom structure. (Young 1969)

In another study, the pontoon students scored significantly higher than the control group in the area of mathematics, but there was no significant difference in social studies or writing. (Abbott 1971)

In 1971 a study was conducted to evaluate the relationship between the classroom structure and achievement of seventh grade students in the areas of reading, social studies, and mathematics. The findings show that the pontoon students achieved significantly higher on the teacher constructed social studies test. (Clark 1971)
Parrish compared the academic achievement in English and U.S. History of eleventh grade students in the pontoon and those in the traditional structure. He found no significant difference in achievement in English; however, the pontoon students exhibited significant growth in history. (Parrish 1971)

Roop compared two groups of average or lower ability ninth graders in the areas of English, general science, and world history. He found that the pontoon students had a significantly greater mean of achievement gain in the teacher-constructed general science tests; however, there were no significant differences in the other cognitive areas. (Roop 1971)

Two groups of seventh and eighth grade students in a non-public secondary school were compared on achievement in mathematics, social studies, language arts, and science. The study showed a significant difference in achievement by pontoon students in the areas of mathematics, language arts, and science; no significant difference was shown in social studies. (Bogart and Waian 1972)

PURPOSE

The purpose of this research is to determine the effectiveness of the reading/social studies pontoon for reading improvement at La Sierra High School. In keeping with the competency requirements of AB 65 and the graduation requirements at the school, many students enroll in Basic Reading for reading improvement and/or for the graduation requirement. The Basic Reading/American History Pontoon was started in 1975-76 to provide reading instruction in the content area; to provide for individualized instruction within a feasible block of time; and, to provide a more personalized learning environment for students with the assistance of two teachers and an instructional aide.
Students, staff, and parents have voiced approval of this program through comments and voluntary class enrollment by students. The pontoon structure provides a transitional design from traditional scheduling to modular scheduling. The traditional classes meet for one period daily for a semester or year. Courses are taught by one teacher and individual instructional methods are employed. Several courses may be pontooned while the rest of the school follows the traditional structure. It is an example of controlled curriculum innovation.

The pontoon structure provides the opportunity for the teachers to work together on reading skill and content knowledge improvement for students while reinforcing their own teaching strengths. Students benefit from the individualized instruction by having material provided on their own reading level and being taught in a flexible time setting.

No study has been conducted on the pontoon at the school. This research could benefit the school, district, and other educators interested in this concept. This study examines to what extent the pontoon is effective.

**HYPOTHESIS**

This study will find that there is no significant gain in reading achievement over four months of instruction for those juniors and seniors enrolled in the pontoon course.
METHOD

SUBJECTS

The subjects in this research experiment were twenty-seven juniors and seniors enrolled in the Reading/American History Pontoon from September 10, 1979 to January 25, 1980. All subjects were continuously enrolled in the pontoon course during that time. (See Appendix, Tables I and II)

MATERIALS

The testing instrument used in this research was the Nelson Reading Test, Form A. The test contains two sub-tests: vocabulary and paragraph comprehension. The allocated time for the vocabulary portion is ten minutes; the allocated time for the paragraph comprehension portion is twenty minutes. The test results are reported in raw scores, percentiles, and grade equivalents. For this research, grade equivalents are used.

The Nelson Reading Test measures reading levels from 2.0 years to 10.5 years grade equivalent. This test was selected for use in this research because it is the test that has been purchased by the school for use in the reading program.

The instructional materials used in the program are those that have been available in the course for several years. They include multi-level reading and social studies instructional materials. (See Appendix, Tables III and IV)

PROCEDURE

The Nelson Reading Test, Form A was administered to the subjects on September 13, 1979. Both portions of the test were administered during a fifty-minute class period. Students who were absent from school that day
were tested upon their return to school within a one-week time period. This researcher administered the testing instrument to the students.

The subjects in this experiment received reading and American History instruction from September 10, 1979 to January 23, 1979. The Basic Reading/American History Pontoon was available to the subjects for a daily two-period block on a one semester basis. Students elected to enroll in the pontoon course. They may have been recommended for the course; however, enrollment was voluntary. This pontoon was available only to students in grades 11 and 12.

The students were provided reading instruction with an emphasis on social studies content. The social studies department chairperson and this researcher are team teaching the pontoon course. Both teachers are Classroom Instructional Resource Teachers. They have been trained at the Upland Professional Development Center and serve as teacher trainers at La Sierra High School in the areas of learning theory, taxonomy, lesson planning, individualized instruction, and classroom management. The characteristics of the teachers (age, sex, years of teaching experience, and educational background) are indicated, but not subjected to analysis. (See Appendix, Table V)

At the end of the semester, the subjects were again tested. The Nelson Reading Test, Form A was administered to the subjects on January 21, 1980. Both portions of the test were administered during a fifty-minute class period. Students who were absent from school that day were tested on January 22, 1980. This researcher administered the testing instrument to the students.

RESULTS

The researcher compared the September and January reading scores of the students in terms of grade equivalents. A statistical analysis was conducted using a t-test for dependent means.
In vocabulary $t = 3.2832$. The .05 level for 26 degrees of freedom is 2.0600. Therefore, the null hypothesis is rejected. In paragraph comprehension $t = 4.5097$. The .05 level for 26 degrees of freedom is 2.0600. Therefore, the null hypothesis is rejected. The total score $t = 4.2796$. The .05 level for 26 degrees of freedom is 2.0600. Therefore, the null hypothesis is rejected.

The data indicates that the mean growth in vocabulary for subjects was 6.5 months; the mean growth in paragraph comprehension was 8.5 months; and the total mean growth was 6.8 months.

The statistical analysis indicates that there was a significant difference between the September reading scores and the January reading scores in the areas of vocabulary, paragraph comprehension, and total reading scores. (See Appendix, Table VI)

**DISCUSSION**

This research indicates that there is a significant difference in vocabulary and paragraph comprehension of students enrolled in the pontoon course from September 1979 to January 1980. The data indicate that the students significantly improved in reading achievement during the time of the research.

This research provides students, parents, and school and district staff with evidence of the effectiveness of this pontoon program. It is hoped that this research will provide useful data to justify the continued existence of this program and promote the development of additional pontoon courses at La Sierra High School.
LIMITATIONS

It was not possible to use an equivalent form of the Nelson Reading for the post test in this research. The only form of this test available at La Sierra High School is the Nelson Reading Test, Form A. It can be considered that after four months there would be no practice effect by using the same form of the test.
APPENDIX
<table>
<thead>
<tr>
<th>Subject</th>
<th>Grade</th>
<th>Sex</th>
<th>Date of Birth</th>
<th>Date of Enrollment</th>
<th>Ethnic Background</th>
<th>Nelson Pre Test</th>
<th>Nelson Post Test</th>
</tr>
</thead>
<tbody>
<tr>
<td>1</td>
<td>11</td>
<td>F</td>
<td>4/12/63</td>
<td>1977</td>
<td>Hispanic</td>
<td>7.1</td>
<td>7.8</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>8.5</td>
<td>9.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>7.5</td>
<td>8.7</td>
</tr>
<tr>
<td>2</td>
<td>11</td>
<td>F</td>
<td>6/18/62</td>
<td>1979</td>
<td>Indonesian</td>
<td>5.9</td>
<td>6.7</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5.2</td>
<td>6.0</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5.5</td>
<td>6.3</td>
</tr>
<tr>
<td>3</td>
<td>11</td>
<td>F</td>
<td>5/25/63</td>
<td>1977</td>
<td>White</td>
<td>6.8</td>
<td>7.8</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6.0</td>
<td>6.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6.4</td>
<td>7.2</td>
</tr>
<tr>
<td>4</td>
<td>11</td>
<td>M</td>
<td>8/24/63</td>
<td>1977</td>
<td>White</td>
<td>7.0</td>
<td>10.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5.8</td>
<td>8.9</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6.4</td>
<td>9.8</td>
</tr>
<tr>
<td>5</td>
<td>11</td>
<td>M</td>
<td>12/15/62</td>
<td>1977</td>
<td>Black</td>
<td>8.3</td>
<td>10.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5.5</td>
<td>5.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>6.8</td>
<td>6.9</td>
</tr>
<tr>
<td>6</td>
<td>11</td>
<td>M</td>
<td>12/1/62</td>
<td>1977</td>
<td>White</td>
<td>3.9</td>
<td>5.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4.9</td>
<td>5.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4.5</td>
<td>5.1</td>
</tr>
<tr>
<td>7</td>
<td>11</td>
<td>M</td>
<td>10/11/63</td>
<td>1979</td>
<td>Tongan</td>
<td>5.0</td>
<td>7.5</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>4.8</td>
<td>4.4</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5.0</td>
<td>6.2</td>
</tr>
<tr>
<td>8</td>
<td>11</td>
<td>M</td>
<td>11/3/62</td>
<td>1979</td>
<td>Hispanic</td>
<td>6.0</td>
<td>6.8</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5.5</td>
<td>7.2</td>
</tr>
<tr>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td>5.7</td>
<td>6.7</td>
</tr>
<tr>
<td>Subject</td>
<td>Grade</td>
<td>Sex</td>
<td>Date of Birth</td>
<td>Date of Enrollment</td>
<td>Ethnic Background</td>
<td>Nelson Pre Test</td>
<td>Nelson Post Test</td>
</tr>
<tr>
<td>---------</td>
<td>-------</td>
<td>-----</td>
<td>---------------</td>
<td>--------------------</td>
<td>-------------------</td>
<td>----------------</td>
<td>-----------------</td>
</tr>
<tr>
<td>9</td>
<td>11</td>
<td>M</td>
<td>10/28/61</td>
<td>1979</td>
<td>Hispanic</td>
<td>7.0</td>
<td>8.0</td>
</tr>
<tr>
<td>10</td>
<td>10</td>
<td>M</td>
<td>7/29/63</td>
<td>1977</td>
<td>Black</td>
<td>8.8</td>
<td>8.7</td>
</tr>
<tr>
<td>11</td>
<td>11</td>
<td>M</td>
<td>9/24/61</td>
<td>1977</td>
<td>Hispanic</td>
<td>3.9</td>
<td>4.3</td>
</tr>
<tr>
<td>12</td>
<td>11</td>
<td>M</td>
<td>6/7/63</td>
<td>1977</td>
<td>Hispanic</td>
<td>7.0</td>
<td>7.7</td>
</tr>
<tr>
<td>13</td>
<td>11</td>
<td>M</td>
<td>1/18/63</td>
<td>1977</td>
<td>White</td>
<td>6.2</td>
<td>6.3</td>
</tr>
<tr>
<td>14</td>
<td>11</td>
<td>M</td>
<td>10/17/62</td>
<td>1977</td>
<td>White</td>
<td>6.2</td>
<td>5.5</td>
</tr>
<tr>
<td>15</td>
<td>11</td>
<td>M</td>
<td>10/2/62</td>
<td>1977</td>
<td>White</td>
<td>6.1</td>
<td>5.6</td>
</tr>
<tr>
<td>16</td>
<td>12</td>
<td>F</td>
<td>9/9/62</td>
<td>1976</td>
<td>White</td>
<td>8.7</td>
<td>10.1</td>
</tr>
<tr>
<td>17</td>
<td>12</td>
<td>F</td>
<td>5/11/62</td>
<td>1976</td>
<td>Hispanic</td>
<td>4.9</td>
<td>5.7</td>
</tr>
<tr>
<td>Grade</td>
<td>Sex</td>
<td>Birth Date</td>
<td>Ethnic Background</td>
<td>Enrollement Date</td>
<td>Test Pre</td>
<td>Test Post</td>
<td></td>
</tr>
<tr>
<td>-------</td>
<td>-----</td>
<td>------------</td>
<td>-------------------</td>
<td>------------------</td>
<td>----------</td>
<td>-----------</td>
<td></td>
</tr>
<tr>
<td>9</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>7</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>6</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
<tr>
<td>8</td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
<td></td>
</tr>
</tbody>
</table>
### Summary Data on Subjects

#### Sex:

<table>
<thead>
<tr>
<th>Grade 11</th>
<th>Male</th>
<th>Female</th>
</tr>
</thead>
<tbody>
<tr>
<td></td>
<td>12</td>
<td>3</td>
</tr>
<tr>
<td>Grade 12</td>
<td>Male</td>
<td>Female</td>
</tr>
<tr>
<td></td>
<td>6</td>
<td>6</td>
</tr>
</tbody>
</table>

#### Ethnic Background:

<p>| | |</p>
<table>
<thead>
<tr>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>White</td>
<td>13</td>
</tr>
<tr>
<td>Hispanic</td>
<td>9</td>
</tr>
<tr>
<td>Black</td>
<td>3</td>
</tr>
<tr>
<td>Tongan</td>
<td>1</td>
</tr>
<tr>
<td>Indonesian</td>
<td>1</td>
</tr>
</tbody>
</table>

#### Year of Birth:

<table>
<thead>
<tr>
<th>Year</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>1960</td>
<td>1</td>
</tr>
<tr>
<td>1961</td>
<td>5</td>
</tr>
<tr>
<td>1962</td>
<td>13</td>
</tr>
<tr>
<td>1963</td>
<td>6</td>
</tr>
</tbody>
</table>

#### Year of Enrollment:

<table>
<thead>
<tr>
<th>Year</th>
<th>Count</th>
</tr>
</thead>
<tbody>
<tr>
<td>1976</td>
<td>12</td>
</tr>
<tr>
<td>1977</td>
<td>11</td>
</tr>
<tr>
<td>1978</td>
<td>0</td>
</tr>
<tr>
<td>1979</td>
<td>4</td>
</tr>
</tbody>
</table>
Table: Instructional Materials: Reading


Herber, Harold L. **Go Reading in the Content Areas, Levels 4-8.** New York: Scholastic Book Services, 1973.


**Scope.** New York: Scholastic Book Services, 1979-80.


16

<table>
<thead>
<tr>
<th>Table: Instructional Materials: Social Studies</th>
</tr>
</thead>
<tbody>
<tr>
<td>IV</td>
</tr>
</tbody>
</table>


<table>
<thead>
<tr>
<th>Name:</th>
<th>Ellen Sparrowgrove</th>
<th>Janice Burch</th>
</tr>
</thead>
<tbody>
<tr>
<td>Position:</td>
<td>Reading Department,</td>
<td>Social Studies Department,</td>
</tr>
<tr>
<td></td>
<td>Chairperson</td>
<td>Chairperson</td>
</tr>
<tr>
<td></td>
<td>Reading Specialist</td>
<td></td>
</tr>
<tr>
<td>Sex:</td>
<td>Female</td>
<td>Female</td>
</tr>
<tr>
<td>Ethnic Background:</td>
<td>White</td>
<td>White</td>
</tr>
<tr>
<td>Date of Birth:</td>
<td>August 2, 1946</td>
<td>March 17, 1941</td>
</tr>
<tr>
<td>Education:</td>
<td>B.A. University of Iowa, 1968, Sociology/Social Studies</td>
<td>B.S. University of Maine, 1963, History/Science</td>
</tr>
<tr>
<td></td>
<td></td>
<td>M.A. University of Redlands, 1978, Education - Secondary</td>
</tr>
<tr>
<td>Credentials:</td>
<td>Standard Elementary</td>
<td>Junior High</td>
</tr>
<tr>
<td></td>
<td>Standard Secondary</td>
<td>General Secondary</td>
</tr>
<tr>
<td></td>
<td>Reading Specialist</td>
<td></td>
</tr>
<tr>
<td></td>
<td>Administration</td>
<td></td>
</tr>
</tbody>
</table>
### Table VI

**Descriptive Statistics**

**t-test for Correlated Means**

<table>
<thead>
<tr>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
<th></th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>27</td>
<td>6.4222</td>
<td>2.8579</td>
<td>1.6905</td>
<td>.3253</td>
<td></td>
</tr>
<tr>
<td>Y</td>
<td>27</td>
<td>7.0778</td>
<td>3.3487</td>
<td>1.8300</td>
<td>.3522</td>
<td></td>
</tr>
</tbody>
</table>

\[ t = 3.2832 \text{ for } 26 \text{ degrees of freedom} \]

Significant at .01. Needed for significance at .05:

2.0600 at .01; 2.7800.

Reject the null hypothesis.

---


<table>
<thead>
<tr>
<th>Variable</th>
<th>N</th>
<th>Mean</th>
<th>Variance</th>
<th>Standard Deviation</th>
<th>Standard Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>27</td>
<td>5.2778</td>
<td>1.5064</td>
<td>1.2274</td>
<td>.2362</td>
</tr>
<tr>
<td>Y</td>
<td>27</td>
<td>6.1296</td>
<td>2.5783</td>
<td>1.6057</td>
<td>.3090</td>
</tr>
</tbody>
</table>

\[ t = 4.5097 \text{ for } 26 \text{ degrees of freedom} \]

Significant at .01. Needed for significance at .05:

2.0600 at .01; 2.7800.

Reject the null hypothesis.

---

X = September 13, 1979 Testing Date

Y = January 21, 1980 Testing Date

<table>
<thead>
<tr>
<th>Variables</th>
<th>N</th>
<th>Mean</th>
<th>Variance</th>
<th>Standard Deviation</th>
<th>Standard Error</th>
</tr>
</thead>
<tbody>
<tr>
<td>X</td>
<td>27</td>
<td>5.8778</td>
<td>1.7995</td>
<td>1.3414</td>
<td>.2582</td>
</tr>
<tr>
<td>Y</td>
<td>27</td>
<td>6.5593</td>
<td>2.3710</td>
<td>1.5398</td>
<td>.2963</td>
</tr>
</tbody>
</table>

$t = 4.2796$ for 26 degrees of freedom

Significant at .01. Needed for significance at .05:
2.0600 at .01; 2.7800

Reject the null hypothesis.

$X =$ September 13, 1979 Testing Date

$Y =$ January 21, 1980 Testing Date
BIBLIOGRAPHY


Cassidy, Jack. "Putting the 'First' R in Social Studies." Teacher 95 (February 1978): 62-64


Davis, E.J. "Two Teachers for a Basic or Remedial Science or Mathematics Class: Is It Really Outlandish?" Scholastic Science and Mathematics 76 (October 1976): 4660-468


Hammond, Bill State Director, Georgia Right to Read. Letter, July 5, 1978


Koenke, Karl. "Teaching Reading in the Content Areas." Journal of Reading 21 (February 1978): 460-462


Newsome, M. H. "Teaching Reading in the Content Area: Grades 7-12." Delta Kappa Gamma Bulletin 43 (Fall 1976): 23-27


Vaughan, Joseph L. Jr. "Reading Teachers Need to Teach Contents." Journal of Reading 21 (December 1977): 202-204


CALIFORNIA STATE COLLEGE
San Bernardino

THE EFFECTIVENESS OF AN INTERDISCIPLINARY APPROACH TO READING INSTRUCTION

A Project Summary Submitted to
The Faculty of the School of Education
In Fulfillment of the Requirements of the Degree of
Master of Arts
in
Education: Reading Option
By
Ellen Sparrowgrove, M.A.
San Bernardino, California
1980

APPROVED BY:

Advisor

Committee Member
CALIFORNIA STATE COLLEGE
San Bernardino

THE EFFECTIVENESS OF AN INTERDISCIPLINARY APPROACH TO READING INSTRUCTION

A Project Summary Submitted to
The Faculty of the School of Education
In Fulfillment of the Requirements of the Degree of
Master of Arts
in
Education: Reading Option
By
Ellen Sparrowgrove, M.A.
San Bernardino, California
1980

APPROVED BY:
[Signature]
Advisor

[Signature]
Committee Member
# Table of Contents

<table>
<thead>
<tr>
<th>Section</th>
<th>Page</th>
</tr>
</thead>
<tbody>
<tr>
<td>Statement of the Problem</td>
<td>1</td>
</tr>
<tr>
<td>Procedure</td>
<td>1</td>
</tr>
<tr>
<td>Results</td>
<td>2</td>
</tr>
<tr>
<td>Conclusions and Implications</td>
<td>2</td>
</tr>
</tbody>
</table>
Statement of the Problem

The purpose of this research was to determine the effectiveness of the reading/social studies pontoon for reading improvement at La Sierra High School. In keeping with the competency requirements of AB 65 and the graduation requirements at the school, many students enrolled in Basic Reading for reading improvement and/or for the graduation requirement. The Basic Reading/American History Pontoon was started in 1975-76 to provide reading instruction in the content area; to provide for individualized instruction within a feasible block of time; and, to provide a more personalized learning environment for students with the assistance of two teachers and an instructional aide within a two period block of time.

The pontoon structure provided the opportunity for the teachers to work together on reading skill and content knowledge improvement for students while reinforcing their own teaching strengths. Students benefited from the individualized instruction by having material provided on their own reading level and being taught in a flexible time setting.

Procedure

The Nelson Reading Test, Form A was administered to the subjects on September 13, 1979. Both portions of the test were administered during a fifty-minute class period. Students who were absent from school that day were tested upon their return to school within a one-week time period. This researcher administered the testing instrument to the students.
The subjects in this experiment received reading and American History instruction from September 10, 1979 to January 23, 1979. The Basic Reading/American History Pontoon was available to the subjects for a daily two-period block on a one semester basis. Students elected to enroll in the pontoon course. They may have been recommended for the course; however, enrollment was voluntary. This pontoon was available only to students in grades 11 and 12.

At the end of the semester, the subjects were again tested. The Nelson Reading Test, Form A was administered to the subjects on January 21, 1980. Both portions of the test were administered during a fifty-minute class period. Students who were absent from school that day were tested on January 22, 1980. This researcher administered the testing instrument to the students.

Results

The researcher compared the September and January reading scores of the students in terms of grade equivalents. A statistical analysis was conducted using a t-test for dependent means.

The statistical analysis indicated that there was a significant difference between the September reading scores and the January reading scores in the areas of vocabulary, paragraph comprehension, and total reading scores.

Conclusions and Implications

This research provided students, parents, and school and district staff with evidence of the effectiveness of this pontoon program. It is hoped that this research will provide useful data to justify the continued existence of this program and promote the development of additional pontoon courses at La Sierra High School.