READING COMPREHENSION
AND SELF ESTEEM IN
LEARNING DISABLED STUDENTS

A RESEARCH PROJECT

Submitted to the Department of Secondary Education, University of Dayton, in Partial Fulfillment of the Requirements for the Degree Master of Science in Education

by

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I would like to acknowledge the invaluable help of my project advisor, Dr. Roger Carlsen, of the University of Dayton Department of Teacher Education. His willingness to give of his time and talents was an inspiration to me and helped me persevere until I reached my goal.
DEDICATION

This paper is dedicated to the memory of my husband, David Binegar, who taught me, among other things, to always believe in myself and to set my goals high.

This paper is also dedicated to my daughter, Sarah Kaiser, who has waited patiently for this project to be completed.
CHAPTER I

INTRODUCTION TO THE PROBLEM

Justification of the Study

As most LD teachers can attest, learning disabled students seem to acquire an ever decreasing level of self esteem. In some instances these students appeared defeated before they began. This was especially true in reading. Perhaps because LD students were poor readers when they entered high school, they assumed they would remain poor readers. Any remedial training that dealt solely with content and not with self confidence improvement was doomed to fail because the student's own inner critic or negative self-talk would sabotage any possible improvements in content study. "To use an analogy, the work will fail because the content will be poured into a broken cup, the cracks being the inner critic's negative attitudes and beliefs; the cup must be sealed and improved before it can hold anything (Ignoffo, 1988, p. 705)." Many LD students often
lose rather than gain reading skills in high school (Butkowsky and Willows, 1980). One reason is that perhaps they simply quit reading unless they are forced to read in class. Since reading is a life skill that greatly affects both one's social and economic well being, it is essential that any roadblock which impedes one's ability to read be examined and removed.

Statement of the Problem

The purpose of this study is to enhance reading achievement and to assess any increase in self esteem which might be attributable to reading improvement.

Hypothesis

The author expects that LD students will have a lower initial self esteem rating than non-disabled students. It is also assumed that an increase in reading comprehension skills will result in an
increased level of self esteem. The null hypotheses to be tested are as follows:

1) There will be no statistical difference between the initial self esteem rating of LD students and non-LD students.

2) There will be no statistical difference between a student's pretest and posttest reading comprehension scores in the experimental group.

3) There will be no statistical difference between the change in pretest and posttest self esteem ratings of LD students and non-LD students.

Limitations

This study was conducted with a small population, not randomly chosen. The subjects in this study were all from the same geographic area and may exhibit the influence of small town living that may not apply to other populations.

The review of the literature was extensive but not exhaustive. Many studies have been done on self esteem and younger children's
academic achievement but few studies have been done with high school students.

Pretest and posttest reading evaluations were not available for all classifications of students. Reading tests were not administered to the non-LD students or to one group of the LD students. These students' self esteems were, however, assessed.
Definitions of Terms

**Academic self esteem:** a judgment of worthiness relating to ability to achieve in school related activities.

**Attribution:** an explanation of the cause of success or failure.

**Exact statistics:** reliable mathematical inferences based on exact permutational methods using p-values and confidence intervals.

**Inner critic:** a negative internal voice that tells one it's useless to attempt to ever do better, negative self-talk.

**Learning disability:** an identified disability in psychological processing of written or spoken language, including verbal and/or mathematical skills.

**Self esteem:** a judgment of worthiness that is expressed by the attitudes one holds toward the self, an attitude of approval or disapproval that indicates the extent to which a person believes him-or herself capable, significant, successful, and worthy (Coopersmith, 1990).
CHAPTER II

REVIEW OF THE RELATED LITERATURE

Self Esteem

It is widely held that self concept is centrally involved in the learning process and influences achievement outcomes through its effect on motivation (Chapman, 1988a). Thus, students with positive self esteem usually try harder and persist longer on difficult tasks, while those who feel relatively worthless reduce their effort or give up altogether. In a study to explain changes in the academic effort in junior high and senior high school students, Mac Iver, Stipek and Daniels (1991) found that a change in ability perceptions had an important direct effect on change in effort. They stated, "By reducing the number of students who believe that they are not good enough in a subject, teachers can increase the number of students who work near their potential (p. 207)." Their findings
also suggested that increasing students' perceptions would also increase the students' value of the subject they were learning. The valuing of the subject included both the intrinsic or interest value and the utility value. The intrinsic value is the immediate enjoyment one gets from developing, mastering, or using a skill involved in the subject while the utility value is the importance of the subject for some future goal. Students who valued a subject more tended to try harder and perceived the subject as more useful. Junior high students were more effected by changes in the perceived importance of extrinsic pressures for achievement than senior high students. These researchers concluded that although confidence building programs are critical they must be accompanied by direct instruction in metacognitive strategies.

Barbara Licht (1983) found in her research that LD students may come to doubt their intellectual abilities because of repeated failures and therefore to doubt that anything they do will help them overcome their difficulties. As a result of these beliefs the children lessen their achievement efforts especially when confronted with difficult material. She felt the repeated failures of
LD children may not only lead to feelings of incompetence but may also cause these children to devalue their academic work.

Although the assumption was once made that learning disabled students had a lower self concept than non-handicapped students, several studies have shown there is no significant difference between the scores of the two groups. In research done by Silverman and Zigmond (1983) the overall mean scores of urban, rural and suburban LD adolescents were comparable to those of the age appropriate norming population. They explained this by suggesting that LD students had managed to compensate for their school deficiencies by finding successful experiences outside of school or that school success was just unimportant to these students and their peer group.

In another study Chapman (1988a) studied academic self-concept, achievement expectations and academic locus of control for LD and non-LD elementary students for a two year period. He found that academic self-concept was consistently stronger in predicting grades than any other variable. Ability perceptions had a stronger effect on grades than grades had on perceptions. Ability perceptions became increasingly stable among LD students over time. The LD
students in this study had significantly more negative perceptions of ability, lower expectations for success and external locus of control for success or failure in school. LD boys reported lower academic self concepts than did LD girls. The boys tended to view the classroom environment as feminine and seemed to have a more difficult time maintaining a positive self concept in that atmosphere. Chapman concluded that LD children are characterized by "low self-perceptions of ability, reflecting negative academic self concept, along with tendencies toward learned helplessness and lower expectations for future success in school (Chapman, 1988a, p. 362)." His findings supported the suggestion that decreases in academic self concept occur around Grade 3 and remain relatively stable through at least Grade 10. He thus cautioned educators to "pay more heed to signs of negative social-emotional development (p. 363)" in LD students.

The research of Halmhuber and Paris (1993) linked perception of competence to coping skills. Their study found that there were no significant differences between elementary LD students and non-LD students on global self-worth scales. The LD students, however, did perceive themselves as less competent in school and social
situations. The LD students tended to exhibit lower coping skills. Halmhuber and Paris attributed this to the LD students' high attribution to unknown sources of control causing less understanding of what is expected in the classroom and thus more passive behavior. Unknown sources of control referred to any time the child did not know why success or failure occurred. In support of this assumption, LD students were judged by general education teachers as significantly less active than non-LD students in meeting their own needs and less able to change the environment. In opposition to this, students with successful coping skills believed in themselves and in their sense of inner control. Children with higher reading achievement scores also indicated higher levels of perceived social competence and attributed success and failure less to unknown sources of control. The researchers concluded that "with appropriate motivation and metacognition, children can change how they view themselves and their environments. Such beliefs, in turn, may help them implement strategies that enable and empower successful adjustment in school (Halmhuber and Paris, 1993, p.110)." The authors did caution that not all children with a handicapping condition were judged as coping unsuccessfully.
However, they strongly felt that all children need to develop strategies to adapt to a changing world. Current research supports the premise that LD students have approximately the same global self esteem as non-LD students but lower academic self esteem. They tend to see themselves as powerless, incompetent and helpless in academic settings. They need to learn cognitive strategies in order to cope more successfully. Once they perceive themselves as competent, what they are learning will have more value to them.

Self Esteem and Reading

Several doctoral studies have found a direct relationship between reading achievement and self esteem. In one study investigating the relationship of self concept and reading achievement of ninth grade students, the above average group in reading achievement scored significantly higher in self concept than did the below average group in reading achievement (Akande, 1979). There were significant differences at the .01 level on seven subtests: moral self, family self, social self, identity, self-
satisfaction, behavior and total self concept. Kenneth Bates (1979) found student self esteem was positively related to reading achievement for the fifteen males in grade 5 that he tested. From his research with elementary students he concluded that there is a limited relationship between student morale factors and reading achievement and a significant difference between good and poor readers' response to the morale factor of teacher acceptance and understanding. Another study by Jennifer Nichols (1979) also indicated a significant positive relationship existed between self concept and reading achievement for grade levels six, seven and eight. Finally, Ronald Schnee (1972) concluded from his research involving 318 eighth grade and 478 fifth grade students that reading subscales correlated with IQ and self esteem. He also stated, "It appears that reading achievement might be improved by improving one's self esteem, and remedial reading may well be an activity for the objective of improving self esteem (p.13)."

Butkowsky and Willows (1980) studied the effects of specific self perceptions on motivation and competence in reading. They developed their study based on the idea that attribution of success and failure caused a variety of achievement related behaviors
including expectancies of success and persistence in the face of difficulty. The four causes of success or failure important to children in achievement situations were ability, effort, task difficulty, and luck. Ability and effort were seen as characteristics that are internal to the person, whereas, task difficulty and luck were seen as external factors. Ability and task difficulty are stable factors while effort and luck may be relatively variable from moment to moment and situation to situation. The results of the study showed that poor readers displayed significantly lower expectancies of success on the reading task as compared with average or good readers. Poor readers were also less likely to see themselves as personally responsible for their success and more likely to blame their failures on a lack of personal competence. They were found to have lower initial expectancies of success, to attribute failures to more internal and stable factors, and to give up more quickly in the face of difficulty. Butkowsky and Willows (1980) concluded that modifying what poor readers say to themselves would potentially increase motivation, persistence and expectancies of success in reading. They urged educators to present
failure as a necessary part of the learning process and teach children to think more adaptively about their failures.

Borkowski et al. (1988) set up a model that combined specific reading strategies with attribution retraining. Attribution retraining emphasized the importance of effort in using a learning strategy and stressed the importance of controllable factors in performance outcomes. They felt that LD children who attribute success to luck or ability may not use, appreciate or generalize reading strategies. In their model they emphasized that "interventions designed to remediate compensation deficits should focus on improving specific strategy knowledge, fostering the use of executive or coordinating routines, and reshaping attributional beliefs in order to alter academic skills such as reading comprehension (p. 47)." In their study they used three strategies from the Chicago Mastery Learning Curriculum dealing with main ideas and details, topic sentence and summarization. The formula "strategy use equals success" was emphasized. The results of the study showed a 50% improvement in summarizing skills and a 6 month improvement in inferencing ability for main ideas in short paragraphs for those students in the combined strategy-attribution
group. Borkowski concluded that "the inclusion of motivational components in the treatment of LD children and adolescents holds promise for the remediation of comprehension deficits (Borokowski et al., 1988, p. 51)." He also cautioned that the amount of attribution training necessary depends on learner characteristics, task difficulty, and previous strategy knowledge. Attribution training would focus on the causal inferences made about success and failure experiences. Changes in attributional beliefs in non-reading domains did not show similar improvements.

From these studies on reading achievement and self esteem, it would seem apparent that self esteem greatly influences reading achievement. Poor readers expect to fail and so they do. Students need to be taught reading strategies along with reasonable expectations for their performance with emphasis on the control they can have over learning outcomes. "Awareness of their cognitive abilities enables students to control their own learning, which in turn can motivate them to seek challenging tasks and to persist in the face of difficulty (Paris and Oka, 1986, p.107)."
Summary

LD students tended to have general self concept scores that fell within the normal range but were still lower than the scores of their non-handicapped peers. When assessed for academic self concepts, however, LD students had significantly lower scores. Chapman (1988b) found that discrepancies in self concept between LD students and non-handicapped students arise at least by grade 3 and remain relatively constant until high school when deterioration in the self perceptions of LD students may occur. He concluded that actual performance in school would seem to have a direct bearing on ability perceptions while global self-concepts would involve nonacademic, physical and social factors. Therefore, LD students may be better able to maintain a sense of self-worth through nonacademic activities.

Students with low academic self esteem tended to doubt their abilities and the chance for any future success in school. They engaged in self-defeating behavior. "Some students with low self-worth set up a variety of defensive techniques for avoiding failure, one of which is minimal output of effort which lessens available
information about one's ability (Rottman and Cross, 1990, p. 277)."
Poor readers who were characterized by low academic self esteem
had markedly lower persistence in the face of difficulty and
explained success in terms of external causes such as ease-of-task
and failure in terms of internal causes such as lack of ability.

Students do better academically when they are taught strategies
with regard to their motivational histories. They need to be
informed directly about what the strategies are, how they work, and
when to use them. The more confidence students have in their
ability, the more motivation will be established to take risks and
expand effort on difficult tasks.
CHAPTER III

METHOD

Subjects

The subjects were all from a small town, midwestern high school. The age range of the students was 15 to 19. They were divided into three test groups.

Class 1 consisted of students enrolled in General English 10 course. None of these students were enrolled in the LD program. There were 10 boys and 11 girls in this group. The students followed the school district's required curriculum. No specific intervention for self esteem or reading was done with this class.

Class 2 consisted of students enrolled in the learning disabilities program who took their English class with the LD teacher. There were 3 boys and 4 girls in this group. No specific
intervention for self esteem or reading was done with this class either.

Class 3 consisted of students enrolled in the LD program who took their English class with the LD teacher. In this group there were 14 boys and 8 girls. This class received reading intervention for a ten week period.

**Instruments**

Self esteem was measured by the *Coopersmith Self Esteem Inventory* (SEI) (Coopersmith, 1990). The self esteem inventory contains 58 forced-choice "Yes-No" questions. There are 4 subscales which include General Self Esteem, Social Self-Peers, Home-Parents, and School-Academic. The Total Self Esteem score is the sum of these four subscales. The lie score was incorporated into the test as an index of defensiveness. "In relation to the SEI, the term 'self esteem' refers to the evaluation a person makes and customarily maintains, of him- or herself; that is, overall self esteem is an expression of approval or disapproval, indicating the extent to which a person believes him- or herself competent,
successful, significant, and worthy (Coopersmith, 1990, p.1-2)." The coefficients for internal consistency were .81 for grade 5, .86 for grade 9, and .80 for grade 12. Based on a three-year longitudinal study, the author of the test concluded that self esteem becomes more stable as young people move into adolescence. According to the SEI manual, studies by Kokenes and Kimball confirmed the construct validity of the subscales of the SEI as measuring sources of self esteem. "Regressive analysis of SEI subscale scores on MAT GES indicated that the SEI is a fair predictor of reading achievement (Coopersmith, 1990, p.13)." According to this analysis, the lie score is generally the best predictor. Correlations of the SEI subscale scores and the reading GES were as follows: General Self subscale, .35; Lie Scale, .39; Lie Scale and General Self subscale multiple r, .53 (p < .01).

Reference was made in the manual to a study by Rosenberg and Gaier in 1977 (Coopersmith, 1990) of learning disabled students and self esteem using this inventory. They found that LD students scored significantly lower than non-LD students and showed more negative General Self and School-Academic self esteem. The mean for the LD children was 66 out of maximum possible of 100 which is
below the average score of approximately 70 for non-handicapped children.

Reading achievement was measured by the Reading Comprehension subtest of the Language Proficiency Test (LPT) (Gerard and Weinstock, 1981). The subtest consists of ten reading passages which range in difficulty from first to sixth grade as measured by the Fry Readability formula (Fry, 1971). The passages deal with American customs and traditions as well as cultural experiences. Each passage is followed by four multiple choice questions. The reliability of the Comprehension subtest was examined by administering the test to the same group of students on two separate occasions at a two week interval. The test-retest reliability for 46 high school students yielded a correlation coefficient of .87. Validity was examined by comparing LPT scores with performance on the Barnel-Loft Multiple Skills Series (Boning, 1976). The correlation of the LPT with the Barnel-Loft Series for a sample of 46 high school students was .77.
Procedure

The pretests and posttests in each group were administered approximately ten weeks apart. All testing of LD students was handled by this author while the testing of the General English class was handled by their regular classroom teacher. Both teachers agreed that each would administer the tests to her own group in order to keep the testing atmosphere as normal as possible. In both settings the questions for the SEI were read orally.

The students in the General English class (Class 1) took the pre-SEI in late Jan., 1991, and the post SEI in late May, 1991. No specific self esteem or reading intervention was administered to this group.

The students in the non-intervention LD class (Class 2) took the pre-SEI test in late Jan., 1991, and the post-SEI in late May, 1991. No specific self esteem or reading intervention was administered to this group either.

The students in the intervention LD class (Class 3) took the pre-SEI in early Sept., 1992, and the pre-LPT in early Oct., 1992. Following these pre-tests the students were instructed in various
ways to improve their reading comprehension skills. The Reading Attainment System (RAS) (Crowell and Mosenfelder, 1987) was used to monitor weekly progress and to practice skills discussed in class. The RAS was specifically designed for older students who read below grade level. Books 2-10 were used with corresponding reading levels of 3.5 to 7.0. Each reading selection is followed by 25 questions. The first ten questions are multiple choice and deal with specific information in the story and common sense conclusions or application of the information in the story. The next ten questions deal with vocabulary skills to strengthen word attack skills. The final five questions deal with thinking skills such as the use of analogies, definitional skills, cause and effect, and fact or opinion. After this intervention period these students took the post-LPT in mid-Dec., 1992, and the post-SEI in mid-Jan., 1993.
Treating the Data

The data was calculated using Systat (Wilkinson, 1993) for all asymptotic methods and StatXact (Mehta, 1992) for all permutational methods.

In all, the scores of 50 students were examined. The students were categorized by class enrollment and intervention or non-intervention. **Class 1** results were based on the scores of 21 students (10 males, 11 females) who were enrolled in a General English 10 class and who received no specific intervention in self esteem or reading. **Class 2** results were based on the scores of 7 students (3 males, 4 females) who were enrolled in the LD program and who received no specific intervention in self esteem or reading. **Class 3** results were based on the scores of 22 students (14 males, 8 females) who received no specific intervention in self esteem but did receive ten weeks of intervention in reading.
CHAPTER 1V

RESULTS

Presentation of Results

All results in this section have been tested at a significance level of \( p < .05 \). The asymptotic values were calculated on an IBM computer using the Systat program. Only two subtests, Social Self-Peers and School-Academic, and the Total Self Esteem score of the Coopersmith Self Esteem Inventory (SEI) were used to calculate the results. These scores were chosen because they related directly to the issues being investigated.

The first null hypothesis - there will be no statistical difference between the initial self esteem rating of LD students and non-LD students - was evaluated using analysis of variance. There was no significant difference in Total Self Esteem pretest scores between the LD students and non-LD students. The results were as follows:
Dep Var: TOTAL SELF ESTEEM PRETEST SCORES N=45

Analysis of Variance

<table>
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<th>Source</th>
<th>Sum-of-Squares</th>
<th>Df</th>
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<th>F-Ratio</th>
<th>P</th>
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<td>Class</td>
<td>42.520</td>
<td>2</td>
<td>21.260</td>
<td>0.598</td>
<td>0.554</td>
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<tr>
<td>Error</td>
<td>1492.280</td>
<td>42</td>
<td>35.530</td>
<td></td>
<td></td>
</tr>
</tbody>
</table>

The second null hypothesis - there will be no statistical difference between a student's reading comprehension pretest and posttest scores - was evaluated using paired sample t-tests. 

**Class 3** was the only group to take the reading comprehension test. This experimental class demonstrated no significant change in reading test scores \( (t= .206, \ df= 12, \ p= .84) \).

The third null hypothesis - there will no statistical difference between the change in pretest and posttest self esteem ratings of LD students and non-LD students - was also evaluated using paired sample t-tests. These results are shown in Figure 1. **Class 1** and **Class 3** had no significant change in any of the three areas of self esteem from pretest to posttest scores. **Class 2** had no significant change is Social Self-Peers scores but did have significant increases from the pretest to the posttest scores for Total Self
Esteem (t= 3.656, df= 3, p= .04) and School-Academic (t= 5.00, df =3, p= .02) Self Esteem.

Because the population was small and skewed with deficits in the areas being measured, further analysis of the data was needed to compare the groups to one another. Exact statistics were calculated using StatXact, a computer program which enables statisticians and data analysts to make reliable inferences by exact methods when their data is sparse, heavily tied, or skewed, and the accuracy of the corresponding large sample theory is in doubt.
Applied statisticians, data analysts, and scientists in diverse fields routinely gather data to compare two or more populations. While graphical or tabular displays and summary statistics like the mean and variance serve a useful function, p-values and confidence intervals are generally accepted as the two most useful quantitative measures for determining whether, and by how much, the populations differ. This is because p-values and confidence intervals have precise probabilistic interpretations. The p-value is the probability of observing a data set, at least as extreme as the one actually observed, under the null hypothesis. Small p-values furnish evidence against the null hypothesis. For the purpose of this investigation, any p-value less than .05 was deemed significant.

Since p-values based on exact permutational methods remain valid no matter how sparse, skewed, or heavily tied the data is, it would be desirable to use them wherever possible. The one obstacle to exact permutational inference has always been its computational complexity. Two developments over the past ten years have removed this obstacle. First, the easy availability of immense computing power in homes and offices has revolutionized thinking about what is computationally affordable. Second, many new, fast, and efficient
algorithms for exact permutational inferences have been recently published. Thus problems that previously would have taken several hours or even days to solve now take only a few minutes. Therefore, the use of exact statistics seemed the most appropriate way to handle this data. Indeed, without the use of exact statistics comparisons could not be made.

All finding represented were based on the Wilcox Rank Sum Test (Mehta, 1992). P-values were determined by paired comparisons of the classes based on the gain or loss in mean scores from the pretest to the posttest of the SEI. No comparisons between the groups could be done for the LPT Reading Comprehension subtest since only Class 3 took that test.

In the comparison of Total Self Esteem gain or loss scores, Class 2 had a significant gain comparison score over both Class 1 (p = .02) and Class 3 (p = .03). There was no significant comparison score between Class 1 and Class 3 in Total Self Esteem.

In the comparison of School- Academic gain or loss scores, Class 2 again had a significant gain comparison score over Class 1 (p = .01), but there was no significant comparison score with Class 3.
Again there was no significant comparison score between Class 1 and Class 3.

Finally, in the comparison of Social Self-Peers gain or loss scores, there was no significant comparison score among any of the classes. These results are shown in Figure 2 and clearly show the erosion of self esteem scores over time for Class 1 and Class 3. Class 2, however, demonstrated a dramatic self esteem gain in Total and School raw score points.
Summary of the Results

There was no significant difference between the initial Total Self Esteem scores between LD students and non-LD students.

There was no significant change in the pretest and posttest reading comprehension scores for Class 3. No other class took this test.

Only Class 2 had significant gains in Total Self Esteem and School-Academic Self Esteem. There were no significant gains in self esteem for Class 1 or Class 3.

Exact statistics showed that Class 2 had significant gain comparison scores over Class 1 and Class 3 in Total Self Esteem and over Class 1 in School-Academic Self Esteem.
Chapter V

Summary, Conclusions, Recommendations

Summary

Since several studies have emphasized the effect self esteem has on reading achievement, the purpose of this study was measure the effect improvement in reading comprehension would have on self esteem ratings.

Both LD and non-LD high school students in a small midwestern town took pretests and posttests of the Coopersmith Self Esteem Survey (SEI). The non-LD students (Class 1) were enrolled in General English 10 and had no specific intervention in self esteem or reading. One LD class had no intervention (Class 2) in self esteem or reading while the other LD class received intervention (Class 3) in reading but not self esteem. The LD class receiving reading intervention also took pretests and posttests of the Reading
Comprehension subtest of the *Language Proficiency Test* (LPT).

Students in Class 2 (the non-intervention LD class) made significant gains in Total Self Esteem and School-Academic Self Esteem scores. This group also made significant gain comparison scores over either of the other two groups in Total Self Esteem scores and a significant gain comparison score over Class 1 (the General English 10 class) in School-Academic Self Esteem. Even though exact statistics were used, the accuracy of these findings could be questionable because of the size of the sample of the non-intervention LD group (7 students) compared to General English 10 class (21 students) or the experimental LD group (22 students). The pretest mean score of Class 2 (the non-intervention LD group) was lower than the pretest means of the other two groups leaving more opportunities for this group to show gains just by catching up with the others. Other factors could also have entered into the instructional mix which could have accounted for the increased self esteem of Class 2.

The students in Class 3 (the experimental group) made no significant improvement in reading comprehension scores. Therefore, it was impossible to determine if an improvement in
reading comprehension would effect self esteem ratings.

Although there was no significant change in the pretest and posttest self esteem scores of Class 1 (the General English 10 class) in any of the three areas measured, there was, however, a substantial decrease (p= .07) in the Total Self Esteem score from pretest to posttest. This was in contrast to Class 2 (the non-intervention LD group) which made a significant increase (p= .04) and Class 3 (the intervention LD group) which demonstrated an insignificant change (p=.94).

Conclusions

Since the experimental group demonstrated no significant change based on their reading test scores, the purpose of this study could not be achieved. The time frame for this study may have been too short to allow students to truly master the several reading strategies taught. Also, the sample groups may have been too similar. The pretest mean scores for all the groups were below the norms for either normally achieving students or learning disabled
students (Coopersmith, 1990). All three groups contained students who were considered poor readers simply because of their class placement. **Class 1** (the General English 10 group) was in the lowest mainstream English student group in the school. Perhaps a better sample population would have included students from the College Prep and Advanced Placement tracts.

**Recommendations**

Since past research has found a definite relationship between reading and self esteem (Borkowski, et al., 1988; Butkowsky and Willows, 1980), further research should continue to investigate programs that emphasize both the mastery and generalization of reading strategies and the improvement of self esteem through attribution retraining.

Other factors in the students' days may have contributed toward improved or eroded self esteem. Perhaps, special class placement, individualized attention or other such factors contribute to self
esteem. One should not rule out the value of the techniques employed in this study as an area needing more research.
REFERENCES


