The effect of special class placement and remediation on the self-concept of the learning disabled child

Marianne Seibert
THE EFFECT OF SPECIAL CLASS PLACEMENT AND
REMEDICATION ON THE SELF-CONCEPT OF THE
LEARNING DISABLED CHILD

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Sincere appreciation is extended to my fiance, Joseph Garten, and my parents, Mr. and Mrs. Philip T. Seibert, for their unyielding support and encouragement during the course of my graduate and undergraduate studies.
Coopersmith's Self Esteem Inventory (SEI) was used to assess and compare the effects of different types of educational programs (regular class, tutorial services, special class and segregated schools) upon the self-concept of forty-three 11 and 12 year old learning disabled Caucasian males. The effect of regular class placement upon the self-concept of 10 EMR students was also studied. Contrary to the major hypothesis that the Full SEI scores of groups of learning disabled children receiving differential treatment would differ significantly, findings show that the different types of educational programs studied do not effect a learning disabled child's general appraisal of self-worth. Regular class enrollment does, however, appear to effect adversely the learning disabled child's appraisal of himself within the school setting as measured by Coopersmith's school-academic SEI sub-scale.
In spite of the recent growth in special programs for the learning disabled, few investigators have directed their attention toward this particular group of exceptional children. Evaluations of special programs initiated for the learning disabled continue to be based primarily upon data drawn from the mentally retarded. Relatively little evidence is available assessing the academic and affective effects of differential placement and segregation from normal students upon the learning disabled. The efficacy of special education for the educably mentally retarded (EMR) in terms of academic and affective benefits has, however, recently become the subject of much debate. Numerous studies have been conducted to compare the effects of special versus regular class placement on the academic achievement and self-concept of the retarded.

Results of studies employing EMR Ss have called into question the rationale for segregated placement. It has been suggested that the findings revealing negative cognitive and questionable affective benefits accrued from special placement among the EMR population might be applicable to other groups of exceptional children (Hammill and Bartell, 1971). Empirical
validation of this assumption, however, is lacking. Part of the problem stems from the fact that learning abilities and skills are distributed along a continuum and definitions of learning disability (Silberberg and Silberberg, 1969) and educable mental retardation entail somewhat arbitrarily determined cutoff points. Even so, any unverified extrapolation from EMR studies to learning disability studies is rendered suspect by the distinction drawn between these two groups of exceptional children.

The learning disabled child is one with a specialized learning problem, but who is otherwise physically and mentally normal (Topez, 1969). The mentally retarded, on the other hand lack the potential of the learning disabled to learn. Although there is a general lack of consensus among educators as to what specifically constitutes a learning disability, the current legal definition cited in Public Law 91-230, Title VI, section 602, paragraph 15 distinguishes between these two groups:

"...children who have a disorder in one or more of the basic psychological processes involved in understanding or in using language spoken or written, which disorder may manifest itself in imperfect ability to listen, think, speak, read, write, spell, or do mathematical calculations. Such disorders include such conditions as perceptual handicaps, brain injury, minimal dysfunction, dyslexia and developmental aphasia. Such a term does not include children who have learning problems which are primarily the result of visual, learning, or motor handicaps, of mental retardation, of emotional disturbance, or of environmental disadvantage."

Research in the area of learning disabilities has dealt largely
with reading retardation. Studies investigating the academic consequences of reading remediation have yielded diverse findings. Smith (1967) found no significant difference in the reading achievement between fourth grade retarded readers receiving remedial help in small reading classes and those without benefit of special remediation. In a brief review of the recent research literature, Silberberg and Silberberg (1969), "Myths in Remedial Education," cited evidence of short term positive effects during and upon completion of a remedial program, but reported a dearth of evidence evincing any significant long term benefits.

A review of the more recent research suggests that academic benefits may be derived from special remediation and/or special placement of learning disabled students. Hekerl (1969) reported significant improvement in oral reading, word pronunciation and spelling over a two semester period among second, third and fourth graders attending a regular class and receiving special instruction in a small group for 45 minutes four times weekly. The learning clinic which provided the specialized instruction also furnished the regular classroom teachers with special materials to use with the child, opportunities to discuss the child's learning problems and consultation with the clinic's reading specialists. Investigating the effectiveness of an experimental program for children with learning disabilities,
Roberds (1969) reported that between the October and May pre and post test assessment periods, a standardized reading test score gain from one tenth to eight tenths of a year and an arithmetic gain from two tenths of a year to more than a year were made.

Sabatino and Hayden (1970) reported on both the immediate and long term academic benefits obtained among fifteen elementary learning disabled students who participated in a special six week nonacademic perceptual summer training program. A pretest was administered on the first day of summer school, posttest A upon completion of the program and posttest B three months after the program was terminated. Analysis of data revealed less than one month lost in arithmetic, a three month gain in word recognition and a statistically significant increase of nearly a year's growth in reading comprehension during the six week program. The only significant difference between the pretest and posttest A occurred in reading comprehension. Although the only significant difference between posttests A and B occurred in arithmetic, the authors reported three months and two months academic growth in reading comprehension and word recognition, respectively. Significant gains were made in all three academic areas assessed between the pretest and posttest B. The control Ss who did not receive any special instruction over the same five month interval gained only half a month in word recognition and reading comprehension.
Reporting favorable academic consequences of special class placement for learning disabled children, Woodson (1970) and Sabatino (1971) have recently recommended the implementation of itinerant tutoring and resource room programs as alternatives to the regular versus self-contained special class dichotomy. Investigating the effectiveness of (1) a self-contained special class, (2) an itinerant tutoring program in which the child was seen one hour each day, Woodson found significant academic gains made over a one year period within each group.

Sabatino compared the academic achievement of learning disabled children enrolled in a regular classroom without benefit of special remediation, in a self-contained special classroom, and in two resource rooms; the three experimental class structures were differentiated primarily in terms of the frequency with which a particular prescriptive activity was presented. Children reported to resource room A an hour each day or to resource room B one half hour twice a week. The remaining hours of the school day were spent in the regular classroom. The control Ss in the regular class gained three months in reading comprehension and two months in work recognition, whereas the students in the three experimental programs gained at least a year in both academic areas measured over an academic year period.
Investigating the differences among the three experimental class structures, Sabatino found that students in resource room plan A enjoyed the greatest gain in word recognition, while the greatest improvement in reading comprehension was obtained by the children in the self-contained class. Resource room plan B proved the least effective among the three experimental programs in terms of gains made in the two academic areas assessed. The author suggested that daily sessions provided greater instructional carry-over than did bi-weekly half hour sessions.

The effects of differential placement and degree of segregation upon the self-concept of learning disabled children has been given very little attention in past research. Assumptions concerning the affective as well as the academic benefits of special education for this particular population have often been grounded on impressionistic rather than empirical evidence, based on commonly held notions concerning exceptional children in general or based on tentative conclusions drawn from studies utilizing other groups of exceptional children.

Efficacy studies, which have drawn their Ss from the EMR population, have generally failed to provide evidence supporting the notion that special class placement maximizes or facilitates learning. Blatt (1956), for example, found no sig-
nificant difference in the academic status between special and regular class students. Similarly, Bacher (1971) reported no appreciable difference, after one academic year, in the reading growth of slow learners in the two classroom settings. Elenbogen (1957), Cassidy and Stanton (1959), and Johnson (1961), on the other hand, reported superior academic achievement among retardates who remained in the regular classroom as compared to matched groups placed in special classes.

Limited attention has been directed toward the relative effectiveness, in terms of academic consequences, of the physical location of the self-contained special class. Comparing EMR students in two types of secondary school placement, Harvey (1972) found academic achievement to be significantly greater among students in a special class located in a regular secondary school than among a matched group housed in a special school.

Although results have not been in complete agreement, a survey of the literature suggests that the greatest value of special placement of EMR students may lie in the area of personal and social adjustment (Cassidy and Stanton, 1959; Elenbogen, 1957; Towne and Joiner, 1966; Schurr, 1967). Although Bacher (1965) rejected the hypothesis that the self-concept of slow learners
in special classes is more positive than the self-concept of those in regular classes, he did conclude that social adjustment, as measured by the Columbia Social Distance Scale, was facilitated by special class placement. In an attempt to determine whether special education for the mentally retarded was adequately meeting the needs of these students, Franks (1973) asked a group of eight year, nine month to seventeen year, six month old educable mentally retarded youth questions concerning their present placement. Sixty one per cent responded favorably to the question, "Do you like being in a special class?" The favorable attitude towards placement did, however, decrease with age.

Over a two year observation period, Schurr, Towne and Joiner (1972) reported a significant linear increase of self-concept of academic ability scores among 62 educable retarded students placed in segregated classrooms. Similar results were also found in a replication of the first year phase. These authors also reported a decrease in academic self-concept among seven educable retarded students reassigned to regular classrooms.

Contrary to the findings reported above, there is evidence to suggest that special placement has either a detrimental or no appreciable effect upon the social and personal adjustment and self-concept of EMRs. Comparing regular and special class students,
Blatt (1956) reported no significant difference in the children's personal and social adjustment. In another study, Bacher (1964) did find social adjustment to be significantly greater among special class slow learners as opposed to slow learners in the regular classroom, but did not find a significant difference in the self-concept of students within these two educational settings.

Examining the effects of early placement, Mayer (1966) found no significant differences in self-concept between three groups of junior high aged retarded students differentiated according to the number of years spent in a regular classroom before special class entrance. Similarly, Bauer (1970), McGarview (1970), and Harvey (1972) did not find length of time spent in special education to be a significant variable affecting self-concept.

Meyerowitz (1962), however, reported a significant difference in the number of derogations made between first graders in regular and special classes. With special class EMR students proving to be the more self derogatory, Meyerowitz posited that rather than feeling adequate and accepted among his intellectual peers, the EMR youngster placed in a special class feels rejected because he has been singled out and separated from his peers.

Comparison of the relative effectiveness of different degrees of segregation upon the self-concept of EMR students has yielded diverse findings. Although the difference was not significant, Kern and Pfaeffle (1962) found that the social adjustment of
those children attending a special school for the retarded was higher than that of those children enrolled in special classes in a regular school. Social adjustment of the special class children, as measured by the Social Adjustment section of the Elementary Form of the California Test of Personality, was found to be generally higher than that of the regular class students with significant differences on the school relations subtest. Carroll (1967) found that over an eight month period the self-concept of EMR students in a segregated setting showed less improvement than did the self-concept of those children enrolled in a special classroom for one half the day and in a regular classroom the remainder of the day.

Comparing the self-concept of EMR in three types of special programs: a partially segregated group within a regular school, but with little if any interaction with normals; a special class partially integrated with normals; and a special secondary school, Mooney (1968) found that the self-concepts of students in the partially segregated group setting significantly better. Tilley (1972) reported no significant difference in self-concept between elementary school aged children enrolled in special self contained classes and resource programs, but did report an improvement in self-concept among children participating in an itinerant tutoring program.
Harvey's (1972) findings indicated no appreciable effect of special class placement, whether in a special segregated secondary school or in a special class in a regular secondary school, on the self concept of EMR students. Similarly, Carvajal (1972) concluded that the physical setting in which EMR youngsters are placed has no appreciable effect on the development of the self-concept.

With the efficacy of special education for EMR students under serious debate and the growing number of special programs being made available for the remediation of the learning disabled, a study designed to examine the ability of special education to meet the affective needs of this latter group appears legitimate. The author suggests that those findings showing negative effects of differential placement on the self concept of EMR children may not be applicable to the learning disabled population. Affective benefits may be found to accompany opportunities for academic growth provided to the learning disabled child through special remediation.

In our achievement oriented culture, the questionable impact of being labeled mentally retarded and the subsequent placement in a remedial program may be found to be potentially more devaluing and debilitating to a child's sense of worthiness and adequacy than is self knowledge of a learning disability and subsequent tutorial attention or placement in a remedial program for the learning disabled.
The label mental retardation generally denotes intrinsic inferiority or personal defectiveness, whereas the label learning disabled does not necessarily do so. Rosenthal (1973) reported that although dyslexics expressed lower self esteem than did "normals," children who were labeled dyslexic and whose families were aware of and familiar with the child's disorder revealed self esteem significantly higher than did those dyslexics from uninformed families. Rosenthal suggested that, following the diagnosis of a learning disability, dissemination of information to the child's parents and educators may reduce or eliminate accusations of stupidity, laziness and/or retardation.

The effect of repeated experiences of underachievement and/or failure in the regular classroom, however, may have a greater impact on the self-concept of a youngster of average or superior intelligence than on a mentally retarded student. The discrepancy between his level of achievement and his level of expectancy becomes a source of frustration and confusion for the learning disabled child and his teacher. Connolly (1971) writes:

"A youngster with a learning disorder has the potential to succeed; he possesses the requisites for learning but is unable to learn. With some exceptional groups... the actual capacity to learn may be diminished, and hence it is expected that the child's functioning will be on a lower
level. But with learning disabled youngsters the capacity is there, and it is for this reason that emotional and social problems may arise (p. 160).

If special remedial programs do prove to be effective instructional techniques for learning disabled children, as the recent findings tend to indicate, it is then reasonable to speculate that opportunities to succeed and achievement experiences will enhance the child's conceptualization of himself. Fulfillment of the role as a learner and an achiever will be especially enhancing for the child who belongs to a subculture which values educational proficiency.

The present study was conducted to investigate the effects of differential placement and degree of segregation upon the self-concept of learning disabled children. Data was also taken on non-learning disabled Ss as well as educable retarded Ss enrolled in a regular school setting.

It was hypothesized that the self-concept of groups of learning disabled children receiving differential treatment would differ significantly. Specifically: (1) self-concept would be greatest among learning disabled children enrolled in self-contained special schools, followed by special class students, regular class students receiving tutorial assistance and finally non-tutored regular class students, (2) the self-concept of educable retarded regular class students would be greater than that of learning disabled non-tutored
regular class students and (3) that the control or non-learning disabled students would have the most positive self-concepts compared to all groups.

The rationale for the directional hypothesis concerning the effects of differential placement is that a more accepting, non-threatening atmosphere is more likely to emanate throughout the school, for the learning disabled child, if the entire school is devoted to the remediation of learning disabilities. In this situation, the child is not singled out and separated from his schoolmates. The practice of attending a special class housed in a regular school may allow the students to accrue the benefits provided by both educational settings. But as Kern and Pfaeffle (1962) have pointed out, although an accepting atmosphere can be created within the special classroom it is probably not to as great a degree on a school wide basis if the program is housed in a regular school. Difference in self-concept between tutored and non-tutored regular class students could be interpreted in terms of the positive affective benefits accompanying opportunities for academic improvement and achievement provided to the child through tutorial services.

It was further hypothesized that the self-concept of the educable retarded child placed in a regular school setting would
be greater than that of the learning disabled child attending a regular class without benefit of any special remediation. Repeated experiences of underachievement was expected to have a more detrimental effect on the self-concept of a youngsters of average or superior intelligence than would experience of failure on the self-concept of the educable retarded student who does not possess the same capacity to learn.

**Method**

**Subjects.** Ss consisted of 43 learning disabled children, 10 educable retarded youths, and 17 control or non-learning disabled children. All Ss were eleven or twelve year old caucasian males. Children exhibiting learning problems were drawn from a pool of students who were (1) enrolled in special schools for the learning disabled, (2) attending special segregated classes housed within regular schools, (3) attending regular school classes and receiving tutorial assistance, and (4) attending regular school classes without any special remediation. Both the educable retarded and non-learning disabled or control Ss were drawn from regular classroom settings.

A description of the schools and special classroom settings is presented in Appendix C. Ss were drawn from three different school systems. The school system studied in the state of Tennessee is
designated in this study as system A. The two school systems located in Virginia are labeled systems B and C.

All Ss, save the educable retarded and two control groups, were found to be functioning in the normal range of intelligence and evidencing at least a two year academic achievement deficit in reading, math and/or spelling. The educable retarded group was comprised of Ss whose IQ scores ranged from 65 to 75 and who were evidencing at least a two year academic deficit in one of the basic academic areas. Both control groups were comprised of Ss (1) functioning within the normal range of intelligence, (2) evidencing an academic deficit, if any, of no greater than one year in any area, and (3) maintaining a mean Metropolitan Achievement Test (MAT) or Wide Range Achievement Test (WRAT) score within one year of their grade level.

Because of the difficulty involved in locating Ss who were not receiving remedial aid and yet had a two year academic deficit, the deficit criterion for inclusion in one of the nonremediated learning disabled groups was one and a half years. Although all Ss, save the one nonremediated learning disabled group, and the two control groups were found to have at least a two year deficit in one or more basic academic areas, Ss drawn from system A schools were found to have an overall two year academic deficit as evidenced by the mean of each individual's MAT scores.
There were two control and two nonremediated learning disabled groups. One control and one nonremediated learning disabled group, as well as the special class and educable retarded groups, was drawn from various regular schools located in school system A. The second control and nonremediated learning disabled groups consisted of Ss drawn from two regular schools located in the neighboring school systems B and C. The special school group consisted of two special schools located in system C.

**Instrumentation.** All 70 Ss were administered Coopersmith's Self Esteem Inventory (SEI). Although construction of the SEI was based largely upon a scale developed by Roger and Dyman (1954), all items were reworded by Coopersmith for use with children ages eight to 10. The SEI contains 58 descriptive statements tapping a child's attitude towards peers, parents, school and personal interests. The Inventory was designed to measure the "evaluation which an individual makes and customarily maintains with regard to himself: (self esteem) expresses an attitude of approval or disapproval, and indicates the extent to which the individual believes himself to be capable, significant, successful, and worthy (Coopersmith, 1967, pp. 4-5)."

Coopersmith (1967) reported that test retest reliability after a five week period for 30 fifth grade students was .88. A test retest reliability score of .70 was obtained with a group of 56 elementary grade children after a three year interval. Evidence
of construct validity is offered in a series of studies conducted by Coopersmith (1961), in which significant relationships between such variables as anxiety, parental treatment, level of aspiration and self-concept were revealed.

Procedure. Because it was felt that Ss might have difficulty reading the 58 items, the Inventory and directions were recorded and presented on tape as well as placed in typed form in front of each S who was drawn from the various schools in systems B and C. These Ss were required to circle the phrase "like me" or "unlike me" in response to each item. If the statement described how they usually felt they were asked to circle the "like me" phrase, but if the statement did not describe how they usually felt they were instructed to circle the "unlike me" phrase. Ss were administered the self-concept test individually.

The 58 items were also recorded and presented on tape as well as placed in typed form in front of each S who was drawn from the various schools in system A. Answers, either the phrase "like me" or "unlike me," were recorded by each child on a sheet of blank paper. Ss were administered the self-concept test individually.

WRAT and MAT test data was used as evidence of a two and a one and a half year academic deficit in one or more of the basic areas for the experimental Ss. WISC, WRAT and MAT data was also
referred to as evidence of the control or non-learning disabled Ss' functioning within the average range of intelligence and overall scholastic functioning within one year of grade level.

Results and Discussion

A multiple regression analysis (Table 1) was conducted for the Full SEI

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Self-concept scale and four SEI subscales: social-self peers (SSP), home-parents (HP), school-academics (SA) and Lie. As outlined in Table 2, the

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categorical predictors included three dichotomous variables (school system, academic deficit and regular class enrollment) and eight comparative groups.
TABLE 1

Multiple Regression Analysis for Experimental and Control Groups

<table>
<thead>
<tr>
<th></th>
<th>System A</th>
<th></th>
<th></th>
<th></th>
<th>Systems B &amp; C</th>
<th></th>
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<tbody>
<tr>
<td></td>
<td>Special</td>
<td>Regular</td>
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<td>Regular</td>
<td>Regular</td>
<td>Special</td>
<td></td>
</tr>
<tr>
<td>Class</td>
<td>Tutorred</td>
<td>Class</td>
<td>Class</td>
<td>Class</td>
<td>School</td>
<td>Class</td>
<td>Class</td>
<td>Class</td>
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</tr>
<tr>
<td>2 yr.</td>
<td>2 yr.</td>
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<td>1½ yr.</td>
<td>No</td>
<td>2 yr.</td>
<td></td>
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<tr>
<td>Deficit</td>
<td>Deficit</td>
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<td>Deficit</td>
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<tr>
<td>Av. IQ</td>
<td>Av. IQ</td>
<td>Av. IQ</td>
<td>Low IQ</td>
<td>Av. IQ</td>
<td>Av. IQ</td>
<td>Av. IQ</td>
<td>Av. IQ</td>
<td>Av. IQ</td>
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</tr>
<tr>
<td>Full</td>
<td>X</td>
<td>65.33</td>
<td>71.50</td>
<td>60.44</td>
<td>74.20</td>
<td>69.33</td>
<td>72.00</td>
<td>66.75</td>
<td>74.36</td>
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<tr>
<td>SEI</td>
<td>S</td>
<td>16.83</td>
<td>10.12</td>
<td>18.29</td>
<td>18.21</td>
<td>29.71</td>
<td>24.26</td>
<td>8.73</td>
<td>11.27</td>
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<td>Lie</td>
<td>S</td>
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<td>.92</td>
<td>1.22</td>
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<tr>
<td>SSP</td>
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<td>HP</td>
<td>S</td>
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<tr>
<td>SA</td>
<td>S</td>
<td>4.00</td>
<td>4.25</td>
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<td>4.90</td>
<td>4.33</td>
<td>4.50</td>
<td>5.87</td>
<td>5.09</td>
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</tr>
</tbody>
</table>

Fsei = 1.60; R = .36; R² = .12
Fhp = 2.34*; R = .51; R² = .26
Flie = 1.80; R = .38; R² = .14
Fsa = 2.85*; R = .55; R² = .30
Fssp = 1.71; R = .40; R² = .16
Fsa (Reg. class/def. & School System) = 2.21*; R = .46; R² = .21
TABLE 2
Schools and Types of Educational Programs Compared

System A

<table>
<thead>
<tr>
<th>Regular Class</th>
<th>Tutored</th>
<th>Special Class</th>
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<tbody>
<tr>
<td>2 yr. Deficit</td>
<td>Av. IQ</td>
<td>2 yr. Deficit</td>
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<td></td>
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<td>Av. IQ</td>
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<table>
<thead>
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<th>Regular Class</th>
<th>no Deficit</th>
<th>Av. IQ</th>
</tr>
</thead>
</table>

<table>
<thead>
<tr>
<th>Regular Class</th>
<th>2 yr. Deficit</th>
<th>Regular Class</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average IQ</td>
<td>Low IQ</td>
<td></td>
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System B and C

<table>
<thead>
<tr>
<th>Regular Class</th>
<th>Special School</th>
</tr>
</thead>
<tbody>
<tr>
<td>2 yr. Deficit</td>
<td>Av. IQ</td>
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</tbody>
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<table>
<thead>
<tr>
<th>Regular Class</th>
<th>1.5 yr. Deficit</th>
</tr>
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<tbody>
<tr>
<td>Av. IQ</td>
<td></td>
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<table>
<thead>
<tr>
<th>Regular Class</th>
<th>Regular Class</th>
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<tbody>
<tr>
<td>no</td>
<td>no</td>
</tr>
<tr>
<td>Deficit</td>
<td>Deficit</td>
</tr>
<tr>
<td>Av. IQ</td>
<td>Av. IQ</td>
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</table>
Contrary to expectation, analysis of the Full SEI self-concept failed to yield a significant $F$ ratio. Results did not reveal any significant difference between the means of the categorical predictors. Thus, information provided by the eleven categorical predictors did not contribute significantly to the prediction of self-concept. The three hypotheses as originally formulated were not supported. More specifically, the Full SEI scores of (1) groups of learning disabled children receiving differential treatment did not differ significantly, (2) educable retarded regular class students did not differ significantly from that of nontutored learning disabled $S$s or control $S$s and, finally (3) non-learning disabled $S$s did not differ significantly from that of the learning disabled $S$s.

Analysis of the Lie and SSP criterion scores failed to yield significant $F$ ratios. Significant $F$ ratios were obtained, however, for the remaining two self-concept subscales. Analysis of the SA subscale predicted by all of the categorical predictors yielded a $F$ ratio of $2.85$ $P .05$ level), with $30\%$ of the variance accounted for. A significant $F$ ratio was maintained with $21\%$ of the variance accounted for when all predictors, save regular class/deficit and school system, were partialled out. The remaining predictors failed to contribute significantly to the prediction of the SA self-concept scores.
Examination of the data indicated that the SA self-concepts of nontutored learning disabled children enrolled in a regular class in system A were significantly lower than the SA self-concept of Ss in system A who were (1) learning disabled and enrolled in special classes, (2) learning disabled and being tutored outside the regular classroom, (3) educably mentally retarded and evidencing a two year academic deficit and, finally (4) non-learning disabled and attending a regular class. Similar results were found in school systems B and C where learning disabled Ss attending regular classes. Together these two findings in school system A and systems B and C lend support to the hypothesis that non-tutored regular class learning disabled students would evince the poorest self-concept, especially in academic areas, among all groups compared.

The findings reported above suggest that the effect of regular class placement upon the SA self-concept of children exhibiting scholastic deficits is a function, at least partially, of the particular school system in which the regular class is located. Regular class placement of learning disabled children alone does not appear to be a sufficient predictor of SA self-concept. More specifically, the SA self-concept of these students may be affected by the particular organizational patterns found within the schools of a school system.

EMR Ss evidencing a two-year deficit were found to have significantly greater SA self-concepts than the remaining four groups
in system A. The significant difference found between EMRs and learning disabled Ss enrolled in regular classrooms lends partial support to the hypothesis that the full self-concept of EMR students enrolled in regular classes would be more positive than that of non-tutored learning disabled students attending regular class. Underachievement appears to have had a more detrimental effect upon the SA self-concept of a child of average intelligence than experiences of failure on the SA self-concept of EMR students. Although a satisfactory explanation of the finding that EMR Ss exhibited more positive self-concepts than did control Ss is not readily available, two possibilities exist: (1) less pressure is exerted on EMR children in the home and in the classroom to achieve or, (2) EMR students place little emphasis upon academic abilities and achievement.

The effects of heterogeneous grouping upon a learning disabled child's perception of himself as a learner and an achiever then does not seem to enter into his overall, general appraisal of worthiness. Although the Full self-concept of learning disabled children receiving differential treatment did not differ significantly as originally hypothesized, the SA self-concepts of learning disabled children enrolled in regular classrooms were the poorest in each school system. Similarly, although the Full self-concept of regular class EMRs were not significantly greater than learning disabled students attending regular class, expected differences were reflected
in their SA self-concepts. Regular class enrollment appears only to adversely effect a learning disabled child's perception of himself in the school setting. It does not appear to have a negative effect on the child's appraisal of himself in general, at home or among peers.

Although the F ratio for the HP subscale predicted by all categorical predictors as opposed to none proved to be significant at the .05 level with 26% of the variance accounted for, further analysis failed to reveal any significant difference between category group means. Thus, all of the eleven predictors were found to be necessary to significantly predict HP self-concept scores.

It is interesting to note that although there was no significant difference between group means for the Full self-concept score, Hartley's F max ratio test of variance reveals a lack of homogeneity of variance. The variance of the Full SEI scores for non-learning disabled Ss enrolled in regular classes in system A was significantly greater than the variances of the tutored learning disabled group in system A and the learning disabled group enrolled in special schools in systems B and C.

Of special interest is the finding that a significant difference exists between the variances of the two control or non-learning disabled groups. These two groups were differentiated in terms
of the school system in which the regular class was located. It is thought by the investigator that there are two plausible explanations for the difference in variances between the two non-learning disabled groups. One, the control Šs drawn from system A may have comprised a more variable, less homogeneous group than Šs drawn from systems B and C. Greater variability in response (Full SEI) would then be expected within a more heterogeneous grouping. In support of this hypothesis, it should be noted that sampling was somewhat restricted by the limitations inherent in research studies utilizing public school children.

The relatively low spread of Full SEI scores among control Šs in systems B and C as compared to control Šs in system A was unexpected. Students grouped together on the basis of (1) intellectual functioning within the normal range of abilities and (2) an average test grade equivalent within one year of current grade level would normally be expected to form a rather heterogeneous group of school children. As previously mentioned, the sampling procedure employed in systems B and C may have been responsible for the selection of a less variable, more homogeneous group of non-learning disabled children.

Differences in variance between the two groups, could on the other hand, reflect a differential effect of school
systems upon the Full self-concept of non-learning disabled Ss in regular class settings. Together, with the previously reported findings that the predictors regular class/deficit and systems contribute significantly to the prediction of SA self-concept scores, this possibility suggests the need to examine generalizations made across school systems.

Failure to present direct evidence in support of the major hypothesis that groups of learning disabled children receiving differential treatment would differ significantly may be due primarily to the criterion employed in this study to operationally define learning disabled populations. The findings of this study could, on the other hand, reflect a true difference only between the SA self-concept of learning disabled students receiving special remediation.

Reporting no significant difference between SEI subscale self-concepts, Coopersmith (1967) concluded that a preadolescent's concept of self does not reflect self-appraisals in distinct areas of experience. Findings in the current investigation, however, suggest that learning disabled children in heterogeneously grouped classrooms do tend to develop distinct appraisals of self in academic areas. It may be that these children are made more pain-
fully aware of their learning problems and scholastic deficits when placed in classrooms with achieving non-learning disabled children. In contrast, experiences of success and achievement provided learning disabled children through remedial attention, whether on a tutorial, special class or school wide basis, seem to preclude the development of an academic self-concept separate from a more general, overall perception of self.

A valid criticism of past research in the area of learning disabilities has been the failure of investigators to report the specific criterion used to define learning disabled populations. This problem is heightened by the fact that (1) children with learning disabilities are a heterogeneous group, exhibiting a variety of type and degree of learning disorders, and that (2) there is little consensus as to what exactly constitutes a learning disability among the professions contributing to its study. Although an attempt was made in this study to specify the criterion used to identify Ss, judgment concerning the results should be suspended until this study can be replicated using a more restricted population of learning disabled students.

The twofold criterion of at least a two year (one and a half years in the regular class learning disabled
group in systems B and C) deficit in one or more of the basic scholastic areas and intellectual functioning within the normal range of ability may not have been select enough to produce homogeneous groups of learning disabled Ss. Not all children revealing academic deficits are alike in the social and learning difficulties they exhibit.

All learning disabled Ss drawn from system A were found to have an overall two year academic deficit as evidenced by the mean of each individual's test scores. Examination of systems B and C, however, revealed that the average grade equivalent of learning disabled Ss did not always reflect a scholastic deficit.

Although Ss designated as learning disabled and enrolled in a regular classroom were found to be functioning with at least a one and a half year deficit in one or more academic areas, only one S was found to have an average grade equivalent which reflected more than a one and a half year deficit. Three Ss were found to be functioning within grade level and one S's average grade equivalent reflected overall functioning 1.1 years above grade placement. Examination of the average grade equivalents of children enrolled in special schools exhibiting at least a two year deficit in one or more academic areas found two Ss whose overall functioning did not reflect a two year deficit.
Summary

The academic and affective effects of special education for the EMR has been thoroughly explored in recent years. Although findings are not in complete agreement, a review of the literature suggests that the greatest value of special placement of EMR students may lie in the area of personal and social adjustment. Several possibilities for these findings have been offered. One, the setting of realistic academic goals in a special educational program would reduce pressure to achieve academically. In a special segregated setting the EMR child is more likely to be rewarded for what he can do as an individual student, rather than how well he achieves compared to normal children. Affective benefits have also been attributed to an EMR child's feeling of adequacy and acceptance when enrolled in a program with his intellectual peers.

In the current investigation, however, data drawn from school system A failed to generate support for segregated placement of EMR students. No significant differences were found between the Full SEI self-concepts of the control, learning disabled and EMR groups. Furthermore, the SA self-concepts of EMR students enrolled in a regular classroom proved significantly more positive than did the SA self-concepts of the control and learning disabled groups.
Regular class enrollment then appeared to have a positive effect on the EMR's appraisal of self in academic areas.

Although it was hypothesized that the self-concept of EMR students enrolled in a regular classroom would be greater than that of regular class learning disabled students, the EMR were not expected to have more positive self-appraisals than the control Ss. This unexpected finding reflected in the SA self-concept scores of control and EMR Ss was discussed in terms of (1) less pressure placed on the EMR students to achieve and (2) the tendency of EMR students to attach less value to academic skills and achievement.

Traditionally, the majority of studies conducted to investigate the efficacy of special education have directed their attention toward the retarded. Relatively few studies on self-concept have been conducted with the physically handicapped, emotionally disturbed or learning disabled. Evaluation of the effectiveness of special education for various categories of exceptional children then has been based primarily upon data drawn from the mentally retarded. The current study was prompted by (1) the paucity of research designed to investigate the relative effectiveness of regular versus special education for the learning disabled and (2) the tendency on the part of some educators to apply findings drawn from EMR studies to other groups of exceptional children.
Coopersmith's SEI was used in this study to assess and compare the effects of different types of educational programs (regular class, tutorial services, special class and segregated special schools) upon the self-concept of forty three 11 and 12 year old learning disabled males. Although no significant difference was found between the Full SEI scores of groups of learning disabled children receiving differential treatment as originally hypothesized, the SA self-concept of learning disabled children attending regular classes was found to be the poorest in each of the two school systems studied. A multiple regression analysis of the SA subscale scores showed that regular class placement alone is not a sufficient predictor of a learning disabled child's SA self-concept. Evaluation of an educational program appears to be, at least partially, contingent upon the school system in which it is located.

The implication of the above findings are threefold. First, the organizational patterns employed in a particular school system need to be considered when evaluating the effectiveness of different educational programs. Second, regular class enrollment seems to have a detrimental effect only upon the SA self-concept of learning disabled students. The adverse effect of heterogeneous grouping does not appear to enter into the learning disabled child's general appraisal of self-worth. Third, a learning disabled youngster
enrolled in special education, regardless of the specific organizational pattern of the program, is less likely to develop a negative appraisal of himself in academic areas.

In conclusion, several suggestions for future research emerge from the current investigation. Although an improvement in methodology over past studies was made by reporting the criteria used to identify learning disabled Ss, the criteria may not have been select enough. As previously discussed, all learning disabled Ss drawn from school system A were found to have average test grade equivalent scores two or more years below their current grade level. Ss in systems B and C, on the other hand, were identified as learning disabled on the basis of at least a one and a half (regular class) or a two year (special segregated schools) deficit in one or more of the basic academic areas. The average test grade equivalents for these Ss, however, did not always reflect similar deficits.

Selection criteria must be examined more critically. More specifically, it must be reported and select enough to produce a core of comparable data from relatively homogeneous groups of learning disabled Ss. In addition, studies investigating the impact of different types of educational programs on self-concept should not ignore such variables as school systems, organizational patterns, curricular emphasis and teacher attitudes.
Finally, it may be more accurate and useful to measure splinter components of self-concept. Results of this study do seem to indicate that learning disabled children enrolled in a heterogeneously grouped classroom develop appraisals of self in academic areas separate from a more general, overall perception of self. If this is the case, estimates of a global self-concept may cloud important differences in the individual components of self-concept.
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On the desk in front of you are five pieces of paper. There are several sentences on each page. Each sentence is followed by the words 'like me' and 'unlike me.' These sentences have been recorded on tape. As you read each sentence silently to yourself, you will hear it read aloud by me on the tape recorder. After you have read and listened to a sentence you will answer it by drawing a circle around the words 'like me' or 'unlike me.' If the sentence describes how you usually feel, you will circle the words 'like me.' But if the sentence does not describe how you usually feel, you will circle the words 'unlike me.' You will do this for each sentence. After you have circled your answer, do not begin reading again until you hear the number of the next sentence announced.

You will not receive a grade on this test. There are no right or wrong answers.

Before we begin you will hear an example sentence. Example sentence: I am a hard worker. If you think you are usually a hard worker, you should draw a circle around the words 'like me.' If you think that you are not a very hard worker, you should circle the words 'unlike me.' We are now ready to begin.
Appendix B
Self Esteem Inventory (SEI)

Example: I'm a hard worker.

1. I spend a lot of time daydreaming. LIKE ME UNLIKE ME
2. I'm pretty sure of myself. LIKE ME UNLIKE ME
3. I often wish I were someone else. LIKE ME UNLIKE ME
4. I'm easy to like. LIKE ME UNLIKE ME
5. My parents and I have a lot of fun together. LIKE ME UNLIKE ME
6. I never worry about anything. LIKE ME UNLIKE ME
7. I find it very hard to talk in front of the class. LIKE ME UNLIKE ME
8. I wish I were younger. LIKE ME UNLIKE ME
9. There are lots of things about myself I'd change if I could. LIKE ME UNLIKE ME
10. I can make up my mind without too much trouble. LIKE ME UNLIKE ME
11. I'm a lot of fun to be with. LIKE ME UNLIKE ME
12. I get upset easily at home. LIKE ME UNLIKE ME
13. I always do the right thing. LIKE ME UNLIKE ME
14. I'm proud of my school work. LIKE ME UNLIKE ME
15. Someone always has to tell me what to do. LIKE ME UNLIKE ME
16. It takes me a long time to get used to anything new. LIKE ME UNLIKE ME
17. I'm often sorry for the things I do. LIKE ME UNLIKE ME
18. I'm popular with kids my own age. LIKE ME UNLIKE ME
19. My parents usually consider my feelings.
20. I'm never unhappy.
21. I'm doing the best work that I can.
22. I give in very easily.
23. I can usually take care of myself.
24. I'm pretty happy.
25. I would rather play with children younger than me.
26. My parents expect too much of me.
27. I like everyone I know.
28. I like to be called on in class.
29. I understand myself.
30. It's pretty tough to be me.
31. Things are all mixed up in my life.
32. Kids usually follow my ideas.
33. No one pays much attention to me at home.
34. I never get scolded.
35. I'm not doing as well in school as I'd like to.
36. I can make up my mind and stick to it.
37. I really don't like being a boy-girl.
38. I have a low opinion of myself.
39. I don't like to be with other people.
40. There are many times when I'd like to leave home.
41. I'm never shy.
42. I often feel upset in school.
43. I often feel ashamed of myself.
44. I'm not as nice looking as most people.
45. If I have something to say, I usually say it.
46. Kids pick on me very often.
47. My parents understand me.
48. I always tell the truth.
49. My teacher makes me feel I'm not good enough.
50. I don't care what happens to me.
51. I'm a failure.
52. I get upset easily when I'm scolded.
53. Most people are better liked than I am.
54. I usually feel as if my parents are pushing me.
55. I always know what to say to people.
56. I often get discouraged in school.
57. Things usually don't bother me.
58. I can't be depended on.
Appendix C
Description of Educational Program
Outlined in Table 2

Five different types of educational programs were studied in school system A: (1) learning disabled students attending a regular heterogeneously grouped classroom, (2) learning disabled students attending a regular classroom and receiving one hour of special tutorial remediation every other day, (3) learning disabled students enrolled in a special class, (4) EMR students attending a regular class and, finally (5) regular class non-learning disabled students. The organizational pattern was the same for each of the five programs. Students were assigned to self-contained classrooms in which a teacher was responsible for the instruction of all subjects to a single group of children. The racial ratio of the school system was approximately 80% white and 20% black. The social economic background of the student population was predominately (87%) middle to lower middle class.

Three different types of educational programs were studied in school systems B and C: (1) learning disabled students enrolled in a segregated special school, (2) learning disabled students attending a regular heterogeneously grouped classroom and (3) regular class non-learning disabled students. Ss in the latter two groups were drawn from two schools located in different, but
neighboring school systems (B and C). All Ss in the segregated special school group were drawn from two schools located in system C.

Various organizational patterns were found in schools with in systems B and C. Several organizational patterns were found in the heterogeneously grouped classrooms in system B from which control and learning disabled students were drawn. Basically, there was team and co-operative teaching. Co-operative teaching was used exclusively in the sixth grade from which the Ss were drawn. The sixth grade was divided into two distinct groups, with four teachers in each of the two groups. These four teachers worked with rotating groups of children, each teaching a particular subject. Homogeneous grouping, grouping according to achievement and need, was employed in the language arts, science and math blocks. Heterogeneous grouping was used in the students' homeroom where social studies was taught. The racial ratio of the school system was approximately 65% white and 35% black. Data outlining the percentage of school system B students from different social economic backgrounds was unavailable.

Ss were drawn from three school in system C: one regular school and two segregated schools for the learning disabled. The regular school from which control and non-remediated learning disabled students were drawn was divided into two houses. Each house contained three teams of teachers. Each team was comprised of four teachers, each teaching a particular subject, who worked
with rotating groups of children. Students were not grouped according to level or achievement, but rather were encouraged to proceed at their own rate. If a student mastered the objectives in a particular level before the end of the school year he was encouraged to proceed to the next level.

The two segregated special schools in system C differed in their organizational patterns. In one of the schools, two instructional situations were employed. There were three self-contained classrooms in which one teacher taught all subjects and four classrooms in which four teachers worked with rotating students were grouped according to their reading level. Ss drawn from this school were all receiving the co-operative instruction.

Students in the other segregated special school were assigned to self-contained classrooms in which one teacher was responsible for the instruction of a single group of children in all subject areas except the language arts. Students were grouped for classroom instruction according primarily to age. Homogeneous grouping, grouping according to level, however, was employed in the one hour daily language arts course. The racial ratio of school system C was approximately 75% black and 25% white. Data presenting the social economic background of the student system population was unavailable.
VITA

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