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ABSTRACT

The effectiveness of the special school, special class, and regular class in the education of low IQ (49 to 70) and high IQ (71 to 85) educable mentally retarded pupils (n=120) (all between the ages of 7 and 12 years) was investigated. Effectiveness was determined by academic achievement, self concept, and social adjustment within school settings and social adjustment in community settings over 2 years. The Wide Range Achievement Test, the Piers Harris Self Concept Scale, and an investigator adapted sociometric test were used to assess these factors. Three randomly selected groups of 30 pupils from each group (special school, special class, and regular class) in the school and 10 pupils from each group in the community were studied. Results indicated that there were no significant differences among total groups with the three administrative settings in reading, spelling, or arithmetic; that there were significant differences on some measures of academic achievement when groups were divided in terms of high and low IQ; that there were no significant differences found in self concept among total groups of high IQ groups; that both total groups of pupils and low IQ pupils were significantly better adjusted socially in the special school and special class than in the regular class; and there were no significant differences in the social adjustment of high IQ pupils among the three administrative groups. (Author/SB)

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THE SPECIAL DAY SCHOOL PLACEMENT FOR HIGH
IQ AND LOW IQ EMR PUPILS

The question of the most effective placement for educable mentally retarded (EMR) children has been debated for several years. The effectiveness of the segregated special class model, which had been largely accepted prior to 1968, has become the subject of increasing discussion (Dunn, 1973). The disappointing findings of studies exploring the efficacy of the special class and the philosophical trend toward mainstreaming of retarded populations have resulted in the development of alternative solutions.

Most alternative programs provide for integration of EMR pupils into regular education programs with supportive assistance based on the theoretical models developed by Reynolds (1962) and Deno (1970). These models advocate the maximum integration of all handicapped, including EMR pupils, into regular education. In spite of their administrative logic, however, these models remain unproven theoretical frameworks which have yet to stand the test of empirical investigation. Research data have not clearly indicated that (1) being segregated from the normal peer group is harmful to the EMR child; or (2) labeling and segregating the EMR pupils affects the child's self concept or social acceptance either in school or in the community (Jones, 1972).

Studies exploring the efficacy of special classes, resource rooms, and regular classes for the education of EMR pupils have

resulted in confusion and disagreement among professionals (Bruininks & Rynders, 1971). In addition; a more segregating approach, the special day school, has not been seriously investigated. The author was unable to find a single empirical study reporting the efficacy of this placement. The special school has been rejected largely on a theoretical basis without research support. As an example, Kirk and Johnson (1951) stated, "The special school for mentally handicapped children . . . is on its way out . . . It is believed . . . that such a school organization is not a suitable one for mentally handicapped children . . . (p. 124)." Positions such as Kirk and Johnson's, plus the wide acceptance of the mainstreaming model, have largely led to a rejection of the special school in spite of an almost complete void of data. Thus, more integrated plans for delivery of services to EMR pupils have been utilized.

Previous studies (Wrightstone, 1959; Goldstein, Moss & Jordan, 1965) have implied that segregated settings might have a differential effect for low IQ pupils. Firm findings on this implication are, however, yet to be forthcoming. The need for comparisons on the basis of high and low IQ pupils in various administrative settings has become more pronounced because of the current American Association on Mental Deficiency (AAMD) (Grossman, 1973) definition which has redefined the IQ criterion for mental retardation as an IQ score of less than 68 to 70 points.

The purpose of the present study was to investigate the effectiveness of three administrative plans in the education of the high IQ (71 to 85) and low IQ (49 to 70) EMR pupils: (1) special school, (2) special class, and (3) regular class. The effectiveness of the plans was determined on the basis of academic achievement,

self concept, and social adjustment in the school and social adjustment in the community. The hypothesis was that no significant differences would exist among the groups on the factors measured.

Method

Subjects

Subjects for this study were selected from a total population of 276 children who attended schools in a rural Alabama county during the 1973-74 and 1974-75 school years. All subjects had I.Q.s between 49 and 85 as measured by the Slosson Intelligence Test (Slosson, 1963). All were chronologically between the ages of seven and twelve years (See Table 1). From the total population, three administrative groups were identified.

Group 1 (Special School) consisted of 104 pupils enrolled in seven EMR classes at a special day school. The school was organized as a segregated special education facility for mentally retarded children in September, 1973. EMR pupils in the southern half of the county were assigned to this school.

Group 2 (Special Class) consisted of 111 pupils enrolled in eight self contained special classes for educable retardates. EMR children in the northern half of the county were assigned to self contained special education classes.

Group 3 (Regular Class) was composed of 61 pupils who had been referred, tested, and declared eligible for special education but who were assigned to regular classes. The pupils in Group 3 were distributed throughout the county and attended

49 regular classes located in 11 schools.

Table 1

Chronological Age and IQ for the
Three Administrative Groups in the School Setting (Sample 1)

| Treatment Groups | IQ | | | CA (Months) | | |
|-----------------------|----|-------|------|-------------|--------|-------|
| | N | Mean | SD | N | Mean | SD |
| <u>Special School</u> | | | | | | |
| High IQ | 17 | 77.94 | 4.56 | 17 | 134.97 | 19.44 |
| Low IQ | 13 | 63.23 | 5.56 | 13 | 128.04 | 16.90 |
| Total | 30 | 71.57 | 8.78 | 30 | 131.97 | 21.65 |
| <u>Special Class</u> | | | | | | |
| High IQ | 16 | 80.13 | 5.27 | 16 | 130.50 | 16.50 |
| Low IQ | 14 | 64.50 | 4.43 | 14 | 125.36 | 13.66 |
| Total | 30 | 72.83 | 9.25 | 30 | 128.10 | 19.59 |
| <u>Regular Class</u> | | | | | | |
| High IQ | 17 | 77.94 | 4.43 | 17 | 133.05 | 20.05 |
| Low IQ | 13 | 63.15 | 6.49 | 13 | 122.50 | 15.34 |
| Total | 30 | 71.53 | 9.07 | 30 | 128.48 | 22.11 |
| <hr/> | | | | | | |
| TOTALS | 90 | 71.97 | 9.03 | 90 | 129.52 | 21.17 |

According to the 1970 United States Census figures, no significant differences exist between the northern and southern geographical regions in socioeconomic level, racial composition, or urban/rural population distribution.

Thirty subjects from each administrative group (special school, special class, and regular class) were randomly selected using a table of random numbers. These three groups were further divided into high IQ (71 and above) and low IQ (70 and below) groups. These subjects were used to compare the groups on measures of achievement, self concept, and social adjustment within the school setting. Since the church remained a major focal point of community life, this setting was utilized to compare the administrative groups on social adjustment in the

community. A second random sample of 10 subjects from each group was drawn from among the approximately 82% of the subjects who attended 21 different churches in the area (See Table 2).

Table 2

Chronological Age and IQ for the
Three Administrative Groups in the Community Setting (Sample 2)

| | IQ | | | CA (Months) | | |
|----------------|----|-------|------|-------------|--------|-------|
| | N | Mean | SD | N | Mean | SD |
| Special School | 10 | 70.90 | 9.13 | 10 | 129.90 | 20.55 |
| Special Class | 10 | 72.10 | 8.61 | 10 | 127.80 | 23.39 |
| Regular Class | 10 | 71.50 | 9.52 | 10 | 130.50 | 21.57 |
| TOTALS | 50 | 71.50 | 8.94 | 30 | 129.40 | 21.83 |

Instruments

Subjects were assessed on tests in four areas: (1) intelligence, (2) academic achievement, (3) self concept, and (4) social adjustment. The decision was made to test all children on the same individual intelligence test. The Slosson Intelligence Test (SIT) (Slosson, 1963) was selected on the basis of its high correlation with the Stanford Binet (Sanders, 1973), its quick administration (15 to 20 minutes), and the fact that the SIT could be administered with a minimum of formal training and retain its standardization.

Academic achievement was measured using the Wide Range Achievement Test (WRAT) (Jastak & Jastak, 1965). The WRAT reports scores on three subtests: reading, spelling, and arithmetic.

Self concept was assessed using the Piers Harris (PH) Children's Self Concept Scale (The Way I Feel About Myself) (Piers & Harris, 1964). The scale consists of 80 first person declarative statements of the type, "I am a happy person." The statements are answered by circling "yes" or "no" with questions worded in such a way that "yes" sometimes contributes to a positive self concept score while at other times a "no" answer does the same. Items may be read by the examiner to enable children below third grade reading level to use the instrument.

Social adjustment in the schools and in the community was assessed using a modified version of the Ohio Social Acceptance Scale (Bruininks Rynders, & Gross, 1974). On this instrument every group member rates every other group member in terms of the degree to which he wants him as a friend. The ratings range from 0 to 3, and a composite acceptance score for each child in the group is obtained by adding the ratings received and computing a mean of those ratings. Reliability of forced choice sociometric measures is quite high (Chaires, 1966; Lilly, 1971).

Procedures

The SIT, WRAT, PH, and sociometric test were administered to the three groups of subjects. The WRAT was administered in September, 1973 and again in May, 1975 by classroom teachers who were familiar with its administration and scoring. During April, 1975, the SIT, PH, and sociometric test were administered in the schools by graduate students who were trained in the administration and scoring of these instruments. Sociometric tests were administered within the church setting by the

investigator who tested each of the 30 subjects at 21 different churches during a five month period from March, 1974 through July, 1974.

Two different techniques were used to test for statistical significance among the groups. Analysis of covariance was applied to WRAT gain scores with IQ being used as the covariant to control for the effect of intelligence on academic achievement. Analysis of variance was applied to PH and sociometric scores to determine if differences existed among the groups in self concept and social adjustment. The null hypothesis was rejected at the .05 level of significance.

Results and Discussion

Academic Achievement

Analysis of covariance was applied to WRAT grade level gain scores to determine if differences in academic achievement existed among the groups. No significant differences were found among total groups of pupils with the three administrative settings in reading, spelling, or arithmetic (See Table 3). This result was consistent with previous findings that, as a group, EMR pupils perform as well academically in regular classes as in special classes. In addition, total groups of EMR pupils in special schools were found to achieve equally as well as total groups of EMR pupils in regular classes and special classes.

Table 3
Adjusted Means, Standard Errors, and F-Ratios
for Total Groups in Academic Achievement

| | Reading | | Spelling | | Arithmetic | |
|-----------------------|-----------------|----------------|-----------------|----------------|-----------------|----------------|
| | Adjusted Mean | Standard Error | Adjusted Mean | Standard Error | Adjusted Mean | Standard Error |
| Special School (N=30) | 1.58 | .11 | 1.37 | .08 | 1.40 | .09 |
| Special Class (N=30) | 1.39 | .10 | 1.23 | .12 | 1.53 | .09 |
| Regular Class (N=30) | 1.45 | .10 | 1.38 | .11 | 1.55 | .10 |
| | F(2,86) = 0.623 | | F(2,86) = 0.495 | | F(2,86) = 0.044 | |

*p .05

When the three groups were divided in terms of high IQ (71 and above) and low IQ (70 and below), there were significant differences on some measures of academic achievement (See Tables 4 & 5). Low IQ pupils in the special class group made significantly greater gains in reading than low IQ pupils in regular classes. In addition, the special school low IQ group was significantly superior to special class and regular class low IQ pupils in both reading ($F_{1,23} = 4.35^*$ and $F_{1,22} = 5.85^*$) and spelling ($F_{1,23} = 6.48^*$ and $F_{1,22} = 6.23^*$). Adjusted arithmetic means among low IQ pupils in the three administrative groups yielded no significant differences.

Table 4
Adjusted Means, Standard Errors, and F-Ratios
for Low IQ Pupils in Academic Achievement

| | Reading | | Spelling | | Arithmetic | |
|-----------------------|------------------|----------------|------------------|----------------|-----------------|----------------|
| | Adjusted Mean | Standard Error | Adjusted Mean | Standard Error | Adjusted Mean | Standard Error |
| Special School (N=13) | 1.62 | .16 | 1.64 | .16 | 1.46 | .17 |
| Special Class (N=14) | 1.23 | .14 | 1.00 | .15 | 1.38 | .16 |
| Regular Class (N=13) | 1.01 | .17 | 0.98 | .16 | 1.11 | .16 |
| | 4(2,35) = 3.940* | | F(2,35) = 4.088* | | F(2,35) = 1.366 | |

* p .05

There were no significant differences among high IQ pupils among the three administrative groups in spelling or arithmetic. High IQ pupils in regular classes achieved more in reading than IQ pupils in special classes ($F_{1,30} = 10.15^*$); however, no difference was found in reading between high IQ pupils in regular class and special school groups ($F_{1,32} = 2.60$).

The findings relative to academic achievement indicate that the three administrative placements have differential effects on high and low IQ pupils. The special school appears to be a viable educational alternative for low IQ pupils in terms of academic achievement, while no substantial differences seem to exist for high IQ pupils in terms of educational placement.

Table 5
Adjusted Means, Standard Errors, and F-Ratios
for High IQ Pupils in Academic Achievement

| | Reading | | Spelling | | Arithmetic | |
|--------------------------|------------------|----------------|-----------------|----------------|-----------------|----------------|
| | Adjusted Mean | Standard Error | Adjusted Mean | Standard Error | Adjusted Mean | Standard Error |
| Special School (N=17) | 1.53 | .12 | 1.47 | .16 | 1.68 | .12 |
| Special Class (N=16) | 1.28 | .14 | 1.27 | .19 | 1.57 | .11 |
| Regular Class (N=17) | 1.71 | .12 | 1.60 | .19 | 1.84 | .12 |
| | F(2,47) = 3.371* | | F(2,47) = 2.545 | | F(2,47) = 1.889 | |

*p .05

Interpretation of the results in reading was contingent in part upon the effects of grouping for educational purposes. Findley and Bryan (1971) reviewed recent United States studies on educational grouping and reported that pupils tend to move toward the group mean in academic performance. Thus, high IQ EMRs in regular classes may have learned considerably from their more able peers, and teachers may have attempted to bring them up to group norms in school achievement. Apparently these positive effects did not extend to low IQ pupils in regular classes. These pupils, being farther from normal, may have been more ignored and isolated than high IQ pupils. The low IQ pupil in the regular class appears to fall so far behind his normal peers that the educational program becomes increasingly irrelevant, and

the regular class teacher is unable or unwilling to deal effectively with this group.

The findings that low IQ pupils in the special school were significantly superior to the regular class and special class low IQ pupils in reading and spelling are somewhat dissonant with prevalent educational philosophy in the United States. Differences in academic achievement of low IQ EMR pupils in the special school group may be attributed both to regression toward a more reasonable mean and a more extensive attempt to structure the program to meet individual needs. Low IQ pupils of minimal ability may require a more structured and consistent learning approach than that provided in most regular classes.

As an example, while this factor was not measured during this investigation, it was the impression of the author that behavior modification principles were being utilized to a greater extent within the special school setting. Behavior modification, task analysis, and other individualized techniques lend themselves well for use in a special school setting which allows for more control and supervision of methods and curriculum throughout the program. The special school plan also facilitates the accumulation and sharing of equipment, resources, and material appropriate for use with the retarded. Thus, the special school may be better able to adapt to meet the needs of these pupils.

Self Concept

Analysis of variance was applied to Piers Harris scores to determine if differences in self concept existed among pupils in the three administrative groups (See Table 6).

No significant differences were found among total groups or high IQ groups. However, low IQ retardates obtained significantly higher self concept scores in the special school setting than in either the special class ($t = 2.06^*$) or the regular class ($t = 3.86^{**}$) groups of low IQ pupils. Furthermore, low IQ pupils had more positive self concept in the special class than in the regular class ($t = 2.31^*$). This indicates that differences exist between high IQ and low IQ pupils in terms of the most appropriate educational placement relative to self concept. While high IQ EMR pupils appear to have an equally positive self concept in any of the three administrative settings, low IQ pupils appear to have a more positive self concept in the special school than in either the special class or the regular class.

Table 6
Means, Standard Deviations, and F-Ratios
for Pupils in Self Concept

| | Low IQ Group | | | High IQ Group | | | Total Group | | |
|----------------|---------------------|-------|--------------------|-------------------|-------|--------------------|-------------------|-------|--------------------|
| | N | Mean | Standard Deviation | N | Mean | Standard Deviation | N | Mean | Standard Deviation |
| Special School | 13 | 53.00 | 11.21 | 17 | 48.33 | 11.32 | 30 | 50.50 | 11.27 |
| Special Class | 14 | 45.29 | 9.15 | 16 | 44.63 | 13.68 | 30 | 44.93 | 11.59 |
| Regular Class | 13 | 35.54 | 12.34 | 17 | 49.47 | 10.63 | 30 | 43.43 | 13.23 |
| | $F(2,36) = 8.012^*$ | | | $F(2,48) = 0.804$ | | | $F(2,87) = 2.857$ | | |

*p .005

These findings may partially explain the equivocal results of previous investigations on the self concept of EMR pupils. The bulk of previous evidence has indicated that special class EMR pupils have a better self concept than EMR pupils remaining in regular classes (Guskin & Spicker, 1968); however, some studies (Meyerwitz, 1962; 1967; Carroll, 1967) have found that EMR pupils have feelings of self derogation about placement in special classes. Earlier studies dealt with total groups of EMR pupils while more recent investigations have dealt to a larger extent with higher IQ pupils. For example, Meyerwitz (1962; 1967) studied a sample whose mean IQ was 82.6, and Carroll (1967) measured the effects of integrating EMRs into the regular class which implies the selection of more able pupils. Thus, the results of the present investigation suggest that high IQ and low IQ grouping provide a more realistic means of viewing self concept than looking at total groups of EMR pupils.

Self concept depends to a large extent upon how an individual is treated by others (Combs, 1959). If this is the case, the poor social adjustment of low IQ EMR pupils in regular classes (See Table 7) indicated in this study may have a significantly negative effect upon the self concept of these pupils in the integrated setting. Furthermore, there is evidence to show that EMR pupils enjoy their special class placement and view it as representing an opportunity to learn and improve themselves (Warner, Thrapp, & Walsh, 1973; Town & Joiner, 1966). Thus, improved feelings of adjustment and enjoyment of the class may result in the superior self concept of low IQ EMR pupils in segregated settings.

Low IQ pupils in the special school setting also had significantly higher self concept scores than low IQ pupils in either the special class setting or the regular class setting. In addition to the above factors, differences in self concept in low EMR pupils in the special school setting may be attributable to a variety of factors. These factors may include: the effect of increased feelings of worth due to superior academic attainment; full participation in the school program; increased individualization by concerned teachers; increased relevance of the overall program to the needs of the child; and/or isolation from a realistic peer comparison group. These factors which are specifically most important for improved self concept are yet to be demonstrated.

Social Adjustment

Analysis of variance was applied to sociometric data. Results revealed that both total groups of pupils and low IQ pupils were significantly better adjusted socially in the special school and special class than in the regular class (See Table 7). There were no significant differences in the social adjustment of high IQ pupils among the three administrative groups.

Table 7
Means, Standard Deviations, and F-Ratios
for Pupils in Social Adjustment in the School Setting

| | Low IQ Group | | | High IQ Group | | | Total Group | | |
|----------------|------------------|------|--------------------|-----------------|------|--------------------|------------------|------|--------------------|
| | N | Mean | Standard Deviation | N | Mean | Standard Deviation | N | Mean | Standard Deviation |
| Special School | 13 | 1.39 | 0.45 | 17 | 1.69 | 0.52 | 30 | 1.57 | 0.51 |
| Special Class | 14 | 1.58 | 0.51 | 16 | 1.65 | 0.59 | 30 | 1.62 | 0.55 |
| Regular Class | 13 | 0.98 | 0.54 | 17 | 1.54 | 0.34 | 30 | 1.29 | 0.52 |
| | F(2,36) = 4.871* | | | F(2,48) = 0.431 | | | F(2,87) = 3.254* | | |

*p .05

In addition there were no significant differences among the three administrative groups in terms of social adjustment in community settings (See Table 8). Social adjustment outside of the school was not significantly related to administrative placement of EMR pupils within the school setting.

Table 8
Means, Standard Deviations, and F-Ratios
for Pupils on Social Adjustment Scale in the Community Setting

| | N | Mean | Standard Deviation |
|----------------|----|------|--------------------|
| Special School | 10 | 1.54 | 0.42 |
| Special Class | 10 | 1.55 | 0.50 |
| Regular Class | 10 | 1.45 | 0.34 |

F(2,27) = 0.152

*p .05

The results of this study are generally consistent with previous findings with regard to the social adjustment of total groups of EMR pupils within the school setting. Previous investigations have found EMR pupils significantly less accepted and more rejected in regular classes than in special classes (Johnson, 1950; Johnson and Kirk, 1950; Baldwin, 1958; Thurstone, 1959). Pupils in both special school and special class groups were significantly better adjusted socially than pupils in regular classes when total groups were evaluated.

Johnson and Kirk (1951) pointed out that the retarded child in a regular class is as socially isolated as he would be if he were not physically present. Jordan (1966) further supported this finding when he indicated that segregated placement does not precipitate a cleavage between the EMR pupil and his normal peers because such cleavage already exists whether the EMR pupil is integrated into regular classes or not. The findings of the present study seem to indicate that this cleavage is even more pronounced for low IQ pupils and suggest the benefits of segregated settings in terms of social adjustment for these pupils.

The finding that there were no significant differences among the three administrative groups on measures of social adjustment in a community setting does not support the assumption that labeling a child retarded and placing him in a special class has a negative effect on that child's adjustment outside of the school setting. Indeed, the educational placement of EMR pupils seems to have no effect upon his community adjustment, and the supposed stigmatizing and negative

effects of the EMR label do not appear to exist.

Implications for Future Research

The findings of this investigation suggest a number of implications for future research. These include: (1) research design, (2) the longitudinal aspect, and (3) avenues for future research.

In the area of research design, the results imply the need to regard EMR populations as being composed of important subgroupings instead of viewing them as a single homogeneous group. Future studies should attempt to control for the influence of intelligence on not only achievement, but also social adjustment, self concept, and other variables. In addition to high and low IQ subgroupings, other interesting possibilities for subgroupings include: racial and cultural subgroupings; sexual subgroupings, motivational subgroupings, and urban/rural/suburban subgroupings.

The results of this study reflect a need for a longitudinal study to verify its findings. A major function of programs for EMR pupils is to teach the skills necessary for employment and self management. These factors must be determined over a long period of time. Thus, realistic evaluation of programs for the retarded should be based not only on immediate results but also on future outcomes. In addition, a more complete measure of social adjustment may be indicated. While there is no evidence to indicate that the church setting is different in terms of social adjustment from other community settings, it would be interesting to investigate this possibility. Attempts to measure community adjustment in previous studies, however,

have met with serious difficulties, and the present investigation may represent the best such effort to date.

Interpretations of the findings of this study suggest several interesting avenues for future research. As stated in the discussion, behavior modification approaches may have partially accounted for gains made in academic achievement for low IQ EMR pupils in the special school; and indeed, structured approaches may better lend themselves for use in segregated settings. Therefore, there is a need to explore in more detail the effects of behavior modification and other specific learning approaches within each of the administrative settings. Another interpretation implied that low IQ pupils do not achieve as much as high IQ pupils in regular classes partially because regular class teachers attend more to high IQ pupils while ignoring low IQ pupils. It would be interesting to discover if this is indeed the case. In addition to teaching approaches and teacher attention, such factors as amount of time spent on various subjects, classroom climate, and classroom behavior might be considered.

As a final avenue for research, the attitudes of teachers in the special school and in special classes may differ, thus affecting the educational outcomes within those programs. There is some evidence that special class teachers within the regular school setting feel isolated from and rejected by regular class teachers in much the same way as retarded pupils in regular classes (Jones & Gottfried, 1966; Knight, 1975). In addition, there is evidence that satisfaction in teaching is directly correlated to pupil school morale (Jones, 1968). Thus, research might be conducted to

determine if such attitudes differ between special school and special class settings; and if so, whether they result in a pronounced effect on pupil performance and adjustment.

Implications for Educational Practice

Provided the present findings stand the test of replication, the most outstanding implications for educational practice are: (1) the mainstreaming model is not clearly supported; and (2) the special day school may represent a promising educational alternative for EMR pupils.

The findings of this investigation do not give clear evidence to support the mainstreaming concept. For pupils with IQs of 70 or less, the results clearly indicate that placement in segregated settings may be better. Low IQ pupils apparently do not benefit as much from regular class placement as from segregated placement in any of the areas measured. Furthermore, the regular class was found to be more beneficial to high IQ EMR pupils only in reading. No differences were found among high IQ pupils in other areas. Thus, whether the integration of even high IQ pupils into the mainstream results in positive outcomes is unclear.

Coupled with the findings of Jones (1970), the present results contradict the major philosophical arguments supporting the mainstreaming model. Jones (1970) found no evidence to support the concept that labeling affects performance. The present investigation discovered no negative effects of segregated placement in self concept or social adjustment within the school setting, or more importantly, within the community setting. In addition, low IQ pupils were better adjusted and had more positive self concepts in segregated placements within the school

setting. Thus, there continues to be little empirical support for the mainstreaming concept based on the assumption that the labeling or segregation affects EMR pupils negatively.

A second implication for educational practice resulting from this investigation is that the special school represents a promising educational alternate for EMR pupils. Low IQ EMR pupils in the special school setting were significantly superior to both special class and regular class low IQ pupils in reading, spelling, and self concept. Furthermore, the assumed stigmatizing effects of such a placement do not appear to exist for either high IQ or low IQ pupils. Thus, the special day school emerges as a reasonable educational alternative for EMR pupils.

On a realistic basis, the special school could be in many aspects an attractive option for the education of all EMR pupils. It may be possible to accomplish some things more easily in the special school setting than in either the regular class or the special class. The advantages of this plan might include the following: (1) it facilitates the accumulation and sharing of equipment, materials, and resources appropriate for use with the retarded; (2) it allows for excellent utilization and supervision of specific teaching approaches; (3) close control of the curriculum is enhanced; (4) it facilitates better communication among the faculty; (5) it allows the pupil's full participation in the total school program; and (6) it allows for specialization of the special education staff to better insure expertise in all areas of the program.

In conclusion, the present study implies the need to look at educational alternatives in terms of pupil outcomes

rather than on the basis of unproven theoretical models. The most important criterion must be which placement is superior for each individual. This decision should not be based solely upon philosophical consideration, but upon empirical evidence.

References

- Baldwin, W. D. The social position of the educable mentally retarded in the regular grades in the public schools. Exceptional Children, 1958, 25, 106-108.
- Bruininks, R. H. & Rynders, J. E. Alternatives to special class placement for educable mentally retarded children. Focus on Exceptional Children, 1971, 3, 1-12.
- Bruininks, R. H., Rynders, J. E., & Gross, J. Sociometric acceptance of mildly retarded pupils in resource rooms and regular classrooms. American Journal of Mental Deficiency, 1974, 4, 4-8.
- Carroll, A. W. The effects of segregated and partially integrated school programs on self concept and academic achievement of educable mental retardates. Exceptional Children, 1967, 34, 93-99.
- Chaires, W. Improving social acceptance of unpopular pupils. Education Review, 1966, 17, 36-41.
- Combs, A. W. & Snygg, D. Individual Behavior. New York: Harper & Row, 1959.
- Deno, E. Special education as developmental capital. Exceptional Children, 1970, 37, 229-237.
- Dentler, R. A. & Mackler, R. Ability and sociometric status among normal and retarded children: A review of literature. Psychometric Bulletin, 1962, 59, 273-289.
- Dunn, L. M. Exceptional Children in the Schools. New York: Holt, Rinehart and Winston, Inc., 1973.

- Findley, W. G. & Bryan, M. M. Ability grouping: 1970 status impact and alternatives. Athens, Georgia: Center for Educational Improvement, University of Georgia, 1971.
- Goldstein, H., Moss, J., and Jordan, L. J. The efficacy of special class training on the development of mentally retarded children. Urbana, Illinois: University of Illinois, 1965.
- Grossman, H. J. Manual on Terminology and Classification in Mental Retardation. Maryland: Garamond-Pridemart Press, 1973.
- Guskin, S. L. & Spicker, H. H. Educational research in mental retardation. In N. R. Ellis (Ed.), International Review of Research in Mental Retardation. Vol. 3, New York: Academic Press, 1968.
- Jastak, J. F. & Jastak, S. R. The Wide Range Achievement Test. Wilmington, Delaware: Guidance Associates, 1965.
- Johnson, G. O. & Kirk, S. A. Are mentally handicapped children segregated in the regular grades? Exceptional Children, 1950, 17, 65-68, 87-88.
- Johnson, G. O. A study of the social position of mentally handicapped children in the regular grades. American Journal of Mental Deficiency, 1950, 55, 60-89.
- Jones, R. L. & Gottfried, N. W. The prestige of special education teaching. Exceptional Children, 1966, 32, 465-468.
- Jones, R. L. Student attitudes and motivation. A Report to the Columbus Board of Education. Columbus, Ohio: The Ohio State University, 1968, 272-300, 313-332.

- Jones, R. L. Labeling black college students culturally disadvantaged: A search for behavioral correlates. Unpublished paper presented at the annual convention of the Western Psychological Association, Los Angeles, 1970.
- Jones, R. L. Labels and stigma in special education. Exceptional Children, 1972, 38, 553-564.
- Jordan, T. E. The Mentally Retarded. Columbus, Ohio: Charles E. Merrill, 1966.
- Kirk, S. A., & Johnson, G. O. Educating the Retarded Child. Boston: Houghton Mifflin, 1951.
- Knight, O. B. The Perceptions of Status by Special and Regular Class Teachers. Paper presented at the 53rd CEC Convention, Los Angeles, 1975.
- Lilly, M. S. Improving social acceptance of low sociometric status, low achieving students. Exceptional Children, 1971, 37, 341-347.
- Meyerwitz, J. H. Self derogation in young retardates and special class placement. Child Development, 1962, 33, 443-451.
- Meyerwitz, J. H. Peer groups and special classes. Mental Retardation, 1967, 5, 23-26.
- Piers, E. V. & Harris, D. B. The Piers-Harris Children's Self Concept Scale. Nashville, Tennessee: Counselor Reading and Test, 1964.
- Reynolds, M. C. A framework for considering some issues in special education. Exceptional Children, 1962, 28, 367-370.
- Sanders, A. The Relationship Between the Slosson Intelligence Test and Other Instruments. (Unpublished paper) West Georgia College, Carrollton, Georgia, 1973.

Slosson, R. L. Slosson Intelligence Test for Children and Adults.

East Aurora, N.Y.: Slosson Educational Publications, 1963.

Thurstone, T. G. An Evaluation of Educating Mentally Handicapped Children in Special Classes and in Regular Grades. ("U.S. Office of Education Cooperative Research Program," Project No. SAE-6452). Chapel Hill: University of North Carolina, 1959.

Towne, R. & Joiner, L. The effect of special class on the self concept ability of the educable mentally retarded child. East Lansing: Michigan State University, 1966.

Warner, F., Thrapp, R., & Walsh, S. Attitudes of children toward their special class placement. Exceptional Children, 1973, 40, 37-38.

Wrightstone, J. W., Forlando, G., Lepkowski, J. R., Sontag, M., & Edelstein, J. A comparison of education outcomes under single track and two track plans for EMR children. ("U.S. Office of Education Cooperative Research Program," Project No. 144). New York: New York Board of Education, 1959.