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AUTHOR Purl, Mabel C.; Curtis, Jonathan  
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ABSTRACT

This study was conducted in the Emerson Elementary School of the Riverside Unified School District, California, which operates multi-grade (combination) and single grade (non-combination) classrooms in the early childhood department and also special programs to improve interracial understanding. The study explores the effects of student participation in combination classes on: (1) achievement; (2) anxiety; (3) perceived attitudes of others toward self; (4) self-attitude; (5) racial interactions; and, (6) racial attitudes. Significant differences were found in relation to variables of anxiety, racial interactions, and racial attitudes: (1) pupils in combination classes were less anxious about school than pupils in non-combination classes; (2) blacks in combination classes were more likely to be chosen by non-black pupils as teammates, workmates, and seatmates than were blacks in non-combination classes; and, (3) combination class pupils perceived black male pictures as kinder and black children as happier than did non-combination class pupils, while non-combination classes perceived white male pictures as kinder than pupils in combination classes. (DM)

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RIVERSIDE UNIFIED SCHOOL DISTRICT  
Riverside, California  
DEPARTMENT OF RESEARCH AND EVALUATION  
May, 1970

A LOOK AT COMBINATION CLASS EFFECTS  
AT EMERSON ELEMENTARY SCHOOL

McAteer Project M9-14

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Submitted by:

MABEL C. PURL, Ph.D.  
Director  
Research and Evaluation

Assisted by:

JONATHAN CURTIS  
Research Assistant

E. RAY BERRY  
Superintendent

RIVERSIDE UNIFIED SCHOOL DISTRICT  
Riverside, California

DEPARTMENT OF RESEARCH AND EVALUATION  
May, 1970

Abstract  
of  
A LOOK AT COMBINATION CLASS EFFECTS  
AT EMERSON ELEMENTARY SCHOOL

This study<sup>1</sup> examines six basic questions associated with combination class effects. What effect, if any, did membership in a combination class have on (1) achievement, (2) anxiety, (3) perceived attitude of others toward self, (4) self-attitude, (5) racial interactions and (6) racial attitudes? In addition, differences associated with sex, ethnicity and grade are examined.

Appropriate to question 1, we find:

Combination and noncombination class means did not differ with respect to the Total Reading scores of the Stanford Achievement Test.

Appropriate to question 2, we find:

Pupils in combination classes were less anxious about school than noncombination class pupils.

Appropriate to question 3, we find:

Pupils in combination and noncombination classes did not differ with respect to "perceived attitude of others toward self."

Appropriate to question 4, we find:

Combination and noncombination class pupils reported high self-perceptions, but no significant difference existed between them.

Appropriate to question 5, we find:

Blacks in combination classes were more likely to be chosen by nonblack pupils as seatmates, teammates, and workmates than were Blacks in noncombination classes.

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<sup>1</sup>Funds for this project were granted by the Office of Compensatory Education, California State Department of Education, under provisions of the McAteer Act.

Appropriate to question 6, we find:

Combination class pupils perceived Black male pictures as kinder than did noncombination class pupils, and noncombination class pupils perceived White male pictures as considerably kinder than did pupils in combination classes. Furthermore, combination class pupils perceived Black children as happier than did pupils in noncombination classes.

## A LOOK AT COMBINATION CLASS EFFECTS AT EMERSON ELEMENTARY SCHOOL

### Introduction

This study<sup>1</sup> explores the effects of pupil participation in a combination class on achievement, anxiety, perceived attitude of others toward self, self-attitude, racial interactions and racial attitudes at Emerson Elementary School of the Riverside Unified School District. Emerson School provided the opportunity for such an exploration since it contained both combination (multi-grade) classes and the traditional single grade classes and because the measures of interest were available on its children in kindergarten through third grade.

Emerson is a school attempting to better interracial understandings through many special programs, one of which is a curriculum project aimed at sensitizing children to other cultures. Under this approach, teachers and children enter into an in-depth study of another culture (such as Indian) that is different from any culture or ethnic group represented in the classroom. Such a study provides an opportunity to understand better one's own cultural background and society as it is compared to the structures, attitudes, and problems of other societies. For the disadvantaged child who has had little experience or interest in middle class oriented social studies units, such as the home or the community, there are obvious advantages to a high interest but neutral-ground course of study. In view of these efforts, racial interactions and attitudes might be expected to be more positive at Emerson School than would be the case in most elementary schools.

### Combination and Noncombination Class Description

Only two classes were identified as combination classes. One of them contained children grades kindergarten through three, the other grades one through three. In all, there were 8 kindergarteners, 12 first graders, 18 second graders and 11 third graders in combination classes. One class of second and third graders was eliminated from the study since its membership, for the most part, was drawn from average

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and above average students. The single grade classes consisted of 58 children in two kindergartens, 46 children in two first grades, 27 children in one second grade class and 29 children in one third grade class. Due to the inadequate representation of minority children in the combination kindergarten and first grades, these grades will not be considered in the analyses, although the presence of these young children can be assumed to affect, in various ways, the achievement and attitudes of the older pupils.

### Limitations

Before proceeding with the analyses, there is a need to examine a number of circumstances which limit the interpretability and generalizability of the study. The basic problem is that assignment to combination and noncombination classes was not random. Only "bright" kindergarten children as determined by a subjective evaluation at the time of registration were assigned to the combination classes. First, second and third graders were assigned on a "first come first served" basis from children whose parents indicated an interest in placing their children in the experimental combination classes. Another associated problem is that there was inadequate Black representation in the kindergarten (2 Blacks) and first grades (1 Black) of the combination classes for meaningful combination-noncombination class comparisons. However, both Blacks and Whites were well represented in combination and noncombination classes of the second and third grades. Still another problem is that combination class effects were confounded with teacher effects due to the small number of teachers whose classes were included in the study. To examine comparability of groups, IQ scores of the first, second and third grades were examined and used as an index of combination-noncombination class comparability. No significant differences were found although the noncombination third grade mean IQ exceeded the combination third grade mean by five points (pooled S.D. = 13.45,  $N_1=12$ ,  $N_2=27$ ). Two characteristics of Emerson School which limit only the generalizability of the findings were its ethnic distribution (52.27 per cent White, 43.41 per cent Black and 4.31 per cent other) and its mean socioeconomic status which places it in the top 20 per cent of the Riverside Unified School District elementary schools.

### Analytical Results

The specific questions of interest and the analytical results follow.

1. What effect, if any, did membership in a combination class have on achievement?

Total Reading Averages (Stanford Achievement Test) of combination and noncombination classes did not differ significantly for second or third grade pupils.

2. What effect, if any, did membership in a combination class have on "general anxiety?"<sup>2</sup>

Combination and noncombination classes both showed low "general anxiety" with no distinguishable differences.

3. What effect, if any, did membership in a combination class have on "school anxiety?"

Again, pupils in both combination and noncombination classes showed little anxiety, but the combination class pupils were significantly (P<.05) less anxious about school.

4. What effect, if any, did membership in a combination class have on "self-attitude?"<sup>3</sup>

Pupils in both combination and noncombination classes had high positive self-perceptions. No significant differences existed between them.

5. What effect, if any, did membership in a combination class have on "perception of others' attitude toward self?"<sup>3</sup>

With respect to the "perception of others' attitude toward self," there was no significant difference between combination and noncombination class pupils.

6. What effect, if any, did membership in a combination class have on "racial interactions?"

The Riverside School Study sociometric measures were used to study this question. The child was asked to make first, second and third choices for seatmates, teammates and workmates. The choices were weighted and summed in such a way that each individual received weighted scores representing his popularity as a seatmate, a teammate and a workmate among his own ethnic group and among the students of other ethnic groups. These measures were used to examine racial interactions in combination and noncombination classes.

Although Blacks were not chosen to a great extent by children of ethnic groups other than their own, this occurred more

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<sup>2</sup>The general and school anxiety measures used in this study were derived from: Sarason, S., Anxiety in Elementary School Children (New York: Wiley, 1960).

<sup>3</sup>The self and others' attitude measures were selected from various standard personality measurement instruments such as those of Cattell (Scientific Analysis of Personality) and The Edwards Personal Preference Schedule.

frequently in combination classes than in noncombination classes. This was true for seatmate ( $P < .25$ ), teammate ( $P < .25$ ), and workmate ( $P < .20$ ) choices. The seatmates effect was primarily due to second grade choices ( $P < .025$ ). Furthermore, second grade Blacks in combination classes were also chosen as seatmates substantially more by their own ethnic group ( $P < .05$ ) than were Black second graders in noncombination classes.

7. What effect, if any, did membership in a combination class have on "racial attitudes?"

Seven measures from the Riverside School Study Ethnic Pictures have been used in this investigation. In obtaining these measures, the child was shown a set of six color photographs of elementary school boys, two Mexican-Americans, two Negroes and two Anglos. He was asked to select the kindest, the next kindest, and so on, until he had ranked all of the pictures as to kindness. The pictures were then ranked as to happiest, strongest, fastest, and best grades. After the male pictures were ranked, the child was asked to rank photographs of elementary girls in the same manner. Next he was shown the pictures of his own sex again and asked to select the one most like himself, the one he would most like to be, and the one he would most like for a friend. The rankings by strength, fastness, and best grades were not used in this report as it was felt they did not measure underlying attitudes of interest to this study.

The ratings as to kindness are to be considered first. The combination class pupils rated Black males as kinder ( $P < .025$ ) than did the noncombination class pupils, although both rated Blacks as less kind than would have been expected on a random basis. In addition, both groups rated the White male pictures as kinder than would have been expected by chance, but the noncombination class students perceived the White males as considerably kinder ( $P < .025$ ) than the combination class students perceived them. Since a top ranking for Whites necessitates a lower ranking for Blacks and vice-versa, a more positive attitude toward Blacks is evident in the combination classes.

The happiness ratings are considered next. Pupils in both combination and noncombination classes perceived the Black male and female pictures as less happy than would have been expected by chance alone. However, combination classes saw these Black children as happier (male pictures,  $P < .10$ ; female pictures,  $P < .20$ ) than did noncombination classes. This adds further support to the contention that combination classes foster more positive perceptions of Blacks.



Summary

In summary the information on combination classes suggests:

1. That children in combination classes were less anxious about school than were their peers in noncombination classes (Figure 1).

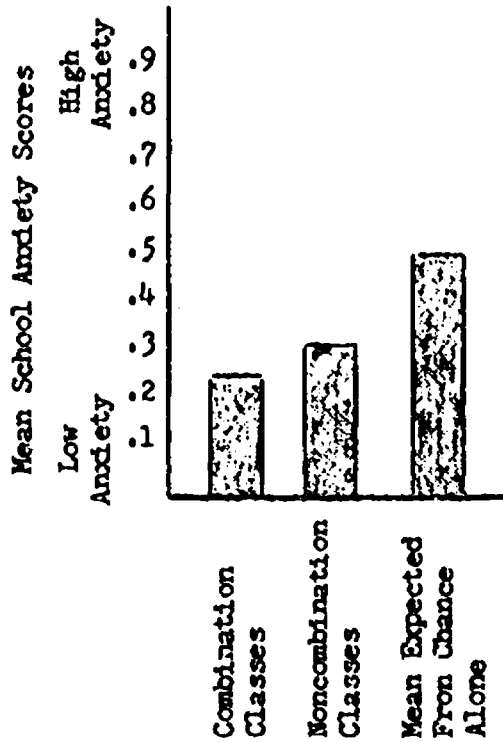


Fig. 1.--Mean "school anxiety" of combination and noncombination class pupils.

2. That Blacks in combination classes were more likely to be chosen by children of other ethnic groups as seatmates, teammates and workmates than Blacks in noncombination classes (Figure 2).

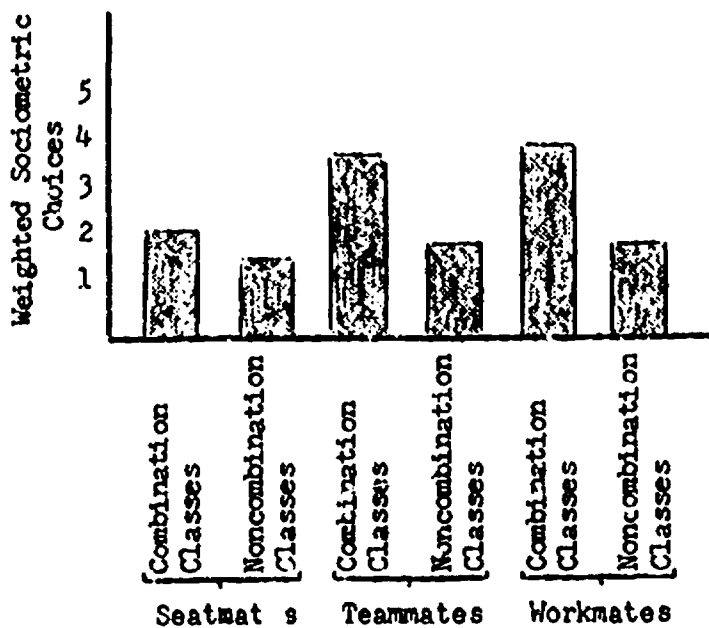


Fig. 2.--Mean weighted scores of Blacks chosen by other ethnic groups in combination and noncombination classes.

3. That, although Black males were perceived by both combination class pupils and noncombination class pupils as less kind than would be expected from random rating, the pupils in combination classes perceived Black males as considerably kinder than did pupils in noncombination classes (Figure 3).

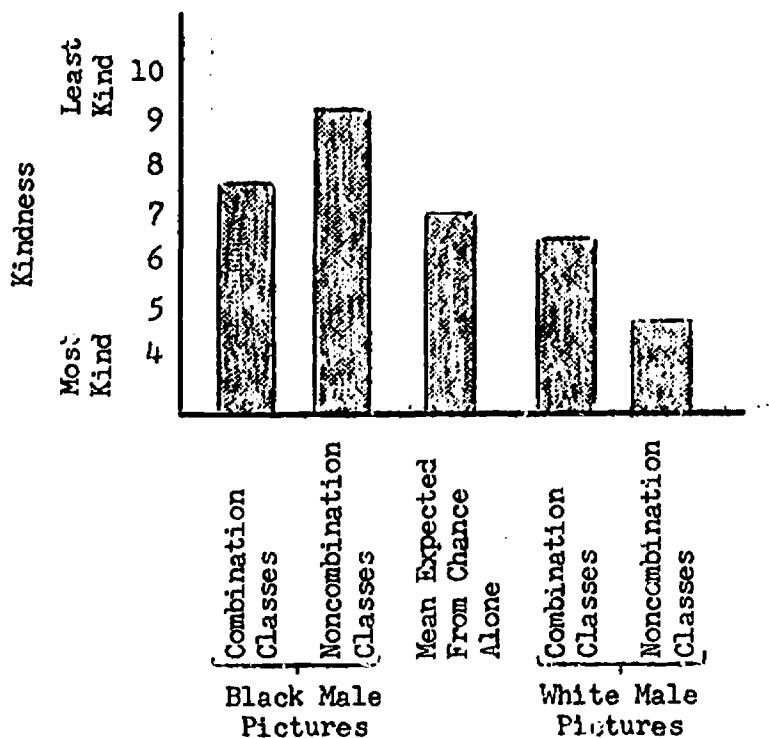


Fig. 3.--Kindness ratings of Black and White male pictures by combination and noncombination class pupils.

4. That, although White males were perceived as kinder than that expected from a random ranking by both combination and noncombination class students, the combination class students perceived White males as much less kind than did students in noncombination classes (Figure 3).

5. That, although both combination and noncombination class pupils rated Black male and female pictures as less happy than would be expected from a random rating, the combination class pupils rated the Black children as happier than did the noncombination class pupils (Figure 4).

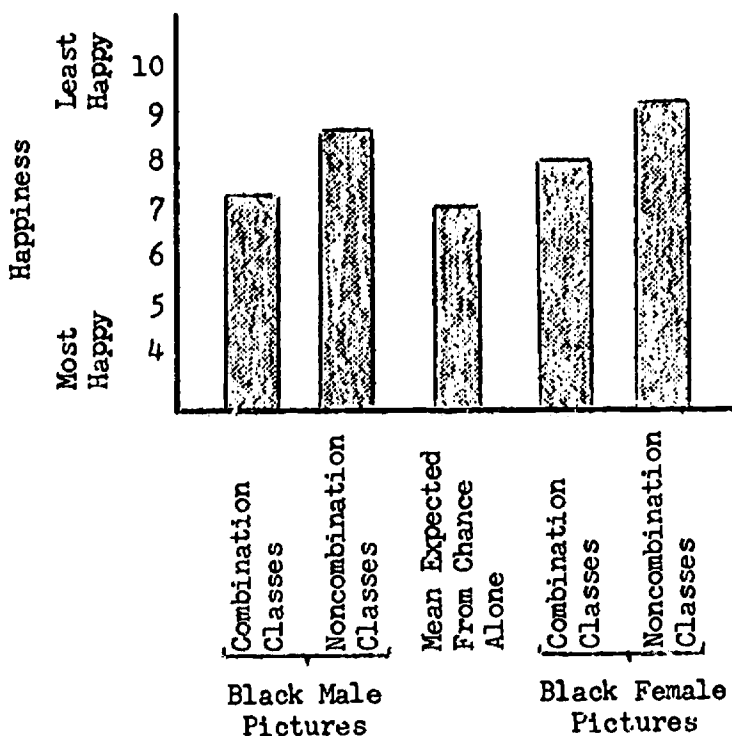


Fig. 4.--Happiness ratings of Black male and female pictures by combination and noncombination class pupils.

It is seen that combination classes were associated with (1) little anxiety regarding school, (2) more positive racial interactions and (3) more positive racial attitudes. However, it must be emphasized again that such effects may be due to teacher differences or to the manner in which children were assigned to the combination-noncombination classes. Since this assignment was not random, these classes may have differed on important characteristics associated with the measures studied.

#### Sex, Ethnicity and Grade Differences

In pursuing the analysis, information of interest not pertinent to combination-noncombination class differences was found and is to be discussed in this section.

In examining sex effects, the study indicated that:

1. While males did not perceive the Black male pictures as happy, they did perceive them as happier ( $P < .25$ ) than did females.
2. Females more than males perceived the White male pictures as happy ( $P < .20$ ).
3. Females, both Black ( $P < .10$ ) and White ( $P < .25$ ), were chosen more for seatmates by their own ethnic group than were males.
4. Males, both Black ( $P < .25$ ) and White ( $P < .05$ ), were chosen more for teammates by ethnic groups other than their own than were females.
5. White males were more likely ( $P < .25$ ) to be chosen as workmates by ethnic groups other than their own than were females.

These findings suggest that females were more likely than males to choose seatmates, teammates and workmates within their own ethnic group and that, regardless of race, females perceived White male photographs as happier and Black male photographs as considerably less happy than did males.

An examination of ethnic differences showed that:

1. Blacks found the Black pictures kinder than did Whites (male,  $P < .05$ ; female,  $P < .01$ ). Nevertheless, even Blacks rated themselves as less kind than would have been expected by chance alone.
2. Whites saw the White pictures as kinder (male,  $P < .25$ ; female,  $P < .02$ ) than the Blacks did. Both means obtained were above the mean expected from random ratings.
3. Blacks found the Black female pictures happier ( $P < .20$ ) than did Whites, but even the Blacks rated the Black pictures as less happy than would be expected by chance alone.
4. Whites saw the female White pictures as happier ( $P < .10$ ) than did the Blacks. Both means were above that expected from random ratings.
5. Blacks (78 per cent) were much more likely to pick a picture of a child from another ethnic group "for a friend" than were Whites (47 per cent).
6. Blacks (60 per cent) were more likely to select a picture of a child from another ethnic group as the one they would "most like to be" than were Whites (30 per cent).
7. Blacks (30 per cent) were more likely to pick a picture of

a child from an ethnic group other than their own as "most like me" than were Whites (10 per cent).

This information suggests that Blacks in the primary grades have a negative self-image and that Whites in the primary grades have a tendency towards ethnocentrism.

An examination of grade effects (second and third only) revealed the following:

1. Although the Black's pictures were not generally considered kind in comparison to Whites and Browns, third graders perceived the Black male pictures as kinder ( $P < .025$ ) than did second graders.
2. Second graders perceived the White female pictures as kinder ( $P < .10$ ) than did third graders. (This effect was primarily due to the low rating of the White female pictures by Black male third graders.)
3. Second graders saw the White female pictures as happier ( $P < .20$ ) than did third graders.

This information suggests a trend towards a more positive perception of Blacks from second to third grades; although, Black third grade males rated the White female pictures as considerably less kind than did other Black and White second and third grade pupils.